

FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

INSTRUCTIONS FOR COMPLETING FCC FORM 442

**APPLICATION FOR NEW OR MODIFIED RADIO STATION AUTHORIZATION UNDER PART 5 OF FCC RULES -
EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)**

These instructions should be removed from the form before the form is mailed to the Commission.

General Information and Instructions:

1. Before this application is prepared, the applicant should refer to Parts 0, 1, 2, 5, and 17 of the Rules and Regulations of the Commission. Copies of these rule parts, 47 CFR Parts 0 through 19 (1 volume), may be purchased from the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. You may telephone the GPO Order Desk at (202) 512-1800 for current prices.

2. **APPLICATION FILING PROCEDURES**

Applicants are required to submit one payment by check, bank draft or money order with each application. Page 1 of the FCC Form 442 must show the correct fee type code and remittance. Check, bank draft or money order must be made payable to the Federal Communications Commission, and be drawn upon a United States financial institution. Foreign, postdated, altered, or third-party checks are not acceptable. Do not send cash. Completed applications should be submitted to the appropriate address listed below. For amount of fee, applicant should refer to the OET FEE FILING GUIDE.

a. **BY MAIL:** FEDERAL COMMUNICATIONS COMMISSION
Experimental Radio Service
P.O. Box 358320
Pittsburgh, Pa 15251-5320

b. **HAND-DELIVERY OR COURIER SERVICE:** FEDERAL COMMUNICATIONS COMMISSION
c/o Mellon Bank
Three Mellon Bank Center
526 William Penn Way
27th Floor, Room 153-2713
Pittsburgh, Pa 15259-0001
Attention: Wholesale Lockbox Shift Supervisor

*Applications hand delivered or sent by courier should be placed in an inner envelope with address "a" and then submitted to address "b".

- c. **CLASSIFIED APPLICATIONS:** Applications that are classified (CONFIDENTIAL OR SECRET) for National Security purposes must be filed as follows: Submit page 1 of FCC Form 442, showing the appropriate fee code, payment and a letter explaining that this is a classified application to address "a" above; submit the remaining application to the following address:

FEDERAL COMMUNICATIONS COMMISSION
Security Operations Staff, OMSD
Room 411
1919 M Street, N.W.
Washington, D.C. 20554

3. FEE TYPE CODE(S) :

Type of Application:

- a. New station authorization
- b. Modification of authorization
- c. *Confidentiality request

Fee Type Code:

EAE
EAE
EAE

*Confidentiality Request: Applications filed with a request for the Commission to withhold any information from public inspection, pursuant to FCC rule provisions in 47 CFR 0.457(d), shall use the additional Fee Type Code EAE. These applications must also contain a letter justifying the withholding of information in accordance with 47 CFR 0.459 of the Rules.

- 4. If a corporation, state corporate name; if a partnership, state names of all partners and the name under which the partnership does business; if an unincorporated association, state the name of an executive officer, the office held by him, and the name of the association. If this application involves a station that is now authorized, the name shown must correspond exactly with that name shown on the current authorization.
- 5. Applicants should make every effort to file complete applications. Failure to do so may result in a rejection and return of the application or a delay in the processing of the application.
- 6. Each document required to be filed as an exhibit should be current as of the date of filing. If a current and complete answer to any question other than questions 1, 2 and 3, is already on file within the Commission, then the question may be answered by reference to such information on file.
- 7. To refer to the material on file it is necessary that the applicant provide sufficient information to locate the previously filed material. If filed with a station application, furnish name of applicant or licensee, call sign, file number, and date of filing. In other cases furnish date of filing and describe the matters in connection with which filed.
- 8. Each document or statement required to be filed as an exhibit should be numbered separately. Exhibit numbers should be shown in the blank space provided for this purpose in the individual items of the application form. Where the space left in the application for narrative answers is insufficient a separate statement, bearing an exhibit number in sequence with other exhibits numbered in the application, should be attached to the application and reference to the statement's exhibit number should be made in the answer space.
- 9. When the antenna structures proposed to be erected will extend more than 6 meters above ground or above an existing building, the applicant must analyze the structures pursuant to Part 17, Subpart B, of the FCC rules, to determine if notification to FAA is required. If notification is required, the applicant should submit FAA Form 7460-1, (Notice of Proposed Construction or Alteration) to one of the FAA Regional Offices listed on FCC Form 854, (Request for Antenna Height Clearance and Obstruction Marking and Lighting Specifications).
- 10. The latitude and longitude for locations in the United States and the Caribbean Islands must be referenced to either the North American Datum of 1927 (NAD 27) or 1983 (NAD 83). Topographical maps indicate which datum was used. Coordinates (latitude and longitude) should be accurate to within +/- 5 m of the National Spatial Reference System.
- 11. If the proposed facility may have a significant environmental impact, as defined in Section 1.1307 of the FCC rules, the applicant must submit an environmental assessment as required by Section 1.1311.

FCC FORM 442

FOR
FCC
USE
ONLY

APPLICATION FOR NEW OR MODIFIED RADIO STATION AUTHORIZATION UNDER PART 5
OF FCC RULES - EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)

SECTION I

APPLICANT NAME (Last, first, middle initial)

Lockheed Martin Corporation

MAILING ADDRESS (Line 1) (Maximum 35 characters - refer to Instruction (2) on reverse of form)

MAILING ADDRESS (Line 2) (if required) (Maximum 35 characters)

5600 Sand Lake Road

CITY

Orlando

STATE OR COUNTRY (if foreign address)

Florida

ZIP CODE

32819-8907

CALL SIGN OR FILE NUMBER

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in FCC Fee Filing Guides. Enter in Column (B) the Fee Multiple, if applicable. Enter in Column (C) the result obtained from multiplying the value of the Fee Type Code in Column (A) by the number entered in Column (B), if any.

(A)

(B)

(C)

FEE TYPE CODE

FEE MULTIPLE
(if required)

FEE DUE FOR FEE TYPE
CODE IN COLUMN (A)

FOR FCC USE ONLY

(1)	E	A	E
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\$

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SECTION II

— To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)

(B)

(C)

FEE TYPE CODE

FEE MULTIPLE
(if required)

FEE DUE FOR FEE TYPE
CODE IN COLUMN (A)

FOR FCC USE ONLY

(2)			
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(3)			
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(4)			
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(5)			
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\$

ADD ALL AMOUNTS SHOWN IN COLUMN C, LINES (1) THROUGH (5), AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.

TOTAL AMOUNT REMITTED
WITH THIS APPLICATION
OR FILING

\$

FOR FCC USE ONLY

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**APPLICATION FOR NEW OR MODIFIED RADIO STATION AUTHORIZATION UNDER PART 5
OF FCC RULES - EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)**

1. Applicant's Name and Post Office address (Street address, city, state, and ZIP Code. See instruction No. 4) Lockheed Martin Corporation Atten: Roger Barker Mail Point T109 5600 Sand Lake Road Orlando, Florida 32819-8907	DO NOT WRITE IN THIS BLOCK File No.
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2(a). Application for (check only one box)
☒ New station ☐ Modification of existing authorization

2(b). For Modification indicate below:
File No.: _____ Call Sign: _____

3. Application for Modification: Check the box beside all particulars to be modified. Check either addition or replacement to indicate whether the change is an addition or a replacement of parameters in the current authorization.

☐ **FREQUENCY** - ☐ **EMISSION** - ☐ **POWER** - ☐ **LOCATION** -
☐ addition or ☐ replacement? ☐ addition or ☐ replacement? ☐ addition or ☐ replacement? ☐ addition or ☐ replacement?

☐ **OTHER PARTICULARS** - addition or replacement? (Describe below or in attached EXHIBIT No. _____)

4. Particulars of Operation (see instruction below)						
Frequency (state whether kHz or MHz)	POWER			EMISSION	MODULATING SIGNAL	NECESSARY BANDWIDTH (kHz)
(A)	(B)	(C)	(D)	(E)	(F)	(G)
160 MHz	102 MW	150 MW	Peak	15M0P0N	25 Hz PRF 10 Nano Sec	15,000
195 MHz	102 MW	150 MW	Peak	20M0P0N	25 Hz PRF 10 Nano Sec	20,000
230 MHz	102 MW	150 MW	PEAK	25M0P0N	25 Hz PRF 10 Nano Sec	25,000
265 MHz	102 MW	150 MW	PEAK	30M0P0N	25 Hz PRF 10 Nano Sec	30,000
300 MHz	102 MW	150 MW	Peak	40M0P0N	25 Hz PRF 10 Nano Sec	40,000

- (A) List each frequency or frequency band separately. (If more space is required, attach as EXHIBIT No. _____)
- (B) Insert maximum R.F. output power at the transmitter terminals. Specify units.
- (C) Insert maximum effective radiated power from the antenna (If pulsed emission, specify peak power). Specify units.
- (D) Insert "MEAN" or "PEAK" (See definitions in Part 5).
- (E) List each type of emission separately for each frequency. (See Section 2.201 of FCC Rules.)
- (F) Insert as appropriate for the type of modulation:
(1) the maximum speed of keying in bauds;
(2) maximum audio modulating frequency;
(3) frequency deviation of carrier;
(4) pulse duration and repetition rate.
For complex emissions, describe in detail in the space provided below.
- (G) Describe how the necessary bandwidth was determined in space provided below.

5(a). Proposed location of transmitter and transmitting antenna (check only one box to indicate type of operation):

☒ FIXED/BASE

☐ MOBILE

☐ BASE AND MOBILE

5(b). If permanently located at a FIXED location, give below:

State	County	City or Town
Florida	Orange	Bithlo

Number and street (or other indication of location)

10030 Old State Road 13

5(c). If mobile, describe the exact area of operation

5(b)(1). Enter geographical coordinates exact to the nearest second (see instruction 10)

North Latitude (DD-MM-SS)

28° 21' 13.9"

West Longitude (DD-MM-SS)

81° 05' 4.1"

5(c)(1) Enter geographical coordinates of the approximate center of mobile operation (see instruction 10.)

North Latitude

0

West Longitude

0

5(d). Datum (see instruction 10): ☐ NAD 27 ☒ NAD 83

6. Is a directional antenna (other than radar) used? ☒ YES ☐ NO

If "YES", give the following information:

(a) Width of beam in degrees at the half-power point <80°

(b) Orientation in horizontal plane 146° true (c) Orientation in vertical plane -25°

7. Is this authorization to be used for fulfilling the requirement of a government contract with an agency of the United States Government? ☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____ a narrative statement describing the government project, agency and contact number.

8. Is this authorization to be used for the exclusive purpose of developing radio equipment for export to be employed by stations under the jurisdiction of a foreign government? ☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____ the following information: Provide the contract number and the name of the foreign government concerned.

9. Is this authorization to be used for providing communications essential to a research project? (The radio communication is not the objective of the research project). ☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____ a narrative statement providing the following information:

(a) A description of the nature of the research project being conducted.

(b) A showing that the communications facilities requested are necessary for the research project involved.

(c) A showing that existing communications facilities are inadequate.

10. If all the answers to Items 7, 8, and 9, are "NO", attach as EXHIBIT No. A a narrative statement describing in detail the following:

(a) The complete program of research and experimentation proposed including description of equipment and theory of operation.

(b) The specific objectives sought to be accomplished.

(c) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion, or utilization of the radio art, or is along line not already investigated.

11(a). Give an estimate of the length of time that will be required to complete the program of experimentation proposed in this application: 10 years

(b) If less than 2 years, give the length of time in months that the authorization requested in this application will be required: _____

12. Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact (see instruction 11)? ☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____ an Environmental Assessment as required by Section 1.1311.

13. List below transmitting equipment to be installed (if experimental, so state):

MANUFACTURER

MODEL NUMBER

NO. OF UNITS

EXPERIMENTAL

12. Is the equipment listed in Item 18 capable of station identification pursuant to Section 5.152? ☐ YES ☒ NO

13. Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? ☐ YES ☒ NO

If "YES", give the following (see instruction 9):

(a) Overall height above ground to tip of antenna is <3 meters.

(b) Elevation of ground at antenna site above mean sea level is 21.9 meters.

(c) Distance to nearest aircraft landing area is 22.8 kilometers.

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna.

remote location, dense trees

(e) Submit as EXHIBIT No. _____ a vertical profile sketch of total structure including supporting building, if any, giving heights in meters above ground for all significant features. Clearly indicate existing portion, noting particulars of aviation obstruction lighting already available.

13. Applicant is: (Check only one box)

☐ INDIVIDUAL ☐ ASSOCIATION ☐ PARTNERSHIP ☒ CORPORATION

☐ OTHER (describe in space provided below)

17. Is applicant a foreign government or a representative of a foreign government? ☐ YES ☒ NO

18. Has applicant or any party to this application had any FCC station license or permit revoked or had any application for permit, license or renewal denied by this Commission? ☐ YES ☒ NO

If "YES", attach as EXHIBIT No. _____ a statement giving call sign of license or permit revoked and relate circumstances.

19. Will applicant be owner and operator of the station? ☒ YES ☐ NO

20. Give name, title, and telephone number (include area code), and Internet e-mail address (if applicable) of person who can best handle inquiries pertaining to this application.

Roger Barker, ETS Manager, (407) 568 - 4786, roger.d.barker@lmco.com

21. APPLICANT ANTI-DRUG ABUSE CERTIFICATION:

By checking "YES", the individual applicant certifies that he or she is eligible for this license. This requires that he or she is not subject to a denial of federal benefits, including FCC benefits, as a result of a drug offense conviction pursuant to Section 5801 of the Anti- Drug Abuse Act of 1988, 21 U.S.C. 862. A non- individual applicant, e.g., corporation, partnership or other unincorporated association, certifies that no party to the application is subject to a denial of federal benefits, pursuant to that section. For definition of a "party" for these purposes, see 47 CFR 1.2002(b).

☒ YES ☐ NO

22. List below all exhibits in numerical sequence and the item number of form requiring the exhibit identified.

EXHIBIT NUMBER	ITEM NO. OF FORM	EXHIBIT NUMBER	ITEM NO. OF FORM	EXHIBIT NUMBER	ITEM NO. OF FORM
A	10				

23 CERTIFICATION:

Attention: Read this certification carefully before signing this application.

THE APPLICANT CERTIFIES THAT:

- (a) Copies of FCC Rule Parts 2 and 5 are on hand; and
- (b) Adequate financial appropriations have been made to carry on the program of experimentation which will be conducted by qualified personnel; and
- (c) All operations will be on an experimental basis in accordance with Part 5 and other applicable rules, and will be conducted in such a manner and at such a time as to preclude harmful interference to any authorized station; and
- (d) Grant of the authorization requested herein will not be construed as a finding on the part of the Commission:
 - (1) that the frequencies and other technical parameters specified in the authorization are the best suited for the proposed program of experimentation, and
 - (2) that the applicant will be authorized to operate on any basis other than experimental, and
 - (3) that the Commission is obligated by the results of the experimental program to make provision in its rules including its table of frequency allocations for applicant's type of operation on a regularly licensed basis.

APPLICANT CERTIFIES FURTHER THAT:

- (e) All the statements in the application and attached exhibits are true, complete and correct to the best of the applicant's knowledge; and
- (f) The applicant is willing to finance and conduct the experimental program with full knowledge and understanding of the above limitations; and
- (g) The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the USA.

Signed and dated this _____ day of _____, 19 _____

Name of Applicant _____
(must correspond with name given on page 1)

By _____
(print) *(signature)*

Title _____

Check appropriate classification:

- ☐ Individual applicant ☐ Member of applicant partnership
- ☐ Authorized employee ☐ Office of applicant corporation or association

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 LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

NOTIFICATION TO INDIVIDUALS UNDER PRIVACY ACT OF 1974
AND THE PAPERWORK REDUCTION ACT OF 1980

Information requested through this form is authorized by the Communications Act of 1934, as amended, and specified by Section 308 therein. The information will be used by Federal Communications Commission staff to determine eligibility for issuing authorizations in the use of the frequency spectrum and to effect the provisions of regulatory responsibilities rendered by the Commission by the Act. Information requested by this form will be available to the public unless otherwise requested pursuant to 47 CFR 0.459 of the FCC Rules and Regulations. Your response is required to obtain this authorization.

Public reporting burden for this collection of information is estimated to average four (4) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0065), Washington, DC 20554. **DO NOT send completed applications to this address.** Individuals are not required to respond to this collection unless it displays a currently valid OMB control number.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.