

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL
(Nature of Service)

W A 2 X O F
(Call Sign)

XD FX
(Class of station)

S-3088-EX-97
(File number)

NAME Lockheed Martin Corporation
Orlando, FL - NL 28-26-43; WL 081-27-08
(Location of station)

Special Temporary Authority is hereby granted to operate the radio transmitting apparatus described below:

Frequency (MHz)	Authorized Power (watts)	Emission Designator
9410	600 k (ERP)	25M0P0N

Purpose of Operation: Detection of aircraft for safety purposes in relation to the use of a high-power laser.

Special Conditions:

- (1) All operations subject to coordination with the Eastern Area Frequency Coordinator located at Patrick AFB, Florida, prior to use within the area bounded by 24 degrees N; 31 degrees 30' N; and 70 degrees W. 83 W.
- (2) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by U.S. Army Contract No. DAAJ09-94-C-0384. The use of this radio station in any other manner or for any other purpose will constitute a violation of the privileges herein authorized. Except as subsequently authorized by the Commission, this radio station shall not be operated after the expiration date of the contract designated in the related application and enumerated above.

This special temporary authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This special temporary authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control by the Government of the United States conferred by Section 706 of the Communications Act of 1934.

This authorization effective October 29, 1997 and
will expire 3:00 A.M. EST. April 29, 1998



5-3088-EX-97

LOCKHEED MARTIN



Lockheed Martin Enterprise Information Systems
Radio Frequency Management Office
P. O. Box 4906
Baltimore, MD 21220-0906
Tel. No. (410) 682-2156
Fax No. (410) 682-0300
MARCALL 8-682-2156

October 8, 1997

Federal Communications Commission
Experimental Radio Services
P. O. box 358320
Pittsburgh, PA 15251-5315

Attn: Wireless Telecommunications Bureau
Office of Engineering & Technology
Re: Special Temporary Authorization Request

You will please find enclosed one copy of FCC Form 442, Application for a New Experimental Radio Station Authorizastion, with the required FCC license processing fee, \$45.00, attached. This request is for a Special Temporary Authorization to cover the time until a regular station assignment can be made radar station in the vicinity of our operation located near Orlando, Orange County, FL.

This system has been installed for health and safety requirements related to an on going program. This system is to detect on coming aircraft. The program associated with this radar will be using a level IV laser and could potentially cause eye damage. This systems is to detect on coming aircraft and automatically shut down the laser unit.

If you should have any problems or questions, regarding this project please call Skip Lentz on (407) 356-6707. If you questions relate to the completion of this application, please feel free to call the under-signed on (410) 682-2156.

Very Truly Yours,

Claude E. Wells
Corporate
Sr. Tech. Support Analyst

COO4
OK by
HFW
DJ

Special Temporary Authorization Request

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 Attn: John S. Hickey P. O. Box 4906 Baltimore, MD 21220-0906	DO NOT WRITE IN THIS BLOCK File No.
--	--

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 xxx or MHz)	POWER			EMISSION	MODULATING SIGNAL	NECESSARY BANDWIDTH (kHz)
(A)	(B)	(C)	(D)	(E)	(F)	(G)
9410	6 Kw	600 Kw	Peak	Pulse	.08us 2100 Hz	25 MHz
					.3us 2100 Hz	25 MHz
					.6us 2100 Hz	25 MHz
					1.2us 600 Hz	25 MHz

- (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.
- Manufacturers Data

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 FL	County Orange	City or Town Orlando
Number and street (or other indication of location) 5600 Sand Lake Road		

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

North Latitude (DD-MM-SS) " " "	West Longitude (DD-MM-SS) " " "	North Latitude " " "	West Longitude " " "
28 26 43	081 27 08		

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

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

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 1.2 x 25
(b) Orientation in horizontal plane _____ (c) Orientation in vertical plane _____

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. 1 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 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: 2 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
Furuno Electronic Co. LTD	FR-805J	1

14. Is the equipment listed in Item 13 capable of station identification pursuant to Section 5.152? ☐ YES ☒ NO
15. 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 _____ meters.
- (b) Elevation of ground at antenna site above mean sea level is _____ meters.
- (c) Distance to nearest aircraft landing area is _____ 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.

(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.

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.
- 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.

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 5301 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
1	7				

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 8th day of October, 19 97

Name of Applicant Lockheed Martin Corporation

(must correspond with name given on page 1)

By John S. Hickey
(print)

John S. Hickey
(signature)

Title Program Lead

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.

Exhibit 1

This radar, in conjunction with TV cameras and monitors, will be operated to detect any unauthorized aircraft approaching a Laser Test Range. This Class IV laser presents an eye hazard to personnel exposed to this radiation. The radar will permit a 360 degree field of view allowing the laser operator to shut down the system if an approaching aircraft is detected.

LOCKHEED MARTIN



Lockheed Martin Enterprise Information Systems
Radio Frequency Management Office
P. O. Box 4906
Baltimore, MD 21220-0906
Tel. No. (410) 682-2156
Fax No. (410) 682-0300
MARCALL 8-682-2156

October 8, 1997

Federal Communications Commission
Experimental Radio Services
P. O. box 358320
Pittsburgh, PA 15251-5315

Attn: Wireless Telecommunications Bureau
Office of Engineering & Technology
Re: New Experimental Radio Station Authorization Application

You will please find enclosed one completed copy of FCC Form 442, Application for a New Experimental Radio Station Authorization, with the required FCC license processing fee, **\$45.00**, attached. This request is for the operation of a radar station in the vicinity of our operation located near **Orlando, Orange County, FL**.

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If you should have any problems or questions, regarding this project please call Skip Lentz on (407) 356-6707. If you questions relate to the completion of this application, please feel free to call the undersigned on **(410) 682-2156**.

Very Truly Yours,

Claude E. Wells
Corporate
Sr. Tech. Support Analyst

READ INSTRUCTIONS CAREFULLY
BEFORE PROCEEDING

FEDERAL COMMUNICATIONS COMMISSION
REMITTANCE ADVICE

APPROVED BY OMB 3060-0589

089541/
EXCELLEN OCT 14 1997

FCC USE ONLY

(1) LOCKBOX #

PAGE NO 1 OF 1

SECTION A - PAYER INFORMATION

(2) PAYER NAME (if paying by credit card, enter name exactly as it appears on your card)

Lockheed Martin Corporation

(3) TOTAL AMOUNT PAID (dollars and cents)

\$ 45.00

(4) STREET ADDRESS LINE NO. 1

Attn: John S. Hickey

(5) STREET ADDRESS LINE NO. 2

P. O. Box 4906

(6) CITY

Baltimore

(7) STATE

MD

(8) ZIP CODE

21220-0906

(9) DAYTIME TELEPHONE NUMBER (include area code)

(410) 682-2156

(10) COUNTRY CODE (if not in U.S.A.)

**IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B
IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)**

SECTION B - APPLICANT INFORMATION

(1) APPLICANT NAME (if paying by credit card, enter name exactly as it appears on your card)

(12) STREET ADDRESS LINE NO. 1

(13) STREET ADDRESS LINE NO. 2

(14) CITY

(15) STATE

(16) ZIP CODE

(17) DAYTIME TELEPHONE NUMBER (include area code)

(18) COUNTRY CODE (if not in U.S.A.)

COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEETS (FORM 159-C)

SECTION C - PAYMENT INFORMATION

(19A) FCC CALL SIGN/OTHER ID

LASSTA

(20A) PAYMENT TYPE CODE (PTC)

E

A

E

(21A) QUANTITY

1

(22A) FEE DUE FOR (PTC) IN BLOCK 20A

\$ 45.00

FCC USE ONLY

(23A) FCC CODE 1

(24A) FCC CODE 2

(19B) FCC CALL SIGN/OTHER ID

(20B) PAYMENT TYPE CODE (PTC)

(21B) QUANTITY

(22B) FEE DUE FOR (PTC) IN BLOCK 20B

FCC USE ONLY

(23B) FCC CODE 1

(24B) FCC CODE 2

FCC CALL SIGN/OTHER ID

(20C) PAYMENT TYPE CODE (PTC)

(21C) QUANTITY

(22C) FEE DUE FOR (PTC) IN BLOCK 20C

FCC USE ONLY

(23C) FCC CODE 1

(24C) FCC CODE 2

(19D) FCC CALL SIGN/OTHER ID

(20D) PAYMENT TYPE CODE (PTC)

(21D) QUANTITY

(22D) FEE DUE FOR (PTC) IN BLOCK 20D

FCC USE ONLY

(23D) FCC CODE 1

(24D) FCC CODE 2

SECTION D - TAXPAYER INFORMATION (REQUIRED)

(25)

PAYER TIN

0

5

2

1

8

9

3

6

3

2

(26) COMPLETE THIS BLOCK ONLY IF APPLICANT NAME IN B-11 IS DIFFERENT FROM PAYER NAME IN A-2

APPLICANT TIN

0

SECTION E - CERTIFICATION

(27) CERTIFICATION STATEMENT

I, Claude E. Wells

(PRINT NAME)

Certify under penalty of perjury that the foregoing and supporting information

are true and correct to the best of my knowledge, information and belief.

SIGNATURE

Claude E. Wells

SECTION F - CREDIT CARD PAYMENT INFORMATION

(28)

MASTERCARD/VISA ACCOUNT NUMBER:

EXPIRATION DATE:

MASTERCARD

MONTH YEAR

VISA

I hereby authorize the FCC to charge my VISA or MASTERCARD
for the service(s)/authorizations(s) herein described.

AUTHORIZED SIGNATURE

DATE

SEE PUBLIC BURDEN ESTIMATE ON REVERSE

FCC FORM 159 JULY 1997 (REVISED)



FAX COVER SHEET

Page 1 of 2 pages

DATE: October 29, 1997

FROM: Douglas A. Young 1300 - E1
FEDERAL COMMUNICATIONS COMMISSION
Experimental Licensing Branch
2000 M Street, Suite 230
Washington, DC 20554

PHONE: (202) 418-2440

FAX: (202) 418-1918

TO: Mr. Claude E. Wells

NAME

Lockheed Martin Corporation

COMPANY

(410) 682 - 2156

PHONE

(410) 682 - 0300

FAX

Mr. Wells:

Here is a copy of Lockheed Martin Corporation's STA for station WA2XOF, File Number S-3088-EX-97. The original license will be mailed today.

Doug Young
