Federal Communications Commission
Washington, D.C. 20554

APPLICATION FOR RENEWAL OF RADIO STATION LICENSE IN SPECIFIED SERVICES

Specified Services
(FCC Rules Part 5, Part 21, Part 22, Part 23, Part 25)

Approved by OMB
3060-0093
Expires 11-30-87

Instructions:

1. Submit TWO COPIES direct to the Federal Communications Commission, Washington, D. C. 20554. (Only one copy is required for application under Part 5 of FCC Rules.)
2. Name of applicant must be identical with that shown on current license.
3. See Notice on reverse side of form.

For Official Use Only

File No.
Call Sign:
Service:
Class:

1. Name of Applicant *(See Instruction 2.)*

Grumman Aerospace Corporation

2. Mailing Address of Applicant *(Number and Street, City, State and ZIP Code)*

1111 Stewart Avenue
Bethpage, New York 11714
Att: S.W. Siejka B23-007

3. Application is for renewal of license in exact conformity with the existing license as specified below:

a. File Number	b. Date Issued	c. Call Sign
3376-EX-R-85	March 01, 1985	KF2XCI

d. Location	e. Nature of Service
Bethpage, New York	Experimental

f. Class of Station	g. Expiration Date
XC FX	March 01, 1987

4. Note any changes such as discontinuance of use of a frequency, or of a type of emission or of a transmitter, correction of serial number of a transmitter; or any minor change in a transmitter not requiring a construction permit, which have been made since the last application covering this station was filed:

NA

1030
?

5. Applicant represents that there has been no change in applicant's organization and that there has been no transfer of control or changes in the applicant's relation to the station, financial responsibility, or in the equipment authorized to be used by the station; that applicant's most recent application or report embodying this information (file 3376-EX-R-85, date March 01, 1985) is to be considered as a part of this application, and the truth of the statements therein contained is hereby reaffirmed. Note here any further exceptions, not already covered in question 4.

6. Applicant waives any claim to the use of any particular frequency or of the ether as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests a station license in accordance with this application. Applicant acknowledges that all attached exhibits are a material part hereof.

Willful false statements made on this form are punishable by fine and/or imprisonment. U.S. Code, Title 18, Section 1001.

Certification

I certify that the statements in this application are true, complete and correct to the best of my knowledge and belief, and are made in good faith.

7. Name of Applicant *(Must correspond with item 1.)*

Grumman Aerospace Corporation

8. Title of Applicant *(if any)*

NA

9. Signature

Raphael Mur Raphael Mur

10. Designate Appropriate Classification

☐ Individual Applicant ☐ Member of Partnership ☒ Authorized Representative of Corporation
☐ Officer who is also a Member of the Application Association ☐ Official of Government Entity

11. Date

1/13/90

FCC Form 405
November 1984

ATTACHMENT 1
CIS-E-M-89-203

Environmental Impact Statement

APS 139 Radar - Grumman Building 014

This phased array radar antenna is contained within a 24 ft. diameter circular dome (rotodome) which rotates 360° at 6 revolutions per minute. The rotodome is installed 70 ft. above grade, 18 ft. above the roof of Grumman Building 014 located in Bethpage, NY. A 17 ft. conical barrier encircles the perimeter of the rotodome below the centerline of the main beam to minimize downward radiofrequency radiation (see enclosure 1). The barrier has a 2 ft. thick broadband absorption material (AAP-48) providing 40 decibels of attenuation. The roof is shielded with 60 decibels of attenuation. The rotodome has an interlock which prohibits transmission unless the rotodome is rotating.

The safe distance calculation including a 4 times reflection factor is 525 ft. for a fixed position beam as per ANSI C95.1 (1982) permissible exposure levels. The safe distance reduces to 70 ft. for a rotating beam due to the decreased duty cycle at any given position.

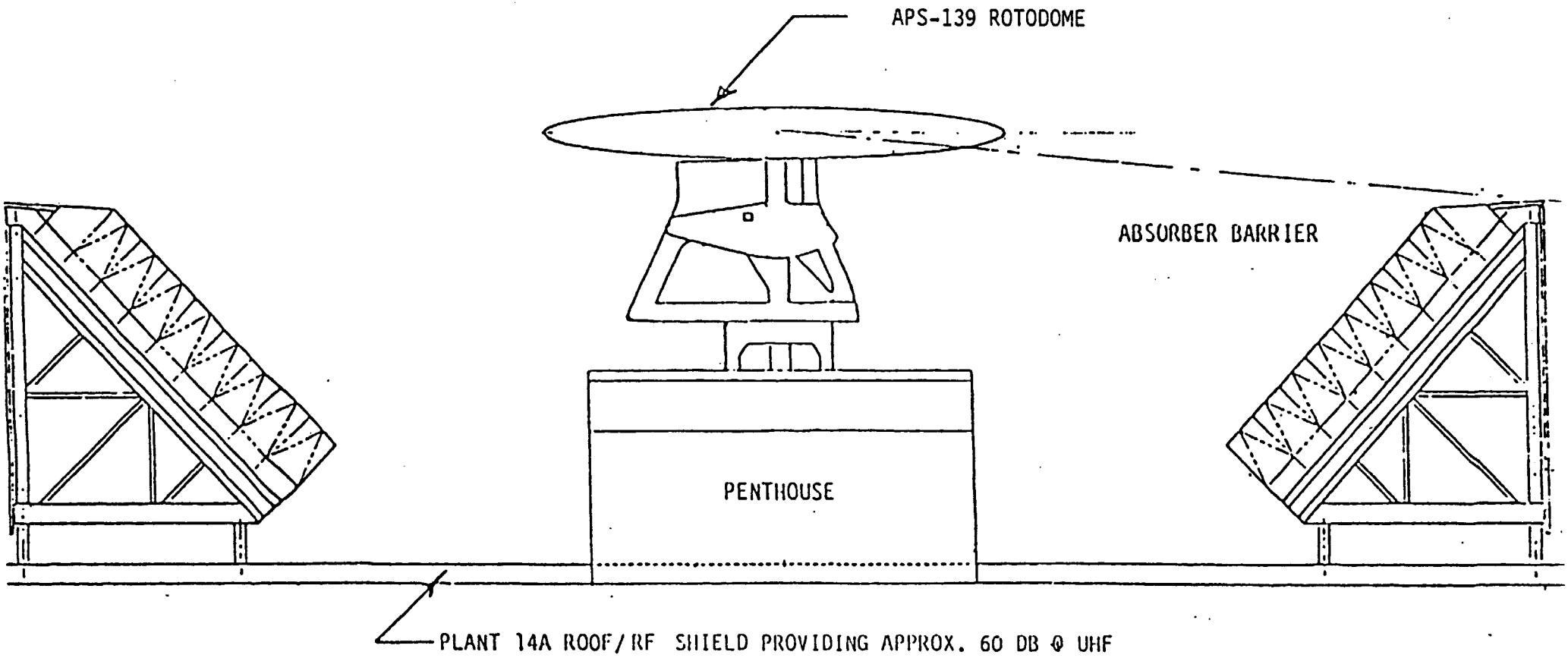
All upper floor occupancies as well as roof areas and representative grade level areas within a 525 ft. radius of the rotodome have been surveyed for radiofrequency radiation power density levels. The rotation interlock was intentionally bypassed for the survey to facilitate measurements and determine the worst case scenario. Measurements were made with a calibrated NARDA model 8616 isotropic survey meter. Power density levels were less than 0.1 milliwatts per square centimeter in all normally occupied areas. Power density levels up to a maximum of 2.7 milliwatts per square centimeter were measured on an adjacent rooftop of the ESP building (see enclosure 2). It must be noted that the effective power density level will be reduced by a factor of 60 during transmission with the rotodome rotating. In the event of a fixed rotodome transmission in this direction, it would be preceded by a public address announcement by the building maintenance office and a visual check of this roof to verify it is unoccupied.

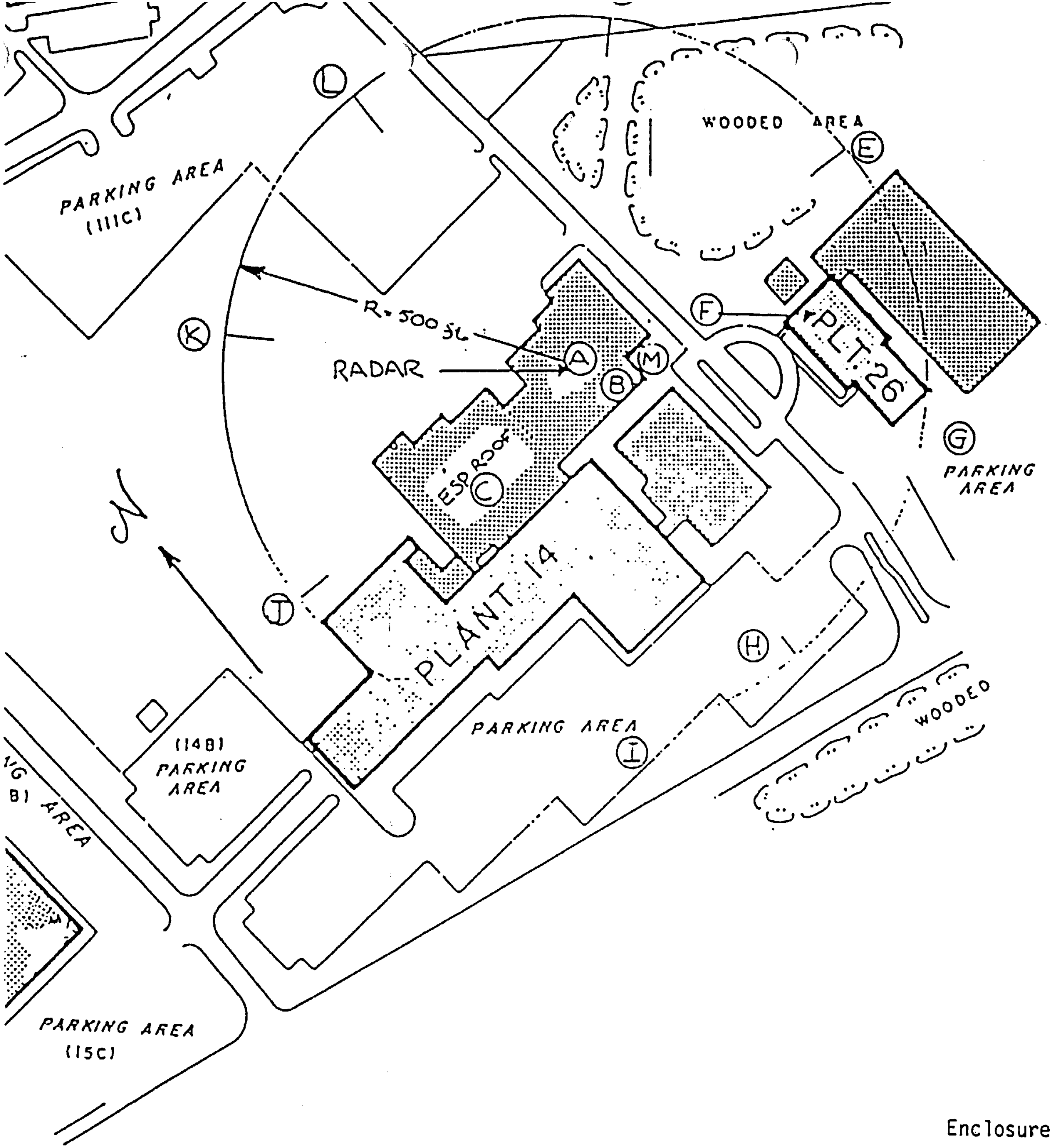
In conclusion, normal transmission of the APS 139 radar located on the roof of Building 014 is in compliance with FCC Office of Science and Technology Bulletin No. 65, dated October 1985.

Prepared By: Werner E. Laag

Werner E. Laag CSP
Corporate Industrial Safety
& Hygiene
Radiation Safety Officer
November 1989

CYLINDRICAL ABSORBER ENCLOSURE (RADAR STADIUM)




PARKING AREA (111C)
WOODED AREA
R = 500 ft
RADAR
A
B
M
C
ESP ROOF
PLT. 26
PLANT 14
E
F
G
H
I
J
K
L
N
PARKING AREA
PARKING AREA
WOODED
(14B) PARKING AREA
B) AREA
PARKING AREA (15C)

Enclosure 2