

c/o Lois Williams, General Motors Technical Ctr. Research Engineering Bldg.  
Room 322, 30500 Mound Road, Box 9055, Warren, MI 48090-9055

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

EXPERIMENTAL  
(Nature of Service)

K F 2 X H E  
(Call Sign)

XD MO  
(Class of station)

S-1004-EX-93  
(File number)

NAME GENERAL MOTORS RESEARCH CORPORATION

Vicinity of Wrightsville Beach, NC  
(Location of station)

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

Frequency MHz	Authorized Power (watts)	Emission Designator
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SEE ATTACHED

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 February 1, 1993 and  
will expire 3:00 A.M. EST. February 28, 1993

**FEDERAL  
COMMUNICATIONS  
COMMISSION**

Frequency (MHz)	Authorized Power (Watts)	Emission Designator
1.8 - 2.0	100	3K00B8W
3.5 - 4.0	800	3K00B8W
7.0 - 7.3	800	3K00B8W
10.1 - 10.15	800	3K00B8W
14.0 - 14.35	800	3K00B8W
18.068-18.168	800	3K00B8W
21.0 - 21.45	800	3K00B8W
24.89 - 24.99	800	3K00B8W
26.965 - 27.405	100	3K00B8W
28.0 - 29.7	800	3K00B8W
30.56-32	200	20K0F3E
33.0-34	200	20K0F3E
35.0-36	200	20K0F3E
37.0-38	200	20K0F3E
39.0-40	200	20K0F3E
42.46-46.6	200	20K0F3E
47.0-49.6	200	20K0F3E
50.0-54.0	800	16K0F8W/F3E
144-148	2700	16K0F8W/F3E
150.8-157.03	200	20K0F3E
157.19-162.01	200	20K0F3E
164.0	200	20K0F3E
164.5	200	20K0F3E
165.0	200	20K0F3E
165.5	200	20K0F3E
166.0	200	20K0F3E
166.5	200	20K0F3E
167.1	200	20K0F3E
169.425	250	20K0F3E
169.525	250	20K0F3E
170.255	250	20K0F3E
170.325	250	20K0F3E
170.425	250	20K0F3E
170.575	250	20K0F3E
220-225	225	16K0F3E
420-450	225	20K0F3E
450-470	100	20K0F3E
470-510	100	20K0F3E
806-815	35	20K0F3E
826-849	70	20K0F3E
869-894	70	20K0F3E
896-901	70	20K0F3E
902-928	100	20K0F3E
935-940	70	20K0F3E
1240	100	20K0F3E
1245	100	20K0F3E
1250	100	20K0F3E
1255	100	20K0F3E
1265	100	20K0F3E
1275	100	20K0F3E
1280	100	20K0F3E
1285	100	20K0F3E

✓  
S1004-EX-93

**General Motors Research Corporation**

General Motors Corporation  
General Motors Technical Center  
30500 Mound Road, Box 9055  
Warren, Michigan 48090-9055  
Fax: (313) 947-1414

January 12, 1993

Mr. Frank Wright, Chief  
Frequency Liaison Branch  
Office of Engineering & Technology  
Federal Communications Commission  
Washington, D.C. 20554-1300

Dear Frank:

Request for Special Temporary Authorization by General Motors  
Research Corporation

General Motors Research Corporation requests a Special Temporary Authorization to operate a radio system in Wrightsville, North Carolina, for radio immunity testing.

1. **Name and Address.** General Motors Research Corporation, P.O. Box 5121, Southfield, Michigan 48086-5121 - c/o Lois A. Williams, General Motors Research Corporation, General Motors Corporation, General Motors Technical Center, Research Engineering Building - Room 322, 30500 Mound Road, Box 9055, Warren, Michigan 48090-9055.
2. **Need for Special Action.** General Motors Research Corporation (GMRC) is the corporate radio licensee for General Motors Corporation (GMC). GMRC is responsible for insuring compliance with regulations and requirements associated with the operation and/or marketing of radio products.

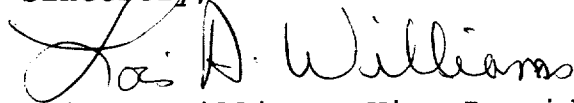
Special permission is required to permit the use of Experimental Radio License ~~KE2XHE~~, File No. 0109-EX-R-91, Expiration Date March 1, 1993 (a request for renewal is currently on file), for radiated immunity testing of a 70 foot Hatteras yacht, docked in Wrightsville Beach, North Carolina. Electronics are employed on board that permit speed and direction to be controlled from six different locations on this vessel. Radiated immunity testing is required to ensure that vehicles with land mobile radios located near such a vessel do not adversely impact its speed and direction.



3. **Type of Operation.** Land Mobile Radio equipment will be installed on a vehicle parked near the dock. Electronic operation on the vessel will be monitored, and field strength mapping performed, while each mobile radio is transmitting.
4. **Purpose of Operation.** The purpose is radiated immunity testing.
5. **Class of Station and Service.** The class of station will be XR MO.
6. **Equipment and Number of Units to be Used.** See Exhibit B.
7. **Frequency/ies Desired.** See Exhibit A.
8. **Power.** See Exhibit A.
9. **Type of Emission.** See Exhibit A.
10. **Antenna Structure.** The antenna used will be a center load 8 foot monopole mounted on the rear bumper (<30 MHz), or a base loaded quarter-wave monopole mounted on the roof or trunk (>30 MHz) of the vehicle. The transmitters will be powered from vehicle battery.
11. **Time, Date and Location of Proposed Operation.** Tests will be conducted from 8:00 a.m. - 5:00 p.m. during the week of February 1-5, 1993.

Please advise the writer should you have any questions or if any items need clarification. My telephone number and facsimile number have been provided for your convenience.

Sincerely,



Lois A. Williams, Vice President  
General Motors Research Corporation  
c/o Room 322 - Research Engineering Building  
Telephone: (313) 947-1902

cc: File

**GENERAL MOTORS RESEARCH CORPORATION**

General Motors Corporation  
General Motors Technical Center  
30500 Mound Road, Box 9055  
Warren, Michigan 48090-9055

January 12, 1993

**Exhibit A**

Experimental Radio Service License KF2XHE, File No. 0100-EX-R-91

<u>Frequency Band</u>	<u>ERP</u>	<u>Emission</u>
1.8-2.0	100	3K00B8W
3.5-4.0	800	3K00B8W
7.0-7.3	800	3K00B8W
10.1-10.15	800	3K00B8W
14.0-14.35	800	3K00B8W
18.068-18.168	800	3K00B8W
21.0-21.45	800	3K00B8W
24.89-24.99	800	3K00B8W
28.0-29.7	800	3K00B8W
26.965-27.405	5	3K00B8W
31.0-47.0	400	20K0F3E
150.8-170.5	400	20K0F3E
50.0-52.525	400	16K0F8W/F3E
144-148	50	16K0F8W/F3E
220-225	50	16K0F3E
420-450	50	20K0F3E
144-148	340	16K0F8W/F3E
220-225	240	16K0F3E
420-450	200	20K0F3E
150.8-170.5	200	20K0F3E
451.5-456.5	120	20K0F3E
458-463	120	20K0F3E
464.5-469.5	120	20K0F3E
807-820	70	20K0F3E

Approved by OMB  
3060-0440  
Expires 2/28/93

FEDERAL COMMUNICATIONS COMMISSION  
**FEE PROCESSING FORM**

FCC/MELLON JAN 14 1993

FOR  
FCC  
USE  
ONLY

01-15-93 8320995 001

Please read instructions on back of this form before completing it. Section I MUST be completed. If you are applying for concurrent actions which require you to list more than one Fee Type Code, you must also complete Section II. This form must accompany all payments. Only one Fee Processing Form may be submitted per application or filing. Please type or print legibly. All required blocks must be completed or application/filing will be returned without action.

**SECTION I**

APPLICANT NAME (Last, first, middle initial)

GENERAL MOTORS RESEARCH CORPORATION

MAILING ADDRESS (Line 1) (Maximum 85 characters - refer to Instruction (2) on reverse of form)

c/o Room 322 - Research Engineering Bldg.

MAILING ADDRESS (Line 2) (if required) (Maximum 85 characters)

P.O. Box 9055, 30500 Mound Road

CITY

Warren

STATE OR COUNTRY (if foreign address)

Michigan

ZIP CODE

48090-9055

CALL SIGN

OTHER FCC IDENTIFIER

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)	FOR FCC USE ONLY
FEE TYPE CODE	FEE MULTIPLE (if required)	FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	
(1) E A E		\$ 35.00	

**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)	FOR FCC USE ONLY
FEE TYPE CODE	FEE MULTIPLE (if required)	FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	
(2) [ ] [ ] [ ]	[ ] [ ] [ ] [ ]	\$ [ ] [ ] [ ] [ ]	
(3) [ ] [ ] [ ]	[ ] [ ] [ ] [ ]	\$ [ ] [ ] [ ] [ ]	
(4) [ ] [ ] [ ]	[ ] [ ] [ ] [ ]	\$ [ ] [ ] [ ] [ ]	
(5) [ ] [ ] [ ]	[ ] [ ] [ ] [ ]	\$ [ ] [ ] [ ] [ ]	

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

\$ 35.00

FOR FCC USE ONLY

35.00