

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD MO

(Class of Station)

WA2XTA

(Call Sign)

6211-EX-PL-1998

(File Number)

NAME MID-CITY MACHINE COMPANY

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.202(i) of the Commission's Rules

Station Locations

(1) MOBILE: Nationwide

Frequency Information

MOBILE: Nationwide

Frequency	Station Class	Emission Designator	Authorized Power watts	Tolerance (+/-)
1626.5-1660.5 MHz	MO	10K0G1D	316 (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) POINT OF COMMUNICATION: INMARSAT Satellite
- (3) Equipment: One (1) Glocom MX4040 Magnaphone M INMARSAT terminal.

COPY

This authorization effective
will expire 3:00 A.M. EST

FEB 09, 1999

and

FEB 01, 2001

**FEDERAL
COMMUNICATIONS
COMMISSION**



United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE

EXPERIMENTAL
 (Nature of Service)

XD MO
 (Class of Station)

KA2XZJ
 (Call Sign)

5060-EX-PL-95
 (File Number)

NAME MID-CITY MACHINE CORPORATION

US

(Location of Station)

Area Of Operation: NATIONWIDE

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications.

Frequency MHz	Class Stn	Emission Designator	Authorized Power watts
1626.50000-			
1660.50000	MO	10K0G1D	316W (ERP)

Operation: In accordance with Sec. 5.202(i) of the Commission's Rules.

Special Conditions:

(1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

(2) The station identification requirements of Section 5.152 of the Commission's Rules are waived.

(3) POINT OF COMMUNICATION: INMARSAT Satellite

(4) Equipment: One (1) Glocom MS4040 Magnaphone M INMARSAT terminal.

This authorization effective March 4, 1996 and
 will expire 3:00 A.M. EST March 1, 1998

**FEDERAL
 COMMUNICATIONS
 COMMISSION**



**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) MID-CITY MACHINE CORPORATION 1301 N. ELSTON AVENUE CHICAGO, IL 60622	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)
EXHIBIT No. 1	11 dbw	27 dbw	Mean	G4d	Exhibit No. 1	10K0

- (A) List each frequency or frequency band separately. (If more space is required, attach as EXHIBIT No. _____)
- (B) Insert maximum RF. 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.

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 _____
 Number and street (or other indication of location) _____

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

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 _____

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 25°
 (b) Orientation in horizontal plane 0° - 350 (c) Orientation in vertical plane 0° - 90°

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. 3 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: two (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 1.1301.

13. List below transmitting equipment to be installed (if experimental so state):
 MANUFACTURER MODEL NUMBER NO. OF UNITS
 Glomom
 MX4040 Magnaphone M 1

11. Is the equipment listed in Item 1B capable of station identification pursuant to Section 5.182? ☒ YES ☐ NO
12. 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.

13. Applicant is: (check only one box)

- ☐ INDIVIDUAL ☐ ASSOCIATION ☐ PARTNERSHIP ☒ CORPORATION
- ☐ OTHER (describe in space provided below)

14. Is applicant a foreign government or a representative of a foreign government? ☐ YES ☒ NO
15. 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 full sign of license or permit revoked and relate circumstances.

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

17. 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.

CARLE J. BACHELOR
SECRETARY AND TREASURER
(773) 276-3000

18. 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, eg, 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

19. 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
01	4				
03	10				

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:

- (a) 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 10th day of July, 19 98

Name of Applicant MID-CITY MACHINE CORPORATION

(best correspond with name given on page 1)

By GAYLE J. BATCHELOR

(print)

Gayle J. Batchelor

(signature)

Title SECRETARY AND TREASURER

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 908 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. 3607.

FCC FORM 442

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)

MID-CITY MACHINE CORPORATION

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

1301 N. ELSTON AVENUE

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

CITY

CHICAGO

STATE OR COUNTRY (If foreign address)

IL

ZIP CODE

60622-2417

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

E A E

\$ 45.00

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)

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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\$	
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(3)

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(4)

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(5)

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\$	
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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

\$ 45.00

FOR FCC USE ONLY

EXHIBIT NO. 1
DETAILS OF OPERATION

A) FREQUENCY

The Transmit Frequency of this transmitter shall be tuned to any frequency from 1625.5 MHz to 1660.5 MHz in 5 KHz increments.

B) POWER - RF OUTPUT

The RF output power for each of the discrete frequencies is 11 dBW.

C) POWER - EIRP

The Maximum Effective Radiated Power for each of the discrete frequencies from the antenna is 1^{2.5} dBW.

D) POWER - MEAN/PEAK

All power transmitted from each discrete frequency is classified "MEAN" power.

E) EMISSION

The emission code for each discrete frequency shall be "G1D".

F) MODULATION

Each discrete frequency shall be modulated with Q-PSK modulation, rate at 8.0 Kbit/s or BPSK modulation, rate at 1.0 Kbit/s.

G) NECESSARY BANDWIDTH

The necessary bandwidth of the modulating signal is defined in Annex 4 of System Definition Module 2, Part 1, Issue 3.0, Figure 3. The necessary bandwidth for each of the discrete frequencies is 10 KHz. This bandwidth shall be expressed as 10KHz.

Exhibit No. 3

**The Glocom-Developed GLOBAL PHONE, Model MX4040
Magnephone M, is a digital satellite communication system designed to
satisfy the Inmarsat-M Maritime Class Mobile Earth Station terminal
requirements. This application of the Maritime Earth Station is to
communicate via an Inmarsat satellite to applicable land and coast
earth stations.**