

EXPERIMENTAL SYSTEM

Exhibit A

1.0 Theory

A developmental mobile radio network in the vicinity of Transportation Management Solutions, Inc.(TMSI). An experimental license is needed to demonstrate the radio networks intended to be installed for customers. One distinctive radio systems to be emulated is a conventional radio system. This developmental radio networks would be used for testing and fine tuning the TMSI CAD/AVL product. CAD (Computer Aided Dispatch)/AVL (Automatic Vehicle Location) is a process by which control centers can monitor the location and performance of a variety of vehicles (e.g., transit buses, supervisor vehicles, maintenance vehicles, light rail cars and heavy rail trains).

This is a full duplex system in the 450 MHz band. Transmission from the fixed end to mobile radio or vise-versa would be selected by CAD/AVL system.

2.0 Operation

An automobile will be equipped with an Intelligent Vehicle Logic Unit (IVLU), a Global Positioning System (GPS) Receiver and a Radio Receiver and powered on. The automobile will be driven in the vicinity of the transmitter site. The fixed end equipment will attempt to maintain contact with the moving vehicle by steering the transmission to the transceiver station.

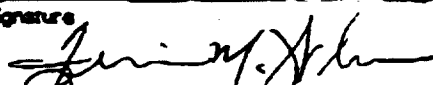
More than one automobile may be equipped with an IVLU, a GPS Receiver and a Radio Receiver and powered on. The automobiles will be driven in the vicinity of the transmitter site. The fixed end will carry on simultaneous conversations with mobiles, separately and as groups.

3.0 Licenses

Expired licensed for conventional UHF frequencies (License attached).

450 Mhz range

This license will now be needed for a single site location in the vicinity of Anne Arundel County.

FCC 405 FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554 Approved by OMB 3060-0083 Expires 03/31/97		FCC USE ONLY	
Est. Avg. Burden Hours Per Response: 2.25 Hrs.			
APPLICATION FOR RENEWAL OF RADIO STATION LICENSE IN SPECIFIED SERVICES (Specified Services - FCC Rules Parts 6, 21, 22, 23 and 25) Read Instructions and Notice on Back Before Completing		File Number	Call Sign
Service		Class of Station	
1. Name of Applicant (must be identical with that shown on current authorization) <u>HRB Systems, Inc.</u>		Call Sign or Other FCC Identifier (if applicable) <u>KB2XEL</u>	
2. Mailing Street Address or P.O. Box, City, State and ZIP Code of Applicant <u>800 INTERNATIONAL DRIVE, LINTHICUM, MD 21090</u>		3. Identify Rulepart under which this filing is made <u>5.202(i)</u>	
4. Fee Data. Refer to 47 CFR Section 1.1105 or to appropriate Fee Filing Guide for information.		FCC Use Only	
(a) Fee Type Code <u>EAE</u>	(b) Fee Multiplier, if required	(c) Fee Due for Fee Type Code in 4(a) <u>\$45.00</u>	
5. Application is for renewal of license in exact conformity with the existing license as specified below:			
(a) File Number <u>4692-EX-AL-95</u>	(b) Date issued <u>3-24-95</u>	(c) Call Sign <u>KB2XEL</u>	(d) Location <u>Shirley, MD</u>
(e) Nature of Service <u>EXPERIMENTAL</u>	(f) Class of Station <u>XD FX, MO</u>	(g) Expiration Date <u>11-1-95</u>	
6. Note any changes such as discontinuance of use of a frequency, or of a type of emission or of a transmitter which have been made since the last application covering this station was filed:			
Items 7(a) and (b) apply to Part 21 licensees only.			
7(a) Has there been removal of equipment or alteration of facilities so as to render the station not operational? If "YES," where _____ ☐ YES ☐ NO			
(b) If this is a Multipoint Distribution Service (MDS) station, is there an ownership interest in, control by, affiliation with, or leasing arrangement with a cable television company? ☐ YES ☐ NO			
8. 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, or financial responsibility; that applicant's most recent application or report embodying this information, as identified below, 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 6 or 7. File No. <u>4692-EX-AL-95</u> Date <u>7/15/97</u>			
9. Would a Commission grant of this application come within 47 CFR 1.1307, such that it may have a significant environmental impact? If "YES," attach as Exhibit No. _____ an Environmental Assessment required by 47 CFR 1.1311. If "NO," explain briefly why not. ☐ YES ☒ NO			
10. Certification.			
The applicant certifies that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853z, or, in the case of a nonindividual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 CFR 1.2002(b). ☒ YES ☐ NO			
a. Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum 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.			
b. The undersigned, individually and for the applicant, hereby certifies that the statements made in this application are true, complete and correct to the best of the signer's knowledge and belief, and are made in good faith.			
Date <u>7/15/97</u>	Name of Applicant (must correspond with item 1) <u>HRB Systems, Inc.</u>		Title of Applicant (if any)
Signature 	Designate Appropriate Classification ☐ INDIV. APPL. ☐ MEM. OF PART. ☐ OFFICER & MEM. OF THE APPLICANT'S ASSOC. ☒ AUTH. REPR. OF CORP. ☐ OFFICIAL OF GOVT. ENTITY		
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).			

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APPLICATION FOR RENEWAL OF RADIO STATION LICENSE IN SPECIFIED SERVICES (Specified Services - FCC Rules Parts 5, 21, 22, 23 and 25) Read Instructions and Notice on Back Before Completing				File Number _____ Call Sign _____	
				Service _____ Class of Station _____	
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2. Mailing Street Address or P.O. Box, City, State and ZIP Code of Applicant <u>800 INTERNATIONAL DRIVE LINTHICUM, MD 21090</u>				3. Identify Rulepart under which this filing is made <u>5.202(h)</u>	
4. Fee Data. Refer to 47 CFR Section 1.1105 or to appropriate Fee Filing Guide for information.				FCC Use Only	
(a) Fee Type Code <u>EAE</u>		(b) Fee Multiple, if required		(c) Fee Due for Fee Type Code in 4(a) <u>\$ 45.00</u>	
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(a) File Number <u>4691-EX-AL-95</u>		(b) Date Issued <u>3-24-95</u>		(c) Call Sign <u>KM2XKP</u>	
				(d) Location <u>Vicinity of ANN ARBOR</u>	
(e) Nature of Service <u>EXPERIMENTAL</u>		(f) Class of Station <u>XD FX MO</u>		(g) Expiration Date <u>11-1-96</u>	
6. Note any changes such as discontinuance of use of a frequency, or of a type of emission or of a transmitter which have been made since the last application covering this station was filed: <u>NONE</u>					
Items 7(a) and (b) apply to Part 21 licensees only.					
7(a) Has there been removal of equipment or alteration of facilities so as to render the station not operational? If "YES," where _____ ☐ YES ☐ NO					
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10. Certification					
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Date <u>7/15/97</u>		Name of Applicant (must correspond with item 1) <u>HRB Systems, Inc.</u>		Title of Applicant (if any) <u>NONE</u>	
Signature 		Designate Appropriate Classification ☐ INDV. APPL. ☐ MEM. OF PART. ☐ OFFICER & MEM. OF THE APPLICANT'S ASSOC. ☒ AUTH. REPR. OF CORP. ☐ OFFICIAL OF GOVT. ENTITY			
With 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).					

800 INTERNATIONAL DR., SUITE 110, LINTHICUM, MD 21090

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

EXPERIMENTAL

(Nature of Service)

KB2XEL

(Call Sign)

XD FX MO

(Class of Station)

4692-EX-AL-95

(File Number)

NAME TRANSPORTATION MANAGEMENT SOLUTIONS, INC.See Below

(Location of Station)

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	Class	Emission	Authorized	Tolerance
	Stn	Designator	Power watts	(+/-)

See Attached Page 2

Station Location:

- (1) SHIPLEY, MD - NL 39-12-29; WL 076-40-38
Area Of Operation: VICINITY OF SHIPLEY
- (2) SHIPLEY, MD - NL 39-10-50; WL 076-39-10
Area Of Operation: VICINITY OF SHIPLEY
- (3) SHIPLEY, MD - NL 39-10-12; WL 076-44-14
Area Of Operation: VICINITY OF SHIPLEY

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

Special Conditions: None

This authorization effective March 24, 1995 and
will expire 3:00 A.M. EST November 1, 1995

FEDERAL
COMMUNICATIONS
COMMISSION



TRANSPORTATION MANAGEMENT SOLUTIONS, INC.

KB2XEL

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	Frequency MHz	Class Stn	Emission Designator	Authorized Power watts	Tolerance (+/-)
(1)	452.70000	FX	15K0F2D	70W (ERP)	0.005%
		FX	20K0F3E	70W (ERP)	
(2)	452.70000	FX	15K0F2D	70W (ERP)	0.005%
		FX	20K0F3E	70W (ERP)	
(3)	452.70000	FX	15K0F2D	70W (ERP)	0.005%
		FX	20K0F3E	70W (ERP)	
(1)	452.80000	FX	15K0F2D	70W (ERP)	0.005%
		FX	20K0F3E	70W (ERP)	
(2)	452.80000	FX	15K0F2D	70W (ERP)	0.005%
		FX	20K0F3E	70W (ERP)	
(3)	452.80000	FX	15K0F2D	70W (ERP)	0.005%
		FX	20K0F3E	70W (ERP)	
(1)	457.70000	MO	15K0F2D	40W (ERP)	0.005%
		MO	20K0F3E	40W (ERP)	
(2)	457.70000	MO	15K0F2D	40W (ERP)	0.005%
		MO	20K0F3E	40W (ERP)	
(3)	457.70000	MO	15K0F2D	40W (ERP)	0.005%
		MO	20K0F3E	40W (ERP)	
(1)	457.80000	MO	15K0F2D	40W (ERP)	0.005%
		MO	20K0F3E	40W (ERP)	
(2)	457.80000	MO	15K0F2D	40W (ERP)	0.005%
		MO	20K0F3E	40W (ERP)	
(3)	457.80000	MO	15K0F2D	40W (ERP)	0.005%
		MO	20K0F3E	40W (ERP)	

800 INTERNATIONAL DR., SUITE 110, LINTHICUM, MD 21090

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

EXPERIMENTAL

(Nature of Service)

K M 2 X K P

(Call Sign)

XD FX, MO

(Class of Station)

4691-EX-AL-95

(File Number)

NAME TRANSPORTATION MANAGEMENT SOLUTIONS, INC.ANNE ARUNDEL, (ANNE ARUNDEL) MD - NL 39-12-29; WL 076-40-38

(Location of Station)

Area Of Operation: VICINITY OF ANNE ARUNDEL

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
806.00000-			
824.00000	MO	15K0F2D	160W (ERP)
	MO	20K0F3E	160W (ERP)
851.00000-			
869.00000	FX	15K0F2D	160W (ERP)
	FX	20K0F3E	160W (ERP)
896.00000-			
902.00000	MO	15K0F2D	160W (ERP)
	MO	20K0F3E	160W (ERP)
935.00000-			
941.00000	FX	15K0F2D	160W (ERP)
	FX	20K0F3E	160W (ERP)

Operation: In accordance with Sec. 5.202(h) 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.

This authorization effective March 24, 1995 and
 will expire 3:00 A.M. EST November 1, 1996

**FEDERAL
 COMMUNICATIONS
 COMMISSION**

