



April 3, 2006

Chairman Joseph Turner
800 MHz Michigan Public Safety Frequency Advisory Committee

Dear Mr. Turner,

RF Systems Engineering Associates is submitting an application to modify to an existing Oakland County license, WPPC814. This application is to add three new channels for vehicular repeater operation. This application also modifies two existing repeater channels for vehicular repeater operation.

These repeaters (VTAC) are used in conjunction with the Oakland County M/A-COM, Inc. OpenSky communications system. The VTAC operates in a full duplex mode between the mobile unit and the portables on a scene. The VTAC also operates 4-to-1 Time Division Multiplex, increasing the spectral efficiency of the channel.

The three channels being added are licensed to other users, less than 70 miles and greater than 53 miles from the center of Oakland County. The attached propagation map shows the 40 dBu service contours of the incumbent user, and a 5 dBu interference contour of a 3 watt mobile at the point in Oakland County nearest the incumbent station.

We ask the committee to review these applications at the next scheduled committee meeting and provide a letter of approval.

Respectfully

Michael E. Whately
President

RF Systems Associates
11111 St. Clair Ave. W. #11111
11111 W. 11111th St. #11111
11111 W. 11111th St. #11111

1) Radio Service Code: YF	1a) Existing Radio Service Code:
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Application Purpose (Select only one) (MD)

2)	NE - New MD - Modification AM - Amendment	RO - Renewal Only RM - Renewal/Modification CA - Cancellation of License	CO - Consolidate Call Signs WD - Withdrawal of Application DU - Duplicate License	NT - Required Notifications EX - Requests for Extension of Time AU - Administrative Update
3a)	If this request is for a <u>D</u> evelopmental License, <u>D</u> emonstration License, or a <u>S</u> pecial Temporary Authorization (STA), enter the code and attach the required exhibit as described in the instructions. Otherwise enter <u>N</u> (Not Applicable).			(<u>N</u>) <u>D</u> <u>M</u> <u>S</u> <u>N/A</u>
3b)	If this request is for Special Temporary Authority due to an emergency situation, enter 'Y'; otherwise enter 'N'. Refer to Rule 1.915 for an explanation of situations considered to be an emergency.			(<u>N</u>) <u>Y</u> es <u>N</u> o
4)	If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.			File Number 0002407718
5)	If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.			Call Sign WPPC814
6)	If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).			MM DD
7)	Is this request "major" as defined in Section 1.929 of the Commission's Rules when read in conjunction with the applicable radio service rules found in Parts 22 and 90 of the Commission's Rules? (NOTE: This question only applies to certain site-specific applications. See the instructions for applicability and full text of Section 1.929).			(<u>N</u>) <u>Y</u> es <u>N</u> o
8a)	Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.			(<u>N</u>) <u>Y</u> es <u>N</u> o
8b)	If a feeable waiver request is attached, multiply the number of stations (call signs) times the number of rule sections and enter the result.			0
8c)	Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?			(<u>N</u>) <u>Y</u> es <u>N</u> o
9)	Are attachments being filed with this application?			(<u>N</u>) <u>Y</u> es <u>N</u> o

Applicant Information

10a) Taxpayer Identification Number:	10b) SGIN:	10c) FCC Registration Number (FRN): 4805719	
11) Applicant/Licensee is a(n): (<u>G</u>) <u>I</u> ndividual <u>U</u> nincorporated Association <u>T</u> rust <u>G</u> overnment Entity <u>J</u> oint Venture <u>C</u> orporation <u>L</u> imited Liability Corporation <u>P</u> artnership <u>C</u> onsortium			
12) First Name (if individual): Patricia	MI: A	Last Name: Coates	Suffix:
13) Entity Name (if other than individual): OAKLAND, COUNTY OF			
14) Name of Real Party in Interest of Applicant: OAKLAND, COUNTY OF		15) Taxpayer Identification Number:	

Applicant Information (continued)

16) Attention To:				RADIO DEPARTMENT			
17) P.O. Box:		And /Or	18) Street Address:				
			1200 N TELEGRAPH				
19) City:			20) State:		21) Zip:		
PONTIAC			MI		48341		
22) Telephone Number:				23) FAX:			
(248) 858-1100				(248) 452-3873			
24) E-Mail Address:							
murphyst@co.oakland.mi.us							

Contact Information (If different from the applicant)

25) First Name:		MI:	Last Name:		Suffix:		
MICHAEL		E	WHATELY				
26) Entity Name:							
RF SYSTEMS ENGINEERING ASSOCIATES, INC							
27) P.O. Box:		And /Or	28) Street Address:				
			8794 Q AVE				
29) City:			30) State:		31) Zip:		
MATTAWAN			MI		49071		
32) Telephone Number:				33) FAX:			
(269) 372-3260				(269) 372-3547			
34) E-Mail Address:							

Regulatory Status

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):							
<input type="checkbox"/> Common Carrier <input type="checkbox"/> Non-Common Carrier <input checked="" type="checkbox"/> Private, internal communications <input type="checkbox"/> Broadcast Services <input type="checkbox"/> Band Manager							

Type of Radio Service

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):							
<input type="checkbox"/> Fixed <input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Radiolocation <input type="checkbox"/> Satellite (sound) <input type="checkbox"/> Broadcast Services							
37) Interconnected Service?							(Y) Yes No

Fee Status

38) Is the applicant exempt from FCC application fees?							(N) Yes No
39) Is the applicant exempt from FCC regulatory fees?							(N) Yes No

Alien Ownership Questions (If any answer is Yes, attach exhibit explaining circumstances.)

40) Is the applicant a foreign government or the representative of any foreign government?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No.
41) Is the applicant an alien or the representative of an alien?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No
42) Is the applicant a corporation organized under the laws of any foreign government?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?.	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No

Basic Qualification Questions (If any answer is Yes, attach exhibit explaining circumstances.)

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	(<input type="radio"/> N) <input checked="" type="radio"/> Yes <input type="radio"/> No
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items?	(<input type="radio"/>) <input checked="" type="radio"/> Yes <input type="radio"/> No

49) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):

Race:	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
Ethnicity:	Hispanic or Latino:	Not Hispanic or Latino:			
Gender:	Female:	Male:			

General Certification Statements

1) The 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 an authorization in accordance with this application.
2) The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3) The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4) The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under Section 1.2002(c) of the rules, 47 CFR § 1.2002(c). See Section 1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5) The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's Rules.
6) The applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.

Signature

51) Typed or Printed Name of Party Authorized to Sign

First Name: J	MI:	Last Name: DAVID VANDERVEEN	Suffix:
52) Title:			
Signature: J DAVID VANDERVEEN			53) Date:

Failure To Sign This Application May Result In Dismissal Of The Application And Forfeiture Of Any Fees Paid.

Upon grant of this license application, the licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

Technical Data Schedule for the
Private Land Mobile and Land Mobile Broadcast Auxiliary
Radio Services (Parts 90 and 74)

Eligibility

1) Rule Section:	2) Describe Activity:
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Frequency Coordinator Information (if not self-coordinated)

3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number	6) Coordination Date
2006040215191609954			
7) Has this application been successfully coordinated?			(<input checked="" type="checkbox"/>) Yes/ <input type="checkbox"/> No

Extended Implementation (Slow Growth)

8) Are you requesting a new or modified extended implementation plan? If 'Yes', attach an exhibit with a justification and a proposed station construction schedule.	(<input checked="" type="checkbox"/>) Yes/ <input type="checkbox"/> No
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Associated Call Signs (Attach additional sheets if required)

9)				

Broadcast Auxiliary Only

If there is an associated Parent Station, complete items 10-12.	10) Facility Id of Parent Station:	11) Radio Service of Parent Station: NA	12) City and State of Parent Station Principal Community:
13) If there is no associated parent station, this applicant is a: () <input checked="" type="checkbox"/> Broadcast Network Entity <input type="checkbox"/> Television Cable Operator <input type="checkbox"/> Motion Picture Producer <input type="checkbox"/> Television Producer			14) State of Primary Operation:

Control Point(s) (Other than at the transmitter) (Attach additional sheets if required)

15) Action A/M/D	16) Control Point Number	17) Location Street Address, City or Town, County, State	18) Telephone Number

Frequency Information

28) Action: () A/M/D	29) Location Number:	30) Antenna Number:	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	5	1	Existing (if mod)	New 866.2125	MO3	100		3	3	
A	5	1	Existing (if mod)	New 866.35	MO3	100		3	3	
A	5	1	Existing (if mod)	New 866.15	MO3	100		3	3	
A	5	1	Existing (if mod)	New 866.2375	MO3	100		3	3	
A	5	1	Existing (if mod)	New 868.0375	MO3	100		3	3	
A	5	1	Existing (if mod)	New 821.15	MO	5000		3	3	
A	5	1	Existing (if mod)	New 821.2375	MO	5000		3	3	
A	5	1	Existing (if mod)	New 823.0375	MO	5000		3	3	
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
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			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						

Emission Information

28) Action: () A/M/D	29) Location Number:	30) Antenna Number:	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
D	5	1	Existing (if mod) 866.2125	New						10K0F1D
D	5	1	Existing (if mod) 866.2125	New						14K0F3E
A	5	1	Existing (if mod)	New 866.2125						20K0F1D
A	5	1	Existing (if mod)	New 866.2125						20K0F2D
A	5	1	Existing (if mod)	New 866.2125						20K0F3E
A	5	1	Existing (if mod)	New 866.2125						20K0F9W
M	5	1	Existing (if mod) 866.35	New						20K0F1D
M	5	1	Existing (if mod) 866.35	New						20K0F2D
A	5	1	Existing (if mod)	New 866.35						20K0F3E
A	5	1	Existing (if mod)	New 866.35						20K0F9W
M	5	1	Existing (if mod) 866.15	New						20K0F3E
D	5	1	Existing (if mod) 866.15	New						14K0F3E
A	5	1	Existing (if mod)	New 866.15						20K0F1D
A	5	1	Existing (if mod)	New 866.15						20K0F2D
A	5	1	Existing (if mod)	New 866.15						20K0F9W
A	5	1	Existing (if mod)	New 866.2375						20K0F1D
A	5	1	Existing (if mod)	New 866.2375						20K0F2D
A	5	1	Existing (if mod)	New 866.2375						20K0F9W
D	5	1	Existing (if mod) 868.0375	New						10K0F1D
M	5	1	Existing (if mod) 868.0375	New						20K0F3E
A	5	1	Existing (if mod)	New 868.0375						20K0F1D
A	5	1	Existing (if mod)	New 868.0375						20K0F2D

Emission Information

28) Action: () A/M/D	29) Location Number:	30) Antenna Number:	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	5	1	Existing (if mod)	New 868.0375						20K0F9W
D	5	1	Existing (if mod) 821.15	New						10K0F1D
M	5	1	Existing (if mod) 821.15	New						20K0F3E
A	5	1	Existing (if mod)	New 821.15						20K0F1D
A	5	1	Existing (if mod)	New 821.15						20K0F2D
A	5	1	Existing (if mod)	New 821.15						20K0F9W
D	5	1	Existing (if mod) 821.2375	New						10K0F1D
M	5	1	Existing (if mod) 821.2375	New						20K0F3E
A	5	1	Existing (if mod)	New 821.2375						20K0F1D
A	5	1	Existing (if mod)	New 821.2375						20K0F2D
A	5	1	Existing (if mod)	New 821.2375						20K0F9W
D	5	1	Existing (if mod) 823.0375	New						10K0F1D
M	5	1	Existing (if mod) 823.0375	New						20K0F3E
A	5	1	Existing (if mod)	New 823.0375						20K0F1D
A	5	1	Existing (if mod)	New 823.0375						20K0F2D
A	5	1	Existing (if mod)	New 823.0375						20K0F9W
A	6	1	Existing (if mod)	New 866.2125						11K2F1D
A	6	1	Existing (if mod)	New 866.2125						20K0F1D
A	6	1	Existing (if mod)	New 866.2125						20K0F2D
A	6	1	Existing (if mod)	New 866.2125						20K0F3E
A	6	1	Existing (if mod)	New 866.2125						20K0F9W
A	6	1	Existing (if mod)	New 866.35						11K2F1D

Emission Information

28) Action: () A/M/D	29) Location Number:	30) Antenna Number:	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	6	1	Existing (if mod)	New 866.35						20K0F1D
A	6	1	Existing (if mod)	New 866.35						20K0F2D
A	6	1	Existing (if mod)	New 866.35						20K0F3E
A	6	1	Existing (if mod)	New 866.35						20K0F9W
A	6	1	Existing (if mod)	New 866.15						11K2F1D
A	6	1	Existing (if mod)	New 866.15						20K0F1D
A	6	1	Existing (if mod)	New 866.15						20K0F2D
A	6	1	Existing (if mod)	New 866.15						20K0F3E
A	6	1	Existing (if mod)	New 866.15						20K0F9W
A	6	1	Existing (if mod)	New 866.2375						11K2F1D
A	6	1	Existing (if mod)	New 866.2375						20K0F1D
A	6	1	Existing (if mod)	New 866.2375						20K0F2D
A	6	1	Existing (if mod)	New 866.2375						20K0F3E
A	6	1	Existing (if mod)	New 866.2375						20K0F9W
A	6	1	Existing (if mod)	New 868.0375						11K2F1D
A	6	1	Existing (if mod)	New 868.0375						20K0F1D
A	6	1	Existing (if mod)	New 868.0375						20K0F2D
A	6	1	Existing (if mod)	New 868.0375						20K0F3E
A	6	1	Existing (if mod)	New 868.0375						20K0F9W
A	6	1	Existing (if mod)	New 821.15						11K2F1D
A	6	1	Existing (if mod)	New 821.15						20K0F1D
A	6	1	Existing (if mod)	New 821.15						20K0F2D

Emission Information

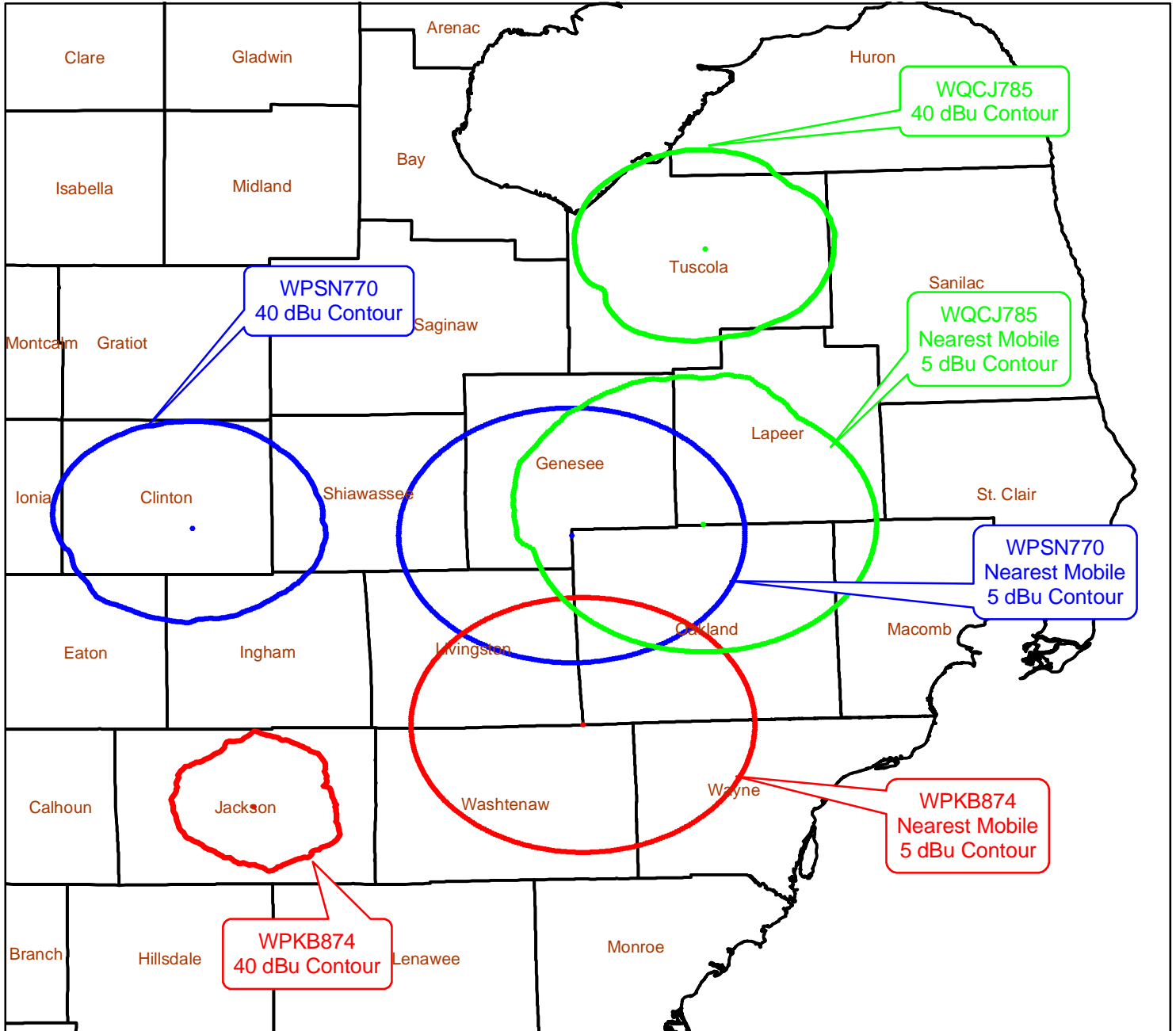
28) Action: () A/M/D	29) Location Number:	30) Antenna Number:	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	6	1	Existing (if mod)	New 821.15						20K0F3E
A	6	1	Existing (if mod)	New 821.15						20K0F9W
A	6	1	Existing (if mod)	New 821.2375						11K2F1D
A	6	1	Existing (if mod)	New 821.2375						20K0F1D
A	6	1	Existing (if mod)	New 821.2375						20K0F2D
A	6	1	Existing (if mod)	New 821.2375						20K0F3E
A	6	1	Existing (if mod)	New 821.2375						20K0F9W
A	6	1	Existing (if mod)	New 823.0375						11K2F1D
A	6	1	Existing (if mod)	New 823.0375						20K0F1D
A	6	1	Existing (if mod)	New 823.0375						20K0F2D
A	6	1	Existing (if mod)	New 823.0375						20K0F3E
A	6	1	Existing (if mod)	New 823.0375						20K0F9W
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						

Oakland County VTAC Co Channel interference contours

Clinton County WPSN770
 868.03750 MHz
 Site 42 52 24.60 N
 84 32 38.00 W
 Elev.: 251.80m AMSL
 Transmit: 70.10m AGL
 ERP: 447.00000W
 F(50,50) 40 dBu Contour

Jackson County WPKB874
 866.15000 MHz
 Site 42 14 50.10 N
 84 24 21.80 W
 Elev.: 286.00m AMSL
 Transmit: 69.00m AGL
 ERP: 125.00000W
 F(50,50) 40 dBu Contour

Tuscola WQCJ785
 869.00000 MHz
 Site 43 30 14.00 N
 83 23 21.80 W
 Elev.: 231.60m AMSL
 Transmit: 114.90m AGL
 ERP: 112.00000W
 F(50,50) 40 dBu Contour



0 5 10 20 Miles