

FOR  
FCC  
USE  
ONLY

# FCC 301

## APPLICATION FOR CONSTRUCTION PERMIT FOR COMMERCIAL BROADCAST STATION

FOR COMMISSION USE ONLY

FILE NO.

### Section I - General Information

1	Legal Name of the Applicant		
	Mailing Address		
	City	State or Country (if foreign address)	ZIP Code
	Telephone Number (include area code)		E-Mail Address (if available)
	FCC Registration Number	Call Sign	Facility ID Number

2.	Contact Representative (if other than applicant)	Firm or Company Name	
	Mailing Address		
	City	State or Country (if foreign address)	ZIP Code
	Telephone Number (include area code)		E-Mail Address (if available)

3. If this application has been submitted without a fee, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114):

☐ Governmental Entity ☐ Other \_\_\_\_\_

#### 4. Application Purpose.

- |  |  |
|--|--|
| <input type="checkbox"/> New Station   | <input type="checkbox"/> Major Modification of construction permit |
| <input type="checkbox"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments                       | <input type="checkbox"/> Minor Modification of construction permit |
| <input type="checkbox"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments using Tribal Priority | <input type="checkbox"/> Major Amendment to pending application    |
|  | <input type="checkbox"/> Minor Amendment to pending application    |
| <input type="checkbox"/> Major Change in licensed facility   |  |
| <input type="checkbox"/> Minor Change in licensed facility   |  |

a. File number of original construction permit: \_\_\_\_\_

☐ N/A

b. Service Type: ☐ AM ☐ FM ☐ TV ☐ DTV ☐ DTS

c. DTV Type: ☐ Pre-Transition ☐ Post-Transition ☐ Both

d. Community of License:

City	State
------	-------

e. Facility Type: ☐ Main ☐ Auxiliary

If an amendment, submit as an Exhibit a listing by Section and Question Number of the portions of the pending application that are being revised.

Exhibit No.

**NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.**

**Section II - Legal**

1. **Certification.** Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets. ☐ Yes ☐ No

2. **Parties to the Application.**

a. List the applicant, and, if other than a natural person, its officers, directors, stockholders and other entities with attributable interests, non-insulated partners and/or members. If a corporation or partnership holds an attributable interest in the applicant, list separately its officers, directors, stockholders and other entities with attributable interests, non-insulated partners and/or members. Create a separate row for each individual or entity. Attach additional pages if necessary.

(1) Name and address of the applicant and each party to the application holding an attributable interest (if other than individual also show name, address and citizenship of natural person authorized to vote the stock or holding the attributable interest). List the applicant first, officers next, then directors and, thereafter, remaining stockholders and other entities with attributable interests, and partners.

(2) Citizenship.

(3) Positional Interest: Officer, director, general partner, limited partner, LLC member, investor/creditor attributable under the Commission's **equity/debt plus** standard, etc.

(4) Percentage of votes.

(5) Percentage of total assets (equity plus debt).

(1)	(2)	(3)	(4)	(5)

b. Applicant certifies that equity and financial interests not set forth above are non-attributable.

☐ Yes ☐ No

See Explanation  
in Exhibit No.

☐ N/A

3. **Other Authorizations.** List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest.

Exhibit No.

☐ N/A

4. **Multiple Ownership.**

a. Is the applicant or any party to the application the holder of an attributable radio joint sales agreement or an attributable radio or television time brokerage agreement in the same market as the station subject to this application?

☐ Yes ☐ No

If "YES," radio applicants must submit as an Exhibit a copy of each such agreement for radio stations.

Exhibit No.

## Section II - Legal

- b. Applicant certifies that the proposed facility complies with the Commission's multiple ownership rules.

☐ Yes ☐ No

Radio applicants only: If "Yes," submit an Exhibit providing information regarding the market, broadcast station(s), and other information necessary to demonstrate compliance with 47 C.F.R. Section 73.3555(a).

See Explanation  
in Exhibit No.

All Applicants: If "No," submit as an Exhibit a detailed explanation in support of an exemption from, or waiver of, 47 C.F.R. Section 73.3555.

- c. Applicant certifies that the proposed facility:

☐ Yes ☐ No

- (1) does not present an issue under the Commission's policies relating to media interests of immediate family members;
- (2) complies with the Commission's policies relating to future ownership interests; and
- (3) complies with the Commission's restrictions relating to the insulation and non-participation of non-party investors and creditors.

See Explanation  
in Exhibit No.

- d. Does the Applicant claim status as an "eligible entity," that is, an entity that qualifies as a small business under the Small Business Administration's size standards for its industry grouping (as set forth in 13 C.F.R. Section 121.201), and holds:

☐ Yes ☐ No

- (1) 30 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will own the media outlet; or
- (2) 15 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will own the media outlet, provided that no other person or entity owns or controls more than 25 percent of the outstanding stock or partnership interests; or
- (3) more than 50 percent of the voting power of the corporation that will own the media outlet (if such corporation is a publicly traded company)?

See Explanation  
in Exhibit No.

All applicants: If "Yes," submit as an Exhibit a detailed showing demonstrating proof of status as an eligible entity.

5. **Character Issues.** Applicant certifies that neither applicant nor any party to the application

☐ Yes ☐ No

- a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or
- b. any pending broadcast application in which character issues have been raised.

See Explanation  
in Exhibit No.

6. **Adverse Findings.** Applicant certifies that, with respect to the applicant and any party to the application, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination.

☐ Yes ☐ No

See Explanation  
in Exhibit No.

7. **Alien Ownership and Control.** Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.

☐ Yes ☐ No

See Explanation  
in Exhibit No.

8. **Program Service Certification.** Applicant certifies that it is cognizant of and will comply with its obligations as a Commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.

☐ Yes ☐ No

9. **Local Public Notice.** Applicant certifies that it has or will comply with the public notice requirements of 47 C.F.R. Section 73.3580.

☐ Yes ☐ No

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.

☐ Yes ☐ No ☐ N/A

Exhibit No.

**An exhibit is required unless** this question is inapplicable.

11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

☐ Yes ☐ No

12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.

☐ Yes ☐ No ☐ N/A

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

☐ Yes ☐ No ☐ N/A

14. **Tribal Priority - Threshold Qualifications.** Is the Applicant applying for an FM allotment set forth in a Public Notice announcing a Tribal Threshold Qualifications window? An Applicant answering "Yes" must provide an Exhibit demonstrating that it would have been qualified to add the allotment for which it is applying using the Tribal Priority.

☐ Yes ☐ No

Exhibit No.

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. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS 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).

### SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name	Relationship to Applicant (e.g., Consulting Engineer)	
Signature	Date	
Mailing Address		
City	State or Country (if foreign address)	ZIP Code
Telephone Number (include area code)	E-Mail Address (if available)	

WILLFUL FALSE STATEMENTS 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).

SECTION III - A AM Engineering

TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Frequency:      kHz

2. Class:      ☐ A      ☐ B      ☐ C      ☐ D

3. Hours of Operation:      ☐ Unlimited      ☐ Limited      ☐ Daytime      ☐ Share Time      ☐ Specified Hours:

4. Daytime Operation:      ☐ Yes      ☐ No

a. Power:      kW

b. Antenna Location Coordinates: (NAD 27)

°

'

"

☐ N      ☐ S Latitude

°

'

"

☐ E      ☐ W Longitude

c. Nondirectional:      ☐ Yes      ☐ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical      mV/m per kW at 1 km

Tower	
Overall height above ground (include obstruction lighting) (meters)	
Antenna structure registration	<div><div>Number</div><div><input type="checkbox"/> Notification filed with FAA</div><div><input type="checkbox"/> Not applicable</div></div>
Height of radiator above base insulator, or above base, if grounded (meters)	
Electrical height of radiator (degrees)	
Top-Loaded/Sectionalized apparent height (degrees)	
A	
B	
C	
D	

# TECH BOX - DAYTIME OPERATION

## d. Directional:

☐ Yes ☐ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical \_\_\_\_\_ mV/m at 1 km

Standard RMS: \_\_\_\_\_ mV/m at 1 km

Towers	1	2	3	4
Overall height above ground (include obstruction lighting) (meters)				
Antenna structure registration	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable	<div>Number</div> <input type="checkbox"/> Notification filed with FAA <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)				
Electrical height of radiator (degrees)				
Field ratio				
Phase (degrees)				
Spacing (degrees)				
Tower orientation (degrees)				
Tower reference switch				
Top-Loaded/Sectionalized apparent height (degrees)				
A				
B				
C				
D				

Augmented:

☐ Yes ☐ No

If "Yes," complete the following:

Augmented RMS: \_\_\_\_\_ mV/m at 1 km

Azimuth

Span

Augmentation radiation  
(mV/m at 1 km)


# TECH BOX - NIGHTTIME OPERATION

## 5. Nighttime Operation:

☐ Yes ☐ No

a. Power: \_\_\_\_\_ kW

b. Antenna Location Coordinates: (NAD 27)

\_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ N ☐ S Latitude  
 \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ E ☐ W Longitude

c. Nondirectional:

☐ Yes ☐ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical \_\_\_\_\_ mV/m per kW at 1 km

Tower	
Overall height above ground (include obstruction lighting) (meters)	
Antenna structure registration	<div style="text-align: center;">_____</div> <div> <input type="checkbox"/> Number            Notification filed with            FAA         </div> <div> <input type="checkbox"/> Not applicable         </div>
Height of radiator above base insulator, or above base, if grounded (meters)	
Electrical height of radiator (degrees)	
Top-Loaded/Sectionalized apparent height (degrees)	
A	
B	
C	
D	



# TECH BOX - NIGHTTIME OPERATION

## d. Directional:

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

☐ Yes ☐ No

Exhibit No.

Theoretical  mV/m at 1 km

Standard RMS:  mV/m at 1 km

Towers	1	2	3	4
Overall height above ground (include obstruction lighting) (meters)				
Antenna structure registration	<div style="border-bottom: 1px solid black; text-align: center;">Number</div> <input type="checkbox"/> Notification filed with FAA  <input type="checkbox"/> Not applicable	<div style="border-bottom: 1px solid black; text-align: center;">Number</div> <input type="checkbox"/> Notification filed with FAA  <input type="checkbox"/> Not applicable	<div style="border-bottom: 1px solid black; text-align: center;">Number</div> <input type="checkbox"/> Notification filed with FAA  <input type="checkbox"/> Not applicable	<div style="border-bottom: 1px solid black; text-align: center;">Number</div> <input type="checkbox"/> Notification filed with FAA  <input type="checkbox"/> Not applicable
Height of radiator above base insulator, or above base, if grounded (meters)				
Electrical height of radiator (degrees)				
Field ratio				
Phase (degrees)				
Spacing (degrees)				
Tower orientation (degrees)				
Tower reference switch				
Top-Loaded/Sectionalized apparent height (degrees)				
A				
B				
C				
D				

## Augmented:

☐ Yes ☐ No

If "Yes," complete the following:

Augmented RMS:  mV/m at 1 km

Azimuth  Span  Augmentation radiation


## TECH BOX - CRITICAL HOURS OPERATION

6. Critical Hours Operation:

☐ Yes ☐ No

a. Power: \_\_\_\_\_ kW

b. Antenna Location Coordinates: (NAD 27)

\_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ N ☐ S Latitude  
 \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ E ☐ W Longitude

c. Nondirectional:

☐ Yes ☐ No

If "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical \_\_\_\_\_ mV/m per kW at 1 km

Tower	
Overall height above ground (include obstruction lighting) (meters)	
Antenna structure registration	<p>_____ Number</p> <p><input type="checkbox"/> Notification filed with FAA</p> <p><input type="checkbox"/> Not applicable</p>
Height of radiator above base insulator, or above base, if grounded (meters)	
Electrical height of radiator (degrees)	
Top-Loaded/Sectionalized apparent height (meters)	
A	
B	
C	
D	

# TECH BOX - CRITICAL HOURS OPERATION

## d. Directional:

☐ Yes ☐ No

if "Yes," complete the following items. If additional space is needed, please provide the information requested below in an Exhibit.

Exhibit No.

Theoretical  mV/m at 1 km

Standard RMS:  mV/m at 1 km

Towers	1	2	3	4
Overall height above ground (include obstruction lighting) (meters)				
Antenna structure registration	<div style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></div> <div style="display: flex; justify-content: space-between;"> <div><input type="checkbox"/> Notification filed with FAA</div> <div><input type="checkbox"/> Not applicable</div> </div>	<div style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></div> <div style="display: flex; justify-content: space-between;"> <div><input type="checkbox"/> Notification filed with FAA</div> <div><input type="checkbox"/> Not applicable</div> </div>	<div style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></div> <div style="display: flex; justify-content: space-between;"> <div><input type="checkbox"/> Notification filed with FAA</div> <div><input type="checkbox"/> Not applicable</div> </div>	<div style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></div> <div style="display: flex; justify-content: space-between;"> <div><input type="checkbox"/> Notification filed with FAA</div> <div><input type="checkbox"/> Not applicable</div> </div>
Height of radiator above base insulator, or above base, if grounded (meters)				
Electrical height of radiator (degrees)				
Field ratio				
Phase (degrees)				
Spacing (degrees)				
Tower orientation (degrees)				
Tower reference switch				
Top-Loaded/Sectionalized apparent height (degrees)				
A				
B				
C				
D				

## Augmented:

☐ Yes ☐ No

If "Yes," complete the following:

Augmented RMS:  mV/m at 1 km

Azimuth

Span

Augmentation radiation


**NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.**

### CERTIFICATION

7. **Broadcast Facility.** The proposed facility complies with the engineering standards and assignment requirements of 47 C.F.R. Sections 73.24(e), 73.24(g), 73.33, 73.45, 73.150, 73.152, 73.160, 73.182(a)-(i), 73.186, 73.189, 73.1650. **Exhibit Required.**
- ☐ Yes ☐ No See Explanation in Exhibit No.
- Exhibit No.
8. **Community Coverage.** The proposed facility complies with community coverage requirements of 47 C.F.R. Section 73.24(i).
- ☐ Yes ☐ No See Explanation in Exhibit No.
9. **Main Studio Location.** The proposed main studio location complies with requirements of 47 C.F.R. Section 73.1125.
- ☐ Yes ☐ No See Explanation in Exhibit No.
10. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all those that apply. An exhibit is required for each applicable section.
- Groundwave.**
- a. ☐ 47 C.F.R. Section 73.37
- Skywave.**
- b. ☐ 47 C.F.R. Section 73.182.
- Critical Hours.**
- c. ☐ 47 C.F.R. Section 73.187.
11. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radio frequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an **Exhibit is required.**
- ☐ Yes ☐ No See Explanation in Exhibit No.
- By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.
12. **Community of License Change - Section 307(b).** If the application is being submitted to change the facility's community of license, then the applicant certifies that it has attached an exhibit containing information demonstrating that the proposed community of license change constitutes a preferential arrangement of assignments under Section 307(b) of the Communications Act of 1934, as amended (47 U.S.C. Section 307(b)).
- ☐ Yes ☐ No ☐ N/A
- Exhibit No.
- An exhibit is required unless this question is not applicable.**
13. **Dispositive Section 307(b) Preference**
- a. Was the AM facility that is the subject of this application awarded on the basis of a dispositive Section 307(b) preference?
- ☐ Yes ☐ No
- b. If yes to 13(a), applicant certifies that: (i) the community of license proposed in the subject application is the same as that on which the Section 307(b) preference was based, or (ii) as shown in the attached Exhibit, the service area proposed in the subject application is substantially equivalent to the service area on which the Section 307(b) preference was based.
- ☐ Yes ☐ No ☐ N/A
- Exhibit No.
- c. If yes to 13(a) and no to 13(b), applicant certifies that, although in the subject application it proposes to: (i) change the community of license, or (ii) modify service to the area on which the Section 307(b) preference was based, it has for a period of four years of on-air operations: (1) served the community of license, or (2) provided full service to the area on which the Section 307(b) preference was based.
- ☐ Yes ☐ No
- Exhibit No.

This application complies with the FCC's multiple ownership rules because Red Wolf Broadcasting will own two AM stations (WACM and WSPR) in a 27 station market.

# FCC Geographic Market Definition for Springfield, MA

Call Letters	AM/FM	Freq	Type Station	Format	Home Market	Market Designtn Date	Home Mkt Rank	Owner	City & State of License	County of License
WACE	AM	730	C	Religion	Springfield, MA	07/02/2003	102	Holy Family Communications	Chicopee, MA	Hampden
WACM	AM	1270	C	Oldies	Springfield, MA	07/02/2003	102	Red Wolf Broadcasting Corporation	Springfield, MA	Hampden
WAIC	FM	91.9	NC	News/Talk	Springfield, MA	07/02/2003	102	American International College	Springfield, MA	Hampden
WAMH	FM	89.3	NC	Nws/Tlk/Cls	Springfield, MA	07/02/2003	102	Amherst College	Amherst, MA	Hampshire
WAQY	FM	102.1	C	Clsc Rock	Springfield, MA	07/02/2003	102	Saga Communications Inc	Springfield, MA	Hampden
WARE	AM	1250	C	Clsc Hits	Springfield, MA	07/02/2003	102	Success Signal Broadcasting Inc	Ware, MA	Hampshire
WCCH	FM	103.5	NC	Variety	Springfield, MA	07/02/2003	102	Holyoke Community College	Holyoke, MA	Hampden
WEIB	FM	106.3	C	Smooth	Springfield, MA	07/02/2003	102	Cutting Edge Broadcasting Inc	Northampton, MA	Hampshire
WFCR	FM	88.5	NC	Nws/Tlk/Cls	Springfield, MA	07/02/2003	102	University of Massachusetts	Amherst, MA	Hampshire
WHLL	AM	1450	C	Country	Springfield, MA	07/02/2003	102	Audacy	Springfield, MA	Hampden
WHMP	AM	1400	C	Nws/Tlk/Inf	Springfield, MA	07/02/2003	102	Saga Communications Inc	Northampton, MA	Hampshire
WHYN	FM	93.1	C	Hot AC	Springfield, MA	07/02/2003	102	iHeartMedia Inc	Springfield, MA	Hampden
WHYN	AM	560	C	News/Talk	Springfield, MA	07/02/2003	102	iHeartMedia Inc	Springfield, MA	Hampden
WLZX	FM	99.3	C	Rock	Springfield, MA	07/02/2003	102	Saga Communications Inc	Northampton, MA	Hampshire
WLZX	AM	1600	C	Rock	Springfield, MA	07/02/2003	102	Saga Communications Inc	East Longmeadow, MA	Hampden
WMAS	FM	94.7	C	AC	Springfield, MA	05/11/2012	102	Audacy	Enfield, CT	Hartford
WMHC	FM	91.5	NC	Variety	Springfield, MA	07/02/2003	102	Mt Holyoke College	South Hadley, MA	Hampshire
WMUA	FM	91.1	NC	Eclectic	Springfield, MA	07/02/2003	102	University of Massachusetts	Amherst, MA	Hampshire
WNNZ	AM	640	NC	Nws/Tlk/Cls	Springfield, MA	07/02/2003	102	WGBH Educational Foundation	Westfield, MA	Hampden
WOZQ	FM	91.9	NC	Variety	Springfield, MA	07/02/2003	102	Smith College	Northampton, MA	Hampshire
WRNX	FM	100.9	C	Country	Springfield, MA	07/02/2003	102	iHeartMedia Inc	Amherst, MA	Hampshire
WSCB	FM	89.9	NC	Variety	Springfield, MA	07/02/2003	102	Springfield College President & Trustees	Springfield, MA	Hampden
WSKB	FM	89.5	NC	Variety	Springfield, MA	07/02/2003	102	Trustees Westfield State	Westfield, MA	Hampden
WSPR	AM	1490	C	Tropical	Springfield, MA	07/02/2003	102	Red Wolf Broadcasting Corporation	West Springfield, MA	Hampden
WTCC	FM	90.7	NC	Variety	Springfield, MA	07/02/2003	102	Springfield Tech Community College	Springfield, MA	Hampden
WWEI	FM	105.5	C	Sports	Springfield, MA	07/02/2003	102	Audacy	Easthampton, MA	Hampshire
WWQZ	FM	89.5	NC	DARK	Springfield, MA	02/09/2012	102	Power Foundation	Baptist Village, MA	Hampden

Number of Stations in Geographic Market 27

## Previous Stations in Geographic Market

WPVQ	FM	95.3	C	Country		01/26/2005	0	Saga Communications Inc	Greenfield, MA	Franklin
WRSI	FM	93.9	C	AAA		07/28/2022	0	Saga Communications Inc	Turners Falls, MA	Franklin
WUCS	FM	97.9	C	Sports	Hartford-New Britain-Middletown, CT	02/20/2012	54	iHeartMedia Inc	Windsor Locks, CT	Hartford

"C" - Commercial Station; "NC" - Non Commercial Station

"p" indicates pending sale to owner listed

## FCC Geographic Market Definition for Springfield, MA

Call Letters	AM/ FM	Freq	Type Station	Format	Home Market	Market Designtn Date	Home Mkt Rank	Owner	City & State of License	County of License
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## TECHNICAL SUMMARY

RADIO STATION WACM  
(FCC FACILITY ID 18717)  
SPRINGFIELD, MASSACHUSETTS  
1270 KHZ, 0.8 KW-D, 0.18 KW-N, U

1. WACM is licensed for operation at Springfield, MA, at a frequency of 1270 kHz with a daytime power of 5 kW and a nighttime power of 1 kW using a directional antenna pattern during daytime and nighttime hours.\*
2. The instant application is to relocate the WACM transmitter site to diplex on the existing WSPR (1490 kHz) non-directional antenna tower.† This represents a transmitter site move of 2.36 km (1.47 mile) west-northwest of the licensed site.
3. The WSPR tower is identified with FCC antenna structure registration number 1058191.‡ There is no change in the height or location of the existing WSPR tower proposed.
4. As demonstrated herein, the proposed WACM daytime facility meets the 5-mV/m contour coverage requirements of its city of license of Springfield, MA. The daytime 5 mV/m contour of the proposed facility encompasses a population of 102,894 persons, which is 66% of the total population of Springfield of 155,929. Therefore, the proposed facility is compliant with the minimum 50% coverage requirement of Section 74.24(i) of the FCC Rules.
5. As demonstrated in the daytime allocation study exhibits, the facility complies with the daytime allocation requirements of Sections 73.37 and 73.182 of the FCC Rules.
6. The ground system for the proposed facility will consist of 120 equally spaced, buried, copper radials averaging 50.3 meters in length, about the base of the tower, except where terminated by property boundaries.§ The existing series-fed base-insulated transmitting antenna tower is to be employed with no changes. The tower has an element height of 120.1 m (electrical length of 183.2° at 1270 kHz). The antenna efficiency is calculated to be 376.01 mV/m at 1 km for 1 kW power based on FCC's

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\* See FCC File No. BL-8346.

† See FCC File No. BL-19900207AB, Facility ID 60390.

‡ See FCC Antenna Structure Registration database listing with this exhibit.

§ Electrical length of 76.7° at 1270 kHz. See licensed document for WSPR (1490 kHz) included with this exhibit.



Figure 8 antenna efficiency calculation tool taking into consideration the less than standard existing ground system for the facility at 1270 kHz.

7. The proposed WACM 0.18 kW nighttime non-directional facility meets the protection requirements with respect to all other domestic and international protected stations as indicated in the Nighttime Allocation Study exhibit.

8. There are no other AM broadcast stations within close enough proximity to the proposed tower site to trigger possible AM antenna disturbance consideration under Section 1.30000 of the FCC Rules. Other than WSPR and WACM, this evaluation considered possible effects on WACE (730 kHz) and WHLL (1450 kHz), which were found to be too far away under the FCC's evaluation criteria.

9. The proposed facility is compliant with Section 73.1030(c) of the FCC Rules concerning the protection of the closest FCC Monitoring Station at Belfast, ME, which is located 388 km away.

**FCC ANTENNA STRUCTURE REGISTRATION  
DATABASE INFORMATION**

# Site Study

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



<b>Type:</b> TOWER	<b>Date Received:</b> 02/05/2019	<b>Structure Height (m):</b> 121.0
<b>ASRN:</b> 1058191	<b>Date Entered:</b> 02/05/2019	<b>Structure Height (ft):</b> 397.0
<b>File Number:</b> A1129506	<b>Date Issued:</b> 02/05/2019	<b>Ground Elevation (m):</b> 19.8
	<b>Date Constructed:</b> 06/06/1986	<b>Ground Elevation (ft):</b> 65.0
<b>Record Type:</b> CURRENT	<b>Date Dismantled:</b>	<b>Overall Height AGL (m):</b> 121.9
<b>Content:</b> REGISTRATION	<b>Date Action:</b> 02/05/2019	<b>Overall Height AGL (ft):</b> 399.9
<b>Status:</b> CONSTRUCTED		<b>Overall Height AMSL (m):</b> 141.7
<b>Address:</b> RIVER STREET		<b>Overall Height AMSL (ft):</b> 464.9
<b>City:</b> WEST SPRINGFIELD	<b>State:</b> MA	
<b>NEPA Flag:</b> N		<b>Date FAA Det. Issued:</b> 06/05/1986
<b>Specification Option:</b> FCC PARAGRAPHS		<b>FAA Circular Number:</b>
<b>Painting and Lighting:</b> 1, 3, 12, 21		<b>FAA Study No.:</b> 86-ANE-235-OE
		<b>FAA Emissions Flag:</b> N

**Application Purpose:** OWNERSHIP CHANGE

**Coordinates:**

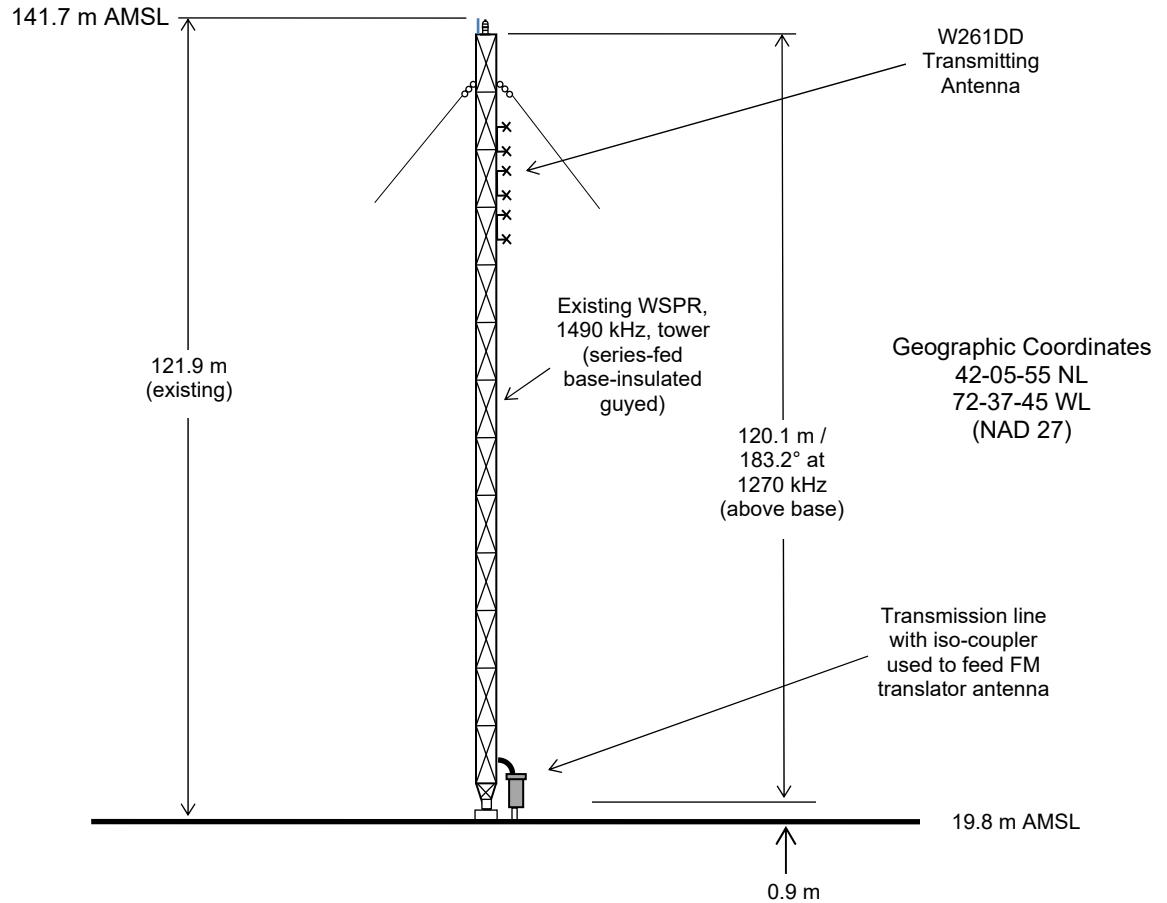
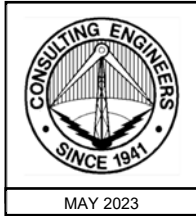
Coordinate Type	Latitude (NAD 27, N)	Longitude (NAD 27, N)	Latitude (NAD 83, N)	Longitude (NAD 83, N)
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TOWER	042-05-54.7	072-37-44.7	42-05-55.0	072-37-43.0
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**Entities:**

<b>Entity Type:</b> OWNER	<b>Entity Name:</b> Red Wolf Broadcasting Corporation
<b>Name:</b>	<b>Attention:</b> John Fuller
<b>Street:</b> 758 Colonel Ledyard Hwy	<b>P.O. Box:</b> 357
<b>City:</b> Ledyard	<b>State:</b> CT <b>Zip:</b> 06339
<b>Licensee ID:</b> L00472894	<b>Phone Number:</b> (860) 883-4292

<b>Entity Type:</b> REPRESENTATIVE	<b>Entity Name:</b> Edinger Associates PLLC
<b>Name:</b>	<b>Attention:</b>
<b>Street:</b> 1725 I Street, NW	<b>P.O. Box:</b>
<b>City:</b> Washington	<b>State:</b> DC <b>Zip:</b> 20006
<b>Licensee ID:</b>	<b>Phone Number:</b> (202) 747-1694



FCC Antenna Structure  
Registration No. 1058191

## TOWER SKETCH

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

LICENSEE:

Carmelina G. Silva

1. Community of License : West Springfield, MA
2. Transmitter location : Center of Island in Westfield River, 358 River Street, West Springfield, MA
- North latitude : 42° 05' 55"  
West longitude : 72° 37' 45"
3. Transmitter(s): Type Accepted. (See Sections 73.1665 and 73.1670 of the Commission's rules)
4. Main Studio location: (See Section 73.1125)
5. Remote control location:
6. Antenna and ground system: Vertical, guyed, series-excited, steel radiator of uniform cross-section 120.09 m (214.9°) in height (121.01 m overall). Theoretical efficiency: 434.5 mV/m/kw at 1 km. Ground system consists of 120 equally spaced buried, copper radials 50.32 m (90°) in length.
7. Obstruction marking and lighting specifications - FCC Form 715, paragraphs: 1, 3, 12 and 21.
8. Frequency : 1490 kHz
9. Nominal power (kW) : 0.47 Day 0.47 Night
- Antenna input power (kW):
- 0.47 Day ☒ Non-directional antenna: current 3.29 amperes; resistance 43.5 ohms  
☐ Directional antenna
- 0.47 Night ☒ Non-directional antenna: current 3.29 amperes; resistance 43.5 ohms  
☐ Directional antenna
10. Hours of operation: Specified in BP-900119AG
11. Conditions : Licensee shall accept such interference as may be imposed by other existing 250 watts Class IV stations in the event they are subsequently authorized to increase power to 1, 000 watts.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts, Treaties, and Commission rules made thereunder, and further subject to conditions set forth in this license,<sup>1</sup> the LICENSEE is hereby authorized to use and operate the radio transmitting apparatus herein described for the purpose of broadcasting for the term ending 3 A.M. Local Time

April 1, 1991

The Commission reserves the right during said license period of terminating this license or making effective any change, or modification of license which may be necessary to comply with any decision of the Commission rendered as a result of any hearing held under the rules of the Commission prior to the commencement of this license period or any decision rendered as a result of any such hearing which has been designed but not held, prior to the commencement of this license period.

The license is issued on the licensee's representation that the statements contained in the licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of the license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges he is conferred.

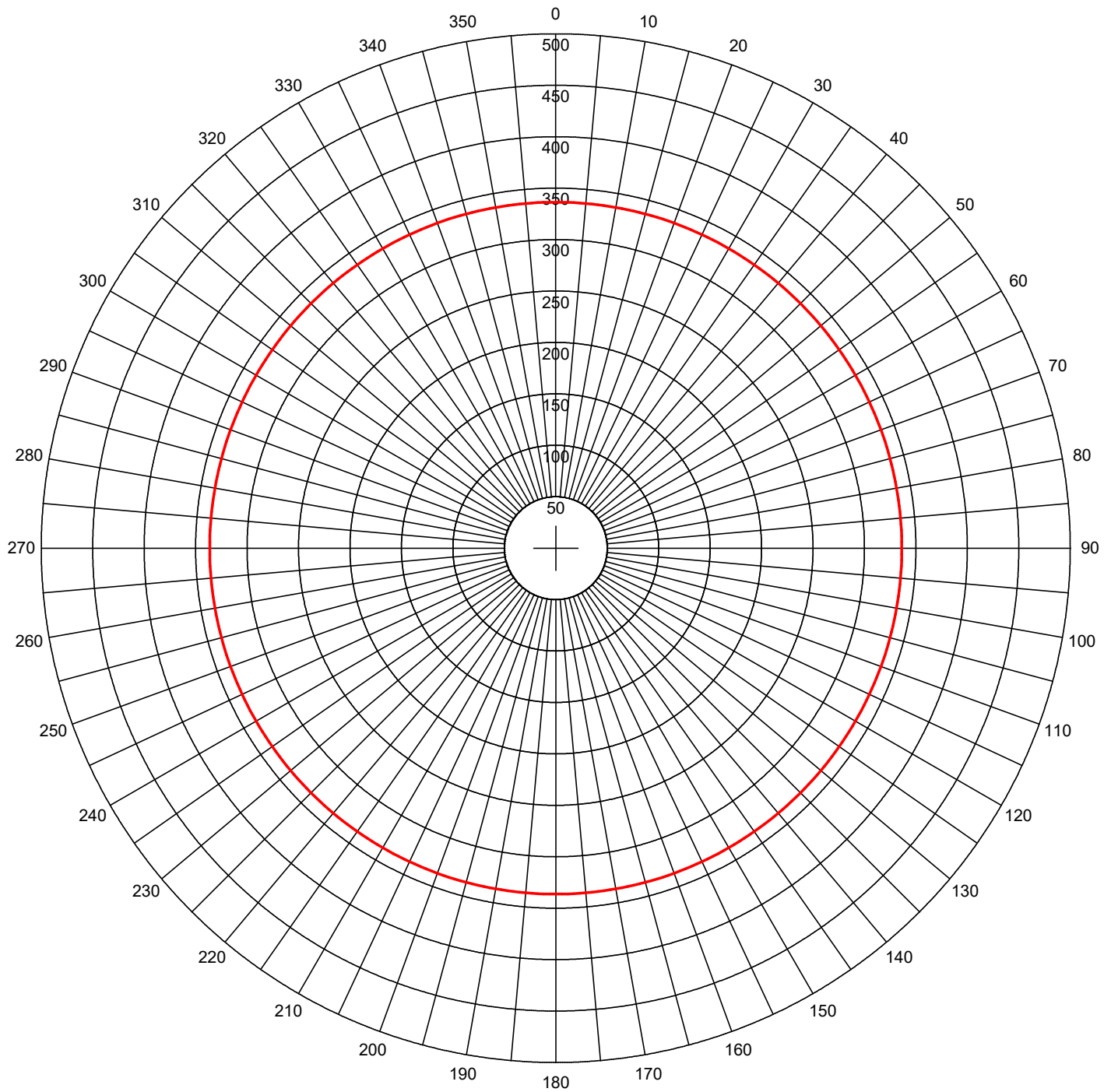
This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned, otherwise transferred in violation of the Communications Act of 1934, as amended. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934, as amended.

<sup>1</sup> This license consists of this page and pages



APR 3 1991

## Daytime Azimuth Pattern



Erss = 336.32 mV/m@1km  
 Theo RMS: 336.317 mV/m@1km

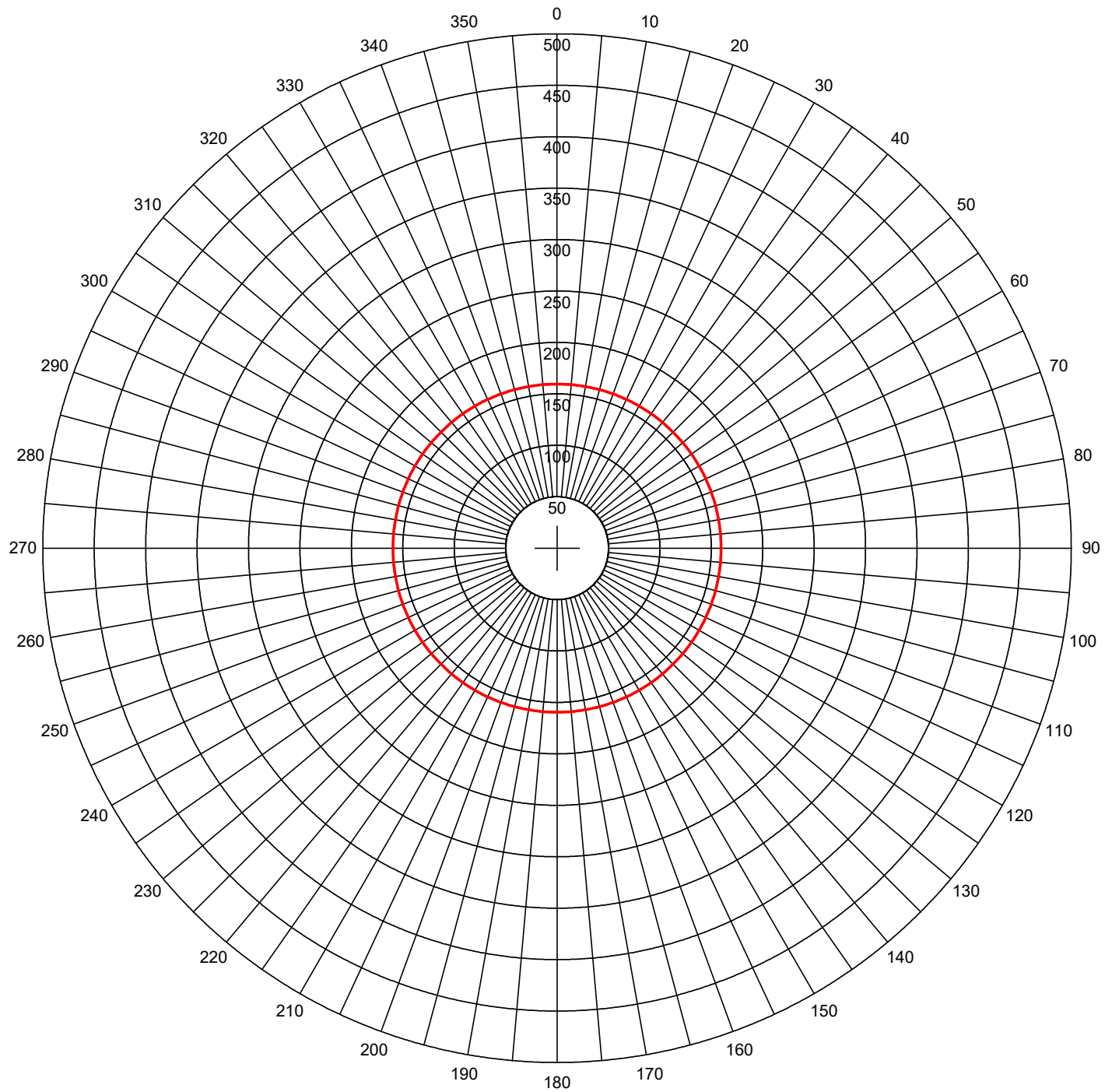
Theoretical Horizontal Plane Pattern

— Pattern (mV/m @ 1km)  
 — Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	183.2	0	0	0.0	0.0	0.0	0.0

Call: WACM\_dp1  
 Freq: 1270 kHz  
 SPRINGFIELD, MA, US  
 Hours: D  
 Lat: 42-05-55 N [NAD27]  
 Lng: 072-37-45 W  
 Power: 0.8 kW  
 Theo RMS: 376.01 mV/m@1km  
 Radials: 120 @ 76.7°

## Nighttime Azimuth Pattern



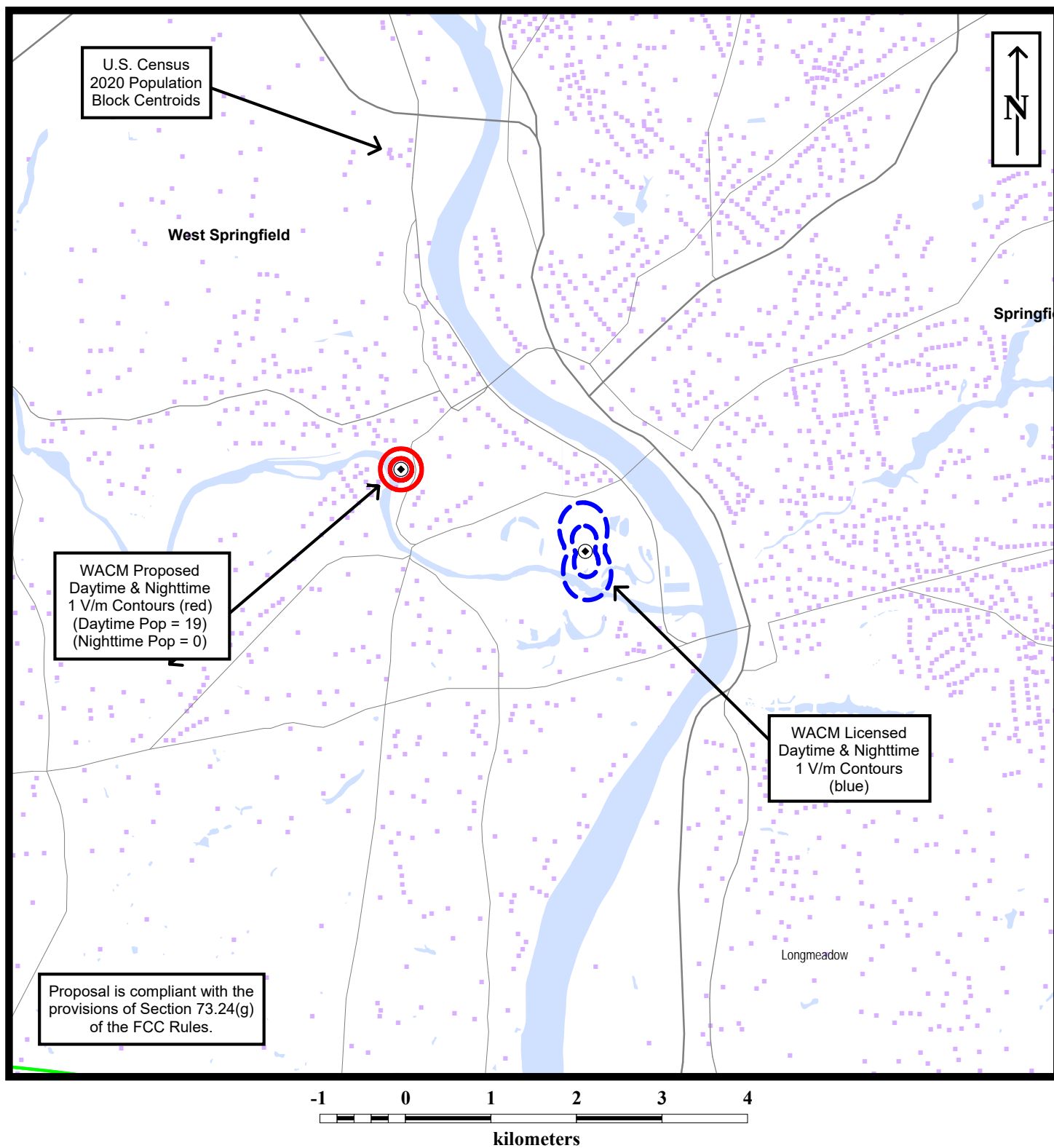
Erss = 159.53 mV/m@1km  
Theo RMS: 159.529 mV/m@1km

Theoretical Horizontal Plane Pattern

— Pattern (mV/m @ 1km)  
— Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	183.2	0	0	0.0	0.0	0.0	0.0

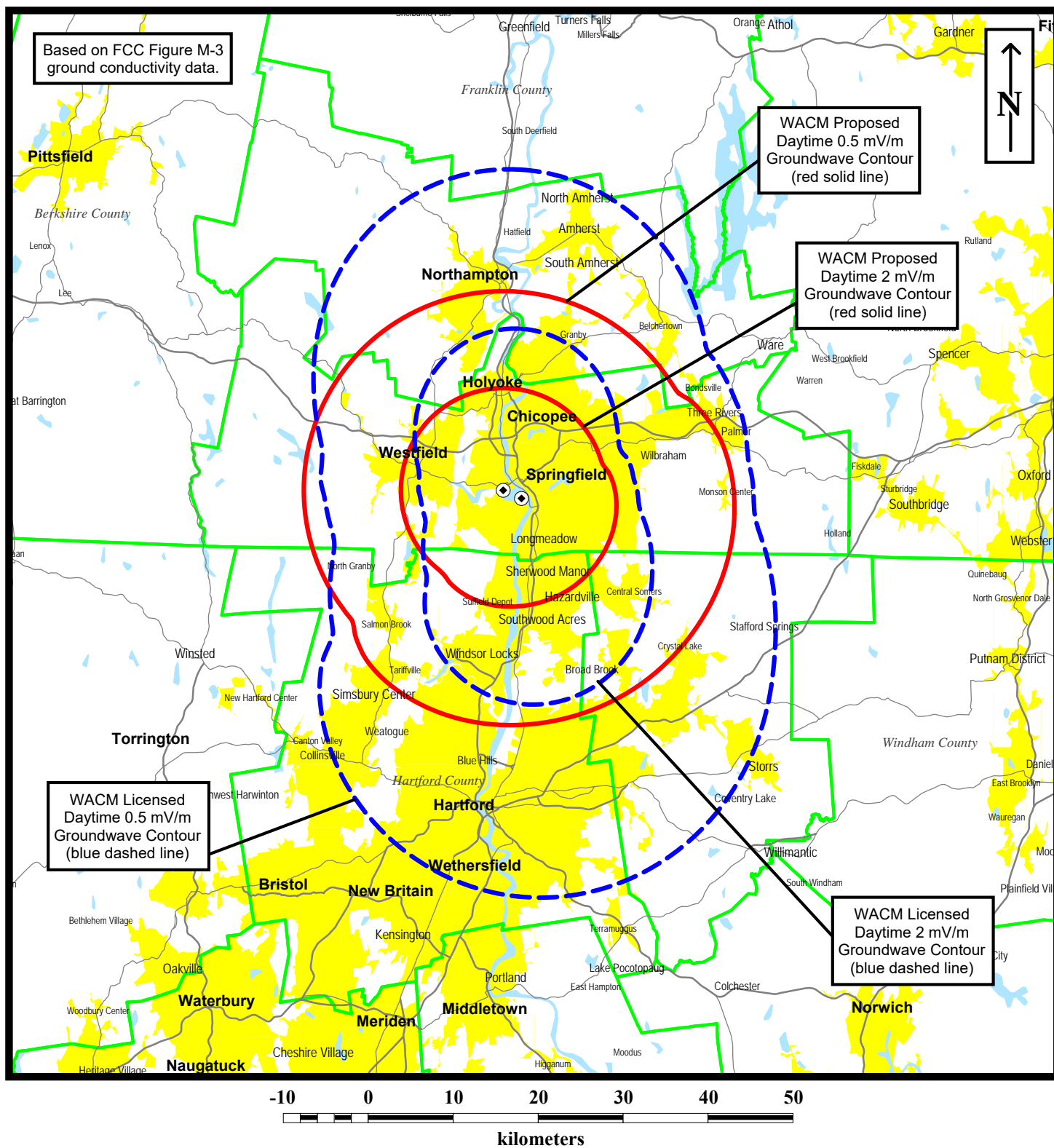
Call: WACM\_n\_p1  
Freq: 1270 kHz  
SPRINGFIELD, MA, US  
Hours: N  
Lat: 42-05-55 N [NAD27]  
Lng: 072-37-45 W  
Power: 0.18 kW  
Theo RMS: 376.01 mV/m@1km  
Radials: 120 @ 76.7°



## PREDICTED 1 V/M CONTOUR MAP

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

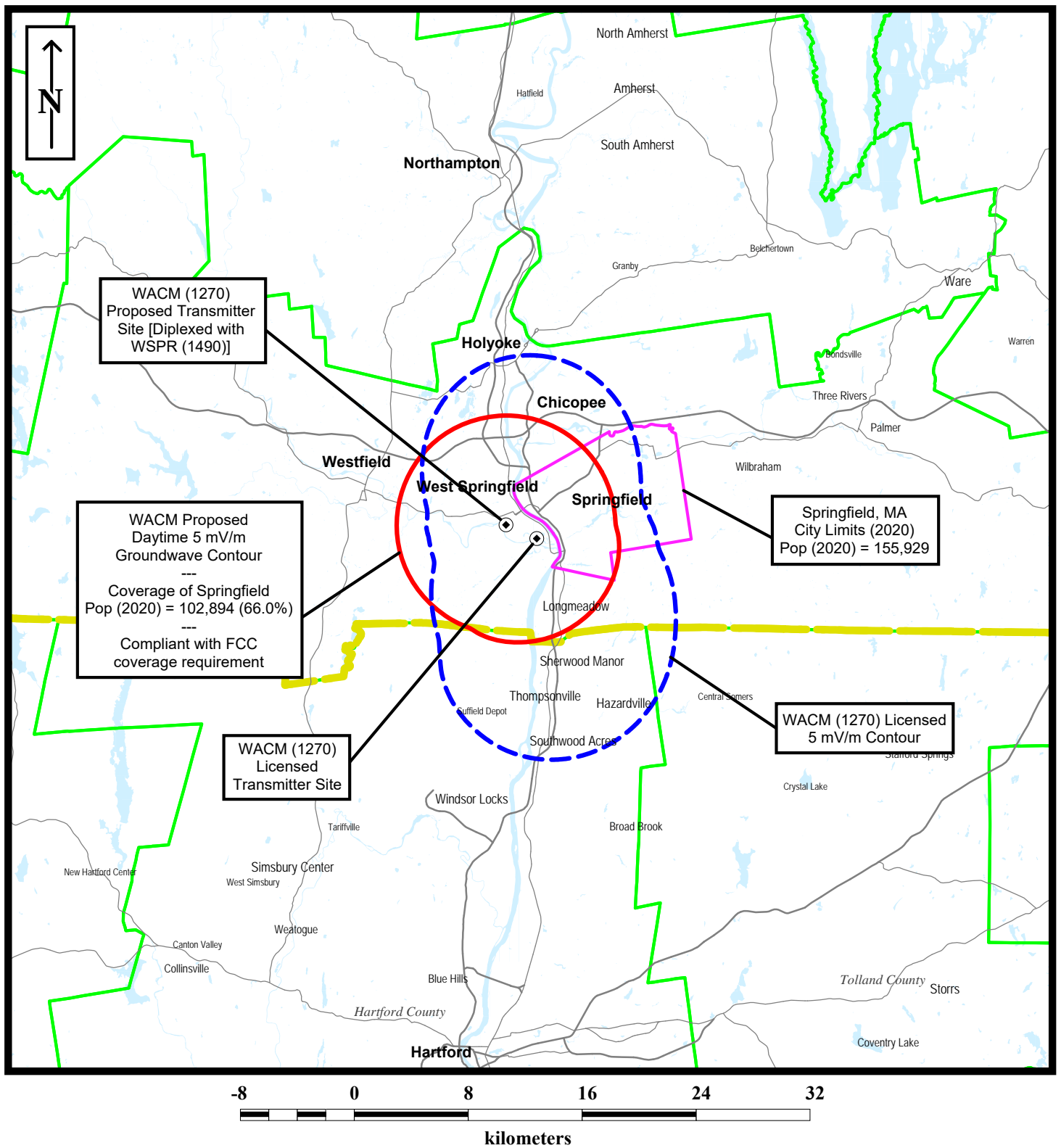




## PREDICTED LICENSED AND PROPOSED DAYTIME GROUNDWAVE CONTOURS

duTreil, Lundin & Rackley, Inc. Sarasota, Florida





## PREDICTED DAYTIME 5 mV/m GROUNDWAVE CONTOUR MAP

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

## AM Daytime Study

Reference Station:

Call: WACM_d_p1	Freq: 1270 kHz	SPRINGFIELD, MA, US
Lat: 42-05-55 N	Power: 0.8 kW	
Lng: 072-37-45 W	Theo RMS: 376.01 mV/m @ 1km	

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	183.2	0	0	0.0	0.0	0.0	0.0

Call	Freq	City	ST	Dist	Azi	In	Out
WARE	1250	WARE	MA	38.4	65.1	13.51	13.51
WNWW	1290	WEST HARTFO	CT	36.3	202.5	19.93	19.93
WPKZ	1280	FITCHBURG	MA	85.4	50.1	27.26	27.80
WDLA	1270	WALTON	NY	202.7	270.4	0.25	32.87 /1/
WBNR	1260	BEACON	NY	130.8	238.6	50.79	53.18
WBIX	1260	BOSTON	MA	132.5	82.1	49.15	53.38
WSHU	1260	WESTPORT	CT	124.9	210.2	61.70	60.88
WTSN	1270	DOVER	NH	189.0	51.0	46.66	61.46
WWCO	1240	WATERBURY	CT	68.9	210.8	61.68	61.68
WSHU	1260	WESTPORT	CT	125.1	210.2	76.03	71.27
WKBK	1290	KEENE	NH	97.7	15.7	82.54	82.54
WPVD	1290	PROVIDENCE	RI	101.7	105.7	85.62	85.62
WAVZ	1300	NEW HAVEN	CT	93.9	196.3	86.56	86.56
WOON	1240	WOONSOCKET	RI	94.6	95.9	86.73	86.73
WADO	1280	NEW YORK	NY	185.9	220.1	98.53	99.59
WFJS	1260	TRENTON	NJ	270.8	220.6	212.70	210.15
WLBR	1270	LEBANON	PA	374.6	237.7	167.80	216.03
WMIZ	1270	VINELAND	NJ	354.9	214.8	237.76	228.98
CJTN	1270	TRENTON	ON	457.4	296.5	283.62	306.49

Notes:

/1/ - For cases of existing contour overlap, the area of overlap is displayed excluding ocean water and with existing contour overlap area removed. Therefore, positive numbers in red represent a net decrease in predicted prohibited contour overlap. See Allocation Study map. The proposal does not create any new prohibited contour overlap where such overlap did not previously exist.

# DAYTIME ALLOCATION STUDY MAP

WACM\_d\_p1

Freq: 1270 kHz

Class: B

Latitude: 42-05-55 N

Longitude: 072-37-45 W

Power: 0.8 kW

RMS: 376.014 mV/m @1km

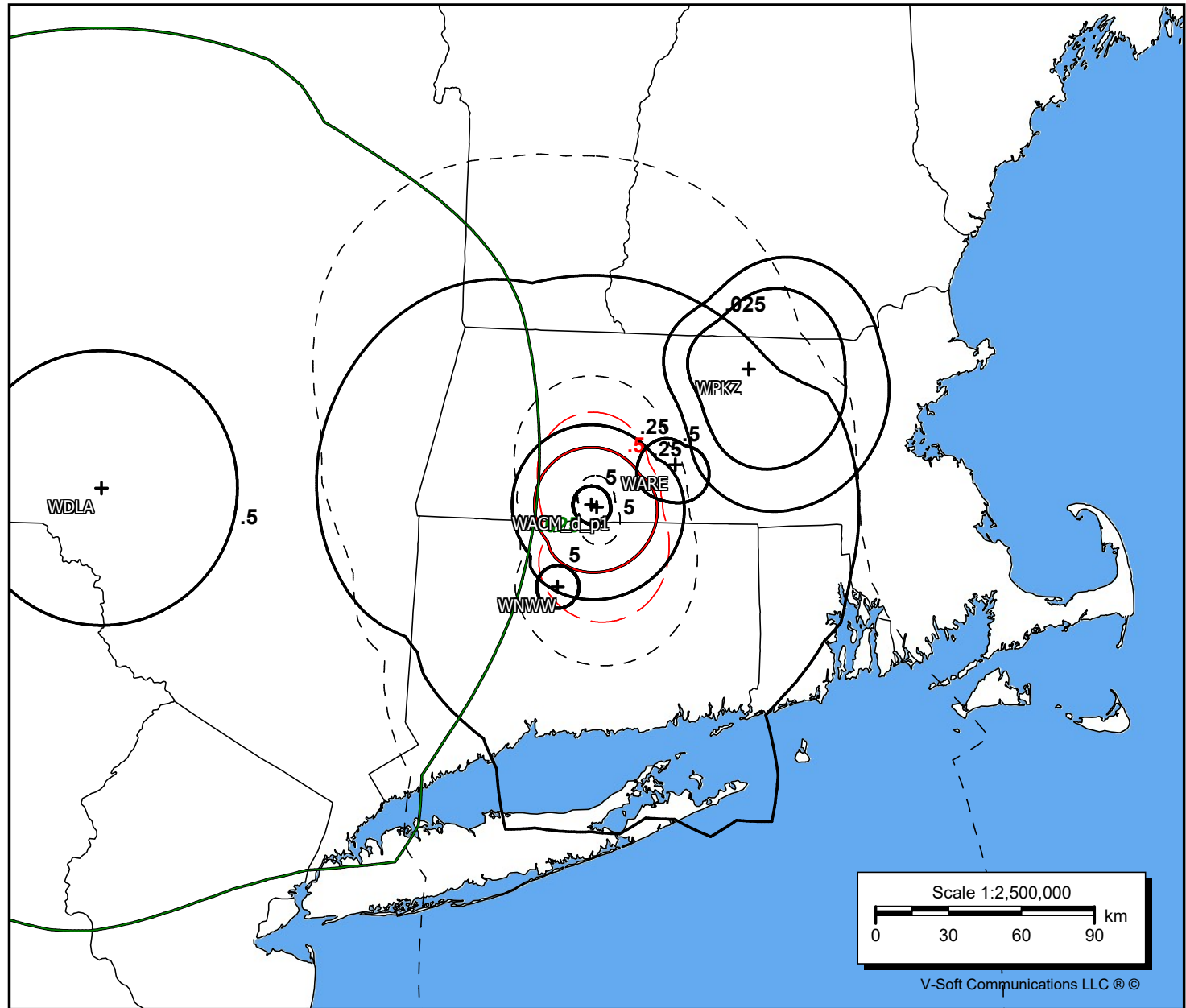
# Towers: 1

# Aucs: 0

— Causes

— Receives

— No Ix



V-Soft Communications LLC ©

# STATIONS CONSIDERED IN DAYTIME ALLOCATION STUDY

Reference Station: WACM\_d\_pl, 1270 kHz

Location: 42-05-55 N, 072-37-45 W

```
*** 1240 kHz (-3) ***
68.9 km WWC0 L 41-33-59 N 073-03-23 W 1.0 kW ND1 - 437.7 mV/m@1km
42.8 mi Azi: 210.8 Class: C Sched: U File #: BL19800129AD
Location: WATERBURY, CT, US
94.6 km WOON L 42-00-58 N 071-29-30 W 1.0 kW ND2 - 306.3 mV/m@1km
58.8 mi Azi: 95.9 Class: C Sched: U File #: BL20050902ACJ
Location: WOONSOCKET, RI, US

*** 1250 kHz (-2) ***
38.4 km WARE L 42-14-43 N 072-12-29 W 5.0 kW DA2 - 720.2 mV/m@1km
23.9 mi Azi: 65.1 Class: B Sched: U File #: BML20021025ABR
Location: WARE, MA, US

*** 1260 kHz (-1) ***
124.9 km WSHU L 41-07-44 N 073-23-20 W 1.0 kW DA2 - 285.8 mV/m@1km
77.6 mi Azi: 210.2 Class: D Sched: U File #: BL14072
Location: WESTPORT, CT, US
125.1 km WSHU A 41-07-41 N 073-23-26 W 0.688 kW ND2 - 187.9 mV/m@1km
77.7 mi Azi: 210.2 Class: D Sched: U File #: BP20220930AAE
Location: WESTPORT, CT, US
130.8 km WBNR L 41-29-32 N 073-58-43 W 1.0 kW DA2 - 304.2 mV/m@1km
81.3 mi Azi: 238.6 Class: B Sched: U File #: BL19890103AD
Location: BEACON, NY, US
132.5 km WBIK L 42-16-28 N 071-02-32 W 5.0 kW DAN - 307.4 mV/m@1km
82.4 mi Azi: 82.1 Class: B Sched: U File #: BL20000929BGG
Location: BOSTON, MA, US
270.8 km WFJS L 40-15-56 N 074-45-27 W 5.9 kW DA2 - 827.6 mV/m@1km
168.3 mi Azi: 220.6 Class: B Sched: U File #: BMML20150925ABT
Location: TRENTON, NJ, US

*** 1270 kHz (CO) ***
189.0 km WTSN L 43-11-01 N 070-51-14 W 5.0 kW DA2 - 669.5 mV/m@1km
117.4 mi Azi: 51.0 Class: B Sched: U File #: BL6294
Location: DOVER, NH, US
202.7 km WDLA L 42-08-10 N 075-04-48 W 5.0 kW ND1 - 309.0 mV/m@1km
126.0 mi Azi: 270.4 Class: D Sched: U File #: BL14358
Location: WALTON, NY, US
354.9 km WMIZ L 39-29-53 N 075-04-31 W 0.36 kW DA1 - 203.5 mV/m@1km
220.6 mi Azi: 214.8 Class: B Sched: U File #: BL19940118AB
Location: VINELAND, NJ, US
374.6 km WLBR L 40-21-35 N 076-27-30 W 5.0 kW DA2 - 665.8 mV/m@1km
232.8 mi Azi: 237.7 Class: B Sched: U File #: BL13279
Location: LEBANON, PA, US
457.4 km CJTN 44-02-41 N 077-34-47 W 1.0 kW DA2 - 289.7 mV/m@1km
284.2 mi Azi: 296.5 Class: B Sched: U File #:
Location: TRENTON, ON, CA

*** 1280 kHz (+1) ***
85.4 km WPKZ L 42-35-40 N 071-50-12 W 5.0 kW DA2 - 716.2 mV/m@1km
53.1 mi Azi: 50.1 Class: B Sched: U File #: BL6908
Location: FITCHBURG, MA, US
185.9 km WADO L 40-49-36 N 074-04-32 W 50.0 kW DA2 - 2087.0 mV/m@1km
115.5 mi Azi: 220.1 Class: B Sched: U File #: BL20000721AAV
Location: NEW YORK, NY, US

*** 1290 kHz (+2) ***
36.3 km WNWW L 41-47-48 N 072-47-50 W 0.49 kW ND2 - 358.5 mV/m@1km
22.6 mi Azi: 202.5 Class: D Sched: U File #: BML20141002ABP
Location: WEST HARTFORD, CT, US
97.7 km WKBK L 42-56-46 N 072-18-33 W 5.0 kW DA1 - 675.9 mV/m@1km
60.7 mi Azi: 15.7 Class: B Sched: U File #: BL20000810ABY
Location: KEENE, NH, US
101.7 km WPVD L 41-51-22.50 N 071-26-44 W 0.4 kW ND2 - 305.6 mV/m@1km
63.2 mi Azi: 105.7 Class: D Sched: U File #: BL20220224AAD
Location: PROVIDENCE, RI, US

*** 1300 kHz (+3) ***
93.9 km WAVZ L 41-17-16 N 072-56-48 W 1.0 kW DAN - 304.2 mV/m@1km
58.3 mi Azi: 196.3 Class: B Sched: U File #: BL11859
Location: NEW HAVEN, CT, US
```

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# TABULATION OF GROUND CONDUCTIVITY USED FOR DAYTIME ALLOCATION STUDY

Latitude: 42-05-55 N  
Longitude: 072-37-45 W

Conductivity Database Used: M3 (USA)

Ground Conductivity Data: Region conductivity in mS/m followed by distance in km to the end of region. E - map data; M - measurement data.										
Azimuth										
0.0	1.0E	170.0	2.0E	323.1	4.0E	388.0	6.0E	463.5	4.0E	500.0
5.0	1.0E	203.6	0.5E	324.8	4.0E	407.6	6.0E	500.0		
10.0	1.0E	211.3	0.5E	329.3	4.0E	454.0	6.0E	500.0		
15.0	1.0E	233.0	0.5E	336.6	4.0E	500.0				
20.0	1.0E	263.5	0.5E	383.0	4.0E	500.0				
25.0	1.0E	500.0								
30.0	1.0E	219.0	2.0E	296.9	1.0E	500.0				
35.0	1.0E	198.5	2.0E	366.3	1.0E	500.0				
40.0	1.0E	188.4	2.0E	470.1	1.0E	500.0				
45.0	1.0E	179.6	2.0E	320.9	5000.0E	322.3	2.0E	474.4	1.0E	500.0
50.0	1.0E	169.4	2.0E	189.5	5000.0E	190.6	2.0E	239.6	5000.0E	290.6
	2.0E	295.1	5000.0E	312.1	2.0E	315.3	5000.0E	319.3	2.0E	332.0
5000.0E	341.6	2.0E	369.6	5000.0E	393.4	2.0E	433.8	5000.0E	434.1	
	2.0E	473.7	1.0E	500.0						
55.0	1.0E	32.0	2.0E	40.5	1.0E	156.0	2.0E	189.7	5000.0E	193.5
	2.0E	194.4	5000.0E	500.0						
60.0	1.0E	23.2	2.0E	61.4	1.0E	141.3	2.0E	169.6	5000.0E	500.0
65.0	1.0E	18.3	2.0E	79.9	1.0E	82.7	2.0E	164.2	5000.0E	500.0
70.0	1.0E	14.8	2.0E	168.8	5000.0E	500.0				
75.0	1.0E	11.8	2.0E	138.4	5000.0E	500.0				
80.0	1.0E	9.9	2.0E	133.7	5000.0E	500.0				
85.0	1.0E	8.5	2.0E	155.7	5000.0E	500.0				
90.0	1.0E	7.6	2.0E	162.7	5000.0E	197.1	2.0E	204.7	5000.0E	500.0
95.0	1.0E	6.8	2.0E	168.2	5000.0E	216.2	2.0E	220.3	5000.0E	500.0
100.0	1.0E	6.3	2.0E	176.6	5000.0E	205.7	2.0E	222.6	5000.0E	500.0
105.0	1.0E	5.8	2.0E	164.0	5000.0E	171.0	2.0E	190.3	5000.0E	500.0
110.0	1.0E	5.5	2.0E	110.6	5000.0E	113.7	2.0E	123.1	5000.0E	127.2
	2.0E	153.0	5000.0E	174.4	2.0E	176.6	5000.0E	500.0		
115.0	1.0E	5.3	2.0E	110.1	5000.0E	130.5	2.0E	142.5	5000.0E	145.2
	2.0E	149.6	5000.0E	500.0						
120.0	1.0E	5.1	2.0E	113.6	5000.0E	500.0				
125.0	1.0E	4.9	2.0E	122.1	5000.0E	500.0				
130.0	1.0E	4.8	2.0E	119.7	5000.0E	500.0				
135.0	1.0E	4.7	2.0E	115.4	5000.0E	500.0				
140.0	1.0E	4.7	2.0E	110.9	5000.0E	500.0				
145.0	1.0E	4.7	2.0E	103.5	5000.0E	500.0				
150.0	1.0E	4.8	2.0E	99.0	5000.0E	500.0				
155.0	1.0E	4.8	2.0E	96.8	5000.0E	127.6	0.5E	131.2	5000.0E	500.0
160.0	1.0E	5.0	2.0E	94.5	5000.0E	128.2	0.5E	133.1	5000.0E	500.0
165.0	1.0E	5.1	2.0E	87.1	5000.0E	108.0	0.5E	111.6	5000.0E	122.8
	0.5E	134.2	5000.0E	500.0						
170.0	1.0E	5.3	2.0E	92.1	5000.0E	111.0	0.5E	115.7	5000.0E	124.3
	0.5E	136.3	5000.0E	500.0						
175.0	1.0E	5.6	2.0E	93.4	5000.0E	117.1	0.5E	123.7	5000.0E	133.8
	0.5E	136.1	5000.0E	500.0						
180.0	1.0E	5.8	2.0E	92.4	5000.0E	124.3	0.5E	130.9	5000.0E	131.1
	0.5E	143.7	5000.0E	500.0						
185.0	1.0E	6.1	2.0E	93.1	5000.0E	125.6	0.5E	147.2	5000.0E	500.0
190.0	1.0E	6.5	2.0E	95.7	5000.0E	127.9	0.5E	152.4	5000.0E	500.0
195.0	1.0E	7.1	2.0E	93.8	5000.0E	130.5	0.5E	158.7	5000.0E	500.0
200.0	1.0E	7.8	2.0E	90.7	1.0E	105.7	5000.0E	141.8	0.5E	166.3
5000.0E	500.0									
205.0	1.0E	8.7	2.0E	76.3	1.0E	114.8	5000.0E	142.5	4.0E	145.7
	0.5E	177.1	5000.0E	500.0						
210.0	1.0E	9.9	2.0E	65.6	1.0E	128.0	5000.0E	151.4	4.0E	163.8
	0.5E	191.8	5000.0E	229.8	4.0E	351.7	5000.0E	351.9	4.0E	402.2
5000.0E	423.9	4.0E	437.9	2.0E	500.0					
215.0	1.0E	11.6	2.0E	57.7	1.0E	152.8	4.0E	155.9	5000.0E	175.9
	4.0E	179.1	5000.0E	179.3	4.0E	187.2	0.5E	202.5	5000.0E	222.3
	4.0E	383.5	5000.0E	410.2	4.0E	468.5	2.0E	500.0		
220.0	1.0E	14.2	2.0E	50.2	1.0E	144.1	4.0E	380.3	5000.0E	387.6
	4.0E	469.2	40.0E	469.9	4.0E	479.1	40.0E	493.2	4.0E	494.2
40.0E	500.0									
225.0	1.0E	18.4	2.0E	42.3	1.0E	134.9	4.0E	389.9	40.0E	420.4
	4.0E	439.8	40.0E	463.8	4.0E	465.2	40.0E	469.2	4.0E	474.7
	40.0E	476.5	4.0E	483.2	40.0E	483.7	4.0E	500.0		

# TABULATION OF GROUND CONDUCTIVITY USED FOR DAYTIME ALLOCATION STUDY

Latitude: 42-05-55 N  
Longitude: 072-37-45 W

Conductivity Database Used: M3 (USA)

Ground Conductivity Data: Region conductivity in mS/m followed by distance in km to the end of region. E - map data; M - measurement data.									
Azimuth									
230.0	1.0E	124.5	4.0E	180.2	2.0E	225.0	4.0E	441.0	2.0E 500.0
235.0	1.0E	101.6	4.0E	164.7	2.0E	232.3	4.0E	460.4	2.0E 500.0
240.0	1.0E	79.9	4.0E	164.2	2.0E	241.4	4.0E	265.7	2.0E 320.4
	4.0E	424.1	2.0E	500.0					
245.0	1.0E	70.0	4.0E	169.7	2.0E	487.2	4.0E	500.0	
250.0	1.0E	63.8	4.0E	316.3	2.0E	454.2	4.0E	500.0	
255.0	1.0E	59.1	4.0E	336.5	2.0E	500.0			
260.0	1.0E	55.4	4.0E	406.4	2.0E	500.0			
265.0	1.0E	52.5	4.0E	487.4	2.0E	500.0			
270.0	1.0E	50.3	4.0E	500.0					
275.0	1.0E	48.6	4.0E	500.0					
280.0	1.0E	47.3	4.0E	499.8	8.0E	500.0			
285.0	1.0E	47.0	4.0E	417.0	8.0E	500.0			
290.0	1.0E	47.2	4.0E	414.3	8.0E	500.0			
295.0	1.0E	47.8	4.0E	358.6	8.0E	418.2	15.0E	500.0	
300.0	1.0E	48.8	4.0E	335.9	8.0E	378.1	15.0E	412.2	4.0E 428.0
	15.0E	433.2	4.0E	482.6	6.0E	500.0			
305.0	1.0E	50.2	4.0E	169.5	2.0E	182.6	4.0E	351.1	8.0E 353.1
	4.0E	355.2	8.0E	378.0	15.0E	410.6	10.0E	422.9	4.0E 500.0
310.0	1.0E	52.2	4.0E	151.5	2.0E	189.9	4.0E	373.1	15.0E 386.4
	10.0E	414.1	4.0E	483.3	1.0E	500.0			
315.0	1.0E	54.6	4.0E	142.0	2.0E	189.6	4.0E	364.7	10.0E 402.6
	4.0E	465.8	1.0E	500.0					
320.0	1.0E	57.9	4.0E	134.3	2.0E	192.6	4.0E	369.5	10.0E 404.9
	4.0E	500.0							
325.0	1.0E	62.0	4.0E	125.4	2.0E	198.8	4.0E	372.3	10.0E 427.1
	4.0E	500.0							
330.0	1.0E	67.3	4.0E	118.5	2.0E	208.5	4.0E	372.3	10.0E 442.7
	4.0E	475.8	2.0E	500.0					
335.0	1.0E	74.2	4.0E	110.7	2.0E	222.1	4.0E	357.9	10.0E 435.8
	4.0E	459.4	4.0E	500.0					
340.0	1.0E	83.3	4.0E	104.5	2.0E	243.0	4.0E	344.5	10.0E 413.3
	4.0E	436.1	2.0E	500.0					
345.0	1.0E	95.7	4.0E	97.1	2.0E	269.3	4.0E	334.5	10.0E 391.5
	4.0E	421.4	2.0E	500.0					
350.0	1.0E	111.7	2.0E	297.7	4.0E	330.5	10.0E	405.5	4.0E 444.2
	2.0E	500.0							
355.0	1.0E	135.1	2.0E	323.9	4.0E	370.7	10.0E	442.4	4.0E 476.8
	2.0E	500.0							

# NIGHTTIME ALLOCATION STUDY FOR WACM, 1270 KHZ (SUMMARY)

## Night Allocation Protection Report

Call: WACM\_n\_pl  
Freq: 1270 kHz  
SPRINGFIELD, MA, US  
Hours: N  
Lat: 42-05-55 N [NAD27]  
Lng: 072-37-45 W  
Power: 0.18 kW  
Number of Ground System Radials: 120 / Average Ground Radial Length: 76.7 deg  
Theo RMS: 376.01 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	183.2	0	0	0.0	0.0	0.0	0.0

Call Letters	Ct	St	City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
WXYT	US	MI	DETROIT	41.98	1.309	155.88	154.28	1.60
50% = 3.092, 25% = 4.363; WHLD=1.70 WDLR=1.52 WCMR=1.49 KFLC=1.45 CJTN/A=1.35 WWCA=1.31 WACM=1.31 WHGS=1.28 WMKT=1.20 WMIZ=1.08								
CJCB/A	CA	NS	SYDNEY	55.72	2.006	179.96	153.99	25.96
50% = 2.758, 25% = 3.647; WACM=2.01 WXYT=1.89 CFGT/A=1.28 WTSN=1.23 WIWA=1.14 CJTN/A=1.13								
CJCB/	CA	NS	SYDNEY	55.73	2.006	179.96	153.99	25.97
50% = 2.759, 25% = 3.647; WACM=2.01 WXYT=1.89 CFGT/A=1.28 WTSN=1.23 WIWA=1.14 CJTN/A=1.13								
WLBR	US	PA	LEBANON	155.76	6.019	193.23	123.20	70.03
50% = 11.922, 25% = 18.211; WCBC=10.29 WACM=6.02 CJTN/A=5.80 WHLD=5.51 WXYT=5.25 WTSN=5.15 WLIK=5.14 WDLR=4.75 WPMH=4.74								
WHLD	US	NY	NIAGARA FALLS	97.39	4.339	222.74	140.25	82.50
50% = 16.503, 25% = 17.355; WXYT=16.50 WLBR=5.37								
WWCA	US	IN	GARY	23.45	1.185	252.62	157.94	94.68
50% = 3.771, 25% = 4.739; WXYT=2.40 WNDE=2.06 WSDZ=2.05 WCMR=1.45 KR XO=1.31 KFLC=1.25 WLIK=1.20 WGBF=1.20								
WCMR	US	IN	ELKHART	28.36	1.543	272.02	157.14	114.88
50% = 5.829, 25% = 6.172; WXYT=5.83 WNDE=2.03								
WTSN	US	NH	DOVER	291.06	12.365	212.41	65.53	146.88
50% = 12.365, 25% = 13.587; WACM=12.36 CJTN/A=4.02 WBIX=3.95								
WBIX	US	MA	BOSTON	358.14	1.352	188.80	35.33	153.47
50% = 4.403, 25% = 5.409; UNK-A=3.22 WTSN=3.00 WARE=1.96 WMTR=1.43 WSUA=1.42 WBNR=1.40								
WMIZ	US	NJ	VINELAND	167.29	9.170	274.08	119.65	154.44
50% = 22.382, 25% = 24.187; WLBR=19.19 WCBC=11.52 WACM=9.17								
WCBC	US	MD	CUMBERLAND	86.31	5.849	338.85	144.36	194.49
50% = 19.666, 25% = 23.397; WXYT=14.18 WLBR=13.62 WDLR=8.52 WLIK=7.14 WHLD=6.09								
CJTN/A	CA	ON	TRENTON	131.71	8.367	317.63	118.33	199.30
50% = 16.733, 25% = 18.474; WXYT=14.43 WTSN=8.47 WACM=5.82 WLBR=5.23								
WADO	US	NY	NEW YORK	300.26	1.769	294.59	64.20	230.39
50% = 5.997, 25% = 7.076; WSUX=5.09 CFMB/A=3.17 WHTK=1.97 ZYJ-455-A=1.95 WJAY=1.80 CFYZ1/ =1.78								
CFGT/A	CA	QC	ALMA	96.60	7.779	402.62	142.72	259.90
50% = 11.206, 25% = 14.139; WACM=7.78 WXYT=6.01 WMKT=5.38 CJCB/A=5.31 CJTN/A=5.00 WTSN=4.59								

# NIGHTTIME RSS LIMIT STUDY FOR WACM, 1270 KHZ (SUMMARY)

## Station Information:

Call: WACM\_n\_p1  
Freq: 1270 kHz  
SPRINGFIELD, MA, US  
Hours: N  
Lat: 42-05-55 N [NAD27]  
Lng: 072-37-45 W  
Power: 0.18 kW  
Number of Ground System Radials: 120 / Average Ground Radial Length: 76.7 deg  
Theo RMS: 376.01 mV/m @ 1km @ 1kW

Standard: FCC Rules (1992 Skywave Propagation Model) [ 10% ]

50% Exclusion Level Limit: 7.13 mV/m  
25% Exclusion Level Limit: 10.24 mV/m

## Contributors:

Call	Freq (kHz)	City	St	Ct	Limit (mV/m)	(%)	RSS Limit (mV/m)
WTSN	1270	DOVER	NH	US	7.132	100.0	7.132
----- 50% Exclusion Level -----							
CJTN/A	1270	TRENTON	ON	CA	3.482	48.8	7.937
WIWA	1270	EATONVILLE	FL	US	3.272	41.2	8.585
WXYT	1270	DETROIT	MI	US	3.043	35.4	9.108
WCBC	1270	CUMBERLAND	MD	US	2.805	30.7	9.530
WLIK	1270	NEWPORT	TN	US	2.680	28.1	9.900
WLBR	1270	LEBANON	PA	US	2.616	26.4	10.240
----- 25% Exclusion Level -----							
WHLA	1270	NIAGARA FALLS	NY	US	2.531	24.7	10.548
WMIZ	1270	VINELAND	NJ	US	2.214	20.9	10.778
WCGC	1270	BELMONT	NC	US	1.995	18.5	10.961
WDLR	1270	MARYSVILLE	OH	US	1.916	17.4	11.127
CJCB/A	1270	SYDNEY	NS	CA	1.776	15.9	11.268
CFGT/A	1270	ALMA	QC	CA	1.757	15.5	11.404

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## RF HAZARD STATEMENT

RADIO STATION WACM  
SPRINGFIELD, MASSACHUSETTS  
1270 KHZ, 0.8 KW-D, 0.18 KW-N, U

This statement was prepared for AM broadcast station WACM, Springfield, MA (1270 kHz). This statement concerns an evaluation of compliance with Section 1.1307(b) of the FCC Rules<sup>\*</sup> regarding human exposure to radio frequency (RF) energy.<sup>†</sup>

The proposed WACM facility will operate with a non-directional antenna with a nominal daytime and nighttime power level of 0.8 kW and 0.18 kW, respectively. The proposed WACM facility will be diplexed on the existing WSPR antenna tower. The WSPR facility operates at 1490 kHz using a non-directional antenna with a nominal unlimited time power of 0.47 kW. The antenna tower element has an electrical height of 183.2° (0.509 wavelength) at 1270 kHz and an electrical height of 214.9° (0.597 wavelength) at 1490 kHz.

The transmitter site is located on an island surrounded by the Westfield River and its tributaries, which has no connecting road and is not generally accessible to the public. The tower is surrounded by a fence located no less than 1.5 meters from the tower base. Utilizing the data provided in Supplement A of the FCC OET Bulletin No. 65<sup>‡</sup>, it was determined that the energy from the facility will be well within the FCC maximum permissible exposure limit at the worst-case minimum fence distance of 1.5 meters. Therefore, the instant proposal is compliant with the FCC's RF exposure requirements. In the event that personnel are required to access the fenced area, the power level shall be reduced or terminated as necessary to prevent human exposure to radio frequency energy in excess of FCC specified levels.

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<sup>\*</sup> See Rules of the United States Federal Communications Commission (FCC), generally at Title 47 of the Code of Federal Regulations (Telecommunication).

<sup>†</sup> See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference:  
[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)

<sup>‡</sup> See FCC Office of Engineering and Technology Bulletin No. 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, Edition 97-01, released August, 1997, and *Supplement A: Additional Information for Radio and Television Broadcast Stations*