

TECHNICAL NARRATIVE

This Technical Statement and attached exhibits were prepared on behalf of Carroll County Broadcasting, Inc., (“Carroll”), licensee of station KESA Channel 265A, Facility ID No. 48520, Eureka Springs, Arkansas. Carroll herein proposes to modify the license of KESA to operate from a different transmit location.

Carroll is proposing to implement this change at an existing tower site. As such, the Federal Aviation Administration will not be apprised of this proposal. The coordinates of the proposed application site are 36-21-38 North Latitude, 93-44-55 West Longitude (NAD 83). The existing tower is 81.4 meters in overall height and is registered with the Commission and assigned Antenna Structure Registration Number (ASR) 1037669.

The application site Channel Study for KESA on Channel 258A shows short-spacings to two existing full power FM stations. The proposed KESA application site is short spaced to station KLAB Channel 266C3, licensed to Siloam Springs, AR by 13.1 km and KGLC Channel 265A, licensed to Miami, OK by 4.5 km. KESA proposes to adopt Section 73.215 contour protection with respect to both short-spaced stations. The proposed KESA facility would operate with 1.3 kW ERP non-directional at 60 meters above ground level and 169.39 meters HAAT.

KESA Channel Study

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REFERENCE                                     DISPLAY DATES
36 21 38.0 N.                                CLASS = A   Int = A   DATA 03-17-22
93 44 55.0 W.                                Current Spacings to 3rd Adj. SEARCH 03-19-22
----- Channel 265 - 100.9 MHz -----
Call      Channel  Location      Azi      Dist      FCC      Margin
      Lat.      Lng.      Ant      Power      HAAT
-----
KESA      LIC-Z 265A   Eureka Springs      AR      1.5      2.2      114.5      -112.3
36 22 48.3  93 44 52.7  ZCN      2.000 kW      155 M
      Carroll County Broadcastin      BLH20100728ACI

KLAB      LIC-N 266C3  Siloam Springs      AR      255.8      75.9      88.5      -12.6
36 11 28.3  94 33 59.8  NCN      7.700 kW      138 M
      John Brown University      BLED20140514AAT
Note: See Section 73.215 Contour Protection Exhibit - KLAB

KGLC      LIC-N 265A   Miami      OK      302.8      109.8      114.5      -4.7
36 53 24.2  94 47 08.8  NCN      6.000 kW      84 M
      Taylor Made Broadcasting N      BLH20110325ACM
Note: See Section 73.215 Contour Protection Exhibit - KGLC

KBHQ-LP   LIC      264L1  Harrison      AR      103.2      57.6      55.5      2.1
36 14 27.1  93 07 28.7  CN      0.036 kW      50 M
      North Arkansas Performing      BLL20181018AAW

K264DA    LIC      264D   Bentonville      AR      274.6      40.0      33.5      6.5
36 23 18.0  94 11 34.9  CN      0.250 kW      0 M
      Rox Radio Group, LLC      0000157123

K263CB    LIC      263D   Springdale      AR      236.5      36.3      25.5      10.8
36 10 48.0  94 05 07.0  CN      0.250 kW      0 M
      Rox Radio Group, LLC      0000157122

K263CB    CP -D 263D   Springdale      AR      236.5      36.3      25.5      10.8
36 10 48.0  94 05 07.0  DVN      0.250 kW      0 M
      Rox Radio Group, LLC      0000170730

KWKK      LIC-N 265A   Russellville      AR      156.4      129.1      114.5      14.6
35 17 37.3  93 10 39.6  NCN      6.000 kW      100 M
      Eab Of Russellville, LLC      BLH19920731KB

KXVB      LIC      268C3  Greenland      AR      211.9      60.0      41.5      18.5
35 54 06.0  94 06 05.2  CN      5.500 kW      214 M
      Rox Radio Group, LLC      BLH20120430ACF

KBNV      LIC      211C2  Fayetteville      AR      219.9      33.8      14.5      19.3
36 07 38.3  93 59 23.7  EN      16.000 kW      142 M
      American Family Associatio      BLED20000821ABC

KHOM      LIC      265C2  Salem      AR      81.4      188.3      165.5      22.8
36 35 38.2  91 40 03.5  CN      50.000 kW      150 M
      E-Communications, LLC      BLH20000926ABW

KWTO-FM   APP-N 267C   Buffalo      MO      37.7      117.6      94.5      23.1
37 11 41.0  92 56 08.0  NCN      100.000 kW      454 M
      Zimmer Midwest Communicati      0000143248

KWTO-FM   LIC      267C   Springfield      MO      37.7      117.6      94.5      23.1
37 11 41.2  92 56 07.6  CN      100.000 kW      454 M
      Zimmer Midwest Communicati      BLH20030124AEU

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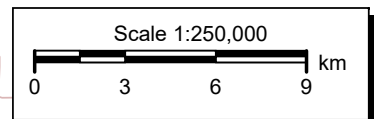
Call	Channel	Location		Azi	Dist	FCC	Page #
Lat.	Lng.	Ant	Power		HAAT	Margin	
KSWF	LIC 263C2	Aurora	MO	14.1	84.0	54.5	29.5
37 05 39.1	93 31 05.7	CN	33.000 kW		183 M		
Ihm Licenses, LLC BLH19920615KB							
K264DA	CP 264D	Decatur	AR	264.7	64.0	33.5	30.5
36 18 21.0	94 27 30.0	CN	0.250 kW	0 M			
Rox Radio Group, LLC 0000170729							
KNSH	LIC 264C2	Fort Smith	AR	203.1	136.9	105.5	31.4
35 13 32.3	94 20 29.7	CN	50.000 kW		140 M		
Cumulus Licensing LLC BLH19910819KA							
KURM-FM	LIC 262A	Gravette	AR	276.8	69.0	30.5	38.5
36 25 54.3	94 30 46.8	CN	4.000 kW		125 M		
Kerm, Inc. 0000116882							
K265DR	LIC 265D	Bolivar	MO	12.3	141.2	84.5	56.7
37 36 12.1	93 24 27.7	CN	0.010 kW		69 M		
Radio Training Network, In BLFT20041020ACX							

KESA

Eureka Springs, AR
Latitude: 36-21-38 N
Longitude: 093-44-55 W
ERP: 1.30 kW
HAAT: 169.39 m
Channel: 265
Frequency: 100.9 MHz
AMSL Height: 560.0 m
Elevation: 500.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

Section 73.315 Community Coverage Exhibit
FCC F(50,50) 70 dBu Contour**FCC F(50,50) 70 dBu Contour****Eureka Springs****+ KESA**

Carroll

HORIZON
BROADCAST SOLUTIONS

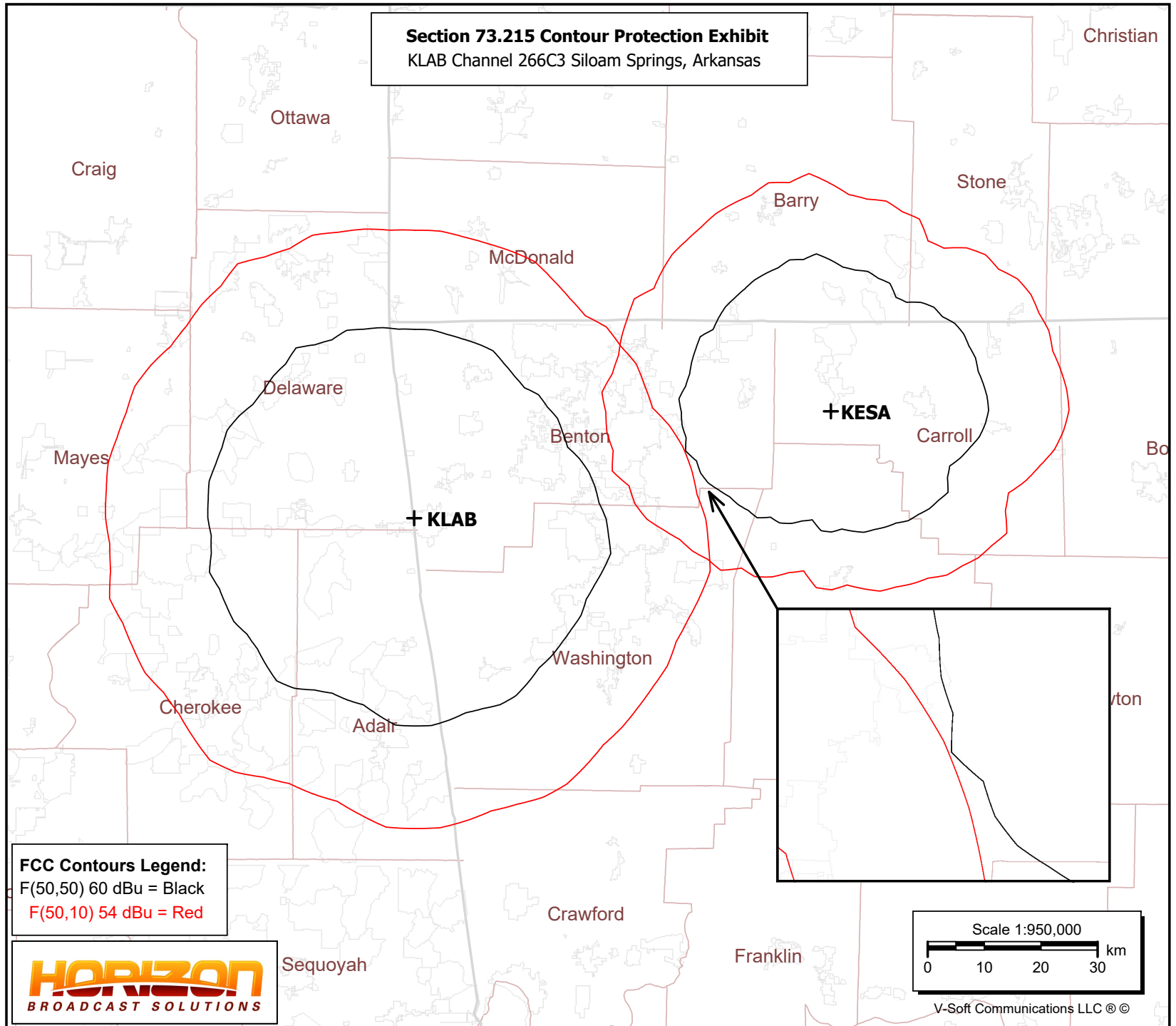
V-Soft Communications LLC ©

KESA

Eureka Springs, AR
Latitude: 36-21-38 N
Longitude: 093-44-55 W
ERP: 1.30 kW
HAAT: 169.39 m
Channel: 265
Frequency: 100.9 MHz
AMSL Height: 560.0 m
Elevation: 500.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

KLAB

Siloam Springs, AR
BLED20140514AAT
Latitude: 36-11-28.30 N
Longitude: 094-33-59.80 W
ERP: 7.70 kW
HAAT: 138 m
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 474.0 m
Elevation: 341.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

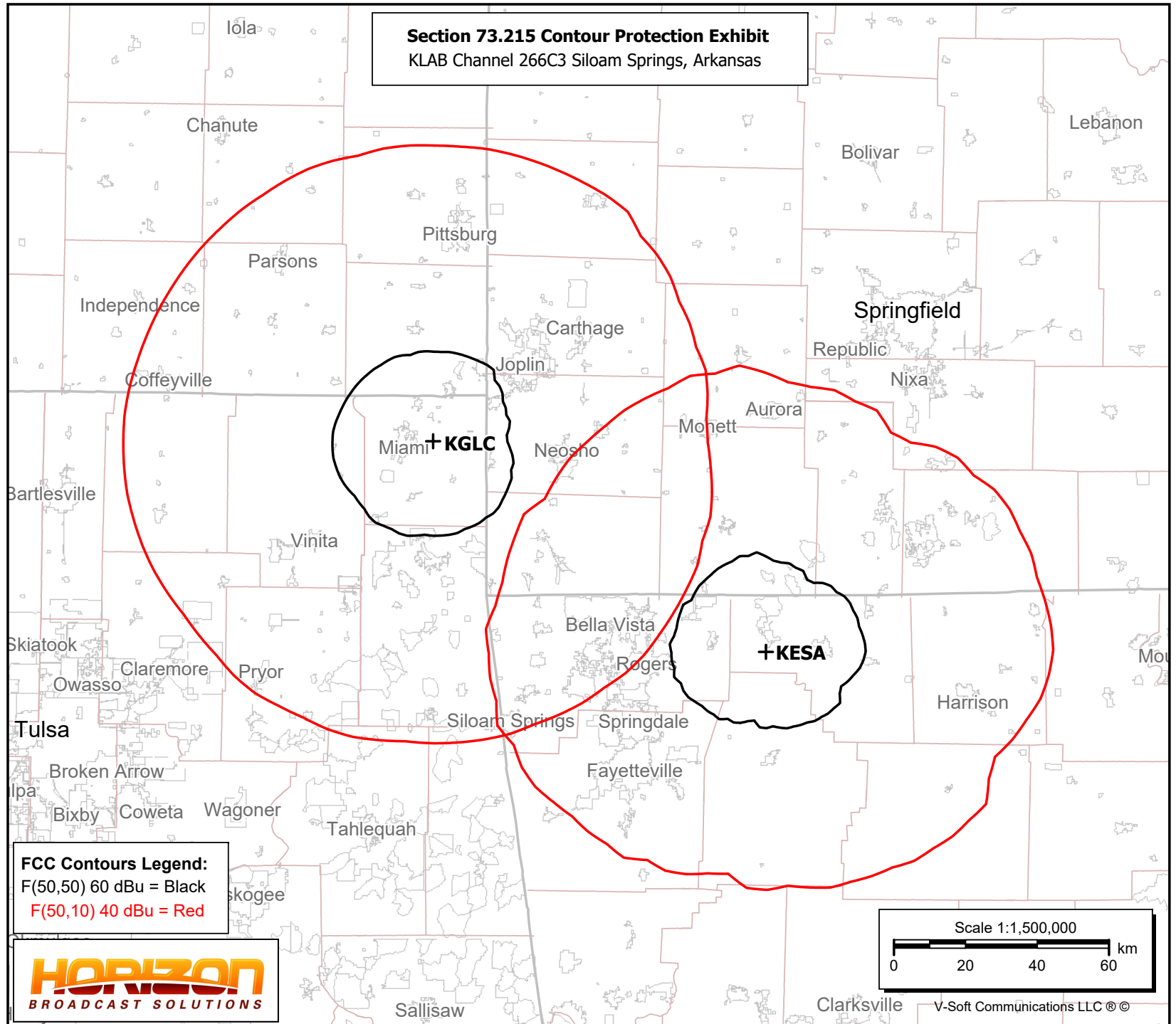
Section 73.215 Contour Protection Exhibit
KLAB Channel 266C3 Siloam Springs, Arkansas

KESA

Eureka Springs, AR
Latitude: 36-21-38 N
Longitude: 093-44-55 W
ERP: 1.30 kW
HAAT: 169.39 m
Channel: 265
Frequency: 100.9 MHz
AMSL Height: 560.0 m
Elevation: 500.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

KGLC

Miami, OK
BLH20110325ACM
Latitude: 36-53-24.20 N
Longitude: 094-47-08.80 W
ERP: 6.00 kW
HAAT: 84 m
Channel: 265
Frequency: 100.9 MHz
AMSL Height: 335.0 m
Elevation: 257.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

Section 73.215 Contour Protection Exhibit
KLAB Channel 266C3 Siloam Springs, Arkansas

**Human Exposure to Radiofrequency Electromagnetic Field
&
Section 106 Compliance
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Carroll County Broadcasting, Inc. ("Carroll"), licensee of KESA Channel 265A (100.9 MHz), Facility ID No. 48520, licensed to Eureka Springs, AR seeks to modify the license of KESA to operate from a different transmit location. The transmitting site will be an existing tower 81.4 meters in overall height with ASR Registration number 1037669. The tower is located at 36° 21' 38" N ~ 93° 44' 55" W (NAD 83). The proposed antenna is a side mounted Shively 6812 2 bay full wave antenna with a center of radiation of 60 meters AGL. KESA will operate with 1.3 kW ERP at 169.39 meters HAAT. Because KESA proposes to operate from an existing tower and no modifications are being made to the tower, it is believed to be exempt from a Section 106 review by the SHPO/THPO.

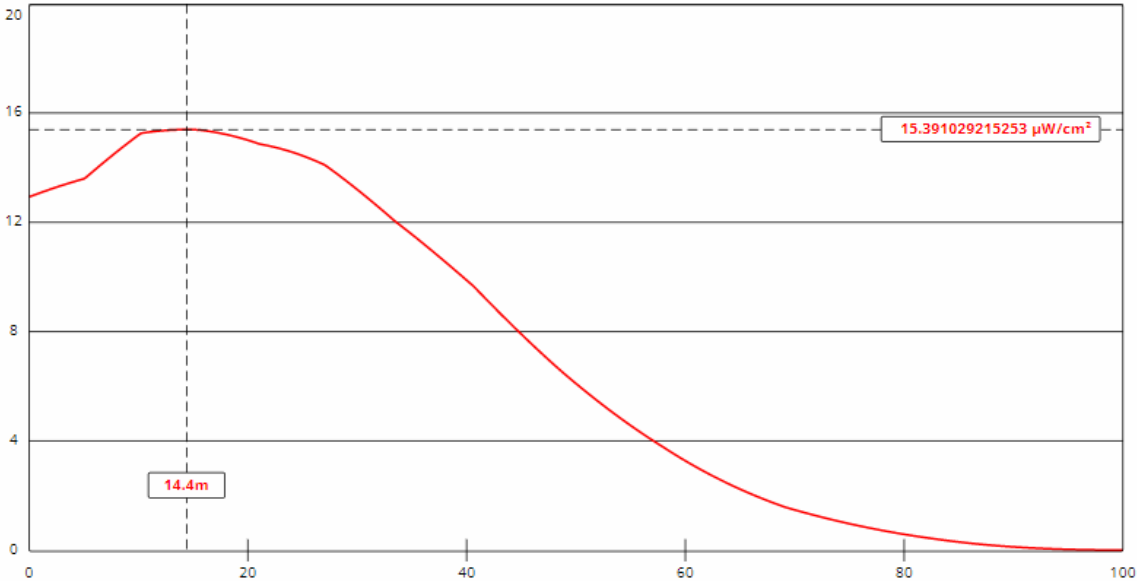
The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Shively antenna is included in the Commission's FM Model for Windows program under Type One Ring-Stub or any type not otherwise described. Using EPA Type1 as the EPA Element, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 15.391 $\mu\text{W}/\text{cm}^2$ at 14.4 meters, which is 7.696 percent of the general population/uncontrolled maximum permitted exposure limit

The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

FM Model

- Radio Frequency Safety
- FCC Policy on Human Exposure
- RF Safety FAQ
- Body Tissue Dielectric Parameters
- RF Safety Highlighted Releases
- FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data published in 1985 by the EPA. [Show More....](#)



View Tabular Results +

Channel Selection	Channel 265 (100.9 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	60	Distance (m)	100
ERP-H (W)	1300	ERP-V (W)	1300
Num of Elements	2	Element Spacing (?)	1
Num of Points	500	Apply	