

**ENGINEERING STATEMENT**  
IN SUPPORT OF A MINOR CHANGE APPLICATION TO  
MODIFY FACILITIES OF FM TRANSLATOR  
**W242AV, SEAFORD, DELAWARE**  
OCTOBER 2013

This engineering statement has been prepared on behalf of Great Scott Broadcasting in support of a minor change application to modify the facilities of FM Translator station W242AV, Seaford, Delaware.

W242AV is currently licensed to operate on Channel 242D (96.3 MHz) with 0.01 kW (10 Watts) effective radiated power (ERP) and antenna radiation center located at 160 meters above mean sea level (AMSL) and 151 meters HAAT. It is now proposed to relocate W242AV antenna site and operate with 10 Watts ERP and 92 meters HAAT. The proposed W242AV site is located approximately 6 km south of its current site.

The attached map (Figure 1) shows the predicted 60 dBu (1.0 mV/m) contours of the present and proposed operations of W242AV overlap. Therefore, the W242AV proposal is a minor change application.

The following information provides pertinent data for the proposed W242AV operation.

Station Location:	DE-Seaford			
Channel:	242D			
Hours of Operation:	Unlimited			
Transmitter:	Type Accepted			
Antenna:	Shivel, Model SHI 6812B-2, ½ Wave-Spaced Elements			
Antenna Coordinates:	North Latitude:	38 deg	36 min	47 sec
	West Longitude:	75 deg	35 min	12 sec
Maximum effective radiated power (Average):	0.01 kW (10 Watts) -20.0 dBk			

Elevation of the site above mean sea level:	10.4 meters
Overall height of the tower above ground:	102.4 meters
Height of radiation center above ground:	88.4 meters
Height of radiation center above mean sea level:	98.8 meters
Height of radiation center above average terrain:	91.9 meters
Antenna Structure Registration Number:	1057275

The proposed W242AV FM translator operation would provide fill-in service for AM station WJWK, Seaford, Delaware. WJWK currently operates on 1280 kHz with 0.84 kW daytime and 0.211 kW nighttime power using a non-directional antenna. The attached map (Figure 2) shows the predicted 60 dBu (1.0 mV/m) contour of the proposed W242AV operation would be completely inside the 2.0 mV/m daytime contour of WJWK and also within 40 km circle from the WJWK site.

The attached Table I indicates the proposed W242AV operation would not involve any prohibited contour overlap with any other full service FM or FM translator stations. The proposed W242AV antenna site is located near the protected contour (57 dBu) of FM station WKZP, Bethany Beach, Delaware. However, there is no prohibited overlap of contours as defined in Section 74.1204(a)(1) of the Commission's rules. The attached map (Figure 3) shows the protected contour of WKZP in relation to the interfering contour of the proposed W242AV operation. WKZP operates on Channel 240B1 with 10.5 kW ERP and 143 meters HAAT. Figure 3 clearly indicates there is no overlap between the protected WKZP 57 dBu and the proposed W242AV 97 dBu contours.

ENVIRONMENTAL PROTECTION ACT

Since the proposed W242AV antenna would be side-mounted on an existing tower (ASR No. 1057275), the environmental concerns listed in Section 1.1307(a) of the Commission's rules are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 0.02 kW and a radiation center of 98.8 meters above ground level, the proposed W242AV operation would have less than 1 microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ) RF field at 2 meters above the base of tower assuming an antenna field factor of 1 in the downward direction.

The Commission's guidelines for FM Channel 242 are 1,000  $\mu\text{W}/\text{cm}^2$  for the occupational/controlled, and 200  $\mu\text{W}/\text{cm}^2$  for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the proposed W242AV facility would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, Great Scott Broadcasting will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.

TABLE I  
W242AV, SEAFORD, DELAWARE

REFERENCE CH# 242D - 96.3 MHz, Pwr= 0.01 kW, HAAT= 91.9 M, COR= 98.8 M      DISPLAY DATES  
38 36 47.0 N.      Average Protected F(50-50)= 5.6 km      DATA 09-03-13  
75 35 12.0 W.      Omni-directional      SEARCH 09-06-13

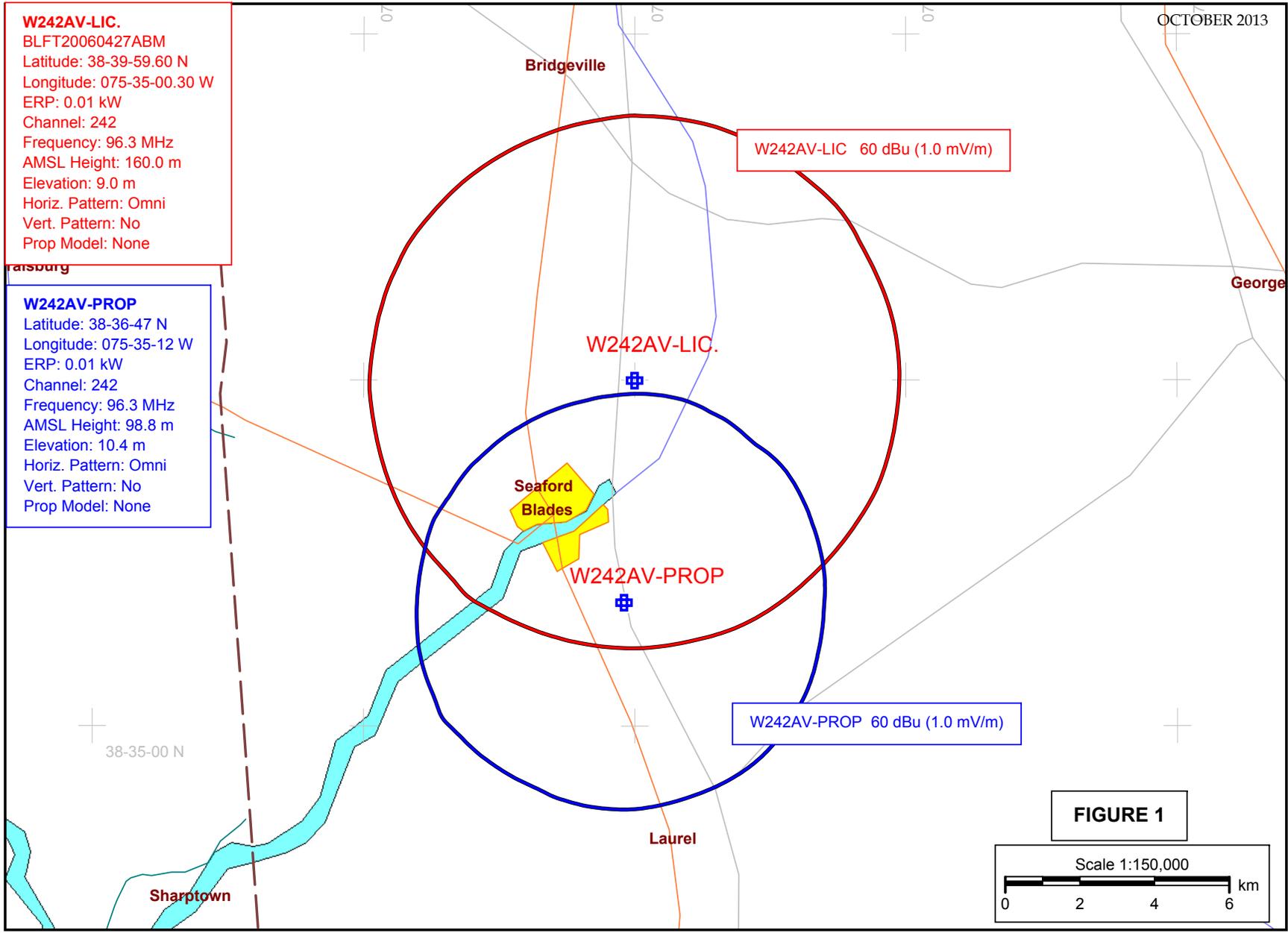
CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
242D Seaford	W242AV	LIC _C_ DE		2.7 182.7	5.95 BLFT20060427ABM	38 39 59.6 75 35 00.3	0.010 151	24.3 160	7.2 Priority Radio, Inc.	-24.3*	-19.7*
242B Washi ngton	WHUR-FM	LIC _CX DC		286.6 105.7	134.72 BLED20040413AAY	38 57 01.0 77 04 47.0	16.500 244	128.7 318	66.5 The Howard Uni versi ty	0.4	42.3
240B1 Bethany Beach	WKZP	LIC NCX DE		118.5 298.8	44.29 BLH20041018ACC	38 25 20.0 75 08 23.0	10.500 143	3.7 147	43.5 Capstar Tx LIc	35.0	0.6
242L1 Sal isbury	WXSU-LP	LIC ____ MD		193.3 13.3	27.16 BLL20050412ABZ	38 22 31.0 75 39 31.0	0.100 28	18.6 37	5.6 Sal isbury Uni versi ty	3.0	3.2
244B1 Easton	WCEI -FM	LIC ZCX MD		311.1 130.8	58.15 BLH20060829AAB	38 57 21.8 76 05 35.6	12.500 141	3.9 150	44.3 First Medi a Radi o, LIc	48.7	13.6
243A Chincoteague	WCTG	LIC _CX VA		167.1 347.2	78.97 BLH20021206AAQ	37 55 14.0 75 23 07.0	5.300 105	43.2 107	28.1 Sebago Broadcasti ng Compan	30.2	43.1
244D Lewes	W245BH	APP _V_ DE		73.2 253.5	42.07 BPFT20130627ABQ	38 43 17.0 75 07 20.0	0.038	0.4 82	7.0 Priority Radi o, Inc.	36.1	34.9
245D Lewes	W245BH	LIC _C_ DE		73.2 253.5	42.07 BLFT20061020ABS	38 43 17.0 75 07 20.0	0.027 83	0.4 85	6.6 Priority Radi o, Inc.	36.2	35.3
241L1 Dover	WIHW-LP	LIC ____ DE		4.0 184.0	58.23 BLL20061120AAI	39 08 08.0 75 32 24.0	0.100 26	8.0 26	5.6 Capi tol Baptist Church	44.6	44.7

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM. In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent. All separation margins (if shown) include rounding. Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X) "\*"affixed to 'IN' or 'OUT' values = site inside protected contour. Reference station has protected zone issue:

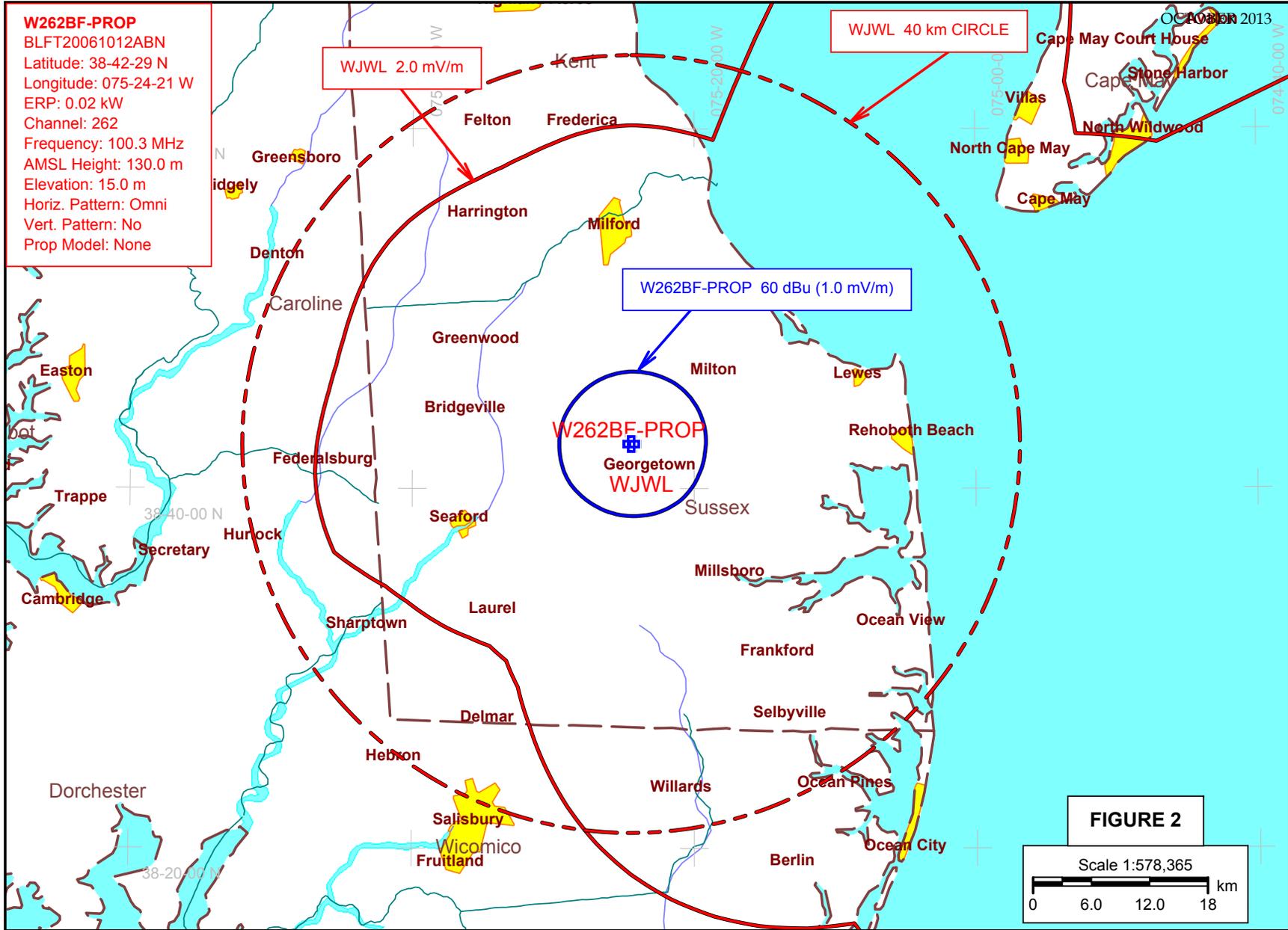
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**W242AV-LIC.**  
 BLFT20060427ABM  
 Latitude: 38-39-59.60 N  
 Longitude: 075-35-00.30 W  
 ERP: 0.01 kW  
 Channel: 242  
 Frequency: 96.3 MHz  
 AMSL Height: 160.0 m  
 Elevation: 9.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

**W242AV-PROP**  
 Latitude: 38-36-47 N  
 Longitude: 075-35-12 W  
 ERP: 0.01 kW  
 Channel: 242  
 Frequency: 96.3 MHz  
 AMSL Height: 98.8 m  
 Elevation: 10.4 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

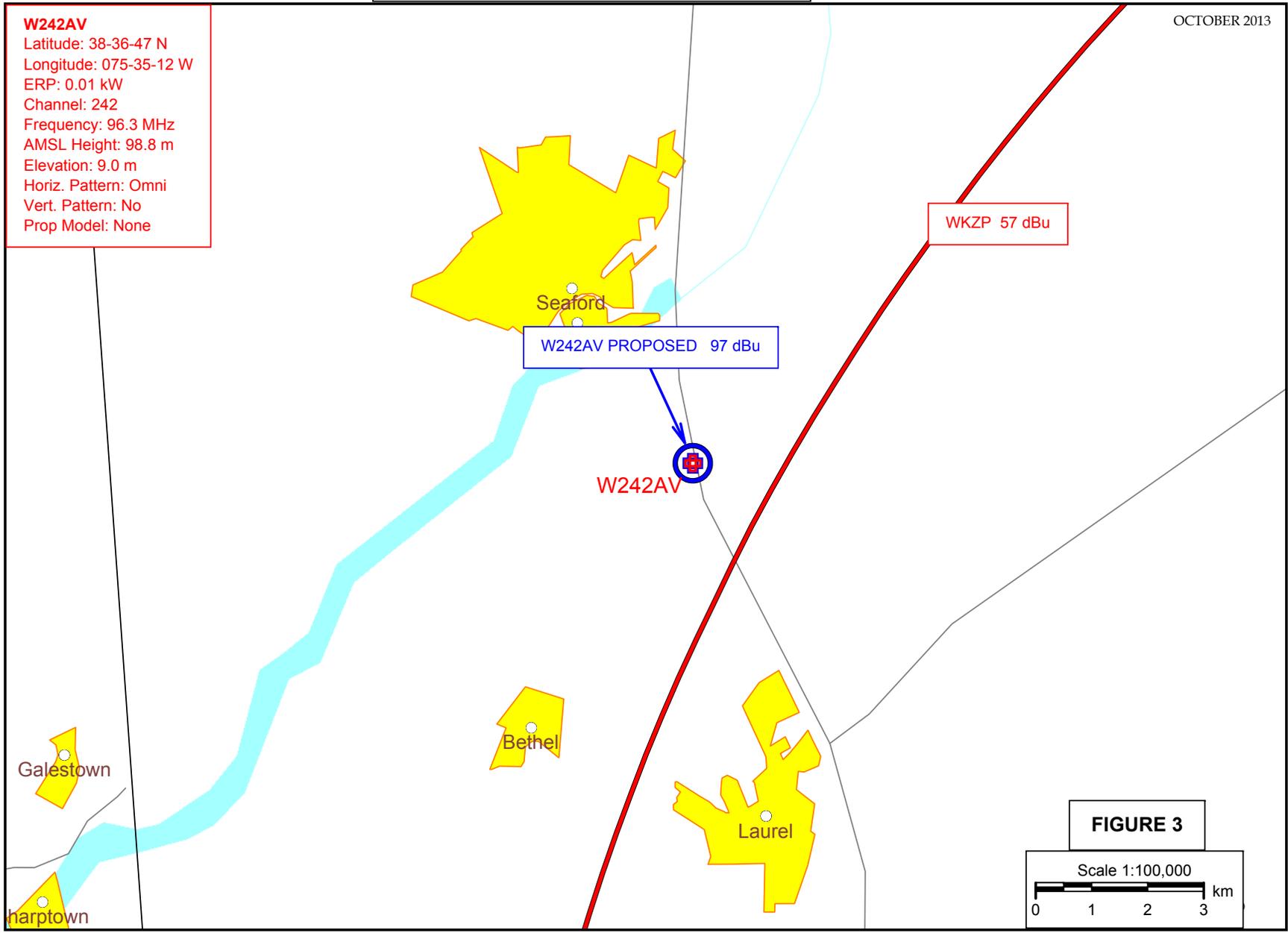


PREDICTED 60 dBu (1.0 mV/m) CONTOURS FOR THE LICENSED AND PROPOSED OPERATION OF W242AV, SEAFORD, DELAWARE



PREDICTED 60 dBu (1.0 mV/m) CONTOUR OF PROPOSED W262BF IN RELATION TO 2 mV/m CONTOUR AND 40 km CIRCLE OF WJWL

**W242AV**  
Latitude: 38-36-47 N  
Longitude: 075-35-12 W  
ERP: 0.01 kW  
Channel: 242  
Frequency: 96.3 MHz  
AMSL Height: 98.8 m  
Elevation: 9.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None



PREDICTED INTERFERING CONTOUR OF PROPOSED W242AV IN RELATION TO PROTECTED CONTOUR OF WKZP