

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.

W242AV, SEAFORD, DELAWARE

CH# 242D - 96.3 MHz, Pwr= 0.01 kW, HAAT= 91.9 M, COR= 98.8 M
Average Protected F(50-50)= 5.6 km
Omni-directional

DISPLAY DATES
DATA 09-03-13
SEARCH 09-06-13

| CH CI TY | CALL | TYPE ANT STATE | AZI --- | DI ST FI LE # | LAT LNG | PWR(kW) HAAT(M) | INT(km) COR(M) | PRO(km) LI CENSEE | *IN* (Overl ap in km) | *OUT* (Overl ap in km) |
|------------------------|----------|-------------------|------------------|----------------------------|----------------------------|--------------------|-------------------|----------------------|--------------------------|---------------------------|
| 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 Pri ori ty | -24. 3* Radi o, | -19. 7* Inc. |
| 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 | 0. 4 Uni versi ty | 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 | 35. 0 Lic | 0. 6 |
| 242L1 Sal i sbury | 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 i sbury | 3. 0 Uni versi ty | 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 Media | 48. 7 Radi o, | 13. 6 Lic |
| 243A Chi ncoteague | 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 | 30. 2 Broadcasti ng | 43. 1 Compan |
| 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 Pri ori ty | 36. 1 Radi o, | 34. 9 Inc. |
| 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 Pri ori ty | 36. 2 Radi o, | 35. 3 Inc. |
| 241L1 Dover | WI HW-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 | 44. 6 Bapti st Church | 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

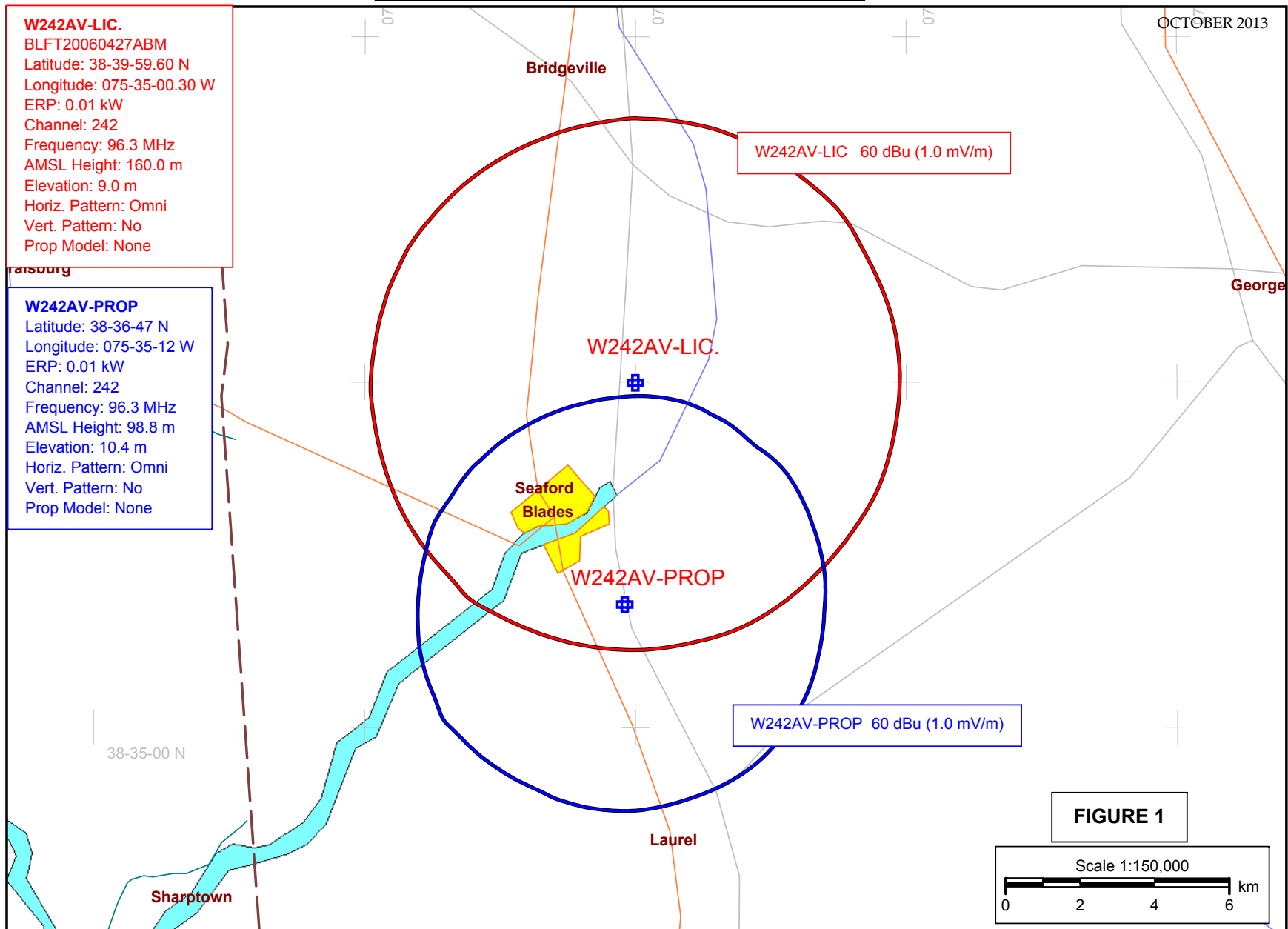
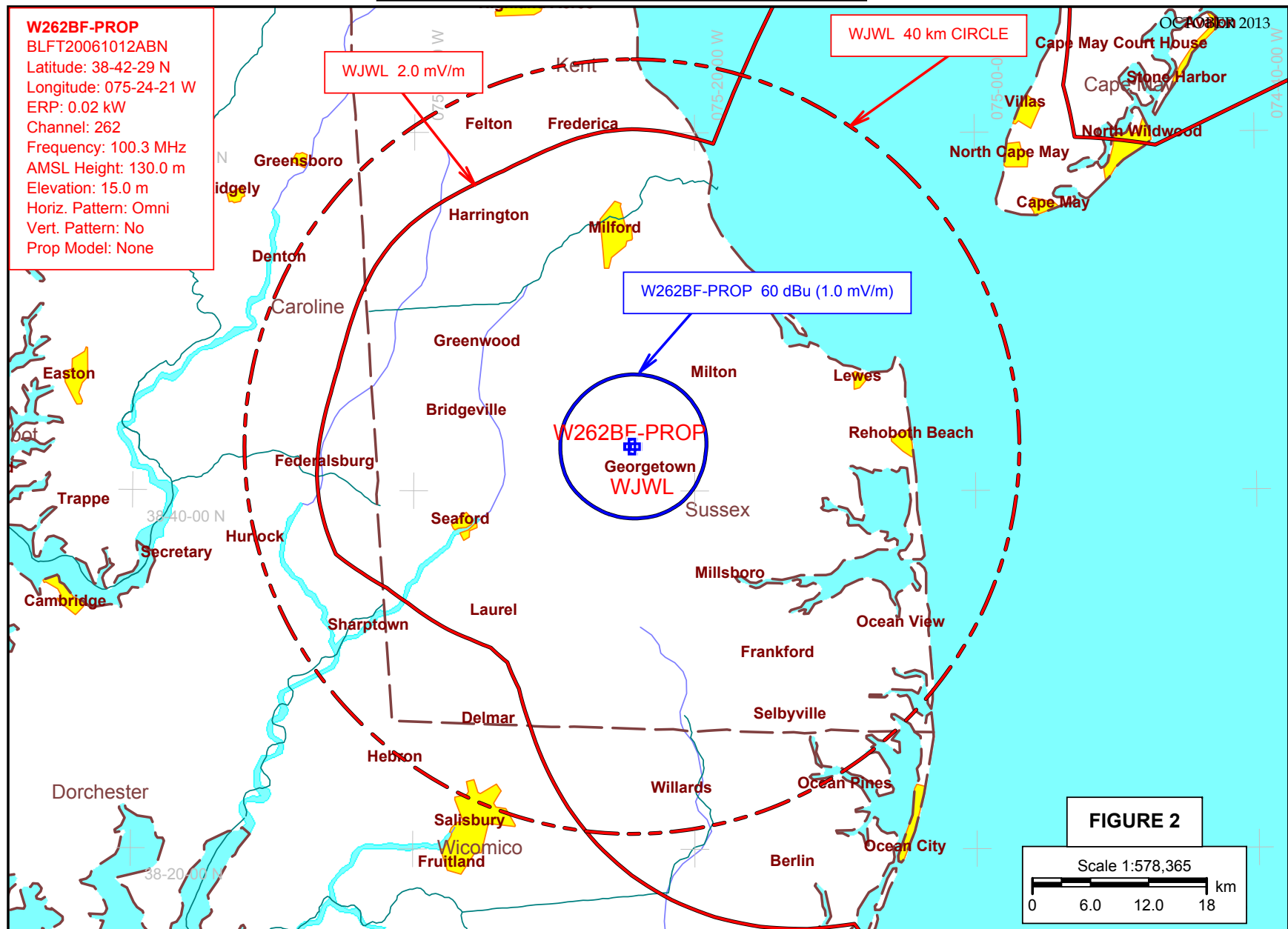


FIGURE 1

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

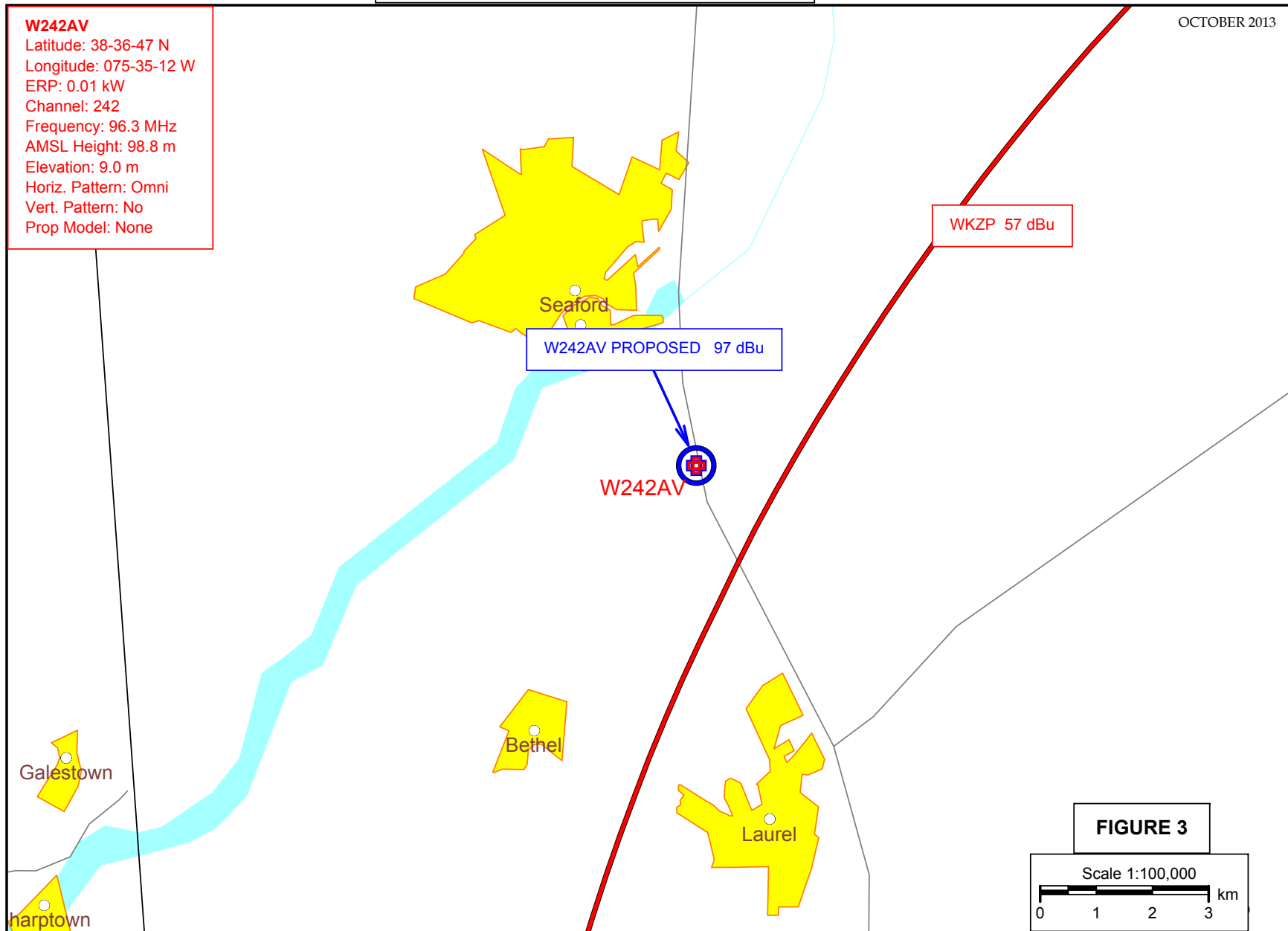


PREDICTED 60 dBu (1.0 mV/m) CONTOUR OF PROPOSED W262BF IN RELATION TO 2 mV/m CONTOUR AND 40 km CIRCLE OF WJWL

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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