

## **Technical Report WKYH(AM) New Translator**

This technical report is submitted for a new fill-in translator at channel 257 to serve as a fill-in facility to rebroadcast WKYH(AM) 600 kHz at Paintsville, KY, FCC facility I.D. 3430.

### **New 257D Translator Analysis:**

An overlap study in exhibit E-1 shows the new 257D translator is co-located with the WSIP-FM 255C1 second adjacent protect contour. As a result, the +40 dBu F(50-10) interfering contour = zero, and does not reach any population, buildings or roads. The 60 dBu F(50-50) contour is contained within the WKYH(AM) 2.0 mV/m daytime contour (exhibit E-2).

### **Antenna System:**

The new 257D translator is to be located on the existing 106.4 meter tower, ASR 1276597, at coordinates:

**37 51 30N 82 47 41W NAD 27**

An ERI 100A single bay, nondirectional antenna will be mounted at a COR AGL of 76 meters, 434 meters AMSL and operate at 0.250 kW ERP.

### **RF Exposure Calculation:**

The RF contribution was calculated using the formula from the OET Bulletin 65:

$$S \text{ (RF in microwatts/cm}^2\text{)} = \frac{33.4 \times F^2 \times (H \text{ ERP} + V \text{ ERP in watts})}{R^2 \text{ (height of radiation center in meters}^2\text{)}}$$

Using a worst-case vertical (F) factor of 1.000, the RF is calculated to be  $3.05 \mu\text{W}/\text{cm}^2$  to the ground, which is well below 5% of the  $200 \mu\text{W}/\text{cm}^2$  maximum permissible for controlled exposure, allowing exclusion from consideration.

**Conclusion:**

It is concluded that the application for a new 257D translator facility for the WKYH(AM) complies with all Commission rules and policies.



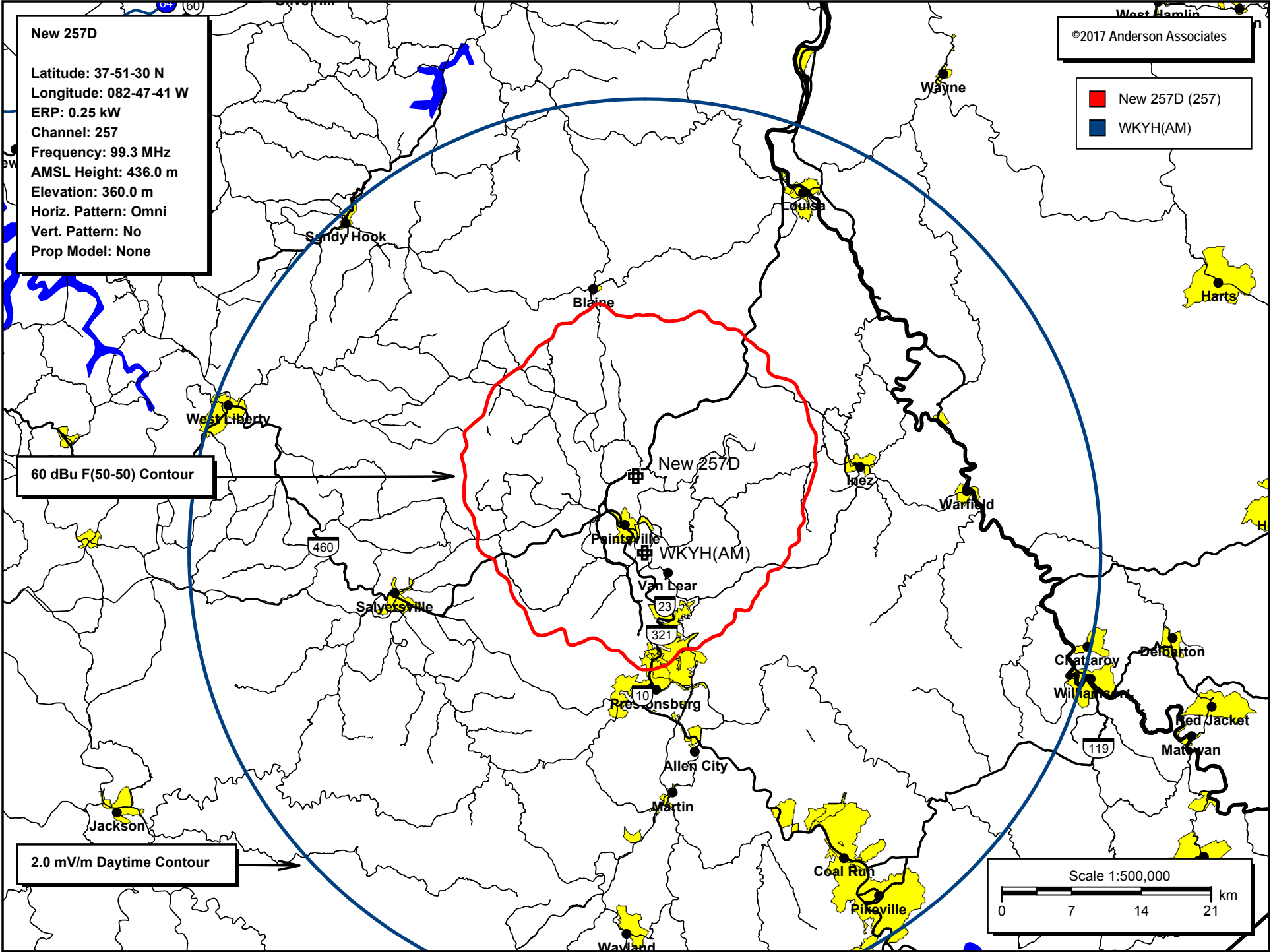
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## E-1 New 257D Overlap Study

REFERENCE 37 51 30.0 N. 82 47 41.0 W.		CH# 257D - 99.3 MHz, Pwr= 0.25 kW, HAAT= 177.0 M, COR= 436 M Average Protected F(50-50)= 17.48 km Omni-directional								DISPLAY DATES DATA 07-07-17 SEARCH 07-07-17	
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*
255C1 Paintsville	WSIP-FM	LIC NCX KY		0.0 0.0	0.00 BLH20110725AFB	37 51 30.0 82 47 41.0	100.000 191	7.6 454	61.1 S.i.p.	-23.8*	-62.2*
257A Portsmouth	WNXT-FM	LIC _CN OH		349.6 169.4	97.74 BLH19940111KE	38 43 22.0 82 59 56.0	2.550 156	79.6 378	26.8 Hometown Broadcasting Of P	0.6	15.5
259A Grayson	WUGO	LIC _CX KY		343.2 163.1	54.66 BLH20130402ABE	38 19 44.0 82 58 33.0	4.800 111	2.7 351	27.9 Carter County Broadcasting	34.3	24.2
257D Irvine	W257DP	LIC _C_ KY		258.5 77.8	104.29 BLFT20160830ABS	37 39 54.0 83 57 21.0	0.250	56.2 446	17.6 Kentucky River Broadcastin	31.2	32.3
260A Vancleve	WMTC-FM	LIC _CN KY		244.2 63.8	63.80 BLH19920821KC	37 36 23.0 83 26 48.0	6.000 100	2.7 400	28.4 Kentucky Mountain Bible Co	43.7	31.5
258B Beckley	WJLS-FM	LIC _CN WV		100.9 281.9	150.77 BLH5592	37 35 23.0 81 06 51.0	34.000 320	98.2 1110	78.2 West Virginia Radio Compan	35.8	32.6
257C3 Elizabethton	WEXX	LIC NCX TN		161.9 342.2	170.19 BLH20130715ADX	36 24 07.0 82 12 12.0	4.400 244	109.7 802	44.3 Bristol Broadcasting Compa	41.7	68.6
259C3 Coeburn	WGCK-FM	LIC _CX VA		171.4 351.5	90.40 BLH20050624AA0	37 03 15.0 82 38 34.0	1.950 356	2.8 1007	42.3 Letcher County Broadcastin	68.2	46.5
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Terrain database is FCC 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 restricted contour.											

- (1) The New 257D +40 dBu F(50-10) contour inside the co-located WSIP-FM 255C1 second-adjacent protected contour = zero.

E-2 New 257D WKYH(AM) 60 dBu Contour Plot



## ASR Registration 1276597

### Registration Detail

Reg Number	1276597	Status	Constructed
File Number	A0719963	Constructed	03/31/2011
EMI	No	Dismantled	
NEPA	No		

### Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

#### Location (in NAD83 Coordinates)

Lat/Long	37-51-30.3 N 082-47-40.7 W	Address	150 Bonita Lane and .6 km south of state highway 1559
City, State	Wittenville , KY		
Zip	41240	County	JOHNSON
Center of AM Array		Position of Tower in Array	

#### Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
359.7	106.4
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
466.1	105.8

### Painting and Lighting Specifications

FAA Chapters 4, 6, 12

Paint and Light in Accordance with FAA Circular Number 70/7460-1K

### FAA Notification

FAA Study	2010-ASO-3387-OE	FAA Issue Date	08/06/2010
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### Owner & Contact Information

FRN	0001791482	Owner Entity Type
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#### Owner

S.I.P. Broadcasting Company, Inc.	P: (606)528-9600
Attention To: Mike Tarter	F:
200 South Kentucky Avenue	E: mitarter@forchtbroadcasting.com
P.O. Box 1450	
Corbin , KY 40702	

#### Contact

P:  
F:  
E:

### Last Action Status

Status	Constructed	Received	03/31/2011
Purpose	Notification	Entered	03/31/2011