

**W230DH - #202114  
HOPKINSVILLE, KY**

**Non-adjacent channel change from Channel 230 (93.9 MHz)  
to Channel 257 (99.3 MHz) to resolve interference complaint.**

The licensee of WKTG(FM) on co-channel 230C2 (93.9) in Madisonville, KY filed an interference complaint (Pleading No. 0000197322) against the operation of W230DH as constructed and for which a license to cover has been granted (File No. 0000185461). This application seeks a non-adjacent channel change which will resolve the WKTG(FM) interference complaint by WKTG(FM) as invited in footnote 35 of the Commission's January 27, 2023 letter - 1800B3-KV, in subsequent Commission staff email communication and as stated as a condition of the license grant.

*35 In the Translator Interference Order, the Commission declared that acceptable plans include the following:*

***1) relocating to an available same-band FM channel (emphasis added); 2) working with willing listener complainants; or 3) working with the complaining station.***

**Non-Adjacent Channel Change and Interference Showing:**

A non-adjacent channel change to 257 (99.3 MHz) is requested in accordance with CFR §74.1233(a)(1) as modified in *FCC 19-40, May 9, 2019*. In the MB Docket No. 18-119 Report and Order the Commission explained that:

*For these reasons, we modify section 74.1233(a)(1) of the Commission's rules (Rules) to define an FM translator's change to any available same-band FM channel as a minor change, upon a showing of actual or predicted interference to or from any other broadcast station.*

The WKTG licensee's formal complaint filed with the Commission constitutes sufficient showing to justify the non-adjacent channel change.

*MB Docket No. 18-119 at paragraph 8. Required showing. We agree with NAB that "a simple engineering statement of mitigation of interference at the requested frequency" is sufficient as a threshold standard to permit the translator applicant to request a channel change as a minor modification. (emphasis added).*

**Allocation Analysis:**

An overlap study in Exhibit E-1 shows the proposed facility complies with §74.1204 with the exception of collocated third adjacent channel WHOP-FM 254C1 at Hopkinsville, KY. The +40 F(50-10) dBu interference contour within the third adjacent and co-located WHOP-FM 254C1 protected contour is less than 1 meter (see E-1A) which does not reach any populated area or major highway from a mounting height of 115.8 meters above ground. Therefore, a waiver of §74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

The proposed W230DH 60 F(50-50) dBu contour overlaps the currently operating and licensed facility since it is located at the same site and is contained within the primary WHOP(AM)'s (FCC facility #27634) 2.0 mV/m daytime contour (Exhibit E-2).

**Antenna System:**

The W230DH modification to 257D will be located on the existing 152.1 meter tower, ASR #1241598, at coordinates:

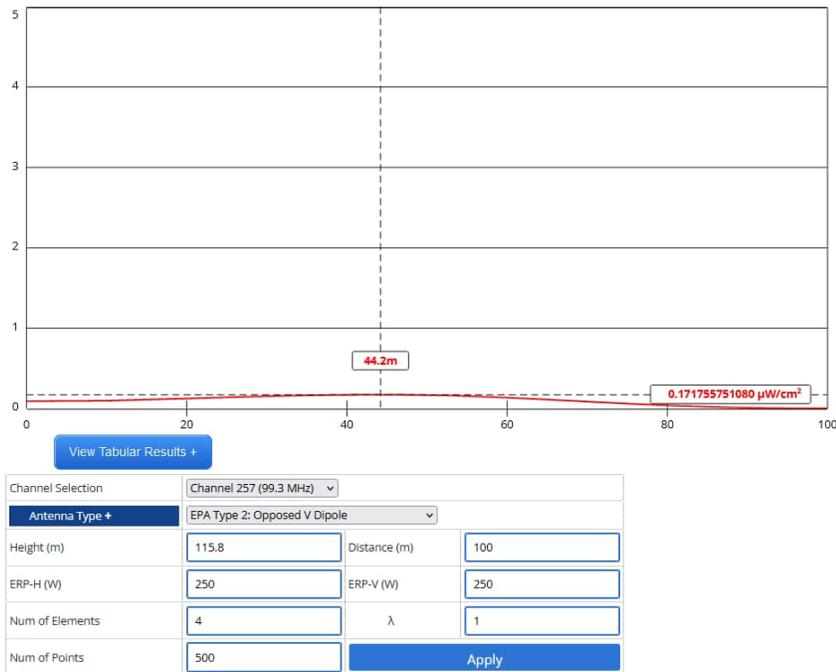
**36 55 41.1N 087 32 50.0W NAD 83**

A Bext TFC2K four bay, 1.0 wavelength-spaced, non-directional antenna is mounted at a COR AGL of 115.8 meters, 344.4 meters AMSL, 167 meter HAAT (exhibit E-3) and operate at 0.250 kW ERP. The 99.3 MHz facility will be combined into the same antenna as WHOP-FM's auxiliary (0000205089) at the same site.

**RF Exposure Calculation:**

The RF contribution was calculated using FMModel (below). The RF is calculated to be 0.17  $\mu\text{W}/\text{cm}^2$  at a distance of 44.2 meters from the base of the tower,

which is below 5% of the  $200 \mu\text{W}/\text{cm}^2$  maximum permissible for general population exposure, allowing exclusion from consideration.



**Conclusion:**

It is concluded that the W230DH modification to 257D (99.3 mHz) complies with all Commission rules and policies.

February 17, 2023

Charles M. Anderson  
5900 Lake Cyrus Drive  
Hoover, AL 35244  
270-535-4432

### E1 OVERLAP STUDY

REFERENCE  
36 55 41.10 N.  
87 32 50.00 W.

CH# 257D - 99.3 MHz, Pwr= 0.25 kW, HAAT= 166.9 M, COR= 344.4 M  
Average Protected F(50-50)= 16.94 km  
Omni-directional

DISPLAY DATES  
DATA 02-14-23  
SEARCH 02-17-23

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*
254C1	WHOP-FM	LIC NCN		0.0	0.00	36 55 41.20	100.000	8.2	63.9	-24.8*	-65.0*
Hopkinsville		KY		180.0	BLH20041018ACH	87 32 50.00	189	366	Hop Broadcasting, Inc.		
258C0	WKDQ	LIC _CN		0.3	106.11	37 52 57.20	100.000	104.2	71.6	-15.0	9.1
Henderson		KY		180.3	BLH19881025KC	87 32 28.00	300	416	Townsquare Media Of Evansv		
256C3	WCBL-FM	LIC NCN		286.2	74.97	37 06 47.20	16.000	58.2	38.2	-0.4	11.3
Grand Rivers		KY		105.7	BLH20100217AAC	88 21 34.10	127	243	Freeland Broadcasting Co.,		
256D	W256CI	LIC DCN		155.2	47.25	36 32 31.20	0.250	18.9	12.7	10.9	8.5
Clarksville		TN		335.4	BLFT20140318ADD	87 19 32.00		247	Saga Communications Of Tuc		
257D	W257ES	LIC _CN		160.0	74.72	36 17 46.10	0.027	22.0	6.5	35.3	12.3
Dickson		TN		340.2	0000136909	87 15 44.00	56	233			
258D	W258AD	LIC _CN		166.4	45.18	36 31 59.10	0.027	8.1	5.8	19.3	12.8
Clarksville		TN		346.4	BLFT20181023AAS	87 25 41.00		223	Community Broadcasting, In		
257A	WVLE	LIC _CN		99.3	123.85	36 44 25.10	6.000	87.3	28.8	20.2	41.8
Scottsville		KY		280.1	BLH19960603KC	86 10 30.90	100	316	Skytower Communications Gr		
204A	WLHE	APP DCN		249.2	37.15	36 48 32.00	2.500	71.6	23.0	9.5R	27.7M
Cadiz		KY		68.9	0000210493	87 56 12.00	87	231	Madisonville Baptist Templ		
204A	WLHE	CP DCN		249.2	37.15	36 48 32.00	2.500	71.6	23.0	9.5R	27.7M
Cadiz		KY		68.9	0000165957	87 56 12.00	87	231	Madisonville Baptist Templ		
260D	W260DH	LIC _CN		155.2	47.25	36 32 31.20	0.250	1.1	13.2	28.6	33.0
Fort Campbell		KY		335.4	0000138140	87 19 32.00		255	Saga Communications Of Tuc		

Terrain database is FCC 30 meter, 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.  
« = Station meets FCC minimum distance spacing for its class.

(1) +40 dBu interference contour to co-located WHOP-FM is less than 1 meter (see E-1A) and will not reach any major highway or populated area. A waiver is requested in accordance with *Living Way*.

# E-1A Interference contour to WHOP-FM on 254C1

W230DH Hopkinsville, KY, Showing Protection to WHOP-FM, Channel: 254  
 Geographic Coordinates: N. 36 55 41.10 W. 87 32 50.00  
 74.1204(d) Study - Using FCC 30 meter Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.25 kW, Channel: 257  
 Translator or LPFM Antenna Height AG = 115.8 meters  
 W230DH Antenna Azimuth Model = Vertical Model Name = BEXT TFC2K-4-FULL

Protected Station's Contour = 157.9794 dBu  
 Translator's or LPFM's full Interference contour 197.9794

Review Azimuth = 0 Degrees True  
 Horizontal Relative Field at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.25 kW  
 Distance between stations = 0.0 km  
 Protected Station= WHOP-FM, 100 kW, 366.1 M meters COR AMSL

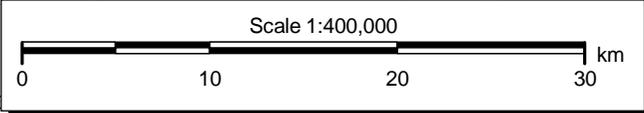
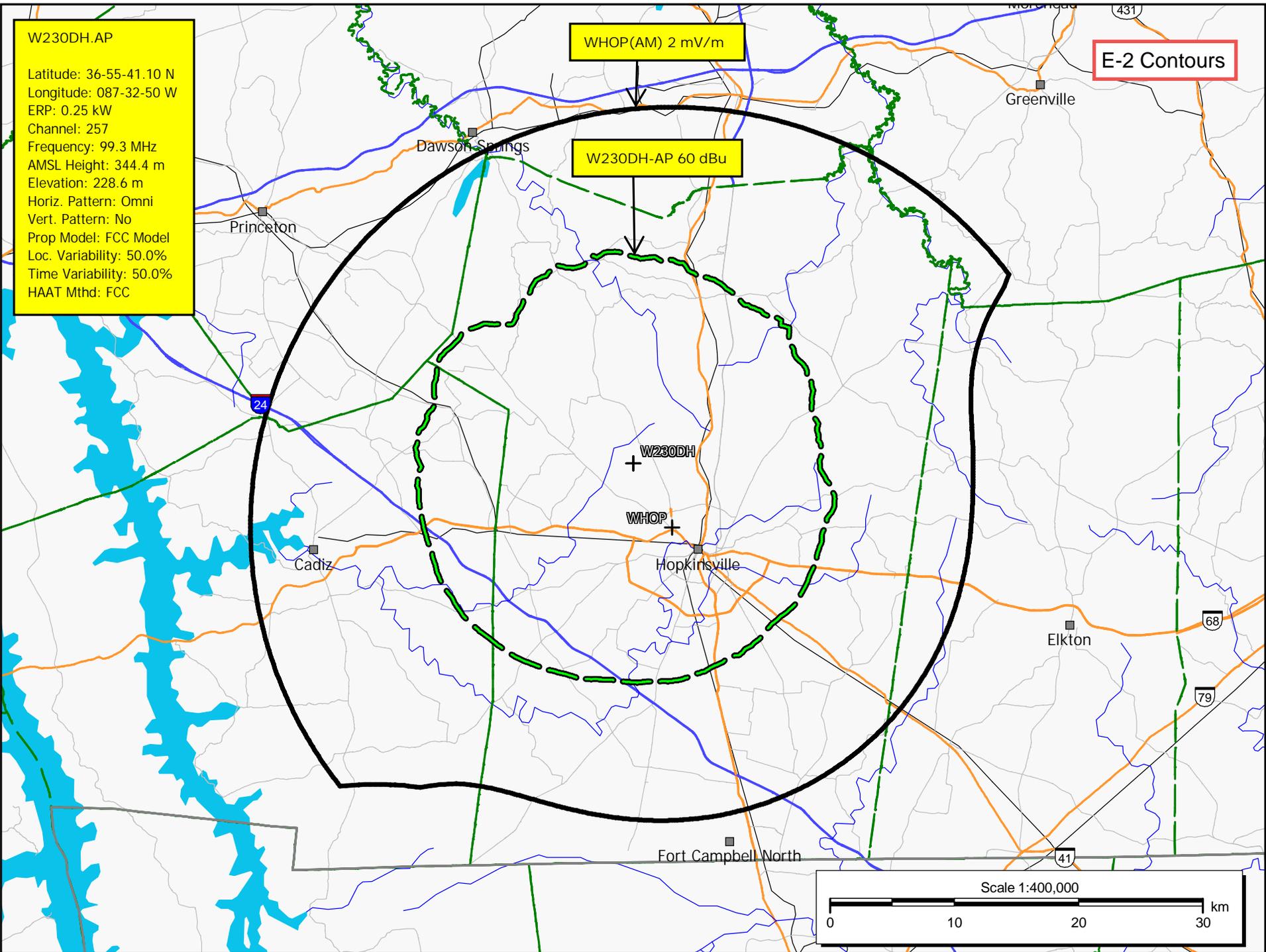
Depression Angle From Degree(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.2500	000.0140	000.0140	115.800

W230DH.AP  
Latitude: 36-55-41.10 N  
Longitude: 087-32-50 W  
ERP: 0.25 kW  
Channel: 257  
Frequency: 99.3 MHz  
AMSL Height: 344.4 m  
Elevation: 228.6 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Model  
Loc. Variability: 50.0%  
Time Variability: 50.0%  
HAAT Mthd: FCC

WHOP(AM) 2 mV/m

E-2 Contours

W230DH-AP 60 dBu



## Antenna Height Above Average Terrain Calculations -- Results

### Input Data

Latitude **36° 55' 41.1"** North

Longitude **87° 32' 50"** West (NAD 83)

Height of antenna radiation center above mean sea level: **344.4** meters ~~AMSL~~

Number of Evenly Spaced Radials = **12**      0° is referenced to True North

### Results

Calculated HAAT = **167 meters**

Antenna Height Above Average Terrain calculated  
using 1 km [GLOBE terrain data](#)

### Individual "Radial HAAT" Values, in meters

0°	162.8 m
30°	155.1 m
60°	148.9 m
90°	137.0 m
120°	161.9 m
150°	176.8 m
180°	178.3 m
210°	191.8 m
240°	185.6 m
270°	175.0 m
300°	178.4 m
330°	155.7 m

## ASR Registration 1241598

### Registration Detail

Reg Number	1241598	Status	Constructed
File Number	A0398509	Constructed	09/22/2004
EMI	No	Dismantled	
NEPA	No		

### Antenna Structure

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

#### Location (in NAD83 Coordinates)

Lat/Long	36-55-41.1 N 087-32-50.0 W	Address	West of Witty Lane on State Route 109
City, State	Hopkinsville , KY		
Zip	42240	County	CHRISTIAN
Center of AM Array		Position of Tower in Array	

#### Heights (meters)

Elevation of Site Above Mean Sea Level	228.6	Overall Height Above Ground (AGL)	152.1
Overall Height Above Mean Sea Level	380.7	Overall Height Above Ground w/o Appurtenances	151.2

#### Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 12  
Paint and Light in Accordance with FAA Circular Number 70/7460-1K

#### FAA Notification

FAA Study	2003-ASO-5785-OE	FAA Issue Date	12/09/2003
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#### Owner & Contact Information

FRN	0005058284	Owner Entity Type	
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#### Owner

Hop Broadcasting, Inc.	P: (606)528-8787
P.O. Box 1227	F:
Corbin , KY 40702	E:

#### Contact

Matheny , Marilyn	P: (912)638-8028
P.O. Box 24466	F:
St. Simons Island , GA 31522	E: marilyn@grahambrock.com

#### Last Action Status

Status	Constructed	Received	09/29/2004
Purpose	Notification	Entered	09/29/2004
Mode	Interactive		

#### Related Applications

09/29/2004	A0398509 - Notification (NT)
12/23/2003	A0358832 - New (NE)