

**W232CB Facility ID: 31140
Construction Permit Application
July 11, 2011**

Overlap Study and Request for 74.1204 Waiver

Request for Waiver

There is prohibited overlap of the proposed 94dBu F(50:10) interfering contour with respect to second adjacent stations WKYS in Washington DC, and WIAD in Bethesda MD. As indicated in Figure 3, the predicted WKYS 56.7dBu F(50:50) contour and the WIAD 58.3dBu F(50:50) contour intersects the proposed W232CB transmitter site as shown in figure 3.

The predicted actual interfering contour from this proposal is therefore 96.7dBu for WKYS and 98.3dBu for WIAD.

There are a small number of homes in the vicinity of the proposed W232CB antenna. However, all of these locations are predicted to receive less than the interfering signal level as shown in Figure 4. Using straight line methodology taking into account the antenna azimuth and elevation patterns, the antenna height above ground and the ground elevation at each dwelling location, the signal level was calculated for each location. It is noted that the ground elevation falls off in all directions from the tower base with a significant drop off in elevation the direction of the occupied dwellings.

The predicted interference within an arc beginning at 165 degrees true north running clockwise to 45 degrees falls below the worst case level of 96.7dBu at all locations within this arc, and therefore causes no interference to either WKYS or WIAD in any location within this area.

The predicted signal level for each of the 3 closest occupied dwellings (worst case) within the arc from 45 degrees to 165 degrees was calculated taking into account the ground elevation at each location. As shown in Figure 4 and in the table below, the predicted interfering signal falls below 96.7dBu with respect to WKYS and below 98.3dBu for WIAD at each of these locations.

<u>Location</u>	<u>Azimuth</u>	<u>Depression Angle</u>	<u>Straight Line Distance</u>	<u>Level</u>
House 1	90 Degrees	21.5 Degrees	470M	95.0dBu
House 2	113 Degrees	17.3 Degrees	571M	94.3dBu
House 3	132 Degrees	14.9 Degrees	722M	91.3dBu

There are no occupied locations where actual interference is predicted to exist with respect to WKYS or WIAD and therefore a waiver of section 74.1204 is requested.

Overlap Study

This application is in compliance with Section 74.1204 in all other respects. An overlap study is presented in tabular form below that demonstrates no other prohibited overlap is predicted to occur from this proposal.

Comstudy 2.2 Search of Channel 232 (94.3 MHz Class D) at 39-19-50.5N, 77-31-28.6 W

Callsign	State	City	Freq	Channel	ERP_w	Class	Status	Distance_km	Clr
W232CB	MD	FREDERICK	94.3	232	45	D	LIC	18.92	-23.18 dB
WIAD	MD	BETHESDA	94.7	234	20500	B	LIC	54.56	-4.70 dB
WKYS	DC	WASHINGTON	93.9	230	24500	B	LIC	57.86	-3.06 dB
WIAD	MD	BETHESDA	94.7	234	50000	B	LIC	52.95	-2.09 dB
WKYS	DC	WASHINGTON	93.9	230	25000	B	LIC	57.86	0.72 dB
WQCM	PA	GREENCASTLE	94.3	232	3500	A	LIC	52.76	6.66 dB
WKYS	DC	WASHINGTON	93.9	230	5800	B	LIC	61.33	13.87 dB
WWXX	VA	BUCKLAND	94.3	232	2000	A	LIC	70.68	14.15 dB
WKYS	DC	WASHINGTON	93.9	230	245	B	CP	57.86	16.94 dB
WDAC	PA	LANCASTER	94.5	233	19000	B	LIC	126.97	17.73 dB
WQZK-FM	WV	KEYSER	94.1	231	13000	B	LIC	123.57	18.71 dB
WDAC	PA	LANCASTER	94.5	233	13500	B	LIC	126.94	23.71 dB
WRBT	PA	HARRISBURG	94.9	235	25000	B	LIC	119.95	28.56 dB
WINX-FM	MD	ST. MICHAELS	94.3	232	4600	A	LIC	149.06	28.02 dB
WRBT	PA	HARRISBURG	94.9	235	2900	B	LIC	119.91	29.90 dB
WRBT	PA	HARRISBURG	94.9	235	2400	B	LIC	125.84	29.95 dB

Figure 4

