

Purpose of Application & Technical Statement

This minor change to the licensed facility requests a channel change from Channel 232 to the Intermediate Frequency Channel 285 at a new tower location, elevation and antenna at an increased effective radiated power. The translator will be used as a fill-in translator for noncommercial Primary Station WHKV. The applicant has obtained permission from the WHKV licensee, Educational Media Foundation, to rebroadcast on this translator station.

OVERLAP REQUIREMENTS

The attached map of contours depicts the proposed allocation situation with respect to all pertinent co and adjacent facilities. All facilities have been depicted utilizing either the maximum ERP or directional pattern data as on file with the commission and 1 degree radial intervals on close in contours in the interest of accuracy. AAT data for the proposed facility was derived from the FCC's 30 second database, *Comstudy*.

As seen on the attached map of contours, channel 285-D is operable at the proposed location with the following facility notes:

- In compliance with 47 CFR 74.1204(g) the proposed facility operates at an effective radiated power which is over 100 watts, therefore protection to intermediate frequency facilities has been calculated and meets all mileage separation requirements.
- The proposed location is within the protected 60dbu (50,50) contour of second-adjacent station WKAK (FM) channel 283C1 located 16.6 km away. Therefore, an interference analysis has been conducted based on the u/d ratio of +40 dB at the proposed site. The signal of WKAK (FM) at the proposed location is 91.8 dBu (50,50) making the relevant interfering contour of the proposed facility 131.8 dBu (50,10).
- The applicant proposes to use the Nicom BKG77 one-bay antenna with the characteristics in the attached chart. The vertical field values were provided by the manufacturer and the calculations demonstrate that the interfering contour will not reach a point 23 meters above the ground at any depression angle from the antenna. The building upon which the tower is mounted is 6.1 meters high, meaning the interfering contour will not reach the roof of the building, nor any location where the general public would be present.

Based on this showing, a waiver of section 74.1204 is requested in accordance with Living Way Ministries, Inc. (FCC 08-242) on the basis of zero population in the area of interference.

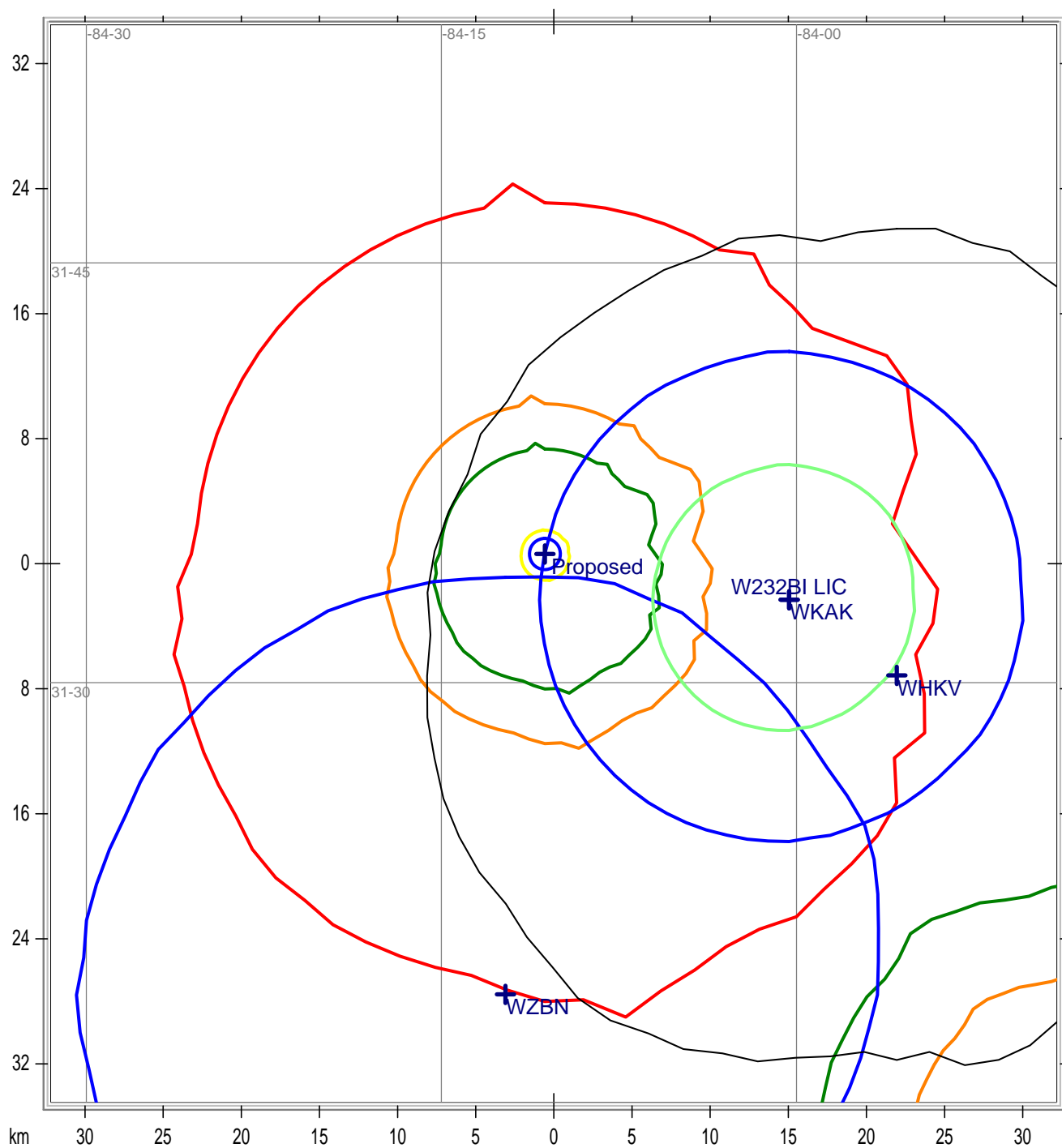
It should be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 CFR. 74.1203.

TOWER

The proposed tower location is commonly owned with the current licensed site for this translator, a modification of the tower lease is being prepared to permit a move of the translator to the proposed location.

CONTOURS

The attached map of contours utilizes FCC 30 Sec Terrain underlay only and for compliance demonstration the tabular data for the licensed, proposed and primary station 60dbu contours is attached.



— Lat/Lon Grid

FCC 30 Sec Terrain - Distance to Contour Data

Callsign : WHKV (LIC)
Coordinates : 31-30-15.6 N, 83-55-45.6 W
Frequency (MHz): 106.10000
HAAT (m): 100.94 AMSL (m): 193.00
Elevation (m): 95.00 Tower AGL (m): 98.00
ERP (w): 6000
City/State : SYLVESTER, GA
Licensee : EDUCATIONAL MEDIA FOUNDATION

Contour type : F(50,50)
Signal strength : 60.000 dBu
Area covered : 2518.400 sq. km
Population covered: 128298 persons
Contour HAAT (m) : 100.6

Brg AT	HAAT	Dist	Brg AT	HAAT	Dist	Brg AT	HAAT	Dist	Brg AT	HAAT	Dist
0	83	110 29.6	90	108	85 26.2	180	113	80 25.5	270	68	125 31.3
5	82	111 29.7	95	108	85 26.2	185	116	77 25.0	275	69	124 31.2
10	87	106 29.1	100	106	87 26.5	190	112	81 25.6	280	64	129 31.8
15	87	106 29.1	105	105	88 26.6	195	108	85 26.2	285	63	130 31.9
20	94	99 28.2	110	104	89 26.8	200	101	92 27.2	290	64	129 31.8
25	98	95 27.6	115	105	88 26.6	205	98	95 27.6	295	66	127 31.6
30	100	93 27.3	120	106	87 26.5	210	91	102 28.6	300	62	131 32.0
35	107	86 26.4	125	107	86 26.4	215	88	105 28.9	305	65	128 31.7
40	108	85 26.2	130	108	85 26.2	220	81	112 29.8	310	62	131 32.0
45	115	78 25.2	135	106	87 26.5	225	78	115 30.2	315	65	128 31.7
50	117	76 24.9	140	111	82 25.8	230	79	114 30.0	320	68	125 31.3
55	115	78 25.2	145	114	79 25.3	235	78	115 30.2	325	70	123 31.1
60	116	77 25.0	150	116	77 25.0	240	78	115 30.2	330	71	122 31.0
65	115	78 25.2	155	114	79 25.3	245	73	120 30.8	335	74	119 30.7
70	116	77 25.0	160	109	84 26.1	250	70	123 31.1	340	73	120 30.8
75	112	81 25.6	165	107	86 26.4	255	68	125 31.3	345	78	115 30.2
80	112	81 25.6	170	108	85 26.2	260	68	125 31.3	350	86	107 29.2
85	110	83 25.9	175	116	77 25.0	265	67	126 31.5	355	84	109 29.5

Callsign : W232BI (APP)
Coordinates : 31-34-35.9 N, 84-10-37.6 W
Frequency (MHz): 104.90000
HAAT (m): 32.15 AMSL (m): 92.00
Elevation (m): 66.00 Tower AGL (m): 26.00
ERP (w): 230
City/State : ALBANY, GA
Licensee : RADIO BY GRACE, INC.

Contour type : F(50,50)
Signal strength : 60.000 dBu
Area covered : 178.100 sq. km
Population covered: 73725 persons
Contour HAAT (m) : 32.5

Brg AT	HAAT	Dist	Brg AT	HAAT	Dist	Brg AT	HAAT	Dist	Brg AT	HAAT	Dist
0	66	26 6.9	90	61	31 7.0	180	46	46 8.6	270	64	28 6.9
5	66	26 6.9	95	56	36 7.6	185	48	44 8.4	275	65	27 6.9
10	68	24 6.9	100	56	36 7.6	190	50	42 8.2	280	67	25 6.9
15	68	24 6.9	105	58	34 7.4	195	50	42 8.2	285	68	24 6.9
20	68	24 6.9	110	54	38 7.8	200	50	42 8.2	290	70	22 6.9
25	68	24 6.9	115	51	41 8.1	205	50	42 8.2	295	72	20 6.9
30	65	27 6.9	120	54	38 7.8	210	50	42 8.2	300	76	16 6.9
35	62	30 6.9	125	49	43 8.3	215	51	41 8.1	305	79	13 6.9
40	65	27 6.9	130	48	44 8.4	220	51	41 8.1	310	78	14 6.9
45	67	25 6.9	135	48	44 8.4	225	52	40 8.0	315	76	16 6.9
50	65	27 6.9	140	48	44 8.4	230	54	38 7.8	320	75	17 6.9
55	61	31 7.0	145	47	45 8.5	235	55	37 7.7	325	74	18 6.9
60	56	36 7.6	150	49	43 8.3	240	56	36 7.6	330	72	20 6.9
65	55	37 7.7	155	49	43 8.3	245	57	35 7.5	335	71	21 6.9
70	57	35 7.5	160	47	45 8.5	250	58	34 7.4	340	71	21 6.9
75	58	34 7.4	165	45	47 8.7	255	58	34 7.4	345	69	23 6.9
80	62	30 6.9	170	42	50 9.0	260	61	31 7.0	350	65	27 6.9
85	65	27 6.9	175	46	46 8.6	265	61	31 7.0	355	61	31 7.0

Callsign : W232BI (LIC)
Coordinates : 31-32-57.6 N, 84-00-18.7 W
Frequency (MHz): 94.30000
HAAT (m): 225.06 AMSL (m): 298.00
Elevation (m): 69.00 Tower AGL (m): 229.00
ERP (w): 10
City/State : ALBANY, GA
ARN : BLFT-20171004ABH
Licensee : RADIO BY GRACE, INC.

Contour type : F(50,50)
Signal strength : 60.000 dBu
Area covered : 240.300 sq. km
Population covered: 12232 persons
Contour HAAT (m) : 224.9

Brg AT	HAAT	Dist		Brg AT	HAAT	Dist		Brg AT	HAAT	Dist		Brg AT	HAAT	Dist	
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0	66	232	8.9	90	98	200	8.2	180	75	223	8.7	270	51	247	9.2
5	70	228	8.8	95	97	201	8.2	185	71	227	8.8	275	53	245	9.1
10	71	227	8.8	100	95	203	8.3	190	69	229	8.8	280	58	240	9.1
15	71	227	8.8	105	95	203	8.3	195	69	229	8.8	285	58	240	9.1
20	74	224	8.7	110	93	205	8.3	200	61	237	9.0	290	59	239	9.0
25	75	223	8.7	115	95	203	8.3	205	60	238	9.0	295	59	239	9.0
30	78	220	8.7	120	93	205	8.3	210	55	243	9.1	300	58	240	9.1
35	80	218	8.6	125	94	204	8.3	215	52	246	9.2	305	60	238	9.0
40	77	221	8.7	130	98	200	8.2	220	53	245	9.1	310	58	240	9.1
45	80	218	8.6	135	104	194	8.1	225	53	245	9.1	315	58	240	9.1
50	81	217	8.6	140	100	198	8.2	230	55	243	9.1	320	58	240	9.1
55	81	217	8.6	145	101	197	8.2	235	54	244	9.1	325	56	242	9.1
60	84	214	8.5	150	97	201	8.2	240	52	246	9.2	330	60	238	9.0
65	88	210	8.4	155	95	203	8.3	245	51	247	9.2	335	61	237	9.0
70	94	204	8.3	160	93	205	8.3	250	52	246	9.2	340	63	235	9.0
75	95	203	8.3	165	91	207	8.4	255	48	250	9.2	345	64	234	8.9
80	99	199	8.2	170	88	210	8.4	260	49	249	9.2	350	65	233	8.9
85	99	199	8.2	175	81	217	8.6	265	48	250	9.2	355	63	235	9.0