

Channel Study

REFERENCE CH# 293D - 106.5 MHz, Pwr= 0.08 kW DA, HAAT= 163.7 M, COR= 574.1 M
 42 01 54.7 N. Average Protected F(50-50)= 12.5 km DATA 07-29-16
 76 47 02.2 W. Standard Directional SEARCH 07-29-16

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
291B Corning	WNKI	LIC	CN NY	304.7 124.6	25.47 BLH19801118AH	42 09 43.0 77 02 15.0	40.000 162	7.3 586	73.6 Community Broadcasters, Ll	7.1	-48.8*<
295D Elmira	W295BY	CP	DV NY	0.0 0.0	0.00 BMPFT20160129AHV	42 01 54.7 76 47 02.2	0.090	0.7 574	14.4 Sound Communications, Llc	-14.7*<	-15.0*<
293B Bloomsburg	WCFT-FM	LIC	C PA	166.1 346.4	125.04 BLH20000113AAR	40 56 18.0 76 25 38.0	10.500 313	131.0 591	68.4 Southern Belle, Llc	-11.4*<	31.1
293D Bath	W293CE	CP	DV NY	309.4 129.1	57.26 BMPFT20140807AAU	42 21 26.5 77 19 17.4	0.090	24.5 515	7.3 Family Life Ministries, In	20.8	10.1
294D Corning	W294BU	LIC	DV NY	296.9 116.7	27.21 BLFT20160606ABJ	42 08 31.0 77 04 40.0	0.099	9.2 547	6.5 Sound Communications, Llc	10.9	10.6
296A Whitneyville	WLIH	LIC	CN PA	230.1 49.8	45.26 BMLH19910606KA	41 46 13.0 77 12 08.0	3.300 91	2.3 575	24.5 Good Christian Radio Broad	41.4	20.8
294A Port Dickinson	WCDW	LIC	CX NY	87.5 268.1	69.58 BLH20101119AAR	42 03 22.0 75 56 39.0	1.200 221	45.7 617	30.2 Equinox Broadcasting Corp	22.6	37.2
293D Cortland	W293CU	CP	DV NY	35.3 215.7	81.04 BMPFT20160128BFB	42 37 30.0 76 12 41.0	0.027	20.2 469	6.1 Calvary Chapel Of The Fing	49.3	36.7
296D Ithaca	W296CP	LIC	C NY	23.6 203.8	50.36 BLFT20160523ABC	42 26 48.8 76 32 17.5	0.250	1.1 332	7.1 Taughannock Media, Llc	36.8	42.7
293D Seneca Falls	W293CV	CP	DV NY	0.5 180.5	98.13 BMPFT20160129AFK	42 54 55.0 76 46 28.0	0.200	29.7 212	9.0 Calvary Chapel Of Twin Fal	54.4	42.9
293B Buffalo	WYRK	LIC	CN NY	299.7 118.3	196.33 BLH19950814KA	42 53 10.0 78 52 25.0	50.000 142	134.9 326	62.0 Townsquare Media Of Buffal	53.2	95.7
293A Fair Haven	WKRH	LIC	NCX NY	6.8 187.0	154.03 BLH20150324AAS	43 24 30.0 76 33 24.0	6.000 98	83.1 194	25.5 Galaxy Syracuse Licensee L	57.0	82.5
292D Binghamton	W292DL	LIC	C NY	82.9 263.5	76.93 BLFT20070424AAU	42 06 49.0 75 51 39.0	0.014 77	12.3 459	8.8 Montrose Broadcasting Corp	63.1	65.7
296D Johnson City	W296BS	LIC	DC NY	87.5 268.1	69.58 BMLFT20130611AAL	42 03 22.0 75 56 39.0	0.250 287	0.1 678	6.4 Equinox Broadcasting Corp	68.2	63.2

Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM

Contour distances are on direct line to and from reference station. Reference Zone= East Zone, Co to 3rd adjacent.

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.

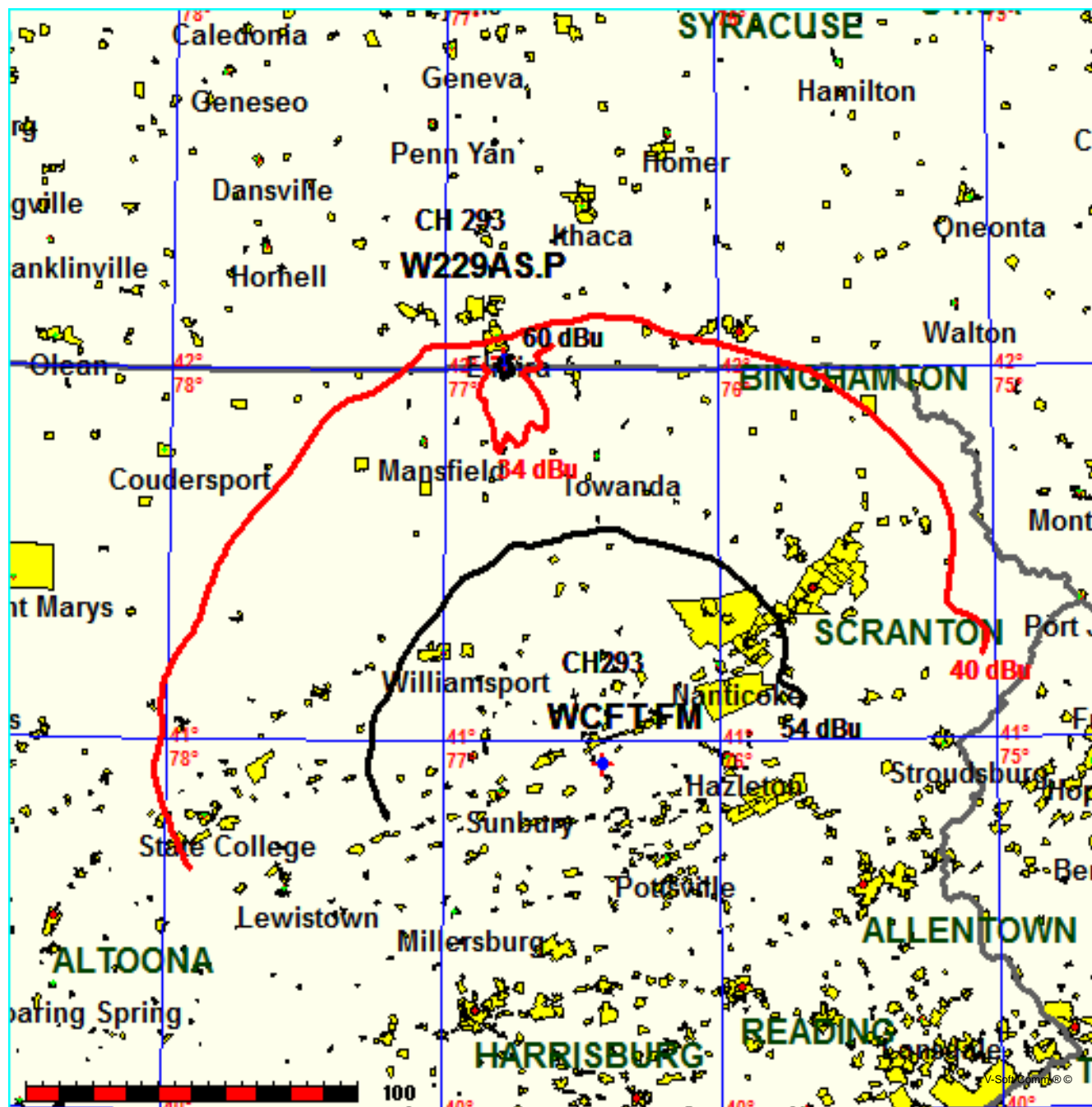
< = Contour Overlap

Tower Broadcasting Llc

FMCommander Single Allocation Study - 07-29-2016 - GLOBE 30 Sec
W229AS.P's Overlaps (In= -11.41 km, Out= 31.08 km)

W229AS.P CH 293 D DA
Lat= 42 01 54.7, Lng= 76 47 02.2
0.08 kW 163.7 m HAAT, 574.1 m COR
Prot.= 60 dBu, Intef.= 34 dBu

WCFT-FM CH 293 B BLH20000113AAR
Lat= 40 56 18.0, Lng= 76 25 38.0
10.5 kW 313 m HAAT, 591 m COR
Prot.= 54 dBu, Intef.= 40 dBu

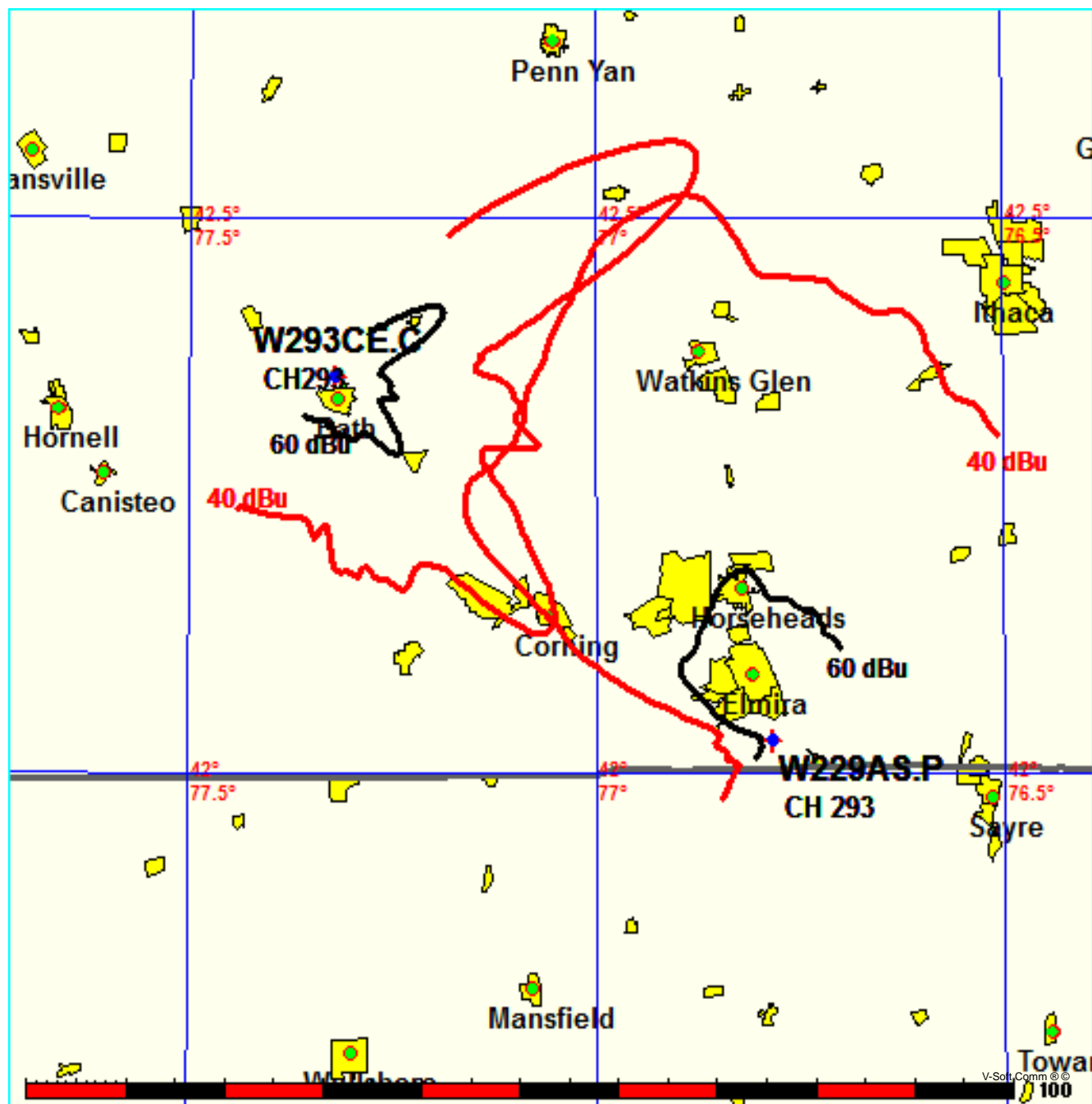


Tower Broadcasting Llc

FMCommander Single Allocation Study - 07-29-2016 - GLOBE 30 Sec
W229AS.P's Overlaps (In= 20.82 km, Out= 10.07 km)

W229AS.P CH 293 D DA
Lat= 42 01 54.7, Lng= 76 47 02.2
0.08 kW 163.7 m HAAT, 574.1 m COR
Prot.= 60 dBu, Intef.= 40 dBu

W293CE CH 293 D DA BMPFT20140807AAU
Lat= 42 21 26.5, Lng= 77 19 17.4
0.09 kW 0 m HAAT, 515 m COR
Prot.= 60 dBu, Intef.= 40 dBu

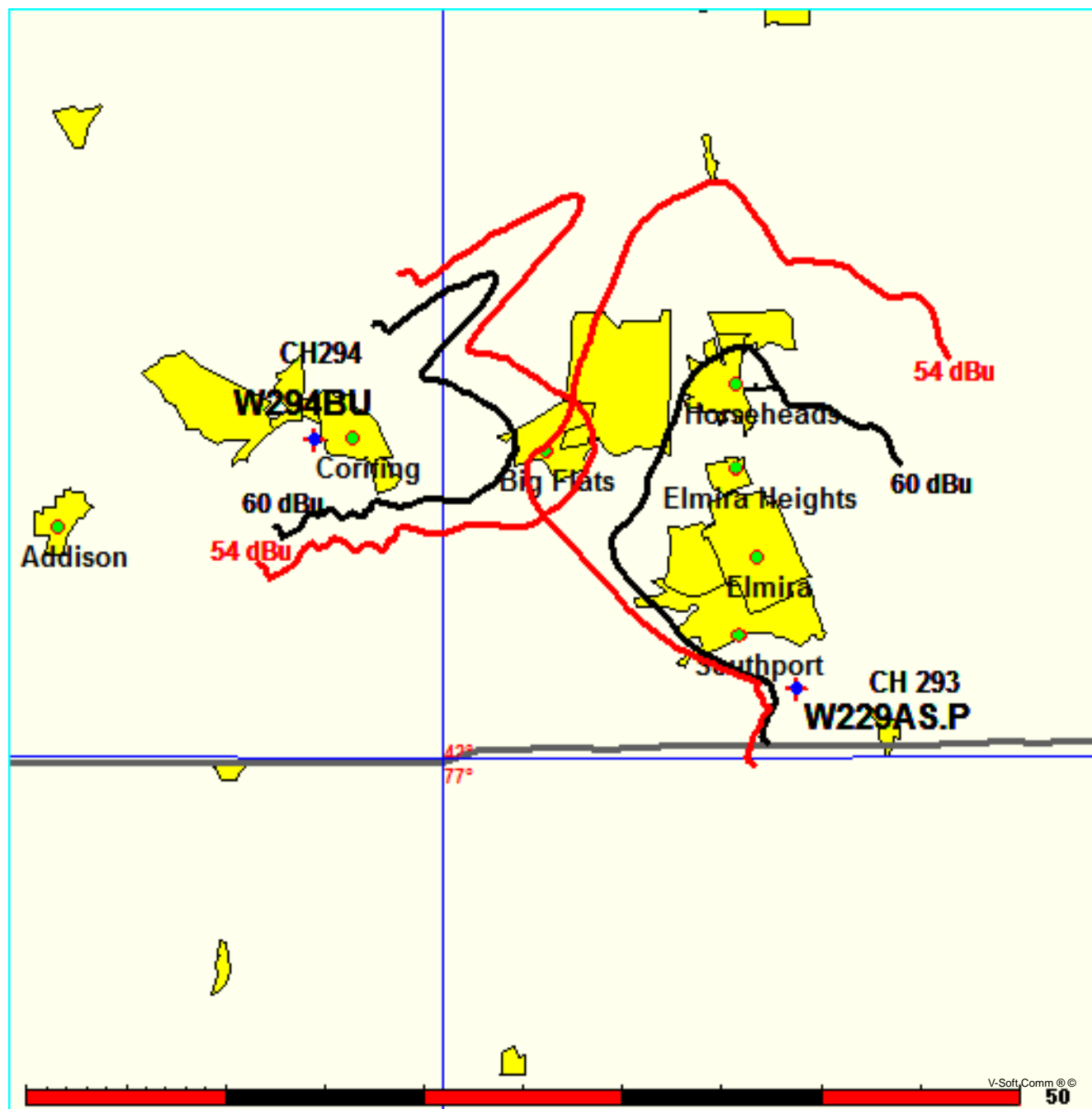


Tower Broadcasting Llc

FMCommander Single Allocation Study - 07-29-2016 - GLOBE 30 Sec
W229AS.P's Overlaps (In= 10.86 km, Out= 10.58 km)

W229AS.P CH 293 D DA
Lat= 42 01 54.7, Lng= 76 47 02.2
0.08 kW 163.7 m HAAT, 574.1 m COR
Prot.= 60 dBu, Intef.= 54 dBu

W294BU CH 294 D DA BLFT20160606ABJ
Lat= 42 08 31.0, Lng= 77 04 40.0
0.099 kW 0 m HAAT, 547 m COR
Prot.= 60 dBu, Intef.= 54 dBu



Tower Broadcasting LLC

56 Gail Drive
Owego, NY 13827

Exhibit 13-A

Elmira, NY

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 54dBu contour of second adjacent channel station WNKI, channel 291B, Corning, NY. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W229AS.P:	80 watts
The proposed COR for W229AS.P:	35 meters
WNKI F(50/50) contour at proposed site:	78.5dBu
The F(50/10) contour of proposed W229AS.P:	118.5dBu

The predicted distance to the 118.5dbu interfering contour is 75 meters. Exhibit 13-A1 demonstrates the distances to the interfering contour by taking into account the vertical elevation pattern of the Scala CA-2V single bay antenna. It has been determined that the interfering contour of 118.5dbu does not extend to any regularly occupied structures.

As seen in attachment 13-A2, the red marker demonstrates the distance of 75 meters in the direction of the antenna main lobe. The nearby building to the north is an unoccupied transmitter building which sits at the base of another tower located on this hill, therefore no population will be affected as a result of this proposed modification.

Tower Broadcasting LLC respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
W229AS
Elmira, NY

ERP (kw): 0.08
Height of Antenna above Ground (m): 35
Translator's IX Contour: 118.5
Antenna Type: Scala CA2V-1

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.0800	74.5667	35.000
5	0.990	0.0784	73.8210	28.566
10	0.978	0.0765	72.8964	22.342
15	0.958	0.0733	71.3976	16.521
20	0.915	0.0670	68.2285	11.664
25	0.865	0.0599	64.5002	7.741
30	0.808	0.0522	60.2126	4.894
35	0.745	0.0444	55.5522	3.137
40	0.675	0.0365	50.3325	2.647
45	0.595	0.0283	44.3672	3.628
50	0.510	0.0208	38.0290	5.868
55	0.430	0.0148	32.0637	8.735
60	0.345	0.0095	25.7255	12.721
65	0.265	0.0056	19.7602	17.091
70	0.190	0.0029	14.1677	21.687
75	0.125	0.0013	9.3208	25.997
80	0.750	0.0450	55.9250	-20.075
85	0.055	0.0002	4.1012	30.914
90	0.050	0.0002	3.7283	31.272

Tower Broadcasting LLC

56 Gail Drive
Owego, NY 13827

Exhibit 13-A

Elmira, NY

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60dBu contour of second adjacent channel station W295BY, channel 295D, Elmira, NY. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W229AS.P:	80 watts
The proposed COR for W229AS.P:	35 meters
W295BY F(50/50) contour at proposed site:	156dBu
The F(50/10) contour of proposed W229AS.P:	196dBu

The predicted distance to the 196dbu interfering contour is less than .1 meter. Exhibit 13-A1 demonstrates the distances to the interfering contour by taking into account the vertical elevation pattern of the Scala CA-2V single bay antenna. It has been determined that the interfering contour of 196dbu does not extend to any regularly occupied structures.

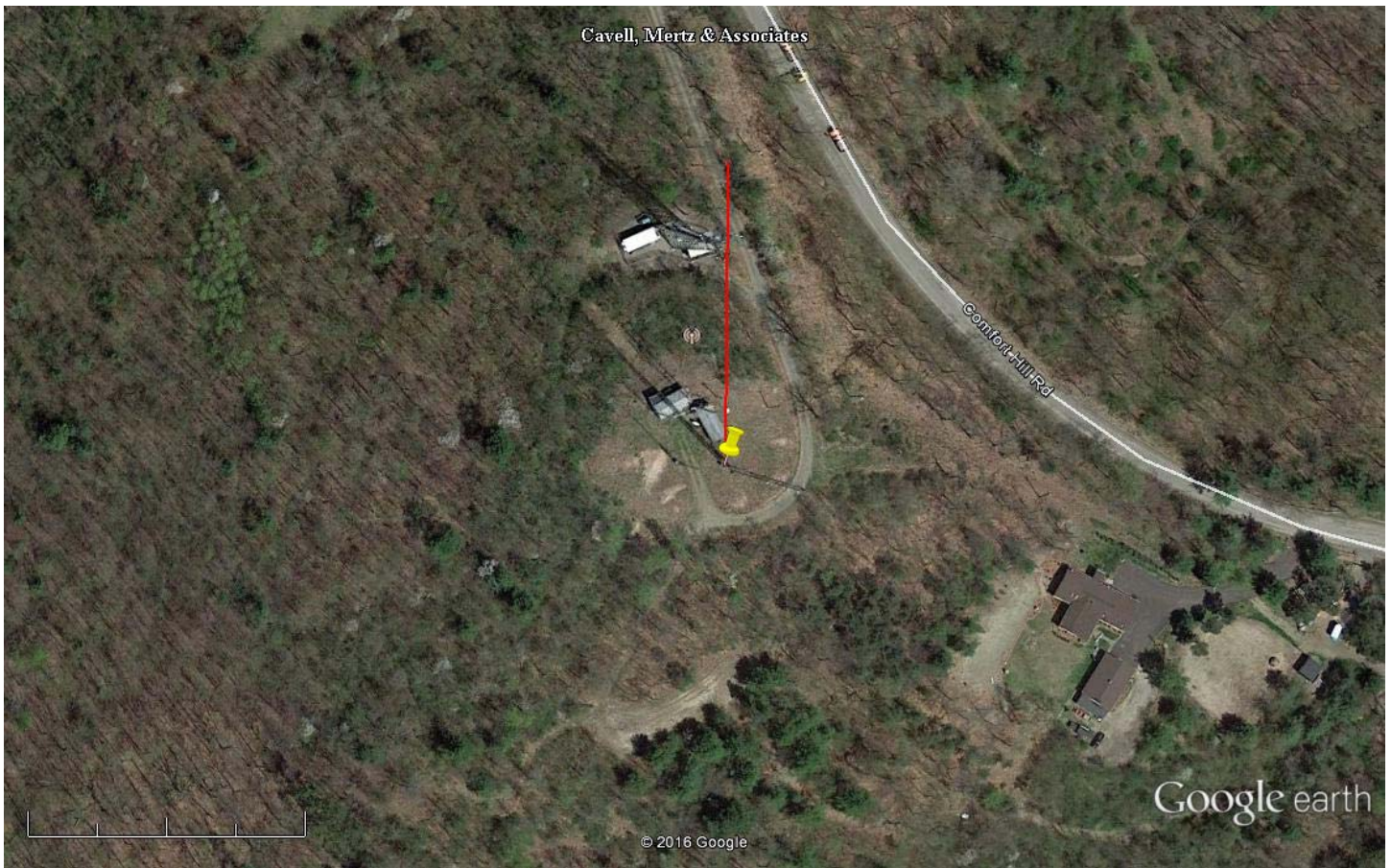
As seen in attachment 13-A2, the red marker demonstrates the distance of 75 meters in the direction of the antenna main lobe. The nearby building to the north is an unoccupied transmitter building which sits at the base of another tower located on this hill, therefore no population will be affected as a result of this proposed modification.

Tower Broadcasting LLC respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
W229AS
Elmira, NY

ERP (kw): 0.08
Height of Antenna above Ground (m): 35
Translator's IX Contour: 196
Antenna Type: Scala CA2V-1

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.0800	0.0099	35.000
5	0.990	0.0784	0.0098	34.999
10	0.978	0.0765	0.0097	34.998
15	0.958	0.0733	0.0095	34.998
20	0.915	0.0670	0.0091	34.997
25	0.865	0.0599	0.0086	34.996
30	0.808	0.0522	0.0080	34.996
35	0.745	0.0444	0.0074	34.996
40	0.675	0.0365	0.0067	34.996
45	0.595	0.0283	0.0059	34.996
50	0.510	0.0208	0.0051	34.996
55	0.430	0.0148	0.0043	34.996
60	0.345	0.0095	0.0034	34.997
65	0.265	0.0056	0.0026	34.998
70	0.190	0.0029	0.0019	34.998
75	0.125	0.0013	0.0012	34.999
80	0.750	0.0450	0.0075	34.993
85	0.055	0.0002	0.0005	34.999
90	0.050	0.0002	0.0005	35.000



Google earth

feet 600
meters 100



Yellow Pin Marker

NAD 27

42-01-54.7 N 76-47-02.2 W

Red Line Marker: 75m at zero degrees true north