VERTICAL ANTENNA PATTERN

Exhibit E-2 - Fig. 2 ¦ Faith Ch. Academy ¦ Berne IN ¦ 013089

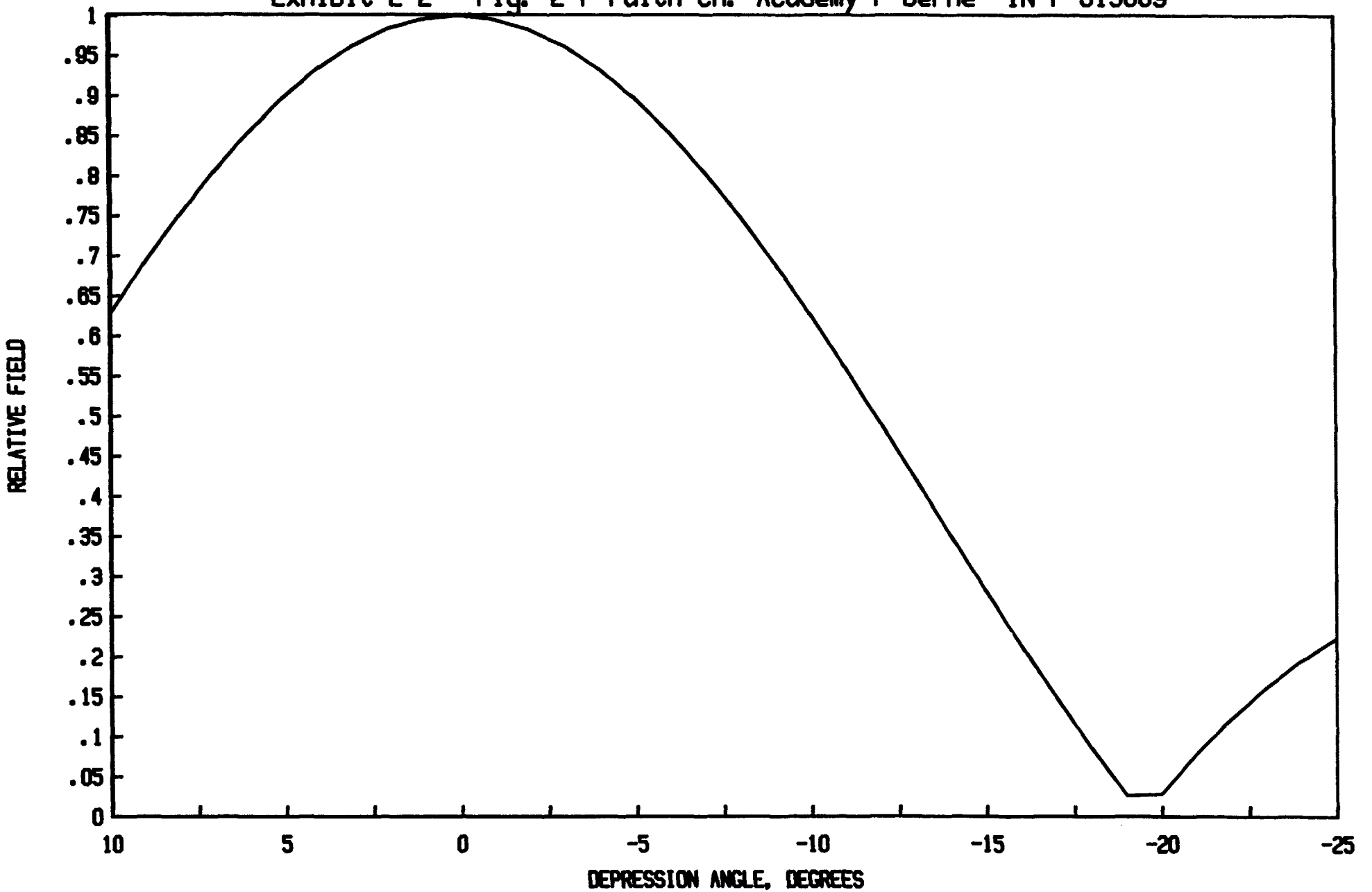


Exhibit E-2 - Figure 3
Faith Christian Academy
Berne, Indiana
Antenna Relative Field

AZ	Field	dBk	kW	AZ	Field	dBk	kW	AZ	Field	dBk	kW
0	0.36	5	3	120	0.92	13	21	230	0.40	6	4
10	0.45	7	5	130	0.92	13	21	240	0.32	4	3
20	0.56	9	8	135	0.93	13	22	250	0.25	2	2
30	0.71	11	13	140	0.93	13	22	260	0.20	0	1
40	0.90	13	20	150	0.95	14	23	270	0.20	0	1
45	0.94	13	22	160	0.97	14	25	280	0.20	0	1
50	0.97	14	24	170	1.0	14	25	290	0.20	0	1
60	0.99	14	25	180	1.0	14	25	300	0.20	0	1
70	1.0	14	25	190	0.98	14	24	310	0.20	0	1
80	0.99	14	25	200	0.80	12	16	315	0.20	0	1
90	0.96	14	23	210	0.63	10	10	320	0.20	0	1
100	0.94	13	22	220	0.50	8	6	330	0.20	0	1
110	0.93	13	22	225	0.45	7	5	340	0.22	1	1.21
								350	0.28	3	2

Exhibit E-3
Faith Christian Academy
Berne, Indiana
Stations Within 60 Meters Of Proposed Antenna

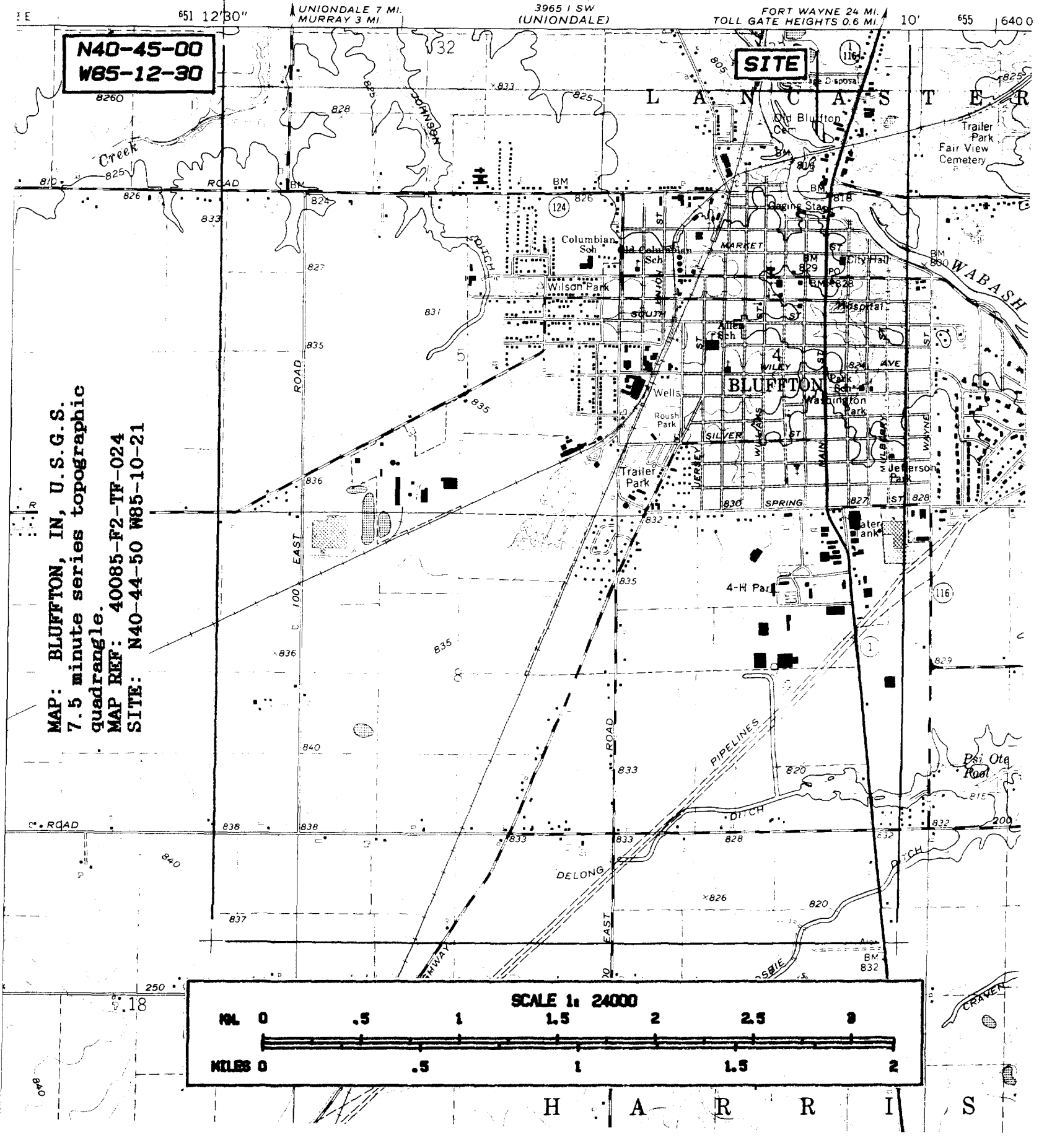
FM broadcast station WNUY holds a construction permit (BPH-881205ID) to locate its antenna on the existing tower structure proposed as the supporting structure in the instant application. WNUY is authorized to operate with an effective radiated power of 2.6 kilowatts with an antenna height 107 meters above average terrain.

The WNUY antenna (ARC 107 meters AAT) will not share a common aperture with the proposed new NCE-FM station (ARC 100 meters AAT). There will be a 7 meter physical separation between the antennae of WNUY and the proposed new NCE-FM antenna.

The applicant is aware of its responsibility to preserve the ambient suitability of the site for pre-existing facilities, and accepts such responsibility as a pre-condition of grant whether informally or as a specific condition of its Construction Permit. Should special means such as pass-band or stop-band filters and special mounting considerations be required to comply with applicable technical standards and the generally accepted principles of good engineering practice, the applicant stands ready to implement such measures as may be found necessary at construction in order to preserve any pre-existing services on the host structure.

Exhibit E-4
Faith Christian Academy
Berne, Indiana
Site Map: BLUFFTON, IN, U.S.G.S.
7.5' Series Topo. Quad.

STATE OF INDIANA
INDIANA DEPARTMENT OF CONSERVATION
INDIANAPOLIS, INDIANA



MAP: BLUFFTON, IN, U.S.G.S.
7.5 minute series topographic quadrangle.
MAP REF: 40085-F2-TF-024
SITE: N40-44-50 W85-10-21

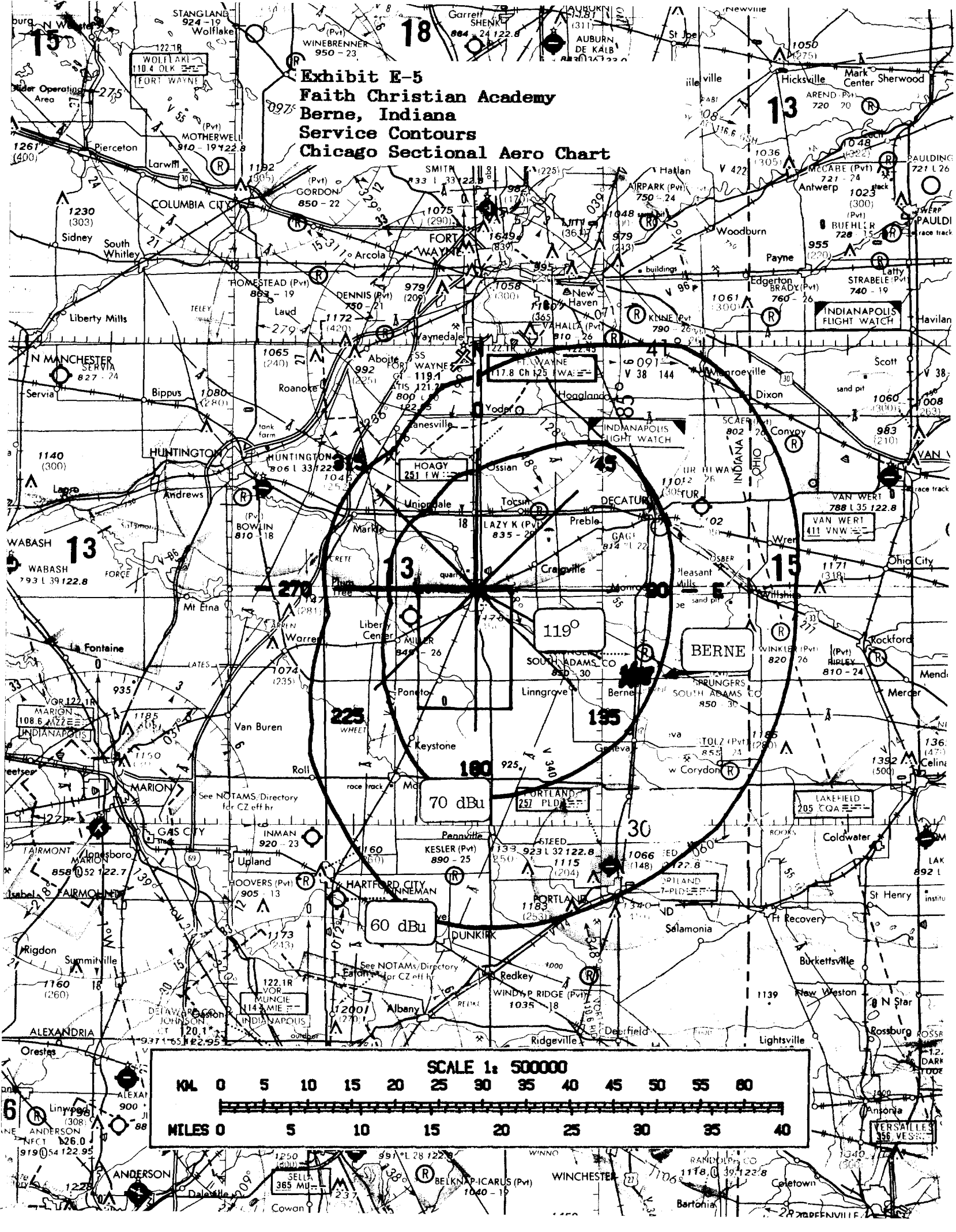


Exhibit E-5
Faith Christian Academy
Berne, Indiana
Service Contours
Chicago Sectional Aero Chart
119°
BERNE
70 dBu
60 dBu
SCALE 1: 500000
KM 0 5 10 15 20 25 30 35 40 45 50 55 60
MILES 0 5 10 15 20 25 30 35 40
FORT WAYNE
COLUMBIA CITY
HUNTINGTON
DECATUR
INDIANAPOLIS
MARION
PORTLAND
HARTFORD CITY
DUNKIRK
Berne
Linngrove
Geneva
Van Buren
Keystone
Roll
Upland
Albany
Redkey
Salamonia
Ft Recovery
Coldwater
Celina
Mercer
Rockford
Van Wert
Ohio City
Wren
Convoy
Monroeville
Woodburn
Antwerp
Hicksville
Sherwood
Hamilton
Angola
Kendallville
Ligonier
Warsaw
Wabash
Huntington
Andrews
Bluffton
Decatur
Berne
Portland
Muncie
Anderson
Winchester
Ridgeville
Deerfield
Lightsville
Burkettsville
New Weston
St Henry
Rossburg
Ansonia
Versailles
Celina
Coldwater
Lakefield
Fairmount
Gas City
Marion
Jonesboro
Summitville
Rigdon
Orestes
Alexandria
Dalesville
Cowan
Bartonia
Celeton
Randolph Co
Belknap-Icarus (Pvt)
Sells
Muncie
Johnson
Delaware Co
Windy Ridge (Pvt)
Hoovers (Pvt)
Kesler (Pvt)
Steed
Inman
Fairmont
See NOTAMS Directory for CZ eff hr
Wolflake
Fort Wayne
Indianapolis Flight Watch
Hoagy
Van Wert
Portland
Lakefield
Muncie
Indianapolis
Marion
Wabash
Huntington
Fort Wayne
Columbia City
Sidney
South Whitley
Pierceton
Larwill
Liberty Mills
Laud
Waynedale
Aboite
Roanoke
Bippus
Servia
N Manchester
Huntington
Andrews
Bluffton
Yoder
Ossian
Uniondale
Markle
Preble
Craigville
Monroe
Pleasant Mills
Wilshire
Ohio City
Wren
Convoy
Monroeville
Woodburn
Antwerp
Hicksville
Sherwood
Mark Center
Edgerton
Payne
Arcola
Hamilton
Angola
Kendallville
Ligonier
Warsaw
Wabash
Mt Etna
Warren
Liberty Center
La Fontaine
Poneto
Van Buren
Keystone
Roll
Upland
Hoovers (Pvt)
Hartford City
Dunkirk
Redkey
Albany
Deerfield
Ridgeville
Lightsville
Burkettsville
New Weston
St Henry
Ft Recovery
Salamonia
Coldwater
Celina
Mercer
Rockford
Van Wert
Ohio City
Wren
Convoy
Monroeville
Woodburn
Antwerp
Hicksville
Sherwood
Mark Center
Edgerton
Payne
Arcola

Exhibit E-6 - Figure 1
Faith Christian Academy ¦ Berne IN ¦ ED-16 1727T 1727DA1 ¦ N404450 W851021 ¦ 013089 ¦
TABULATION OF TV/FM CONTOUR CALCULATIONS ON CHANNEL 216

AZIMUTH	ERP, KW.	HAAT (M)	70/50%	60/50%	40/10%	54/10%	80/10%	100/10%	72.6/10%
0	3.24	95.404	13.743	24.456	76.072	35.798	7.4279	2.2981	12
45	22.09	97.842	22.624	37.057	110.53	58.017	12.789	3.8219	20.083
90	23.04	92.051	22.125	36.323	110.47	57.343	12.529	3.7416	19.545
135	21.623	108.51	23.855	38.869	111.77	59.877	13.431	4.0361	21.425
180	25	102.72	23.934	38.983	114.04	60.534	13.471	4.0641	21.52
225	5.0625	92.66	14.862	26.604	82.59	39.878	8.1565	2.5624	13.119
270	1	99.061	10.561	18.347	59.874	27.573	5.6815	1.5419	8.8179
315	1	110.95	11.346	19.853	62.15	29.229	6.0687	1.6304	9.6025
10	5.0625	95.946	15.079	27.021	83.208	40.596	8.3733	2.5956	13.336
20	7.84	96.489	16.66	29.535	90.501	45.287	9.6829	2.8883	14.645
30	12.603	97.031	19.383	32.291	98.854	50.783	11.101	3.2069	16.513
40	20.25	97.571	22.103	36.291	108.7	56.868	12.518	3.7221	19.51
50	23.523	97.199	22.893	37.454	111.73	58.675	12.929	3.8756	20.382
60	24.503	95.913	22.959	37.549	112.36	58.928	12.963	3.8914	20.456
70	25	94.626	22.907	37.475	112.58	58.918	12.937	3.8848	20.403
80	24.503	93.34	22.632	37.07	111.96	58.398	12.794	3.8352	20.102
100	22.09	95.708	22.354	36.659	110.19	57.574	12.648	3.7754	19.79
110	21.623	99.366	22.697	37.165	110.34	58.062	12.827	3.8322	20.162
120	21.16	103.02	23.039	37.668	110.48	58.533	13.006	3.8893	20.534
130	21.16	106.68	23.503	38.351	111.06	59.258	13.247	3.9711	21.039
140	21.623	107.87	23.775	38.748	111.68	59.753	13.388	4.0214	21.337
150	22.563	106.58	23.849	38.859	112.33	60.022	13.427	4.0391	21.422
160	23.523	105.29	23.92	38.962	113.04	60.283	13.464	4.0557	21.501
170	25	104.01	24.097	39.223	114.27	60.783	13.556	4.0932	21.699
190	24.01	100.48	23.424	38.235	112.66	59.592	13.206	3.9703	20.962
200	16	98.25	20.872	34.48	103.98	54.055	11.876	3.4825	18.152
210	9.9225	96.013	17.917	30.792	94.3	47.656	10.337	3.0373	15.3
220	6.25	93.779	15.549	27.924	86.29	42.342	8.844	2.7106	13.806
230	3.98	93.371	14.208	25.349	78.856	37.498	7.7125	2.4134	12.465
240	2.51	94.794	12.96	22.951	72.028	32.977	6.9467	2.1261	11.216
250	1.58	96.217	11.706	20.543	65.228	29.997	6.2341	1.8345	9.9623
260	1	97.641	10.468	18.166	59.589	27.377	5.6361	1.5312	8.7241
280	1	101.7	10.736	18.681	60.394	27.941	5.7664	1.562	8.9922
290	1	104.35	10.91	19.016	60.907	28.308	5.8521	1.5824	9.1667
300	1	106.99	11.084	19.351	61.409	28.677	5.9383	1.6031	9.341
310	1	109.63	11.259	19.685	61.905	29.045	6.0251	1.6214	9.5152
320	1	110.84	11.338	19.838	62.129	29.213	6.065	1.6296	9.5949
330	1	110.61	11.323	19.809	62.087	29.182	6.0574	1.6282	9.5799
340	1.21	110.38	11.863	20.846	64.345	30.326	6.3231	1.7589	10.12
350	1.96	110.15	13.253	23.514	71.392	33.967	7.1382	2.0915	11.51
AREAS, Sq. Km. :			1096.9	3047.2	27480	7221.3	342.91	30.746	861.42

OVERALL HEIGHT ABOVE AVERAGE TERRAIN = 99.9 (M)

ALL HEIGHTS IN METERS. ALL CONTOUR DISTANCES IN KILOMETERS.

ALL CONTOURS IN DBU AS DETERMINED BY BIVARIATE INTERPOLATION
USING VALUES FROM APPROPRIATE FCC F(50,50) AND F(50,10) CURVES.

FM BLANKETING CONTOUR 115 dBu = 1.23 MILES, 1.97 KM.
CALCULATED PURSUANT TO R&R 73.318(a) FOR MAXIMUM ERP.

Exhibit E-6 - Figure 2
Faith Christian Academy
Berne, Indiana
Terrain Averaging Program

BASED ON NGDC 30 SECOND DATABASE

1727-174 ¦ BERNE IN ¦ ED-16 ¦ 013089 ¦

N LAT: 404450
W LNG: 851021

BEARING DEG.	2-10 MI. ELEVATION METERS	FEET
0	255	838
45	253	830
90	259	849
135	242	795
180	248	814
225	258	847
270	252	826
315	240	787
119	255	836
AVERAGE:	251	823

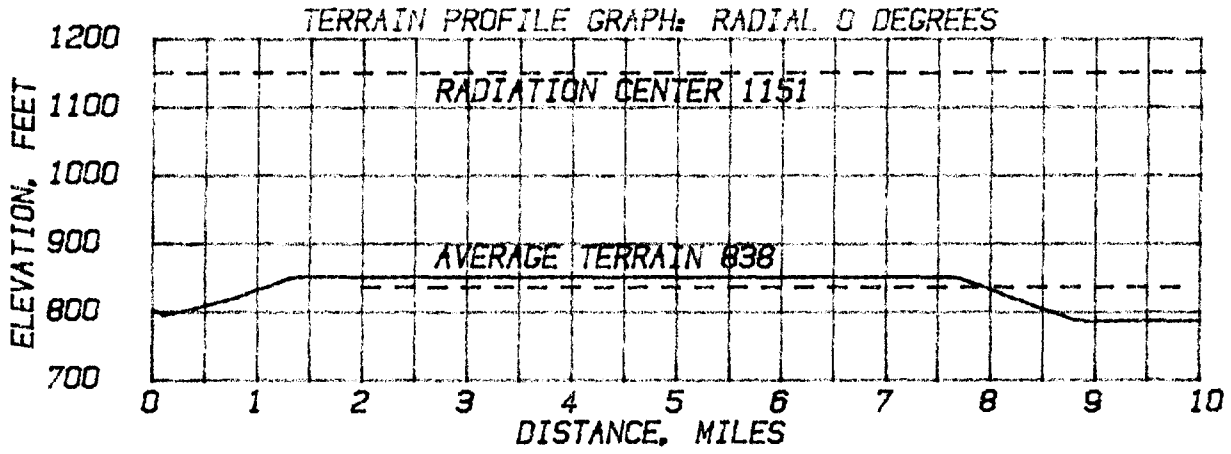
Exhibit E-6 - Figure 3
Faith Christian Academy - Berne Indiana
Tabulation Of Radial Data

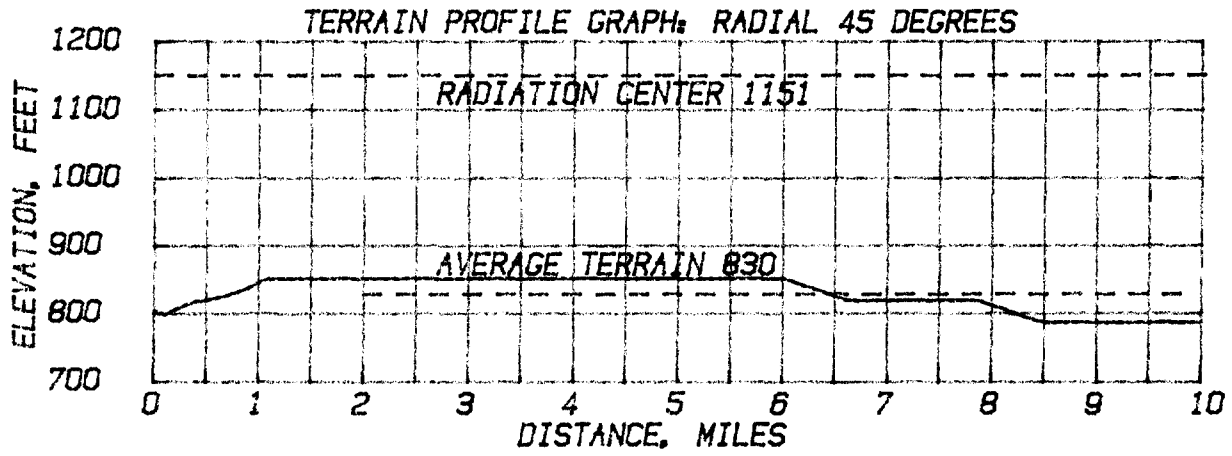
DIST	0	45	90	135	180	225	270	315
0	806	806	806	806	806	806	806	806
.1	796	799	799	796	792	790	789	791
.2	798	806	804	796	791	787	787	787
.3	802	813	809	795	789	787	787	788
.4	806	819	809	793	787	787	787	791
.5	810	821	809	789	787	787	787	792
.6	814	824	809	787	787	787	787	792
.7	818	828	809	787	787	787	787	790
.8	822	833	815	787	787	787	787	788
.9	828	839	825	787	787	787	787	787
1	834	847	835	787	787	787	787	787
1.1	839	853	845	789	787	787	787	788
1.2	845	853	853	790	787	787	787	789
1.3	851	853	853	789	787	787	787	789
1.4	853	853	853	787	787	787	787	788
1.5	853	853	853	787	787	787	787	787
1.6	853	853	853	787	787	787	787	787
1.7	853	853	853	788	787	787	787	787
1.8	853	853	853	791	787	787	787	787
1.9	853	853	853	791	787	787	787	787
2	853	853	853	791	787	787	787	787
2.1	853	853	853	789	787	790	787	787
2.2	853	853	853	787	787	796	787	787
2.3	853	853	853	787	787	801	787	787
2.4	853	853	853	787	787	806	787	787
2.5	853	853	853	787	787	812	787	787
2.6	853	853	853	787	787	817	787	787
2.7	853	853	853	787	787	822	787	787
2.8	853	853	853	787	787	828	787	787
2.9	853	853	853	787	787	833	787	787
3	853	853	853	787	787	838	787	787
3.1	853	853	853	787	787	844	787	787
3.2	853	853	853	787	787	849	787	787
3.3	853	853	853	787	787	853	787	787
3.4	853	853	853	787	787	853	787	787
3.5	853	853	853	787	787	853	787	787
3.6	853	853	853	787	787	853	787	787
3.7	853	853	853	787	787	853	787	787
3.8	853	853	853	787	787	853	787	787
3.9	853	853	853	787	787	853	787	787
4	853	853	853	787	787	853	787	787
4.1	853	853	853	787	787	853	787	787
4.2	853	853	853	787	787	853	787	787
4.3	853	853	853	787	787	853	787	787
4.4	853	853	853	787	787	853	787	787
4.5	853	853	853	787	787	853	787	787
4.6	853	853	853	787	787	853	787	787
4.7	853	853	853	787	787	853	787	787
4.8	853	853	853	787	787	853	787	787
4.9	853	853	853	787	787	853	787	787
5	853	853	853	787	787	853	792	787

Exhibit E-6 - Figure 4
Faith Christian Academy - Berne Indiana
Tabulation Of Radial Data
(continued)

DIST	0	45	90	135	180	225	270	315
5.1	853	853	853	787	787	853	799	787
5.2	853	853	853	787	787	849	807	787
5.3	853	853	853	787	787	844	814	787
5.4	853	853	853	787	787	839	822	787
5.5	853	853	853	787	787	835	829	787
5.6	853	853	853	787	787	834	837	787
5.7	853	853	853	787	787	833	844	787
5.8	853	853	853	787	787	837	852	787
5.9	853	853	853	787	787	843	853	787
6	853	853	853	787	787	847	853	787
6.1	853	848	853	787	787	851	853	787
6.2	853	842	853	787	791	853	853	787
6.3	853	837	853	787	797	853	853	787
6.4	853	832	853	787	803	853	853	787
6.5	853	826	853	787	808	853	853	787
6.6	853	821	853	787	814	853	853	787
6.7	853	820	853	789	820	853	853	787
6.8	853	820	853	790	824	853	853	787
6.9	853	820	853	790	828	853	853	787
7	853	820	853	789	832	853	853	787
7.1	853	820	853	787	836	853	853	787
7.2	853	820	853	787	840	853	853	787
7.3	853	820	853	790	843	853	853	787
7.4	853	820	853	792	845	853	853	787
7.5	853	820	853	794	847	853	853	787
7.6	853	820	853	794	849	853	853	787
7.7	851	820	853	792	850	853	853	787
7.8	845	820	853	790	852	853	853	787
7.9	840	818	853	790	853	853	853	787
8	834	812	853	795	853	853	853	787
8.1	828	807	853	800	853	853	853	787
8.2	822	802	853	806	853	853	853	787
8.3	817	796	853	811	853	853	853	787
8.4	811	791	853	816	853	853	853	787
8.5	805	787	853	820	853	853	853	787
8.6	800	787	853	820	853	853	853	787
8.7	794	787	853	820	853	853	853	787
8.8	788	787	853	820	853	853	853	787
8.9	787	787	853	820	853	853	853	787
9	787	787	853	820	853	853	853	787
9.1	787	787	849	820	853	853	853	787
9.2	787	787	842	820	853	853	853	787
9.3	787	787	834	820	853	853	853	787
9.4	787	787	827	820	853	853	853	787
9.5	787	787	820	820	853	853	853	787
9.6	787	787	815	820	853	853	853	787
9.7	787	787	810	820	853	853	853	787
9.8	787	787	805	820	853	853	853	787
9.9	787	787	800	820	853	853	853	787
10	787	787	796	820	853	853	853	787

Exhibit E-6 - Figure 5
Faith Christian Academy
Berne, Indiana
Terrain Profile Graphs





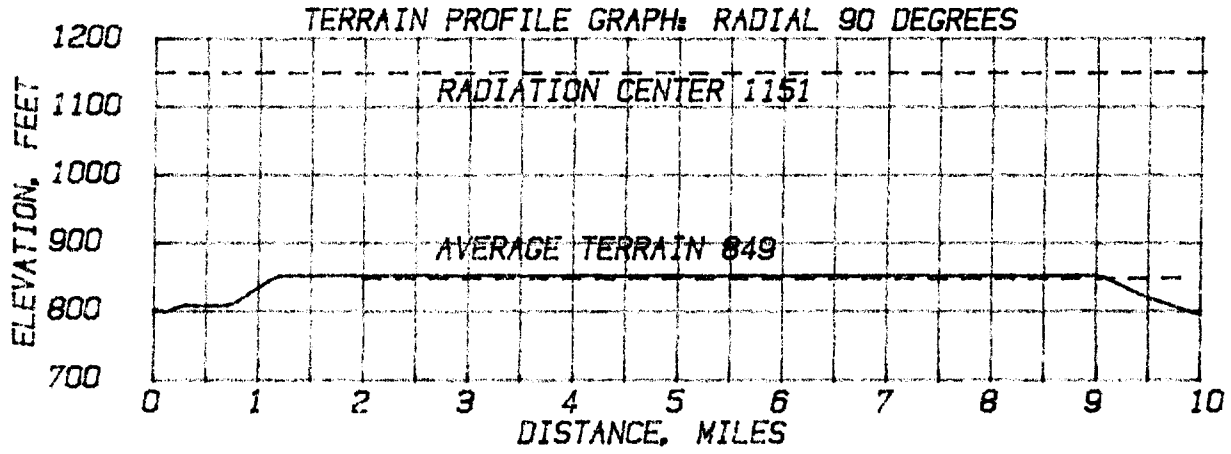
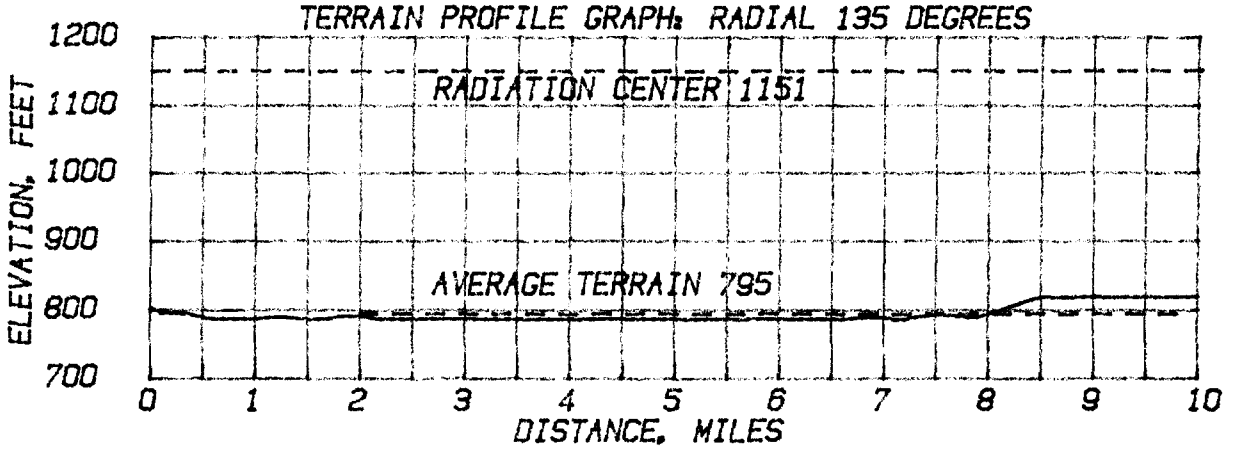
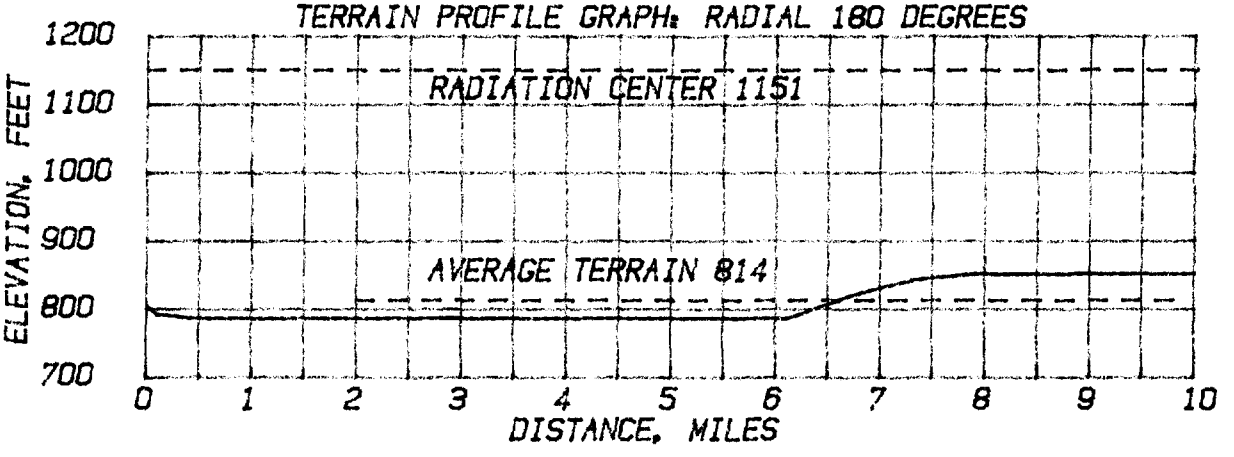


Exhibit E-6 - Figure 6
Faith Christian Academy
Berne, Indiana
Terrain Profile Graphs





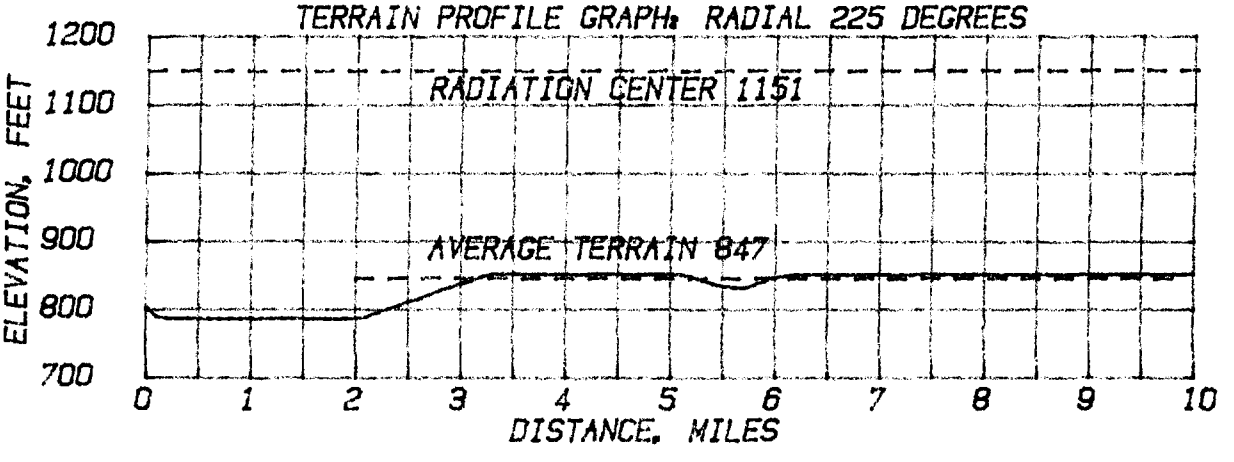
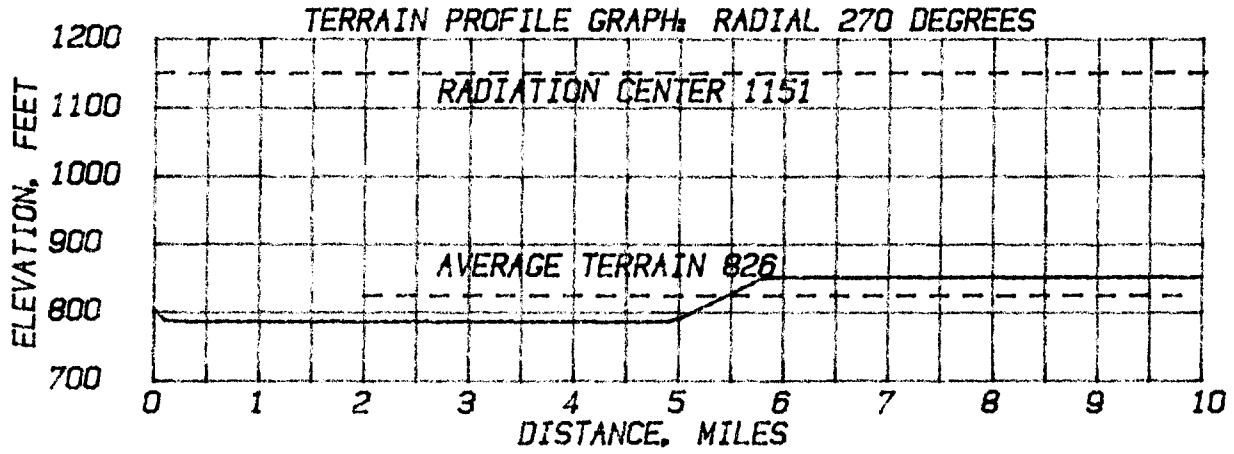
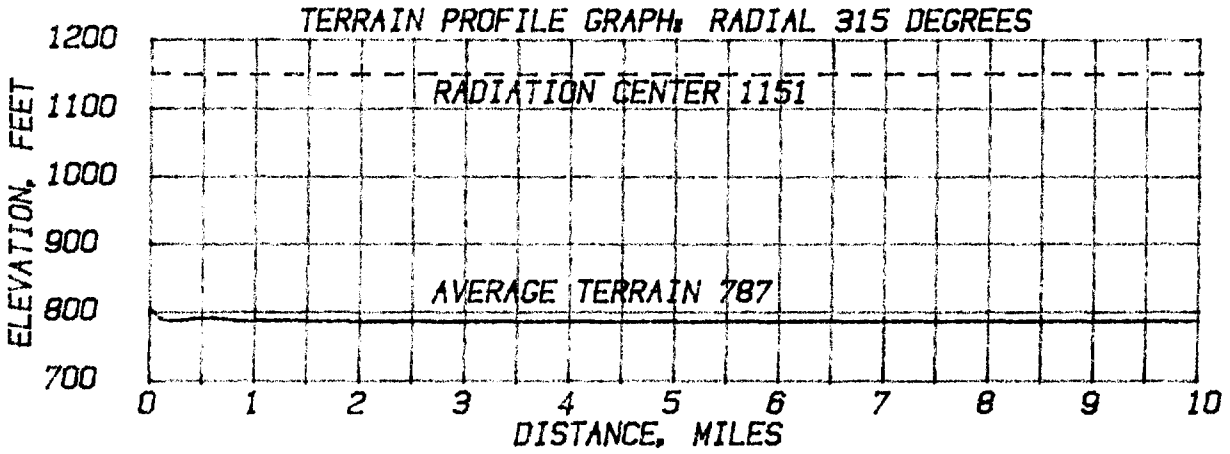
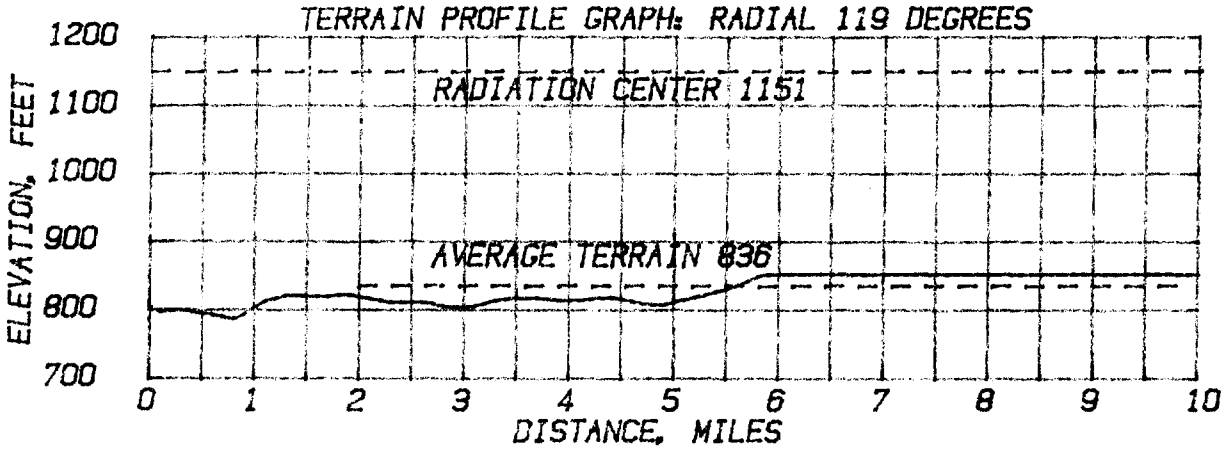


Exhibit E-6 - Figure 7
Faith Christian Academy
Berne, Indiana
Terrain Profile Graphs







1727-174 | BERNE IN | 013089 | CHANNEL 216 REF. N404450 W851021

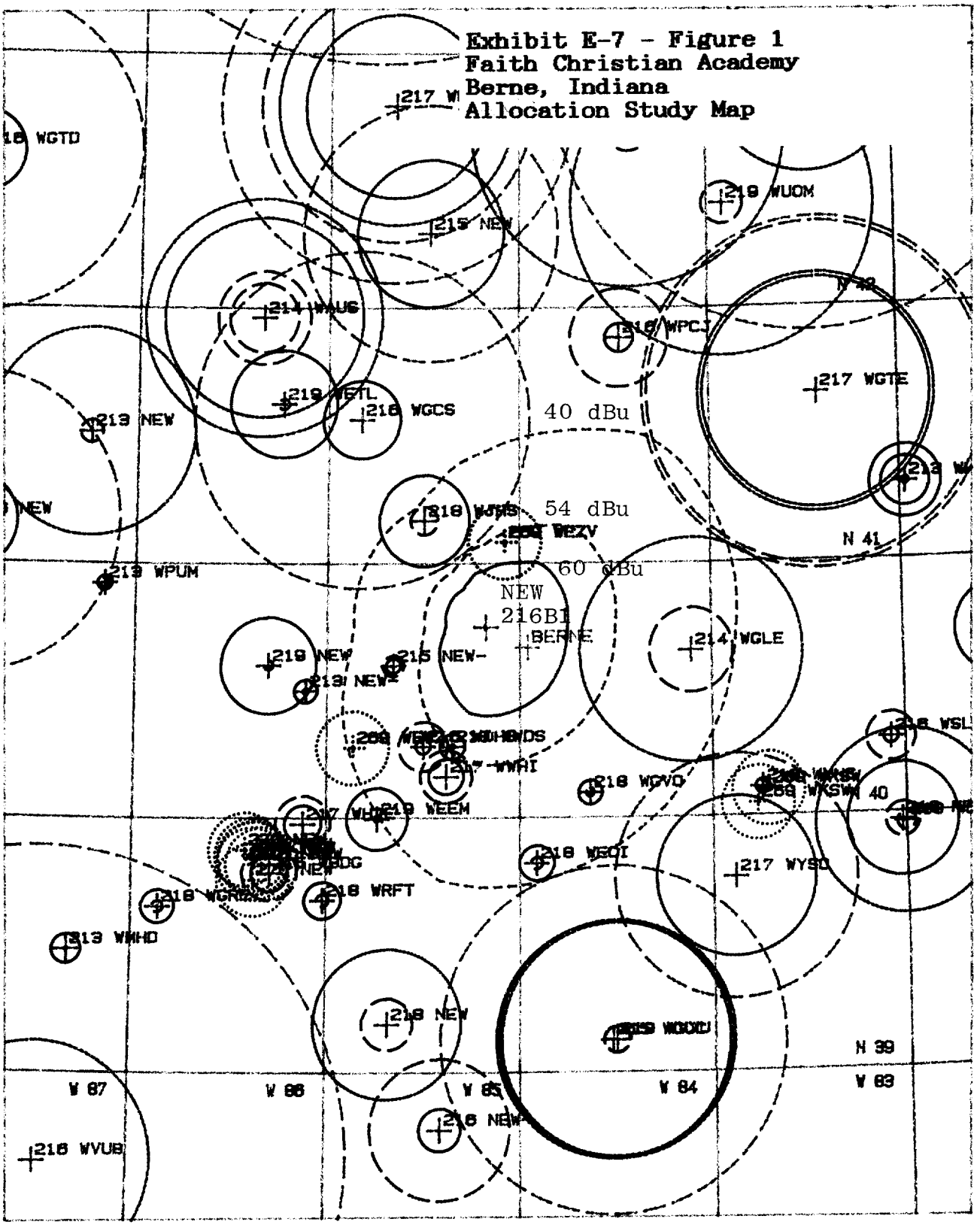


Exhibit E-7 - Figure 2
Faith Christian Academy
Berne, Indiana
Identification Of Facilities
And Contours On Allocation Map

IDENTIFICATION OF FACILITIES

1727-174 ¦ BERNE IN ¦ 013089 ¦

REFERENCE POINT: N LAT 40-44-50 W LNG 85-10-21

EDUCATIONAL FM ALLOCATION STUDY FOR CHANNEL 216
(FREQUENCY 91.1 MHZ.)

CHAN	CALL	CITY AND STATE	CL/TYP	MILES	KM.	AZIMUTH	ERP	HAAT(M)	RELEVANT CONTOURS AND DISTANCES	
213B	WEW	Chicago IL	B AP	120.23	193.49	296.77	30	133	PC1mv/m=28.161mi.	INTF100mv/m=3.0245mi.
213D	WWDS	Muncie IN	D LI	33.644	54.144	195.92	.03	52	PC1mv/m=3.3754mi.	INTF100mv/m=-.56205mi.
213D	WEW-	Kokomo IN	D AP	52.196	84.001	250.98	.06	0	PC1mv/m=3.0989mi.	INTF100mv/m=-.64355mi.
213A	WMHD	Terre Haute IN	A LI	143.62	231.13	233.17	.16	24	PC1mv/m=3.9682mi.	INTF100mv/m=-.29723mi.
213D	WPUM	Rensselaer IN	D LI	104.72	168.53	277.21	.01	0	PC1mv/m=1.9759mi.	INTF100mv/m=-1.2762mi.
213B	WKAR	East Lansing MI	B LI	140.5	226.11	15.898	86	273	PC1mv/m=42.64mi.	INTF100mv/m=5.9101mi.
213A	WHVT	Clyde OH	A LI	120.98	194.69	70.98	.37	52	PC1mv/m=6.6325mi.	INTF100mv/m=.33531mi.
213A	WHVT	Clyde OH	A AP	120.98	194.69	70.98	2.7	47	PC1mv/m=9.819mi.	INTF100mv/m=.96436mi.
213B	WCBE	Columbus OH	B LI	126.57	203.69	114.68	11	162	PC1mv/m=25.037mi.	INTF100mv/m=2.5153mi.
214D	WBHI	Chicago IL	D LI	149.61	240.77	298.44	0	17		
214B	WAUS	Berrien SprinMI	B LI	103.75	166.96	324.4	48	98	PC1mv/m=27.009mi.	INTF10mv/m=9.3575mi.
214B	WAUS	Berrien SprinMI	B AP	103.75	166.96	324.4	50	150	PC1mv/m=32.231mi.	INTF10mv/m=12.628mi.
214D	WVMC	Mansfield OH	D LI	138.66	223.15	89.862	.01	0	PC1mv/m=1.9759mi.	INTF10mv/m=.34983mi.
214B	WGLE	Lima OH	B LI	56.167	90.392	96.243	50	128	PC1mv/m=30.477mi.	INTF10mv/m=11.465mi.
215D	WEW-	Marion IN	D AP	27.407	44.107	247.98	.01	0	PC1mv/m=1.9759mi.	INTF.5mv/m=2.8177mi.
215A	WBDG	Indianapolis IN	A LI	88.905	143.07	221.92	.4	24	PC1mv/m=5.0098mi.	INTF.5mv/m=7.5184mi.
215B	WEW	Galesburg MI	B AP	107.95	173.72	351.93	50	48	PC1mv/m=19.917mi.	INTF.5mv/m=34.685mi.
215D	WDUB	Granville OH	D LI	147.31	237.07	107.67	.01	0	PC1mv/m=1.9759mi.	INTF.5mv/m=2.8177mi.
215A	WNZR	Mount Vernon OH	A LI	144.68	232.83	99.507	0	0		
215B	WGUC	Cincinnati OH	B LI	117.19	188.59	162.69	15	268	PC1mv/m=32.082mi.	INTF.5mv/m=47.325mi.
216A	WEW	Kankakee IL	A AP	143.99	231.72	282.24	1.75	93	PC1mv/m=12.867mi.	INTF.1mv/m=41.062mi.
216B1	WGSL	Loves Park IL	B1LI	226.8	364.99	299.98	4	120	PC1mv/m=17.865mi.	INTF.1mv/m=52.06mi.
216D	WEW-	Madison IN	D AP	136.82	220.19	185.37	.6	0	PC1mv/m=5.7435mi.	INTF.1mv/m=19.245mi.
216A	WEDM	Indianapolis IN	A LI	79.077	127.26	213.65	0	0		
216D	WDHS	Gaston IN	D LI	36.49	58.724	208.14	.01	0	PC1mv/m=1.9759mi.	INTF.1mv/m=6.6679mi.
216B1	WGCS	Goshen IN	B1LI	65.853	105.98	329.06	7.4	18	PC1mv/m=10.552mi.	INTF.1mv/m=45.645mi.
216B	WVUB	Vincennes IN	B LI	189.69	305.27	220.97	50	152	PC1mv/m=32.389mi.	INTF.1mv/m=85.739mi.
216D	W6AC	Valparaiso IN	D LI	111.23	179.00	297.66	0	0		
216B	WFUM	Flint MI	B LI	172.79	278.07	30.078	15	149	PC1mv/m=25.725mi.	INTF.1mv/m=68.689mi.
216A	WPCJ	Pittsford MI	A LI	86.554	139.29	24.632	.1	38	PC1mv/m=3.8553mi.	INTF.1mv/m=13.407mi.
216C1	WOLW	Cadillac MI	C1LI	245.12	394.48	353.74	50	213	PC1mv/m=36.349mi.	INTF.1mv/m=90.648mi.
216A	WRMU	Alliance OH	A LI	213.09	342.93	85.744	2.8	58	PC1mv/m=11.51mi.	INTF.1mv/m=40.451mi.
216A	WRUW	Cleveland OH	A LI	194.68	313.30	72.857	1	82	PC1mv/m=10.057mi.	INTF.1mv/m=34.973mi.
216D	W6AH	Ashland OH	D LI	149.79	241.06	86.057	0	0		
216A	WDUB	Granville OH	A CP	147.31	237.07	107.67	0	0		
216D	WSLN	Delavare OH	D LI	114.67	184.54	105.13	.01	0	PC1mv/m=1.9759mi.	INTF.1mv/m=6.6679mi.
216B1	WGTD	Kenosha WI	B1LI	188.84	303.90	313.83	5	41	PC1mv/m=10.844mi.	INTF.1mv/m=43.033mi.
217A	WWHI	Muncie IN	A LI	41.789	67.252	195.12	.31	24	PC1mv/m=4.7149mi.	INTF.5mv/m=7.0572mi.
217A	WHJE	Carmel IN	A LI	72.845	117.23	223.52	.4	30	PC1mv/m=5.0098mi.	INTF.5mv/m=7.5184mi.

Exhibit E-7 - Figure 3
Faith Christian Academy
Berne, Indiana
Identification Of Facilities
And Contours On Allocation Map

CHAN	CALL	CITY AND STATE	CL/TYP	MILES	KM.	AZIMUTH	ERP	HAAT(M)	RELEVANT CONTOURS AND DISTANCES
217B	WCSG	Grand Rapids MI	B AP	143.53	230.98	350.3	36	174	PC1mv/m=32.247mi. INTF.5mv/m=47.883mi.
217B	WCSG	Grand Rapids MI	B LI	143.53	230.98	350.3	9	174	PC1mv/m=24.841mi. INTF.5mv/m=36.852mi.
217B1	WYSO	Yellow SpringOH	B1LI	96.167	154.76	134.63	10	122	PC1mv/m=21.77mi. INTF.5mv/m=33.208mi.
217B	WGTE	Toledo OH	B LI	110.34	177.57	54.625	30	174	PC1mv/m=31.215mi. INTF.5mv/m=46.372mi.
217B	WGTE	Toledo OH	B CP	110.34	177.57	54.625	13.5	289	PC1mv/m=32.404mi. INTF.5mv/m=47.713mi.
218A	WECI	Richmond IN	A LI	65.264	105.03	167.73	.3	32	PC1mv/m=4.7554mi. INTF10mv/m=1.5753mi.
218B1	NEW	Westport IN	B1AP	110.92	178.50	194.18	14.5	93	PC1mv/m=20.314mi. INTF10mv/m=6.9863mi.
218A	WJBS	Columbia CityIN	A LI	33.561	54.011	330.05	2.65	67	PC1mv/m=12.261mi. INTF10mv/m=3.7377mi.
218A	WGRE	Greencastle IN	A LI	116.9	188.13	230.27	.11	49	PC1mv/m=4.4893mi. INTF10mv/m=1.4976mi.
218A	WRPT	Indianapolis IN	A LI	86.248	138.80	211.33	.13	55	PC1mv/m=4.9911mi. INTF10mv/m=1.6562mi.
218A	WRPT	Indianapolis IN	A AP	86.272	138.84	211.33	.13	55	PC1mv/m=4.9911mi. INTF10mv/m=1.6562mi.
218A	NEW	Columbus OH	A AP	125.43	201.86	114.69	3	100	PC1mv/m=15.291mi. INTF10mv/m=4.6471mi.
218A	WGVO	Greenville OH	A LI	53.005	85.303	147.49	.07	29	PC1mv/m=3.2355mi. INTF10mv/m=1.0369mi.
219A	WKEM	Pendleton IN	A LI	59.632	95.968	209.96	1.2	47	PC1mv/m=8.3515mi. INTF100mv/m=.67549mi.
219A	NEW	Kokomo IN	A AP	60.216	96.908	260.62	2	90	PC1mv/m=13.095mi. INTF100mv/m=1.2061mi.
219A	WETL	South Bend IN	A LI	82.085	132.10	317.9	3	91	PC1mv/m=14.582mi. INTF100mv/m=1.3729mi.
219B	WUOM	Ann Arbor MI	B LI	131.76	212.04	29.133	93	238	PC1mv/m=41.333mi. INTF100mv/m=5.6062mi.
219A	WOSV	Mansfield OH	A CP	141.03	226.96	90.194	.75	137	PC1mv/m=12.907mi. INTF100mv/m=.95376mi.
219D	WUHS	Urbana OH	D LI	87.143	140.24	119.76	.01	0	PC1mv/m=1.9759mi. INTF100mv/m=-1.2762mi.
219B	WVXU	Cincinnati OH	B LI	117.48	189.06	162.13	23	208	PC1mv/m=31.661mi. INTF100mv/m=3.4836mi.
219B	WVXU	Cincinnati OH	B AP	117.48	189.06	162.13	26	208	PC1mv/m=32.36mi. INTF100mv/m=3.6076mi.
269A	WEWZ	Elwood IN	A CP	48.758	78.468	228.27	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
269A	WEWZ	Elwood IN	A LI	48.676	78.336	228.27	3	43	REQUIRED SEPARATION 15.9km/9.9109mi
269A	WEZV	Fort Wayne IN	A LI	23.736	38.199	12.625	3	91	REQUIRED SEPARATION 15.9km/9.9109mi
269A	WEZV	Fort Wayne IN	A CP	23.758	38.234	12.002	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
269A	WKSW	Urbana OH	A AP	88.356	142.19	122.68	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
269A	WKSW	Urbana OH	A LI	88.799	142.90	119.64	3	94	REQUIRED SEPARATION 15.9km/9.9109mi
270A		Brownsburg IN	A AS	89.889	144.66	226.35	0	0	
270A	NEW	Brownsburg IN	A AP	88.407	142.27	223.96	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.901	143.07	227.87	1.35	150	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.718	142.77	225.7	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	93.213	150.01	223.28	3	91	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.736	142.80	225.73	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	90.184	145.13	225.18	2.5	51	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.616	142.61	225.56	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.71	142.76	225.62	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.601	142.58	226.44	3	100	REQUIRED SEPARATION 15.9km/9.9109mi
270A	NEW	Brownsburg IN	A AP	88.901	143.07	227.87	1.35	150	REQUIRED SEPARATION 15.9km/9.9109mi

216C1	CJRT	Toronto, ON (CAN)	Dist: 575.98 kM	Req:	256 kM
217A	AS	Chatham, ON (CAN)	Dist: 319.53 kM	Req:	113 kM
218D	CJAM	Windsor, ON (CAN)	Dist: 246.57 kM	Req:	None

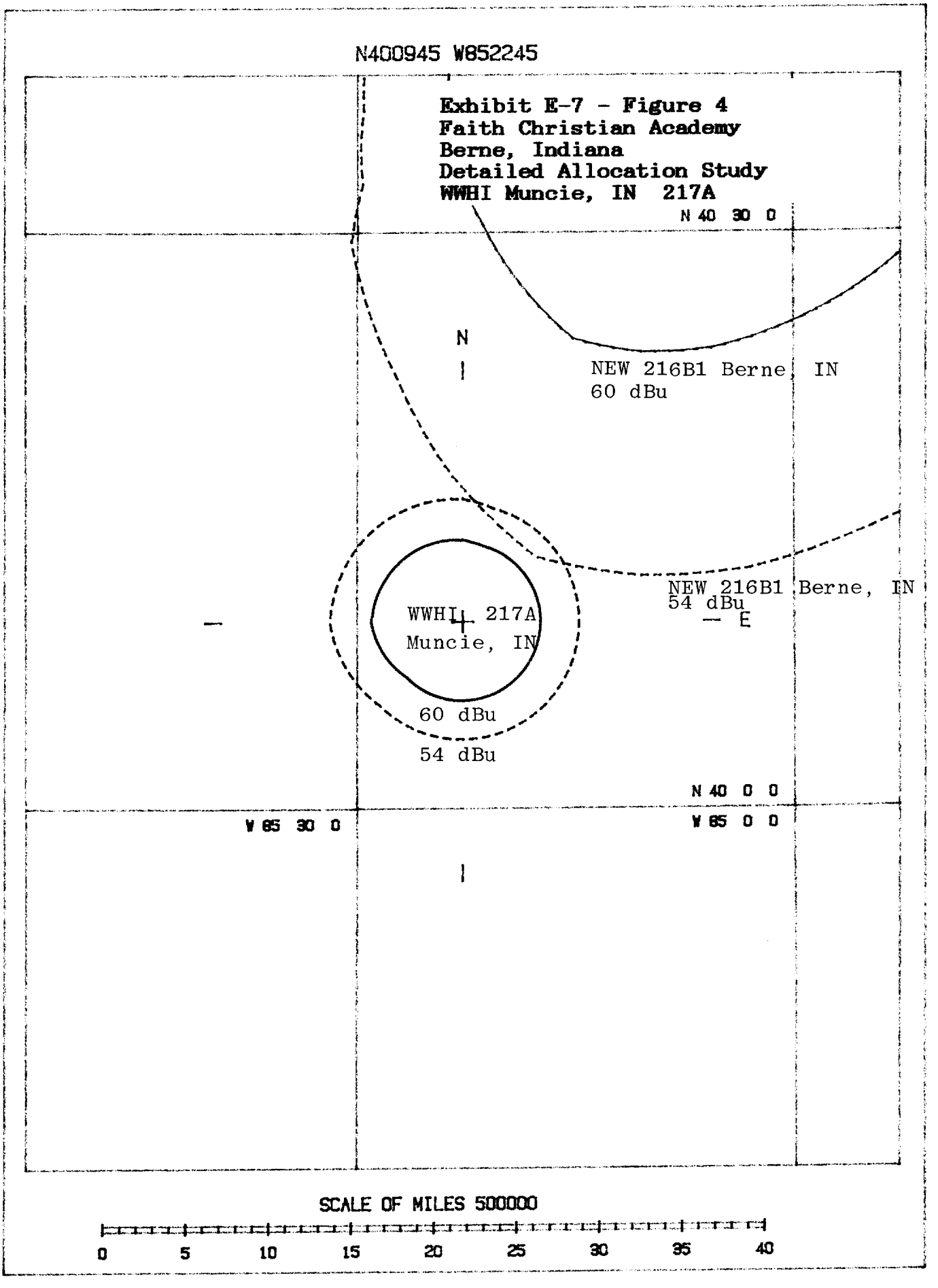

N400945 W852245
Exhibit E-7 - Figure 4
Faith Christian Academy
Berne, Indiana
Detailed Allocation Study
WWHI Muncie, IN 217A
N 40 30 0
N
NEW 216B1 Berne, IN
60 dBu
NEW 216B1 Berne, IN
54 dBu
E
WWHI 217A
Muncie, IN
60 dBu
54 dBu
N 40 0 0
W 85 30 0
W 85 0 0
SCALE OF MILES 500000
0
5
10
15
20
25
30
35
40

Exhibit E-7 - Figure 5
Faith Christian Academy
Berne, Indiana
Tabulation Of Contour Calculations
WWHI Muncie, IN 217A

WWHI Muncie IN | WWHIT WWHIC ED-17 | 013089 | N400945 W852245
BLED-780912AA
TABULATION OF TV/FM CONTOUR CALCULATIONS ON CHANNEL 217

AZIMUTH	ERP, KW.	HAAT (M)	60/50%	54/10%
0	.31	34.138	7.8916	11.824
45	.31	23.165	7.5874	11.343
90	.31	19.507	7.5874	11.343
135	.31	-.91441	7.5874	11.343
180	.31	12.192	7.5874	11.343
225	.31	23.165	7.5874	11.343
270	.31	42.063	8.847	12.87
315	.31	38.71	8.4045	12.428
15.12	.31	30.451	7.5874	11.343

AREAS, Sq. Km. : 195.97 433.23

OVERALL HEIGHT ABOVE AVERAGE TERRAIN = 24.003 (M)

ALL HEIGHTS IN METERS. ALL CONTOUR DISTANCES IN KILOMETERS.

ALL CONTOURS IN DBU AS DETERMINED BY BIVARIATE INTERPOLATION
USING VALUES FROM APPROPRIATE FCC F(50,50) AND F(50,10) CURVES.

FM BLANKETING CONTOUR 115 dBu = .14 MILES, .22 KM.
CALCULATED PURSUANT TO R&R 73.318(a) FOR MAXIMUM ERP.

Exhibit E-7 - Figure 6
Faith Christian Academy
Berne, Indiana
Terrain Averaging Program
WWHI Muncie, IN 217A
BASED ON NGDC 30 SECOND DATABASE

1727 BERNE IN | 013089 | WWHI MUNCIE IN

N LAT: 400945
W LNG: 852245

BEARING DEG.	2-10 MI. ELEVATION METERS	FEET
0	287	941
45	298	977
90	302	989
135	322	1056
180	309	1013
225	298	977
270	279	915
315	282	926
15	290	952
AVERAGE:	297	974

Exhibit E-7 - Figure 7
Faith Christian Academy
Berne, Indiana
Detailed Allocation Study
WGCS & WEDM

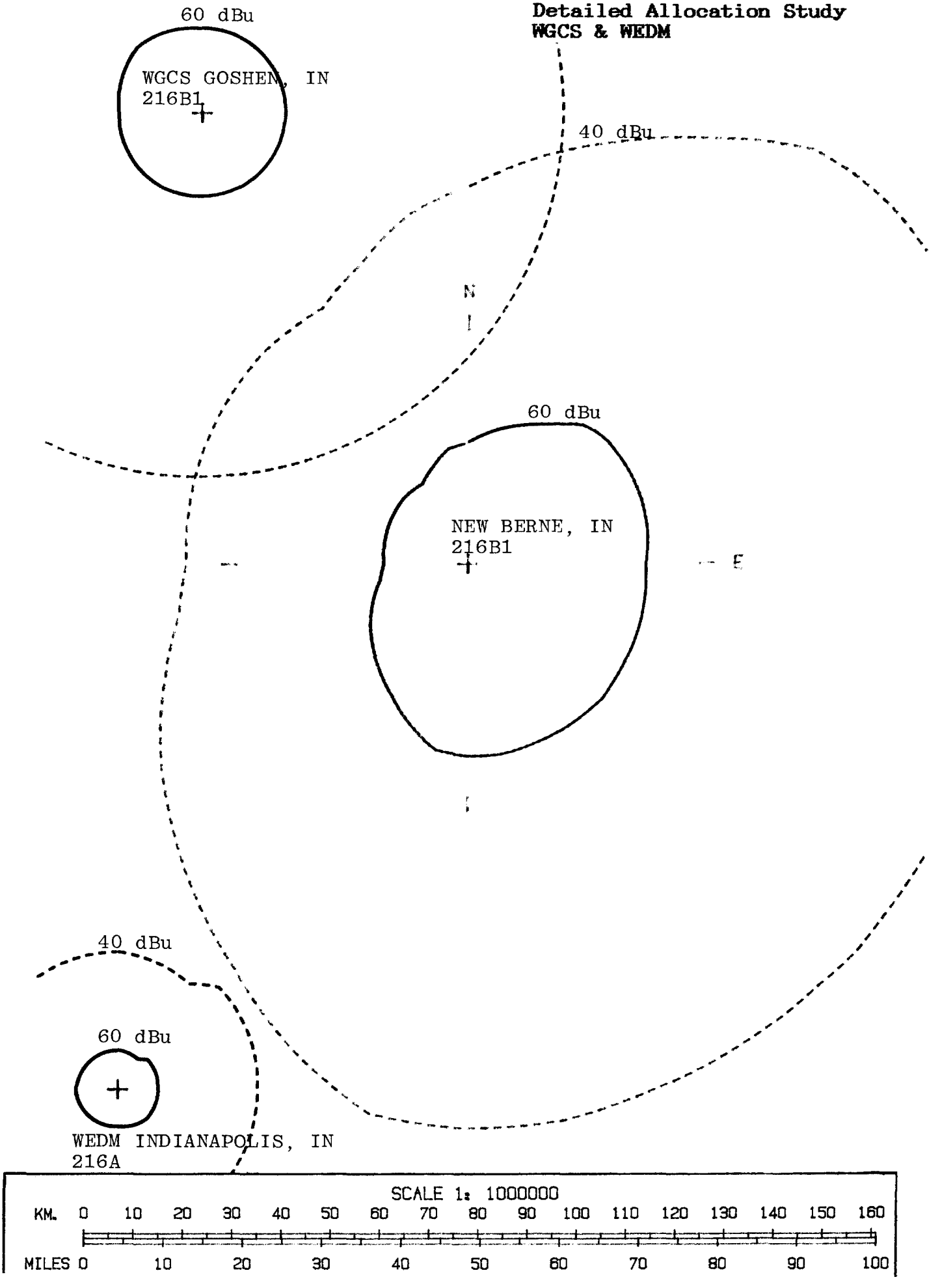


Exhibit E-7 - Figure 8
Faith Christian Academy
Berne, Indiana
Tabulation Of Contour Calculations
WGCS Goshen, IN 216B1

NEW BERNE IN ! 071890 !
WGCS GOSHEN IN ! ED-20 WGCST WGCSC ! N413347 W854939
TABULATION OF TV/FM CONTOUR CALCULATIONS ON CHANNEL 216

AZIMUTH	ERP, KW.	HAAT (M)	60/50%	40/10%
0	7.4	20.727	16.98	73.455
45	7.4	8.2297	16.98	73.455
90	7.4	7.3153	16.98	73.455
135	7.4	16.155	16.98	73.455
180	7.4	19.203	16.98	73.455
225	7.4	15.24	16.98	73.455
270	7.4	20.422	16.98	73.455
315	7.4	37.491	18.746	76.159
149	7.4	17.679	16.98	73.455

AREAS, Sq. Km. : 930.54 17110

OVERALL HEIGHT ABOVE AVERAGE TERRAIN = 18.098 (M)

ALL HEIGHTS IN METERS. ALL CONTOUR DISTANCES IN KILOMETERS.

ALL CONTOURS IN DBU AS DETERMINED BY BIVARIATE INTERPOLATION
USING VALUES FROM APPROPRIATE FCC F(50,50) AND F(50,10) CURVES.

FM BLANKETING CONTOUR 115 dBu = .67 MILES, 1.07 KM.
CALCULATED PURSUANT TO R&R 73.318(a) FOR MAXIMUM ERP.

Exhibit E-7 - Figure 9
Faith Christian Academy
Berne, Indiana
Terrain Averaging Program
WGCS Goshen, IN 216B1

TERRAIN AVERAGING PROGRAM
BASED ON NGDC 30 SECOND DATABASE

1727-174 ¦ WGCS GOSHEN IN (FM216B1) ¦ 071890 ¦

N LAT: 413347
W LNG: 854939

BEARING DEG.	2-10 MI. ELEVATION METERS	FEET
0	253	829
45	265	870
90	266	873
135	257	844
180	254	834
225	258	847
270	253	830
315	236	774
149	256	839
AVERAGE:	255	838

Exhibit E-7 - Figure 10
Faith Christian Academy
Berne, Indiana
Tabulation Of Contour Calculations
WEDM Indianapolis, IN 216A

NEW BERNE IN ¦ 071890 ¦ 1727-174 ¦
WEDM INDIANAPOLIS IN ¦ ED-20 WEDMT WEDMC ¦ N394729 W855953 ¦
TABULATION OF TV/FM CONTOUR CALCULATIONS ON CHANNEL 216

AZIMUTH	ERP, KW.	HAAT (M)	60/50%	40/10%
0	.1	60.046	7.9704	27.708
45	.1	67.971	8.5094	28.923
90	.1	63.399	8.2077	28.289
135	.1	67.362	8.4692	28.838
180	.1	53.95	7.4622	26.06
225	.1	59.132	7.8943	27.462
270	.1	69.19	8.5899	29.092
315	.1	62.485	8.1473	28.162
34	.1	52.121	7.3098	25.558

AREAS, Sq. Km. : 209.39 2477.5

OVERALL HEIGHT ABOVE AVERAGE TERRAIN = 62.941 (M)

ALL HEIGHTS IN METERS. ALL CONTOUR DISTANCES IN KILOMETERS.

ALL CONTOURS IN DBU AS DETERMINED BY BIVARIATE INTERPOLATION
USING VALUES FROM APPROPRIATE FCC F(50,50) AND F(50,10) CURVES.

FM BLANKETING CONTOUR 115 dBu = .08 MILES, .12 KM.
CALCULATED PURSUANT TO R&R 73.318(a) FOR MAXIMUM ERP.

Exhibit E-7 - Figure 11
Faith Christian Academy
Berne, Indiana
Terrain Averaging Program
WEDM Indianapolis, IN 216A

TERRAIN AVERAGING PROGRAM
BASED ON NGDC 30 SECOND DATABASE

1727-174 ; WEDM INDIANAPOLIS IN (FM216A)

N LAT: 394729
W LNG: 855953

BEARING DEG.	2-10 MI. ELEVATION METERS	FEET
0	248	813
45	240	787
90	244	802
135	241	789
180	254	833
225	249	816
270	239	783
315	245	805
34	240	787
AVERAGE:	245	803

Exhibit E-8- Figure 1
Faith Christian Academy
Berne Indiana
WRTV Indianapolis - Service Contours
WRTVT WRTVC ED-16 013089 N395359 W861202
TABULATION OF TV/FM CONTOUR CALCULATIONS ON CHANNEL 6

AZIMUTH	ERP. KW.	HAAT (M)	74/50%	68/50%	47/50%
0	100	282.86	41.318	53.215	102.32
45	100	300.54	42.405	54.494	103.95
90	100	310.59	42.974	55.175	104.77
135	100	315.78	43.251	55.508	105.15
180	100	332.85	44.164	56.607	106.41
225	100	305.41	42.699	54.843	104.38
270	100	286.21	41.524	53.456	102.63
315	100	283.16	41.338	53.237	102.35
43	100	298.4	42.273	54.34	103.76

AREAS. Sq. Km. : 5666.6 9358.4 33982

OVERALL HEIGHT ABOVE AVERAGE TERRAIN = 302.18 (M)

ALL HEIGHTS IN METERS. ALL CONTOUR DISTANCES IN KILOMETERS.

ALL CONTOURS IN DBU AS DETERMINED BY BIVARIATE INTERPOLATION
USING VALUES FROM APPROPRIATE FCC F(50,50) AND F(50,10) CURVES.

WRTV is 128.4 kM from the proposed new NCE-FM 216B1 facility at Berne, IN. The WRTV 47 dBu extends a maximum of 106.41 kM. The proposed new NCE-FM 72.6 dBu interference contour extends a maximum of 21.699 kM. There is, therefore, no overlap of these contours, and no area of interference will be created. See Exhibit E-8 - Figure 3, which is a plot of the WRTV 47 dBu and the proposed new NCE-FM 216B1 72.6 dBu contours.

Exhibit E-8 - Figure 2
Faith Christian Academy
Berne, Indiana
Terrain Averaging Program
WRTV Indianapolis, Indiana

BASED ON NGDC 30 SECOND DATABASE

1726 BERNE IN | WRTV INDIANAPOLIS IN | 013089 |

N LAT: 395359
W LNG: 861202

BEARING DEG.	2-10 MI. ELEVATION METERS	FEET
0	272	891
45	254	833
90	244	800
135	239	783
180	222	727
225	249	817
270	268	880
315	271	890
43	256	840
AVERAGE:	252	828