

MINOR CHANGE APPLICATION
APEX BROADCASTING, INC.
WTUG-FM RADIO STATION
CH 225C1 - 92.9 MHZ - 100.0 KW
NORTHPORT, ALABAMA
April 2004

EXHIBIT A

WTUG-FM on Channel 225C1 at the proposed/authorized site does not meet the Commission's minimum distance separation requirements to two authorized facilities: WJBB-FM, Channel 224A, Haleyville, Alabama, and WBLX-FM, Channel 225C, Mobile, Alabama. The shortage to WJBB-FM was created in MM Docket #88-375, when the Commission changed the minimum distance separation requirements for Class A stations to allow for 6.0 kilowatt Class A stations. Therefore, the shortage to WJBB-FM is addressed under §73.213(c) of the rules, as detailed below. The shortage to WBLX-FM is addressed under §73.215 of the rules, as addressed below.

Compliance with §73.213(c)

Channel 225C1 was originally allotted to Tuscaloosa, Alabama, in MM Docket #89-332. In that Report and Order, the Commission specifically noted that WTUG-FM could avail itself of §73.213(c) of the rules with respect to WJBB-FM. Further, when the community of license of WTUG-FM was changed in MM Docket #01-104, the Commission noted that Channel 225C1 at Northport, Alabama, maintained its grandfathered shortspace to WJBB-FM.¹ As such, WTUG-FM and WJBB-FM were shortspaced as a result of MM Docket #88-375 and have remained

1) Memorandum Opinion Order, MM Docket #01-104, DA 03-1124, released May 20, 2003, paragraph 30.

shortspaced since that time. As indicated on Exhibit A1, WTUG-FM meets the required spacing of §73.213(c) of the rules to the licensed WJBB-FM facility. Therefore, this proposal is in compliance with the Commission's rules with respect to WJBB-FM.

Shortspaced Facilities Utilizing § 73.215

The proposed/licensed WTUG-FM antenna location for Channel 225C1 is shortspaced to WBLX-FM, Channel 225C, Mobile, Alabama. The detailed spacing information with regard to this station is shown on Exhibit A1. Apex proposes to use the provisions of §73.215 of the Commission's rules to address this shortspace. The shortage to WBLX-FM complies with §73.215(e) of the Commission's rules.

Exhibit A2 specifically demonstrates that there will be no prohibited overlap between the proposed/licensed WTUG-FM and WBLX-FM. Attached as Exhibits A3 and A4 are the tabulated distances to the protected and interfering contours, along the pertinent arcs, of the proposed/licensed WTUG-FM and WBLX-FM. The contours of WBLX-FM are based on 100.0 kilowatts at 600 meters height above average terrain.² Further, attached as Exhibit A5 are the tabulated and protected contours of the proposed facility, in ten degree increments. Again, there is no prohibited overlap between the facilities.

2) Since WBLX-FM is operating with less than maximum Class C height, the center of radiation was raised to bring the height above average terrain to 600 meters for this instant review.

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EXHIBIT A1

Clearance study for WTUG-FM Northport, Alabama
Using present WTUG-FM site as reference

REFERENCE	CLASS = C1	DISPLAY DATES
33 03 15 N	Current	DATA 04-30-04
87 32 57 W	Spacings	SEARCH 04-30-04
----- Channel 225 - 92.9 MHz -----		

Call	Channel	Location	Dist	Azi	FCC	Margin
N. Lat.	W. Lng.	Ant	Power	HAAT		
WTUGFM	LIC-N 225C1	Tuscaloosa	AL 0.00	0.0	245.0	-245.00
	33 03 15	87 32 57 NCN	100.000 kW	299 M		
	Apex Broadcasting, Inc.		BLH19910318KD			
ALLO	RSV 225C1	Northport	AL 0.16	341.5	245.0	-244.84
	33 03 20	87 32 59	100.000 kW	299 M		
	> Reserved for WTUG-FM		RM10323*			
1 WJBBFM	LIC 224A	Haleyville	AL 130.97	356.9	133.0	-2.03
	34 14 00	87 37 32 CN	3.900 kW	73 M		
	Haleyville Broadcasting Co.		BMLH19900531KB			
2 WBLXFM	LIC 225C	Mobile	AL 269.35	182.0	270.0	-0.65
	30 37 35	87 38 50 CY	100.000 kW	474 M		
	Cumulus Licensing LLC		BMLH19880329KE			
RADD	ADD 226A	Coosada	AL 133.33	117.2	133.0	0.33
	32 30 02	86 17 09	6.000 kW	100 M		
RDEL	DEL 223A	Dora	AL 75.43	28.9	75.0	0.43
	33 38 55	87 09 19	6.000 kW	100 M		
WQOPFM	LIC 223A	Dora	AL 75.43	28.9	75.0	0.43
	33 38 55	87 09 19 CN	2.200 kW	167 M		
	Queen Of Peace Radio, Inc.		BLH19971009KB			
RADD	ADD 223A	Cordova	AL 75.43	28.9	75.0	0.43
	33 38 55	87 09 19	6.000 kW	100 M		
1 WJBBFM	LIC 224A	Haleyville	AL 130.97	356.9	129.0	1.97
	34 14 00	87 37 32 CN	3.900 kW	73 M		
	Haleyville Broadcasting Co.		BMLH19900531KB			
RADD	ADD 226A	Montgomery	AL 138.80	124.0	133.0	5.80
	32 21 04	86 19 28	6.000 kW	100 M		
RADD	ADD 226A	Coosada	AL 138.86	124.0	133.0	5.86
	32 21 02	86 19 27	6.000 kW	100 M		

Note 1: WTUG-FM and WJBB-FM have a grandfathered shortspace, former 3.0 kilowatt rules (\$73.213(C)). See Exhibit A for details.

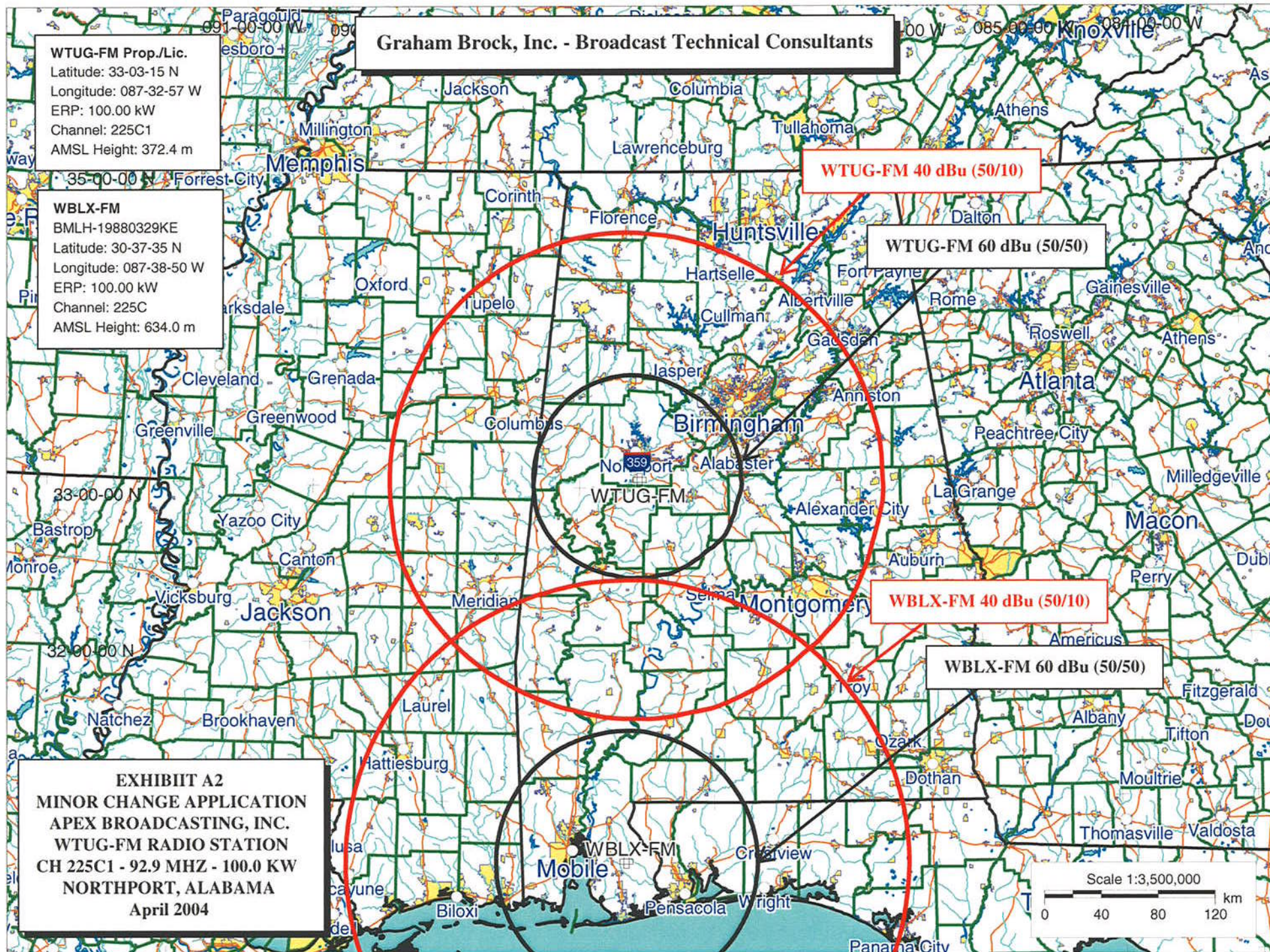
Note 2: This shortage is addressed under \$73.215. See Exhibit A for details.

Graham Brock, Inc. - Broadcast Technical Consultants

WTUG-FM Prop./Lic.
Latitude: 33-03-15 N
Longitude: 087-32-57 W
ERP: 100.00 kW
Channel: 225C1
AMSL Height: 372.4 m

WBLX-FM
BMLH-19880329KE
Latitude: 30-37-35 N
Longitude: 087-38-50 W
ERP: 100.00 kW
Channel: 225C
AMSL Height: 634.0 m

EXHIBIT A2
MINOR CHANGE APPLICATION
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EXHIBIT A3

WTUG-FM - Proposed/Licensed
Channel = 225C1
Max ERP = 100 kW
RCAMSL = 372.4 M
N. Lat = 33 03 15
W. Lng = 87 32 57

WBLX-FM - BMLH-19880329KE
Channel = 225C
Max ERP = 100 kW
RCAMSL = 634 M
N. Lat = 30 37 35
W. Lng = 87 38 50

Protected
60 dBu

Interfering
40 dBu

30 Second terrain database

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
160.0	100.0000	0270.1	069.9	009.1	100.0000	0605.3	206.2	38.5
161.0	100.0000	0271.3	070.0	008.9	100.0000	0605.3	205.5	38.6
162.0	100.0000	0271.5	070.0	008.6	100.0000	0605.3	204.9	38.7
163.0	100.0000	0270.6	070.0	008.2	100.0000	0606.4	204.5	38.8
164.0	100.0000	0268.7	069.8	007.9	100.0000	0606.4	204.1	38.9
165.0	100.0000	0266.6	069.6	007.6	100.0000	0606.4	203.8	39.0
166.0	100.0000	0264.4	069.4	007.3	100.0000	0607.1	203.5	39.0
167.0	100.0000	0262.4	069.3	006.9	100.0000	0607.1	203.2	39.1
168.0	100.0000	0261.0	069.2	006.6	100.0000	0607.1	202.9	39.1
169.0	100.0000	0261.0	069.2	006.3	100.0000	0607.0	202.5	39.2
170.0	100.0000	0262.8	069.3	006.0	100.0000	0607.0	202.1	39.3
171.0	100.0000	0265.0	069.5	005.7	100.0000	0607.0	201.6	39.4
172.0	100.0000	0266.1	069.6	005.3	100.0000	0606.4	201.2	39.4
173.0	100.0000	0266.9	069.7	005.0	100.0000	0606.4	200.8	39.5
174.0	100.0000	0267.1	069.7	004.7	100.0000	0606.4	200.6	39.6
175.0	100.0000	0268.4	069.8	004.3	100.0000	0605.3	200.3	39.6
176.0	100.0000	0269.2	069.9	004.0	100.0000	0605.3	200.0	39.6
177.0	100.0000	0269.4	069.9	003.7	100.0000	0605.3	199.8	39.7
178.0	100.0000	0268.5	069.8	003.3	100.0000	0604.3	199.8	39.7
179.0	100.0000	0267.2	069.7	003.0	100.0000	0604.3	199.8	39.7
180.0	100.0000	0265.9	069.6	002.6	100.0000	0604.3	199.8	39.7
181.0	100.0000	0266.0	069.6	002.3	100.0000	0603.1	199.8	39.7
182.0	100.0000	0267.4	069.7	001.9	100.0000	0603.1	199.6	39.7
183.0	100.0000	0268.8	069.8	001.6	100.0000	0603.1	199.5	39.7
184.0	100.0000	0270.2	069.9	001.3	100.0000	0602.0	199.5	39.7
185.0	100.0000	0271.6	070.0	000.9	100.0000	0602.0	199.4	39.7
186.0	100.0000	0272.8	070.2	000.6	100.0000	0602.0	199.4	39.7
187.0	100.0000	0274.0	070.3	000.2	100.0000	0601.0	199.4	39.7
188.0	100.0000	0275.1	070.3	359.9	100.0000	0601.0	199.5	39.7
189.0	100.0000	0274.9	070.3	359.5	100.0000	0601.0	199.7	39.6
190.0	100.0000	0273.9	070.2	359.2	100.0000	0599.9	200.0	39.6
191.0	100.0000	0273.3	070.2	358.8	100.0000	0599.9	200.3	39.5
192.0	100.0000	0273.2	070.2	358.5	100.0000	0599.9	200.6	39.5
193.0	100.0000	0273.6	070.2	358.2	100.0000	0598.8	200.9	39.4
194.0	100.0000	0273.5	070.2	357.8	100.0000	0598.8	201.2	39.3
195.0	100.0000	0273.5	070.2	357.5	100.0000	0598.8	201.6	39.3
196.0	100.0000	0274.0	070.3	357.2	100.0000	0598.9	201.9	39.2
197.0	100.0000	0275.9	070.4	356.8	100.0000	0598.9	202.2	39.2
198.0	100.0000	0278.6	070.6	356.5	100.0000	0598.9	202.4	39.1
199.0	100.0000	0280.4	070.8	356.2	100.0000	0599.1	202.7	39.1
200.0	100.0000	0281.1	070.8	355.9	100.0000	0599.1	203.2	39.0

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EXHIBIT A4

WBLX-FM - BMLH-19880329KE
Channel = 225C
Max ERP = 100 kW
RCAMSL = 634 M
N. Lat = 30 37 35
W. Lng = 87 38 50

WTUG-FM - Proposed/Licensed
Channel = 225C1
Max ERP = 100 kW
RCAMSL = 372.4 M
N. Lat = 33 03 15
W. Lng = 87 32 57

Protected
60 dBu

Interfering
40 dBu

30 Second terrain database

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
340.0	100.0000	0596.7	091.7	192.6	100.0000	0273.6	187.5	36.7
341.0	100.0000	0596.2	091.7	192.1	100.0000	0273.2	186.7	36.8
342.0	100.0000	0595.1	091.6	191.7	100.0000	0273.2	185.9	37.0
343.0	100.0000	0594.1	091.6	191.3	100.0000	0273.3	185.2	37.1
344.0	100.0000	0593.4	091.6	190.8	100.0000	0273.3	184.4	37.3
345.0	100.0000	0593.4	091.6	190.4	100.0000	0273.9	183.7	37.4
346.0	100.0000	0593.9	091.6	189.9	100.0000	0273.9	183.1	37.6
347.0	100.0000	0594.6	091.6	189.5	100.0000	0274.9	182.4	37.7
348.0	100.0000	0595.5	091.6	189.0	100.0000	0274.9	181.8	37.8
349.0	100.0000	0596.2	091.7	188.5	100.0000	0274.9	181.2	37.9
350.0	100.0000	0597.4	091.7	188.0	100.0000	0275.1	180.6	38.0
351.0	100.0000	0598.7	091.8	187.6	100.0000	0275.1	180.1	38.1
352.0	100.0000	0599.8	091.8	187.1	100.0000	0274.0	179.6	38.2
353.0	100.0000	0600.4	091.8	186.6	100.0000	0274.0	179.2	38.3
354.0	100.0000	0600.2	091.8	186.1	100.0000	0272.8	178.9	38.3
355.0	100.0000	0599.5	091.8	185.6	100.0000	0272.8	178.6	38.4
356.0	100.0000	0599.1	091.8	185.1	100.0000	0271.6	178.3	38.4
357.0	100.0000	0598.9	091.8	184.5	100.0000	0271.6	178.1	38.5
358.0	100.0000	0598.8	091.8	184.0	100.0000	0270.2	177.9	38.5
359.0	100.0000	0599.9	091.8	183.5	100.0000	0270.2	177.7	38.5
000.0	100.0000	0601.0	091.9	183.0	100.0000	0268.8	177.6	38.5
001.0	100.0000	0602.0	091.9	182.5	100.0000	0267.4	177.5	38.5
002.0	100.0000	0603.1	091.9	182.0	100.0000	0267.4	177.4	38.5
003.0	100.0000	0604.3	092.0	181.4	100.0000	0266.0	177.4	38.5
004.0	100.0000	0605.3	092.0	180.9	100.0000	0266.0	177.4	38.5
005.0	100.0000	0606.4	092.1	180.4	100.0000	0265.9	177.5	38.5
006.0	100.0000	0607.0	092.1	179.9	100.0000	0265.9	177.6	38.5
007.0	100.0000	0607.1	092.1	179.4	100.0000	0267.2	177.8	38.4
008.0	100.0000	0606.4	092.1	178.8	100.0000	0267.2	178.1	38.4
009.0	100.0000	0605.3	092.0	178.3	100.0000	0268.5	178.4	38.4
010.0	100.0000	0603.6	092.0	177.8	100.0000	0268.5	178.8	38.3
011.0	100.0000	0601.6	091.9	177.3	100.0000	0269.4	179.2	38.2
012.0	100.0000	0599.5	091.8	176.8	100.0000	0269.4	179.7	38.1
013.0	100.0000	0597.7	091.7	176.4	100.0000	0269.2	180.2	38.0
014.0	100.0000	0596.2	091.7	175.9	100.0000	0269.2	180.7	37.9
015.0	100.0000	0595.3	091.6	175.4	100.0000	0268.4	181.3	37.8
016.0	100.0000	0594.6	091.6	174.9	100.0000	0268.4	181.9	37.7
017.0	100.0000	0594.0	091.6	174.5	100.0000	0267.1	182.5	37.6
018.0	100.0000	0593.7	091.6	174.0	100.0000	0267.1	183.1	37.4
019.0	100.0000	0593.7	091.6	173.5	100.0000	0267.1	183.8	37.3
020.0	100.0000	0593.8	091.6	173.1	100.0000	0266.9	184.5	37.2

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EXHIBIT A5

Predicted contours :

N. Lat. = 33 03 15 - Tabulated protected and interfering contour data
W. Lng. = 87 32 57 - WTUG-FM Radio Station - Northport, Alabama

HAAT and Distance to Contour - FCC Method - 30 Arc Second terrain database

Azi.	HAAT	ERP kW	dBk	Field	60-F5	40-F1	54-F1	100-F1
000	309.9	100.0000	20.00	1.000	73.13	173.07	106.05	10.28
010	296.1	100.0000	20.00	1.000	72.08	171.58	104.70	10.06
020	280.3	100.0000	20.00	1.000	70.79	170.08	103.16	9.80
030	271.9	100.0000	20.00	1.000	70.08	169.32	102.32	9.64
040	277.3	100.0000	20.00	1.000	70.53	169.81	102.86	9.74
050	276.6	100.0000	20.00	1.000	70.47	169.74	102.79	9.73
060	277.9	100.0000	20.00	1.000	70.59	169.87	102.92	9.75
070	283.8	100.0000	20.00	1.000	71.07	170.40	103.49	9.86
080	288.6	100.0000	20.00	1.000	71.47	170.85	103.97	9.94
090	288.1	100.0000	20.00	1.000	71.43	170.80	103.92	9.93
100	279.5	100.0000	20.00	1.000	70.72	170.01	103.07	9.78
110	279.2	100.0000	20.00	1.000	70.69	169.98	103.04	9.78
120	288.1	100.0000	20.00	1.000	71.43	170.80	103.92	9.93
130	277.0	100.0000	20.00	1.000	70.50	169.78	102.82	9.74
140	262.6	100.0000	20.00	1.000	69.29	168.48	101.39	9.47
150	264.2	100.0000	20.00	1.000	69.42	168.63	101.55	9.50
160	270.0	100.0000	20.00	1.000	69.92	169.16	102.14	9.61
170	262.7	100.0000	20.00	1.000	69.30	168.50	101.41	9.47
180	265.8	100.0000	20.00	1.000	69.56	168.78	101.72	9.53
190	273.8	100.0000	20.00	1.000	70.24	169.50	102.52	9.68
200	281.0	100.0000	20.00	1.000	70.84	170.14	103.22	9.81
210	294.2	100.0000	20.00	1.000	71.92	171.39	104.51	10.03
220	311.0	100.0000	20.00	1.000	73.21	173.20	106.17	10.30
230	323.4	100.0000	20.00	1.000	74.12	174.70	107.60	10.49
240	334.9	100.0000	20.00	1.000	74.98	176.17	109.20	10.67
250	340.6	100.0000	20.00	1.000	75.39	176.88	110.06	10.76
260	331.3	100.0000	20.00	1.000	74.71	175.71	108.68	10.62
270	328.3	100.0000	20.00	1.000	74.49	175.33	108.26	10.57
280	328.2	100.0000	20.00	1.000	74.48	175.32	108.25	10.57
290	326.0	100.0000	20.00	1.000	74.32	175.04	107.95	10.53
300	329.9	100.0000	20.00	1.000	74.61	175.53	108.48	10.59
310	342.2	100.0000	20.00	1.000	75.51	177.09	110.33	10.79
320	341.8	100.0000	20.00	1.000	75.48	177.04	110.26	10.78
330	338.2	100.0000	20.00	1.000	75.22	176.59	109.70	10.73
340	330.2	100.0000	20.00	1.000	74.63	175.57	108.52	10.60
350	322.9	100.0000	20.00	1.000	74.09	174.65	107.55	10.48

AMSL= 372.3 M