

**W252BN
BLFT-20040823ABE
MINOR CHANGE**

This application proposes minor changes to W252BN including a change in the primary station to WHBT(AM) at Tallahassee, FL (facility ID # 28162).

Allocation discussion:

All exhibits utilize the FCC 30 second terrain database.

- E1 Channel study
- E1A Interference plot to WTSM
- E1B Aerial photograph of interference area
- E1C Antenna vertical elevation pattern
- E2 60 dBu and 2 mV/m contours
- E3 ASR

A channel study is included as E1 demonstrating compliance with §74.1204 with the exception of 2nd adjacent channel station WTSM which is analyzed below. A plot of the proposed 60 dBu is provided as E2 showing that it overlaps the original short form 60 dBu, and the proposed 60 dBu is contained within the WHBT(AM) 2 mV/m and 40 km radius.

WTSM analysis:

The proposed facility will be located inside the protected contour of 2nd adjacent channel WTSM. Exhibit E1A demonstrates that the WTSM contour at the proposed site is 63.62 dBu. Therefore, an interference analysis has been conducted based on the U/D ratio of +40 dB at the proposed site which is 103.62 dBu (+40) or 731.1 meters. An analysis of the vertical clearance to occupied buildings and major highways is demonstrated below to be at least 33 meters beginning at the initial depression angle of 11.5 degrees based on the elevation pattern for the proposed Shively 6813 four bay 0.5 wavelength spaced antenna.

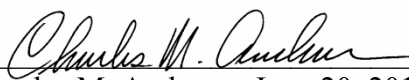
Clearly, this interference contour will not reach any populated area or major highways (see E1B aerial photograph). Based on this showing, a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

Depression Angle (Deg.)	F	ERP X F² kW	Int = 103.62 dBu meters	Vertical Clearance AGL(m) (Int X sin Ang - 149)
11.5	0.757	0.143	552.9	38.8
15	0.612	0.094	448.3	33.0 (minimum)
30	0.003	0.000	000.0	149.0
40	0.177	0.008	130.8	64.9
50	0.180	0.008	130.8	49.9
60	0.099	0.0025	73.1	85.7
70	0.034	0.0003	25.3	125.2
80	0.005	0.000	00.0	149.0
90	0.000	0.000	00.0	149.0

RF Exposure Calculation:

The proposed facility will utilize a Shively 6813-4 half-wave spaced circularly polarized antenna with a center of radiation at 149 meters AGL. The RF contribution of the proposed translator was calculated using the formula below to be 0.773 μ Watts/cm² or 0.4% of the general population limit and less than the 5% requiring consideration. The proposed translator clearly complies with Commission RF radiation limits.

$$S \text{ (RF in } \mu\text{Watts/cm}^2\text{)} = \frac{33.4 (F^2 - \text{Vertical Factor}) \times (H \text{ ERP} + V \text{ ERP in Watts})}{R^2 \text{ (distance to radiation center in meters} - 2 \text{ m)}}$$


Charles M. Anderson June 20, 2014

E1 CHANNEL STUDY

REFERENCE
30 29 16.0 N.
84 16 47.0 W.

CH# 252D - 98.3 MHz, Pwr= 0.25 kw, HAAT= 182.8 M, COR= 215 M
Average Protected F(50-50)= 17.76 km
Omni-directional

DISPLAY DATES
DATA 06-20-14
SEARCH 06-20-14

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
252D Tallahassee	W252BN	LIC _C_	FL	0.0 0.0	0.00 BLFT20040823ABE	30 29 16.0 84 16 47.0	0.010 199	26.8 231	8.0 Christian Radio Fellowship	-44.0*	-62.7*
255C1 Tallahassee	WBZE	LIC _C_	FL	321.1 141.1	0.63 BLH20031126ASO	30 29 32.0 84 17 02.0	100.000 184	7.8 219	61.8 Cumulus Licensing LLC	-25.0*	-62.3*
253C0 Panama City	WFSY	LIC _C_	FL	271.6 91.0	115.78 BLH20130802ABI	30 30 42.0 85 29 17.2	100.000 330	107.5 373	74.0 Clear Channel Broadcasting	-9.3	15.6
250A Woodville	WTSM	LIC _CX FL		127.4 307.5	21.69 BLH20030905ABA	30 22 09.0 84 06 00.0	6.000 95	2.6 114	26.4 Wjzt Communications, LLC	1.1	-5.9* (1)
251D Bloxham	W251BM	LIC _C_	FL	253.3 73.1	35.09 BLFT20130705AAX	30 23 48.0 84 37 49.0	0.250 2	10.1 32	7.1 Grady Moates	7.3	1.7
251L1 Thomasville	WJGG-LP	LIC _C_	GA	37.5 217.7	52.56 BLL20041025ABZ	30 51 45.0 83 56 40.0	0.100 28	98	27.1 Calvary Chapel of Thomasvi		20.7
252L1 Moultrie	WYSH-LP	CP _C_	GA	30.1 210.3	93.53 BNPL20131107AAK	31 12 54.0 83 47 13.0	0.028 55	149	55.6 Colquitt Community Radio,		32.8
251C2 Live Oak	WQHL-FM	LIC _CX FL		99.7 280.4	127.99 BLH20070731AAJ	30 17 14.0 82 57 56.0	50.000 135	76.3 168	50.6 Southern Communications, L	34.0	51.1
251D Carrabelle	644159	APP _C_	FL	208.0 27.8	79.45 BNPFT20030317MSC	29 51 23.0 84 40 01.0	0.080 52	10.1 53	7.0 Gulf Coast Community Colle	51.0	45.1
251D Carrabelle	643968	APP _V_	FL	208.0 27.8	79.42 BNPFT20030317JOP	29 51 24.0 84 40 01.0	0.120 42	10.0 43	7.0 Florida State University	51.1	45.2
249C1 Bonifay	WYYX	LIC _CN FL		271.6 91.0	115.96 BLH19930401KC	30 30 41.0 85 29 24.0	100.000 253	9.2 297	67.9 Magic Broadcasting II, LLC	89.2	46.9
251C3 Dawson	AL0336	RSV-A _C_	GA	357.8 177.8	126.37 RM10847	31 37 25.0 84 19 49.0	25.000 100	61.3 173	40.1 47.9		60.6

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. 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 protected contour.
Reference station has protected zone issue:

(1) See E1A, E1B and technical report for disproof of interference.

W252BN

BLFT20040823ABE

Latitude: 30-29-16 N

Longitude: 084-16-47 W

ERP: 0.143 kW

Channel: 252

Frequency: 98.3 MHz

AMSL Height: 215.0 m

Elevation: 66.0 m

Horiz. Pattern: Omni

PROPOSED 103.62 DBU
AT REDUCED ERP OF 0.143 KW
DOES NOT REACH ANY BUILDING
OR MAJOR HIGHWAY (SEE
TECHNICAL REPORT AND E1B)

E1A**W252BN****WTSM 63.62 DBU**

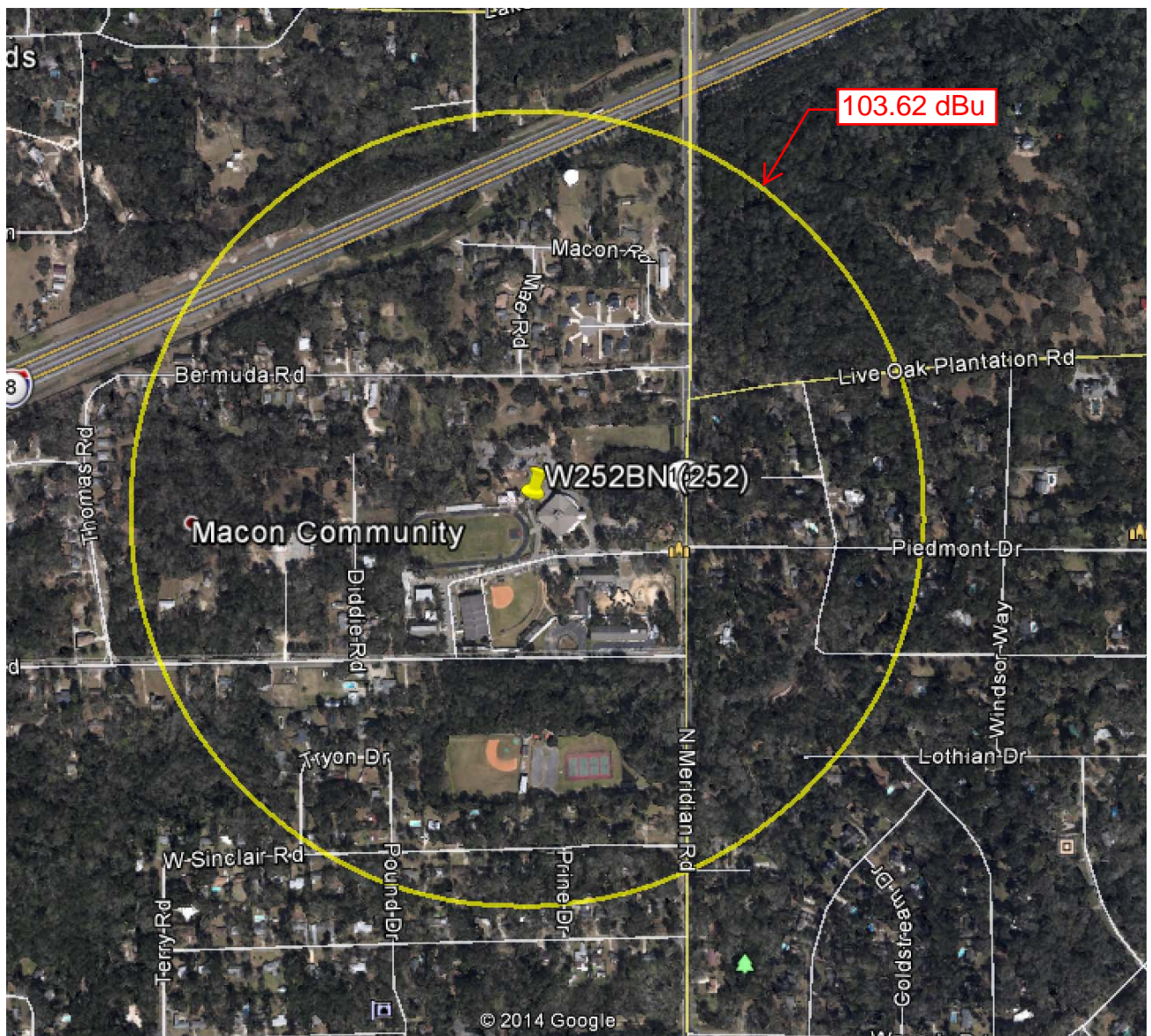
Scale 1:10,000

0 0.13 0.27 0.4 km

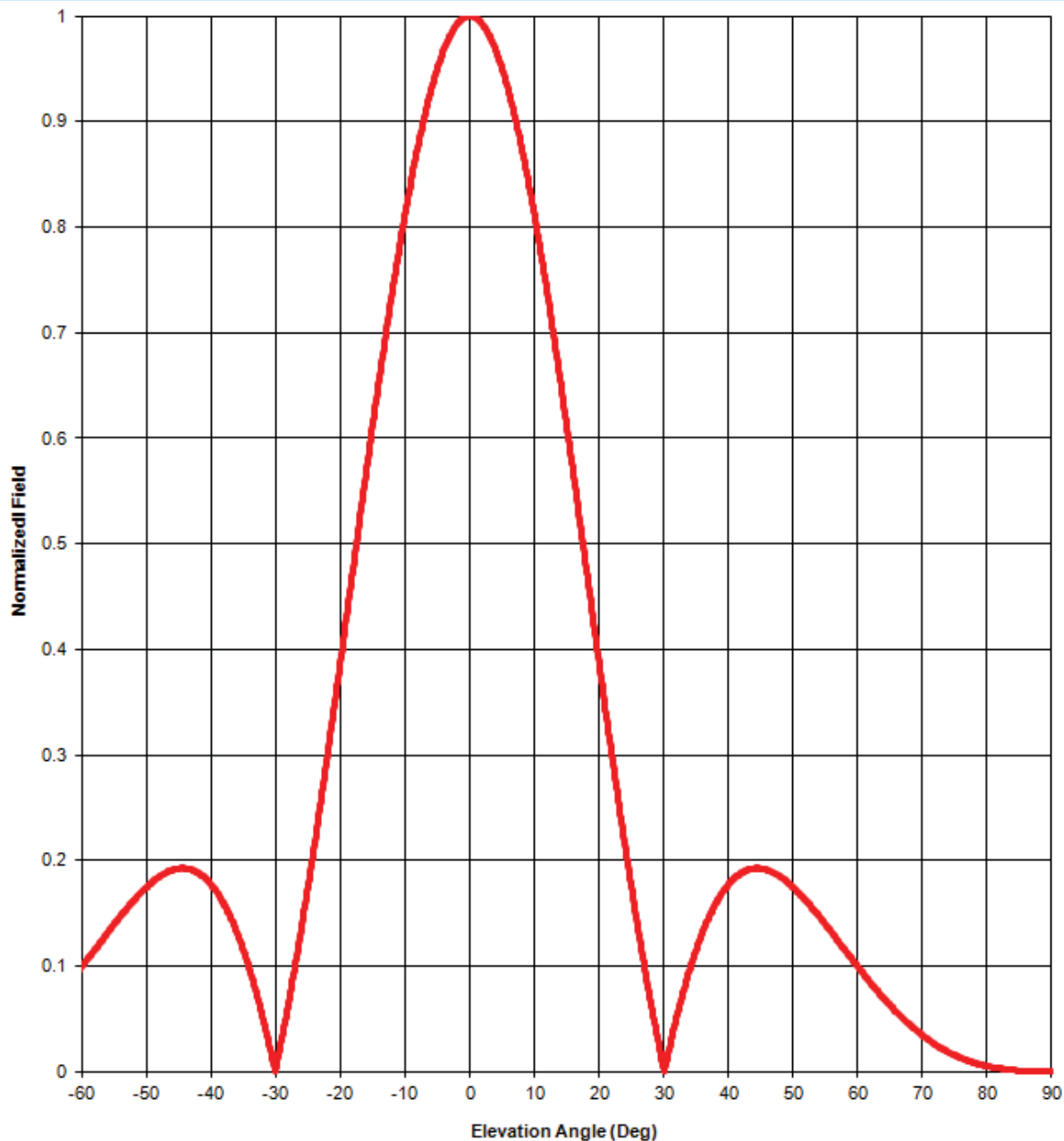
VSoft Communications LLC © 2008



EXHIBIT E1B
INTERFERENCE CONTOUR
AERIAL VIEW



Elevation pattern



Antenna models: 6014, 6015, 6020, 6510, 6513, 6600, & 68xx except 6832, 4-bay half-wave-spaced

Test frequency: 98.1 MHz

Gain (maximum):

	Power	dB
6014, 6015, 68xx:	1.32	1.19 dB
6510, 6513, 6600:	2.64	4.19 dB

[Document No. 68xx-4-bay hw \(130628\)](#)

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Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field
1	0.998	19	0.433	37	0.147	55	0.140	73	0.022
2	0.992	20	0.388	38	0.159	56	0.132	74	0.019
3	0.982	21	0.343	39	0.169	57	0.123	75	0.016
4	0.968	22	0.299	40	0.177	58	0.115	76	0.013
5	0.950	23	0.257	41	0.184	59	0.107	77	0.011
6	0.929	24	0.215	42	0.188	60	0.099	78	0.008
7	0.905	25	0.175	43	0.191	61	0.092	79	0.007
8	0.877	26	0.137	44	0.193	62	0.084	80	0.005
9	0.846	27	0.100	45	0.192	63	0.077	81	0.004
10	0.812	28	0.066	46	0.191	64	0.070	82	0.003
11	0.776	29	0.033	47	0.188	65	0.063	83	0.002
12	0.738	30	0.003	48	0.185	66	0.056	84	0.001
13	0.697	31	0.026	49	0.180	67	0.050	85	0.001
14	0.655	32	0.052	50	0.175	68	0.045	86	0.001
15	0.612	33	0.075	51	0.169	69	0.039	87	0.000
16	0.568	34	0.096	52	0.162	70	0.034	88	0.000
17	0.523	35	0.115	53	0.155	71	0.030	89	0.000
18	0.478	36	0.132	54	0.147	72	0.026	90	0.000

Elevation Pattern Tabulation

Antenna models: 6014, 6015, 6020, 6510, 6513, 6600, & 68xx except 6832, 4-bay full-wave-spaced.

Relative Field at 0° Depression = 1.000

W252BN

BLFT20040823ABE

Latitude: 30-29-16 N

Longitude: 084-16-47 W

ERP: 0.25 kW

Channel: 252

Frequency: 98.3 MHz

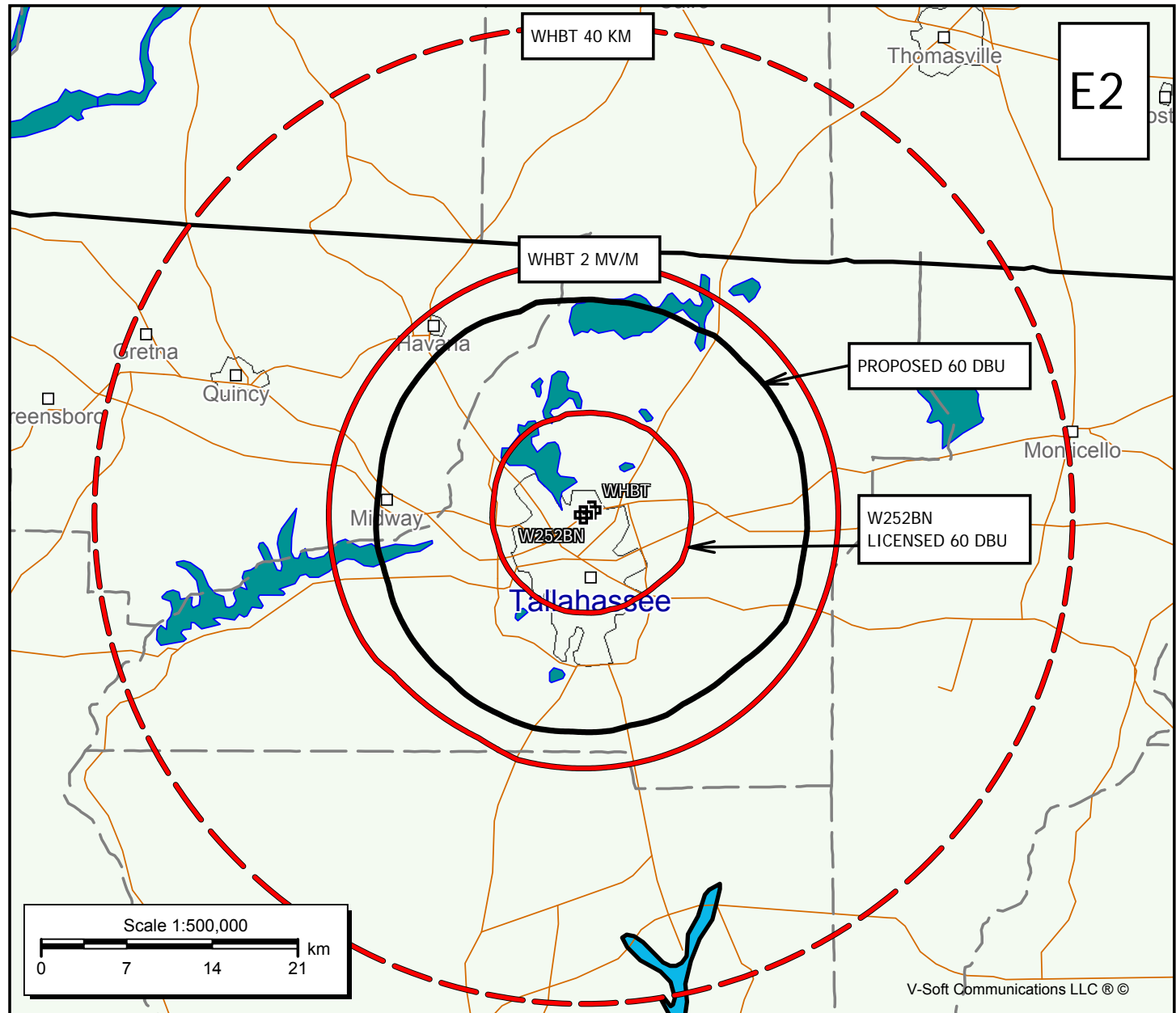
AMSL Height: 215.0 m

Elevation: 66.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None



E3 Registration 1030679

 [Map Registration](#)

Registration Detail

Reg Number	1030679	Status	Constructed
File Number	A0246999	Constructed	01/01/1993
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	30-29-17.1 N 084-16-47.1 W	Address	3000 N MERIDIAN RD
City, State	TALLAHASSEE , FL		
Zip	32312	County	LEON
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
65.5	192.1
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
257.6	182.8

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 12

Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	00-ASO-3878-OE	FAA Issue Date	09/01/2000
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Owner & Contact Information

FRN	0006153803	Owner Entity Type
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Owner

TEMPLE BAPTIST CHURCH INC
Attention To: RANDALL G RAY
3000 N MERIDIAN RD
TALLAHASSEE , FL 32312

P: (850)385-7181
F:
E:

Contact

P:
F:
E:

Last Action Status

Status	Constructed	Received	02/13/2002
Purpose	Notification	Entered	02/13/2002