



ENGINEERING STATEMENT
OF
BENJAMIN L. PIDEK, P.E.
IN SUPPORT OF APPLICATION FOR
MINOR MODIFICATION OF CONSTRUCTION PERMIT
REPLACEMENT DIGITAL LOW POWER TELEVISION TRANSLATOR
WESH
DAYTONA BEACH, FL

Background

Orlando Hearst Television Inc. is the licensee of WESH which has been authorized to operate its post-transition DTV facility on Channel 11 (BMLCDT-20040930AXX) at Daytona Beach, FL, with an ERP of 54.9 kW at an HAAT of 511m. The tower is located at the following coordinates:

(NAD27)
28° 36' 35" N
81° 03' 35" W

Since the transition, WESH has received numerous calls from viewers living in Ocala, FL area and parts of Marion County which were previously covered by the analog Grade B service contour but are no longer covered by the post-transition facility noise-limited contour. Given the disparity in coverage between the old analog facility coverage and the current post-transition facility coverage, WESH applied-for a construction permit for a "Replacement Digital Low Power Television Translator" on Channel 24 (BDRTCDDT-20090819AAD) in order to



provide supplemental service to these viewers. WESH was granted a construction permit on April 19, 2010 and just recently completed construction of the facility; however, during an inspection of the installation following the completion of construction, it was discovered that the antenna was placed 3m higher on the tower than specified in the construction permit. Relocating (lowering) the antenna would pose significant technical and economic challenges. Therefore, due to the disparity in the as-built radiation center height (168.8m AMSL) vs. the height that was applied for (165.8m AMSL), WESH, in the instant application, is seeking to modify its construction permit to specify the higher height while simultaneously lowering the ERP (reduced from 7 kW to 6.5 kW) so that it does not extend the protected 51 dBu contour of the proposed facility beyond that of the authorized facility.

Antenna System/Tower/ERP

WESH-DT has installed the ERI ALP8L1-HSER-24 directional antenna (having characteristics identical to those specified in the current construction permit) on a tower in the Ocala area (ASR#1210038) at a radiation center height of 168.8m AMSL. The antenna is side-mounted and, therefore, no modification to the ASR or notice to the FAA is required. The proposed ERP of the “replacement translator” is 6.5 kW with the antenna being oriented at 155° relative to true north.

Coverage

Figure 1, attached hereto, is a map depicting the Grade B contour of the WESH analog Channel 2 facility, the noise-limited contour of its post-transition Channel 11 facility and the 51 dBu protected contour of its proposed replacement translator on Channel 24. As can be seen on the map, the protected contour of the proposed replacement translator, while providing coverage to a significant portion of its “analog loss area”, will not exceed the WESH analog Grade B contour; therefore, the proposed replacement translator satisfies the service area criteria specified in Paragraph 18 of the Report and Order on the Amendment of Parts 73 and 74 of the Commission’s Rules to Establish Rules for Replacement Digital Low Power Television Translator Stations.



Interference

Studies were conducted with the proposed parameters (6.5 kW, RCAMSL 168.8m) using software that emulates the software used by the FCC (OET-69 analysis). The results of these studies indicate that no facilities (full-service, Class A or low power) are predicted to receive any additional interference beyond that already cause by the authorized facility. Specifically, in the case of W24DM (BNPDTL20090825ANO), the predicted interference from the proposed facility is the same level as that caused by the authorized facility.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation (RFR). Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report; however, since the structure is existing and registered, such conditions should not be an issue requiring further consideration as there will be no increase in height or change in width of the tower structure.

The additional ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.000397 mW/cm^2 which is less than 5% of the MPE for public exposure (0.355 mW/cm^2) at the proposed frequency and, therefore, the proposal is excluded from further consideration.

WESH agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure. The site is enclosed by a locked security fence and appropriate signage warning of RFR hazards is posted.

**Certification**

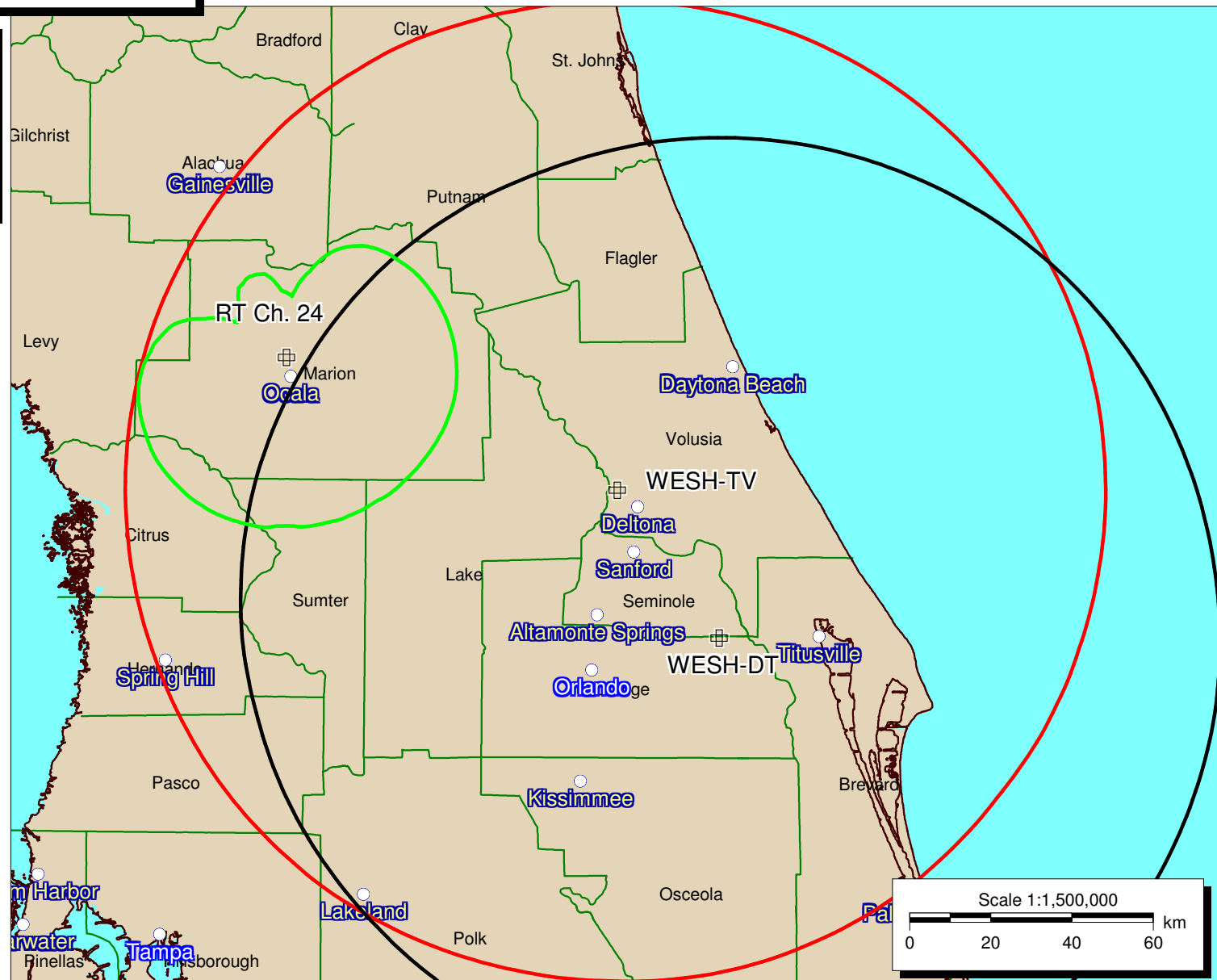
I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

Benjamin L. Pidek, P.E.

John F. X. Browne, P.E.
March 4, 2011

RT Ch. 24

Latitude: 29-13-46.1 N
Longitude: 082-09-08.7 W
ERP: 6.50 kW
Channel: 24
Frequency: 533.0 MHz
AMSL Height: 168.8 m



Black - WESH Digital Facility Noise Limited Contour

Red - WESH Analog Facility Grade B Contour

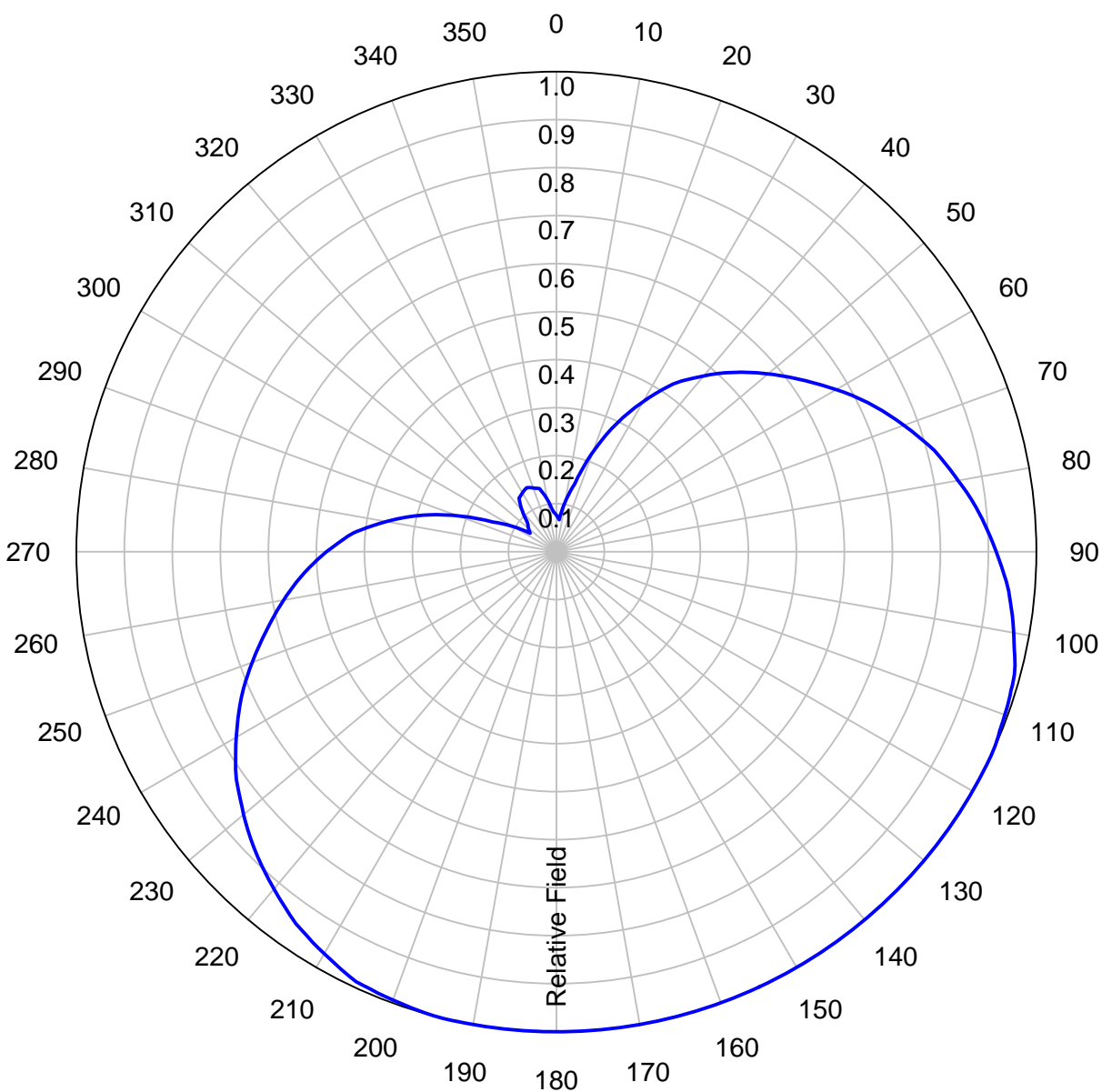
Green - Protected 51 dBu Contour Replacement Translator on Ch. 24 with ERP of 6.5 kW

03-04-11

Figure 1

AZIMUTH PATTERN**Type:**ALP-ER**Channel:**24**Directivity:**NumericdBd**Peak(s) at:**1.932.86**Location:****Polarization:**Horizontal

Note: Pattern shape and directivity may vary with channel and mouting configuration.

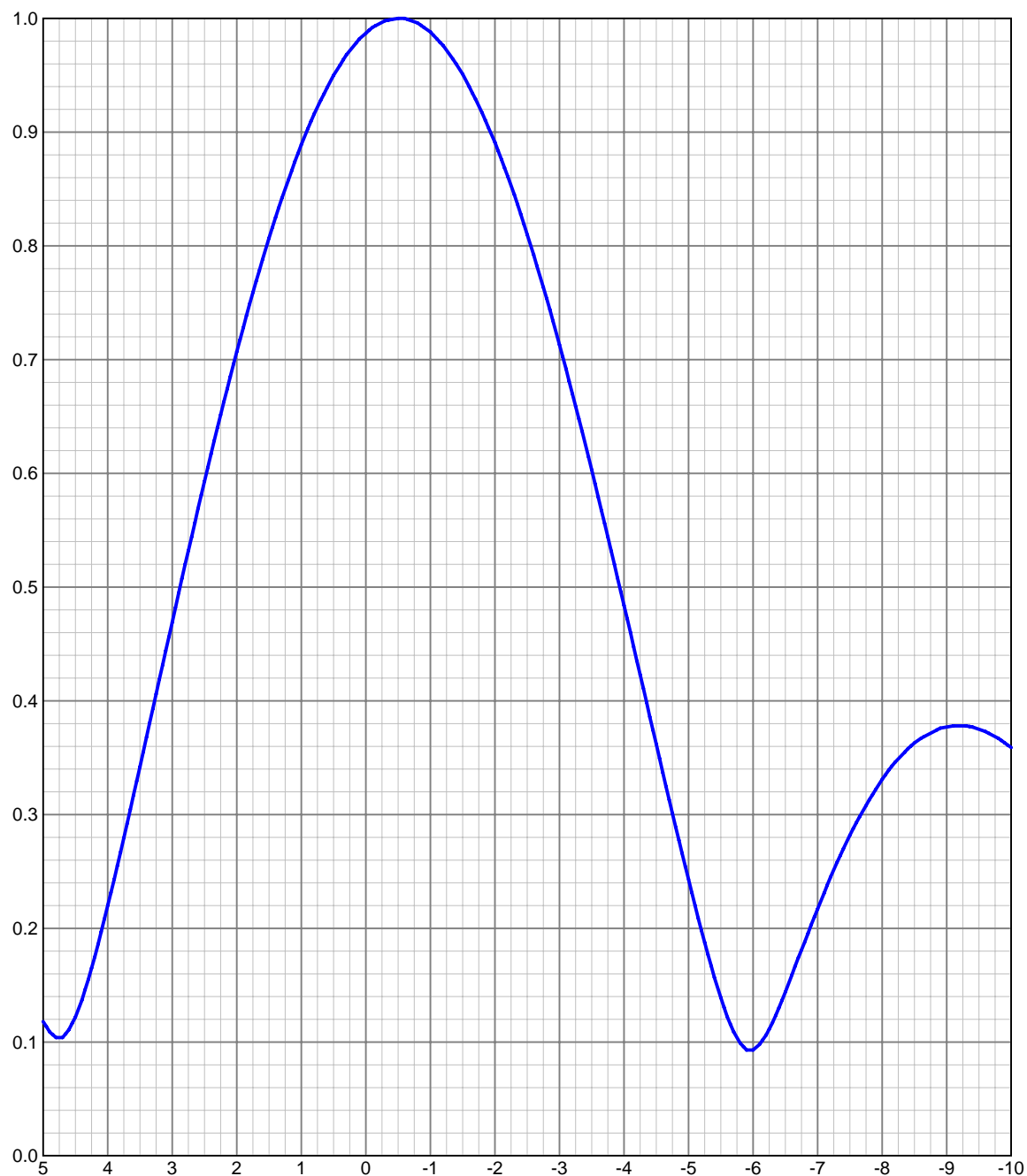


TABULATED DATA FOR AZIMUTH PATTERN

Type: ALP-ER

PolarizationHorizontal

ANGLE	FIELD	ERP (kW)	ERP (dBk)
0	0.076	0.040	-13.933
10	0.106	0.079	-11.043
20	0.220	0.339	-4.701
30	0.361	0.912	-0.399
40	0.478	1.599	2.040
50	0.576	2.322	3.659
60	0.674	3.180	5.024
70	0.770	4.150	6.181
80	0.850	5.058	7.039
90	0.916	5.873	7.689
100	0.967	6.546	8.160
110	0.994	6.916	8.399
120	1.000	7.000	8.451
130	1.000	7.000	8.451
140	1.000	7.000	8.451
150	1.000	7.000	8.451
160	1.000	7.000	8.451
170	1.000	7.000	8.451
180	1.000	7.000	8.451
190	1.000	7.000	8.451
200	0.994	6.916	8.399
210	0.967	6.546	8.160
220	0.916	5.873	7.689
230	0.851	5.069	7.050
240	0.770	4.150	6.181
250	0.675	3.189	5.037
260	0.577	2.331	3.674
270	0.479	1.606	2.058
280	0.361	0.912	-0.399
290	0.219	0.336	-4.740
300	0.106	0.079	-11.043
310	0.076	0.040	-13.933
320	0.110	0.085	-10.721
330	0.142	0.141	-8.503
340	0.141	0.139	-8.565
350	0.111	0.086	-10.643

ELEVATION PATTERN**Type:****ALP8L2****Channel:****24****Directivity:****Numeric****dBd****Location:****Main Lobe:****9.05****9.57****Beam Tilt:****-0.50****Horizontal:****8.82****9.45****Polarization:****Horizontal****Relative Field**

TABULATED DATA FOR ELEVATION PATTERN

Type: ALP8L2

PolarizationHorizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.118	-18.56	-6.75	0.181	-14.85	-27.00	0.044	-27.13	-50.50
4.75	0.104	-19.66	-7.00	0.217	-13.27	-27.50	0.026	-31.70	-51.00
4.50	0.122	-18.27	-7.25	0.252	-11.99	-28.00	0.013	-37.72	-51.50
4.25	0.165	-15.65	-7.50	0.282	-11.00	-28.50	0.007	-43.10	-52.00
4.00	0.220	-13.15	-7.75	0.308	-10.23	-29.00	0.008	-41.94	-52.50
3.75	0.279	-11.07	-8.00	0.331	-9.60	-29.50	0.006	-44.44	-53.00
3.50	0.342	-9.32	-8.25	0.349	-9.14	-30.00	0.000	-40.00	-53.50
3.25	0.406	-7.83	-8.50	0.363	-8.80	-30.50	0.010	-40.00	-54.00
3.00	0.469	-6.58	-8.75	0.371	-8.60	-31.00	0.024	-32.40	-54.50
2.75	0.532	-5.48	-9.00	0.377	-8.47	-31.50	0.040	-27.96	-55.00
2.50	0.593	-4.54	-9.25	0.378	-8.45	-32.00	0.058	-24.73	-55.50
2.25	0.651	-3.72	-9.50	0.375	-8.52	-32.50	0.078	-22.16	-56.00
2.00	0.707	-3.01	-9.75	0.368	-8.67	-33.00	0.097	-20.26	-56.50
1.75	0.759	-2.40	-10.00	0.359	-8.90	-33.50	0.115	-18.79	-57.00
1.50	0.807	-1.86	-10.50	0.330	-9.63	-34.00	0.131	-17.65	-57.50
1.25	0.850	-1.41	-11.00	0.291	-10.72	-34.50	0.145	-16.77	-58.00
1.00	0.889	-1.02	-11.50	0.246	-12.18	-35.00	0.155	-16.19	-58.50
0.75	0.922	-0.71	-12.00	0.198	-14.07	-35.50	0.162	-15.81	-59.00
0.50	0.950	-0.45	-12.50	0.149	-16.54	-36.00	0.165	-15.65	-59.50
0.25	0.972	-0.25	-13.00	0.102	-19.83	-36.50	0.163	-15.76	-60.00
0.00	0.987	-0.11	-13.50	0.061	-24.29	-37.00	0.158	-16.03	-60.50
-0.25	0.996	-0.03	-14.00	0.026	-31.70	-37.50	0.149	-16.54	-61.00
-0.50	1.000	0.00	-14.50	0.001	-60.00	-38.00	0.136	-17.33	-61.50
-0.75	0.997	-0.03	-15.00	0.018	-34.89	-38.50	0.121	-18.34	-62.00
-1.00	0.988	-0.10	-15.50	0.026	-31.70	-39.00	0.103	-19.74	-62.50
-1.25	0.972	-0.25	-16.00	0.026	-31.70	-39.50	0.084	-21.51	-63.00
-1.50	0.951	-0.44	-16.50	0.019	-34.42	-40.00	0.064	-23.88	-63.50
-1.75	0.923	-0.70	-17.00	0.020	-33.98	-40.50	0.045	-26.94	-64.00
-2.00	0.891	-1.00	-17.50	0.038	-28.40	-41.00	0.028	-31.06	-64.50
-2.25	0.853	-1.38	-18.00	0.065	-23.74	-41.50	0.021	-33.56	-65.00
-2.50	0.810	-1.83	-18.50	0.096	-20.35	-42.00	0.028	-31.06	-65.50
-2.75	0.764	-2.34	-19.00	0.127	-17.92	-42.50	0.040	-27.96	-66.00
-3.00	0.713	-2.94	-19.50	0.158	-16.03	-43.00	0.052	-25.68	-66.50
-3.25	0.659	-3.62	-20.00	0.185	-14.66	-43.50	0.061	-24.29	-67.00
-3.50	0.603	-4.39	-20.50	0.208	-13.64	-44.00	0.067	-23.48	-67.50
-3.75	0.544	-5.29	-21.00	0.226	-12.92	-44.50	0.070	-23.10	-68.00
-4.00	0.484	-6.30	-21.50	0.237	-12.51	-45.00	0.071	-22.97	-68.50
-4.25	0.423	-7.47	-22.00	0.241	-12.36	-45.50	0.068	-23.35	-69.00
-4.50	0.362	-8.83	-22.50	0.239	-12.43	-46.00	0.062	-24.15	-69.50
-4.75	0.301	-10.43	-23.00	0.230	-12.77	-46.50	0.054	-25.35	-70.00
-5.00	0.243	-12.29	-23.50	0.215	-13.35	-47.00	0.043	-27.33	-70.50
-5.25	0.188	-14.54	-24.00	0.195	-14.20	-47.50	0.031	-30.17	-71.00
-5.50	0.139	-17.14	-24.50	0.172	-15.29	-48.00	0.017	-35.39	-71.50
-5.75	0.104	-19.66	-25.00	0.146	-16.71	-48.50	0.003	-50.46	-72.00
-6.00	0.093	-20.63	-25.50	0.119	-18.49	-49.00	0.012	-38.42	-72.50
-6.25	0.112	-19.05	-26.00	0.092	-20.72	-49.50	0.027	-31.37	-73.00
-6.50	0.144	-16.83	-26.50	0.067	-23.48	-50.00	0.041	-27.74	-73.50

DIRECTIONAL ANTENNA DATA
Ocala Ch. 24 Replacement Translator
dBk Table

Actual Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	Distance to Contour (km) 51 dBu
N000E	0.00	0.076	-14.25	15.9
	10.00	0.106	-11.36	
	20.00	0.220	-5.02	
	30.00	0.361	-0.72	
	40.00	0.478	1.72	
N045E	45.00	0.527	2.57	35.9
	50.00	0.576	3.34	
	60.00	0.674	4.70	
	70.00	0.770	5.86	
	80.00	0.850	6.72	
N090E	90.00	0.916	7.37	41.8
	100.00	0.967	7.84	
	110.00	0.994	8.08	
	120.00	1.000	8.13	
	130.00	1.000	8.13	
N135E	135.00	1.000	8.13	42.0
	140.00	1.000	8.13	
	150.00	1.000	8.13	
	160.00	1.000	8.13	
	170.00	1.000	8.13	
N180E	180.00	1.000	8.13	41.4
	190.00	1.000	8.13	
	200.00	0.994	8.08	
	210.00	0.967	7.84	
	220.00	0.916	7.37	
N225E	225.00	0.883	7.05	41.0
	230.00	0.851	6.73	
	240.00	0.770	5.86	
	250.00	0.675	4.72	
	260.00	0.577	3.35	
N270E	270.00	0.479	1.74	34.1
	280.00	0.361	-0.72	
	290.00	0.219	-5.06	
	300.00	0.106	-11.36	
	310.00	0.076	-14.25	
N315E	315.00	0.093	-12.50	16.9
	320.00	0.110	-11.04	
	330.00	0.142	-8.83	
	340.00	0.141	-8.89	
	350.00	0.111	-10.96	

Maximum: N120E - 8.13 dBk
N190E

Minima: N000E -14.25 dBk
N310E -14.25 dBk