

SECTION III-D - DTV Engineering	
TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.	
TECH BOX	
1.	Channel Number: DTV 7 Analog TV, if any 7
2.	Zone: <input type="radio"/> I <input checked="" type="radio"/> II <input type="radio"/> III
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 18 Minutes 19 Seconds 25 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 67 Minutes 10 Seconds 27 <input checked="" type="radio"/> West <input type="radio"/> East
4.	Antenna Structure Registration Number: 1011024 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5.	Antenna Location Site Elevation Above Mean Sea Level: 340.4 meters
6.	Overall Tower Height Above Ground Level: 101 meters
7.	Height of Radiation Center Above Ground Level: 96.6 meters
8.	Height of Radiation Center Above Average Terrain : 370 meters
9.	Maximum Effective Radiated Power (average power): 0.5 kW
10.	Antenna Specifications: a. Manufacturer ADC Model T7C4.2SH2P b. Electrical Beam Tilt: 1.7 degrees <input type="checkbox"/> Not Applicable c. Mechanical Beam Tilt: degrees toward azimuth degrees True <input checked="" type="checkbox"/> Not Applicable Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42] d. Polarization: <input checked="" type="radio"/> Horizontal <input type="radio"/> Circular <input type="radio"/> Elliptical e. Directional Antenna Relative Field Values: <input type="checkbox"/> Not applicable (Nondirectional) [For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.] [Relative Field Values]
<div style="text-align: center;">10e. Directional Antenna Relative Field Values</div>	

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:

Rotation (Degrees): 88 ☐ No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.46	10	0.4	20	0.34	30	0.43	40	0.61	50	0.75
60	0.87	70	0.96	80	0.99	90	1	100	0.93	110	0.82
120	0.67	130	0.54	140	0.39	150	0.25	160	0.21	170	0.22
180	0.25	190	0.24	200	0.25	210	0.29	220	0.4	230	0.54
240	0.68	250	0.79	260	0.91	270	0.98	280	0.98	290	0.98
300	0.91	310	0.79	320	0.63	330	0.44	340	0.32	350	0.39

Additional
Azimuths

[Relative Field Polar Plot](#)

If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 43]

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616? ☒ Yes ☐ No [Exhibit 44]

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.") [Exhibit 45]

13. **Environmental Protection Act. Submit in an Exhibit** the following: [Exhibit 46]
If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.

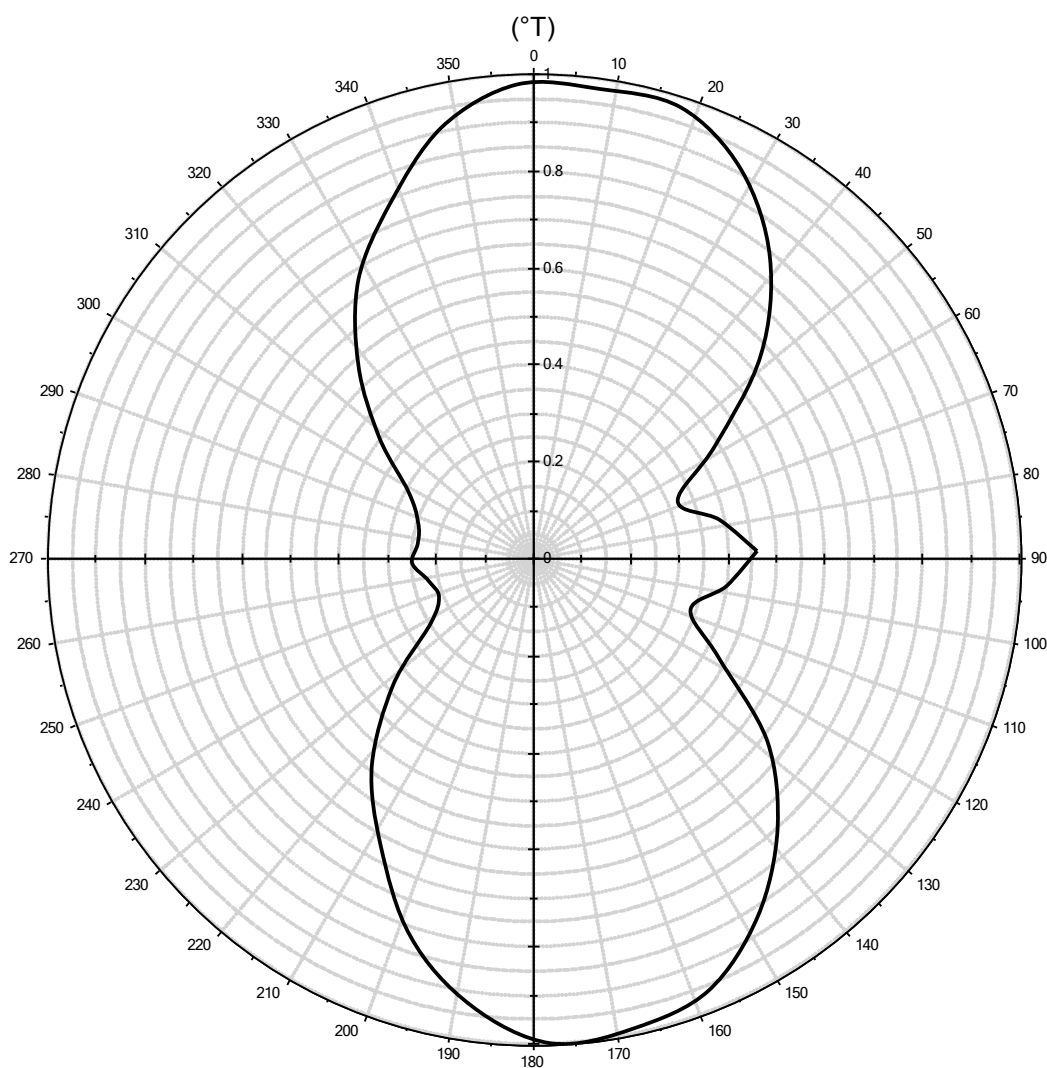
PREPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.

DA Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



Antenna Pattern: Antenna ID: 16284



Note: display reflects rotation of 88.00°

Antenna Details:

0°	0.460	60°	0.870	120°	0.670	180°	0.250	240°	0.680	300°	0.910
10°	0.400	70°	0.960	130°	0.540	190°	0.240	250°	0.790	310°	0.790
20°	0.340	80°	0.990	140°	0.390	200°	0.250	260°	0.910	320°	0.630
30°	0.430	90°	1.000	150°	0.250	210°	0.290	270°	0.980	330°	0.440
40°	0.610	100°	0.930	160°	0.210	220°	0.400	280°	0.980	340°	0.320
50°	0.750	110°	0.820	170°	0.220	230°	0.540	290°	0.980	350°	0.390

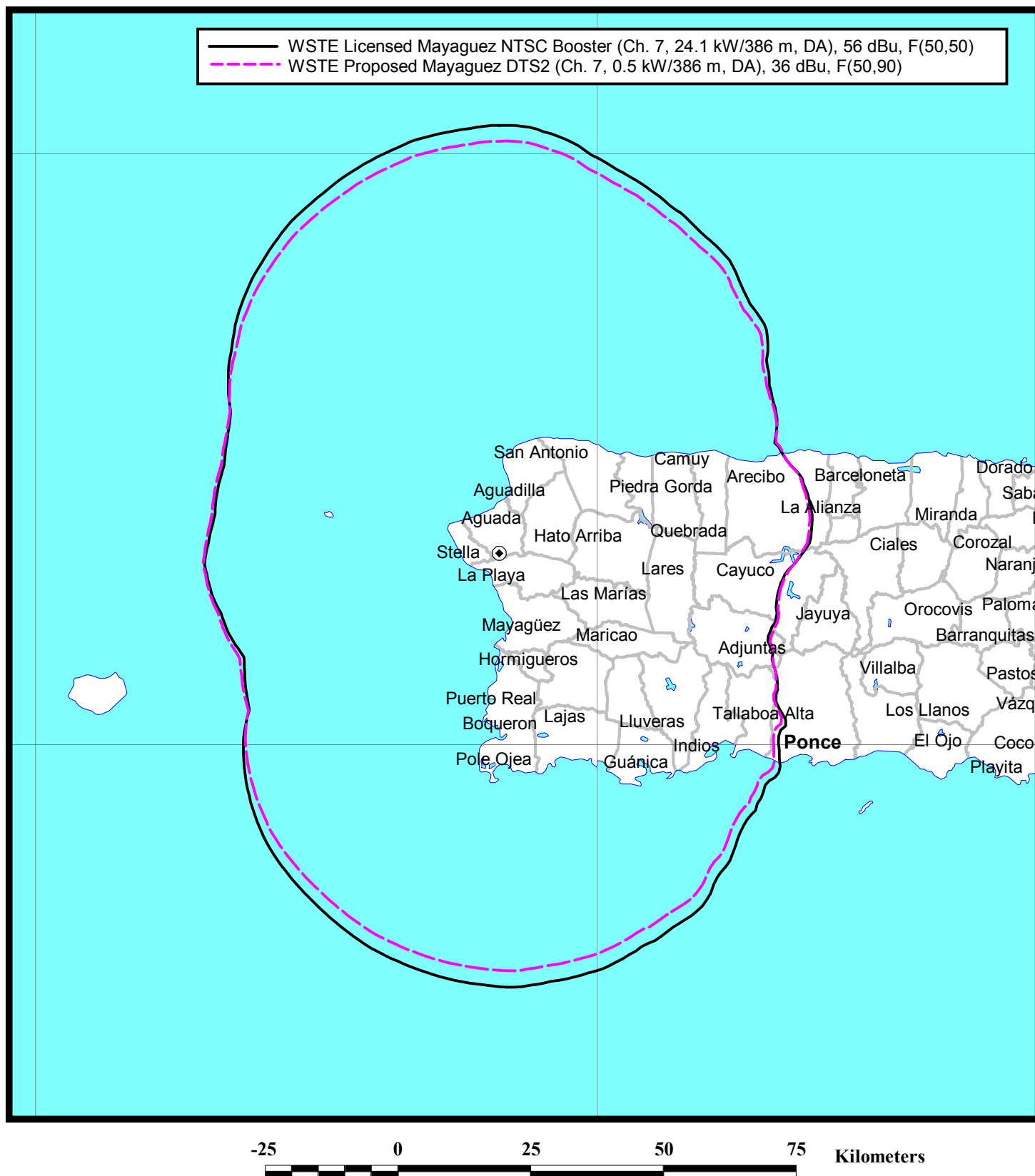
Antenna Make: ADC

Antenna Model: ODD900531IB

Standard Pattern:

Last Change Date:

Figure 2B



PREDICTED FCC COVERAGE CONTOURS

STATION WSTE-DT - DTS2
 MAYAGUEZ, PUERTO RICO
 CHANNEL 7

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT
CONCERNING HUMAN EXPOSURE TO RF ELECTROMAGNETIC ENERGY
PREPARED FOR
STATION WSTE-DT
DTS2 FACILITY
MAYAGUEZ, PUERTO RICO
CH 7 0.5 KW (MAX-DA) 370 M

Technical Statement

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 97 meters above ground level. The maximum DTV ERP is 0.5 kW (horizontal polarization). A “worst-case” vertical plane relative field value of 1.0 (for angles below 60 degrees downward) is assumed for the antenna's downward radiation. The calculated power density at a point 2 meters above ground level is 0.0019 mW/cm^2 . This is 0.95% of the FCC's recommended limit of 0.2 mW/cm^2 for channel 7 for an “uncontrolled” environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site is restricted and appropriately marked with RFR warning signs. Furthermore, a protocol will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing “accepted” RFR protective clothing and/or RFR exposure monitors.

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the

environmental processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.



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