

CONSOLIDATED ENGINEERING STATEMENT
PREPARED IN SUPPORT OF APPLICATION FOR
DTV CONSTRUCTION PERMIT
TV STATION WMEI FCC ID 26676
CHANNEL 14 470-476 MHz 10 kW MAX DA @ 833 m HAAT
ARECIBO, PUERTO RICO

AUGUST 2006

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TABLE OF CONTENTS

ENGINEERING STATEMENT

TABLES:

- I. Technical specifications for proposed WMEI Channel 14 DTV facility.
- II. HAAT, depression angle to the radio horizon and relative field pattern data.
- III. Allocation Study.

FIGURES:

1. Vertical Plan Sketch.
2. Horizontal plane radiation pattern.
3. Elevation pattern.
4. Normalized horizontal plane radiation pattern calculated by taking into account beam tilt at the horizon.
5. Predicted 48 and 41 dBu F(50,90) contours.
6. WMEI CP 64 dBu F(50,50) and proposed 41 dBu F(50,90) contour comparison.
7. WMEI allotment and CP replication 41 dBu contour comparison.

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SUMMARY

The following engineering statement has been prepared on behalf of **CMCG Puerto Rico License, LLC**, permittee of WMEI Channel 60 analog television and tentative digital channel electee for Channel 14. The purpose of this application is to specify digital facilities which replicate the WMEI authorized Channel 60 analog facilities. All required technical data is found in this statement and on *FCC Form 301, Section III-C*, which this statement accompanies.

The proposed digital facilities requested herein will not exceed the WMEI authorized analog service area in any direction beyond the area resulting from the station's parameters as defined in the station's outstanding construction permit. It should be noted that the proposal advanced in this modification application is in the public interest as it will allow WMEI to bring a new full service DTV signal to Puerto Rico reaching the same area which the analog facility is designed to serve. It is requested that the Commission expeditiously process and grant this application for construction permit so that WMEI can be assured of duplicating its analog service area at the DTV transition. Currently, the WMEI CP 64 dBu analog contour encompasses 3,450,749 persons while the current allotment contour reaches 1,750,312 persons resulting in a 1,700,437 person loss in service should the Channel 14 allotment remain as currently proposed by the Commission.

PROPOSED ANTENNA SYSTEM

At the transition, WMEI plans to use the Channel 60 SWR SWDDPD 8-0-2-8 panel antenna. The current top mounted mast and tower combination have a total height of 134.1 meters AGL as specified in registration number 1011019 and will remain unchanged. *Figure 1*, attached, is a vertical plan sketch for the proposed top mounted antenna system on the existing tower.

Figure 2, attached, includes the manufacturer plotted horizontal plane pattern and tabulation for the proposed SWR, horizontally polarized, directional antenna system. The antenna will incorporate 1.5° of electrical beam tilt in the major lobe. The manufacturer plotted and tabulated elevation pattern data are found on *Figure 3*, attached. *Figure 4* is the normalized horizontal plane pattern employed for distance to contour calculations. *Table I* is a summary of the proposed facility technical characteristics.

PREDICTED CONTOUR LOCATIONS

Figure 5, attached, depicts the 48 and 41 dBu F(50,90) service contours. This map Figure is based on 72 evenly spaced radials with terrain data from the NGDC 3 second terrain data base - RadioSoft. *Table II*, attached, is a tabulation of the horizontal plane pattern, calculated depression angle for each radial based on the HAAT for that radial and elevation pattern relative field. In all cases where the elevation pattern relative field value F was 0.9 or greater, an elevation pattern relative field value of 1.0 was used in determining ERP and distance to contours in compliance with 73.684(c)(2). The predicted 48 dBu contour covers 100% of the community of Arecibo, Puerto Rico.

DTV REPLICATION

Figure 6 depicts the authorized 64 dBu F(50,50) and proposed 41 dBu F(50,90) contours. The proposed DTV facility achieves replication to the extent possible without exceeding the authorized analog contours. *Figure 7* depicts the allotment and proposed 41 dBu F(50,90) contours. It is seen that the allotment does not achieve replication and population as the allotment contour is only 50.7% of the population in the NTSC 64 dBu contour.

COORDINATION

The WMEI proposed transmitter site is 2,959 km from the nearest point on the Canadian border and 3,260 km from the nearest point on the Mexican border. The site is located 48 km from the Saban Seca, Puerto Rico FCC monitoring station and 36.6 km from the Arecibo observatory.

The WMEI facility will operate in the 470-476 MHz TV band, TV Channel 14. This frequency is well

outside the 608-614 MHz band for which emissions are regulated by ITU and FCC Rules. WMEI has coordinated this application with the observatory via e-mail with PDF attachment at prcz@naic.edu.

In accordance with *FCC Rule Section 73.1030(c)(3)(iv)*, the Chief of the Compliance and Information Bureau of the FCC has been mailed a copy of the technical specifications for the proposed facility.

Since the current site has been approved for 1,000 kW ERP it is not anticipated that there will be any deleterious impact to the Radio Observatory or the FCC monitoring station from the same site with lesser ERP.

There are no known AM stations within 10 km of the WMEI site proposed herein. Listed below are all known authorized full service FM and TV stations within 16 km of the proposed site.

<u>Call</u>	<u>Channel</u>	<u>Community</u>	<u>Distance - Kilometers</u>
WZAR	CH 270B	Ponce, PR	0.08
WPUC	CH 205B	Ponce, PR	4.53
WNRT	CH 245B	Manati, PR	11.92
WSTE	CH 7	Ponce, PR	0.01
WSUR-DT	CH 43	Ponce, PR	2.83
WSUR-TV	CH 9	Ponce, PR	2.83
WIRS-DT	CH 41	Yauco, PR	2.85
WIRS-TV	CH 42	Yauco, PR	2.85
WTIN-DT	CH 15	Ponce, PR	2.85
WTIN-TV	CH 14	Ponce, PR	2.92
WSTE-DT	CH 8	Ponce, PR	15.87
WSTE-TV	CH 8	Ponce, PR	15.87

No adverse impact is anticipated with the facilities located herein. WMEI will employ good engineering standards in its installation, including filtering as necessary, and will correct any problems that should occur as the last facility constructing.

RF RADIATION ANALYSIS

The proposed antenna system consists of a SWR Model SWDDPD 8-0-2-8, horizontally polarized, panel antenna, with a radiation center 128.3 meters above ground. Utilizing formula 10 of *OET Bulletin No. 65*,

Edition 97-01, a value F of 0.15 has been used to calculate the power density 2 meters above ground. The maximum power density is 0.471 uW/cm squared for an ERP of 10,000 watts. This value is 0.15% of the allowable 315.3 uW/cm squared power density for uncontrolled environments for TV Channel 14 and, thus, is believed to be categorically excluded from environmental processing.

The tower base will be fenced to prevent unauthorized access.

The applicant will reduce, or cease, transmission as required to meet *FCC OET-65* guidelines for worker exposure.

CONCLUSION

The foregoing was prepared on behalf of **CMCG Puerto Rico License, LLC** by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The undersigned certifies, under penalty of perjury, that the statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.

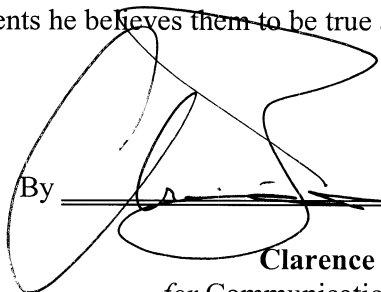
By  _____
Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey
August 1, 2006

TABLE I

TECHNICAL SPECIFICATIONS
WMEI PROPOSED MODIFICATION TO CONSTRUCTION PERMIT
CHANNEL 14 10 kW MAX DA @ 833 m HAAT

NAD 27	NAD 83
Latitude: 18° 09' 17.1"	Latitude: 18° 09' 10.00"
Longitude: 66° 33' 16.4"	Longitude: 66° 33' 15"
FCC Tower Registration:	#1011019
Ground Elevation:	1200 meters AMSL
Tower & all appurtenances:	134.1 meters AGL
Top of tower:	121.9 meters AGL
Antenna radiation center:	128.3 m AGL 1,328.3 m AMSL
ERP maximum:	10 kW @ 0.75° depression angle, 7.073 kW @ Radio Horizon
Frequency:	470-476 MHz

<u>Azimuth</u>	<u>* AAT</u>	<u>HAAT</u>	<u>Distance kM</u> <u>64 dBu F(50,50)</u>	<u>Distance kM</u> <u>41 dBu F(50,90)</u>
0	587	741	86.1	79.0
45	658	670	81.9	76.0
90	608	720	52.6	52.4
135	302	1026	63.7	62.0
180	206	1122	68.9	66.3
225	322	1006	82.3	76.5
270	775	553	82.3	76.2
315	506	822	85.6	78.7
# 334	<u>624</u>	<u>704</u>	<u>83.7</u>	<u>77.4</u>
	Avg.	495.5	832.8	

* NGDC 3 second terrain data - RadioSoft

Radial through community of license. Not included in average of 8 radials.

TABLE II
WMEI NORMALIZED HORIZONTAL PLANE PATTERN CALCULATIONS
 . AUGUST 2006

Bearing	HAAT	Depression Angle	Elevation Relative Field	Azimuth relative field	Elevation X Azimuth	Normalized Relative Field
0	741	0.75403	0.881	0.7843	0.690968	0.821603
10	661	0.71216	0.841	0.9005	0.757321	0.9005
20	677	0.72073	0.841	0.9538	0.802146	0.9538
30	730	0.74841	0.841	0.9144	0.76901	0.9144
40	704	0.73496	0.841	0.8201	0.689704	0.8201
50	648	0.70513	0.841	0.6928	0.582645	0.6928
60	525	0.63469	0.805	0.5528	0.445004	0.529137
70	514	0.62800	0.805	0.3952	0.318136	0.378283
80	493	0.61504	0.805	0.2321	0.186841	0.222165
90	720	0.74327	0.841	0.1213	0.102013	0.1213
100	898	0.83008	0.881	0.1073	0.094531	0.112403
110	936	0.84746	0.881	0.0816	0.07189	0.085481
120	1015	0.88250	0.888	0.0452	0.040138	0.047726
130	978	0.86626	0.888	0.104	0.092352	0.109812
140	1089	0.91410	0.888	0.221	0.196248	0.233351
150	1136	0.93362	0.888	0.2957	0.262582	0.312225
160	1147	0.93813	0.888	0.2996	0.266045	0.316343
170	1165	0.94546	0.888	0.2548	0.226262	0.26904
180	1122	0.92785	0.888	0.1997	0.177334	0.21086
190	1129	0.93074	0.888	0.1958	0.17387	0.206742
200	1141	0.93567	0.888	0.2545	0.225996	0.268723
210	1075	0.90821	0.888	0.336	0.298368	0.354778
220	1026	0.88727	0.888	0.4359	0.387079	0.460261
230	977	0.86582	0.888	0.4656	0.413453	0.49162
240	893	0.82776	0.881	0.552	0.486312	0.578254
250	761	0.76414	0.881	0.7472	0.658283	0.782739
260	667	0.71539	0.841	0.8993	0.756311	0.8993
270	553	0.65139	0.841	0.9867	0.829815	0.9867
275			0.841	1	0.841	1
280	578	0.66595	0.841	0.9738	0.818966	0.9738
290	584	0.66940	0.841	0.873	0.734193	0.873
300	694	0.72973	0.841	0.7399	0.622256	0.7399
310	810	0.78836	0.881	0.6155	0.542256	0.644775
320	813	0.78981	0.881	0.743	0.654583	0.778339
330	651	0.70676	0.841	0.8329	0.700469	0.8329
340	710	0.73809	0.841	0.7017	0.59013	0.7017
350	722	0.74430	0.841	0.6664	0.560442	0.6664

TABLE III

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-01-2006 Time: 17:18:20

Record Selected for Analysis

WMEI USERRECORD-01 ARECIBO PR US
 Channel 14 ERP 10. kW HAAT 839. m RCAMSL 01328 m
 Latitude 018-09-17 Longitude 0066-33-16
 Status APP Zone 2 Border
 Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
 Last update Cutoff date Docket
 Comments
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	6.711	703.5	80.9
45.0	5.715	659.5	78.5
90.0	0.136	762.2	55.0
135.0	0.256	1048.1	63.8
180.0	0.383	1128.7	68.0
225.0	2.084	1021.2	79.0
270.0	9.722	585.0	80.2
315.0	4.922	800.2	80.8

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

WMEI 14 ARECIBO PR USERRECORD01

and station

SHORT TO: WOST 16 MAYAGUEZ PR BPCT 19920102KE
 018-18-51 0067-11-24
 Req. separation => 24.1 <= 96.6 Actual separation 69.5 Short 27.1(45.4) km

SHORT TO: WTCV 18 SAN JUAN PR BLCT 19840808KN
 018-18-36 0065-47-41
 Req. separation => 24.1 <= 96.6 Actual separation 82.2 Short 14.4(58.1) km

SHORT TO: WNJX-TV 22 MAYAGUEZ PR BLCT 20030307ADG
 018-09- 0 0066-59- 0
 Req. separation => 24.1 <= 96.6 Actual separation 45.4 Short 51.2(21.3) km

SHORT TO: WNJX-TV 22 MAYAGUEZ PR BPCT 20030306ABR
 018-09- 0 0066-59- 0
 Req. separation => 24.1 <= 96.6 Actual separation 45.4 Short 51.2(21.3) km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
14	WMEI	ARECIBO PR	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	2.9	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	2.9	PLN	DTVPLN	-DTVP0189
15	WSJN-CA	SAN JUAN PR	43.9	LIC	BLTTL	-19940223IC
15	WVIF	CHRISTIANSTED VI	190.8	LIC	BLCT	-20001227ABK
16	WOST	MAYAGUEZ PR	69.4	CP	BPCT	-19920102KE
18	WTCV	SAN JUAN PR	82.0	LIC	BLCT	-19840808KN
22	WNJX-TV	MAYAGUEZ PR	45.3	LIC	BLCT	-20030307ADG
22	WNJX-TV	MAYAGUEZ PR	45.3	CP MOD	BPCT	-20030306ABR

%%%

Analysis of Interference to Affected Station 1

DTV Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
15	WTIN-DT	PONCE PR	DTVPLN	-DTVP0189

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
14	WTIN	PONCE PR	0.0	PLN	DTVPLN	-NPLN0900
15	NEW	CHRISTIANSTED VI	193.6	PLN	DTVPLN	-NPLN0940
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
16	WTRA	MAYAGUEZ PR	65.6	PLN	DTVPLN	-NPLN0965

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	74683	484.5
lost to additional IX by ATV	63031	116.1
lost to ATV IX only	87401	224.2
lost to all IX	137714	600.6

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
14	WTIN	PONCE PR	DTVPLN	-NPLN0900

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN-DT	PONCE PR	0.0	PLN	DTVPLN	-DTVP0189
15	NEW	CHRISTIANSTED VI	193.6	PLN	DTVPLN	-NPLN0940
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
16	WTRA	MAYAGUEZ PR	65.6	PLN	DTVPLN	-NPLN0965
17	WVEO-DT	AGUADILLA PR	65.6	PLN	DTVPLN	-DTVP0278
18	WSJU	SAN JUAN PR	84.1	PLN	DTVPLN	-NPLN1029
21	WSJN-DT	SAN JUAN PR	77.3	PLN	DTVPLN	-DTVP0454
22	WNJXTV	MAYAGUEZ PR	43.5	PLN	DTVPLN	-NPLN1155
28	WKAQ-DT	SAN JUAN PR	55.7	PLN	DTVPLN	-DTVP0724
29	WORA-DT	MAYAGUEZ PR	43.6	PLN	DTVPLN	-DTVP0763

Results for: 14N PR PONCE		DTVPLN	NPLN0900	PLN
	POPULATION	AREA (sq km)		
within Noise Limited Contour	3735741	34733.4		
not affected by terrain losses	3284959	33011.6		
lost to NTSC IX	107975	376.4		
lost to additional IX by ATV	110029	400.4		
lost to all IX	218004	776.8		

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WTIN	PONCE PR	BMPCDT	-20040803ABE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WVIF	CHRISTIANSTED VI	193.5	LIC	BLCT	-20001227ABK
16	WMTJ	FAJARDO PR	84.0	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	84.0	PLN	DTVPLN	-DTVP0239
16	WOST	MAYAGUEZ PR	66.7	CP	BPCT	-19920102KE
14	WMEI	ARECIBO PR	2.9	APP	USERRECORD-01	

Total scenarios = 2

Result key: 1
 Scenario 1 Affected station 1
 Before Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	56446	700.8
lost to additional IX by ATV	116925	196.2
lost to ATV IX only	145559	572.6
lost to all IX	173371	897.0

Potential Interfering Stations Included in above Scenario 1

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	BMPEDT	20030324ACY	CP

After Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	56446	700.8
lost to additional IX by ATV	121299	208.2
lost to ATV IX only	150274	588.6
lost to all IX	177745	909.0

Potential Interfering Stations Included in above Scenario 1

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	BMPEDT	20030324ACY	CP
14A PR ARECIBO	USERRECORD01		APP
*Percent Service lost without proposal:	-2.5	to BMPCDT	20040803ABE
*Percent Service lost with proposal:	-2.4	to BMPCDT	20040803ABE

Result key: 2
 Scenario 2 Affected station 1
 Before Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	56446	700.8
lost to additional IX by ATV	80555	144.2
lost to ATV IX only	105843	248.3
lost to all IX	137001	844.9

Potential Interfering Stations Included in above Scenario 2

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	DTVPLN	DTVP0239	PLN

After Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	56446	700.8
lost to additional IX by ATV	84929	156.2
lost to ATV IX only	110558	264.3
lost to all IX	141375	856.9

Potential Interfering Stations Included in above Scenario 2

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	DTVPLN	DTVP0239	PLN
14A PR ARECIBO	USERRECORD01		APP
*Percent Service lost without proposal:	-3.6	to BMPCDT	20040803ABE
*Percent Service lost with proposal:	-3.5	to BMPCDT	20040803ABE

#####

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
15	WTIN-DT	PONCE PR	DTVPLN -DTVP0189

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	WVIF	CHRISTIANSTED VI	193.6	LIC	BLCT -20001227ABK
16	WMTJ	FAJARDO PR	84.1	CP MOD	BMPEDT -20030324ACY
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN -DTVP0239
16	WOST	MAYAGUEZ PR	66.6	CP	BPCT -19920102KE
14	WMEI	ARECIBO PR	2.9	APP	USERRECORD-01

Total scenarios = 2

Result key: 3
 Scenario 1 Affected station 2
 Before Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	54465	460.5
lost to additional IX by ATV	68666	140.2
lost to ATV IX only	98791	428.5
lost to all IX	123131	600.6

Potential Interfering Stations Included in above Scenario 1

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	BMPEDT	20030324ACY	CP

After Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	54465	460.5
lost to additional IX by ATV	73511	172.2
lost to ATV IX only	103975	464.5
lost to all IX	127976	632.7

Potential Interfering Stations Included in above Scenario 1

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC	
16N PR MAYAGUEZ	BPCT	19920102KE	CP	
16A PR FAJARDO	BMPEDT	20030324ACY	CP	
14A PR ARECIBO	USERRECORD01		APP	
*Percent Service lost without proposal:			-0.4	to DTVPLN DTVP0189
*Percent Service lost with proposal:			-0.3	to DTVPLN DTVP0189

Result key: 4
 Scenario 2 Affected station 2
 Before Analysis

Results for: 15A PR PONCE	DTVPLN	DTVP0189	PLN
HAAT 861.0 m, ATV ERP 50.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	3735741	34733.4	
not affected by terrain losses	3459968	33800.4	
lost to NTSC IX	54465	460.5	
lost to additional IX by ATV	61992	116.1	
lost to ATV IX only	87401	224.2	
lost to all IX	116457	576.6	

Potential Interfering Stations Included in above Scenario 2

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	DTVPLN	DTVP0239	PLN

After Analysis

Results for: 15A PR PONCE	DTVPLN	DTVP0189	PLN
HAAT 861.0 m, ATV ERP 50.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	3735741	34733.4	
not affected by terrain losses	3459968	33800.4	
lost to NTSC IX	54465	460.5	
lost to additional IX by ATV	66837	148.2	
lost to ATV IX only	92585	260.3	
lost to all IX	121302	608.7	

Potential Interfering Stations Included in above Scenario 2

15N VI CHRISTIANSTED	BLCT	20001227ABK	LIC
16N PR MAYAGUEZ	BPCT	19920102KE	CP
16A PR FAJARDO	DTVPLN	DTVP0239	PLN
14A PR ARECIBO	USERRECORD01		APP
*Percent Service lost without proposal:			-0.6 to DTVPLN DTVP0189
*Percent Service lost with proposal:			-0.5 to DTVPLN DTVP0189

#####

Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WSJN-CA	SAN JUAN PR	BLTTL	-19940223IC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	45.6	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	45.6	PLN	DTVPLN	-DTVP0189
15	WVIF	CHRISTIANSTED VI	156.4	LIC	BLCT	-20001227ABK
16	WMTJ	FAJARDO PR	39.2	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	39.2	PLN	DTVPLN	-DTVP0239
16	WOST	MAYAGUEZ PR	108.1	CP	BPCT	-19920102KE
17	WVEO	AGUADILLA PR	106.9	CP	BPCDT	-20000501AFS
17	WVEO-DT	AGUADILLA PR	106.9	PLN	DTVPLN	-DTVP0278
19	WKPV-DT	PONCE PR	65.9	PLN	DTVPLN	-DTVP0369
19	WKPV	PONCE PR	66.0	CP MOD	BMPCDT	-20040318ABY
23	WNJX-DT	MAYAGUEZ PR	88.4	PLN	DTVPLN	-DTVP0540
23	WNJX-TV	MAYAGUEZ PR	87.8	CP MOD	BMPCDT	-20040115ACG
29	WORA-DT	MAYAGUEZ PR	88.4	PLN	DTVPLN	-DTVP0763
29	WORA-TV	MAYAGUEZ PR	88.4	CP MOD	BMPCDT	-20060414AAR
30	WSJU-TV	SAN JUAN PR	7.9	LIC	BLCT	-19841129LB
14	WMEI	ARECIBO PR	43.9	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 4

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
15	NEW	CHRISTIANSTED VI	DTVPLN	-NPLN0940

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
14	WTIN	PONCE PR	193.6	PLN	DTVPLN	-NPLN0900
15	WTIN-DT	PONCE PR	193.6	PLN	DTVPLN	-DTVP0189
16	WMTJ-DT	FAJARDO PR	122.0	PLN	DTVPLN	-DTVP0239
17	WVXF	CHARLOTTE AMALIE VI	68.6	PLN	DTVPLN	-NPLN1006
18	WSJU	SAN JUAN PR	122.0	PLN	DTVPLN	-NPLN1029
30	WRWRTV	SAN JUAN PR	148.5	PLN	DTVPLN	-NPLN1390

Results for: 15N VI CHRISTIANSTED		DTVPLN	NPLN0940	PLN
	POPULATION	AREA (sq km)		
within Noise Limited Contour	0	3924.5		
not affected by terrain losses	0	3856.3		
lost to NTSC IX	0	0.0		
lost to additional IX by ATV	0	678.2		
lost to all IX	0	678.2		

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WVIF	CHRISTIANSTED VI	BLCT	-20001227ABK

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	193.5	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	193.6	PLN	DTVPLN	-DTVP0189
16	WMTJ	FAJARDO PR	121.9	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	121.9	PLN	DTVPLN	-DTVP0239
17	WVXF	CHARLOTTE AMALIE VI	68.7	LIC	BLCT	-19990701KF
18	WTCV	SAN JUAN PR	121.9	LIC	BLCT	-19840808KN
23	WCVI-TV	CHRISTIANSTED VI	7.6	CP MOD	BMPCDT	-20030121AAY
23	WCVI-DR	CHRISTIANSTED VI	7.6	LIC	BPRM	-20020304ALU
30	WSJU-TV	SAN JUAN PR	148.5	LIC	BLCT	-19841129LB
14	WMEI	ARECIBO PR	190.8	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 5

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
16	WTRA	MAYAGUEZ PR	DTVPLN	-NPLN0965

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
14	WTIN	PONCE PR	65.6	PLN	DTVPLN	-NPLN0900
15	WTIN-DT	PONCE PR	65.6	PLN	DTVPLN	-DTVP0189
16	WMTJ-DT	FAJARDO PR	146.0	PLN	DTVPLN	-DTVP0239
17	WVEO-DT	AGUADILLA PR	0.0	PLN	DTVPLN	-DTVP0278
19	WKPV-DT	PONCE PR	52.6	PLN	DTVPLN	-DTVP0369
20	WKPV	PONCE PR	52.6	PLN	DTVPLN	-NPLN1089
23	WNJX-DT	MAYAGUEZ PR	27.3	PLN	DTVPLN	-DTVP0540
24	WSJNTV	SAN JUAN PR	139.8	PLN	DTVPLN	-NPLN1223
30	WRWRTV	SAN JUAN PR	114.6	PLN	DTVPLN	-NPLN1390
31	WRWR-DT	SAN JUAN PR	114.6	PLN	DTVPLN	-DTVP0839

Results for: 16N PR MAYAGUEZ	DTVPLN	NPLN0965	PLN
	POPULATION	AREA (sq km)	
within Noise Limited Contour	801306	8828.1	
not affected by terrain losses	619834	8052.1	
lost to NTSC IX	16903	116.0	
lost to additional IX by ATV	79776	2636.0	
lost to all IX	96679	2752.0	

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
16	WOST	MAYAGUEZ PR	BPCT	-19920102KE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	66.7	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	66.6	PLN	DTVPLN	-DTVP0189
16	WMTJ	FAJARDO PR	147.2	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	147.2	PLN	DTVPLN	-DTVP0239
17	WVEO	AGUADILLA PR	1.3	CP	BPCDT	-20000501AFS
17	WVEO-DT	AGUADILLA PR	1.3	PLN	DTVPLN	-DTVP0278
19	WKPV-DT	PONCE PR	53.5	PLN	DTVPLN	-DTVP0369
19	WKPV	PONCE PR	53.4	CP MOD	BMPCDT	-20040318ABY
20	WKPV	PONCE PR	53.4	LIC	BLCT	-20010130ABD
23	WNJX-DT	MAYAGUEZ PR	27.9	PLN	DTVPLN	-DTVP0540
23	WNJX-TV	MAYAGUEZ PR	28.4	CP MOD	BMPCDT	-20040115ACG
24	WJPX	SAN JUAN PR	141.1	LIC	BLCT	-20000821ACE
30	WSJU-TV	SAN JUAN PR	115.8	LIC	BLCT	-19841129LB
31	WSJU-TV	SAN JUAN PR	115.8	CP MOD	BMPCDT	-20060628ACE
31	WRWR-DT	SAN JUAN PR	115.8	PLN	DTVPLN	-DTVP0839
14	WMEI	ARECIBO PR	69.4	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 6

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
18	WSJU	SAN JUAN PR	DTVPLN	-NPLN1029

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN-DT	PONCE PR	84.1	PLN	DTVPLN	-DTVP0189
15	NEW	CHRISTIANSTED VI	122.0	PLN	DTVPLN	-NPLN0940
16	WMTJ-DT	FAJARDO PR	0.0	PLN	DTVPLN	-DTVP0239
17	WVEO-DT	AGUADILLA PR	146.0	PLN	DTVPLN	-DTVP0278
17	WVXF	CHARLOTTE AMALIE VI	89.7	PLN	DTVPLN	-NPLN1006
19	WKPV-DT	PONCE PR	103.8	PLN	DTVPLN	-DTVP0369
20	WKPV	PONCE PR	103.8	PLN	DTVPLN	-NPLN1089
20	WSVI-DT	CHRISTIANSTED VI	121.9	PLN	DTVPLN	-DTVP0423
21	WSJN-DT	SAN JUAN PR	7.1	PLN	DTVPLN	-DTVP0454
22	WNJXTV	MAYAGUEZ PR	127.3	PLN	DTVPLN	-NPLN1155
25	WQTO-DT	PONCE PR	103.9	PLN	DTVPLN	-DTVP0616
26	WQTO	PONCE PR	103.9	PLN	DTVPLN	-NPLN1290
32	WELU	AGUADILLA PR	146.8	PLN	DTVPLN	-NPLN1436
32	WSJU-DT	SAN JUAN PR	0.0	PLN	DTVPLN	-DTVP0879
33	WPRV-DT	FAJARDO PR	0.0	PLN	DTVPLN	-DTVP0916

Results for: 18N PR SAN JUAN		DTVPLN	NPLN1029	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		2520595	19937.3	
not affected by terrain losses		2306305	18834.1	
lost to NTSC IX		324	131.9	
lost to additional IX by ATV		8761	20.0	
lost to all IX		9085	151.9	

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	WTCV	SAN JUAN PR	BLCT	-19840808KN

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	84.0	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	84.1	PLN	DTVPLN	-DTVP0189
15	WVIF	CHRISTIANSTED VI	121.9	LIC	BLCT	-20001227ABK
16	WMTJ	FAJARDO PR	0.0	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	0.0	PLN	DTVPLN	-DTVP0239
17	WVEO	AGUADILLA PR	146.0	CP	BPCDT	-20000501AFS
17	WVEO-DT	AGUADILLA PR	146.0	PLN	DTVPLN	-DTVP0278
17	WVXF	CHARLOTTE AMALIE VI	89.6	LIC	BLCT	-19990701KF
19	WKPV-DT	PONCE PR	103.8	PLN	DTVPLN	-DTVP0369
19	WKPV	PONCE PR	103.9	CP MOD	BMPCDT	-20040318ABY
20	WKPV	PONCE PR	103.9	LIC	BLCT	-20010130ABD
20	WSVI	CHRISTIANSTED VI	121.9	CP	BPCDT	-19991028AED
20	WSVI-DT	CHRISTIANSTED VI	121.9	PLN	DTVPLN	-DTVP0423
21	WJPX	SAN JUAN PR	7.1	CP MOD	BMPCDT	-20060418AEK
21	WSJN-DT	SAN JUAN PR	7.1	PLN	DTVPLN	-DTVP0454
22	WNJX-TV	MAYAGUEZ PR	126.7	CP MOD	BPCT	-20030306ABR
25	WQTO	PONCE PR	103.9	LIC	BLEDT	-20060615ACV
25	WQTO-DT	PONCE PR	103.9	PLN	DTVPLN	-DTVP0616
26	WQTO	PONCE PR	103.9	LIC	BLET	-20030818AEG
32	WELU	AGUADILLA PR	146.8	CP	BPET	-20020502AAO
32	WTCV	SAN JUAN PR	31.8	CP MOD	BMPCDT	-20040108AJY
32	WSJU-DT	SAN JUAN PR	0.0	PLN	DTVPLN	-DTVP0879
33	WPRV-DT	FAJARDO PR	0.0	PLN	DTVPLN	-DTVP0916
33	WORO-TV	FAJARDO PR	0.0	CP	BPCDT	-19991101AGY
14	WMEI	ARECIBO PR	82.0	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 7

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
22	WNJXTV	MAYAGUEZ PR	DTVPLN	-NPLN1155

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
14	WTIN	PONCE PR	43.5	PLN	DTVPLN	-NPLN0900
15	WTIN-DT	PONCE PR	43.5	PLN	DTVPLN	-DTVP0189
19	WKPV-DT	PONCE PR	26.7	PLN	DTVPLN	-DTVP0369
20	WKPV	PONCE PR	26.7	PLN	DTVPLN	-NPLN1089
21	WSJN-DT	SAN JUAN PR	120.7	PLN	DTVPLN	-DTVP0454
23	WNJX-DT	MAYAGUEZ PR	0.0	PLN	DTVPLN	-DTVP0540
24	WSJNTV	SAN JUAN PR	120.7	PLN	DTVPLN	-NPLN1223
25	WQTO-DT	PONCE PR	26.6	PLN	DTVPLN	-DTVP0616
26	WQTO	PONCE PR	26.6	PLN	DTVPLN	-NPLN1290
29	WORA-DT	MAYAGUEZ PR	0.1	PLN	DTVPLN	-DTVP0763
30	WRWRTV	SAN JUAN PR	95.5	PLN	DTVPLN	-NPLN1390
36	WDWL	BAYAMON PR	93.8	PLN	DTVPLN	-NPLN1527

Results for: 22N PR MAYAGUEZ	DTVPLN	NPLN1155	PLN
	POPULATION	AREA (sq km)	
within Noise Limited Contour	1531370	23167.1	
not affected by terrain losses	1269313	22274.1	
lost to NTSC IX	161182	292.3	
lost to additional IX by ATV	15246	32.0	
lost to all IX	176428	324.4	

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
22	WNJX-TV	MAYAGUEZ PR	BLCT	-20030307ADG

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	43.0	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	42.9	PLN	DTVPLN	-DTVP0189
19	WKPV-DT	PONCE PR	26.1	PLN	DTVPLN	-DTVP0369
19	WKPV	PONCE PR	26.0	CP MOD	BMPCDT	-20040318ABY
20	WKPV	PONCE PR	26.0	LIC	BLCT	-20010130ABD
21	WJPX	SAN JUAN PR	120.1	CP MOD	BMPCDT	-20060418AEK
21	WSJN-DT	SAN JUAN PR	120.1	PLN	DTVPLN	-DTVP0454
23	WNJX-DT	MAYAGUEZ PR	0.6	PLN	DTVPLN	-DTVP0540
23	WNJX-TV	MAYAGUEZ PR	0.0	CP MOD	BMPCDT	-20040115ACG
24	WJPX	SAN JUAN PR	120.1	LIC	BLCT	-20000821ACE
25	WQTO	PONCE PR	26.0	LIC	BLEDT	-20060615ACV
25	WQTO-DT	PONCE PR	26.0	PLN	DTVPLN	-DTVP0616
26	WQTO	PONCE PR	26.0	LIC	BLET	-20030818AEG
29	WORA-DT	MAYAGUEZ PR	0.6	PLN	DTVPLN	-DTVP0763
29	WORA-TV	MAYAGUEZ PR	0.6	CP MOD	BMPCDT	-20060414AAR
30	WSJU-TV	SAN JUAN PR	95.0	LIC	BLCT	-19841129LB
36	WDWL	BAYAMON PR	93.2	LIC	BLCT	-19910322KF
14	WMEI	ARECIBO PR	45.3	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
22	WNJX-TV	MAYAGUEZ PR	BPCT	-20030306ABR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN	PONCE PR	43.0	CP MOD	BMPCDT	-20040803ABE
15	WTIN-DT	PONCE PR	42.9	PLN	DTVPLN	-DTVP0189
19	WKPV-DT	PONCE PR	26.1	PLN	DTVPLN	-DTVP0369
19	WKPV	PONCE PR	26.0	CP MOD	BMPCDT	-20040318ABY
20	WKPV	PONCE PR	26.0	LIC	BLCT	-20010130ABD
21	WJPX	SAN JUAN PR	120.1	CP MOD	BMPCDT	-20060418AEK
21	WSJN-DT	SAN JUAN PR	120.1	PLN	DTVPLN	-DTVP0454
23	WNJX-DT	MAYAGUEZ PR	0.6	PLN	DTVPLN	-DTVP0540
23	WNJX-TV	MAYAGUEZ PR	0.0	CP MOD	BMPCDT	-20040115ACG
24	WJPX	SAN JUAN PR	120.1	LIC	BLCT	-20000821ACE
25	WQTO	PONCE PR	26.0	LIC	BLEDT	-20060615ACV
25	WQTO-DT	PONCE PR	26.0	PLN	DTVPLN	-DTVP0616
26	WQTO	PONCE PR	26.0	LIC	BLET	-20030818AEG
29	WORA-DT	MAYAGUEZ PR	0.6	PLN	DTVPLN	-DTVP0763
29	WORA-TV	MAYAGUEZ PR	0.6	CP MOD	BMPCDT	-20060414AAR
30	WSJU-TV	SAN JUAN PR	95.0	LIC	BLCT	-19841129LB
36	WDWL	BAYAMON PR	93.2	LIC	BLCT	-19910322KF
14	WMEI	ARECIBO PR	45.3	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application Ref. No.
14	WMEI	ARECIBO PR	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	WTIN	PONCE PR	2.9	CP MOD	BMPCDT -20040803ABE
15	WTIN-DT	PONCE PR	2.9	PLN	DTVPLN -DTVP0189
15	WVIF	CHRISTIANSTED VI	190.8	LIC	BLCT -20001227ABK

Total scenarios = 2

Result key: 5
 Scenario 1 Affected station 9
 Before Analysis

Results for: 14A PR ARECIBO USERRECORD01 APP

HAAT 839.0 m, ATV ERP 10.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3346732	19344.4
not affected by terrain losses	2860643	18187.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	376231	2269.5
lost to ATV IX only	376231	2269.5
lost to all IX	376231	2269.5

Potential Interfering Stations Included in above Scenario 1

15A PR PONCE BMPCDT 20040803ABE CP

Result key: 6
 Scenario 2 Affected station 9
 Before Analysis

Results for: 14A PR ARECIBO USERRECORD01 APP

HAAT 839.0 m, ATV ERP 10.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3346732	19344.4
not affected by terrain losses	2860643	18187.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	298273	1036.7
lost to ATV IX only	298273	1036.7
lost to all IX	298273	1036.7

Potential Interfering Stations Included in above Scenario 2

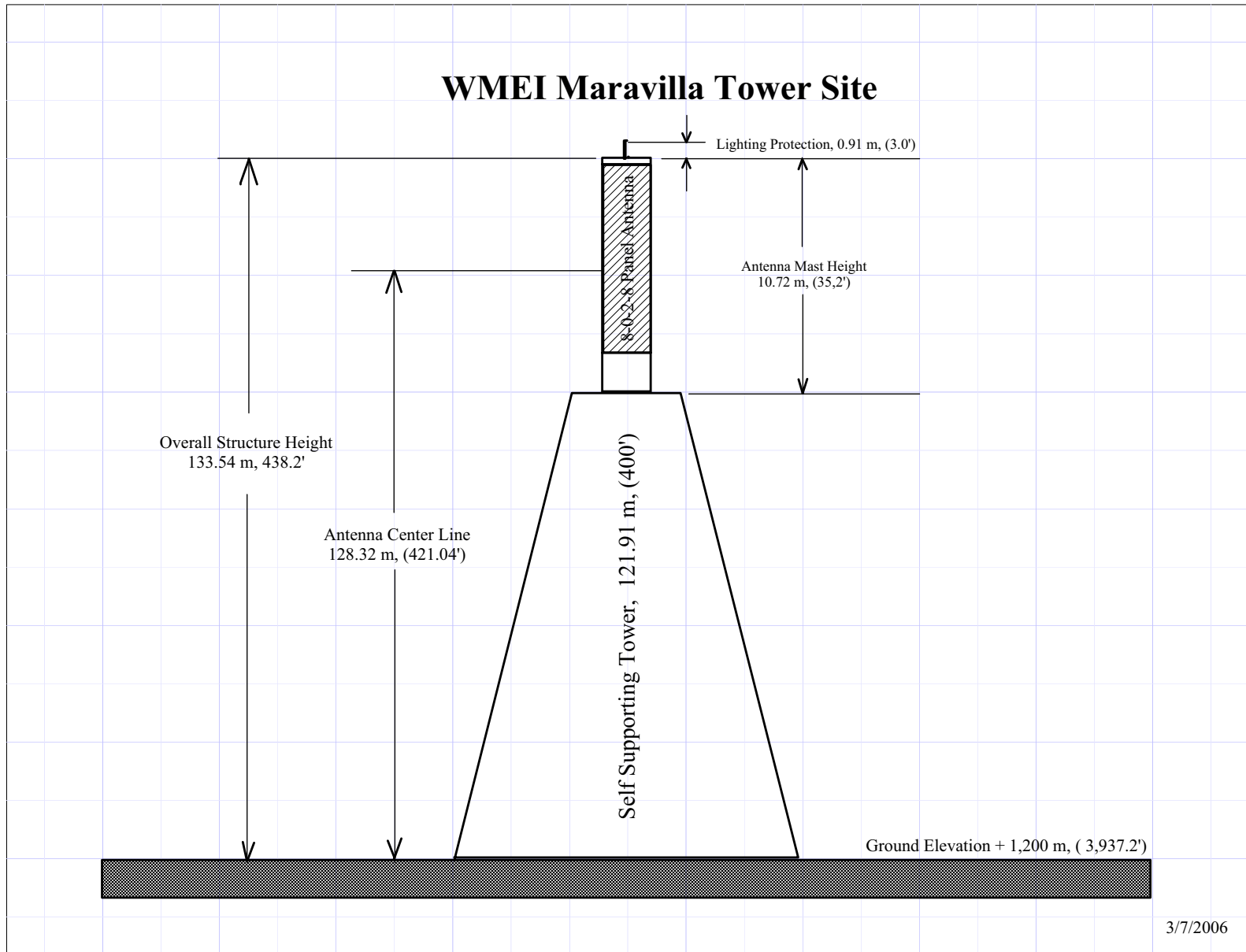
15A PR PONCE DTVPLN DTVP0189 PLN

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

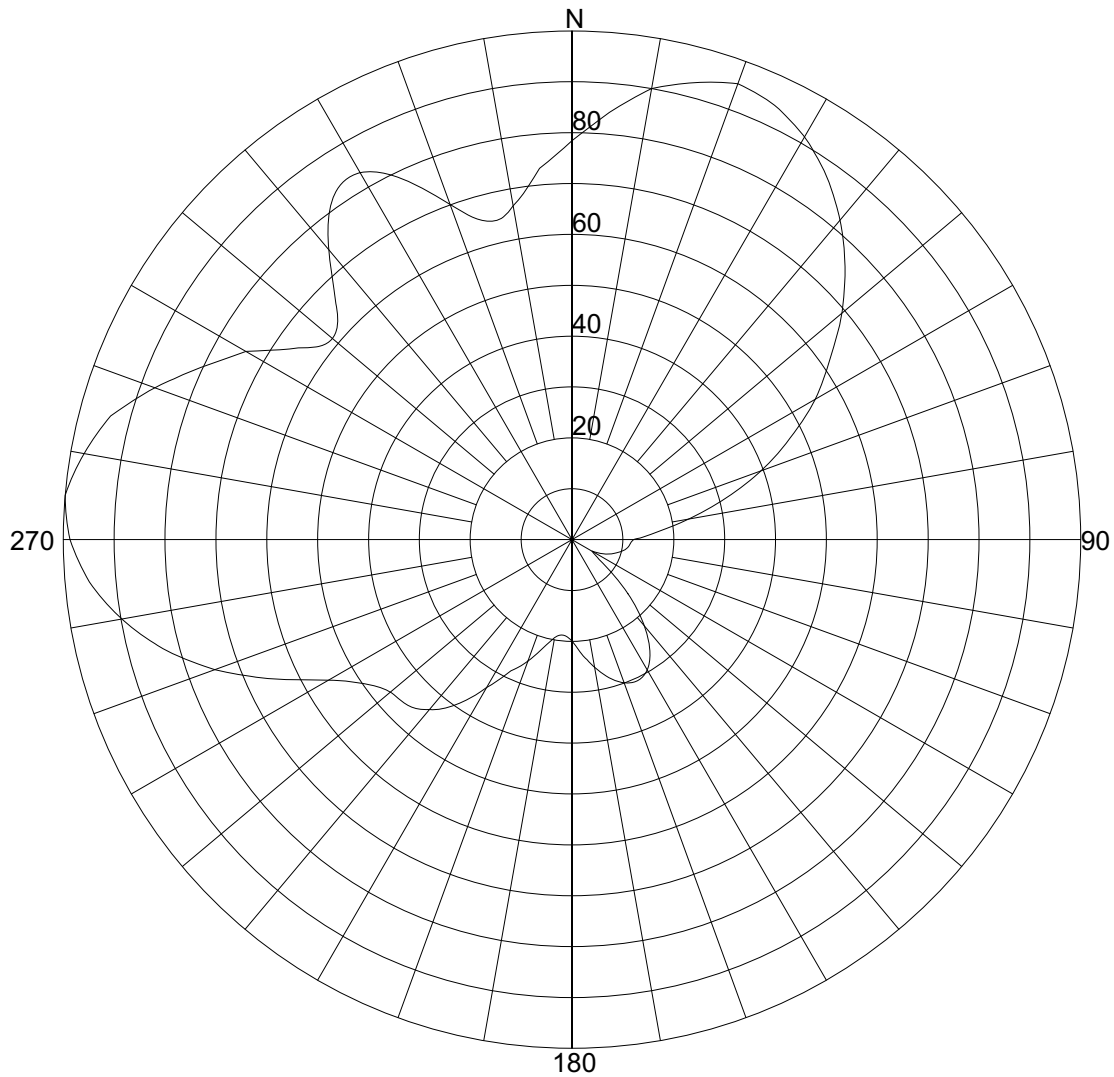
FIGURE 1

VERTICAL PLAN SKETCH

WMEI CH 60 ARECIBO, PUERTO RICO APRIL 2006



ALSO APPLIES TO CH 14 DT



Azimuth Pattern

ALSO APPLIES TO CH 14 DT

Scale: Linear

Unit: Relative Field

Systems With Reliability

CLIENT: WMEI TV

Date: 12/6/2005

ANTENNA TYPE: SWDDP 8-0-2-8/14&60

FREQUENCY: Ch : 14 & 60

PATTERN POL.: Horizontal

CIRCULARITY(+/-dB):

AZ. DIRECTIVITY: 2.698 / 4.31 dB

PATTERN RMS: 0.607

Micro-Tek Eng. Ver. 2000

FIGURE 2
HORIZONTAL PLANE PATTERN
WMEI CH 60 ARECIBO, PUERTO RICO APRIL 2006

Relative Field Tabulation(Azimuth)

Azimuth Heading	Normalized Field(dB)	Azimuth Heading	Normalized Field(dB)
0	.7843 (-2.11)	180	.1997 (-13.994)
5	.8431 (-1.482)	185	.1894 (-14.455)
10	.9005 (-0.911)	190	.1958 (-14.162)
15	.9299 (-0.631)	195	.2211 (-13.11)
20	.9538 (-0.411)	200	.2545 (-11.887)
25	.9422 (-0.517)	205	.2847 (-10.912)
30	.9144 (-0.778)	210	.3360 (-9.472)
35	.8726 (-1.184)	215	.3948 (-8.072)
40	.8201 (-1.723)	220	.4359 (-7.212)
45	.7597 (-2.387)	225	.4591 (-6.762)
50	.6928 (-3.188)	230	.4656 (-6.64)
55	.6186 (-4.171)	235	.4955 (-6.099)
60	.5528 (-5.149)	240	.5520 (-5.162)
65	.4730 (-6.503)	245	.6485 (-3.762)
70	.3952 (-8.063)	250	.7472 (-2.531)
75	.3107 (-10.153)	255	.8313 (-1.604)
80	.2321 (-12.687)	260	.8993 (-0.922)
85	.1662 (-15.586)	265	.9524 (-0.423)
90	.1213 (-18.32)	270	.9867 (-0.116)
95	.1138 (-18.878)	275	1.0000 (0)
100	.1073 (-19.386)	280	.9738 (-0.231)
105	.0949 (-20.451)	285	.9388 (-0.549)
110	.0816 (-21.767)	290	.8730 (-1.18)
115	.0652 (-23.711)	295	.8035 (-1.9)
120	.0452 (-26.894)	300	.7399 (-2.616)
125	.0612 (-24.263)	305	.6571 (-3.648)
130	.1040 (-19.658)	310	.6155 (-4.215)
135	.1652 (-15.641)	315	.6562 (-3.659)
140	.2210 (-13.111)	320	.7430 (-2.58)
145	.2671 (-11.465)	325	.8191 (-1.733)
150	.2957 (-10.584)	330	.8329 (-1.588)
155	.3058 (-10.29)	335	.7799 (-2.159)
160	.2996 (-10.468)	340	.7017 (-3.077)
165	.2810 (-11.025)	345	.6486 (-3.761)
170	.2548 (-11.875)	350	.6664 (-3.526)
175	.2268 (-12.886)	355	.7326 (-2.703)

Systems With Reliability

CLIENT: WMEI TV

Date: 12/6/2005

ANTENNA TYPE: SWDDP 8-0-2-8/14&60

FREQUENCY: Ch : 14 & 60

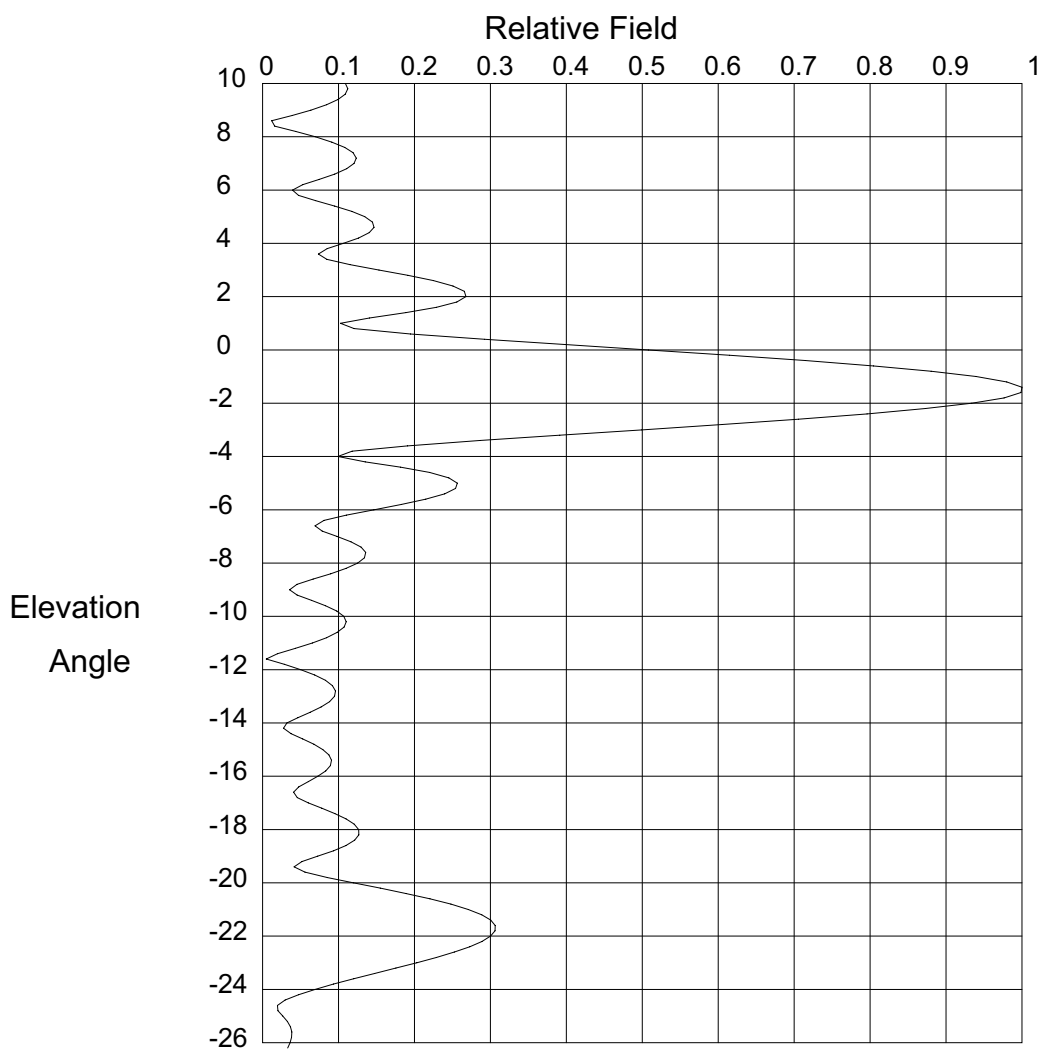
PATTERN POL.: Horizontal

CIRCULARITY(+/-dB):

AZ. DIRECTIVITY: 2.698 / 4.31 dB

PATTERN RMS: 0.607

Micro-Tek Eng. Ver. 2000



ALSO APPLIES TO CH 14 DT

Elevation Pattern

Systems With Reliability L.L.P.

Scale: Linear

Units: Field, Relative

CLIENT: WMEI

Date: 3/16/2006

ANTENNA TYPE: SWDDP 8-0-2-8/14&60(8 Panel)

FREQUENCY: 749

PATTERN POL.: Horizontal

DIRECTIVITY(Peak): 19.776/12.961 dBd

Beam Tilt (Deg.) : -1.5

DIRECTIVITY(Horiz): 5.106/7.081 dBd

Null Fill(s)(%) : 10, 0, 0

Micro-Tek Eng. Version 2005

FIGURE 3
ELEVATION PATTERN DATA
WMEI CH 60 ARECIBO, PUERTO RICO APRIL 2006

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
90.0	.00 (-50)	52.0	.02 (-33.824)	14.0	.089 (-21.025)
89.0	.00 (-94.091)	51.0	.027 (-31.436)	13.0	.083 (-21.647)
88.0	.00 (-81.101)	50.0	.019 (-34.342)	12.0	.101 (-19.89)
87.0	.00 (-73.349)	49.0	.018 (-34.768)	11.0	.034 (-29.32)
86.0	.00 (-67.876)	48.0	.042 (-27.541)	10.0	.109 (-19.241)
85.0	.001 (-63.765)	47.0	.052 (-25.625)	9.8	.112 (-18.993)
84.0	.001 (-60.629)	46.0	.032 (-29.88)	9.6	.109 (-19.244)
83.0	.001 (-58.296)	45.0	.04 (-28.005)	9.4	.10 (-20.035)
82.0	.001 (-56.707)	44.0	.114 (-18.855)	9.2	.084 (-21.491)
81.0	.002 (-55.902)	43.0	.177 (-15.057)	9.0	.064 (-23.91)
80.0	.002 (-56.024)	42.0	.194 (-14.229)	8.8	.039 (-28.114)
79.0	.001 (-57.314)	41.0	.157 (-16.096)	8.6	.012 (-38.281)
78.0	.001 (-59.33)	40.0	.083 (-21.643)	8.4	.016 (-35.902)
77.0	.001 (-57.373)	39.0	.018 (-34.691)	8.2	.044 (-27.183)
76.0	.002 (-52.251)	38.0	.039 (-28.173)	8.0	.069 (-23.182)
75.0	.004 (-48.144)	37.0	.037 (-28.524)	7.8	.091 (-20.793)
74.0	.005 (-45.284)	36.0	.015 (-36.62)	7.6	.108 (-19.312)
73.0	.007 (-43.499)	35.0	.014 (-37.085)	7.4	.119 (-18.476)
72.0	.007 (-42.756)	34.0	.015 (-36.605)	7.2	.123 (-18.176)
71.0	.007 (-43.194)	33.0	.005 (-46.836)	7.0	.121 (-18.379)
70.0	.006 (-45.155)	32.0	.006 (-45.119)	6.8	.111 (-19.11)
69.0	.004 (-48.587)	31.0	.004 (-48.541)	6.6	.095 (-20.449)
68.0	.004 (-47.69)	30.0	.00 (-50)	6.4	.075 (-22.546)
67.0	.007 (-43.225)	29.0	.003 (-50.348)	6.2	.053 (-25.501)
66.0	.009 (-40.663)	28.0	.008 (-41.601)	6.0	.039 (-28.069)
65.0	.01 (-40.275)	27.0	.004 (-47.09)	5.8	.047 (-26.474)
64.0	.007 (-42.513)	26.0	.017 (-35.23)	5.6	.07 (-23.091)
63.0	.004 (-48.409)	25.0	.024 (-32.547)	5.4	.095 (-20.431)
62.0	.006 (-43.996)	24.0	.02 (-33.916)	5.2	.118 (-18.592)
61.0	.012 (-38.586)	23.0	.064 (-23.853)	5.0	.135 (-17.413)
60.0	.014 (-36.891)	22.0	.063 (-23.993)	4.8	.145 (-16.785)
59.0	.012 (-38.679)	21.0	.072 (-22.913)	4.6	.147 (-16.662)
58.0	.004 (-48.89)	20.0	.271 (-11.352)	4.4	.141 (-17.043)
57.0	.007 (-42.581)	19.0	.431 (-7.315)	4.2	.126 (-17.964)
56.0	.017 (-35.488)	18.0	.411 (-7.722)	4.0	.106 (-19.464)
55.0	.02 (-34.189)	17.0	.205 (-13.763)	3.8	.085 (-21.394)
54.0	.013 (-37.611)	16.0	.076 (-22.364)	3.6	.074 (-22.656)
53.0	.008 (-42.378)	15.0	.165 (-15.626)	3.4	.085 (-21.432)

Systems With Reliability L.L.P.

Page 1 of 3

CLIENT: WMEI

Date: 3/16/2006

ANTENNA TYPE: SWDDP 8-0-2-8/14&60(8 Panel)

FREQUENCY: 749

PATTERN POL.: Horizontal

DIRECTIVITY(Peak): 19.776/12.961 dBd

Beam Tilt (Deg.) : -1.5

DIRECTIVITY(Horiz): 5.106/7.081 dBd

Null Fill(s)(%) : 10, 0, 0

Micro-Tek Eng. Version 2005

FIGURE 3 PAGE 2
ELEVATION PATTERN DATA
WMEI CH 60 ARECIBO, PUERTO RICO APRIL 2006

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
3.2	.115 (-18.769)	-4.4	.182 (-14.809)	-12.0	.05 (-25.959)
3.0	.153 (-16.288)	-4.6	.22 (-13.151)	-12.2	.069 (-23.252)
2.8	.192 (-14.355)	-4.8	.245 (-12.206)	-12.4	.083 (-21.622)
2.6	.225 (-12.95)	-5.0	.257 (-11.816)	-12.6	.092 (-20.701)
2.4	.251 (-12.012)	-5.2	.254 (-11.894)	-12.8	.096 (-20.334)
2.2	.266 (-11.51)	-5.4	.24 (-12.402)	-13.0	.095 (-20.461)
2.0	.268 (-11.44)	-5.6	.215 (-13.342)	-13.2	.088 (-21.08)
1.8	.256 (-11.84)	-5.8	.183 (-14.744)	-13.4	.077 (-22.237)
1.6	.229 (-12.794)	-6.0	.147 (-16.667)	-13.6	.063 (-24.04)
1.4	.189 (-14.462)	-6.2	.11 (-19.135)	-13.8	.047 (-26.642)
1.2	.141 (-17.032)	-6.4	.081 (-21.827)	-14.0	.032 (-29.873)
1.0	.103 (-19.773)	-6.6	.069 (-23.208)	-14.2	.028 (-31.145)
.8	.121 (-18.373)	-6.8	.079 (-22.086)	-14.4	.038 (-28.494)
.6	.195 (-14.207)	-7.0	.098 (-20.18)	-14.6	.053 (-25.536)
.4	.292 (-10.684)	-7.2	.117 (-18.67)	-14.8	.068 (-23.396)
.2	.399 (-7.981)	-7.4	.13 (-17.733)	-15.0	.08 (-21.984)
.0	.508 (-5.88)	-7.6	.136 (-17.335)	-15.2	.088 (-21.158)
-.2	.615 (-4.224)	-7.8	.134 (-17.436)	-15.4	.091 (-20.834)
-.4	.715 (-2.913)	-8.0	.125 (-18.035)	-15.6	.089 (-20.981)
-.6	.805 (-1.886)	-8.2	.11 (-19.172)	-15.8	.083 (-21.603)
-.8	.881 (-1.104)	-8.4	.09 (-20.946)	-16.0	.073 (-22.735)
-1.0	.94 (-0.539)	-8.6	.067 (-23.514)	-16.2	.06 (-24.405)
-1.2	.98 (-0.175)	-8.8	.045 (-26.862)	-16.4	.048 (-26.439)
-1.4	1.00 (0)	-9.0	.036 (-28.964)	-16.6	.041 (-27.77)
-1.6	.999 (-0.011)	-9.2	.046 (-26.791)	-16.8	.046 (-26.777)
-1.8	.977 (-0.206)	-9.4	.065 (-23.791)	-17.0	.06 (-24.408)
-2.0	.934 (-0.591)	-9.6	.083 (-21.609)	-17.2	.078 (-22.164)
-2.2	.873 (-1.177)	-9.8	.098 (-20.199)	-17.4	.095 (-20.42)
-2.4	.796 (-1.979)	-10.0	.107 (-19.409)	-17.6	.11 (-19.168)
-2.6	.706 (-3.025)	-10.2	.11 (-19.146)	-17.8	.121 (-18.356)
-2.8	.606 (-4.355)	-10.4	.107 (-19.379)	-18.0	.127 (-17.946)
-3.0	.50 (-6.029)	-10.6	.099 (-20.129)	-18.2	.127 (-17.928)
-3.2	.392 (-8.145)	-10.8	.084 (-21.485)	-18.4	.121 (-18.32)
-3.4	.286 (-10.859)	-11.0	.066 (-23.661)	-18.6	.11 (-19.176)
-3.6	.191 (-14.388)	-11.2	.044 (-27.204)	-18.8	.093 (-20.6)
-3.8	.118 (-18.57)	-11.4	.02 (-34.126)	-19.0	.073 (-22.759)
-4.0	.099 (-20.058)	-11.6	.005 (-46.194)	-19.2	.052 (-25.695)
-4.2	.135 (-17.368)	-11.8	.029 (-30.849)	-19.4	.042 (-27.611)

Systems With Reliability L.L.P.

Page 2 of 3

CLIENT: WMEI

Date: 3/16/2006

ANTENNA TYPE: SWDDP 8-0-2-8/14&60(8 Panel)

FREQUENCY: 749

PATTERN POL.: Horizontal

DIRECTIVITY(Peak): 19.776/12.961 dBd

Beam Tilt (Deg.) : -1.5

DIRECTIVITY(Horiz): 5.106/7.081 dBd

Null Fill(s)(%) : 10, 0, 0

Micro-Tek Eng. Version 2005

FIGURE 3 PAGE 3
ELEVATION PATTERN DATA
WMEI CH 60 ARECIBO, PUERTO RICO APRIL 2006

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
-19.6	.056 (-25.071)	-27.2	.01 (-39.776)	-54.0	.013 (-37.824)
-19.8	.085 (-21.384)	-27.4	.007 (-42.806)	-55.0	.016 (-35.829)
-20.0	.12 (-18.439)	-27.6	.006 (-44.692)	-56.0	.021 (-33.541)
-20.2	.155 (-16.194)	-27.8	.006 (-44.575)	-57.0	.017 (-35.424)
-20.4	.189 (-14.467)	-28.0	.007 (-43.717)	-58.0	.008 (-42.026)
-20.6	.221 (-13.13)	-28.2	.007 (-43.16)	-59.0	.006 (-43.808)
-20.8	.248 (-12.104)	-28.4	.007 (-43.159)	-60.0	.012 (-38.432)
-21.0	.271 (-11.335)	-28.6	.007 (-43.735)	-61.0	.013 (-37.526)
-21.2	.289 (-10.788)	-28.8	.006 (-44.898)	-62.0	.01 (-39.798)
-21.4	.301 (-10.439)	-29.0	.005 (-46.691)	-63.0	.005 (-46.558)
-21.6	.306 (-10.272)	-29.2	.003 (-49.229)	-64.0	.001 (-59.296)
-21.8	.306 (-10.277)	-29.4	.002 (-52.746)	-65.0	.005 (-45.308)
-22.0	.30 (-10.448)	-29.6	.001 (-57.772)	-66.0	.008 (-42.455)
-22.2	.289 (-10.783)	-29.8	.001 (-65.885)	-67.0	.007 (-42.531)
-22.4	.273 (-11.282)	-30.0	.00 (-50)	-68.0	.006 (-44.649)
-22.6	.253 (-11.952)	-31.0	.003 (-50.966)	-69.0	.004 (-48.959)
-22.8	.229 (-12.801)	-32.0	.007 (-42.818)	-70.0	.002 (-55.338)
-23.0	.203 (-13.843)	-33.0	.003 (-50.244)	-71.0	.002 (-54.228)
-23.2	.176 (-15.101)	-34.0	.009 (-40.897)	-72.0	.003 (-50.841)
-23.4	.148 (-16.606)	-35.0	.016 (-35.826)	-73.0	.003 (-49.658)
-23.6	.12 (-18.405)	-36.0	.009 (-41.137)	-74.0	.003 (-49.967)
-23.8	.094 (-20.569)	-37.0	.014 (-36.973)	-75.0	.003 (-51.377)
-24.0	.069 (-23.208)	-38.0	.025 (-32.006)	-76.0	.002 (-53.723)
-24.2	.047 (-26.482)	-39.0	.017 (-35.614)	-77.0	.001 (-56.925)
-24.4	.03 (-30.494)	-40.0	.025 (-32.085)	-78.0	.001 (-60.789)
-24.6	.02 (-34.126)	-41.0	.049 (-26.2)	-79.0	.001 (-64.416)
-24.8	.02 (-33.801)	-42.0	.044 (-27.088)	-80.0	.00 (-66.198)
-25.0	.027 (-31.471)	-43.0	.021 (-33.373)	-81.0	.00 (-66.629)
-25.2	.033 (-29.711)	-44.0	.087 (-21.214)	-82.0	.00 (-67.252)
-25.4	.037 (-28.695)	-45.0	.158 (-16.005)	-83.0	.00 (-68.596)
-25.6	.039 (-28.268)	-46.0	.196 (-14.167)	-84.0	.00 (-70.752)
-25.8	.038 (-28.313)	-47.0	.184 (-14.699)	-85.0	.00 (-73.778)
-26.0	.036 (-28.765)	-48.0	.132 (-17.615)	-86.0	.00 (-77.832)
-26.2	.033 (-29.591)	-49.0	.063 (-24.043)	-87.0	.00 (-83.28)
-26.4	.029 (-30.786)	-50.0	.018 (-34.799)	-88.0	.00 (-91.025)
-26.6	.024 (-32.369)	-51.0	.04 (-27.897)	-89.0	.00 (-50)
-26.8	.019 (-34.374)	-52.0	.045 (-26.947)	-90.0	.00 (-50)
-27.0	.014 (-36.847)	-53.0	.03 (-30.357)	90.0	.00 (-50)

Systems With Reliability L.L.P.

Page 3 of 3

CLIENT: WMEI

Date: 3/16/2006

ANTENNA TYPE: SWDDP 8-0-2-8/14&60(8 Panel)

FREQUENCY: 749

PATTERN POL.: Horizontal

DIRECTIVITY(Peak): 19.776/12.961 dBd

Beam Tilt (Deg.) : -1.5

DIRECTIVITY(Horiz): 5.106/7.081 dBd

Null Fill(s)(%) : 10, 0, 0

Micro-Tek Eng. Version 2005

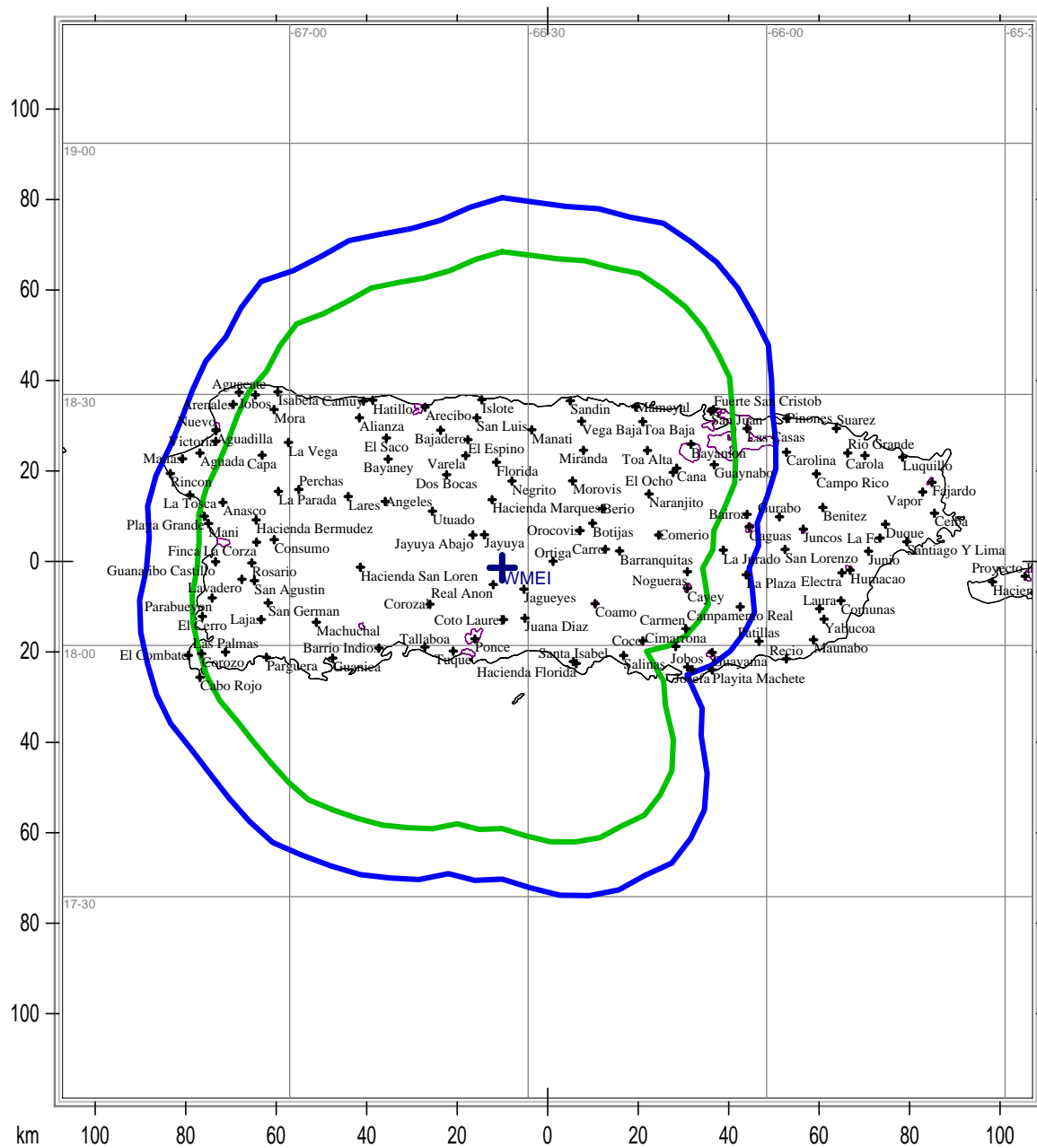
FIGURE 3 PAGE 4
ELEVATION PATTERN DATA
WMEI CH 60 ARECIBO, PUERTO RICO APRIL 2006

FIGURE 4

NORMALIZED HORIZONTAL PLANE RADIATION PATTERN

SEE FCC FORM 301 SECTION III-D QUESTION 10-e

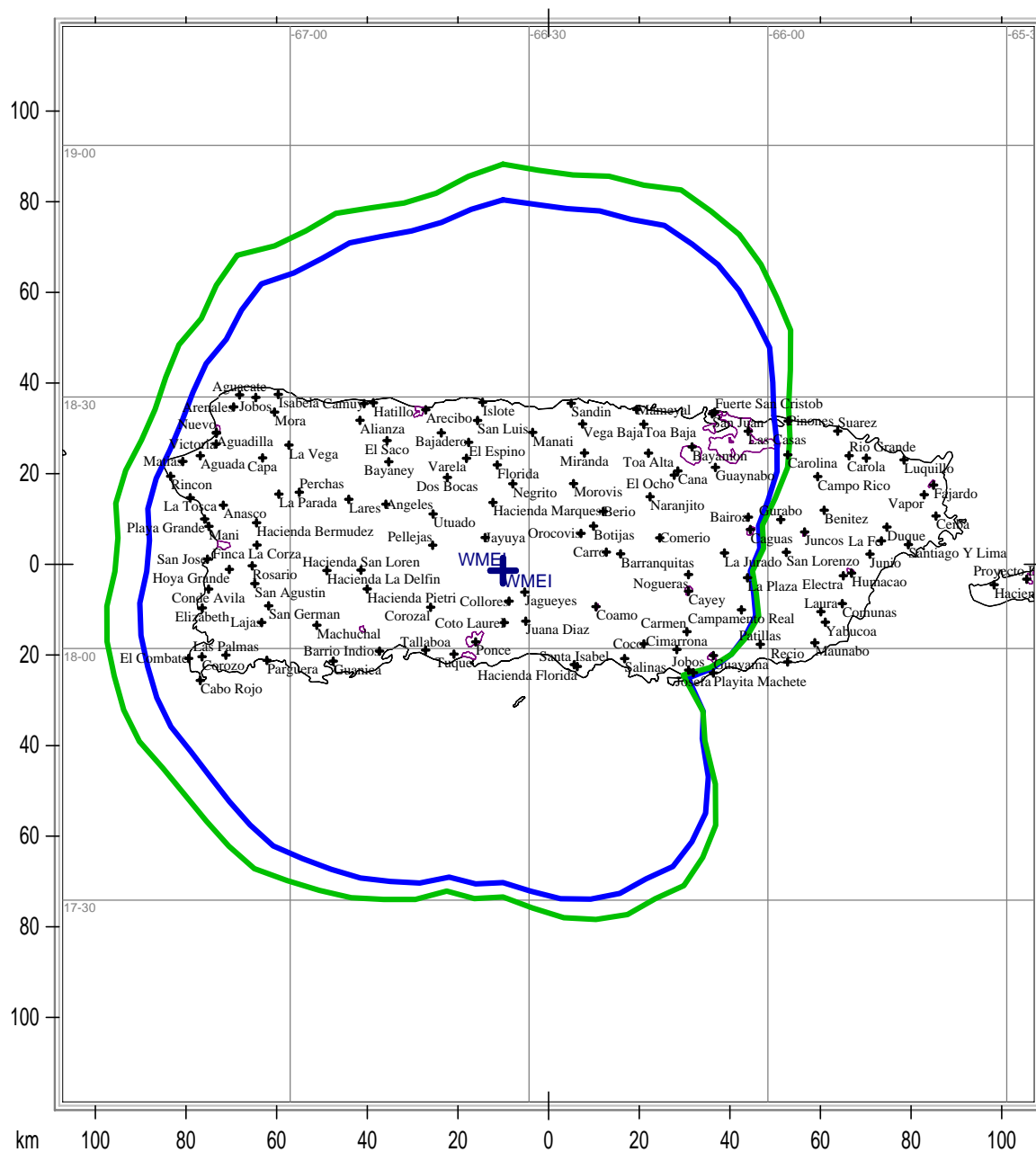
WMEICH 14 DTV 10 kW MAX DA @ 833 M HAAT ARECIBO, PUERTO RICO



Communications Technologies, Inc. Marlton, New Jersey

National Borders
 County Borders
 City Borders
 Lat/Lon Grid

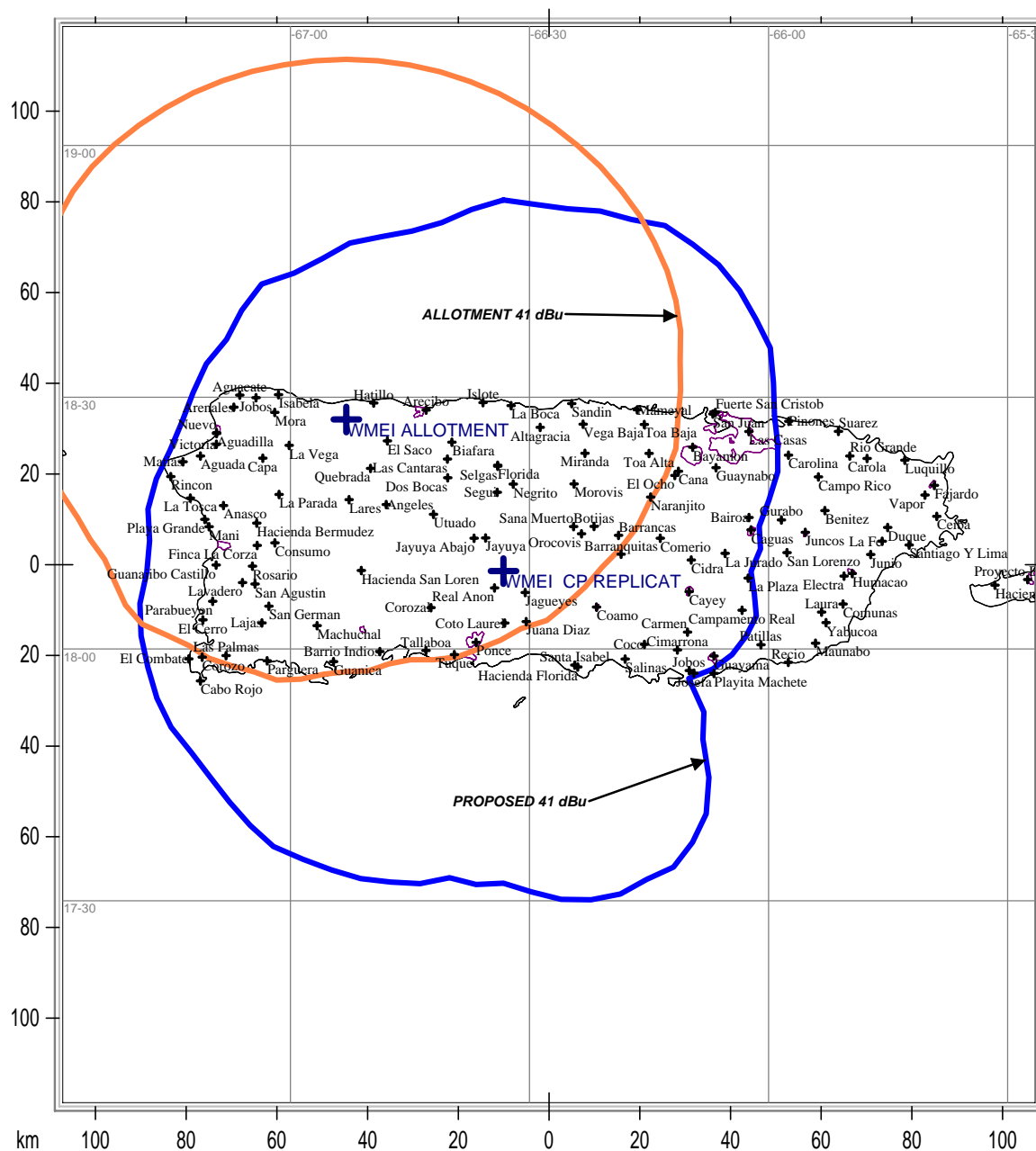
WMEI CH 60 NTSC GRADE B = GREEN WMEI DTV CH 14 = BLUE



Communications Technologies, Inc. Marlton, New Jersey

National Borders County Borders City Borders Lat/Lon Grid

WMEI CH 14 DTV ALLOTMENT COMPARED TO 10 kW MAX DA @ 833 M HAAT ARECIBO, PUERTO RICO



Communications Technologies, Inc. Marlton, New Jersey

National Borders County Borders City Borders Lat/Lon Grid