
BERNARD R. SEGAL, P. E.
CONSULTING ENGINEER
KENSINGTON, MARYLAND

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
HEARST-ARGYLE PROPERTIES, INC.
STATION WMTW-DT, POLAND SPRING, MAINE
CHANNEL 8 29.8 KW 612 METERS

INTRODUCTION

Hearst-Argyle Properties, Inc. (hereafter, Hearst-Argyle) is the licensee in BLCDT-20050607ADJ for Station WMTW-DT, Poland Spring, Maine, operation on Channel 46 with a directional antenna. The license specifies maximum effective radiated power of 1000 kW and antenna radiation center height of 586 meters above average terrain. This license is the basis for the post transition replication allotment on Channel 8 for WMTW-DT in Appendix B of the Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order in MB Docket No. 87-268. The Channel 8 allotment is for a maximum effective radiated power of 21.3 kW and antenna radiation center height above average terrain of 586 meters.

By means of the instant application, Hearst-Argyle seeks to maximize the Channel 8 allotment to reflect continued WMTW-DT operation on Channel 8, but with the use of a non-directional, antenna that will yield an effective radiated power of 29.8 kW, horizontally polarized. The proposed antenna radiation center height above average terrain is 612 meters. The antenna that will be employed is the same antenna that is employed for the Channel 8 analog operation for Station WMTW. The ASRN for the antenna supporting tower is 1045602. The NAD '27 geographic coordinates for the site are: 43° 50' 44" N. Latitude; 70° 45' 43" W. Longitude.

The licensed antenna height above average terrain for the WMTW analog facility is 608 meters. This value was determined at the time that the application to relocate Station WMTW to its present site on the West Peak of Bald Mountain was submitted in 1996, using the terrain elevation database that was then in common usage and a different computer and algorithm than the ones that are currently employed by the FCC.

Engineering Exhibit
Application for Construction Permit
Hearst-Argyle Properties, Inc.
Station WMTW-DT, Poland Spring, Maine

Page 2

For allotment purposes, the FCC currently uses the 3 arc-second terrain elevation database and a computer algorithm that yields a height of 612 meters above average terrain for the same 766 meter antenna radiation center height above mean sea level as was used before for WMTW. In light of the FCC's dictum that its computer results are controlling, the 612 meter value for the antenna height above average terrain is set forth herein for the sake of conformity.

The 29.8 kW ERP that is proposed for WMTW-DT is the maximum that is permitted for a Zone II DTV station operating in the high VHF band segment (Channels 7-13), with an antenna height above average terrain of 612 meters.

INTERFERENCE CONSIDERATIONS

A study has been performed for the proposed WMTW-DT operation to determine compliance with the FCC's requirement that new interference to a post-transition Appendix B allotment not exceed 0.5 % in population, using the 2000 Census. The TV Interference and Spacing Analysis Program that was used was the William Meintel implementation of the FCC's program. Mr. Meintel was the contractor who developed the FCC's program. A Sunblade computer was used. The Post Transition Appendix B DTV facilities that are set forth in the Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order in MB Docket No. 87-268, Released March 2008, were used for the study. No changes were made to any of the FCC's default values. The undersigned has routinely replicated FCC results using Mr. Meintel's program with the Sunblade computer.

Figure 1 presents the results of the study. USERRECORD01 sets forth the proposed WMTW-DT facilities. Of the six co-channel and adjacent channel stations that are potentially affected by the proposed operation (see the second page of the study for the identifications of the stations), Station WMUR-DT, Manchester, New Hampshire, Channel 9, would receive the greatest percentage of interference from the proposed WMTW-DT operation. The impacted population is shown to be 0.13 % from the proposed WMTW-DT facility. Since this

Engineering Exhibit
Application for Construction Permit
Hearst-Argyle Properties, Inc.
Station WMTW-DT, Poland Spring, Maine

Page 3

interference level is less than 0.5 %, without taking into consideration the interference caused to WMUR-DT by the Appendix B allotment for WMTW-DT, it was not necessary to perform a separate analysis for the allotment facility to establish a reference for the determination of "new" WMTW-DT interference to WMUR-DT, or to any other station. The proposed WMTW-DT operation complies with the FCC's 0.5 % population new interference limitation requirement.

PROPOSED OPERATION DETAILS

As stated earlier, the antenna that is proposed for WMTW-DT, Channel 8, use is the same antenna that is presently employed for analog Station WMTW, Channel 8. The antenna is non-directional and is a Dielectric, Type THA-04-12H/48H-1-R-M, with 0.75 ° electrical beam tilt. The antenna has a horizontally polarized RMS power gain of 10.53 dBd (11.3). Figure 2 is the elevation relative field pattern for the antenna. Figure 3 is a tabulation of relative field data for the pattern of Figure 2.

Energy from the transmitter will be transferred to the antenna by means of a 506 meter length of Dielectric rigid coaxial transmission line with a nominal diameter of 15.6 centimeters. The transmission line efficiency at Channel 8 for the given length is 78.7 % (1.04 dB loss). With the transmitter power output level set at 3.35 kW, horizontally polarized ERP of 29.8 kW will be achieved.

Figure 4 is a map that shows the calculated noise-limited, 36 dBu, and principal community service, 43 dBu, F(50,90), contours for the proposed operation. All of Poland Spring is encompassed by the 43 dBu contour, as required by the Rules. The interference-free population that will be served within the 36 dBu contour is 1,468,000 persons. This is in contrast to the 1,358,000 persons that were projected to be served by the earlier referenced, Appendix B, allotment facilities for WMTW-DT. Figure 5 provides the underlying supporting information for the contours of Figure 4. Calculations were made at 10° intervals, as required by

Engineering Exhibit
Application for Construction Permit
Hearst-Argyle Properties, Inc.
Station WMTW-DT, Poland Spring, Maine

Page 4

the FCC's Rules. The antenna center height above average terrain values that are listed are based on elevation data from the FCC's 30" terrain elevation database.

ENVIRONMENTAL IMPACT CONSIDERATIONS

Environmental impact considerations are addressed for the proposed operation. Since the site that is to be employed is already used for broadcasting purposes, only the environmental impact concern relating to radiofrequency radiation (rfr) exposure of humans is germane from among the list of environmentally sensitive conditions listed in Section 1.1306 of the FCC Rules.

Commencement of the WMTW-DT operation, that is proposed herein, will occur after the cessation of the WMTW, Channel 8, analog operation on February 17, 2009. Since the analog operation for WMTW, Channel 8, will cease before the implementation of the digital operation for WMTW-DT, Channel 8, the impact of the analog operation of WMTW is ignored in the rfr exposure analysis that is presented.

Consideration of prospective exposure levels to the general public at uncontrolled locations is discussed first. This is then followed by a discussion related to worker exposure at controlled locations.

The elevation pattern of Figure 2 for the proposed WMTW-DT antenna shows that the relative field throughout the depression angle range from 10.5° to 90° below the horizontal plane, does not exceed 0.10. In the interest of using conservative criteria for determining the rfr exposure levels from the post-transition WMTW-DT, Channel 8, antenna, a target for uncontrolled location calculations has been chosen to be a point at the tower base. The height above ground level is 2 meters, corresponding, approximately, to the height of a person's head. The use of a person's head as the touchstone for evaluating if overexposure occurs, rather than by evaluating for average whole body

Engineering Exhibit
Application for Construction Permit
Hearst-Argyle Properties, Inc.
Station WMTW-DT, Poland Spring, Maine

Page 5

exposure, as set forth in the FCC's adopted standard, simplifies the calculation and adds an additional safety factor, as well. Also, additional safety factors are built-in by assuming that the all the radiation emanates from the bottom of the antenna, and that the maximum relative field radiation within the recited depression angle range prevails throughout the depression angle range.

A ray from the WMTW-DT, Channel 8, antenna, at a depression angle of 10.5°, would impinge at a target 2 meters above the earth's surface at a distance of 2,617 meters from the tower base, assuming flat earth. Within this 2,617-meter range, the greatest level of equivalent plane wave power density that could occur would be at the 2-meter above ground level target at the tower base.

A test calculation, using OET Bulletin 65, Edition 97-01, procedures, has been performed. The distance to the target from the antenna bottom was 485 meters. The calculation included a 1.6 ground reflection coefficient. The maximum ERP used was 29.8 kW. The elevation pattern relative field value that was used was 0.1. The resultant equivalent plane wave power density at the target was determined to be 0.000042 mW/cm², corresponding to 0.02 % of the maximum permissible exposure (MPE) of 0.2 mW/cm² for Channel 8 (180-186 MHz.). The 0.02 % of the MPE contribution from the proposed WMTW-DT operation is less than the 5 % trigger value for cooperative involvement in remedial actions in the event of an overexposure condition at an uncontrolled location. The calculation that was made assumed that the earth was flat.

Another calculation to a target that is located 2 meters above ground level at a distance of 2,617 meters from the tower base was performed. This time the maximum radiation of 29.8 kW from the antenna was used with no consideration to elevation plane directivity. The equivalent plane wave power density turned out to be 0.0001 mW/cm², corresponding to 0.05 % of the MPE. Thus, the exposure levels from the proposed

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Engineering Exhibit
Application for Construction Permit
Hearst-Argyle Properties, Inc.
Station WMTW-DT, Poland Spring, Maine

Page 6

facility at uncontrolled locations, based on these conservative calculations, will not exceed 0.05 % of the MPE anywhere.

As to worker, or controlled location exposure concerns, the WMTW-DT tower is within a fenced enclosure, and the gate entranceway is kept locked at all times. Access within the fence is available only to authorized personnel. Those workers who have activities that require tower climbing, are aware of the procedures to follow to avoid rfr over-exposure. A radiation hazard warning sign is posted on the fence. The fenced area qualifies as a controlled location work area.

Procedures that are now in place regarding power reduction or termination of excitation to the antenna, according to the work effort location that is involved in order to avoid worker overexposure to rfr, will continue to be observed. In this manner, avoidance of overexposure of workers to rfr will continue to be achieved.

The proposal does not require the preparation of an "Environmental Assessment".

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 8, 2008.

Bernard R. Segal, P.E.

Bernard R. Segal, P. E.
Maryland Registration No. 25811

BERNARD R. SEGAL, P. E.
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FIGURE 1

TV INTERFERENCE AND
SPACING ANALYSIS PROGRAM RESULTS
STATION WMTW-DT, POLAND SPRING, MAINE
CH. 8 29.8 KW 612 METERS

Census data selected 2000

Post Transition Data Base Selected
/space/software/cdbb/tvdb.sff_B
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 05-05-2008 Time: 14:36:51

Record Selected for Analysis

WMTW-DT USERRECORD-01 POLAND SPRING ME US
Channel 08 ERP 29.8 kW HAAT 612. m RCAMSL 00766 m
Latitude 043-50-44 Longitude 0070-45-43
Status APP Zone 2 Border
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)	36.0 dBu F(50,90) (km)
0.0	29.800	587.9	121.9
45.0	29.800	583.2	121.6
90.0	29.800	647.5	125.3
135.0	29.800	668.0	126.2
180.0	29.800	601.2	122.8
225.0	29.800	612.8	123.5
270.0	29.800	561.3	120.0
315.0	29.800	636.9	124.8

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

Proposed facility is within the Canadian coordination distance
Distance to border = 142.9km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Call	City/State	ARN
08	WMTW-DT	POLAND SPRING ME	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
07	WHDHTV	BOSTON MA	174.5	LIC	BDTV	-0709
07	WVII-TV	BANGOR ME	202.0	LIC	BDTV	-0748
08	WAGM-TV	PRESQUE ISLE ME	379.3	LIC	BDTV	-0758
09	WMEB-TV	ORONO ME	164.3	LIC	BDTV	-0753
09	WMUR-TV	MANCHESTER NH	116.8	LIC	BDTV	-1052
09	WVER	RUTLAND VT	189.4	LIC	BDTV	-1693

%%%

Analysis of Interference to Affected Station 1

Channel	Call	City/State	Application	Ref. No.
07	WHDHTV	BOSTON MA	BDTV	-0709

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
07	WVII-TV	BANGOR ME	345.9	LIC	BDTV	-0748
07	WXXA-TV	ALBANY NY	231.7	LIC	BDTV	-1121
07	WBNG-TV	BINGHAMTON NY	390.9	LIC	BDTV	-1127
07	WWNY-TV	CARTHAGE NY	409.0	LIC	BDTV	-1138
07	WABC-TV	NEW YORK NY	292.9	LIC	BDTV	-1147
08	WMTW-DT	POLAND SPRING ME	174.5	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
07	WVII-TV	BANGOR ME	BDTV -0748

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
07	WHDHTV	BOSTON MA	345.9	LIC	BDTV -0709
08	WAGM-TV	PRESQUE ISLE ME	207.6	LIC	BDTV -0758
08	WMTW-DT	POLAND SPRING ME	202.0	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
08	WAGM-TV	PRESQUE ISLE ME	BDTV -0758

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
07	WVII-TV	BANGOR ME	207.6	LIC	BDTV -0748
09	WMEB-TV	ORONO ME	227.9	LIC	BDTV -0753
08	WMTW-DT	POLAND SPRING ME	379.3	APP	USERRECORD-01

Total scenarios = 1

Result key: 1

Scenario 1 Affected station 3
Before Analysis

Results for: 8A ME PRESQUE ISLE BDTV 0758 LIC
HAAT 333.0 m, ATV ERP 3.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	60306	21623.0
not affected by terrain losses	58442	19272.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

After Analysis

Results for: 8A ME PRESQUE ISLE BDTV 0758 LIC
 HAAT 333.0 m, ATV ERP 3.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	60306	21623.0
not affected by terrain losses	58442	19272.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	14	4.0
lost to ATV IX only	14	4.0
lost to all IX	14	4.0

Potential Interfering Stations Included in above Scenario 1

8A ME POLAND SPRING USERRECORD01 APP

Percent new IX = 0.0240%

Worst case new IX 0.0240% Scenario 1

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
09	WMEB-TV	ORONO ME	BDTV -0753

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
08	WAGM-TV	PRESQUE ISLE ME	227.9	LIC	BDTV -0758
09	WMUR-TV	MANCHESTER NH	277.5	LIC	BDTV -1052
09	WVER	RUTLAND VT	341.3	LIC	BDTV -1693
10	WCBF	AUGUSTA ME	95.8	LIC	BDTV -0746
10	WMED-TV	CALAIS ME	143.0	LIC	BDTV -0751
10	WMEM-TV	PRESQUE ISLE ME	227.9	LIC	BDTV -0759
08	WMTW-DT	POLAND SPRING ME	164.3	APP	USERRECORD-01

Total scenarios = 1

Result key: 2

Scenario 1 Affected station 4

Before Analysis

Results for: 9A ME ORONO BDTV 0753 LIC
 HAAT 375.0 m, ATV ERP 15.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	487980	27354.3

not affected by terrain losses	468412	25738.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	25678	665.6
lost to ATV IX only	25678	665.6
lost to all IX	25678	665.6

Potential Interfering Stations Included in above Scenario 1

9A NH MANCHESTER	BDTV	1052	LIC
10A ME AUGUSTA	BDTV	0746	LIC

After Analysis

Results for: 9A ME ORONO BDTV 0753 LIC
HAAT 375.0 m, ATV ERP 15.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	487980	27354.3
not affected by terrain losses	468412	25738.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	25678	665.6
lost to ATV IX only	25678	665.6
lost to all IX	25678	665.6

Potential Interfering Stations Included in above Scenario 1

9A NH MANCHESTER	BDTV	1052	LIC
10A ME AUGUSTA	BDTV	0746	LIC
8A ME POLAND SPRING	USERRECORD01		APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
09	WMUR-TV	MANCHESTER NH	BDTV -1052

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
09	WEDN	NORWICH CT	169.4	LIC	BDTV -0276
09	WMEB-TV	ORONO ME	277.5	LIC	BDTV -0753
09	WBPH-TV	BETHLEHEM PA	417.3	LIC	BDTV -1302
09	WVER	RUTLAND VT	143.8	LIC	BDTV -1693
10	WTNH	NEW HAVEN CT	206.6	LIC	BDTV -0273
10	WWDP	NORWELL MA	117.0	LIC	BDTV -0722
10	WCBB	AUGUSTA ME	182.0	LIC	BDTV -0746

08 WMTW-DT POLAND SPRING ME 116.8 APP USERRECORD-01

Total scenarios = 1

Result key: 3
Scenario 1 Affected station 5
Before Analysis

Results for: 9A NH MANCHESTER BDTV 1052 LIC
HAAT 305.0 m, ATV ERP 7.1 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4987135	25790.9
not affected by terrain losses	4788635	23103.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	166125	1065.4
lost to ATV IX only	166125	1065.4
lost to all IX	166125	1065.4

Potential Interfering Stations Included in above Scenario 1

9A CT NORWICH	BDTV	0276	LIC
9A ME ORONO	BDTV	0753	LIC
9A VT RUTLAND	BDTV	1693	LIC
10A MA NORWELL	BDTV	0722	LIC

After Analysis

Results for: 9A NH MANCHESTER BDTV 1052 LIC
HAAT 305.0 m, ATV ERP 7.1 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4987135	25790.9
not affected by terrain losses	4788635	23103.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	172145	1247.0
lost to ATV IX only	172145	1247.0
lost to all IX	172145	1247.0

Potential Interfering Stations Included in above Scenario 1

9A CT NORWICH	BDTV	0276	LIC
9A ME ORONO	BDTV	0753	LIC
9A VT RUTLAND	BDTV	1693	LIC
10A MA NORWELL	BDTV	0722	LIC
8A ME POLAND SPRING	USERRECORD01		APP

Percent new IX = 0.1302%

Worst case new IX 0.1302% Scenario 1

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
09	WVER	RUTLAND VT	BDTV -1693

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
09	WEDN	NORWICH CT	249.8	LIC	BDTV -0276
09	WMEB-TV	ORONO ME	341.3	LIC	BDTV -0753
09	WMUR-TV	MANCHESTER NH	143.8	LIC	BDTV -1052
09	WBPH-TV	BETHLEHEM PA	394.0	LIC	BDTV -1302
08	WMTW-DT	POLAND SPRING ME	189.4	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
08	WMTW-DT	POLAND SPRING ME	USERRECORD-01

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
07	WHDHTV	BOSTON MA	174.5	LIC	BDTV -0709
07	WVII-TV	BANGOR ME	202.0	LIC	BDTV -0748
08	WAGM-TV	PRESQUE ISLE ME	379.3	LIC	BDTV -0758
09	WMEB-TV	ORONO ME	164.3	LIC	BDTV -0753
09	WMUR-TV	MANCHESTER NH	116.8	LIC	BDTV -1052
09	WVER	RUTLAND VT	189.4	LIC	BDTV -1693

Total scenarios = 1

Result key: 4
 Scenario 1 Affected station 7
 Before Analysis

Results for: 8A ME POLAND SPRING USERRECORD01 APP

HAAT 612.0 m, ATV ERP 29.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1827949	47799.5
not affected by terrain losses	1548666	40451.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	80190	675.7
lost to ATV IX only	80190	675.7
lost to all IX	80190	675.7

Potential Interfering Stations Included in above Scenario 1

8A ME PRESQUE ISLE	BDTV	0758	LIC
9A ME ORONO	BDTV	0753	LIC
9A NH MANCHESTER	BDTV	1052	LIC

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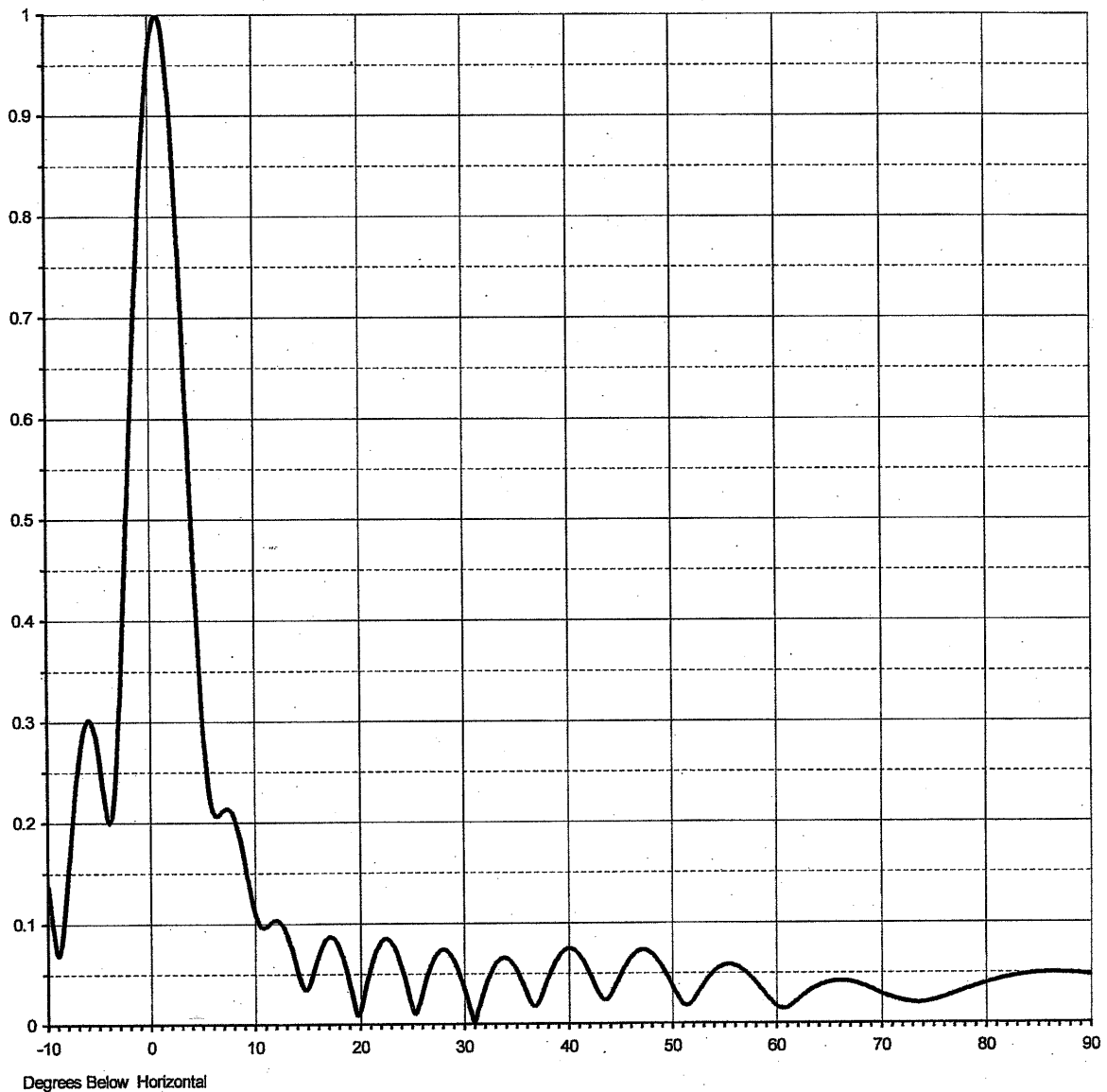
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Proposal Number **DCA-8977** FIGURE 2
Date **14-Mar-01**
Call Letters **WMTW** Channel **8**
Location **Portland, Maine**
Customer
Antenna Type **THA-O4-12H/48H-1-R-MT**

ELEVATION PATTERN

RMS Gain at Main Lobe	11.30 (10.53 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	10.50 (10.21 dB)	Frequency	183.00 MHz
Calculated / Measured	Calculated	Drawing #	12H113075-90





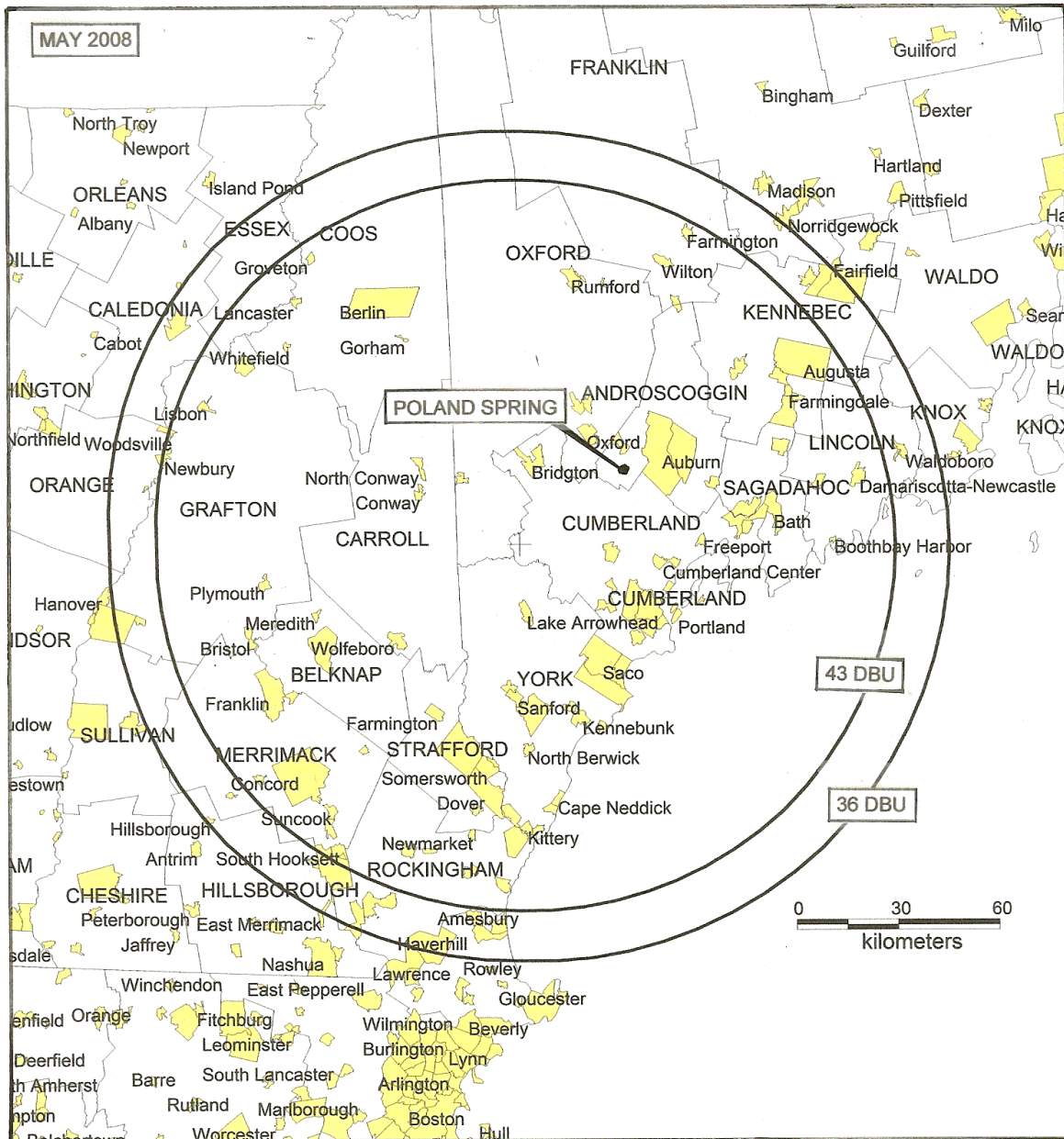
Proposal Number **DCA-8977** FIGURE 3
 Date **14-Mar-01**
 Call Letters **WMTW** Channel **8**
 Location **Portland, Maine**
 Customer
 Antenna Type **THA-O4-12H/48H-1-R-MT**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **12H113075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.138	2.4	0.843	10.6	0.098	30.5	0.020	51.0	0.021	71.5	0.024
-9.5	0.095	2.6	0.806	10.8	0.096	31.0	0.001	51.5	0.018	72.0	0.022
-9.0	0.069	2.8	0.766	11.0	0.096	31.5	0.018	52.0	0.022	72.5	0.021
-8.5	0.066	3.0	0.724	11.5	0.100	32.0	0.034	52.5	0.030	73.0	0.020
-8.0	0.152	3.2	0.679	12.0	0.103	32.5	0.048	53.0	0.038	73.5	0.020
-7.5	0.210	3.4	0.634	12.5	0.101	33.0	0.059	53.5	0.045	74.0	0.020
-7.0	0.258	3.6	0.589	13.0	0.092	33.5	0.064	54.0	0.051	74.5	0.021
-6.5	0.290	3.8	0.543	13.5	0.076	34.0	0.066	54.5	0.055	75.0	0.022
-6.0	0.302	4.0	0.497	14.0	0.057	34.5	0.062	55.0	0.058	75.5	0.024
-5.5	0.292	4.2	0.453	14.5	0.039	35.0	0.055	55.5	0.058	76.0	0.025
-5.0	0.262	4.4	0.410	15.0	0.035	35.5	0.044	56.0	0.058	76.5	0.027
-4.5	0.222	4.6	0.370	15.5	0.048	36.0	0.031	56.5	0.056	77.0	0.029
-4.0	0.199	4.8	0.333	16.0	0.065	36.5	0.020	57.0	0.052	77.5	0.031
-3.5	0.231	5.0	0.299	16.5	0.079	37.0	0.019	57.5	0.047	78.0	0.033
-3.0	0.320	5.2	0.271	17.0	0.086	37.5	0.030	58.0	0.042	78.5	0.035
-2.8	0.365	5.4	0.247	17.5	0.086	38.0	0.043	58.5	0.035	79.0	0.036
-2.6	0.413	5.6	0.229	18.0	0.078	38.5	0.056	59.0	0.029	79.5	0.038
-2.4	0.464	5.8	0.217	18.5	0.063	39.0	0.065	59.5	0.023	80.0	0.040
-2.2	0.515	6.0	0.210	19.0	0.043	39.5	0.072	60.0	0.018	80.5	0.041
-2.0	0.567	6.2	0.206	19.5	0.020	40.0	0.075	60.5	0.015	81.0	0.043
-1.8	0.618	6.4	0.206	20.0	0.011	40.5	0.074	61.0	0.015	81.5	0.044
-1.6	0.668	6.6	0.208	20.5	0.032	41.0	0.069	61.5	0.018	82.0	0.045
-1.4	0.716	6.8	0.210	21.0	0.053	41.5	0.062	62.0	0.022	82.5	0.046
-1.2	0.762	7.0	0.212	21.5	0.070	42.0	0.052	62.5	0.027	83.0	0.047
-1.0	0.805	7.2	0.214	22.0	0.081	42.5	0.040	63.0	0.031	83.5	0.048
-0.8	0.844	7.4	0.214	22.5	0.085	43.0	0.030	63.5	0.034	84.0	0.048
-0.6	0.880	7.6	0.212	23.0	0.082	43.5	0.024	64.0	0.037	84.5	0.049
-0.4	0.912	7.8	0.209	23.5	0.073	44.0	0.027	64.5	0.039	85.0	0.049
-0.2	0.939	8.0	0.204	24.0	0.058	44.5	0.036	65.0	0.041	85.5	0.050
0.0	0.962	8.2	0.197	24.5	0.040	45.0	0.047	65.5	0.041	86.0	0.050
0.2	0.979	8.4	0.189	25.0	0.020	45.5	0.057	66.0	0.042	86.5	0.050
0.4	0.991	8.6	0.180	25.5	0.011	46.0	0.065	66.5	0.042	87.0	0.050
0.6	0.998	8.8	0.170	26.0	0.028	46.5	0.070	67.0	0.041	87.5	0.049
0.8	1.000	9.0	0.159	26.5	0.046	47.0	0.073	67.5	0.040	88.0	0.049
1.0	0.997	9.2	0.148	27.0	0.060	47.5	0.073	68.0	0.038	88.5	0.049
1.2	0.988	9.4	0.137	27.5	0.070	48.0	0.070	68.5	0.036	89.0	0.049
1.4	0.975	9.6	0.127	28.0	0.074	48.5	0.065	69.0	0.034	89.5	0.048
1.6	0.957	9.8	0.122	28.5	0.072	49.0	0.058	69.5	0.032	90.0	0.047
1.8	0.935	10.0	0.113	29.0	0.065	49.5	0.049	70.0	0.029		
2.0	0.908	10.2	0.106	29.5	0.054	50.0	0.039	70.5	0.027		
2.2	0.877	10.4	0.101	30.0	0.038	50.5	0.029	71.0	0.025		

FIGURE 4



CALCULATED CONTOURS

HEARST-ARGYLE PROPERTIES, INC.
STATION WMTW-DT, POLAND SPRING, MAINE
CHANNEL 8 29.8 KW 612 METERS

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FIGURE 5

ELEVATION DATA AND
DISTANCES TO SERVICE CONTOURS
PROPOSED WMTW-DT, POLAND SPRING, MAINE
CH. 8 29.8 KW 612 METERS

NAD '27 Site Coordinates: 43° 50' 44" N; 70° 45' 43" W
Antenna Radiation Center: 766 meters AMSL

Azimuth (Deg. True)	HAAT (meters)	Depression Angle To Radio Horizon (degrees)	Distance To	
			43 dBu Contour (km)	36 dBu Contour (km)
0	580	0.7	107.1	121.3
10	580	0.7	107.1	121.3
20	575	0.7	106.9	120.9
30	596	0.7	107.8	122.4
40	594	0.7	107.8	122.4
50	575	0.7	106.9	120.9
60	584	0.7	107.3	121.6
70	599	0.7	107.9	122.7
80	628	0.7	108.9	124.5
90	645	0.7	109.5	125.5
100	641	0.7	109.3	125.3
110	654	0.7	109.8	126.0
120	652	0.7	109.7	125.9
130	663	0.7	110.0	126.4
140	667	0.7	110.1	126.6
150	658	0.7	109.9	126.2
160	643	0.7	109.4	125.4
170	610	0.7	108.3	123.4
180	602	0.7	108.0	122.9
190	580	0.7	107.1	121.3
200	604	0.7	108.1	123.0
210	600	0.7	107.9	122.7
220	602	0.7	108.0	122.9
230	618	0.7	108.6	123.9
240	627	0.7	108.9	124.4
250	623	0.7	108.7	124.2
260	589	0.7	107.5	122.0
270	550	0.7	105.7	119.2
280	506	0.6	102.8	116.8
290	550	0.7	105.7	119.2
300	543	0.7	105.3	118.7
310	608	0.7	108.3	123.3
320	638	0.7	109.2	125.1
330	634	0.7	109.1	124.9
340	608	0.7	108.2	123.2
350	564	0.7	106.4	120.1

Note: In each direction, the relative field at the depression angle to the radio horizon exceeded 90% of the maximum in the vertical plane. Therefore, the maximum ERP was used to determine the contour distance.