

ENGINEERING STATEMENT
RE MODIFICATION OF PENDING APPLICATION
(FCC FILE NO. 0000035738)
ON BEHALF OF
MAINE PUBLIC BROADCASTING CORPORATION
WCBB, AUGUSTA, MAINE
CHANNEL 10 43 KW ND ERP 304 METERS

FEBRUARY 2020

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)


Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1420 N Street, N.W., Suite One, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

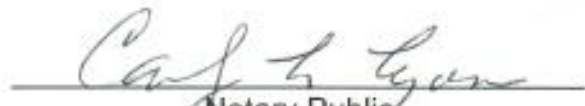
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 4th day of February, 2020.



Notary Public

My Commission Expires: 2/28/2023



This engineering statement has been prepared in support of an application to modify the pending application (FCC File Number 0000035738) on behalf of Maine Public Broadcasting Corporation, licensee of WCBB, Augusta, Maine. The purpose of the application is to update the pending application, FCC FILE NO. 0000035738. No other change is requested.

TVStudy 2.2 determines that no impermissible interference will result except to co-owned television stations, WMEB and WMED.

Transmitter Site
(No Change)

The geographic coordinates of the existing site are as follows:

North Latitude: 44° 09' 14.7

West Longitude: 70° 00' 36.8

NAD-27

North Latitude: 44° 09' 15.0"

West Longitude: 70° 00' 35.0"

NAD-83

Waiver Request

General

Maine Public Broadcasting Corporation seeks waiver of Section 73.622(f)(5) for the FCC Rules of the current pending application to operate with 43 kW non-directional (horizontal polarization) with its existing antenna.

Waiver Request

Detail

The proposed power exceeds the maximum allowed for Zone 1 DTV stations. A waiver of Section 73.622(f)(5) of the Commission's Rules is requested. A waiver is supported as the proposed facilities meet established interference criteria to all other non-owned co-channel and adjacent-channel stations¹ based on TVStudy 2.2. It is believed the grant of this waiver request is in the public interest and the Commission's policy to improve reception for high-band VHF DTV reception. WGME-TV is located in the same DMA is licensed for a significantly larger noise-limited contour by area as depicted in Exhibit E-4.²

There are no AM stations located within 3.2 km of the proposed WCBB tower site. There are no full-service FM stations within 100 meters. On a nearby adjacent tower is W292FZ with an effective radiated power of 0.123 kW with a center of radiation of 152 meters above ground.

Existing Tower

The WCBB antenna is top-mounted on an existing tower having a total overall structure height above ground of 193.2 meters (633.9 feet). The existing transmitter site is located on Oak Hill Road, Litchfield, Maine. The registration number for the tower is 1035353.

Since there is no change in overall height, FAA airspace approval is not required.

¹The proposed WCBB facilities give interference to co-owned stations WMEB-TV licensed to Orono, Maine, and WMED licensed to Calais, Maine, herein provides that it agrees to accept this interference.

²Both transmitter sites are located in the same DMA (Portland-Auburn).

Equipment Data
(Existing)

Antenna: Dielectric, Model TW-12 B10-R (or equivalent) antenna with 1.0° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are provided in Exhibit E-2.

Transmission Line: Dielectric, rigid 3-1/8", 50 ohm, 580 feet (176.8 meters) with 0.14 dB loss/100 ft

Power Data

Transmitter Power Output	4.30 kW	6.34 dBk
Total Transmission Line Loss	83.2%	0.80 dB
Antenna Input Power	3.58	5.54 dBk
Max. Antenna Power Gain	12.0	10.79 dB
Effective Radiated Power	43 kW	16.33 dBk

Elevation Data
(unchanged)

Overall height above ground of the existing antenna structure (including beacon and lightning rod)	193.2 meters 633.9 feet
Center of radiation of Channel 10 antenna above ground	177 meters 580.7 feet
Elevation of site above mean sea level	209.7 meters 688 feet
Center of radiation of Channel 10 antenna above mean sea level	386.7 meters 1268.7 feet
Overall height above mean sea level of existing tower and top-mounted antenna (including beacon)	402.9 meters 1321.9 feet

Antenna height above average terrain 304 meters

Note: Slight height differences may result due to conversion to metric.

Interference Analysis

A study of predicted interference caused by the proposed WCBB operation on Channel 10 digital operation has been performed using the Longley-Rice program for which the source data has been posted by the Commission on its website at <http://www.fcc.gov/oet/tvstudy>. Comparison of service/interference areas and population indicates this model closely matches the FCC's digital TVStudy 2.2 evaluation program. Best efforts have been made to use data and calculation identical to the FCC's program. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 2 sq. km. Using one-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 2010 census centroids, all studies are based upon data in the Commission's current Licensing and Management System ("LMS") database update of the FCC's engineering database. That interference analysis is attached as Exhibit E-1.

Coverage

Table 1 provides the distance calculated by TVStudy 2.2 along each radial spaced every ten degrees in azimuth to the predicted F(50,90) 36 dBu contour, the effective radiated power and the effective antenna heights. Exhibit E-3 provides the Portland-Auburn DMA. The predicted 36 dBu contour determined from distances are shown on the attached map (Exhibit E-5).

Total Radiofrequency Field Levels around the WCBB Tower Site

The percentage of radiofrequency field level ("RFF") is calculated using OET Bulletin 65, Edition 97-01, dated August 1997 and Supplement A.

The radiofrequency field level ("RFF") is calculated below.

Pursuant to OET Bulletin No. 65, dated August 1997, the RFF study will consider the following proposed WCBB station.

The RFF radiation contribution of the proposed station will be calculated using the following formula:

$$S = \frac{33.4(F^2) \text{ Total ERP}}{R^2}$$

where:

S = power density in $\mu\text{W}/\text{cm}^2$

F = relative field factor

Total ERP = ERP Horizontal Polarization

R = RCAGL - 2 meters

ERP = RMS ERP in watts for DTV Stations

WCBB Proposed Facility

Channel 10	Freq:	192-198 MHz Range
	ERP =	43,000 Watts
	Polarization:	horizontal
	RC/AGL - 2 meters =	175 meters

WCBB proposes to utilize the existing Dielectric, Model TW-12 B10-R antenna with one degree electrical beam tilt. The manufacturer's vertical plane radiation pattern's field factor will be less than 0.092 at any angle greater than 20 degrees below the horizon. A value of 0.092 will be used in the calculation.

$$S = \frac{33.4 (F^2) \text{Tot ERP}}{R^2} = 43,000 \text{ watts (Horizontal)}$$

$$R = 175 \text{ meters}$$

$$F = 0.092 \text{ (field factor)}$$

$$S = <0.4 \mu\text{W}/\text{cm}^2$$

WCBB contributes less than $0.4 \mu\text{W}/\text{cm}^2$ at 2 meters above the ground.

The limit for an uncontrolled environment is $200 \mu\text{W}/\text{cm}^2$ for a station broadcasting in the 192-198 MHz frequency range.

Therefore:

WCBB's proposed DTV facility will contribute less than one percent. RFF for an uncontrolled environment two meters above the ground at the proposed tower site.

There is a locked gate to gain access to the unpaved road leading to the transmitter site. There are posted RF warning signs of the potential of radio frequency exposure. A locked gate and fence surround the WCBB tower. This remote site has limited access and the site is not open to the public. There is a tall tower adjacent to the WCBB transmitter site and according to the FCC License Management System ("LMS") there are currently no licensed facilities with RF levels of significance.

The existing operation is based upon the current OET Bulletin 65, Edition 97-01, dated August 1997 and Supplement A and meets the provisions of the RFF guidelines and thus complies with Section 1.1307 of the FCC Rules.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

EXHIBIT E-1
ALLOCATION STUDY

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WCBB-APP-IX, Model: Longley-Rice
Start: 2019.11.20 16:31:42

Study created: 2019.11.20 16:31:42

Study build station data: LMS TV 2019-11-20

Proposal: WCBB D10 DT APP *P AUGUSTA, ME
File number: BLANK0000035738
Facility ID: 39659
Station data: LMS TV 2019-11-20
Record ID: 25076f915fd11ef0015fe505a5e73e55
Country: U.S.
Zone: I

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WMEB-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	95.8 km
Yes	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDT20090616ABF	182.0
Yes	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	182.0
Yes	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	386.9
Yes	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	252.6
Yes	WMED-TV	D10	DT	LIC	CALAIS, ME	BLEDT20030307AAM	233.8
Yes	WMEM-TV	D10	DT	LIC	PRESQUE ISLE, ME	BLEDT20090121ABS	317.0
Yes	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	254.0
Yes	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	145.3
Yes	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	145.3
No	CHMG-TV	D10	DC	LIC	QUBEC, QC	BLANKCANLP412	307.3
Yes	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	218.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D10

Latitude: 44 9 15.00 N (NAD83)
Longitude: 70 0 35.00 W
Height AMSL: 386.7 m
HAAT: 304.0 m
Peak ERP: 43.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	43.0 kW	313.8 m	105.0 km
45.0	43.0	323.5	105.8
90.0	43.0	318.1	105.4
135.0	43.0	307.3	104.5
180.0	43.0	294.7	103.7
225.0	43.0	303.9	104.3
270.0	43.0	286.5	103.2
315.0	43.0	280.9	103.0

ERP exceeds maximum

ERP: 43.0 kW ERP maximum: 30.0 kW

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 136.8 km

Distance to Mexican border: 3149.0 km

Conditions at FCC monitoring station: Belfast ME
Bearing: 66.0 degrees Distance: 80.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.6 degrees Distance: 2912.9 km

Study cell size: 2.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLEDT20020508AAS LIC scenario 1

**IX: 0.55% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMEB-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	95.8 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	95.8
	WMTW	D8	DT	LIC	POLAND SPRING, ME	BLCDDT20090622ACH	164.3
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDDT20090616ABF	277.5
	CKLT-DT	D9	DT	LIC	SAINT JOHN, NB	BLANKCANADA131	239.3
	CIMT-DT	D9	DT	LIC	RIVIEREDULOUP, QC	BLANKCANADA295	320.3
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	27398.8	511,761	25763.2	494,574	24907.7	457,895	24835.7 455,355 0.29 0.55
Undesired				Total IX	Unique IX, before	Unique IX, after	
WCBB D10 DT BL				743.5	36,381	699.4	35,176
WCBB D10 DT APP				815.5	38,921	771.4	37,716
WMTW D8 DT LIC				12.0	426	0.0	0
WMUR-TV D9 DT LIC				40.1	1,020	4.0	1
CKLT-DT D9 DT LIC				100.0	295	100.0	295
CIMT-DT D9 DT LIC				8.0	2	8.0	2

Interference to BLEDT20020508AAS LIC scenario 2

**IX: 0.55% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMEB-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	95.8 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	95.8
	WMTW	D8	DT	LIC	POLAND SPRING, ME	BLCDDT20090622ACH	164.3
	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	277.5
	CKLT-DT	D9	DT	LIC	SAINT JOHN, NB	BLANKCANADA131	239.3
	CIMT-DT	D9	DT	LIC	RIVIEREDULOUP, QC	BLANKCANADA295	320.3
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	27398.8	511,761	25763.2	494,574	24903.7	457,895	24831.7 455,355 0.29 0.55

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	743.5	36,381	687.4 34,843	
WCBB D10 DT APP	815.5	38,921		759.4 37,383
WMTW D8 DT LIC	12.0	426	0.0 0	0.0 0
WMUR-TV D9 DT APP	56.1	1,353	8.0 1	8.0 1
CKLT-DT D9 DT LIC	100.0	295	100.0 295	100.0 295
CIMT-DT D9 DT LIC	8.0	2	8.0 2	8.0 2

Interference to BLCDT20090616ABF LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDT20090616ABF	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	182.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	182.0
	WMTW	D8	DT	LIC	POLAND SPRING, ME	BLCDT20090622ACH	116.8
	WEDN	D9	DT	LIC	NORWICH, CT	BLEDT20090618ACB	169.4
	WMEB-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	277.5
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	117.0
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	143.8
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	25625.7 5,192,179	23050.1	5,003,980	22416.2	4,899,938	22416.2 4,899,938	0.00 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	0.0	0	0.0 0	
WCBB D10 DT APP	3.9	127		0.0 0
WMTW D8 DT LIC	202.5	8,331	147.0 4,884	147.0 4,884
WEDN D9 DT LIC	419.4	95,210	375.7 91,820	375.7 91,820
WMEB-TV D9 DT LIC	91.3	4,649	27.8 1,138	27.8 1,138
WWDP D10 DT LIC	8.0	2,330	0.0 0	0.0 0
WVER D10 DD CP	8.0	242	4.0 199	4.0 199

Interference to BLANK0000035700 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	182.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	182.0
	WMTW	D8	DT	LIC	POLAND SPRING, ME	BLCDT20090622ACH	116.8

WEDN	D9	DT	LIC	NORWICH, CT	BLEDT20090618ACB	169.4
WMEB-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	277.5
WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	117.0
WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	143.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
26185.2 5,242,334	23533.4 5,057,770	22899.3 4,944,291	22899.3 4,944,291	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	0.0 0	0.0 0	
WCBB D10 DT APP	3.9 127		0.0 0
WMTW D8 DT LIC	198.5 7,846	131.1 4,725	131.1 4,725
WEDN D9 DT LIC	447.5 104,554	395.8 101,898	395.8 101,898
WMEB-TV D9 DT LIC	83.4 4,143	11.9 871	11.9 871
WWDP D10 DT LIC	8.0 2,330	4.0 1,244	4.0 1,244
WVER D10 DD CP	8.0 242	4.0 199	4.0 199

Interference to BLANK0000056790 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	386.9 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	386.9
	WEDN	D9	DT	LIC	NORWICH, CT	BLEDT20090618ACB	66.2
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	171.2
	WHTM-TV	D10	DT	LIC	HARRISBURG, PA	BLANK0000034336	357.9
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.8
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	76.4
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDDT20080620ALB	118.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29879.7 7,845,782	27300.6 7,332,431	25485.8 6,581,710	25485.8 6,581,710	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	8.0 349	4.0 222	
WCBB D10 DT APP	8.0 349		4.0 222
WEDN D9 DT LIC	516.2 61,594	395.2 54,001	395.2 54,001
WWDP D10 DT LIC	450.9 88,349	262.0 14,483	262.0 14,483
WVER D10 DD CP	333.5 38,525	241.1 26,765	241.1 26,765
WWLP D11 DT LIC	571.9 229,491	540.0 216,255	540.0 216,255
WPIX D11 DT CP	187.5 416,126	159.5 362,013	159.5 362,013

Interference to BLANK0000056790 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	386.9 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	386.9
	WEDN	D9	DT	LIC	NORWICH, CT	BLEDT20090618ACB	66.2
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	171.2
	WHTM-TV	D10	DT	LIC	HARRISBURG, PA	BLANK0000034336	357.9
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.8
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	76.4
	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDDT20090911ABN	114.6
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	29879.7	7,845,782	27300.6	7,332,431	25362.0	6,354,656	25362.0 6,354,656 0.00 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after
WCBB D10 DT BL				8.0	349	4.0	222
WCBB D10 DT APP				8.0	349	4.0	222
WEDN D9 DT LIC				516.2	61,594	395.2	54,001
WWDP D10 DT LIC				450.9	88,349	257.9	14,483
WVER D10 DD CP				333.5	38,525	241.1	26,765
WWLP D11 DT LIC				571.9	229,491	540.0	216,255
WPIX D11 DT LIC				315.4	643,180	283.4	589,067

Interference to BLANK0000056790 LIC scenario 3

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	386.9 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	386.9
	WEDN	D9	DT	LIC	NORWICH, CT	BLEDT20090618ACB	66.2
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	171.2
	WHTM-TV	D10	DT	APP	HARRISBURG, PA	BLANK0000035787	357.9
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.8
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	76.4
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDDT20080620ALB	118.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29879.7 7,845,782	27300.6 7,332,431	25485.8 6,581,710	25485.8 6,581,710	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	8.0 349	4.0 222	
WCBB D10 DT APP	8.0 349		4.0 222
WEDN D9 DT LIC	516.2 61,594	395.2 54,001	395.2 54,001
WWDP D10 DT LIC	450.9 88,349	258.0 13,435	258.0 13,435
WHTM-TV D10 DT APP	11.9 6,474	0.0 0	0.0 0
WVER D10 DD CP	333.5 38,525	241.1 26,765	241.1 26,765
WWLP D11 DT LIC	571.9 229,491	540.0 216,255	540.0 216,255
WPIX D11 DT CP	187.5 416,126	155.5 357,896	155.5 357,896

Interference to BLANK0000056790 LIC scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	

Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	386.9 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	386.9
	WEDN	D9	DT	LIC	NORWICH, CT	BLEDT20090618ACB	66.2
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	171.2
	WHTM-TV	D10	DT	APP	HARRISBURG, PA	BLANK0000035787	357.9
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.8
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	76.4
	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDDT20090911ABN	114.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29879.7 7,845,782	27300.6 7,332,431	25362.0 6,354,656	25362.0 6,354,656	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	8.0 349	4.0 222	
WCBB D10 DT APP	8.0 349		4.0 222
WEDN D9 DT LIC	516.2 61,594	395.2 54,001	395.2 54,001
WWDP D10 DT LIC	450.9 88,349	253.9 13,435	253.9 13,435
WHTM-TV D10 DT APP	11.9 6,474	0.0 0	0.0 0
WVER D10 DD CP	333.5 38,525	241.1 26,765	241.1 26,765
WWLP D11 DT LIC	571.9 229,491	540.0 216,255	540.0 216,255
WPIX D11 DT LIC	315.4 643,180	279.4 584,950	279.4 584,950

Interference to BLANK0000059580 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	252.6 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	252.6
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDT20090616ABF	117.0
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	171.2
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.6
	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	130.2
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	17970.0	5,792,048	16872.7	5,564,295	15166.2 5,374,753	15069.8 5,350,097	0.64 0.46
Undesired				Total IX	Unique IX, before	Unique IX, after	
WCBB D10 DT BL		272.9		75,285	44.2 5,903		
WCBB D10 DT APP		481.6		108,821		140.6 30,559	
WMUR-TV D9 DT LIC		16.1		3,161	0.0 0	0.0 0	
WTNH D10 DT LIC		1554.0		152,227	1305.1 74,584	1208.9 70,911	
WVER D10 DD CP		196.7		82,922	48.1 15,930	40.1 12,392	
WENH-TV D11 DT APP		72.2		22,648	12.0 2,348	8.0 1,576	

Interference to BLANK0000059580 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	252.6 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	252.6
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDT20090616ABF	117.0
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	171.2
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.6
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	130.2
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	17970.0	5,792,048	16872.7	5,564,295	15178.2 5,377,101	15077.8 5,351,673	0.66 0.47
Undesired				Total IX	Unique IX, before	Unique IX, after	
WCBB D10 DT BL		272.9		75,285	60.2 7,784		
WCBB D10 DT APP		481.6		108,821		160.7 33,212	
WMUR-TV D9 DT LIC		16.1		3,161	0.0 0	0.0 0	
WTNH D10 DT LIC		1554.0		152,227	1305.1 74,584	1208.9 70,911	

WVER D10 DD CP	196.7	82,922	48.1	15,930	40.1	12,392
WENH-TV D11 DT LIC	24.1	5,671	0.0	0	0.0	0

Interference to BLANK0000059580 LIC scenario 3

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	252.6 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	252.6
	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	117.0
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	171.2
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.6
	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	130.2
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	17970.0	5,792,048	16872.7	5,564,295	15166.2	5,374,753	15069.8 5,350,097 0.64 0.46

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	272.9	75,285	44.2	5,903
WCBB D10 DT APP	481.6	108,821		140.6 30,559
WMUR-TV D9 DT APP	16.1	3,161	0.0	0 0
WTNH D10 DT LIC	1554.0	152,227	1305.1	74,584 1208.9 70,911
WVER D10 DD CP	196.7	82,922	48.1	15,930 40.1 12,392
WENH-TV D11 DT APP	72.2	22,648	12.0	2,348 8.0 1,576

Interference to BLANK0000059580 LIC scenario 4

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	252.6 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	252.6
	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	117.0
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	171.2
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	248.6
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	130.2
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	17970.0	5,792,048	16872.7	5,564,295	15178.2	5,377,101	15077.8 5,351,673 0.66 0.47

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	272.9	75,285	60.2	7,784
WCBB D10 DT APP	481.6	108,821		160.7
WMUR-TV D9 DT APP	16.1	3,161	0.0	0
WTNH D10 DT LIC	1554.0	152,227	1305.1	74,584
WVER D10 DD CP	196.7	82,922	48.1	15,930
WENH-TV D11 DT LIC	24.1	5,671	0.0	0

Interference to BLEDT20030307AAM LIC scenario 1

**IX: 2.57% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WMED-TV	D10	DT	LIC	CALAIS, ME	BLEDT20030307AAM	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	233.8 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	233.8
	WMEM-TV	D10	DT	LIC	PRESQUE ISLE, ME	BLEDT20090121ABS	173.4
	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX		
	9086.0	30,488	8370.1	29,577	7628.3	27,973	7556.4
	6977.0	28,455	6457.7	27,617	5489.4	26,524	5445.4
							27,253
							0.94
							2.57
							0.80
							0.00

(in Canada)

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	271.0	848	123.5	398
WCBB D10 DT APP	370.8	1,568		195.4
WCBB D10 DT BL	135.8	0	36.1	0
WCBB D10 DT APP	219.6	0		80.1
WMEM-TV D10 DT LIC	618.2	1,206	470.8	756
WMEM-TV D10 DT LIC	932.2	1,093	832.4	1,093

(in Canada)

(in Canada)

(in Canada)

Interference to BLEDT20090121ABS LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WMEM-TV	D10	DT	LIC	PRESQUE ISLE, ME	BLEDT20090121ABS	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	317.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	317.0
	WMED-TV	D10	DT	LIC	CALAIS, ME	BLEDT20030307AAM	173.4
	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX		

15112.7	71,700	14137.2	69,981	13850.3	69,284	13826.1	69,231	0.17	0.08	
16353.9	73,008	14213.8	67,079	13777.8	65,925	13777.8	65,925	0.00	0.00	(in Canada)

Undesired		Total IX	Unique IX, before	Unique IX, after	
WCBB D10 DT BL	123.4	309	55.7	86	
WCBB D10 DT APP	155.5	393		79.8	139
WCBB D10 DT BL	8.0	0	0.0	0	(in Canada)
WCBB D10 DT APP	8.0	0		0.0	0 (in Canada)
WMED-TV D10 DT LIC	231.3	611	163.5	388	155.6 357
WMED-TV D10 DT LIC	436.0	1,154	428.0	1,154	428.0 1,154 (in Canada)

Interference to BLANK0000034603 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	254.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	254.0
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDDT20090616ABF	143.8
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	248.8
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	248.6
	WHEC-TV	D10	DT	LIC	ROCHESTER, NY	BMLCDDT20111228ABJ	366.2
	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	162.4
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	196.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
39704.5 1,337,566	33053.9 1,136,017	31968.2 1,115,517	31940.3 1,115,145	0.09 0.03

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	279.5	2,783	111.7	1,148
WCBB D10 DT APP	339.4	3,871		139.7 1,520
WMUR-TV D9 DT LIC	31.8	401	4.0	20 4.0 20
WTNH D10 DT LIC	463.3	12,941	315.3	11,306 299.3 10,864
WWDP D10 DT LIC	243.5	2,243	67.8	490 59.8 358
WHEC-TV D10 DT LIC	4.0	84	0.0	0 0.0 0
WENH-TV D11 DT APP	71.7	784	19.9	266 19.9 266
CKMI-DT-2 D10 DT LIC	347.2	5,089	327.2	4,871 319.3 4,729

Interference to BLANK0000034603 CP scenario 2

Desired:	Call WVER	Chan D10	Svc DD	Status CP	City, State RUTLAND, VT	File Number BLANK0000034603	Distance
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	254.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	254.0
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDT20090616ABF	143.8
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	248.8
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	248.6
	WHEC-TV	D10	DT	LIC	ROCHESTER, NY	BMLCDT20111228ABJ	366.2
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	162.4
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	196.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
39704.5	1,337,566	33053.9	1,115,517	0.09
		31968.2	1,115,145	0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	279.5	2,783	111.7
WCBB D10 DT APP	339.4	3,871	139.7
WMUR-TV D9 DT LIC	31.8	401	4.0
WTNH D10 DT LIC	463.3	12,941	315.3
WWDP D10 DT LIC	243.5	2,243	67.8
WHEC-TV D10 DT LIC	4.0	84	0.0
WENH-TV D11 DT LIC	71.7	784	19.9
CKMI-DT-2 D10 DT LIC	347.2	5,089	327.2

Interference to BLANK0000034603 CP scenario 3

Desired:	Call WVER	Chan D10	Svc DD	Status CP	City, State RUTLAND, VT	File Number BLANK0000034603	Distance
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	254.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	254.0
	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	143.8
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	248.8
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	248.6
	WHEC-TV	D10	DT	LIC	ROCHESTER, NY	BMLCDT20111228ABJ	366.2
	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	162.4
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	196.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
39704.5	1,337,566	33053.9	1,115,517	0.09
		31968.2	1,115,145	0.03

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	279.5	2,783	111.7	1,148
WCBB D10 DT APP	339.4	3,871		139.7 1,520
WMUR-TV D9 DT APP	31.8	401	4.0	20 4.0 20
WTNH D10 DT LIC	463.3	12,941	315.3	11,306 299.3 10,864
WWDP D10 DT LIC	243.5	2,243	67.8	490 59.8 358
WHEC-TV D10 DT LIC	4.0	84	0.0	0 0.0 0
WENH-TV D11 DT APP	71.7	784	19.9	266 19.9 266
CKMI-DT-2 D10 DT LIC	347.2	5,089	327.2	4,871 319.3 4,729

Interference to BLANK0000034603 CP scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	254.0 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	254.0
	WMUR-TV	D9	DT	APP	MANCHESTER, NH	BLANK0000035700	143.8
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000056790	248.8
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	248.6
	WHEC-TV	D10	DT	LIC	ROCHESTER, NY	BMLCDT20111228ABJ	366.2
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	162.4
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	196.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
39704.5 1,337,566	33053.9 1,136,017	31968.2 1,115,517	31940.3 1,115,145	0.09 0.03

Undesired		Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL	279.5	2,783	111.7	1,148
WCBB D10 DT APP	339.4	3,871		139.7 1,520
WMUR-TV D9 DT APP	31.8	401	4.0	20 4.0 20
WTNH D10 DT LIC	463.3	12,941	315.3	11,306 299.3 10,864
WWDP D10 DT LIC	243.5	2,243	67.8	490 59.8 358
WHEC-TV D10 DT LIC	4.0	84	0.0	0 0.0 0
WENH-TV D11 DT LIC	71.7	784	19.9	266 19.9 266
CKMI-DT-2 D10 DT LIC	347.2	5,089	327.2	4,871 319.3 4,729

Interference to BLANK0000035771 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	

Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	145.3 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	145.3
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	172.2
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDDT20080620ALB	358.8
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDDT20090612AFT	144.5

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
33373.3	4,846,443	30368.3	4,669,506	30043.7	4,640,467	30019.5	4,639,745	0.08	0.02

Undesired				Total IX	Unique IX, before	Unique IX, after	
WCBB D10 DT BL	52.3			3,627	52.3		
WCBB D10 DT APP	76.5			4,349		76.5	4,349
WWLP D11 DT LIC	272.3			25,412	264.3	21,872	21,872
WNAC-TV D12 DT LIC	8.0			3,540	0.0	0	0

Interference to BLANK0000035771 APP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	145.3 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	145.3
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	172.2
	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDDT20090911ABN	354.3
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDDT20090612AFT	144.5

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
33373.3	4,846,443	30368.3	4,669,506	30043.7	4,640,467	30019.5	4,639,745	0.08	0.02

Undesired				Total IX	Unique IX, before	Unique IX, after	
WCBB D10 DT BL	52.3			3,627	52.3		
WCBB D10 DT APP	76.5			4,349		76.5	4,349
WWLP D11 DT LIC	272.3			25,412	260.4	21,762	21,762
WPIX D11 DT LIC	4.0			110	0.0	0	0
WNAC-TV D12 DT LIC	8.0			3,540	0.0	0	0

Interference to BLEDT20090817ABS LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	

Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	145.3 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	145.3
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	172.2
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDDT20080620ALB	358.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
31050.2 4,500,498	28284.8 4,328,222	28044.4 4,301,968	28024.3 4,294,826	0.07 0.17

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL 24.2 1,226	24.2 1,226		
WCBB D10 DT APP 44.2 8,368	44.2 8,368		
WWLP D11 DT LIC 216.2 25,028	216.2 25,028		

Interference to BLEDT20090817ABS LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	145.3 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	145.3
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDDT20090612AJV	172.2
	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDDT20090911ABN	354.3

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
31050.2 4,500,498	28284.8 4,328,222	28044.4 4,301,968	28024.3 4,294,826	0.07 0.17

Undesired	Total IX	Unique IX, before	Unique IX, after
WCBB D10 DT BL 24.2 1,226	24.2 1,226		
WCBB D10 DT APP 44.2 8,368	44.2 8,368		
WWLP D11 DT LIC 216.2 25,028	208.2 24,754	208.2 24,754	
WPIX D11 DT LIC 8.0 274	0.0 0	0.0 0	

Interference to BLANKCANADA310 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	
Undesireds:	WCBB	D10	DT	BL	AUGUSTA, ME	DTVBL39659	218.2 km
	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	218.2
	WMEM-TV	D10	DT	LIC	PRESQUE ISLE, ME	BLEDT20090121ABS	369.2

	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	196.1		
	CFTM-DT	D11	DT	LIC	MONTRAL, QC	BLANKCANADA272	107.5		

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
7720.1	103,304	5866.6	72,923	5599.6	67,926	5595.6	67,926	0.07	0.00	(in
U.S.)										
16152.3	889,618	15741.2	850,615	15597.2	823,180	15577.3	823,180	0.13	0.00	

Undesired			Total IX		Unique IX, before		Unique IX, after		
WCBT D10 DT BL	39.8		53	31.9	53			(in U.S.)	
WCBT D10 DT APP	55.7		166			35.9	53	(in U.S.)	
WCBT D10 DT BL	19.9		443	15.9	443				
WCBT D10 DT APP	47.8		443			35.9	443		
WMBT-TV D10 DT LIC	4.0		0	0.0	0	0.0	0		
WVER D10 DD CP	235.1		4,944	227.2	4,944	215.3	4,831	(in U.S.)	
WVER D10 DD CP	24.0		715	4.0	0	0.0	0		
CFTM-DT D11 DT LIC	120.1		26,992	104.1	26,277	104.1	26,277		

Interference to proposal scenario 1

**MX: 2.00% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCBT	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	

Undesireds:	WMBT-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	95.8 km
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLCDDT20090616ABF	182.0
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	252.6
	WMED-TV	D10	DT	LIC	CALAIS, ME	BLEDT20030307AAM	233.8
	WMBT-TV	D10	DT	LIC	PRESQUE ISLE, ME	BLEDT20090121ABS	317.0
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	254.0
	WENH-TV	D11	DT	APP	DURHAM, NH	BLANK0000035771	145.3
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	218.2

	Service area		Terrain-limited		IX-free		Percent IX
34196.8	986,451	31299.6	931,145	30467.1	912,527	2.66	2.00

Undesired			Total IX		Unique IX		Prcnt Unique IX
WMBT-TV D9 DT LIC	649.2		13,531	533.5	9,938	1.70	1.07
WWDP D10 DT LIC	55.6		2,504	27.9	914	0.09	0.10
WMED-TV D10 DT LIC	131.7		2,805	40.0	140	0.13	0.02
WMBT-TV D10 DT LIC	88.0		1,627	24.1	224	0.08	0.02
WVER D10 DD CP	8.0		71	4.0	47	0.01	0.01

WENH-TV D11 DT APP	55.5	3,416	31.7	1,850	0.10	0.20
CKMI-DT-2 D10 DT LIC	27.9	322	27.9	322	0.09	0.03

Interference to proposal scenario 2
1.90% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCBB	D10	DT	APP	AUGUSTA, ME	BLANK0000035738	
Undesireds:	WMEB-TV	D9	DT	LIC	ORONO, ME	BLEDT20020508AAS	95.8 km
	WMUR-TV	D9	DT	LIC	MANCHESTER, NH	BLC DT20090616ABF	182.0
	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580	252.6
	WMED-TV	D10	DT	LIC	CALAIS, ME	BLEDT20030307AAM	233.8
	WMEM-TV	D10	DT	LIC	PRESQUE ISLE, ME	BLEDT20090121ABS	317.0
	WVER	D10	DD	CP	RUTLAND, VT	BLANK0000034603	254.0
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	145.3
	CKMI-DT-2	D10	DT	LIC	SHERBROOKE, QC	BLANKCANADA310	218.2

Service area	Terrain-limited	IX-free	Percent IX
34196.8	986,451	913,496	2.63 1.90

Undesired	Total IX	Unique IX	Prcnt Unique IX
WMEB-TV D9 DT LIC	649.2 13,531	533.5 9,938	1.70 1.07
WWDP D10 DT LIC	55.6 2,504	31.8 1,305	0.10 0.14
WMED-TV D10 DT LIC	131.7 2,805	40.0 140	0.13 0.02
WMEM-TV D10 DT LIC	88.0 1,627	24.1 224	0.08 0.02
WVER D10 DD CP	8.0 71	4.0 47	0.01 0.01
WENH-TV D11 DT LIC	43.6 2,056	23.8 881	0.08 0.09
CKMI-DT-2 D10 DT LIC	27.9 322	27.9 322	0.09 0.03

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

Proposal Number	DCA-9931	
Date	3-May-02	
Call Letters	WCBB	Channel 10
Location	Augusta, ME	
Customer	Maine Public Broadcasting	
Antenna Type	TW-12B10-R	

SYSTEM SUMMARY

Antenna:

Type: **TW-12B10-R**
Channel: **10**
Location: **Augusta, ME**

Transmission Line:

Type:	EIA/DCA	Attenuation:	0.80 dB
Size:	3-1/8 in	Efficiency:	83.2%
Impedance:	50 ohm		
Length:	580 ft		176.8 m

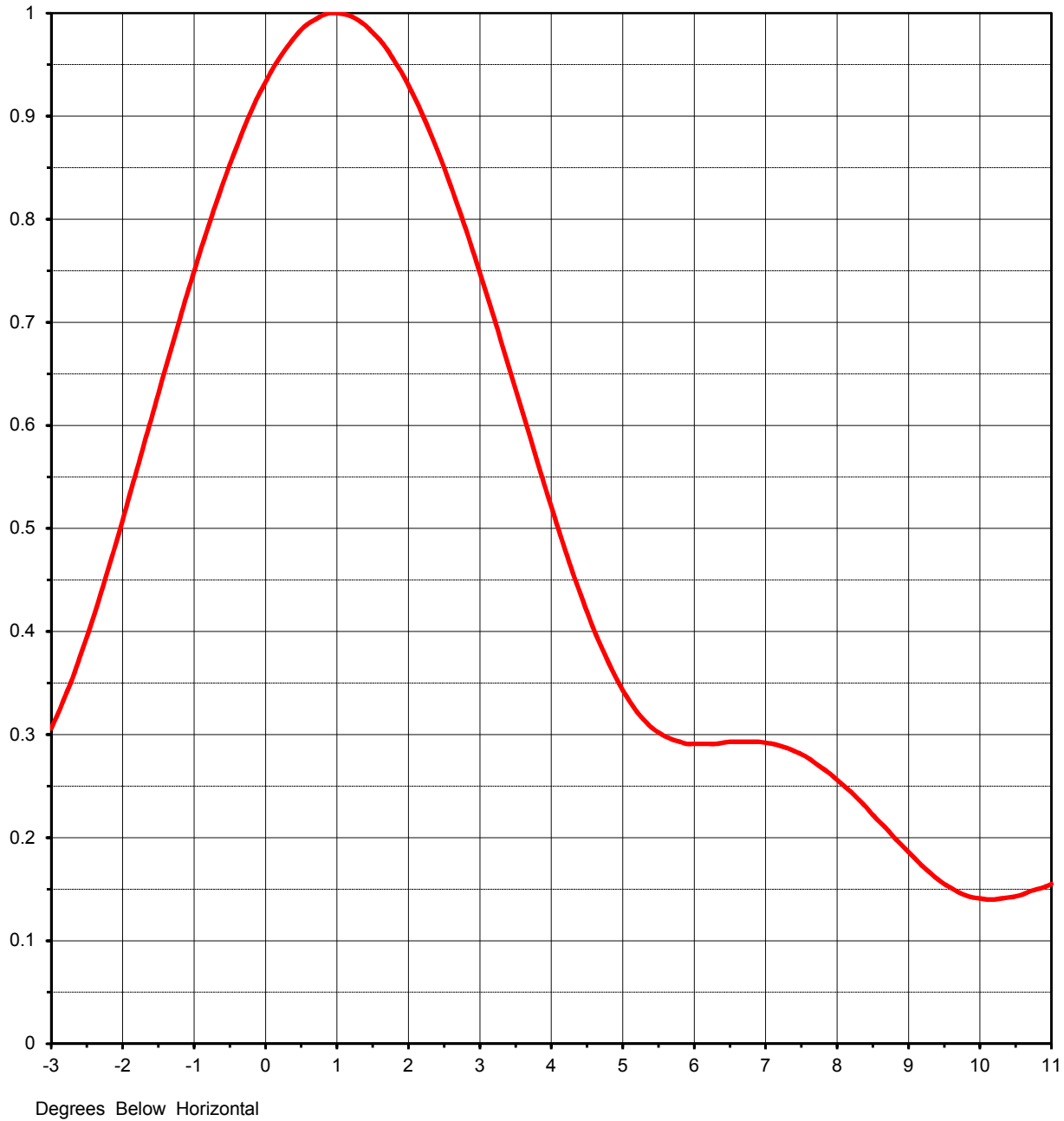
Transmitter:

* Gain is with respect to half wave dipole.

Proposal Number	DCA-9931	
Date	3-May-02	
Call Letters	WCBB	Channel 10
Location	Augusta, ME	
Customer	Maine Public Broadcasting	
Antenna Type	TW-12B10-R	

ELEVATION PATTERN

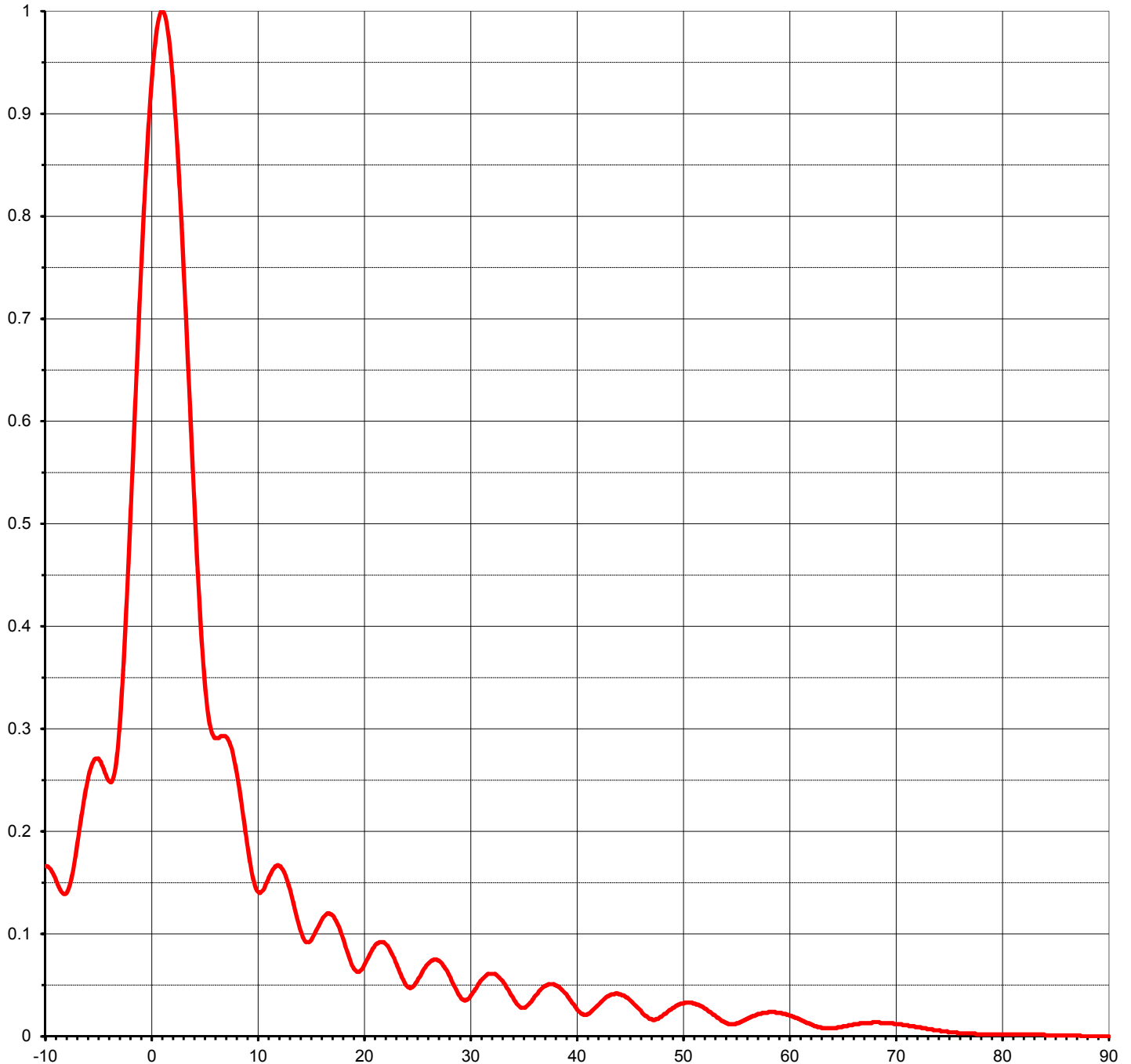
RMS Gain at Main Lobe	12.00 (10.79 dB)	Beam Tilt	1.00 deg
RMS Gain at Horizontal	10.40 (10.17 dB)	Frequency	195.00 MHz
Calculated / Measured	Calculated	Drawing #	25W120100



Proposal Number	DCA-9931	
Date	3-May-02	
Call Letters	WCBB	Channel 10
Location	Augusta, ME	
Customer	Maine Public Broadcasting	
Antenna Type	TW-12B10-R	

ELEVATION PATTERN

RMS Gain at Main Lobe	12.00 (10.79 dB)	Beam Tilt	1.00 deg
RMS Gain at Horizontal	10.40 (10.17 dB)	Frequency	195.00 MHz
Calculated / Measured	Calculated	Drawing #	25W120100-90



Degrees Below Horizontal

Proposal Number **DCA-9931**

Date **3-May-02**

Call Letters **WCBB** Channel **10**

Location **Augusta, ME**

Customer **Maine Public Broadcasting**

Antenna Type **TW-12B10-R**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **25W120100-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.166	2.4	0.868	10.6	0.143	30.5	0.046	51.0	0.032	71.5	0.010
-9.5	0.163	2.6	0.831	10.8	0.148	31.0	0.054	51.5	0.031	72.0	0.009
-9.0	0.152	2.8	0.791	11.0	0.152	31.5	0.059	52.0	0.028	72.5	0.008
-8.5	0.141	3.0	0.748	11.5	0.163	32.0	0.061	52.5	0.024	73.0	0.007
-8.0	0.140	3.2	0.704	12.0	0.167	32.5	0.060	53.0	0.021	73.5	0.006
-7.5	0.157	3.4	0.658	12.5	0.161	33.0	0.055	53.5	0.017	74.0	0.006
-7.0	0.188	3.6	0.612	13.0	0.146	33.5	0.047	54.0	0.014	74.5	0.005
-6.5	0.222	3.8	0.566	13.5	0.126	34.0	0.039	54.5	0.012	75.0	0.004
-6.0	0.251	4.0	0.521	14.0	0.106	34.5	0.031	55.0	0.012	75.5	0.004
-5.5	0.268	4.2	0.478	14.5	0.093	35.0	0.028	55.5	0.014	76.0	0.003
-5.0	0.271	4.4	0.438	15.0	0.093	35.5	0.031	56.0	0.017	76.5	0.003
-4.5	0.260	4.6	0.401	15.5	0.102	36.0	0.037	56.5	0.019	77.0	0.003
-4.0	0.249	4.8	0.370	16.0	0.112	36.5	0.044	57.0	0.021	77.5	0.002
-3.5	0.257	5.0	0.343	16.5	0.119	37.0	0.049	57.5	0.023	78.0	0.002
-3.0	0.306	5.2	0.322	17.0	0.119	37.5	0.051	58.0	0.023	78.5	0.002
-2.8	0.338	5.4	0.307	17.5	0.111	38.0	0.050	58.5	0.024	79.0	0.002
-2.6	0.375	5.6	0.298	18.0	0.098	38.5	0.047	59.0	0.023	79.5	0.002
-2.4	0.416	5.8	0.293	18.5	0.082	39.0	0.042	59.5	0.022	80.0	0.002
-2.2	0.461	6.0	0.291	19.0	0.068	39.5	0.035	60.0	0.021	80.5	0.002
-2.0	0.508	6.2	0.291	19.5	0.063	40.0	0.028	60.5	0.019	81.0	0.002
-1.8	0.557	6.4	0.292	20.0	0.068	40.5	0.022	61.0	0.017	81.5	0.002
-1.6	0.606	6.6	0.293	20.5	0.078	41.0	0.021	61.5	0.014	82.0	0.002
-1.4	0.655	6.8	0.293	21.0	0.087	41.5	0.025	62.0	0.012	82.5	0.002
-1.2	0.703	7.0	0.292	21.5	0.092	42.0	0.030	62.5	0.010	83.0	0.002
-1.0	0.749	7.2	0.289	22.0	0.091	42.5	0.035	63.0	0.009	83.5	0.002
-0.8	0.793	7.4	0.284	22.5	0.084	43.0	0.039	63.5	0.008	84.0	0.001
-0.6	0.834	7.6	0.277	23.0	0.073	43.5	0.041	64.0	0.008	84.5	0.001
-0.4	0.871	7.8	0.267	23.5	0.061	44.0	0.041	64.5	0.009	85.0	0.001
-0.2	0.905	8.0	0.256	24.0	0.050	44.5	0.040	65.0	0.010	85.5	0.001
0.0	0.933	8.2	0.244	24.5	0.048	45.0	0.036	65.5	0.011	86.0	0.001
0.2	0.957	8.4	0.230	25.0	0.053	45.5	0.031	66.0	0.012	86.5	0.001
0.4	0.976	8.6	0.215	25.5	0.062	46.0	0.026	66.5	0.012	87.0	0.001
0.6	0.990	8.8	0.200	26.0	0.070	46.5	0.020	67.0	0.013	87.5	0.000
0.8	0.998	9.0	0.186	26.5	0.074	47.0	0.017	67.5	0.013	88.0	0.000
1.0	1.000	9.2	0.172	27.0	0.074	47.5	0.017	68.0	0.014	88.5	0.000
1.2	0.997	9.4	0.160	27.5	0.069	48.0	0.019	68.5	0.013	89.0	0.000
1.4	0.988	9.6	0.151	28.0	0.061	48.5	0.023	69.0	0.013	89.5	0.000
1.6	0.974	9.8	0.147	28.5	0.050	49.0	0.027	69.5	0.013	90.0	0.000
1.8	0.954	10.0	0.142	29.0	0.040	49.5	0.030	70.0	0.012		
2.0	0.930	10.2	0.140	29.5	0.035	50.0	0.032	70.5	0.012		
2.2	0.901	10.4	0.141	30.0	0.038	50.5	0.033	71.0	0.011		

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-3

PORTLAND-AUBURN DMA

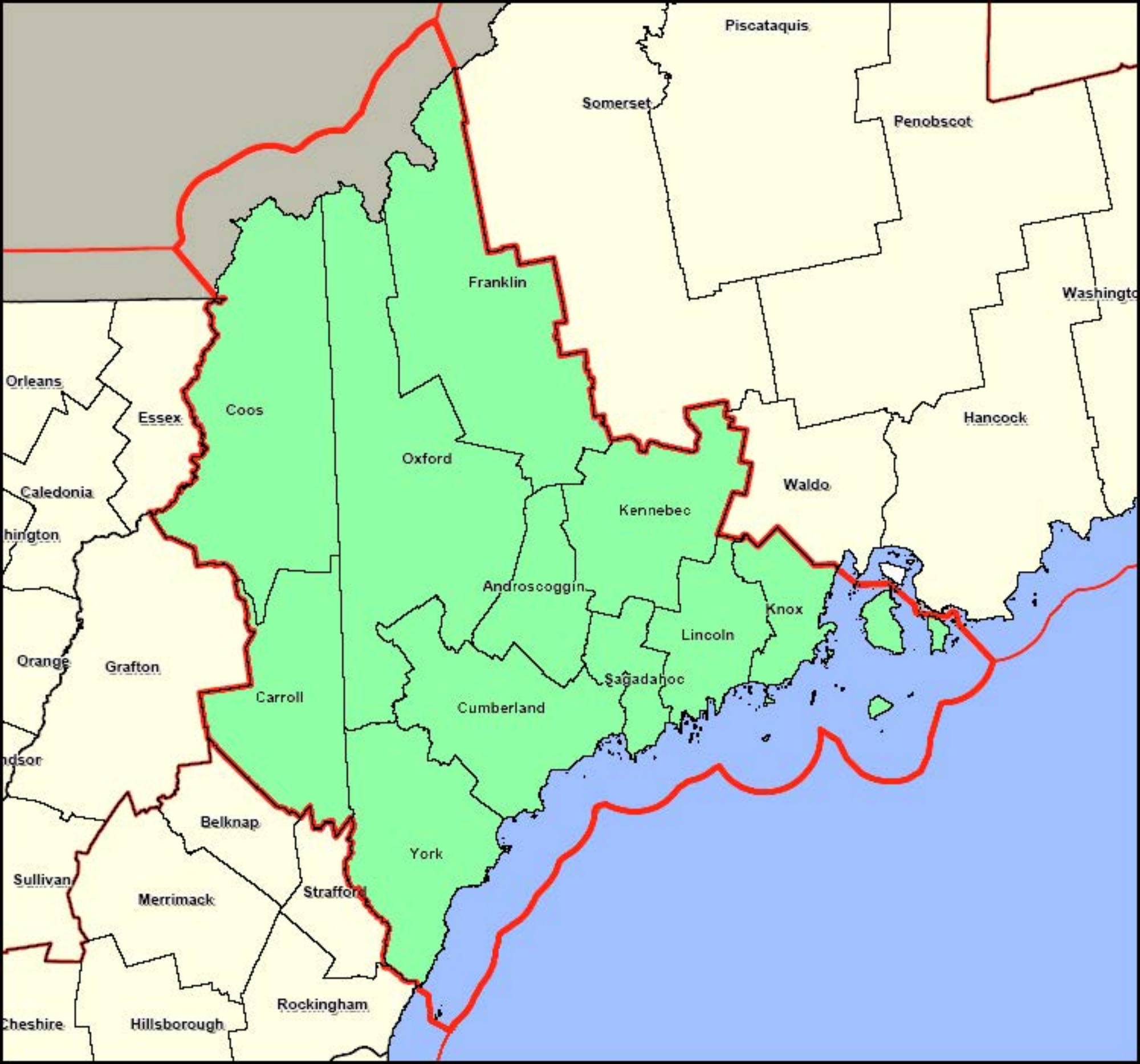
FEBRUARY 2020

From: Jeff Mahaney <JMahaney@mainepublic.org>
Sent: Wednesday, November 13, 2019 9:19 AM
To: Donald G. Everist <cdepc@comcast.net>
Subject: RE: Coverage Map

WCBB is actually in the Portland DMA. See attached DMA map. The transmitter and city of license are both in Kennebec County.

Jeffrey F. Mahaney
Chief Technology Officer
jmahaney@mainepublic.org
63 Texas Ave, Bangor, ME 04401
D 207-404-5118 | C 207-745-9750





Piscataquis

Somerset

Penobscot

Washington

Hancock

Waldo

Kennebec

Androscoggin

Knox

Lincoln

Sagadahoc

Cumberland

Carroll

York

Strafford

Rockingham

Hillsborough

Merrimack

Belknap

Grafton

Orange

Windsor

Caledonia

Orleans

Essex

Coos

Franklin

Oxford

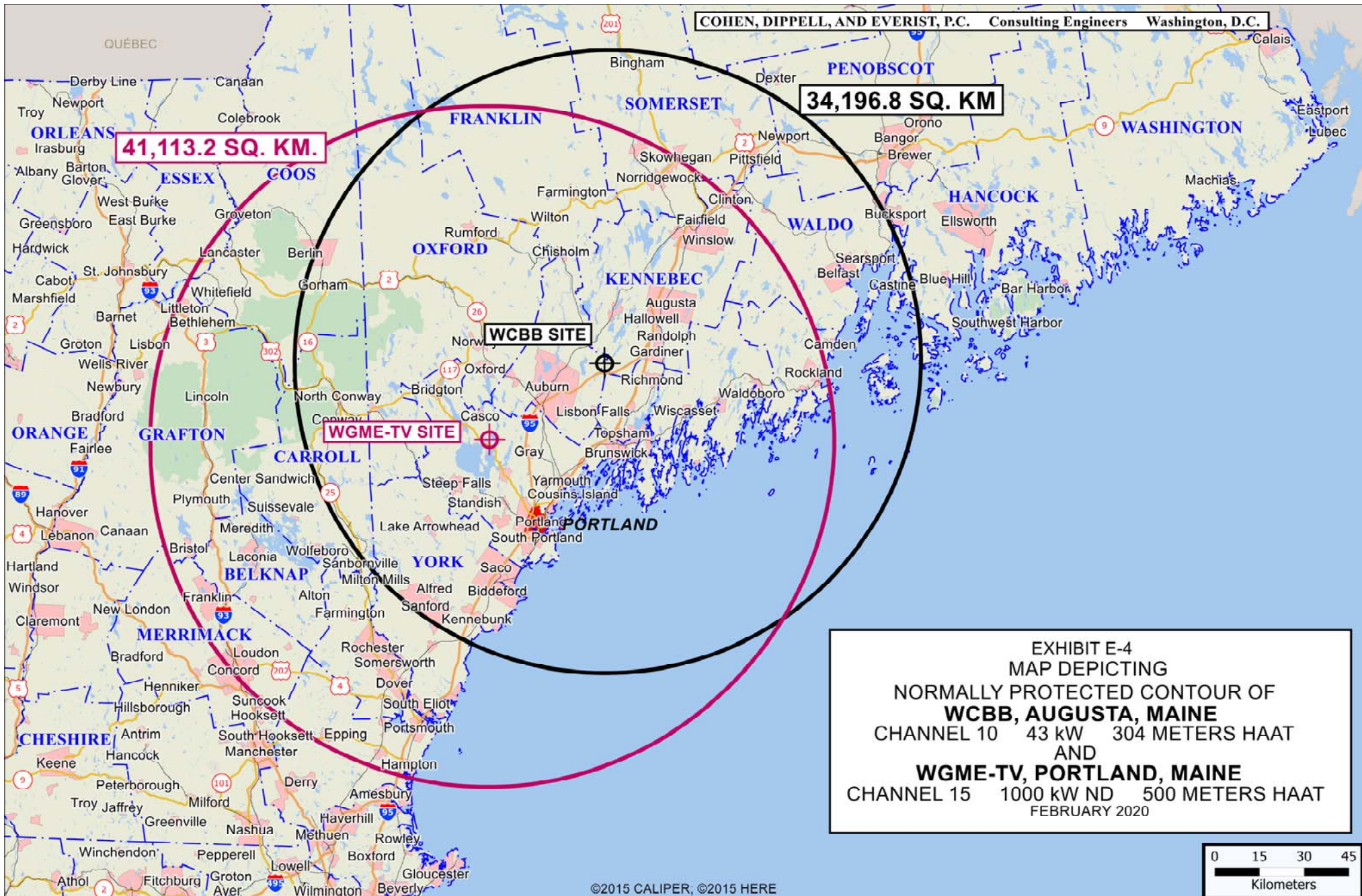


TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WCBB-DT, AUGUSTA, MAINE
CHANNEL 10 43 KW ND ERP 304 METERS HAAT
FEBRUARY 2020

<u>Radial</u> <u>Bearing</u> (N ° E, T)	<u>Average</u> <u>Elevation</u>	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>Effective</u> <u>Radiated</u> <u>Power</u> kW	<u>Distance to Contour</u>	
	<u>3.2 to 16.1 km</u> meters				<u>43 dBu</u> km	<u>36 dBu</u> km
0	72.9	313.8	0.491	43	92.1	105.0
10	70.8	315.9	0.492	43	92.3	105.2
20	68.6	318.1	0.494	43	92.5	105.4
30	66.5	320.2	0.496	43	92.6	105.6
40	64.3	322.4	0.497	43	92.8	105.7
50	63.8	322.9	0.498	43	92.8	105.8
60	65.0	321.7	0.497	43	92.7	105.7
70	66.2	320.5	0.496	43	92.6	105.6
80	67.4	319.3	0.495	43	92.5	105.5
90	68.6	318.1	0.494	43	92.5	105.4
100	71.0	315.7	0.492	43	92.3	105.2
110	73.4	313.3	0.490	43	92.1	105.0
120	75.8	310.9	0.488	43	91.9	104.8
130	78.2	308.5	0.487	43	91.8	104.6
140	80.8	305.9	0.484	43	91.6	104.4
150	83.6	303.1	0.482	43	91.4	104.2
160	86.4	300.3	0.480	43	91.3	104.0
170	89.2	297.5	0.478	43	91.1	103.8
180	92.0	294.7	0.476	43	90.9	103.7
190	90.0	296.7	0.477	43	91.1	103.8
200	87.9	298.8	0.479	43	91.2	103.9
210	85.9	300.8	0.480	43	91.3	104.1
220	83.9	302.8	0.482	43	91.4	104.2
230	84.8	301.9	0.481	43	91.4	104.1
240	88.6	298.1	0.478	43	91.1	103.9
250	92.5	294.2	0.475	43	90.9	103.6
260	96.3	290.4	0.472	43	90.7	103.4
270	100.2	286.5	0.469	43	90.6	103.2

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WCBB-DT, AUGUSTA, MAINE
CHANNEL 10 43 KW ND ERP 304 METERS HAAT
FEBRUARY 2020

<u>Radial</u> <u>Bearing</u> (N ° E, T)	<u>Average</u> <u>Elevation</u> <u>3.2 to 16.1 km</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>Effective</u> <u>Radiated</u> <u>Power</u> kW	<u>Distance to Contour</u>	
					<u>43 dBu</u> km	<u>36 dBu</u> km
280	101.4	285.3	0.468	43	90.5	103.2
290	102.7	284.0	0.467	43	90.5	103.1
300	103.9	282.8	0.466	43	90.4	103.1
310	105.2	281.5	0.465	43	90.4	103.0
320	102.1	284.6	0.467	43	90.5	103.2
330	94.8	291.9	0.473	43	90.8	103.5
340	87.5	299.2	0.479	43	91.2	103.9
350	80.2	306.5	0.485	43	91.6	104.5

