

TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
FCC FILE NO. BMPCDT-20040512AAF
FACILITY ID 53065
STATION WPXT-DT
PORTLAND, MAINE
CH 43 137.4 KW 254 M

Technical Narrative

This technical exhibit was prepared in support of an application for modification of the construction permit for station WPXT-DT on channel 43 at Portland, Maine (BMPCDT-20040512AAF). By means of this instant modification application, WPXT-DT proposes to change transmitter site location, decrease the nondirectional antenna maximum effective radiated power (ERP) from 750 kW to 137.4 kW and reduce the antenna radiation center height above average terrain (HAAT) by 11 meters, from 265 meters to 254 meters. No other changes are proposed. The instant application is considered a minor change in facilities pursuant to Section 73.3572(a). Furthermore, as detailed below, the instant application is also acceptable for filing under the criteria set forth in the FCC TV/DTV freeze as there will be no increase in WPXT-DT's authorized DTV service area in any direction.¹

Proposed Facilities

It is proposed to operate WPXT-DT from the an existing tower (FCC Tower registration 1022678) located adjacent to the authorized WPXT-DT site (NAD27 coordinates: 43-51-06 N, 70-19-40 W) on DTV channel 43 (644-650 MHz) with a nondirectional antenna maximum ERP of 137.4 kW and an antenna HAAT of 254 meters.² No other changes are proposed. It is proposed to utilize a Dielectric model TLP-16B-R nondirectional antenna which will be mounted at the 189 meter level on the existing tower structure and will incorporate an electrical beam tilt of 1.0 degrees. The proposed antenna

¹ See FCC Public Notice dated August 3, 2004 entitled "Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes" (DA 04-2446).

² It is noted due to the close proximity of the proposed (ASR 1022678) and authorized (ASR 1022679) site locations there will be no change in the geographic coordinates of the WPXTD-DT transmitter site location.

radiation center height above mean sea level will be 331 meters.

Antenna Data

Figure 1 provides a graph of the vertical plane relative field pattern for the proposed Dielectric model TLP-16B-R, horizontally polarized, nondirectional antenna system.

Response to Paragraph 11 - Interference Protection

Figure 2 is the separation study for DTV channel 43 from the proposed WPXT-DT site. The study has been used to determine the assignments requiring interference studies using the procedures outlined in the FCC's OET-69 bulletin. An interference analysis has been conducted using the procedures outlined in the FCC's OET-69 bulletin which demonstrates that the proposal complies with the interference protection provisions of Section 73.623(c)(2).³

Class A Allocation Considerations

A study has been conducted which indicates that the WPXT-DT proposal will not create prohibited interference to other existing, authorized or proposed Class A stations.

US-Canadian LOU Compliance

The proposed WPXT-DT transmitter site is located within the US-Canadian border area. However, as the proposal does not involve a change in transmitter site coordinates or an extension of authorized coverage, it is not believed that Canadian coordination is necessary.

³ The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.

Compliance with TV Freeze Order

Figure 3 is a map which depicts the location of the predicted 41 dBu, F(50,90) contours for the authorized WPXT-DT operation (BMPCDT-20040512AAF) and the herein proposed WPXT-DT DTV channel 43 operation. As indicated, the 41 dBu contour for the instant modification application is entirely within the 41 dBu contour for the authorized operation. Therefore, it is believed that the instant modification application is acceptable for filing under the criteria set forth in the FCC TV/DTV freeze as there will be no increase in WPXT-DT's DTV channel 43 service area, based on the authorized facilities, in any direction.

City Coverage

Figure 3 also depicts the predicted 48 dBu, F(50,90) coverage contour for the herein proposed WPXT-DT channel 43 operation. As indicated, Portland is located within the 48 dBu contour. The Portland city limits were derived from information contained in the 2000 U.S. Census for Maine.

The distances to the predicted 41 dBu and 48 dBu, F(50,90) coverage contours were determined in accordance with the provisions of Section 73.625. The average elevations from 3.2 to 16.1 kilometers from the transmitter site, were obtained from the NGDC 30-second terrain database and were used for determining the distances to coverage contours.

Objectionable Interference

There are no AM stations located within 10 kilometers (6.2 miles) of the proposed transmitter site. Figure 4 provides a tabulation of all known authorized full service FM and TV stations within 16 kilometers of the proposed WPXT-DT site. Although no adverse electromagnetic impact is expected, the applicant recognizes its responsibility to correct problems, which are a result of its proposed operation.

The proposed site is more than 2915 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Belfast, ME located 119 kilometers to

the northeast. The National Radio Quiet Zone (VA/WV) is 850 kilometers to the southwest. The Table Mountain Radio Quiet Zone (CO) is more than 2890 kilometers to the west. The closest radio astronomy site conducting research on TV channel 37 is at Hancock, NH located 168 kilometers to the southwest. All these separations are considered sufficient to avoid interference from the proposed operation.

Environmental Protection Act

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 189 meters above ground level. The maximum DTV ERP is 137.4 kW (horizontal polarization). A "worst-case" vertical plane relative field value of 0.2 (for angles below 60 degrees downward) is assumed for the antenna's downward radiation (see Figure 1). The calculated power density at a point 2 meters above ground level is 0.0053 mW/cm². This is 1.23% of the FCC's recommended limit of 0.43 mW/cm² for channel 43 for an "uncontrolled" environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

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

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already has been

provided to the FCC by the tower owner as part of the tower registration process.



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June 1, 2006



Date

31 May 2006

Call Letters

WPXT-DT

Channel

43

Location

Portland, ME

Customer

Antenna Type

TLP-16B

ELEVATION PATTERN

RMS Gain at Main Lobe

16.0 (12.04 dB)

Beam Tilt

1.00 Degrees

RMS Gain at Horizontal

11.3 (10.53 dB)

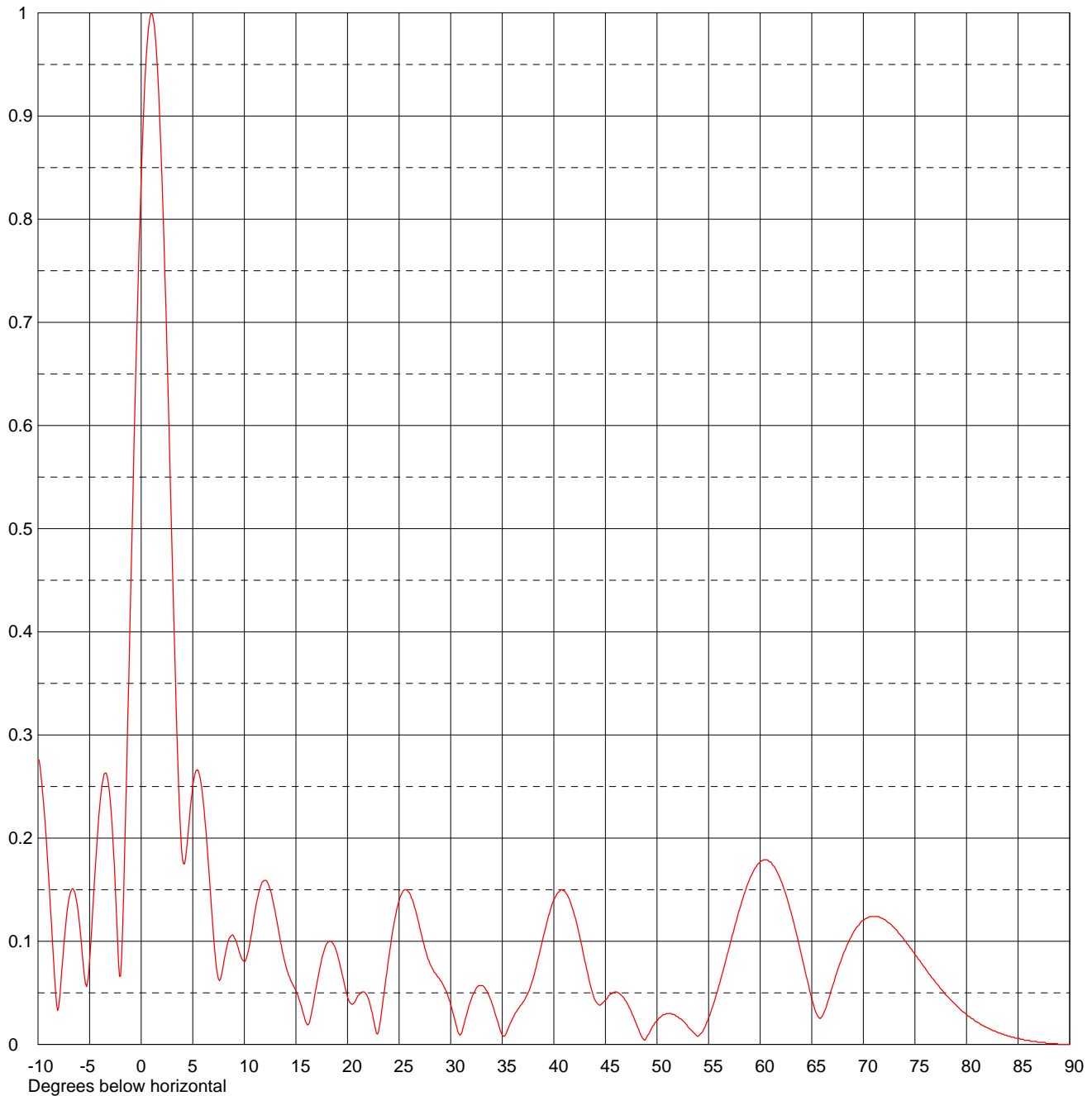
Frequency

647.00 MHz

Calculated / Measured

Calculated

Drawing #

16L160100-90

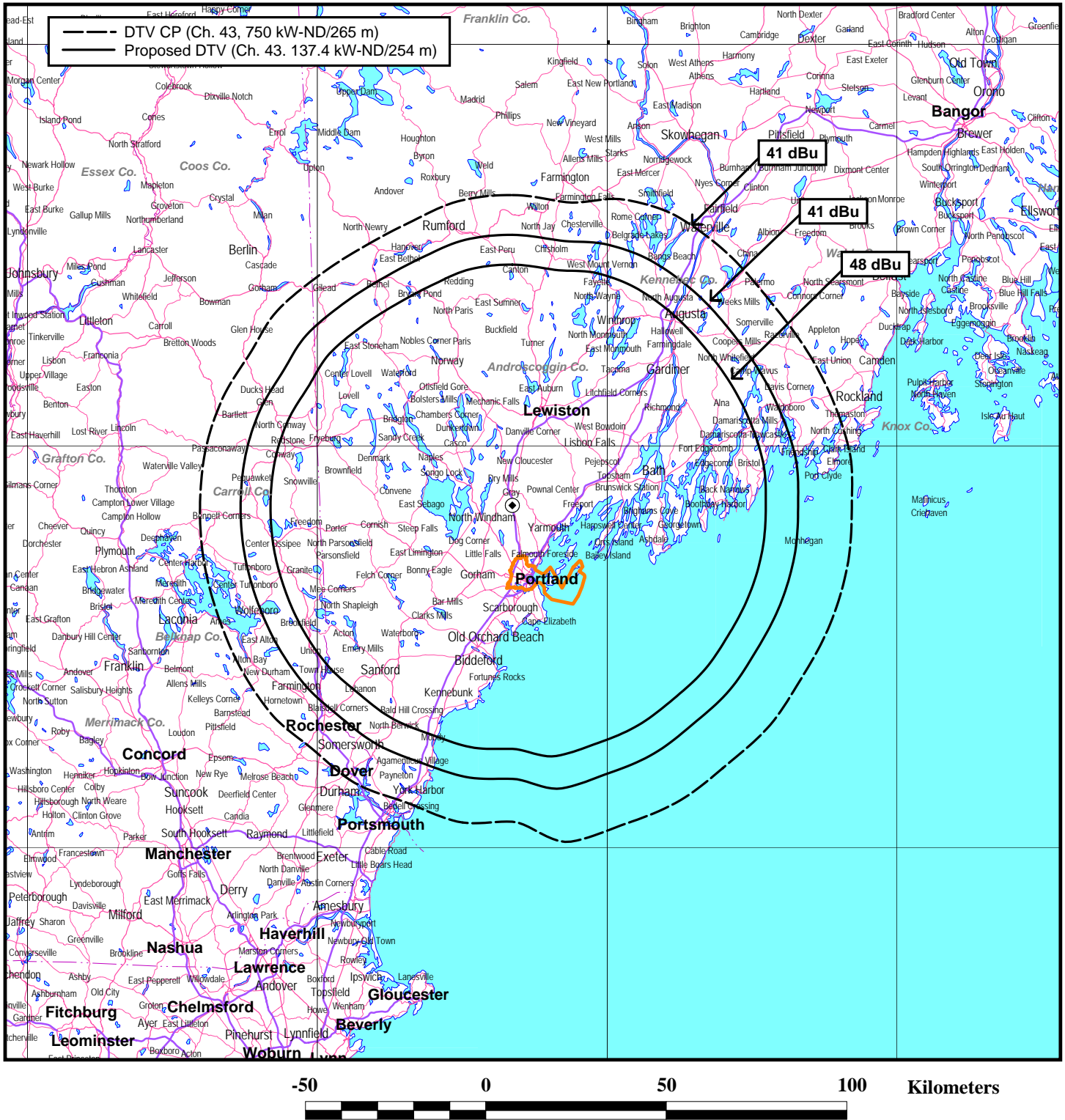
Remarks:

CDBS TV/DTV SEPARATION STUDY

Job Title: Proposed WPXT-DT, Ch. 43, Portland, ME Separation Buffer: 50 km
Channel: 43 Coordinates: 43-51-06 070-19-40
Class: VU Zone: I
Type: DT

Call Id	City St	Status	File Num	Channel Zone	ERP HAAT	DA Id	Latitude Longitude	Bear	Dist. (km)	Req. min	max
WPME 48408	LEWISTON ME	LIC C	BLCT 19970813KG	35(-) I	1100.000 278	N 30292	43-51-06 070-19-39	90.0	0.0 24.08	24.1 Clear	80.5
	AYER'S CLIF QU			42() I	0.000 0		45-11-57 072-02-24	A 318.4	202.4 10.36	192.0 Close	192.0
WPXT 53065	PORTLAND ME	CP C	BMPCD 20040512AA	43() I	750.000 265	N 66532	43-51-06 070-19-40	90.0	0.0		
WPXT 123165	PORTLAND ME	GRA C	BPRM 20000413AA	43() I	750.000 265	N	43-51-06 070-19-40	90.0	0.0		
WGBX-TV 72098	BOSTON MA	LIC C	BLEDT 20021219AA	43() I	500.000 391	N 33022	42-18-37 071-14-14	203.6	186.6 9.73	196.3 Short	196.3
DWGBXT MA	BOSTON DTV			43() I	50.000 329	D	42-18-37 071-14-14	203.6	186.6 9.73	196.3 Short	196.3
DWFFFT VT	BURLINGTON DTV			43() II	50.000 840	D	44-31-32 072-48-54	291.6	212.5 16.19	196.3 Clear	196.3
WFFF-TV 10132	BURLINGTON VT	CP C	BPCDT 19991029AB	43() II	47.000 839	D 71757	44-31-33 072-48-57	291.6	212.6 16.27	196.3 Clear	196.3
NEW-DT 163779	QUEBEC QU	APP C	BPFS 20041028AA	43(Z) II	75.000 300	N	46-49-00 071-13-00	348.4	336.8 3.19	340.0 Short	340.0
	QUEBEC(33) QU			43() I	0.000 0		46-49-00 071-13-00	C 348.4	336.8 3.19	340.0 Short	340.0
CJCH-T NS	YARMOUTH CAN			43() I	0.000 0		43-54-56 066-05-18	B 87.3	340.8 3.22	344.0 Short	344.0
CJCH-TV 163279	YARMOUTH NS	APP C	BPFS 20041014AE	43(Z) II	4.000 150	N	43-54-56 066-05-18	87.3	340.8 0.78	340.0 Close	340.0
DWCSH ME	PORTLAND DTV			44() II	1000.000 610	D	43-51-32 070-42-40	271.6	30.8 6.83	24.0 Short	110.0
WCSH 39664	PORTLAND ME	LIC C	BLCDT 20050705AA	44() II	1000.000 587.9	D 43473	43-51-30 070-42-41	271.5	30.9 6.85	24.0 Short	110.0
WPXT 53065	PORTLAND ME	LIC C	BLCT 19860925KG	51(Z) I	3020.000 280	D 24008	43-51-06 070-19-40	90.0	0.0 24.10	24.1 Clear	80.5

Figure 3



PREDICTED FCC CONTOURS

DTV STATION WPXT-DT
 PORTLAND, MAINE
 CH 43 137.4 KW 254 M

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

du Treil, Lundin, and Rackley**Proposed WPXT-DT, Ch. 43, Portland, ME****Coordinates: 43-51-06****070-19-40****Frequency Range: 200-300****Range: 16 km**

Date: 6/1/2006

CDBS FM Inquiry List

Page: 1

Rec Type	Fac Id	Call	Status	Chan	Svc Class	Class	City	St	DA	Latitude	Longitude	ERP (kW)	HAAT (m)	RCAMSL (m)	Bear	Dist. (km)
C	3134	WJBQ	LIC	250	FM	B	PORTLAND	ME		43-51-06	070-19-40	16.000	271.0	351.0	0.0	0.0
C	59534	WHXR	LIC	294	FM	A	NORTH	ME	D	43-51-06	070-19-40	0.810	190.0	268.0	0.0	0.0
C	17483	WMSJ	LIC	207	FM	B1	FREEPORT	ME	N	43-45-45	070-19-30	7.500			178.7	9.9
C	49982	WPOR	LIC	270	FM	B	PORTLAND	ME	N	43-45-45	070-19-30	33.000	184.0	236.0	178.7	9.9
C	24949	WTHH	LIC	260	FM	B	AUBURN	ME	N	43-57-07	070-17-46	28.500	196.0	288.0	12.8	11.4
C	68282	WSJB-F	LIC	218	FM	A	STANDISH	ME		43-49-32	070-29-03	0.360	26.0	129.0	257.0	12.9
C	22878	WBLM	LIC	275	FM	C	PORTLAND	ME	N	43-55-29	070-29-29	100.000	435.0	551.0	301.8	15.5

du Treil, Lundin, and Rackley**Proposed WPXT-DT, Ch. 43, Portland, ME****Coordinates: 43-51-06****070-19-40****Channel Range: -****Range: 16**

Date: 6/1/2006

CDBS Tv Inquiry List

Page: 1

Rec Type	Facility Id	Call	Status	Chan	Svc Class	Class	City	St	DA	Latitude	Longitude	ERP (kW)	HAAT (m)	RCAMSL (m)	Bearing	Dist. (km)
C	48408	WPME	APP	28	DT		LEWISTON	ME	D	43-51-06	070-19-40	50.000	241	318	0	0
C	53065	WPXT	LIC	51	TV		PORTLAND	ME	D	43-51-06	070-19-40	3020.00	280	359	0	0
C	53065	WPXT	CP	43	DT		PORTLAND	ME	N	43-51-06	070-19-40	750.000	265	342	0	0
C	48408	WPME	LIC	35	TV		LEWISTON	ME	N	43-51-06	070-19-39	1100.00	278	345	89.99	0.02
C	25683	WGME-T	CP	38	DT		PORTLAND	ME	D	43-55-28	070-29-28	1000.00	491	607	301.7	15.42
C	25683	WGME-T	APP	38	DT		PORTLAND	ME	D	43-55-28	070-29-28	1000.00	465	581	301.7	15.42
C	25683	WGME-T	LIC	13	TV		PORTLAND	ME	N	43-55-29	070-29-29	295.000	462	606	301.8	15.45