

CITY OF LICENSE	Monticello, ME
CALL LETTERS	W252DW
FACILITY ID	201363
PREPARED FOR	Allan H Weiner
VERSION	1.0
JOB	118047
DATE	10/17/2018

# **CONSOLIDATED**

## **ENGINEERING EXHIBIT**

FCC Form 349 - Section III-a - Engineering

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

**ENGINEERING STATEMENT  
PROPOSED MINOR-MODIFICATION OF  
CONSTRUCTION PERMIT BNPFT-20171219AES  
W252DW, MONTICELLO, ME  
>change to Jampro Antenna<**

**SUMMARY**

Applicant Allan H Weiner hereby submits this 349 application to change to a Jampro JLCP-2 antenna, instead of the PSI antenna specified in the original Long Form application. The Long Form application resulted in the Construction Permit captioned above. No other changes of any kind, are proposed herein.

**§74.1201(g) COMPLIANCE**

Attached **Exhibit 10** shows that the entire proposed 60dBu translator contour is completely contained within a 25 mile radius centered at the AM transmitter site, and also within the WXME 2mv/m daytime contour.

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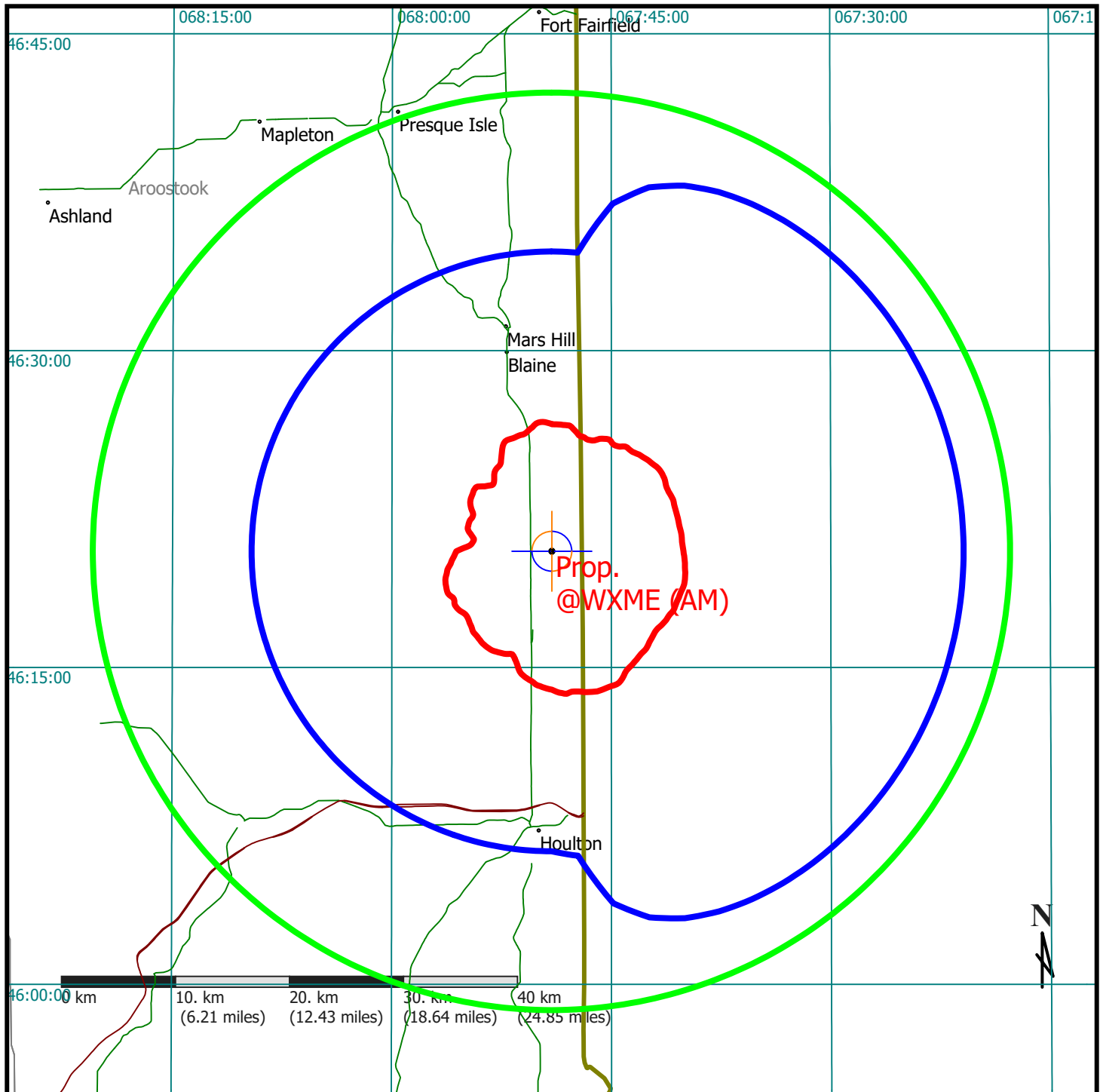
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**Exhibit 10**  
**Prop. W252DW modification**  
**vs. WXME (AM) & 25mi Radius**

Brown Broadcast Services, Inc.  
Master Database: 2018\_Oct\_17.fmd  
Lat: N46:20:30 Lon: W067:49:04 NAD-27  
Scale: 1:500000  
Channel: 252 Class: DX

rfInvestigator Version 3.8.16  
by rfSoftware, Inc.  
Date: 10/17/2018 6:14:01 PM

Red = Prop. Translator 60dBu  
Blue = WXME (AM) 2mv/m Daytime  
Green = 25mi/40km from WXME



# EXHIBIT 13

## OVERLAP REQUIREMENTS

### INTERFERENCE PROTECTION

W252DW Allan H Weiner										
REFERENCE		CH# 252D - 98.3 MHz, Pwr= 0.175 kW, HAAT= 0.0 M,				COR= 233 M		DISPLAY DATES		
46 20 30.0 N.		Average Protected F(50-50)= 6.5 km						DATA 09-28-18		
67 49 04.0 W.		Omni-directional						SEARCH 10-17-18		
CH	CALL	TYPE	ANT	AZI	DIST	LAT	Pwr(kW)	INT(km)	PRO(km)	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)
252D	W252DW!	CP	C	0.0	0.00	46 20 30.0	0.175		---	Reference---
Monticello			ME	0.0	BNPFT20171219AES	67 49 04.0		233	Allan H Weiner	
249C3	WCXU	LIC	NCN	351.3	50.49	46 47 26.0	20.000	3.2	31.1	18.3
Caribou			ME	171.2	BLH19951027KC	67 55 07.0	97	272	The Canxus Broadcasting Co	
251B	AL0494	VAC		161.7	133.50	45 12 00.0	50.000	73.0	65.0	42.7
St Stephen			NB	342.1		67 17 00.0	150	216		
Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM										
In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3 <sup>rd</sup> adjacent.										
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)										
Incoming contour overlap is ignored.										
Reference station has protected zone issue: AM tower										

This proposal meets all requirements of 47 CFR §74.1204 regarding interference protection to other stations, authorizations, and allotments. It clears the protected contours of all domestic and Canadian records by wide margins.

**Exhibit 13a** shows compliance with §74.1235(d)(3), and the latest revisions of the Working Agreement with Canada. Since the proposed 34dBu interfering contour extends into Canada, this contour is limited to 60km in all directions.

### PROTECTED ZONES REPORT

Protected zones report for W252DW.C on channel 252D 10-17-2018  
Lat. 46 20 30.0 Lng. 67 49 04.0, ERP= 0.175 kw, HAAT= 0 m

Distance to border = 2.9 km.  
The translator's 34 dBu F(50-10) contour likely touches Canada.  
Closest AM Facility is WXME, MONTICELLO, ME, L, ND2 at 0.0° at a distance of 0.0 km  
Facility is okay with respect to FCC monitoring stations.

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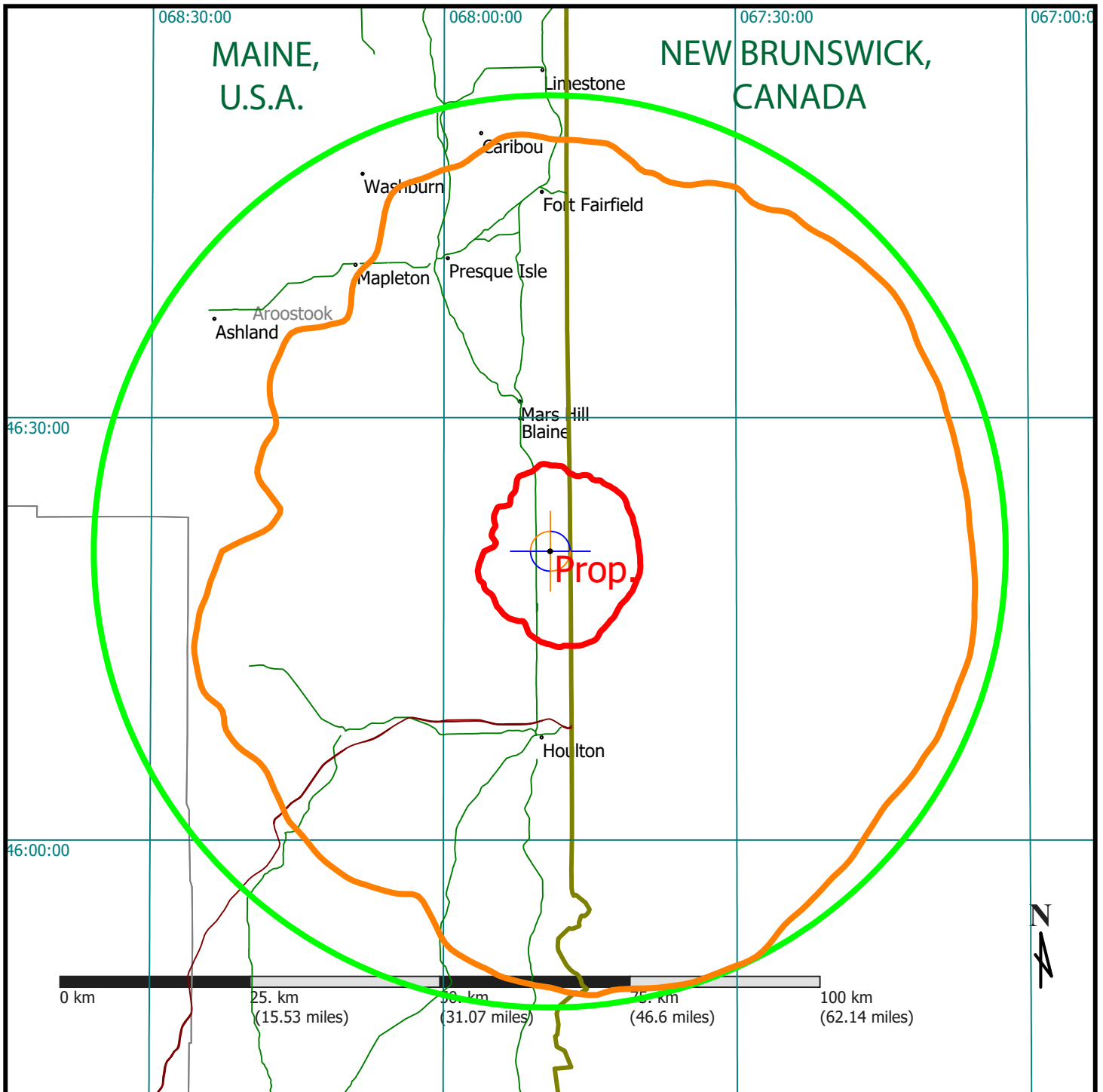
503-245-6065

**Exhibit 13a**  
**Prop. W252DW Modification**  
**§74.1235(d)(3) Compliance**

Brown Broadcast Services, Inc.  
Master Database: 2018\_Oct\_17.fmd  
Lat: N46:20:30 Lon: W067:49:04 NAD-27  
Scale: 1:750000  
Channel: 252 Class: DX

rfInvestigator Version 3.8.16  
by rfSoftware, Inc.

Red = Prop. Translator 60dBu F(50,50)  
Orange = Prop. Translator 34dBu F(50,10)  
Green = 60km radius from Translator Site



## **EXHIBIT 17**

### **ENVIRONMENTAL PROTECTION ACT / NIER ANALYSIS**

The applicant proposes mounting a new antenna on an existing 124m registered tower. The proposed center of radiation is 102m AGL, with 175 watts ERP.

A two-bay, Full wave-spaced Jampro JLCP-2 Double-V circularly polarized omnidirectional is proposed. Calculations were made using FM Model for Windows, using the appropriate "Type 2" setting. FM Model predicted a maximum RF exposure of  $0.22\mu\text{W}/\text{cm}^2$ , at 56.6 meters from the tower base. This represents 0.11% of the Maximum Permissible Exposure (MPE) of  $200\mu\text{W}/\text{cm}^2$  for uncontrolled environments. 47 CFR §1.1307(b)(3) exempts applicants from preparing an Environmental Assessment when the predicted exposure levels would be less than 5% of the FCC limits.

The applicant will ensure that public access to the tower is restricted by fencing, and that the site is posted with appropriate RF exposure warning signs. If tower climbing by authorized personnel becomes necessary, transmitter power will be reduced or operation will cease, as necessary, so as to not exceed the RF exposure limits.

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