

Technical Report K280GK.CP Minor Modification

This technical report is submitted for an amendment to the pending application for K280GK.CP, FCC file no. BMPFT-20160726ABB. A correction of the tower height and the antenna COR is submitted. The translator is to serve as a fill-in facility to rebroadcast KROE(AM) 930 kHz at Sheridan, WY, FCC facility I.D. no. 38626.

K280GK.CP Modification Analysis:

An overlap study in exhibit E-1 shows the K280GK.AP modification does not produce any interference overlaps. The 60 dBu F(50-50) contour overlaps the current 60 dBu and is contained within the primary KROE(AM) 2.0 mV/m daytime contour and 40 km radius (exhibit E-2).

Antenna System:

The K280GK.AP modification will be relocated to an existing 24 meter tower at coordinates:

44 37 24N 107 07 01W NAD 27.

A TOWAIR determination (exhibit E-3) shows the tower does not require registration. The translator is to be combined into an ERI Axiom four bay, half wavelength-spaced, nondirectional antenna mounted at a COR AGL of 21 meters, 2363 meters AMSL and operate at 0.250 kW ERP.

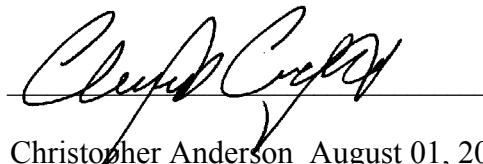
RF Exposure Calculation:

The RF contribution was calculated using FM Model (exhibit E-4). The RF is calculated to be $1.16 \mu\text{W}/\text{cm}^2$ at a distance of 74 meters from the base of the tower,

which is below 5% of the 200 $\mu\text{W}/\text{cm}^2$ maximum permissible for uncontrolled exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the K280GK.AP modification complies with all Commission rules and policies.

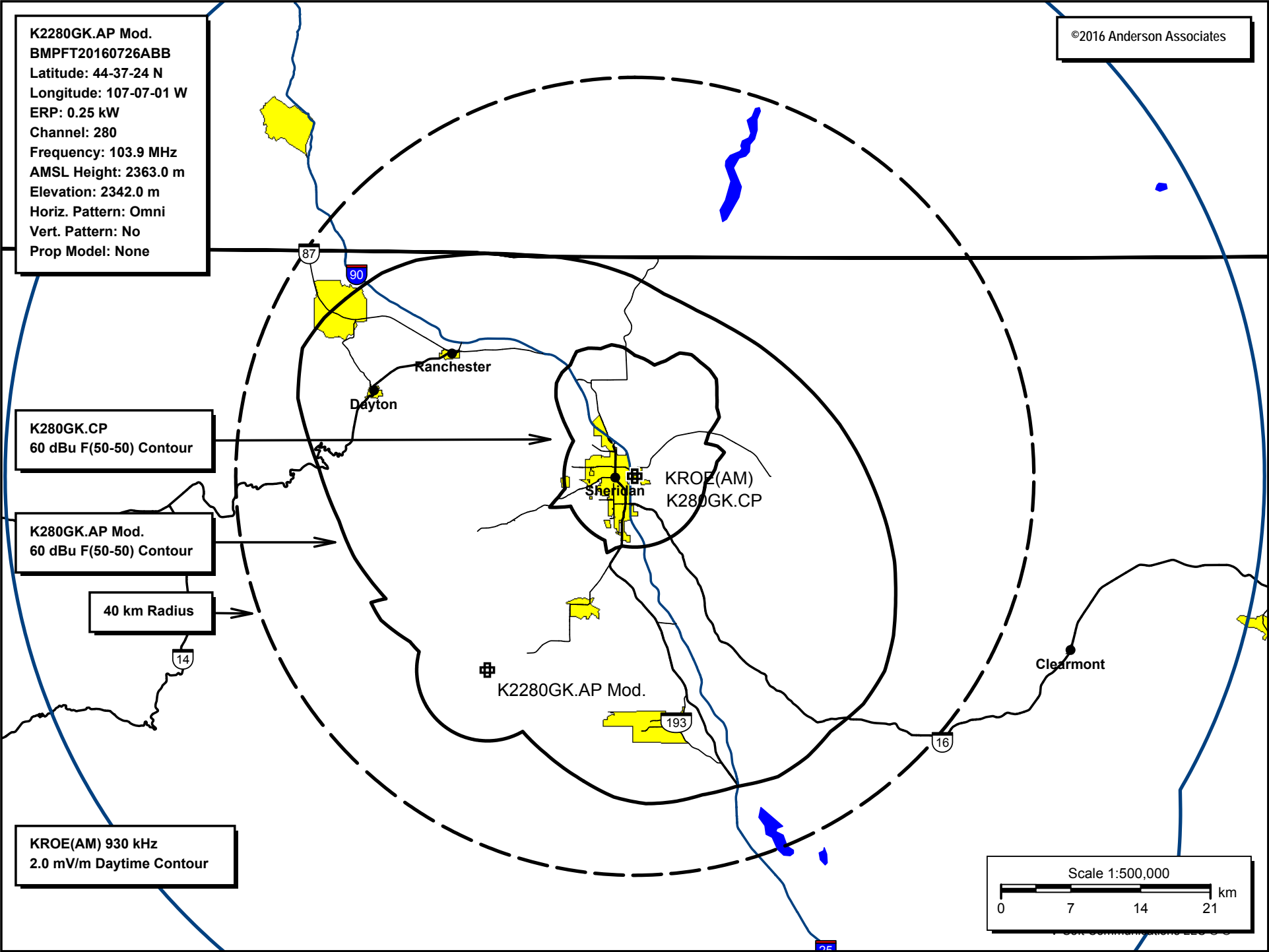
A handwritten signature in black ink, appearing to read 'Christopher Anderson', is written over a horizontal line.

Christopher Anderson August 01, 2016
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REFERENCE	CH#	280D	-	103.9 MHz,	Pwr= 0.25 kW,	HAAT= 368.0 M,	COR= 2363 M	DISPLAY DATES			
44 37 24.0 N.					Average Protected F(50-50)= 24.87 km			DATA	08-01-16		
107 07 01.0 W.					Omni-directional			SEARCH	08-01-16		
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
280D	K280GK	APP	C_	0.0	0.00	44 37 24.0	0.250	107.7	41.6	-149.4*	-149.6*
Sheridan		WY		0.0	BMPFT20160726ABB	107 07 01.0		2354	Lovcom,	Inc.	
280D	K280GK	CP	C_	37.0	24.38	44 47 54.0	0.250	23.8	7.1	-41.6	-92.8*
Sheridan		WY		217.1	BMPFT20160323AAZ	106 55 51.0		1249	Lovcom,	Inc.	
281C	KCGL	LIC	C_	265.7	161.90	44 29 42.0	100.000	145.5	98.1	2.3	53.6
Powell		WY		84.2	BLH20011205AAM	109 09 10.0	547	2337	Legend	Communications Of W	
278D	K278CJ	CP	C_	134.5	43.76	44 20 48.0	0.250	1.1	7.1	19.0	34.4
Casper		WY		314.8	BMPFT20160219ABP	106 43 28.0		1511	Legend	Communications Of W	
277CO	KBEN-FM	LIC	CX	268.1	134.88	44 34 13.0	100.000	13.3	88.0	106.7	45.6
Cowley		WY		86.9	BLH20100212ABN	108 49 09.0	427	1965	White Park Broadcasting, I		

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= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside restricted contour.

E-2 K280GK.AP Mod. 60 dBu Contour



TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates

Latitude	44-37-23.9 north
Longitude	107-07-03.2 west

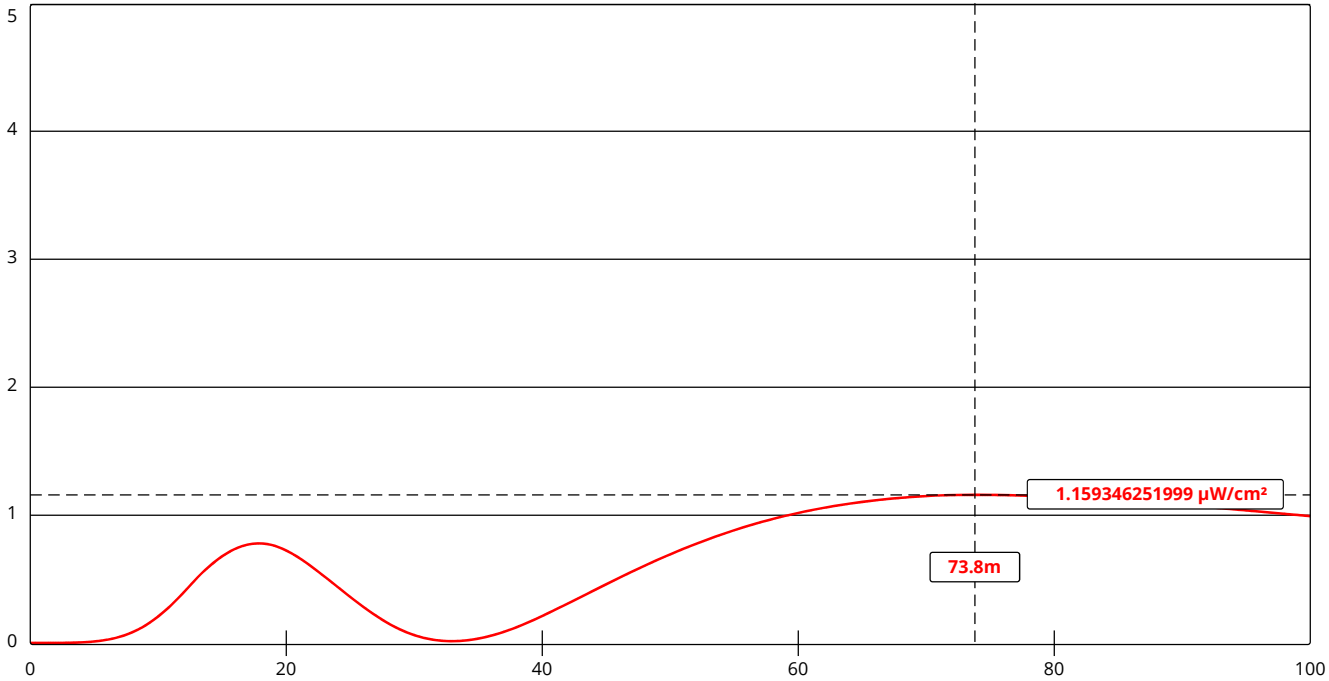
Measurements (Meters)

Overall Structure Height (AGL)	24
Support Structure Height (AGL)	0
Site Elevation (AMSL)	2342

Structure Type

GTOWER - Guyed Structure Used for Communication Purposes

FM Model



Channel Selection	Channel 280 (103.9 MHz)		
Antenna Type +	EPA Type 3: Opposed U Dipole		
Height (m)	21	Distance (m)	100
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	4	Element Spacing (λ)	0.5
Num of Points	500		