

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
RADIO STATION KPCW(FM)  
FACILITY ID 13482  
PARK CITY, UTAH  
CH 220A 0.12 KW (MAX-DA) 647 M

Technical Narrative

This technical exhibit supports an application for construction permit for station KPCW(FM) on Channel 220A assigned to Park City, Utah. It is proposed to change the KPCW(FM) transmitter site, install a directional antenna and become Section 73.215 classified to KTCE(FM) at Payson, Utah. Contingent applications are also being filed on the same date to modify station KTCE(FM)<sup>1</sup> and KOHS(FM) on Channel 219A at Orem, Utah<sup>2</sup> pursuant to Section 73.3517(e) of the Commission's Rules.

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<sup>1</sup> KTCE(FM) at Payson, Utah in a contingent application is changing it Channel to 221A from 222A as ordered by the Report and Order in MB Docket No. 02-14.

<sup>2</sup> KOHS(FM) at Orem, Utah in a contingent application is simply specifying authorization pursuant to Section 73.215 of the Commission's Rules.

Proposed Transmitter Location

The transmitting facility will be located on an existing tower located atop *Bald Mountain*. The location is uniquely described by the following geographic coordinates:

40° 36' 34" North Latitude  
111° 28' 49" West Longitude

The proposed site is shown on the map contained in Figure 1. A sketch showing the antenna and existing supporting structure is shown on Figure 2.

Blanketing Interference Concerns

The 115 dBu predicted "blanketing" contour of the proposed station would extend radially less than 0.2 kilometer from the transmitting site. No interference problems are expected; however the applicant recognizes its responsibility to resolve complaints of blanketing interference as required by Section 73.318.

Coverage Contours

The FCC predicted coverage contour for the proposed FM station antenna was calculated in accordance with Section 73.313. No consideration was given to terrain roughness correction factors. The average elevations from 3 to 16 kilometers along 8 radials evenly spaced at 45-degree intervals were obtained from the U.S.G.S. 3-second digitized terrain database. The antenna radiation center heights above average terrain in the

individual directions and the ERP were used in conjunction with the F(50,50) curves of Section 73.333 (Figure 1) to determine distances to contour.

The coverage map in Figure 3 shows the proposed FM station's 60 dBu coverage contour. As can be seen, the proposed 60 dBu contour encompasses the community of Park City.

Proposed Site Allocation Study

Channel 220A at the proposed site will satisfy the Commission's minimum separation distance requirements, specified in Section 73.207(b) of the Rules, to all stations and assignments except to the pending application for KTCE(FM) on Channel 221A at Payson, Utah.

Station KTCE(FM) is filing a contingent application and seeking Section 73.215 processing to this instant application. As shown by the map contained in Sheet 2 of Figure 4, no prohibited contour overlap from the herein proposed KPCW(FM) and KTCE(FM) is predicted.

Directional Antenna Pattern Envelope

In order to protect KTCE(FM) at Payson, KPCW(FM) proposes the use of a directional antenna. Figure 5 contains a plot of the proposed directional antenna radiation pattern envelope relative field, calculated in accordance with Section 73.316(c)(2-3) of the Commission's Rules. The actual directional antenna to be used will be designed to optimally meet this pattern envelope. The ratio of the pattern envelope maximum to minimum radiation does not exceed 15 dB nor does the radiation vary more than 2 dB per 10° of azimuth, in accordance with Section 73.316(b). The antenna will be mounted on the proposed tower in accordance with the specific instructions of the antenna manufacturer. No other antennas will be mounted on the tower at the same level as the proposed directional antenna, nor will the proposed directional antenna be mounted on the tower at a distance from any other antenna such that proper operation of the directional antenna would be hindered. Any additional information required by Section 73.316 will be supplied with the application for license.

Radiofrequency Electromagnetic Field Exposure

The proposed FM facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. Using a "worst-case" relative field value of 1.0 along with a combined effective radiated power of 0.24 kilowatt. The proposed power density at the base of the structure is calculated to be 0.022 mW/cm<sup>2</sup>, which is 11 percent of the recommended limit of 0.2 mW/cm<sup>2</sup> for FM channels,

applicable to general population/uncontrolled exposure areas. There is no other known nearby high powered emitters.

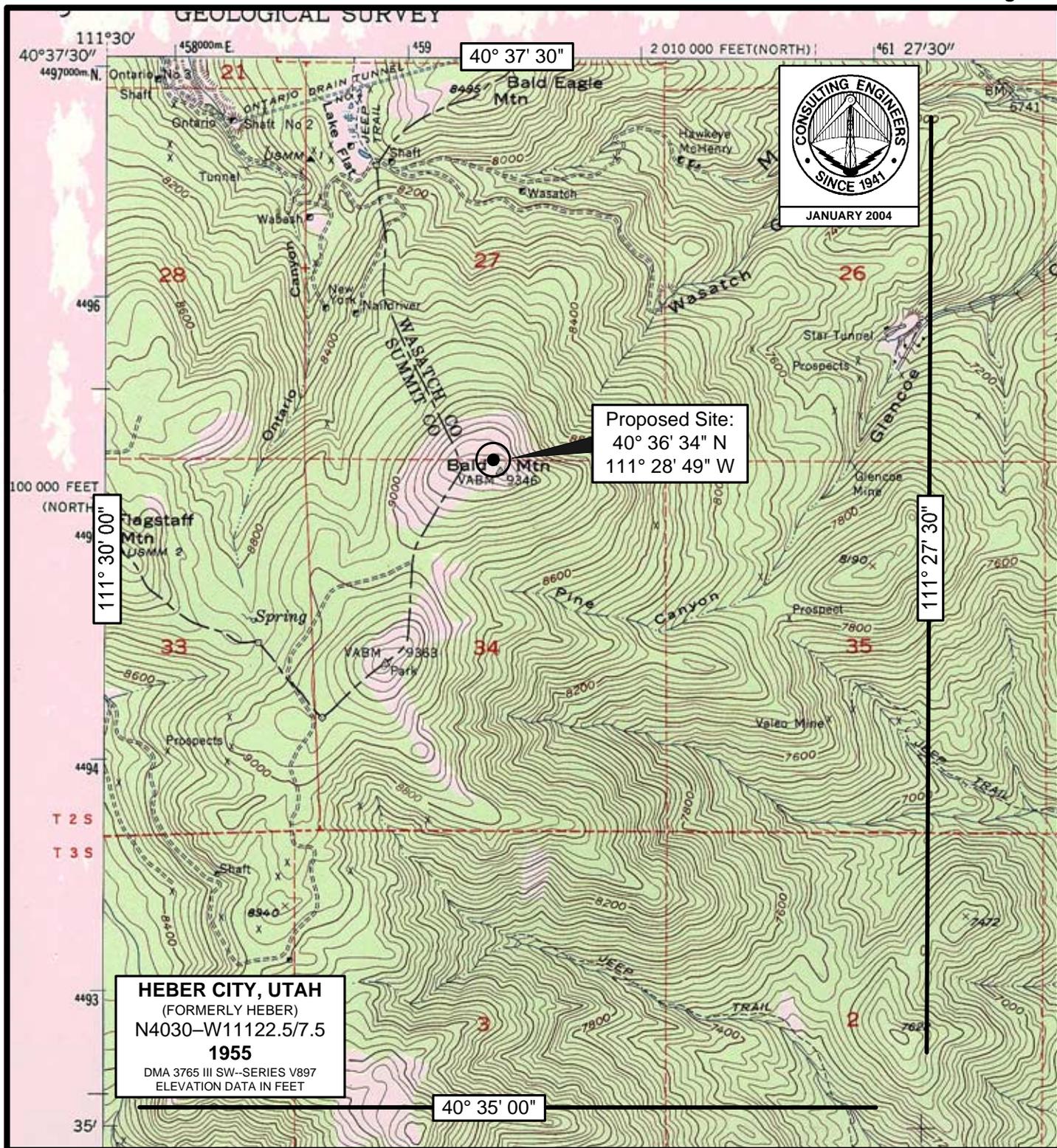
Access to the transmitting site is restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. 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 monitors or scheduling work when the stations are at reduced power or shut down.

Charles A. Cooper

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
(941) 329-6000

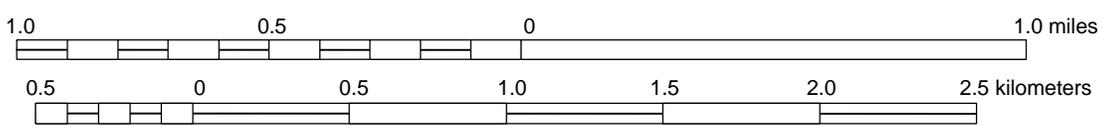
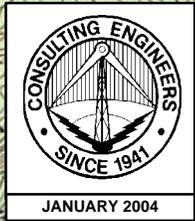
February 6, 2004

Figure 1

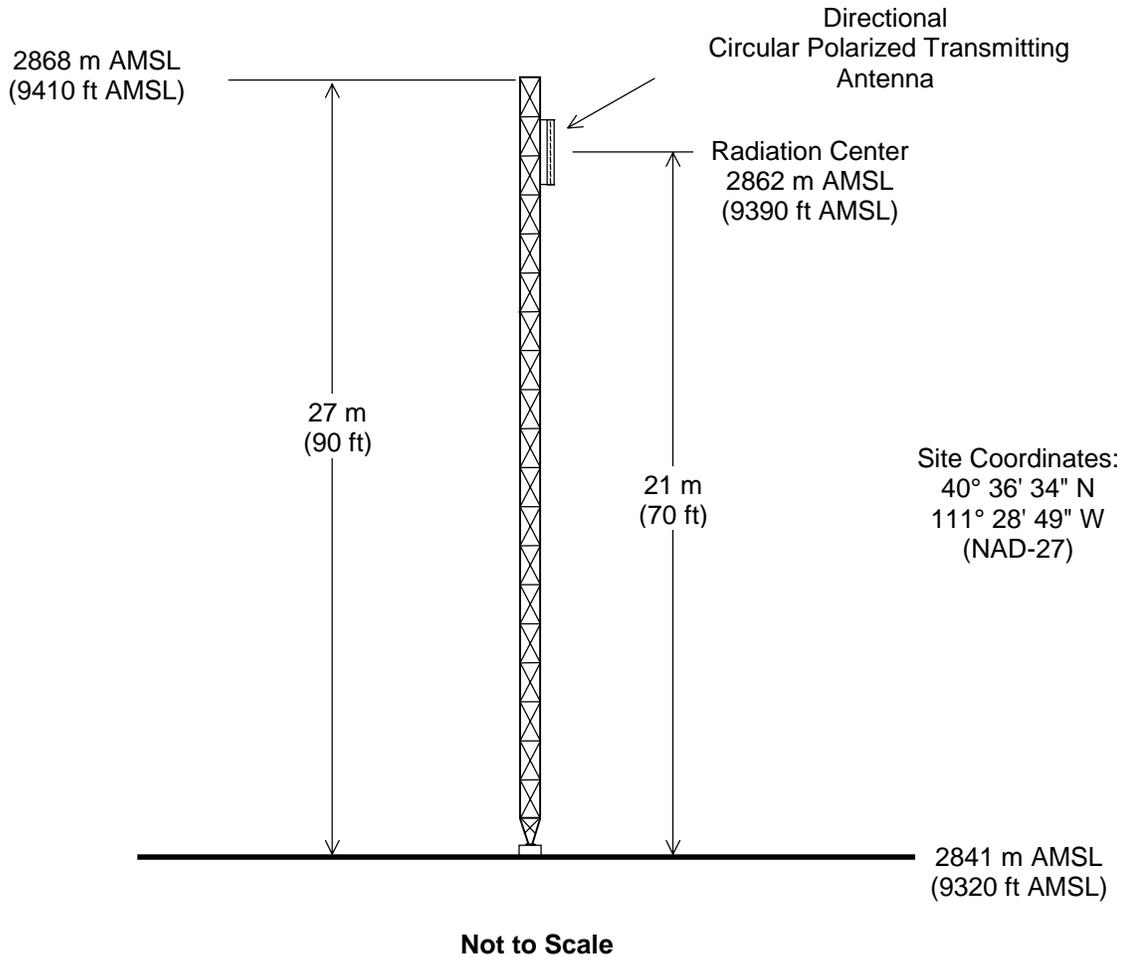
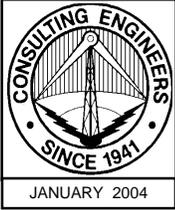


**HEBER CITY, UTAH**  
 (FORMERLY HEBER)  
 N4030-W11122.5/7.5  
 1955  
 DMA 3765 III SW--SERIES V897  
 ELEVATION DATA IN FEET

Proposed Site:  
 40° 36' 34" N  
 111° 28' 49" W



**PROPOSED TRANSMITTER SITE**  
 RADIO STATION KPCW(FM)  
 PARK CITY, UTAH  
 CH 220A 0.12 KW (MAX-DA) 647 M  
 du Treil, Lundin & Rackley, Inc. Sarasota, Florida



## PROPOSED ANTENNA AND SUPPORTING STRUCTURE

RADIO STATION KPCW(FM)

PARK CITY, UTAH

CH 220A 0.12 KW (MAX-DA) 647 M

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

Figure 3



**FCC PREDICTED COVERAGE CONTOURS**

**RADIO STATION KPCW(FM)  
PARK CITY, UTAH  
CH 220A 0.12 KW (MAX-DA) 647 M**

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

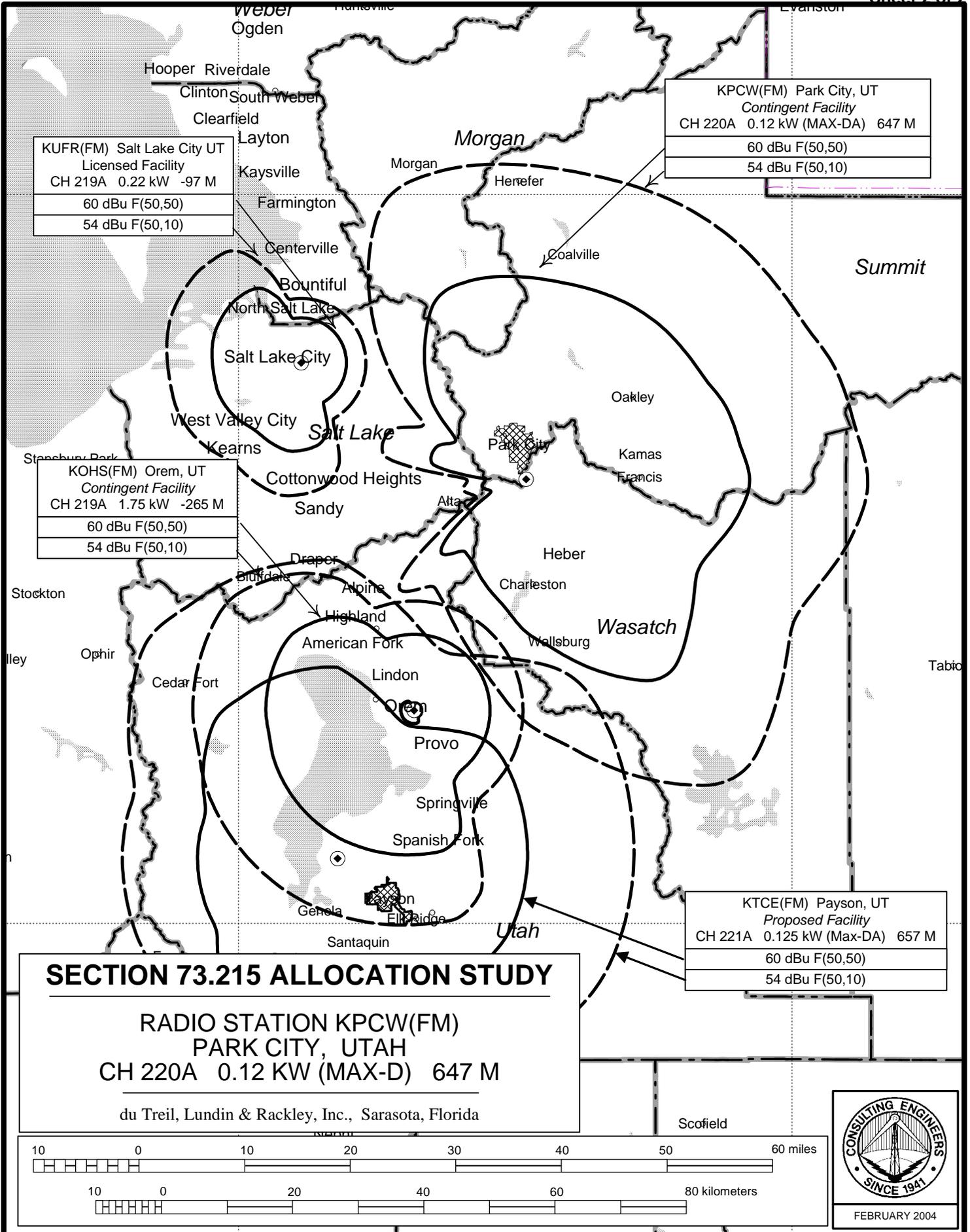
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PARK CITY, UTAH  
CH 220A 0.12 KW (MAX-DA) 647 M

FM Allocation Study

Proposed Site: 40° 36' 34" North Latitude  
111° 28' 49" West Longitude

Channel 220A

Call Id	City St	File Status Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km)	73.207
KUFR 20716	SALT LAKE UT	C BLED LIC C	219 A 19891222KB	91.7 127	0.22 111	N 40-46-09 111-53-12	N	297.5	38.66	44.2	
<i>(No prohibited overlap to KUFR - See Sheet 2 of Figure 4).</i>											
KOHS 1169	OREM UT	BLED LIC C	219 A 19920102KA	91.7 111	1.75 111	N 40-17-32 111-40-58	N	206.0	39.19	53.9	
<i>(No prohibited overlap to KOHS - See Sheet 2 of Figure 4).</i>											
KPCW 13482	PARK CITY UT	BMLD LIC C	220 A 20031201AO	91.9 341	0.250 341	N 40-40-59 111-31-20	Y	336.6	8.91		
<i>(Applicant's licensed facility.)</i>											
	PAYSON UT	RM ADD C	221 A bg-4	0.000 92.1		40-03-20 111-49-43		205.7	68.26 -3.74	49.0 Short	72.0
<i>(Application for construction permit to cover this allocation for Channel 221A at Payson authorized in MB Docket No. 02-14 is filed as a contingent application. See next record.)</i>											
KTCE 43339	PAYSON UT		221A APPLICATION	92.1 659	0.125 659	N 40-05-21 111-49-15	N	206.6	64.61	49.0	72.0
<i>(Contingent application for Channel 221A at Payson.)</i>											
KUUU 37876	TOOELE UT	BLH LIC C	221C3 19990511KC	92.1 162	9.7 162	40-37-40 112-33-59		271.6	91.93	72.0	89.0
KCUA 13483	COALVILLE UT	BLED LIC C	223C3 20020826AAT	92.5 90	20 43662	Y 40-59-45 111-25-36	Y	6.0	43.15	36.0	42.0



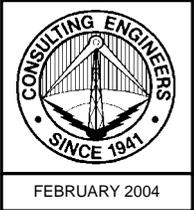
**SECTION 73.215 ALLOCATION STUDY**

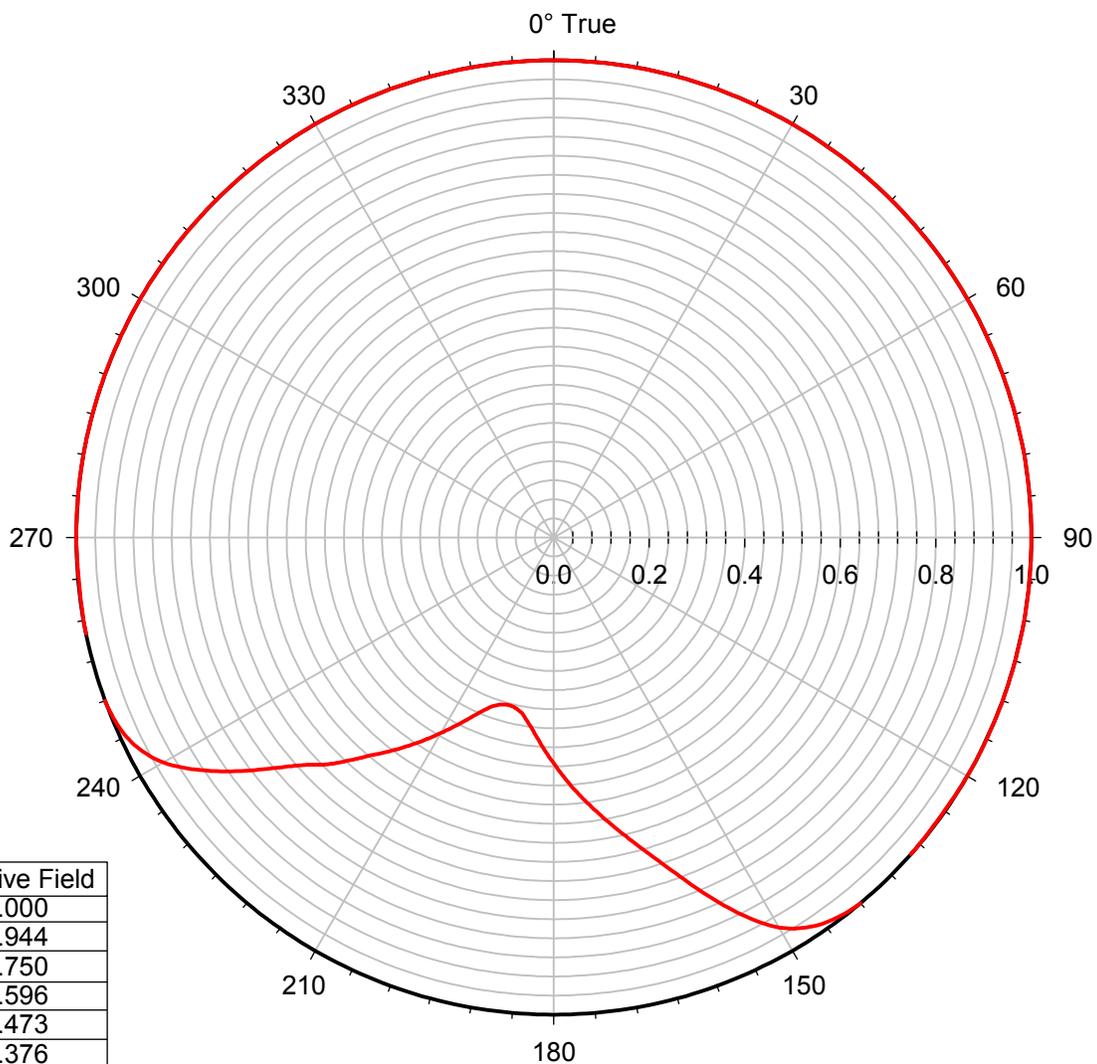
**RADIO STATION KPCW(FM)  
PARK CITY, UTAH  
CH 220A 0.12 KW (MAX-D) 647 M**

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

KTCE(FM) Payson, UT  
Proposed Facility  
CH 221A 0.125 kW (Max-DA) 657 M  
60 dBu F(50,50)  
54 dBu F(50,10)

KPCW(FM) Park City, UT  
Contingent Facility  
CH 220A 0.12 kW (MAX-DA) 647 M  
60 dBu F(50,50)  
54 dBu F(50,10)





Bearing	Relative Field
0-140	1.000
150	0.944
160	0.750
170	0.596
180	0.473
190	0.376
200	0.376
210	0.473
220	0.596
225	0.673
230	0.750
240	0.944
250-360	1.000

**PERMISSABLE DIRECTIONAL RELATIVE FIELD PATTERN ENVELOPE**

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