

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FM TRANSLATOR K261CD  
LAKE HAVASU CITY, ARIZONA

APRIL 30, 2002

CH 261      0.034 KW (MAX-DA)

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Technical Statement

The technical exhibit of which this narrative is part was prepared in support of an application for construction permit to modify K261CD assigned to Lake Havasu City, Arizona. K261CD is licensed with a maximum effective radiated power of 0.034 kilowatt [34 watts] on Channel 261.<sup>1</sup> K261CD rebroadcasts KRCY(FM) on Channel 224C1 assigned to Kingman, Arizona. Since KGMM(FM) assigned to Kingman, Arizona recently changed channels from 260C2 to 261C2, K261CD is now co-channel to KGMM(FM). Therefore, K261CD is filing this application to modify its facilities to eliminate the predicted prohibited contour overlap to the now co-channel KGMM(FM) operation.

It is proposed to replace the existing directional antenna with a Scala CL-FM vertically polarized antenna with the major lobe orientated at 260° True. This application also is correcting the K261CD site coordinates and radiation center. No other changes are proposed. This application is considered a minor change pursuant to Section 74.1233(a)(1) of the Commission's Rules.

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<sup>1</sup> See FCC File Number: BLFT-19961105TG.

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Proposed Transmitter Location

The K261CD transmitting facility will employ a Scala CL-FM vertically polarized directional antenna; the specifications are included in Figure 3. The location is uniquely described by the following geographic coordinates:

34° 33' 06" North Latitude  
114° 11' 37" West Longitude

A map showing the transmitter location is included herein as Figure 1. A sketch showing the proposed antenna and supporting structure is shown on Figure 2.

Coverage Contours

Figure 4 is a map showing the proposed translator's 60 dBu (1 mV/m) coverage contour and the served community of Lake Havasu City.

Allocation Study

The proposed translator facility appears to satisfy the protection requirements toward all stations as required by Section 74.1204 of the Commission's Rules as shown by the exhibit contained within Figure 5.

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating compliance with FCC Specified Guidelines for

Human Exposure to Radiofrequency Electromagnetic Fields."<sup>2</sup>  
The proposed calculated power density at the base of the tower was calculated using the appropriate equation on Page 23 of the Bulletin.

Using a total effective radiated power of 0.068 kilowatt and a reasonable assumed downward relative field value of 0.2, the predicted power density at ground level located 6 meters (20 feet) below the antenna radiation center is 0.006 mW/cm<sup>2</sup>. This is less than five percent of the Commission's guideline in an uncontrolled environment for a FM radio station.<sup>3</sup>

Pursuant to Section 1.1307(b) of the Commission's Rules, the power density contributions of co-located and nearby broadcast stations are not required to be calculated as the proposed translator's power density contribution is less than five percent of the guideline value.

Access to the transmitting site is restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure

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<sup>2</sup> OET Bulletin 65, Second Edition 97-01, August, 1997.

<sup>3</sup> The FCC maximum guideline for an FM broadcast radio station in an uncontrolled environment is 0.2 mW/cm<sup>2</sup>.

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to radiofrequency electromagnetic fields will not exceed  
the FCC guidelines.

Charles A. Cooper

April 30, 2002

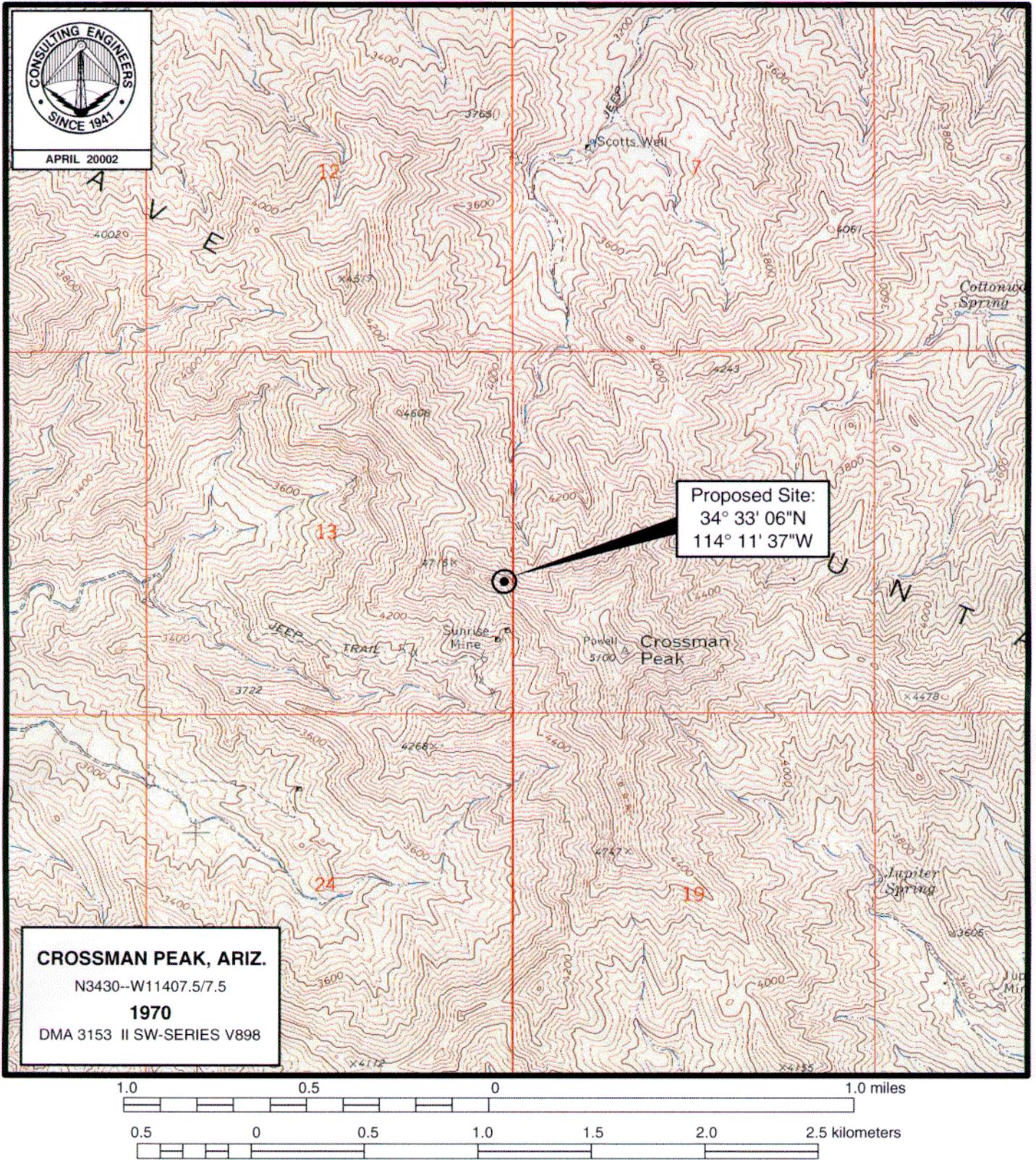
du Treil, Lundin & Rackley, Inc.

201 Fletcher Avenue

Sarasota, Florida 34237

(941) 329-6000

Figure 1



## **PROPOSED TRANSMITTER LOCATION**

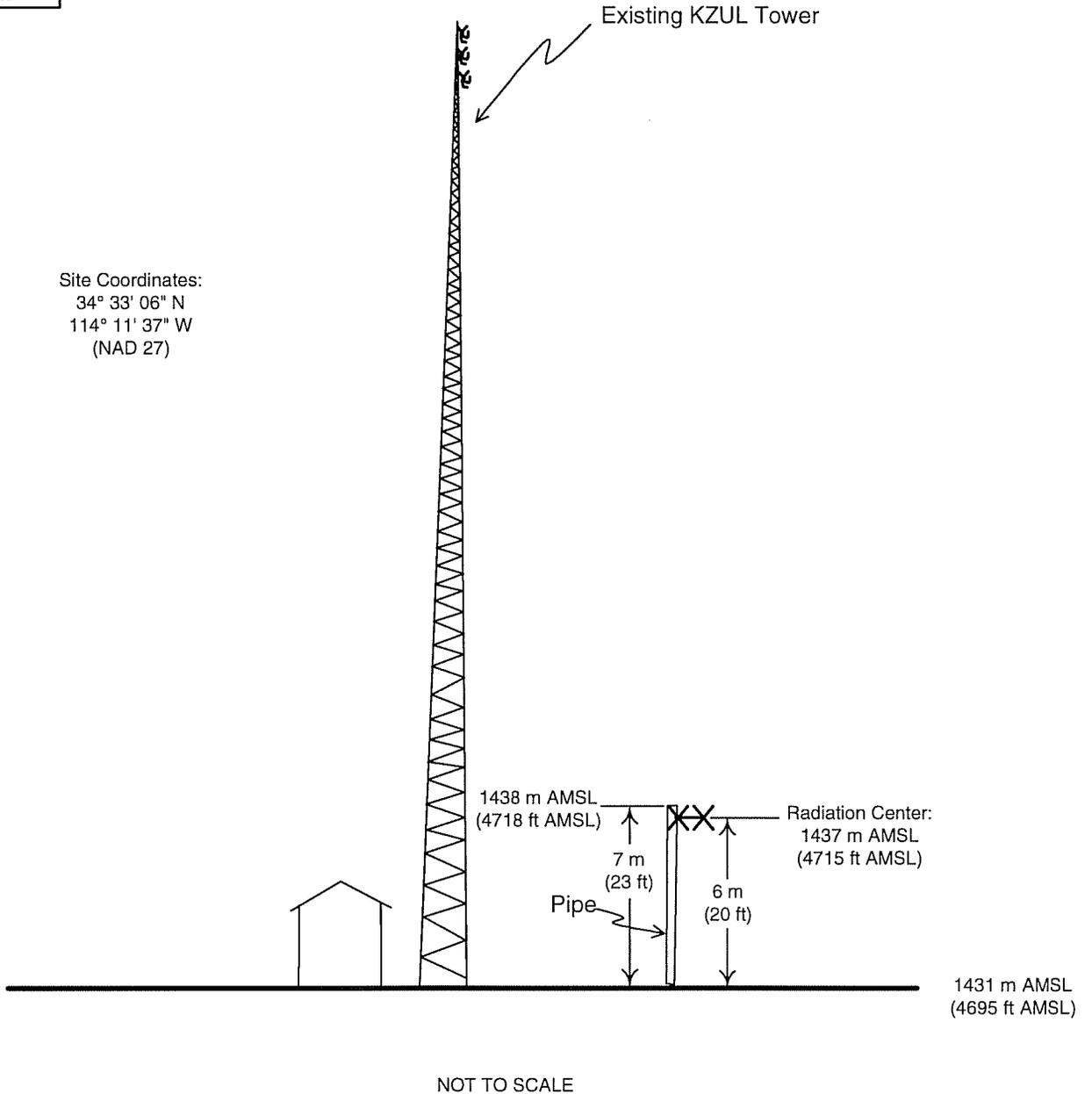
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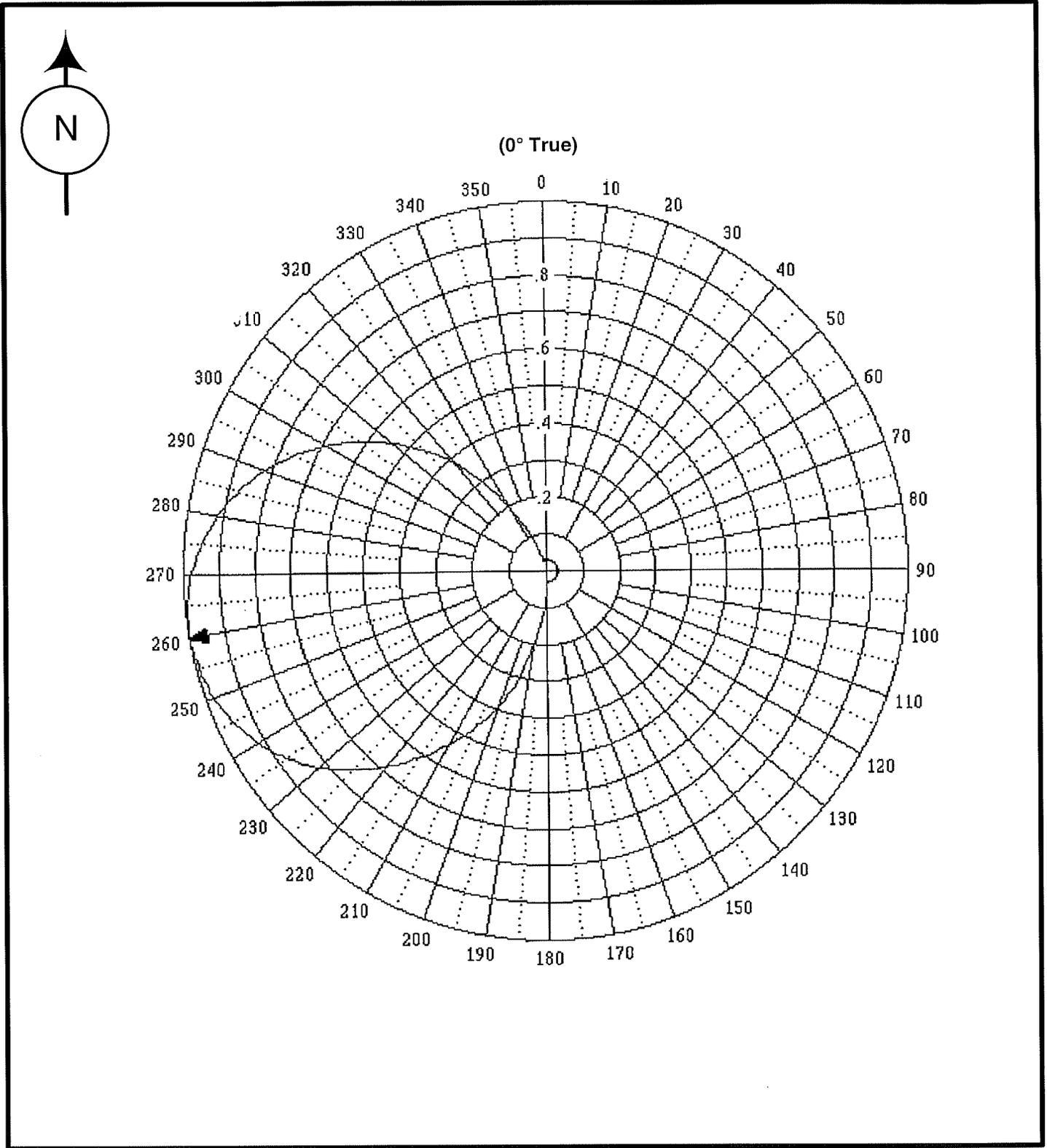
APRIL 2002

Site Coordinates:  
34° 33' 06" N  
114° 11' 37" W  
(NAD 27)



# PROPOSED ANTENNA AND SUPPORTING STRUCTURE

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**DIRECTIONAL ANTENNA HORIZONTAL PLANE PATTERN**

FM TRANSLATOR K261CD  
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida

*Azimuth	Field
0	0.030
10	0.030
20	0.030
30	0.030
40	0.030
50	0.030
60	0.030
70	0.030
80	0.030
90	0.030
100	0.030
110	0.030
120	0.030
130	0.030
140	0.030
150	0.030
160	0.030
170	0.030
180	0.050
190	0.190
200	0.390
210	0.544
220	0.690
230	0.817
240	0.916
250	0.980
260	1.000
270	0.980
280	0.916
290	0.817
300	0.690
310	0.544
320	0.390
330	0.190
340	0.050
350	0.030

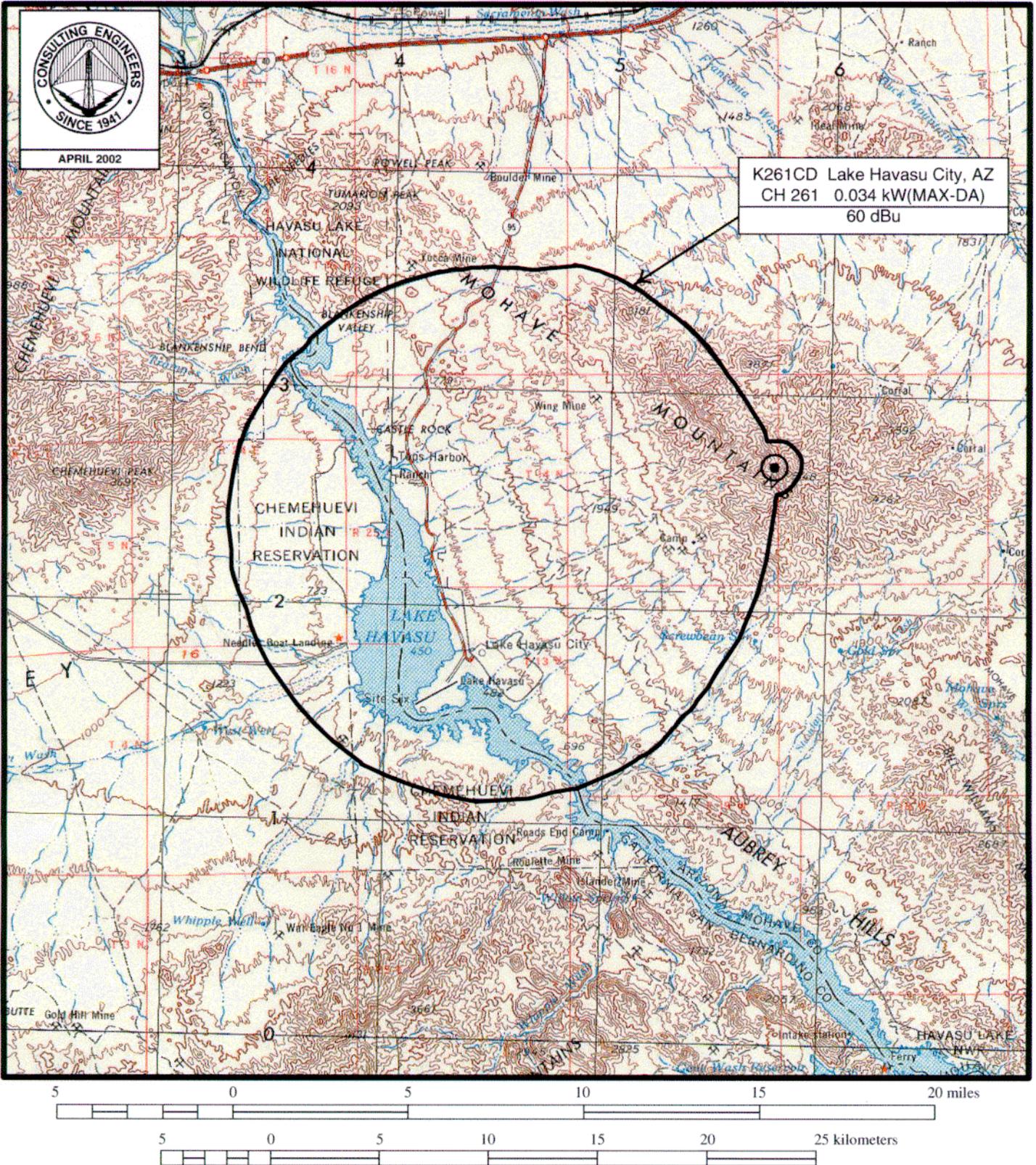
\*Reference to 0° True

## DIRECTIONAL ANTENNA HORIZONTAL PLANE TABULATION

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Figure 4



**PREDICTED COVERAGE CONTOUR**

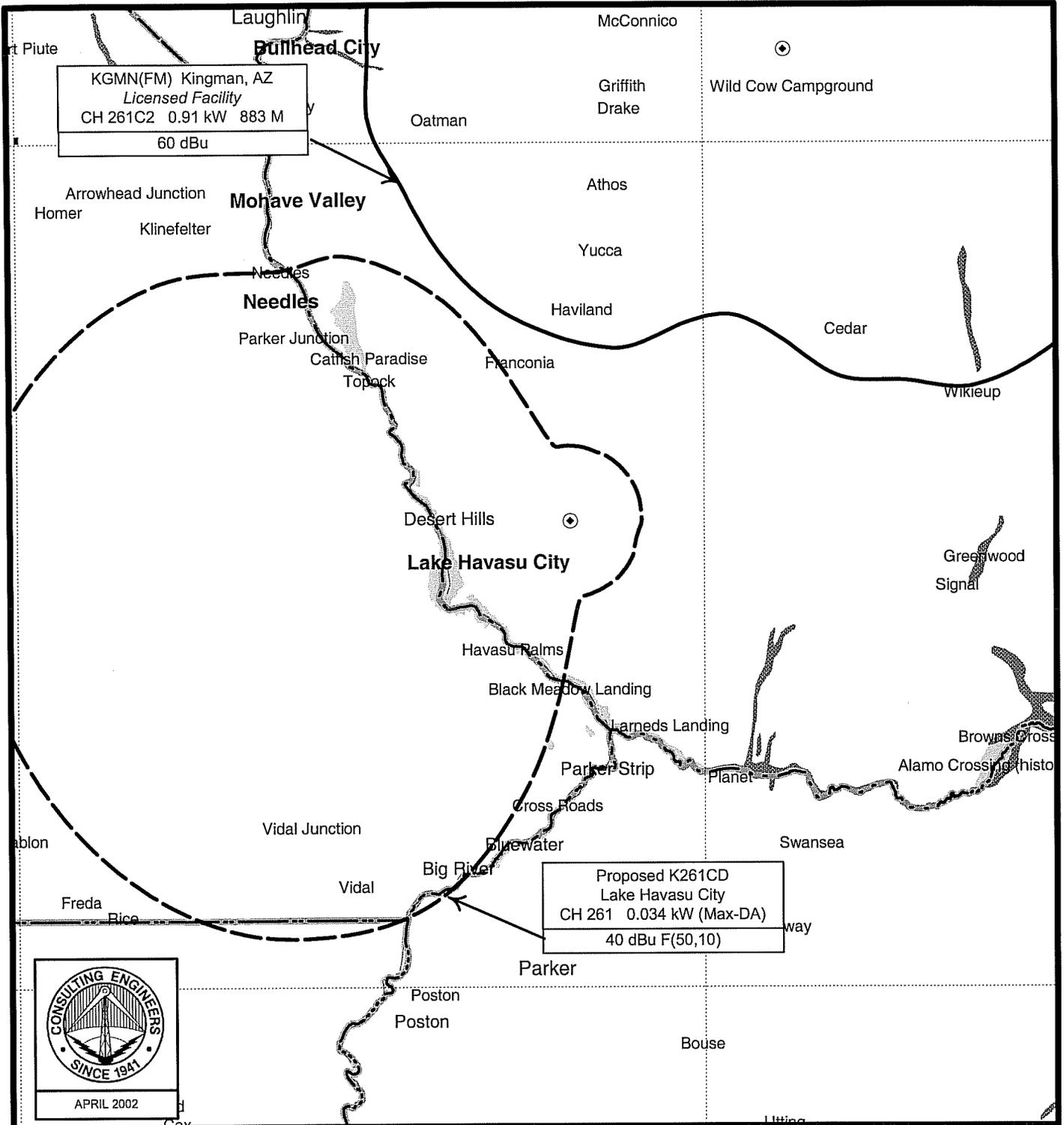
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Allocation Study

Call FacID	City State	Status	Channel Freq.	ERP(kW) MaxHAAT(m)	Latitude Longitude	Bearing deg-Tru	Dist. (km)	Req. (km)
K261CD	LAKE HAVASU	BLFT	261D	0.034	34-32-54	128.5	0.00	
40555	AZ LIC C	19961105TG	100.1	1153	114-11-37			
<i>(Applicant's existing facility.)</i>								
KGMN	KINGMAN	BMLH	261C2	0.91 N	35-06-37	N 24.4	68.55	157.3
48680	AZ LIC C	20020213AA	100.1	1057	113-52-55			
<i>(No prohibited contour overlap predicted to KGMN(FM). See Sheet 2 of Figure 5.)</i>								
KHWZ	LUDLOW	BPH	261B1	25 N	34-42-34	Y 276.3	180.34	163.3
34557	CA CP C	20010806AB	100.1	270	116-09-02			
KHWZ	57	dBu	Desired = 63. km ; Proposed		37	dbu; Undesired = 94.9		
KHWZ	LUDLOW	BLH	261B1	25 N	34-42-35	N 276.3	180.39	131.7
34557	CA LIC C	20000413AB	100.1	53	116-09-04			
KHWZ	57	dBu	Desired = 34.5 km ; Proposed		37	dbu; Undesired = 94.9		
K262AC	LAUGHLIN	BLFT	262D	0.073 Y	35-14-48	N 327.4	92.28	73.9
30451	NV LIC C	19940526TB	100.3	962 16173	114-44-32			
K262AC	60	dBu	Desired = 30.3 km ; Proposed		54	dbu; Undesired = 42.7		
K262AA	BAGDAD	BLFT	262D	0.046 Y	34-34-10	N 88.3	92.88	58.3
14878	AZ LIC C	19930907TF	100.3	335 14355	113-10-55			
K262AA	60	dBu	Desired = 15.6 km ; Proposed		54	dbu; Undesired = 42.7		
KJMB-F	BLYTHE	BLH	262B	36. N	33-37-16	N 199.7	109.20	99.1
29590	CA LIC C	19861209KB	100.3	45	114-35-28			
KJMB-F	54	dBu	Desired = 40. km ; Proposed		48	dbu; Undesired = 59.1		
K264AB	KINGMAN	BLFT	264D	0.01 Y	35-04-52	N 24.0	64.80	27.1
9035	AZ LIC C	19920518TE	100.7	1383 16125	113-54-12			
K264AB	60	dBu	Desired = 19.2 km ; Proposed		100	dbu; Undesired = .4		



**ALLOCATION STUDY MAP**

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