

TECHNICAL EXHIBIT  
MINOR CHANGE IN LICENSED FACILITY  
FM TRANSLATOR K292EB (FACILITY ID 54322)  
LAKE HAVASU CITY, ARIZONA

JUNE 14, 2002

CH 292 0.075 KW (MAX-DA)

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Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for minor change to radio station K292EB assigned to Lake Havasu City, Arizona. K292EB is licensed with a maximum effective radiated power (ERP) of 0.038 kilowatt (38 watts) on channel 292 (see BLFT-19871130TH).

It is proposed to change transmitter site, change directional antenna and increase ERP. No change in channel or city of service (Lake Havasu City) is requested. The proposal would not be subject to environmental processing in accordance with Section 1.1306. It is believed that this proposal conforms to all applicable rules and regulations of the FCC.

This application is considered a minor change pursuant to Section 74.1233(a)(1) of the Commission's Rules, as there is common contour overlap between the present and proposed operations (see Figure 4).

Proposed Transmitter Location

The transmitting facility will be located on an existing tower located on Goat Hill (see Figure 1). The FCC antenna structure registration number is 1204044 (see Figure 2). The site location is described by the following NAD27 coordinates:

34° 36' 09" N  
114° 22' 13 W

The K292EB transmitting facility will employ a Scala HDCA-10 vertically polarized “yagi” directional antenna (see Figure 3).

#### Coverage Contours

The predicted coverage contours shown on the map in Figure 4 for the proposed operation were calculated in accordance with the provisions of Section 73.313. Pursuant with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors. The proposal complies with Section 74.1235(b)(2) concerning power limitations (see table in Figure 3).

#### 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 in 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>1</sup> The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

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<sup>1</sup> OET Bulletin 65, Second Edition 97-01, August 1997.

For the calculation, the maximum effective radiated power of 79 watts was employed with a radiation center of 15 meters above ground level. Using an extremely conservative downward relative field value of 0.5 for the Scala single-yagi antenna, it is calculated that the maximum power density at 2 meters above ground level will be 0.0037 mW/cm<sup>2</sup>, which is less than 2 % of the recommended limit of 0.2 mW/cm<sup>2</sup> for FM channels, applicable to general population/uncontrolled exposure areas.

Access to the transmitting site is restricted and appropriately marked with warning signs. As this is a multi-user site an agreement will control access to the site. 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. The proposed K292EB operation appears to be otherwise categorically excluded from environmental processing.

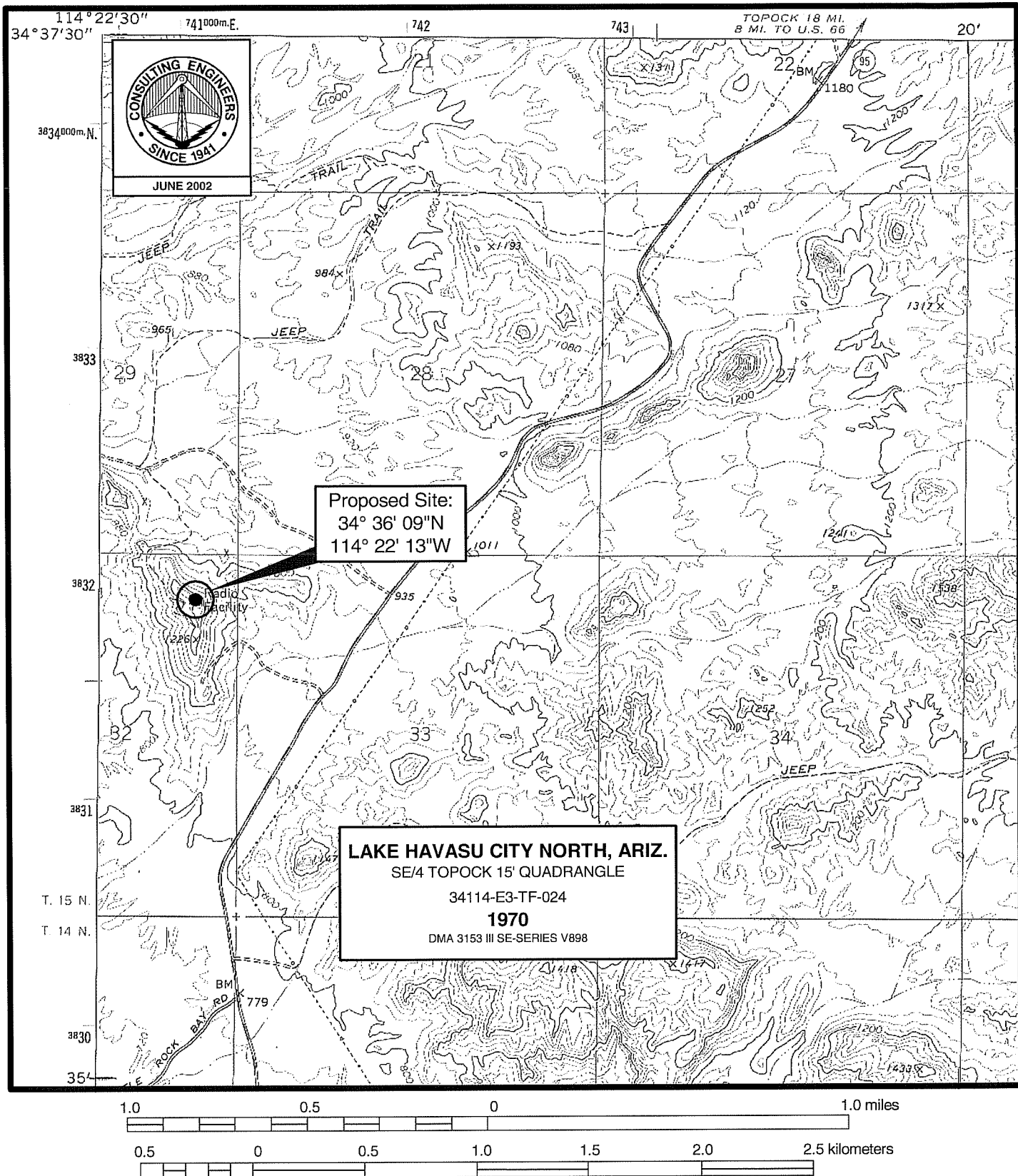


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June 14, 2002

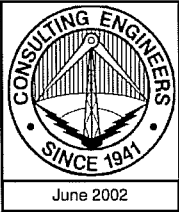
### Figure 1



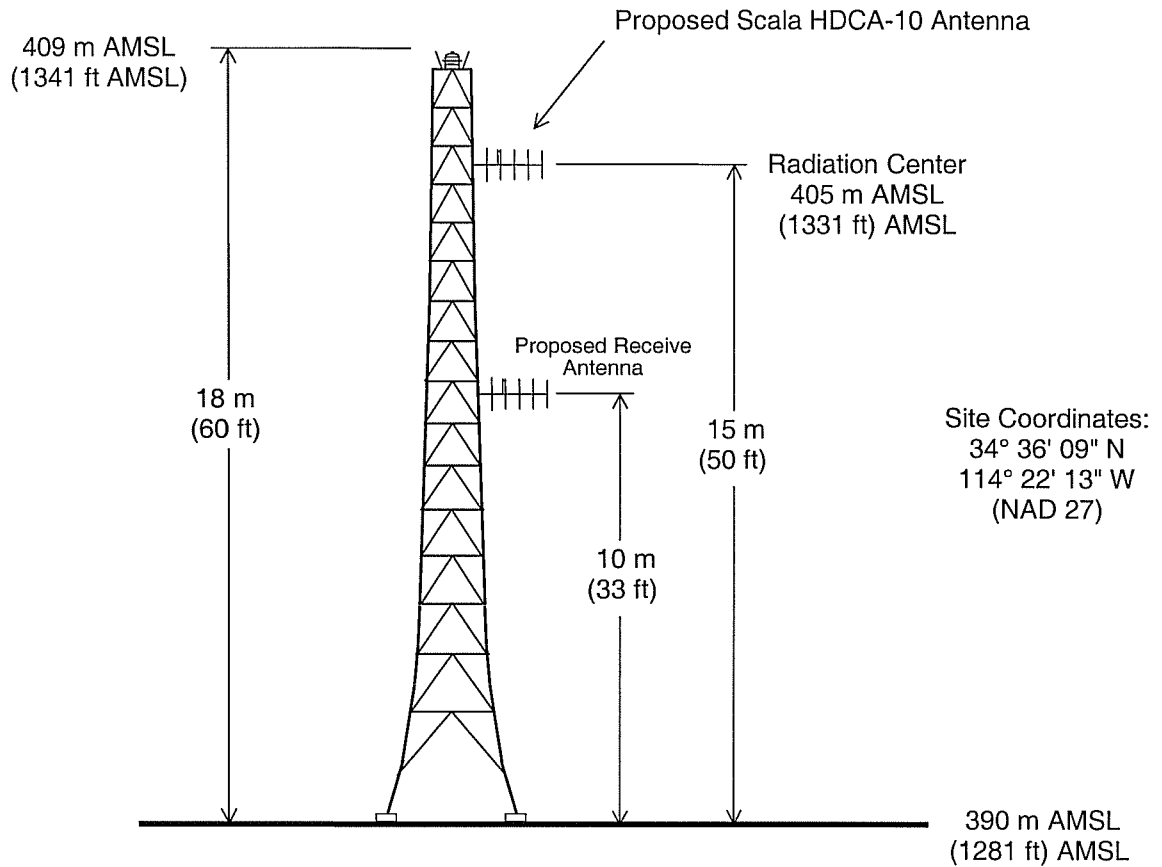
## PROPOSED TRANSMITTER SITE

FM TRANSLATOR K292EB  
LAKE HAVASU CITY, ARIZONA  
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Registration No. 1204044



## PROPOSED ANTENNA AND SUPPORTING STRUCTURE

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

Figure 3

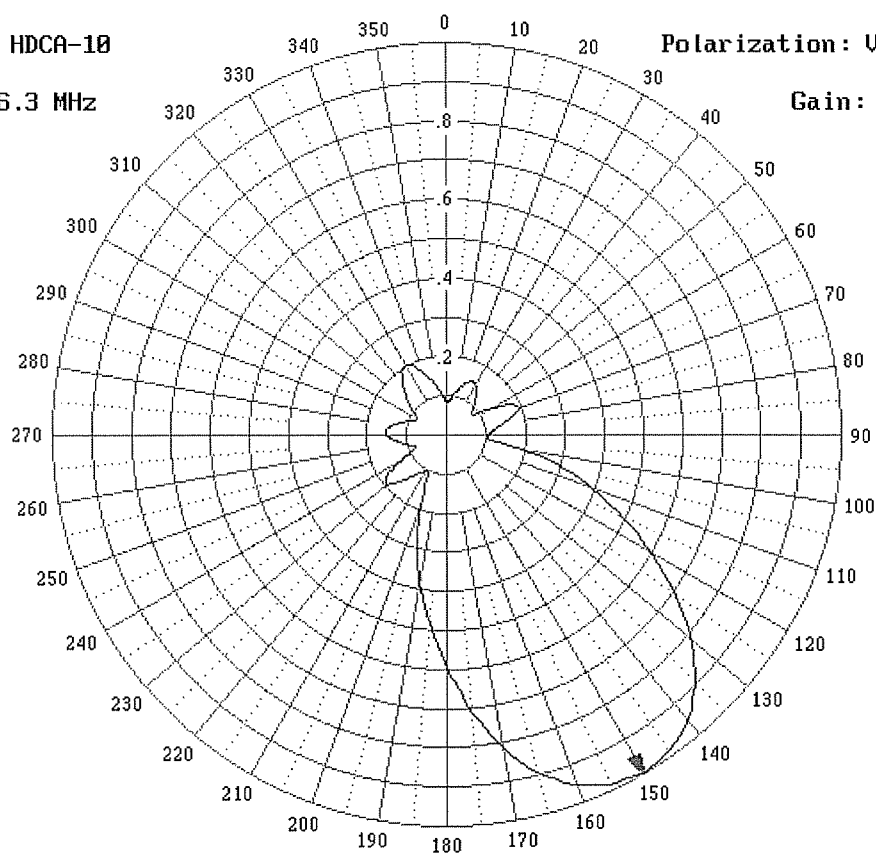
Antenna: HDCA-10

Freq: 106.3 MHz

Polarization: Vertical

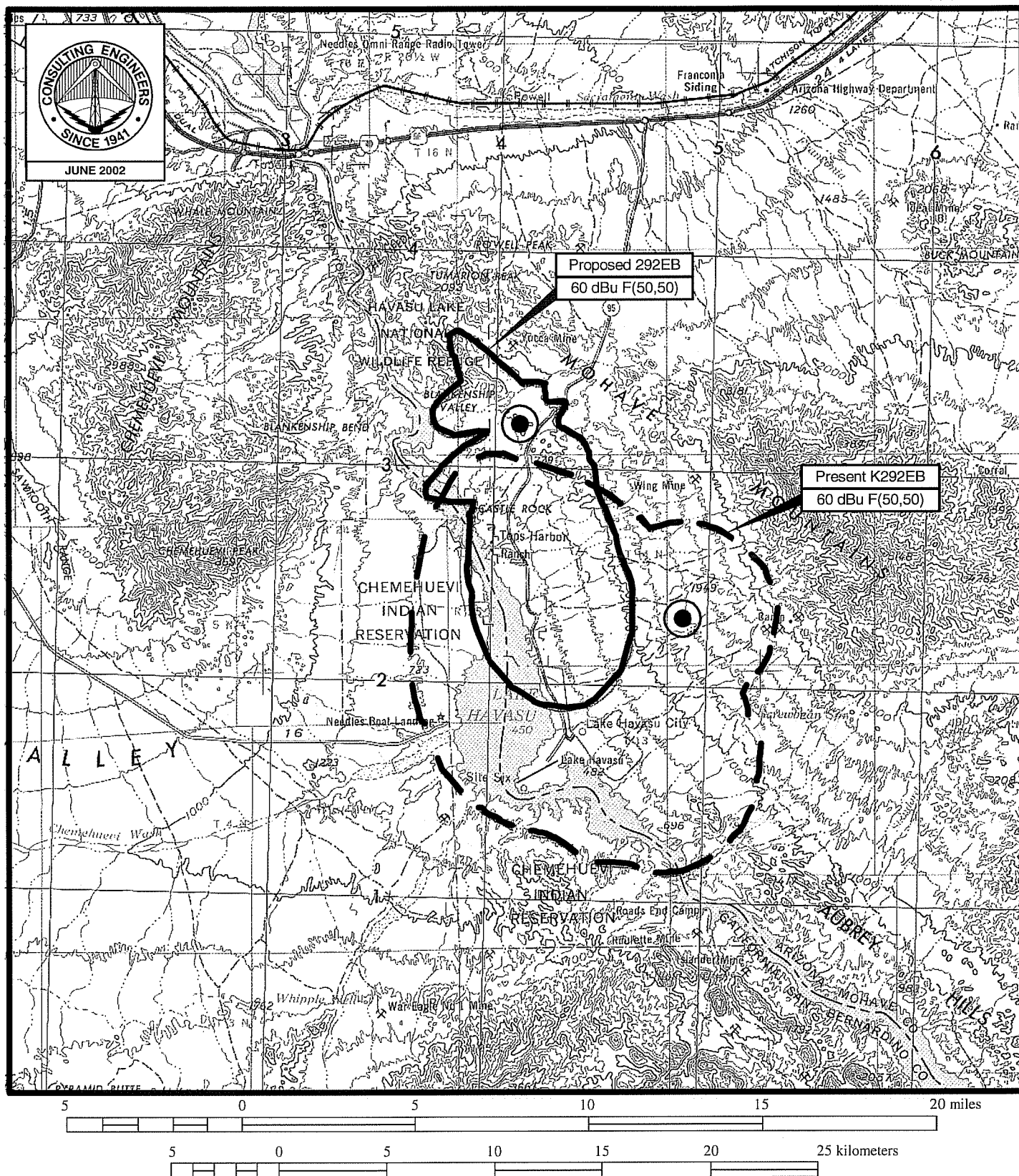
Gain: 9.5 dBd

Markers

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150

Azimuth	Field	Rel.dB	dBd	Pwr Gain	74.1235 Compliance	
					HAAT (m)	ERP (W)
0	0.082	-21.7	-12.2	0.061	32	0.5
10	0.105	-19.6	-10.1	0.098	14	0.8
20	0.140	-17.1	-7.6	0.175	11	1.5
30	0.150	-16.5	-7.0	0.201	8	1.7
40	0.115	-18.8	-9.3	0.118	1	1.0
50	0.082	-21.7	-12.2	0.061	-29	0.5
60	0.135	-17.4	-7.9	0.162	-71	1.4
70	0.200	-14.0	-4.5	0.357	-123	3.0
80	0.140	-17.1	-7.6	0.175	-214	1.5
90	0.108	-19.4	-9.9	0.103	-293	0.9
100	0.185	-14.7	-5.2	0.305	-368	2.6
110	0.387	-8.2	1.3	1.338	-255	11.2
120	0.595	-4.5	5.0	3.155	-149	26.6
130	0.810	-1.8	7.7	5.847	-46	49.2
140	0.952	-0.4	9.1	8.086	32	68.0
150	1.000	0.0	9.5	8.913	105	75.0
160	0.952	-0.4	9.1	8.086	170	68.0
170	0.810	-1.8	7.7	5.847	224	49.2
180	0.595	-4.5	5.0	3.155	254	26.6
190	0.387	-8.2	1.3	1.338	259	11.2
200	0.185	-14.7	-5.2	0.305	240	2.6
210	0.108	-19.4	-9.9	0.103	218	0.9
220	0.140	-17.1	-7.6	0.175	187	1.5
230	0.200	-14.0	-4.5	0.357	151	3.0
240	0.135	-17.4	-7.9	0.162	111	1.4
250	0.082	-21.7	-12.2	0.061	-36	0.5
260	0.115	-18.8	-9.3	0.118	107	1.0
270	0.150	-16.5	-7.0	0.201	103	1.7
280	0.140	-17.1	-7.6	0.175	107	1.5
290	0.105	-19.6	-10.1	0.098	114	0.8
300	0.082	-21.7	-12.2	0.061	129	0.5
310	0.120	-18.4	-8.9	0.128	147	1.1
320	0.170	-15.4	-5.9	0.258	140	2.2
330	0.205	-13.8	-4.3	0.375	95	3.2
340	0.170	-15.4	-5.9	0.258	38	2.2
350	0.120	-18.4	-8.9	0.128	29	1.1

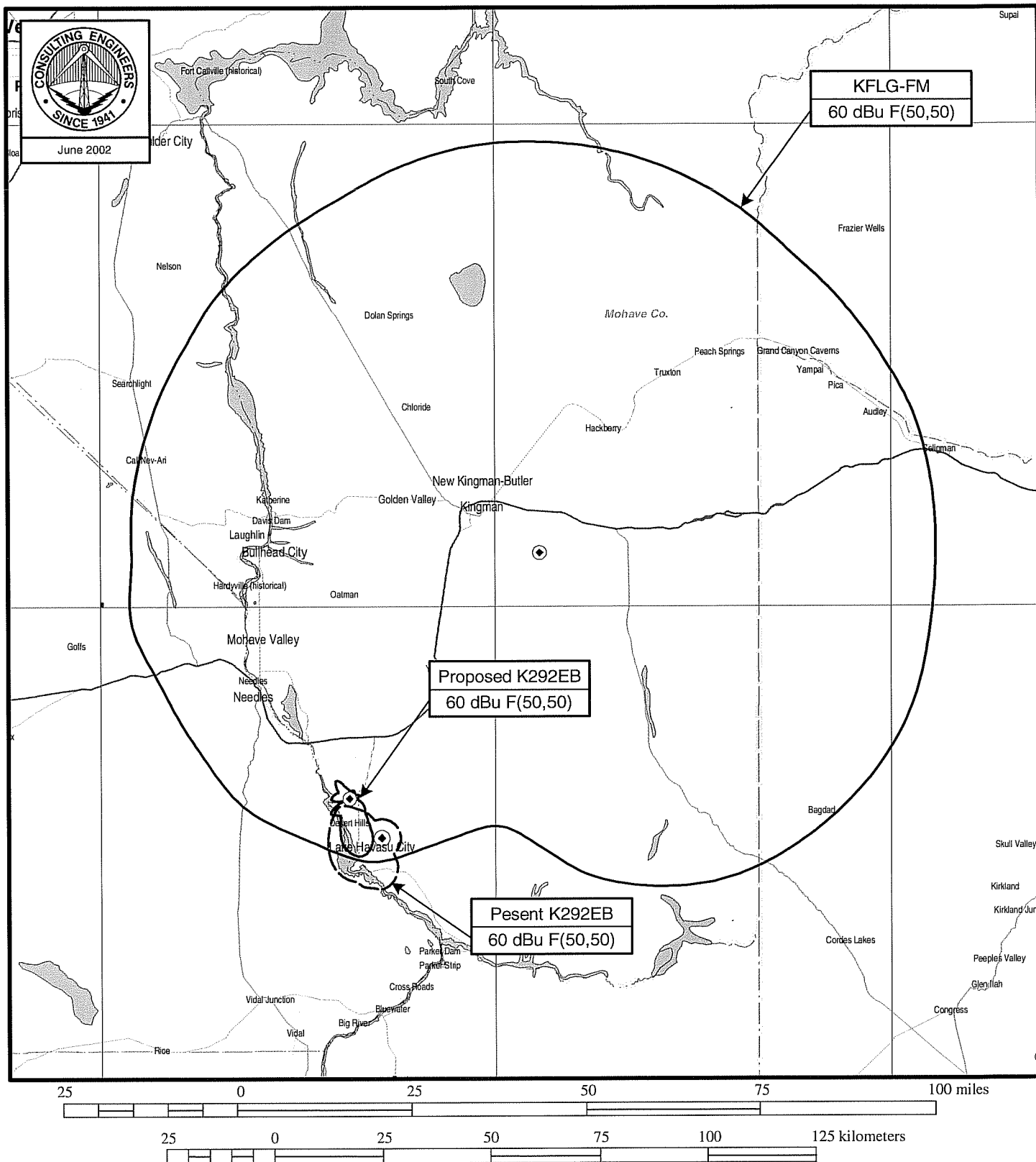




## PROPOSED COVERAGE MAP

FM TRANSLATOR K292EB  
LAKE HAVASU CITY, ARIZONA  
CH 292 0.075 KW

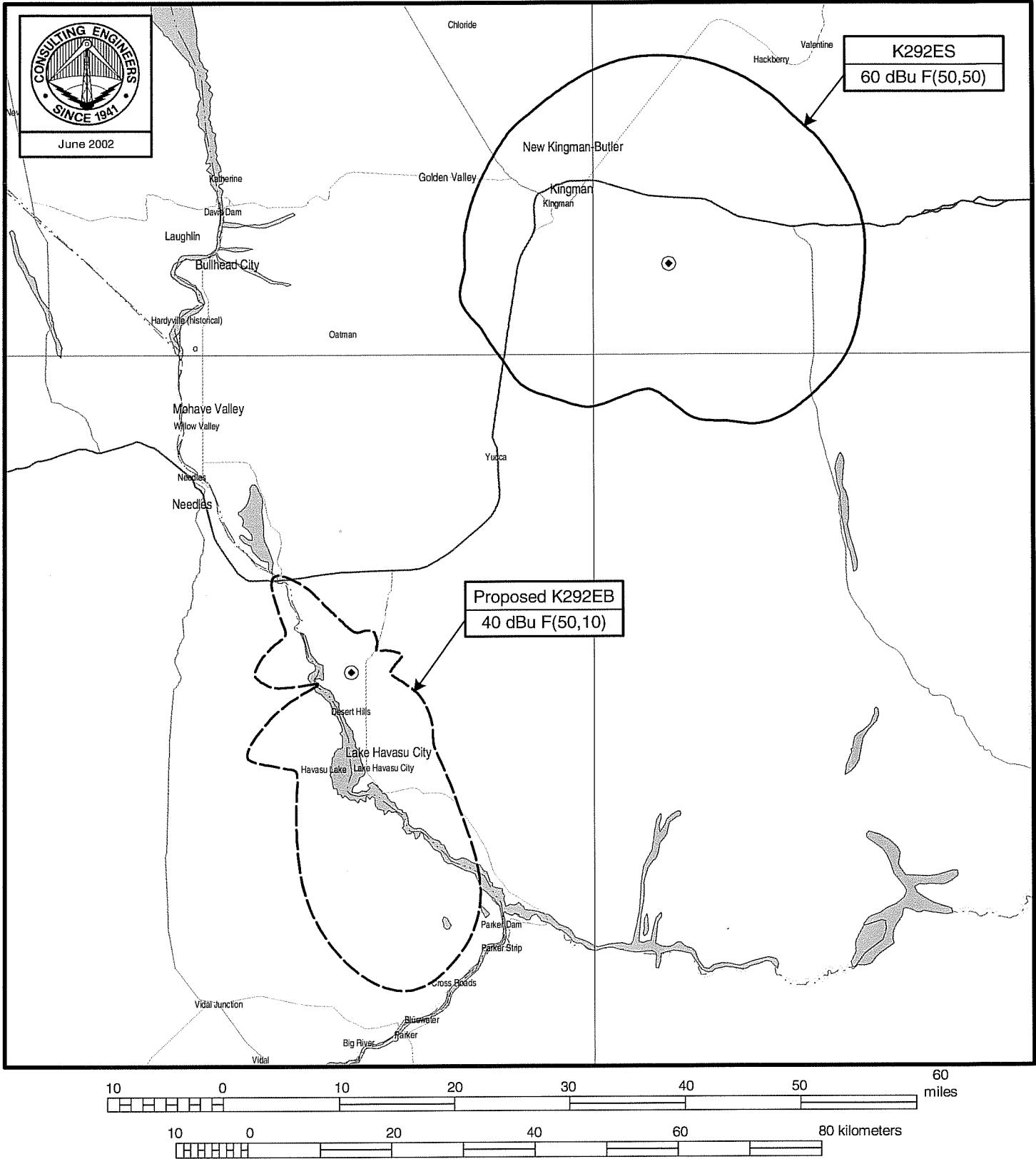
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**ALLOCATION STUDY**  
**FM TRANSLATOR K292EB**  
**LAKE HAVASU CITY, ARIZONA**  
**CH 292 0.075 KW**

du Treil, Lundin & Rackley, Inc Sarasota, Florida