

TECHNICAL REPORT

**KZHM(FM)
Alamogordo, NM
240C2
#189481**

APPLICATION FOR ENGINEERING STA

Purpose:

The applicant has lost its main site and is applying for an engineering STA to maintain service to Alamogordo, NM.

Technical data and exhibits for requested STA:

Channel 240
ERP = 2 kW
RCAMSL = 1418 meters
RCAGL = 21 meters
Antenna = OMB SGP-2 2 bay 0.75λ antenna non-directional

Site: N 32-54-58.2 W 105-55-31.9 (NAD 83)

The following exhibits are provided:

- E1 60 dBu contour map showing the STA 60 dBu is contained within the licensed 60 dBu
- E2 Tower Air compliance

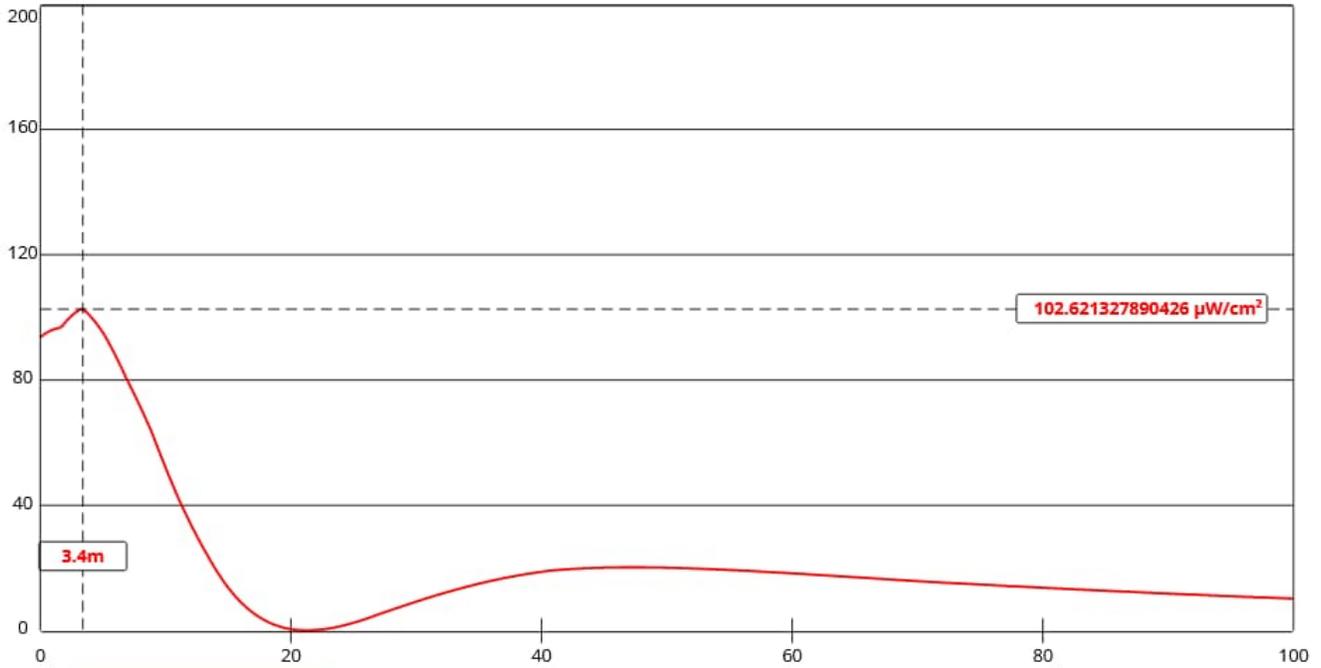
RF determination:

The 2.0 kW facility's RF exposure will not exceed FCC requirements since FMModel determined RF level is $102.6 \mu\text{Watts/cm}^2$ (see FMModel below) or 51.3% of the maximum for general public exposure. The two translators on the tower add less than 5% and are not attributable (see FMModel below).

Anderson Associates

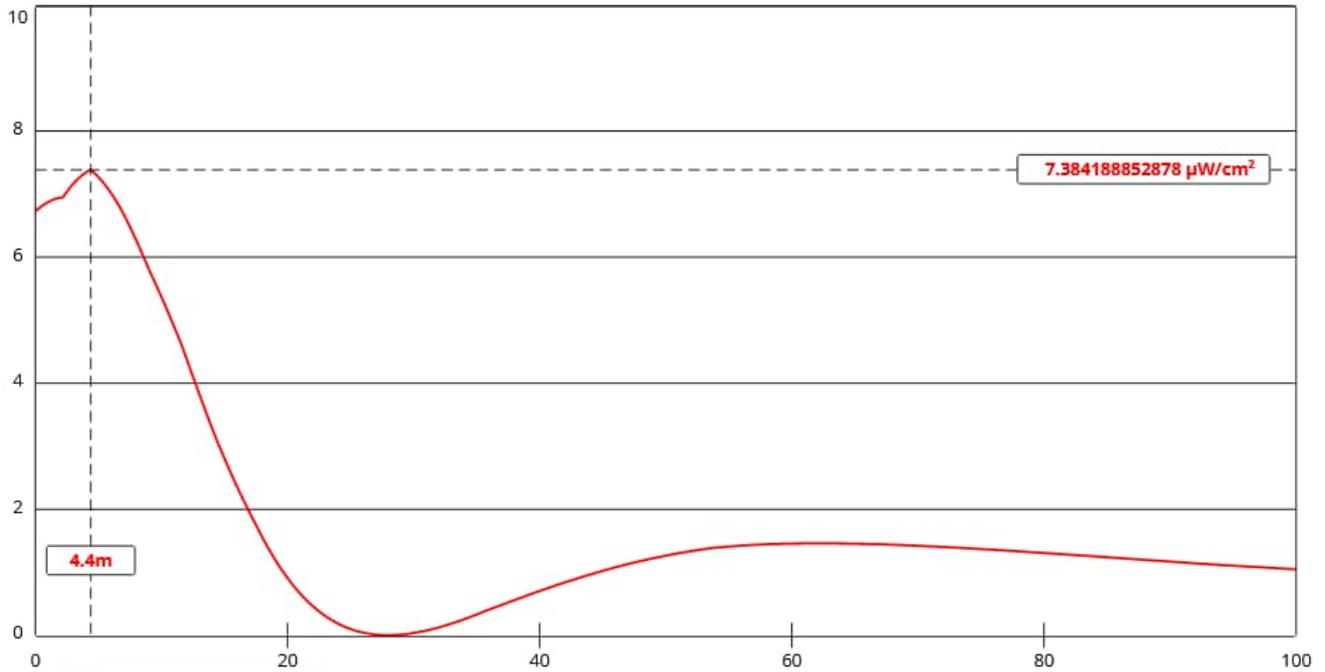
Broadcast Engineering Consultants

KZHM RF Determination:



Channel Selection	Channel 240 (95.9 MHz) ▾		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▾		
Height (m)	<input type="text" value="21"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="2000"/>	ERP-V (W)	<input type="text" value="2000"/>
Num of Elements	<input type="text" value="2"/>	λ	<input type="text" value=".75"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

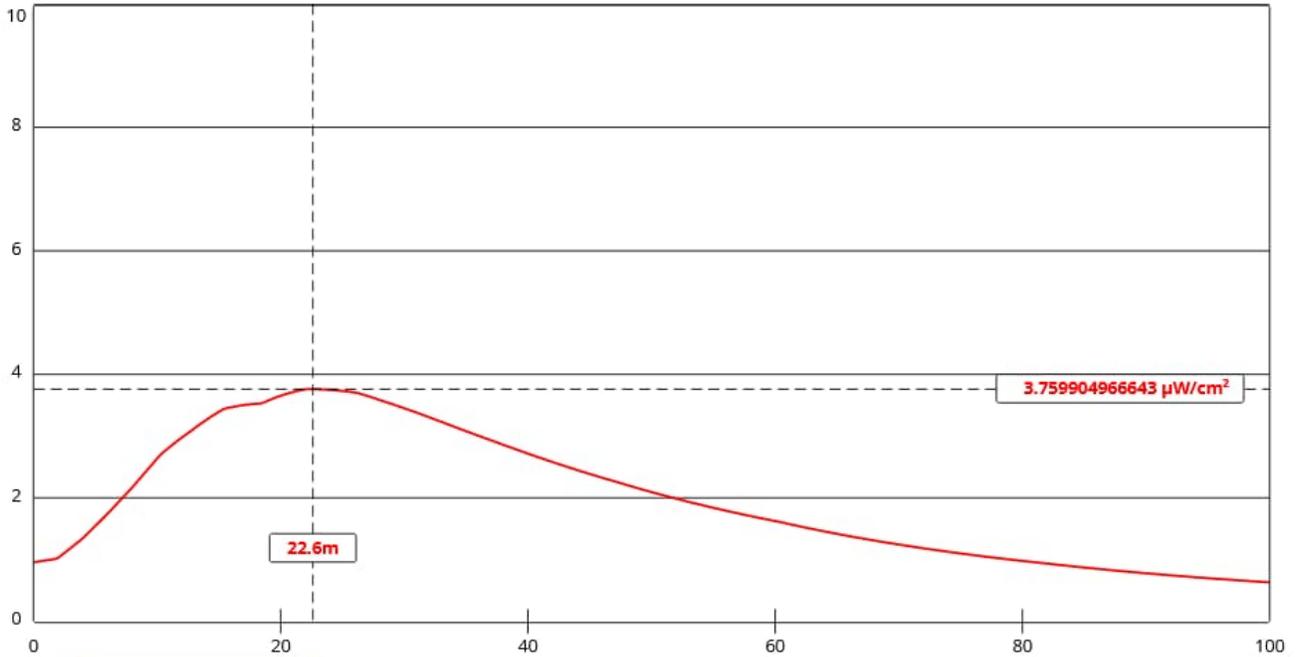
K248CB RF Determination:



[View Tabular Results +](#)

Channel Selection	Channel 248 (97.5 MHz) ▾		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▾		
Height (m)	<input type="text" value="27"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="250"/>	ERP-V (W)	<input type="text" value="250"/>
Num of Elements	<input type="text" value="2"/>	λ	<input type="text" value=".75"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

K263BF RF Determination:



View Tabular Results +

Channel Selection	Channel 263 (100.5 MHz) v		
Antenna Type +	EPA Type 2: Opposed V Dipole v		
Height (m)	24	Distance (m)	100
ERP-H (W)	99	ERP-V (W)	99
Num of Elements	1	λ	1
Num of Points	500	Apply	

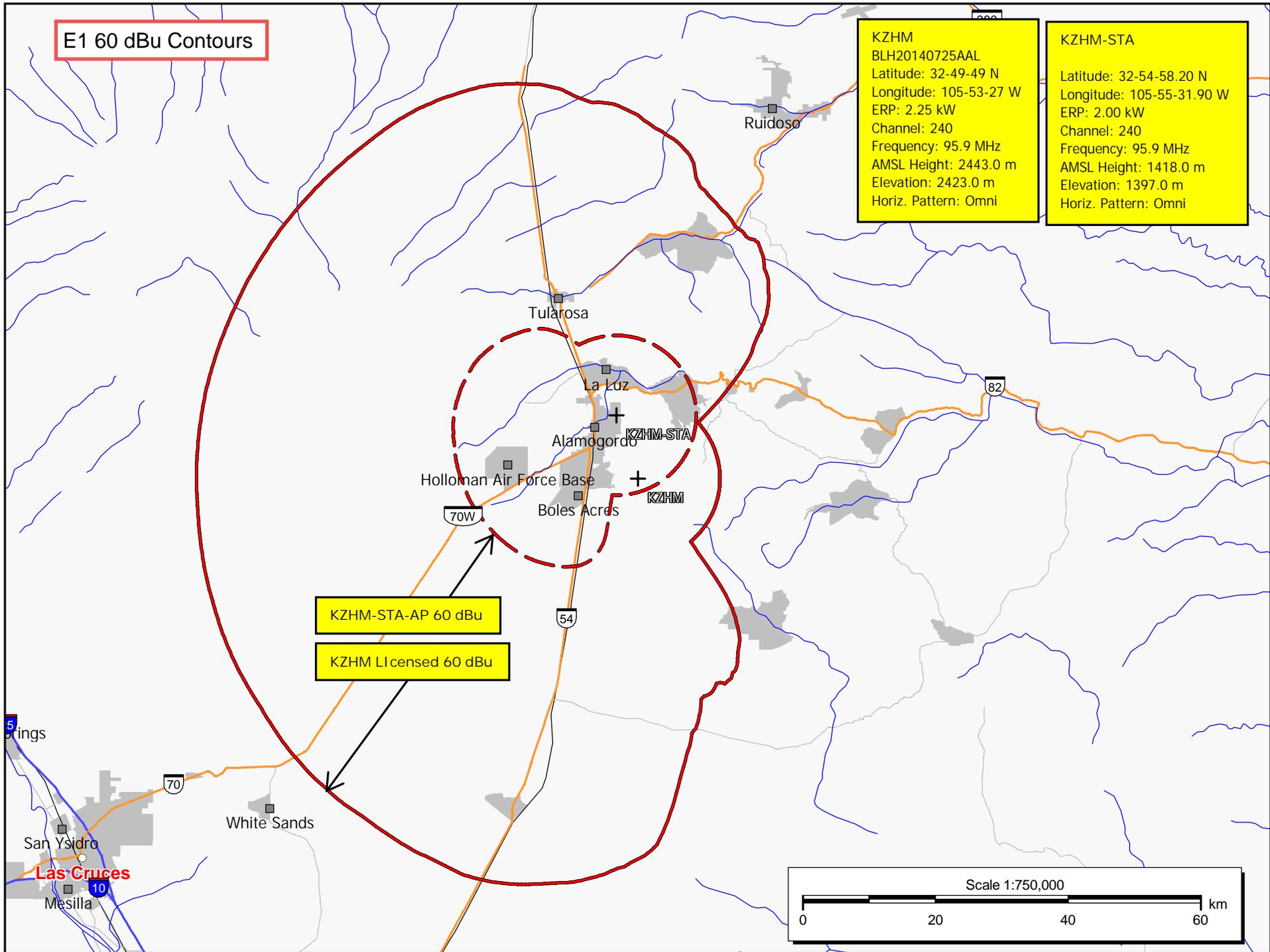
Charles M. Anderson

Charles M. Anderson 12-6--2022
270-535-4432
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E1 60 dBu Contours

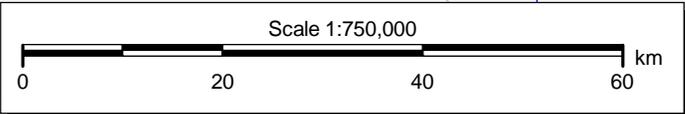
KZHM
BLH20140725AAL
Latitude: 32-49-49 N
Longitude: 105-53-27 W
ERP: 2.25 kW
Channel: 240
Frequency: 95.9 MHz
AMSL Height: 2443.0 m
Elevation: 2423.0 m
Horiz. Pattern: Omni

KZHM-STA
Latitude: 32-54-58.20 N
Longitude: 105-55-31.90 W
ERP: 2.00 kW
Channel: 240
Frequency: 95.9 MHz
AMSL Height: 1418.0 m
Elevation: 1397.0 m
Horiz. Pattern: Omni



KZHM-STA-AP 60 dBu

KZHM Licensed 60 dBu



E2 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	32-54-58.2 north
Longitude	105-55-31.9 west

Measurements (Meters)

Overall Structure Height (AGL)	31
Support Structure Height (AGL)	0
Site Elevation (AMSL)	1399

Structure Type

LTOWER - Lattice Tower

[CLOSE WINDOW](#)