

## **Comprehensive Technical Statement**

*in support of*

**St. Paul Bible College  
Application for Minor Change  
KJZK (FM), Facility ID # 173030  
Channel 214A, 90.7 MHz  
Kingman, AZ**

**International Notification Required (Mexico)**

### **Introduction**

St. Paul Bible College proposes to modify its KJZK (FM), Facility ID # 173030, Kingman, AZ.

The following changes are proposed:

- Transmitter location
- Effective radiated power
- Change to non-directional antenna
- Station class

### **Data Sources**

Distances were calculated using the FCC method defined in 73.208 of the Commission's Rules.

All contours shown in this report were generated using antenna center above mean sea level, NAD-27 coordinates, and the FCC online HAAT calculator, which uses 30-second terrain data.

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## **Allocation Study – Non-reserved (commercial) channels**

Given that KJZK operates on channel 214, the only non-reserved band channels of interest are IF-separated channels 267 and 268. The only nearby IF separated facility is Class C3 KXMK, Oatman, AZ, FCC Facility ID # 183358. It is 42 km from the proposed site, far beyond any Class C3 spacing requirement.

## **Allocation Study – Reserved (non-commercial) channels**

### **Detailed Interference Study**

*All outbound interference maps show the 60dbu f(50,50) protected contours of the conflicting records in black filled with salmon. The outbound interfering contour of the proposed facility is shown in red and labeled in the upper-right corner of each map.*

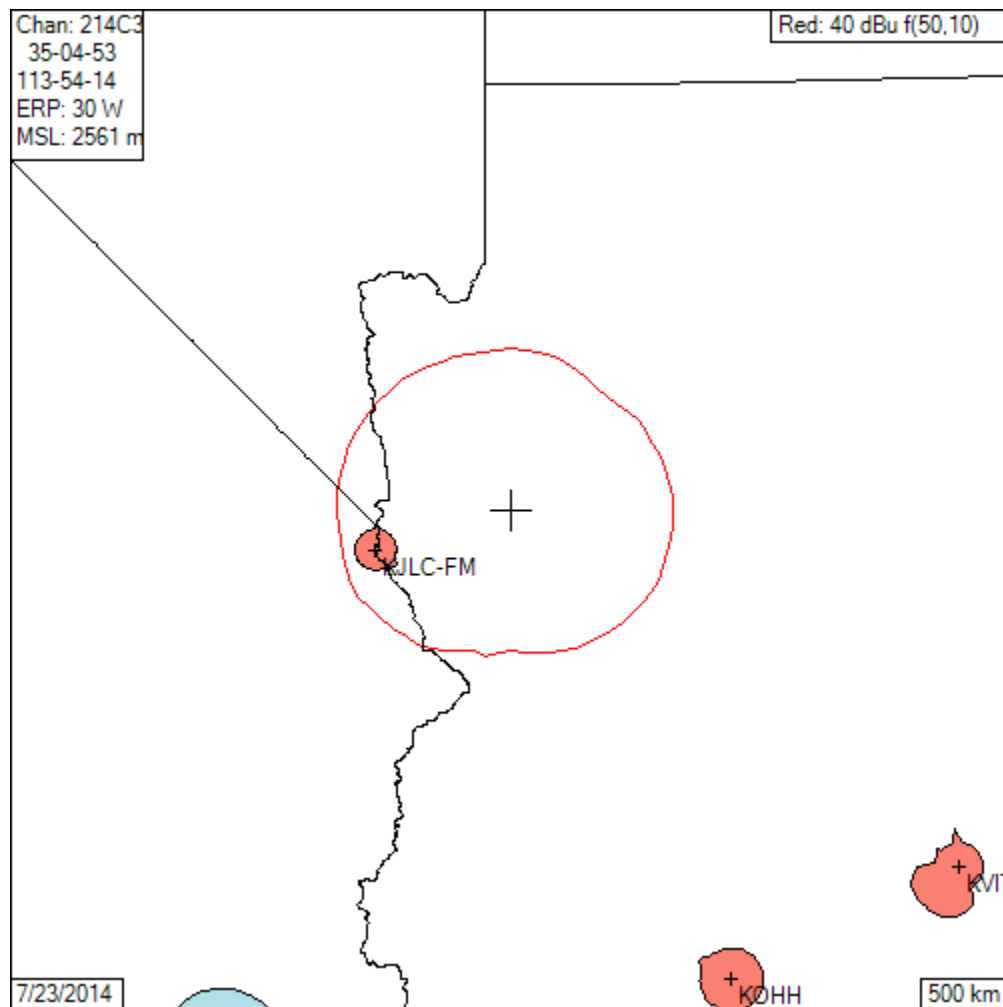
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## Outbound co-channel



The only co-channel conflict with prohibited overlap is KJLC-FM, FCC Facility ID # 174417, Needles, CA.

This facility is listed in CDBS as “Licensed and Silent.” Its license expired on December 1, 2013. A renewal application, BRED-20130801AWV, was filed but has not been granted.

KJLC-FM applied for “Remain Silent Authority” in December 2013 (BLSTA-20131216BWP), admitting that the station had been silent since June 28, 2013. The STA application was granted on April 3, 2014, by letter warning that the license would expire as a matter of law at 12:01 AM June 29, 2014 if the station did not recommence operations by that time.

There is no correspondence in CDBS indicating that the licensee complied with this requirement, and this application therefore does not protect KJLC-FM.

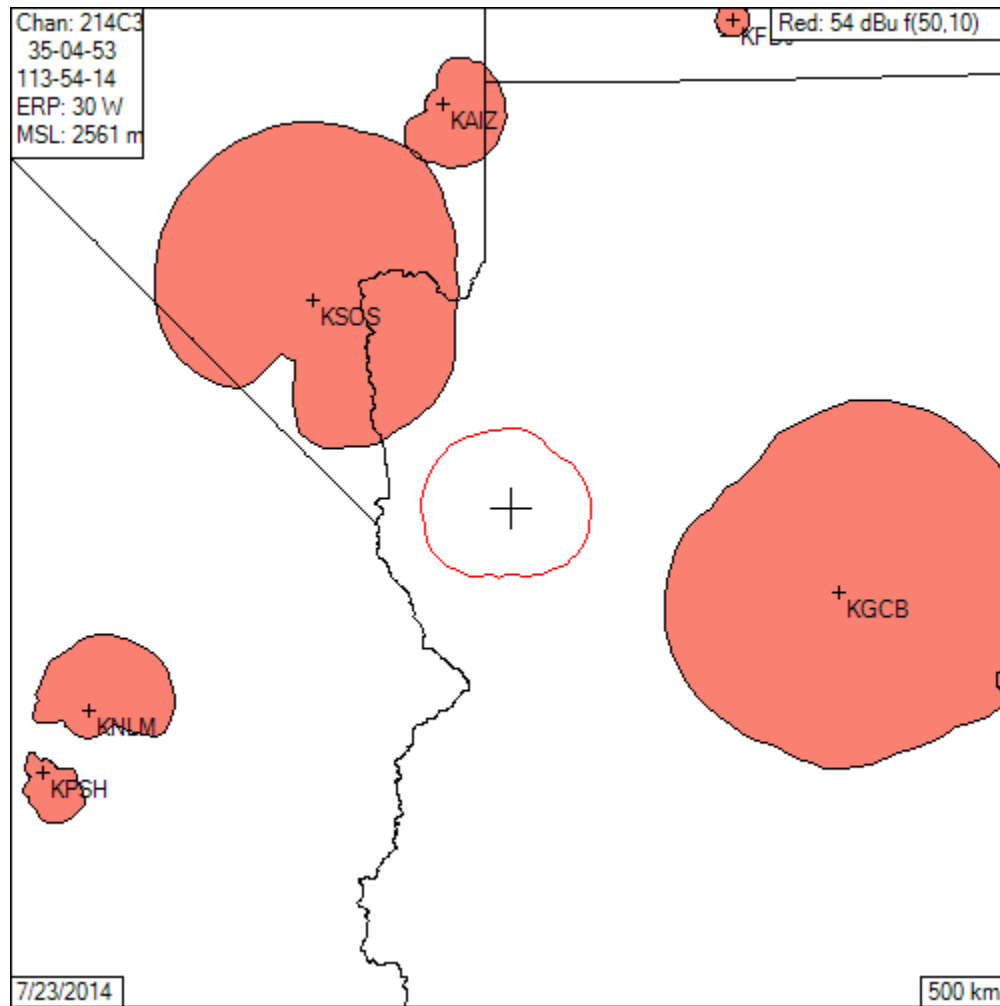
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## Outbound first adjacent



There is no outbound overlap with any first adjacent conflict.

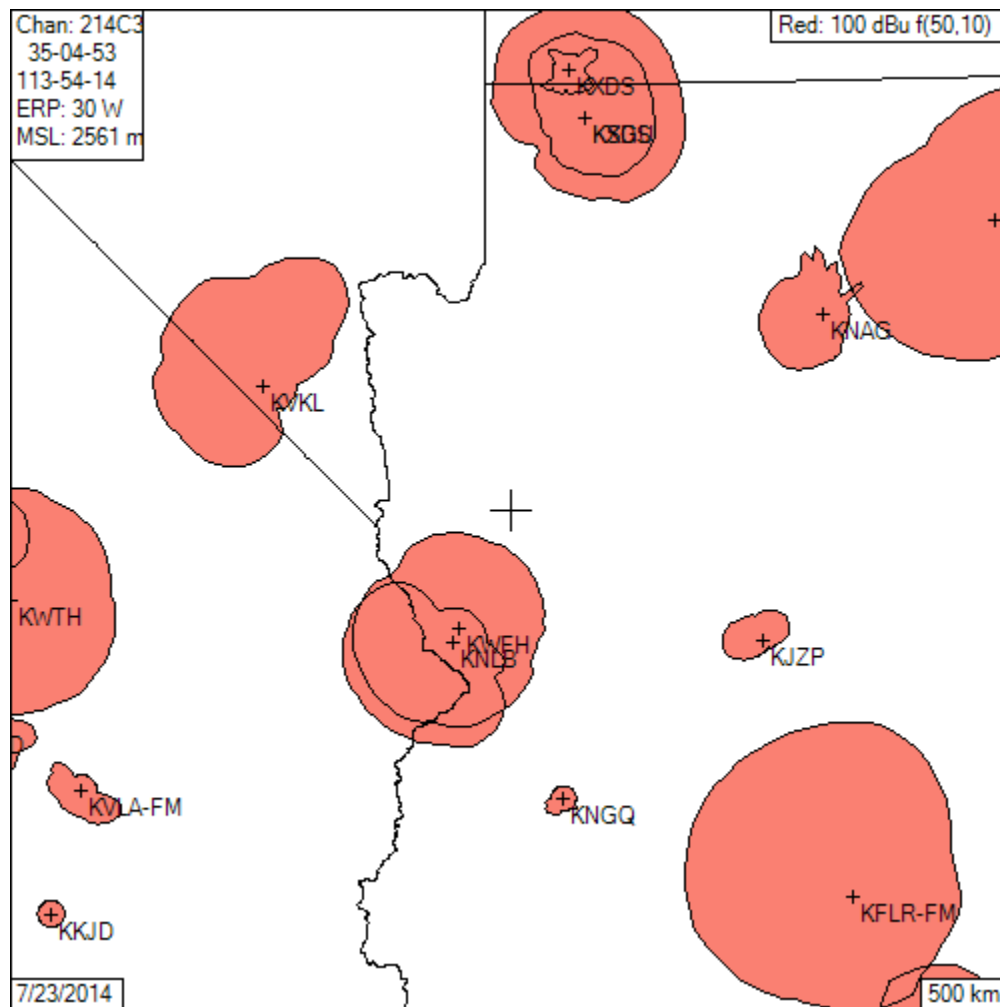
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## Outbound second and third adjacent



There is no outbound overlap with any current second or third adjacent conflict.

The application falls within the protected 60 dBu f(50,50) contour of an expired Construction Permit (BPED-20110503ACP) for KNLB, Lake Havasu City, AZ, FCC Facility ID # 48504. The Construction Permit expired on June 15, 2014, more than thirty days before this application was filed, and CDBS shows no license application to cover the Construction Permit.

This application therefore does not protect the KNLB Construction Permit.

The current KNLB license (BLED-20041214AES) is protected.

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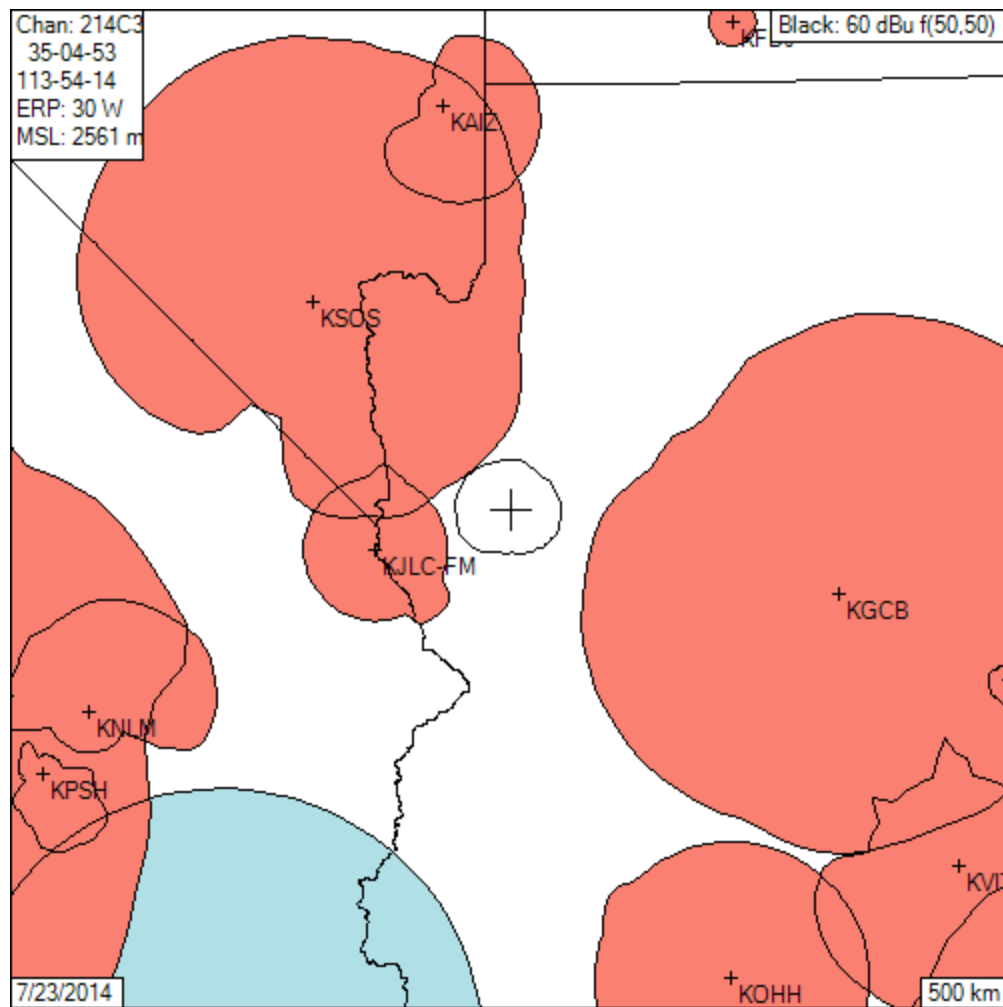
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## Inbound

The inbound interference map shows the proposed 60 dBu f(50,50) in black, and the channel-appropriate interfering contours in black filled with salmon.



The only significant inbound interference is attributable to two first-adjacent conflicts, KSOS, Las Vegas, NV, FCC Facility # 20528, and KNCB Prescott, AZ, FCC Facility ID # 24752.

There is clearly no overlap from KNCB, but KSOS is close.

As described above, potential overlap with formerly licensed co-channel KJLC-FM is ignored.

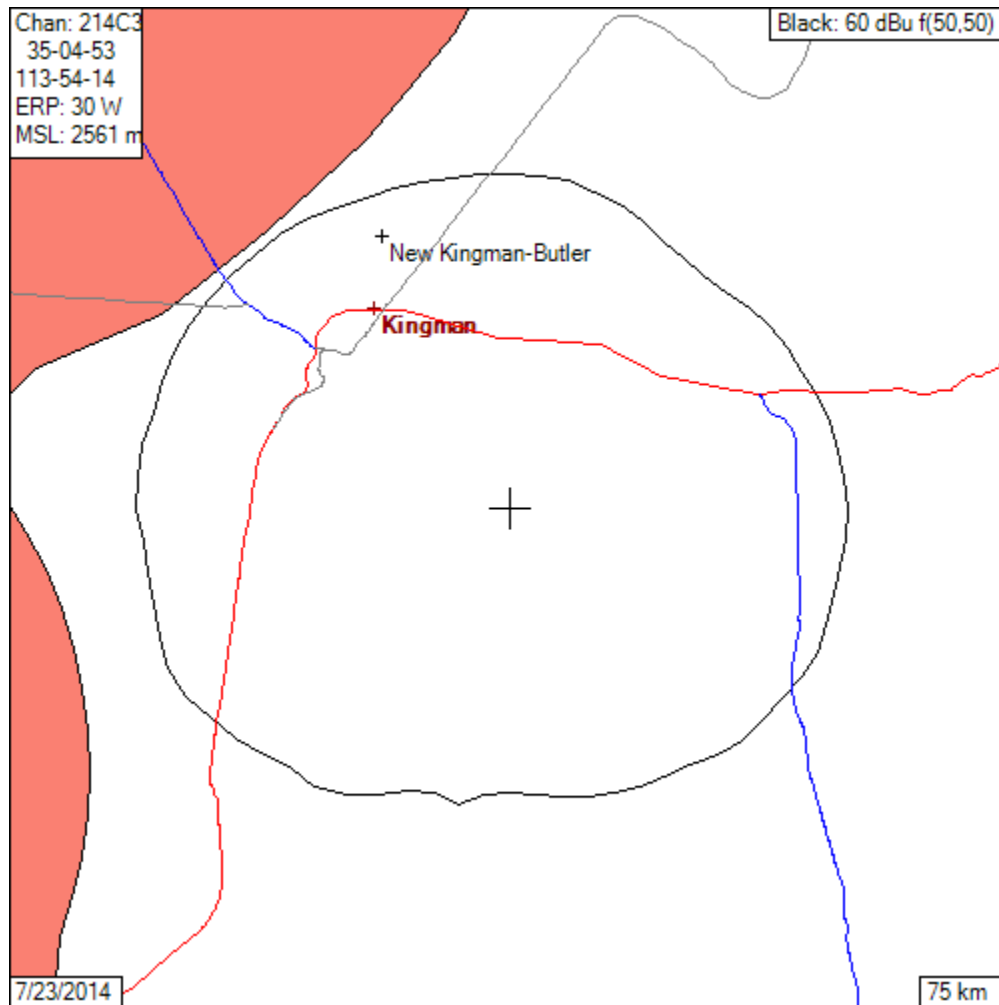
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This detailed plot shows that there is no overlap between the KSOS 54 dBu f(50,10) contour and the 60 dBu f(50,50) of the application.

### Blanketing Interference

There is no population near the proposed mountaintop transmitter location. Should any blanketing interference complaints develop, the applicant commits to resolving them in accordance with the procedures contained in 73.318.

### Television Channel 6 Interference

For the proposed channel 214, 73.525 requires study of any Full Service Channel 6 TV station within 187 km. The nearest record in CDBS of such a station or proposal is in Caliente, NV, more than 300 km from the proposed site.

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## **International**

The FM Agreements with Canada and Mexico require evaluation and potential coordination of any proposal within 320 km of the border.

The distance to the nearest point along the US/Canada border is 1,546 km. Coordination with Canada is not required.

The distance to the nearest point along the US/Mexico border is 273.1 km from the proposed site. Evaluation with respect to Mexican facilities and proposals is required:

While the instant application involves a Class downgrade from C3 to A, the proposed site allows for an upgrade to Class C2 with a directional antenna.

The site is fully spaced for Class C2 with regard to all potential Mexican conflicts,

It is requested that the notification to Mexico provide for a Class C2 station at the proposed location.

## **Quiet Zones**

The proposed site is outside the National Radio Quiet Zone (National Radio Astronomy Observatory Notification Area) in West Virginia.

The proposed site is outside the Arecibo Observatory notification area in Puerto Rico.

The proposed site is not within a 100 km extension of the Table Mountain Radio Receiving Zone in Colorado.

## **Protected Monitoring Stations**

The nearest Protected Monitoring Station is 560 km distant, in Douglas, AZ. This is well beyond any potential 80 dBu contour.

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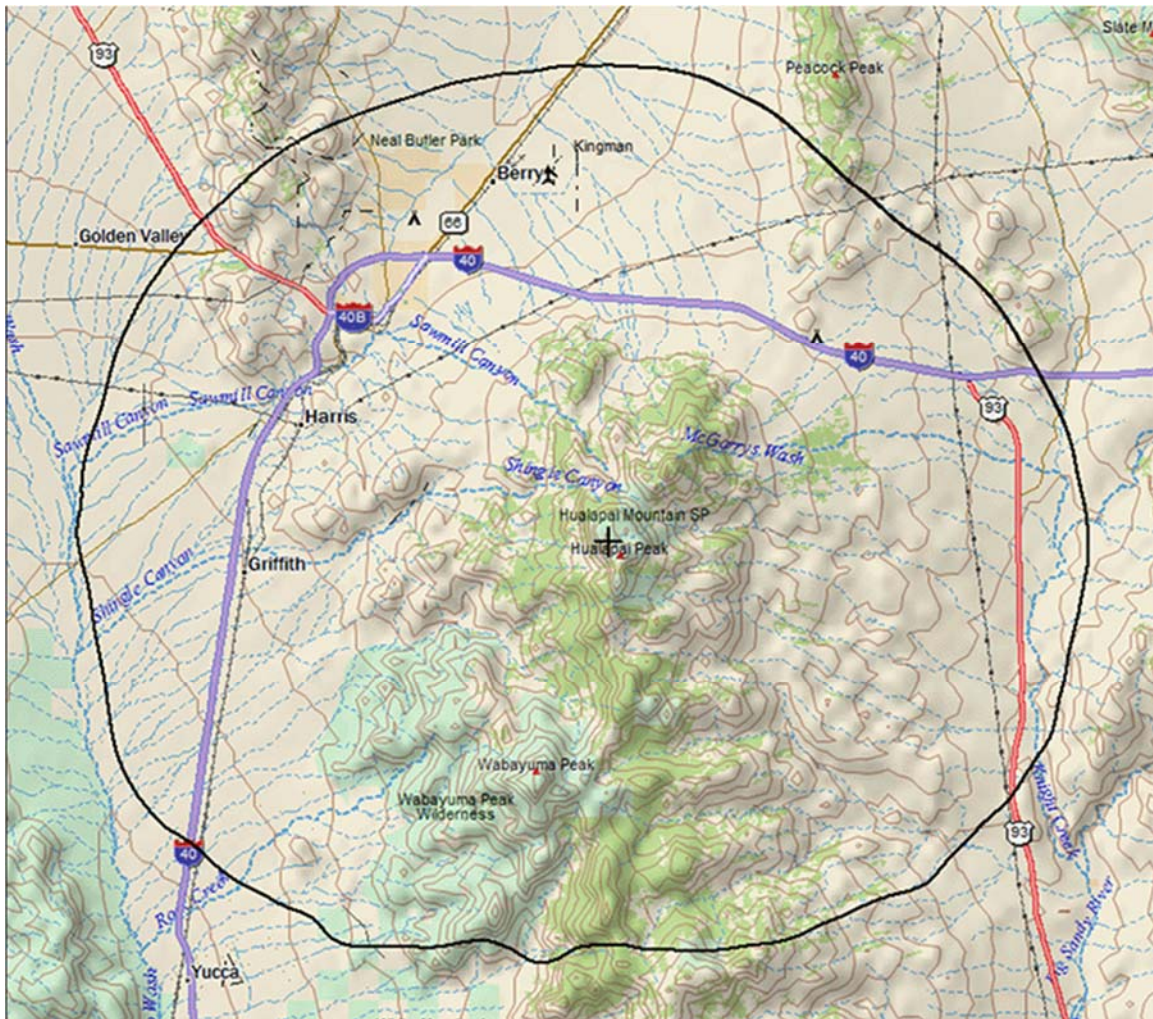
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## Coverage



The proposed 60 dBu f(50,50) contour includes a land area of more than 2,000 km<sup>2</sup>, and a population of more than 49,000.

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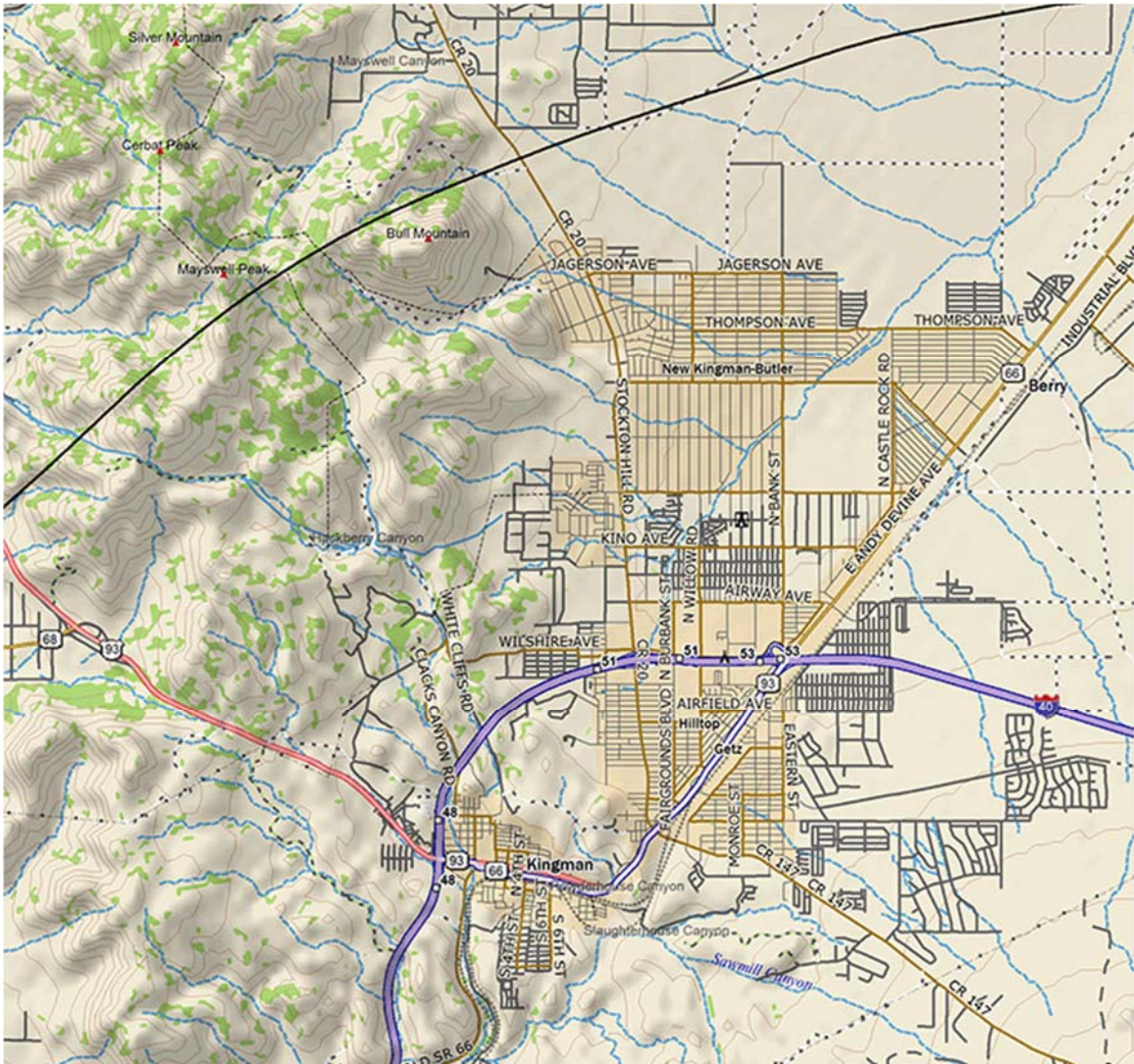
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## Community Coverage



The entire principal community of Kingman, AZ is contained within the proposed 60 dBu f(50,50) contour.

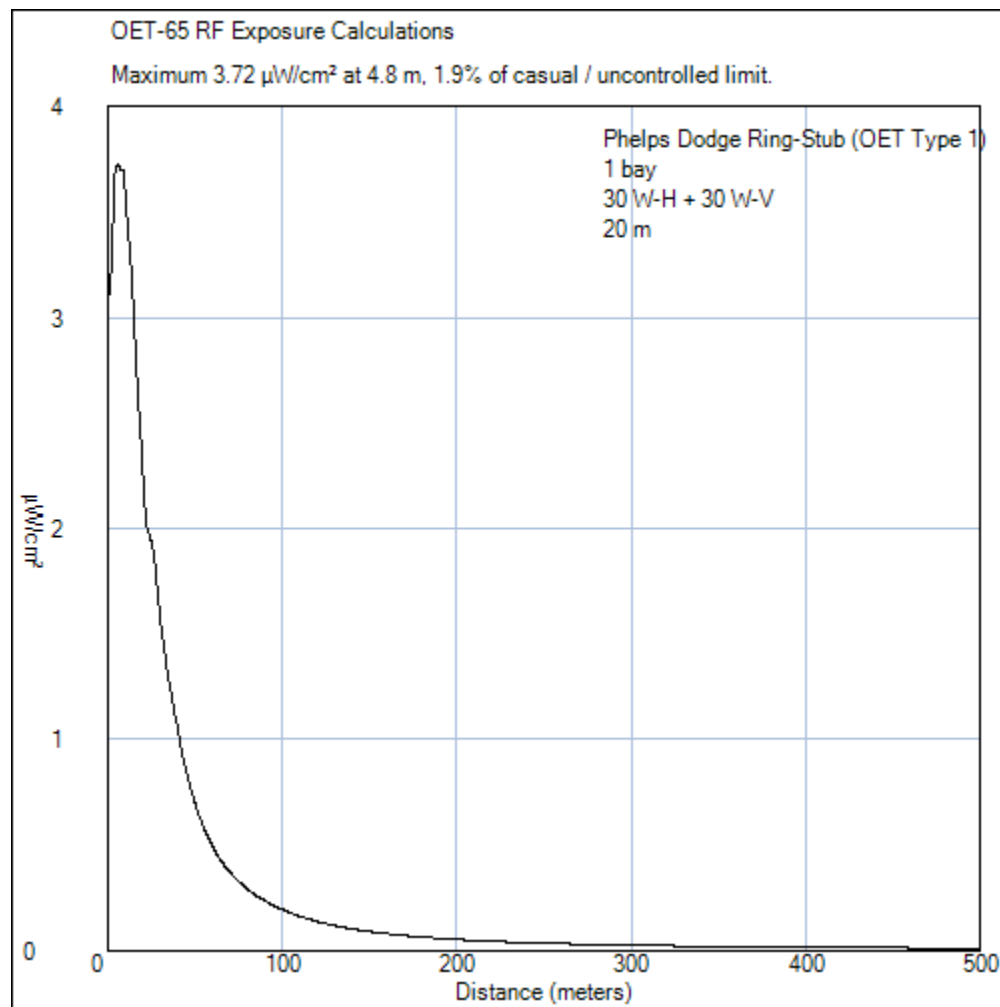
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## Environmental / RF Exposure



The proposed antenna will be mounted 20 m AGL. The proposed ERP is 30 W. The maximum RF exposure will be less than 2% of the limit for casual / uncontrolled exposure.

The applicant commits to providing appropriate access control and signage, and to coordinate with other users at the site to reduce power or temporarily suspend operations in order to protect workers at the site.

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## Transmitter Location

### Tower data:

Coordinates (NAD-27)    35 04 53  
   113 54 14

ASR                                None, not required

### Antenna data:

Description                    One-bay Shively 6812B-1

Antenna center                20 m AGL  
   2561 m AMSL  
   1091 m AAT (from FCC online HAAT calculator)

### ERP:

Horizontal                    0.030 kW  
Vertical                        0.030 kW

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