



ENGINEERING STUDY
K283CZ CP MODIFICATION APPLICATION
Translator for KUBC (AM), Montrose, CO
BNPFT-20180508ABB

TECHNICAL STATEMENT

This technical statement and attached exhibits were prepared on behalf of CCR-Montrose IV, LLC, licensee of AM radio station KUBC, 580 kHz, Montrose, CO. Facility ID #73626 and construction permit for K283CZ, facility ID 202972. This application seeks to slightly relocate the proposed antenna to a different tower on the same KUBC (AM) array to place it closer to the transmitter building.

Facilities Proposed

| | |
|---------------------------|--|
| Location (NAD83) | 38° 25' 36" N Latitude, 107° 52' 59" W Longitude |
| Channel | 283D (104.5MHz) |
| Tower Overall AGL Height- | 95m |
| Tower ASR | 1063915 |
| Proposed Antenna | ERI 100A-2 |
| Antenna AGL Height- | 93m |
| Site AMSL Height- | 1811m |
| ERP | 250Watts- NON-DIRECTIONAL |

COMPLIANCE WITH 74.1204(a) [contour overlap]

The proposed translator on channel 283D will remain fully compliant with 74.1204(a). A table showing the allocation is attached as Exhibit A. A map showing the relationship to the closest co-channel or first adjacent channel allotment (KMXY 282C0) is shown in Exhibit B.

COMPLIANCE WITH 74.1204(d)

There will be contour overlap with one second adjacent facility, KRYD, 285C1. Exhibit C is a tabulation showing that the interfering contour will not be closer than 39.3 meters to ground level. Based upon the preceding analysis, it is considered that the proposed operation of 283D will be compliant with 74.1204(d) in that no actual interference will occur to any listeners.

COMPLIANCE WITH 74.1201(g) [AM fill-in]

Exhibit D demonstrates that the proposed translator will be entirely contained within the KUBC (AM) 2mV/m day contour as well as within 25 miles from KUBC.

The proposed facility is not within 320km of the common border between the US and Mexico or Canada.

ENVIRONMENTAL EXHIBIT

The proposed translator facility will utilize a non-directional antenna and will be isocoupled to an existing AM tower (ASR 1063915, Exhibit E) used by the primary station, KUBC. The attachment of the proposed translator antenna will not alter the existing tower structure for purposes of the Nationwide Programmatic Agreement and the NHPA Section 106.

Using the FCC program “FM Model for Windows”, it was calculated that the proposed antenna contributes approximately $0.45\mu\text{W}/\text{cm}^2$ or 0.23 % of the total allowable $200\mu\text{W}/\text{cm}^2$. The maximum was found to be 91 meters from the base of the tower. There are no tall buildings within 100m of the proposed tower, and the tower is fenced preventing public access for KUBC’s RFR compliance requirements.

Other than KUBC (AM) there are no other non-excluded facilities at this site. Because the maximum contribution of the proposed translator for the uncontrolled environment is less than the 10

$\mu\text{W}/\text{cm}^2$ (5.0%) limit as set forth by §1.1307(b)(3), the facility will be in compliance with FCC guidelines and is excluded from further Environmental Assessment under 47CFR 1.1306 and 1.1307.

The proposed new FM translator along with other users at the site will maintain an occupational safety policy and agrees to reduce power or cease operation during periods of maintenance to avoid potentially harmful exposure of personnel to non-ionizing RF radiation.

Respectfully Submitted

A handwritten signature in cursive script, reading "Bert Goldman". The signature is written in dark ink and is positioned above the printed name.

Bert Goldman

Technical Consultant

EXHIBIT A- ALLOCATION STUDY

ComStudy 2.2 search of channel 283 (104.5 MHz Class D) at 38-25-36.0 N, 107-52-59.0 W.

| CALL | CITY | ST CHN CL | DIST | SEP | BRNG | CLEARANCE |
|--------|----------------|-----------|--------|------|-------|---------------------|
| KRYD | NORWOOD | CO 285 C1 | 30.22 | 0.00 | 246.1 | -19.24 dB EXHIBIT D |
| KMXV | GRAND JUNCTION | CO 282 C0 | 103.39 | 0.00 | 313.7 | 1.13 dB Exhibit B |
| KKFG | BLOOMFIELD | NM 283 C | 198.22 | 0.00 | 177.4 | 22.02 dB |
| K284AP | GRAND JUNCTION | CO 284 D | 103.35 | 0.00 | 313.8 | 25.77 dB |
| KKFG | BLOOMFIELD | NM 283 C | 197.90 | 0.00 | 188.6 | 31.38 dB |
| KKVM | VAIL | CO 284 C1 | 182.89 | 0.00 | 42.3 | 32.87 dB |
| K282BJ | CARBONDALE | CO 282 D | 119.03 | 0.00 | 21.4 | 34.76 dB |
| K283BN | VERNAL | UT 283 D | 281.72 | 0.00 | 327.0 | 37.91 dB |

LMS as of 2/5/2020

EXHIBIT B 74.1204(a) Compliance

Proposed KUBC 283D from ASR 1063915, 250w ND, 93m AGL 74.1204a Compliance

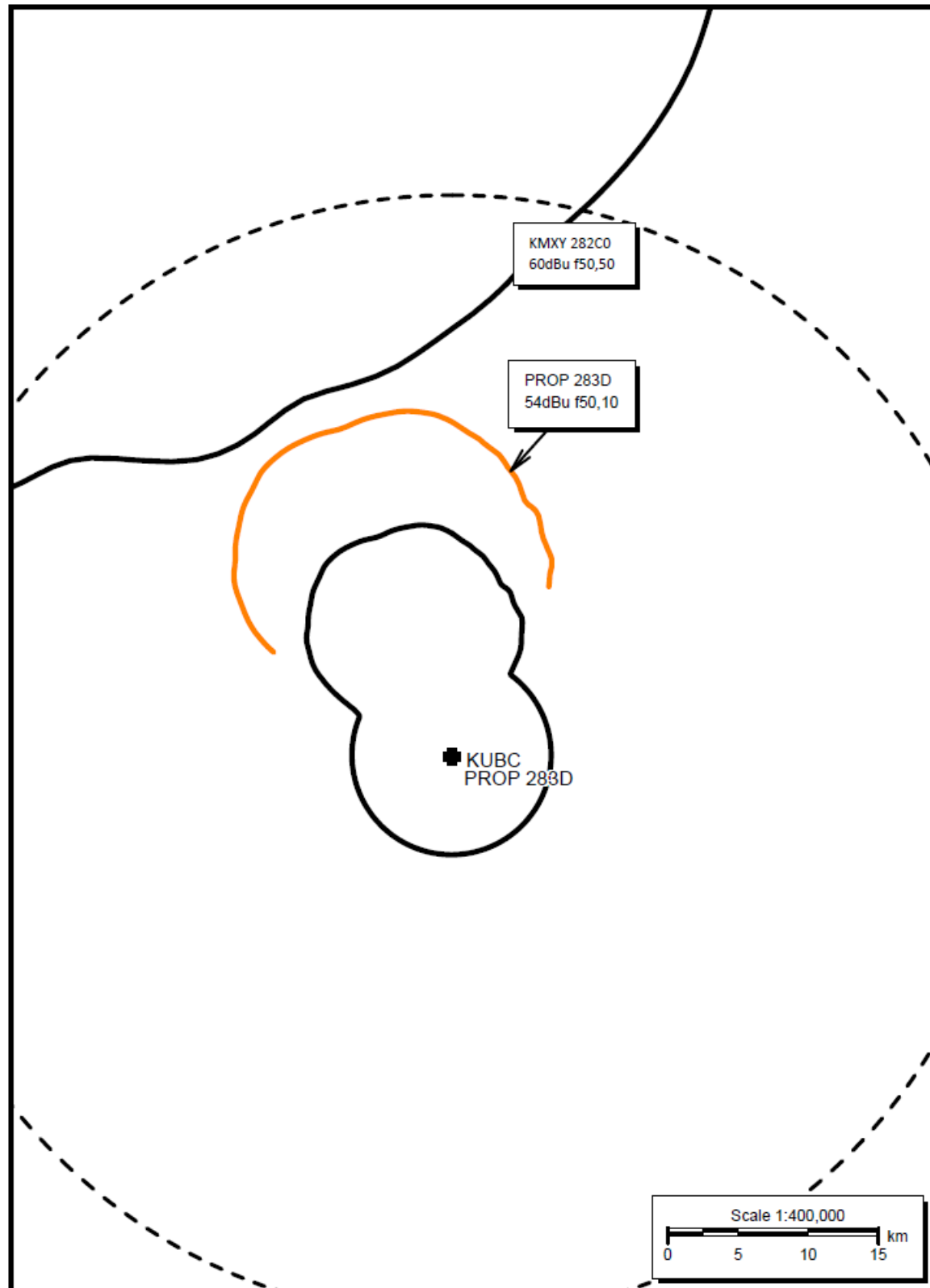


EXHIBIT C 74.1204(d) Compliance to KRYD

K283CZ.C Montrose , CO, Showing Protection to KRYD , Channel: 285

Geographic Coordinates: N. 382536.00 W. 1075259

74.1204(d) Study - Using NED 03 SEC Terrain Database

Translator or LPFM Maximum Licensed ERP = 0.25 kW, Channel: 283

Translator or LPFM Antenna Height AG = 93 meters

K283CZ.C Antenna Model = SHPX1F

Protected Station's Contour = 78.49643 dBu

Translator's or LPFM's full Interference contour 118.49643

Review Azimuth = 0 Degrees True

Horizontal Relative Field at Review Azimuth = 1.000

Translator/LPFM ERP on the horizontal at Review Azimuth = 0.25 kW

Distance between stations = 30.2 km

Protected Station= KRYD, 24 kW, 3074 M meters COR AMSL

| Depression Angle From Degree(Deg) | Vertical Relative Field | Horizontal Relative Field | ERP (kw) | Dist to IX Contour Along Dep. Angle(m) | Dist to IX Contour From Tower Base(m) | Height IX Above Ground (m) |
|---|-------------------------------|---------------------------------|----------|--|---|----------------------------------|
| 00.00 | 1.0 | 1.0 | 0.2500 | 131.8708 | 131.8708 | 093.000 |
| 05.00 | 0.993 | 1.0 | 0.2465 | 130.9477 | 130.4494 | 081.587 |
| 10.00 | 0.974 | 1.0 | 0.2372 | 128.4421 | 126.4908 | 070.696 |
| 15.00 | 0.941 | 1.0 | 0.2214 | 124.0904 | 119.8621 | 060.883 |
| 20.00 | 0.897 | 1.0 | 0.2012 | 118.2881 | 111.1544 | 052.543 |
| 25.00 | 0.843 | 1.0 | 0.1777 | 111.1670 | 100.7516 | 046.019 |
| 30.00 | 0.78 | 1.0 | 0.1521 | 102.8592 | 089.0787 | 041.570 |
| 35.00 | 0.709 | 1.0 | 0.1257 | 093.4964 | 076.5877 | 039.373 |
| 40.00 | 0.633 | 1.0 | 0.1002 | 083.4742 | 063.9449 | 039.344 |
| 45.00 | 0.554 | 1.0 | 0.0767 | 073.0564 | 051.6587 | 041.341 |
| 50.00 | 0.473 | 1.0 | 0.0559 | 062.3749 | 040.0938 | 045.218 |
| 55.00 | 0.394 | 1.0 | 0.0388 | 051.9571 | 029.8014 | 050.439 |
| 60.00 | 0.317 | 1.0 | 0.0251 | 041.8030 | 020.9015 | 056.798 |
| 65.00 | 0.245 | 1.0 | 0.0150 | 032.3083 | 013.6541 | 063.719 |
| 70.00 | 0.181 | 1.0 | 0.0082 | 023.8686 | 008.1635 | 070.571 |
| 75.00 | 0.124 | 1.0 | 0.0038 | 016.3520 | 004.2322 | 077.205 |
| 80.00 | 0.077 | 1.0 | 0.0015 | 010.1540 | 001.7632 | 083.000 |
| 85.00 | 0.041 | 1.0 | 0.0004 | 005.4067 | 000.4712 | 087.614 |
| 90.00 | 0.016 | 1.0 | 0.0001 | 002.1099 | 000.0000 | 090.890 |

EXHIBIT D 74.1201(g) Compliance

Proposed KUBC 283D from ASR 1063915, 250w ND, 93m AGL 74.1201g Compliance

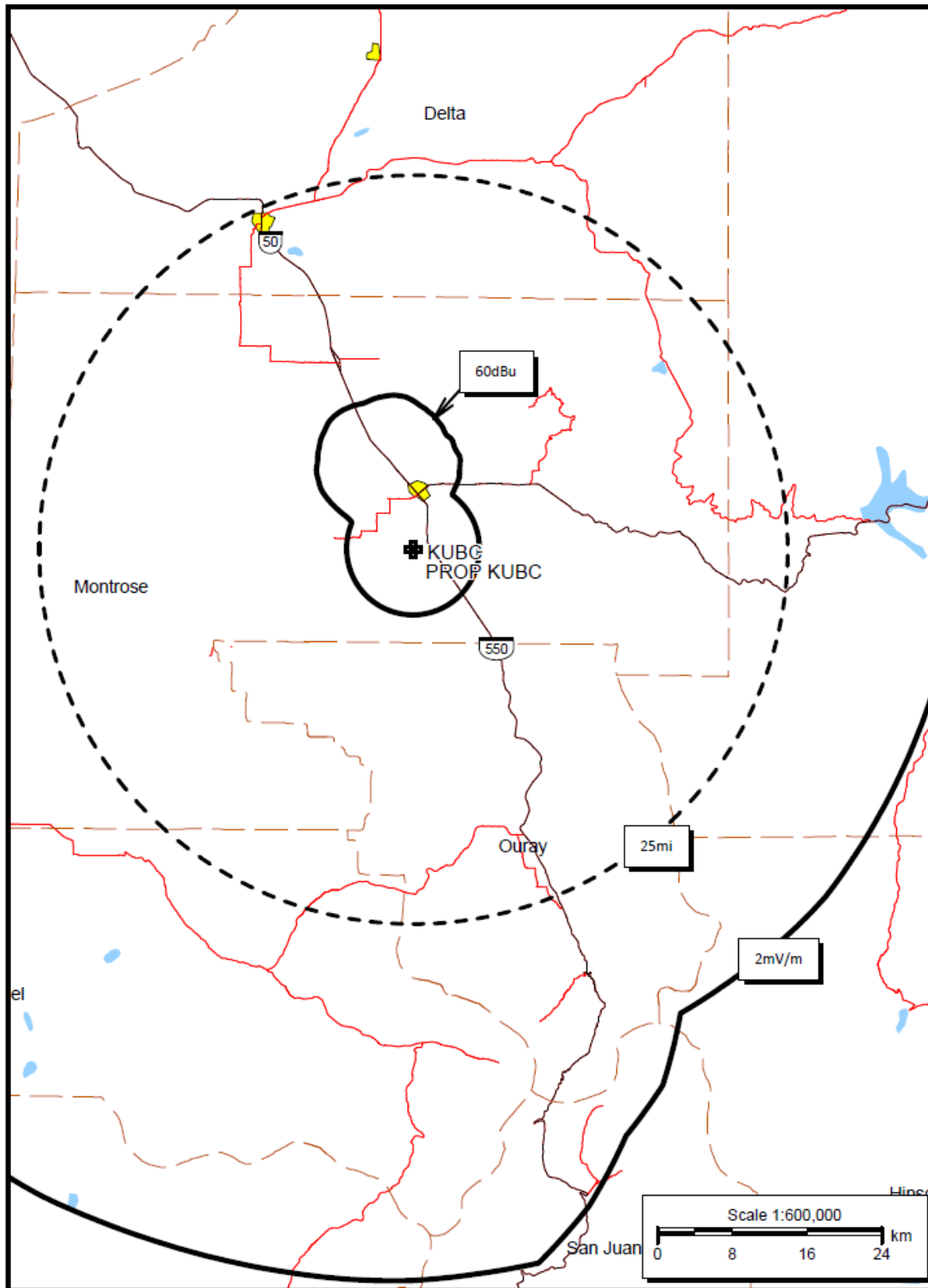


EXHIBIT E- ASR

Registration 1063915

✦ [Map Registration](#)

Registration Detail

| | | | |
|-------------|----------|-------------|-------------|
| Reg Number | 1063915 | Status | Constructed |
| File Number | A1122080 | Constructed | 06/01/1956 |
| EMI | No | Dismantled | |
| NEPA | No | | |

Antenna Structure

Structure Type 3TA3 - Antenna Tower Array - 1st N = # towers 2nd N =

Location (in NAD83 Coordinates)

| | | | |
|--------------------|----------------------------|-------------------------------|---|
| Lat/Long | 38-25-36.0 N 107-52-59.0 W | Address | TWR 3 - 2 MILES S OF MONTROSE AT END OF 64.50 ROAD |
| City, State | MONTROSE , CO | | |
| Zip | 81401 | County | MONTROSE |
| Center of AM Array | 38-25-32.0 N 107-52-57.0 W | Position of Tower in Array | |

Heights (meters)

| | |
|--|---|
| Elevation of Site Above Mean Sea Level | Overall Height Above Ground (AGL) |
| 1810.5 | 95.3 |
| Overall Height Above Mean Sea Level | Overall Height Above Ground w/o Appurtenances |
| 1905.8 | 94.5 |

Painting and Lighting Specifications

FCC Paragraphs 1, 3, 12, 21

FAA Notification

| | |
|-----------|----------------|
| FAA Study | FAA Issue Date |
|-----------|----------------|

Owner & Contact Information

| | | | |
|--------------|------------|-------------------|---------------------------|
| FRN | 0026975367 | Owner Entity Type | Limited Liability Company |
| Assignor FRN | 0023451453 | Assignor ID | L01873648 |

Owner

| | |
|---------------------------|-------------------------------|
| Vertical Bridge CCR, LLC | P: (561)406-4015 |
| Attention To: FCC Contact | F: |
| 750 Park of Commerce Dr. | E: fcc-faa@verticalbridge.com |
| Suite 200 | |
| Boca Raton , FL 33487 | |

Contact

| | |
|---------------------------|-------------------------------|
| Hickey , Richard | P: (561)406-4015 |
| Attention To: FCC Contact | F: |
| 750 Park of Commerce Dr. | E: fcc-faa@verticalbridge.com |
| Suite 200 | |
| Boca Raton , FL 33487 | |

Last Action Status

| | | | |
|---------|--------------|----------|------------|
| Status | Constructed | Received | 12/19/2018 |
| Purpose | Change Owner | Entered | 12/19/2018 |
| Mode | Interactive | | |

Related Applications

| | |
|--------------------------|------------------------------|
| 12/19/2018 | A1122080 - Change Owner (OC) |
| 05/02/2017 | A1072748 - Admin Update (AU) |
| 08/19/2016 | A1047853 - Change Owner (OC) |
| Related applications (6) | |