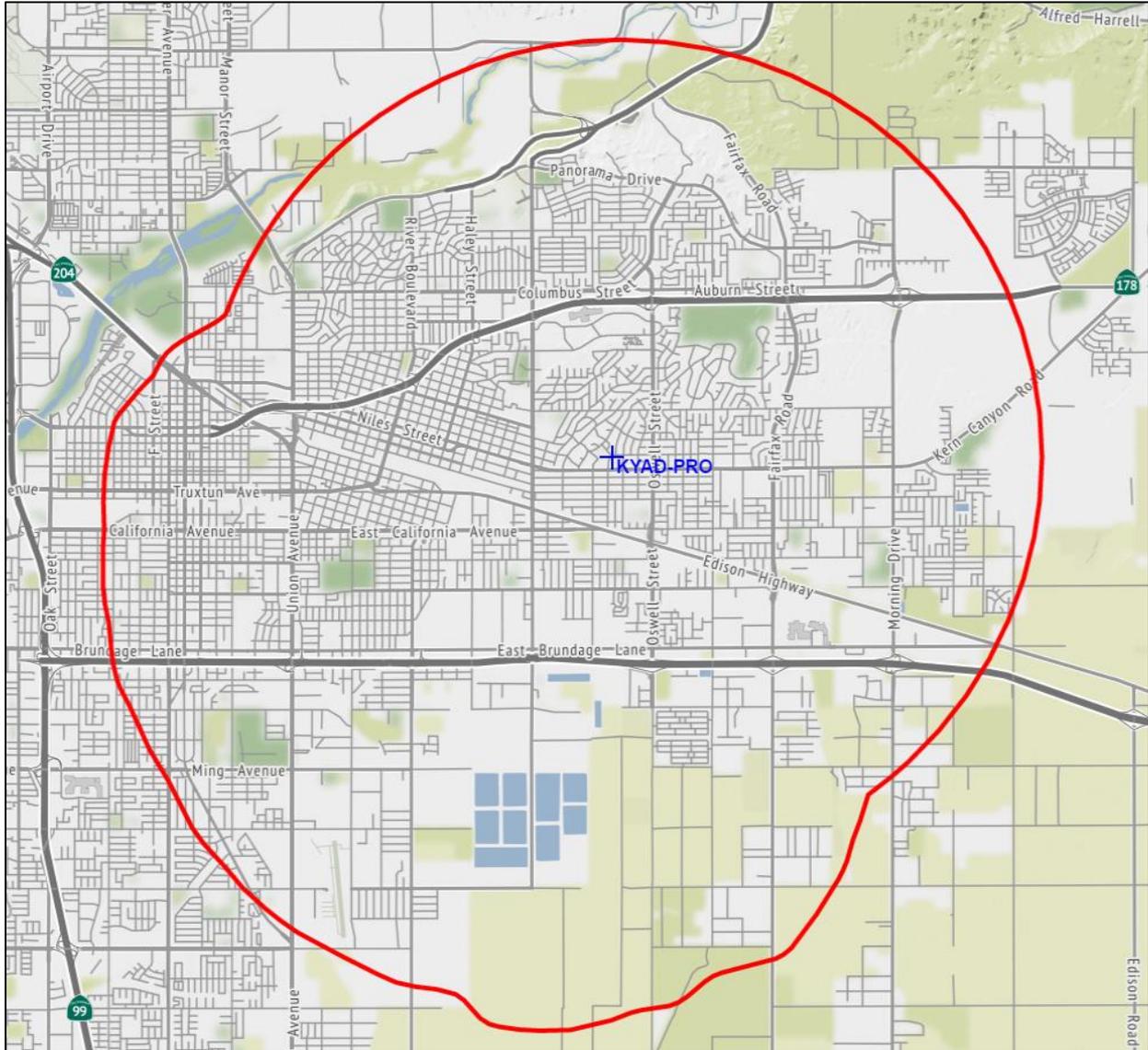




REC Broadcast Services
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Minor change for KYAD-LP
BAKERSFIELD, CA
COUNCIL OF MESSIANIC JEWISH MINISTRIES INTERNATIONAL
BLL-20141112AGL

PROPOSED 60dBu F(50,50) SERVICE CONTOUR



BAKERSFIELD, CA – Channel 270L1 (101.9 MHz) ~ ERP 0.100 kW
Elev: 153 meters ~ RCAGL: 15 meters ~ RCAMSL: 168 meters ~ HAAT: -15 meters
Overall tower height: 17 meters ~ ASR: Not required (nearest runway over 20K feet)
NAD83 Latitude: 35° 22' 38.7" NL – Longitude: 118° 57' 16.2" WL
NAD27 Latitude: 35° 22' 38.8" NL – Longitude: 118° 57' 12.8" WL
All nearby AM stations meet Part 1 Subpart BB requirements and not require notification.

R E C NETWORKS
CHANNEL REPORT

NAD27 LATITUDE: 35 - 22' 38.8" - LONGITUDE: 118 - 57' 12.8"
CHANNEL: 270 - CLASS: LPFM(LP-100)

| CHAN | FREQ | CALL | LOCATION | CLS | DIST | REQ | CLEAR | BEAR |
|---|-------|--|----------------------|-------|-------|-------|-------|-------|
| 217 | 91.3 | KFRB : FAMILY STATIONS, INC. | BAKERSFIELD | CA B | 20.6 | 0.0 | 20.6 | 70.8 |
| 267 | 101.3 | KJRW : EDB VV LICENSE LLC | LOS OSOS-BAYWOOD PAR | CA B | 154.6 | 0.0 | 154.6 | 269.7 |
| 267 | 101.3 | KWIE : POINT FIVE LLC | HINKLEY | CA A | 146.1 | 0.0 | 146.1 | 109.9 |
| 267 | 101.3 | KWIE : POINT FIVE LLC | HINKLEY | CA A | 182.9 | 0.0 | 182.9 | 108.0 |
| 268 | 101.5 | KGFM : AGM CALIFORNIA, INC. | BAKERSFIELD | CA B | 20.6 | 67.0 | -46.4 | 70.8 |
| 268 | 101.5 | KVLP-LP : UNIVERSAL LIFE CHURCH | VISALIA | CA L1 | 111.1 | 0.0 | 111.1 | 344.5 |
| 268 | 101.5 | KZNQ-LP : SANTA CLARITA PUBLIC SERVICE BROADCASTERS CORPORATION | SANTA CLARITA | CA L1 | 110.6 | 0.0 | 110.6 | 162.1 |
| 269 | 101.7 | KSBL : RINCON BROADCASTING LS2 LLC | ISLA VISTA | CA B1 | 126.9 | 74.0 | 52.9 | 220.1 |
| 270 | 101.9 | KLBN : LOTUS FRESNO CORP. | FRESNO | CA B | 193.0 | 112.0 | 81.0 | 347.3 |
| 270 | 101.9 | DK270AK : LIVING PROOF, INC. | WOFFORD HEIGHTS | CA D8 | 51.1 | 39.0 | 12.1 | 44.2 |
| 270 | 101.9 | KSCA : UNIVISION RADIO LICENSE CORPORATION | GLENDALE | CA B | 151.7 | 112.0 | 39.7 | 147.4 |
| 271 | 102.1 | KZPE : ESTATE OF H.L. CHARLES, ROBERT WILLING, EXECUTOR | FORD CITY | CA A | 56.7 | 56.0 | 0.7 | 222.5 |
| 271 | 102.1 | : SOUND ENTERPRISES | | B1 | 119.2 | 74.0 | 45.2 | 74.8 |
| 271 | 102.1 | KSSI : SOUND ENTERPRISES | CHINA LAKE | CA B1 | 114.4 | 74.0 | 40.4 | 84.0 |
| 272 | 102.3 | KBLO : CCA LICENSE HOLDINGS LLC | CORCORAN | CA B1 | 98.2 | 46.0 | 52.2 | 335.9 |
| 273 | 102.5 | KSNI-FM : AGM CALIFORNIA, INC. | SANTA MARIA | CA B | 145.1 | 0.0 | 145.1 | 245.8 |
| 273 | 102.5 | KCNQ : ROBERT J. & KATHERINE M. BOHN | KERNVILLE | CA A | 54.1 | 0.0 | 54.1 | 59.6 |
| 273 | 102.5 | K273CB : CALVARY CHAPEL OF COSTA MESA, INC. | BAKERSFIELD | CA D8 | 13.4 | 0.0 | 13.4 | 25.7 |
| * Does not meet third adjacent channel spacing under LCRA Sect 7. | | | | | | | | |

WAIVER OF §73.807(a) REQUEST
SHORT-SPACED SECOND ADJACENT CHANNEL

KYAD-LP
Bakersfield, CA
Channel 270L1 (101.9 MHz)

KYAD-LP is proposing to move sites and specify operation on Channel 270L1. On Channel 270L1 at the new location, KYAD-LP would be second-adjacent channel short-spaced to KGFM, Bakersfield, California in accordance of §73.807(a) of the Commission's Rules.

KGFM operates on Channel 268B with a maximum ERP of 6.7 kW and is located 20.6 km from the proposed site for KYAD-LP. KGFM places an 84.7 dBu field strength at the proposed site for KYAD-LP.

Based on NGC30 terrain data, KYAD-LP proposes to operate at minus 15 meters height above average terrain. In accordance with §73.811(a) of the Commission's Rules, KYAD-LP is proposing to operate at a full 100 watts (0.100 kW) ERP.

Using the U/D method¹, the proposed LPFM station is predicted to produce an undesired interference overlap in respect to KGFM to the proposed LPFM station's 124.7 dBu interference contour ("overlap zone"). At 100 watts ERP, the overlap zone extends to 41 meters from the radiation center. Within the overlap zone, there are several single story structures. To address this interference, KYAD-LP is proposing to use a Nicom BKG-77 2-bay circularly polarized antenna at half-wave spacing. Based on manufacturer's specifications, at the 25 degree depression angle, the 124.58 dBu interference contour reaches the artificial floor of 3 meters above ground level (above the highest occupied point).

Based on these findings, the proposed modified LPFM station modification will not create any interference to listeners or potential listeners of KGFM. KYAD-LP is requesting a waiver of §73.807(a) in respect to second-adjacent channel short-spaced station KGFM, Bakersfield, California.

Prepared by
Michelle Bradley
REC Broadcast Services
July 29, 2016

¹ - See *Living Way Ministries, Inc.* Memorandum Opinion and Order, 17 FCC Rcd 17054, 17056 (2002) at 5. *Recon denied* 23 FCC Rcd 15070 (2008).

| | |
|-------------------------------|--|
| Proposed Power: | 0.1 kW |
| Antenna Height AGL: | 15 m |
| Interference Contour: | 124.7 dBu |
| Artificial RX Antenna Height: | 3 m |
| Antenna Type: | Nicom BKG77 - 2 bay Half-wave spacing |

| Angle Below Horizon | Antenna Relative Field | ERP in kW | ERP in dBk | Distance from Ant to Interference Contour | Distance from Ant to Artificial Plane | Field Strength in dBu @ Artificial Plane | Distance from Ant to Ground Level | Field Strength in dBu @ Ground Level |
|---------------------|------------------------|-----------|------------|---|---------------------------------------|--|-----------------------------------|--------------------------------------|
| 5 | 0.988 | 0.098 | -10.10 | 40.34 | 137.68 | 114.04 | 172.11 | 112.10 |
| 10 | 0.952 | 0.091 | -10.43 | 38.87 | 69.11 | 119.70 | 86.38 | 117.76 |
| 15 | 0.889 | 0.079 | -11.02 | 36.30 | 46.36 | 122.57 | 57.96 | 120.64 |
| 20 | 0.791 | 0.063 | -12.04 | 32.30 | 35.09 | 123.98 | 43.86 | 122.04 |
| 25 | 0.686 | 0.047 | -13.27 | 28.01 | 28.39 | 124.58 | 35.49 | 122.64 |
| 30 | 0.577 | 0.033 | -14.78 | 23.56 | 24.00 | 124.54 | 30.00 | 122.60 |
| 35 | 0.463 | 0.021 | -16.69 | 18.91 | 20.92 | 123.82 | 26.15 | 121.88 |
| 40 | 0.354 | 0.013 | -19.02 | 14.45 | 18.67 | 122.48 | 23.34 | 120.54 |
| 45 | 0.256 | 0.007 | -21.84 | 10.45 | 16.97 | 120.49 | 21.21 | 118.55 |
| 50 | 0.174 | 0.003 | -25.19 | 7.10 | 15.66 | 117.83 | 19.58 | 115.89 |
| 55 | 0.110 | 0.001 | -29.17 | 4.49 | 14.65 | 114.43 | 18.31 | 112.49 |
| 60 | 0.061 | 0.000 | -34.29 | 2.49 | 13.86 | 109.79 | 17.32 | 107.86 |
| 65 | 0.028 | 0.000 | -41.06 | 1.14 | 13.24 | 103.43 | 16.55 | 101.49 |
| 70 | 0.006 | 0.000 | -54.44 | 0.24 | 12.77 | 90.36 | 15.96 | 88.42 |
| 75 | 0.004 | 0.000 | -57.96 | 0.16 | 12.42 | 87.08 | 15.53 | 85.14 |
| 80 | 0.008 | 0.000 | -51.94 | 0.33 | 12.19 | 93.27 | 15.23 | 91.33 |
| 85 | 0.008 | 0.000 | -51.94 | 0.33 | 12.05 | 93.37 | 15.06 | 91.43 |
| 90 | 0.009 | 0.000 | -50.92 | 0.37 | 12.00 | 94.42 | 15.00 | 92.48 |

OVERLAP ZONE



BLUE CIRCLE – Overlap zone at the radiation center
RED CIRCLE – Overlap zone at ground level

TRANSMITTER SITE IS THE BUILDING TO THE RIGHT OF THE POST OFFICE
ALL BUILDINGS IN THE OVERLAP ZONE ARE SINGLE STORY STRUCTURES.



REQUEST FOR APPLICATION OF §73.870(a)
NON-ADJACENT CHANNEL

KYAD-LP
Bakersfield, CA
Channel 270L1 (101.9 MHz)

In the instant application, KYAD-LP is requesting a 3 kilometer move and a channel change from Channel 277L1 to Channel 270L1, a non-adjacent channel.

§73.870(a) of the Commission's Rules permits a channel change to any adjacent channel, intermediate frequency or upon a showing of reduced interference, to any channel.²

Despite proper §73.807(a) spacing, KYAD-LP currently places a 54 dBu F(50,10) interfering contour into the protected contour of KRHM-LP, Bakersfield on their currently licensed facility, as well as their authorized construction permit facility, BPL-20160115ABN.

At the new location, Channel 270L1 meets §73.807(a) minimum separation with the exception of second-adjacent channel station KGFM, which we have already addressed. On Channel 270, there was previously a translator, DK270AK, Woodford Heights, California which placed a 40 dBu interfering contour over a portion of the proposed protected contour for KYAD-LP. This station's license was cancelled on June 29, 2016.

Other than the cancelled DK270AK, there are no other stations that meet the §73.807(a) guideline "for no interference received from maximum class facility".³ There are no other stations on the air that would interfere with the proposed LPFM station nor the LPFM station would interfere with.⁴

Based on this showing, we are asking that KYAD-LP be permitted to change to non-adjacent channel 270L1 in accordance with §73.870(a) of the Commission's Rules.

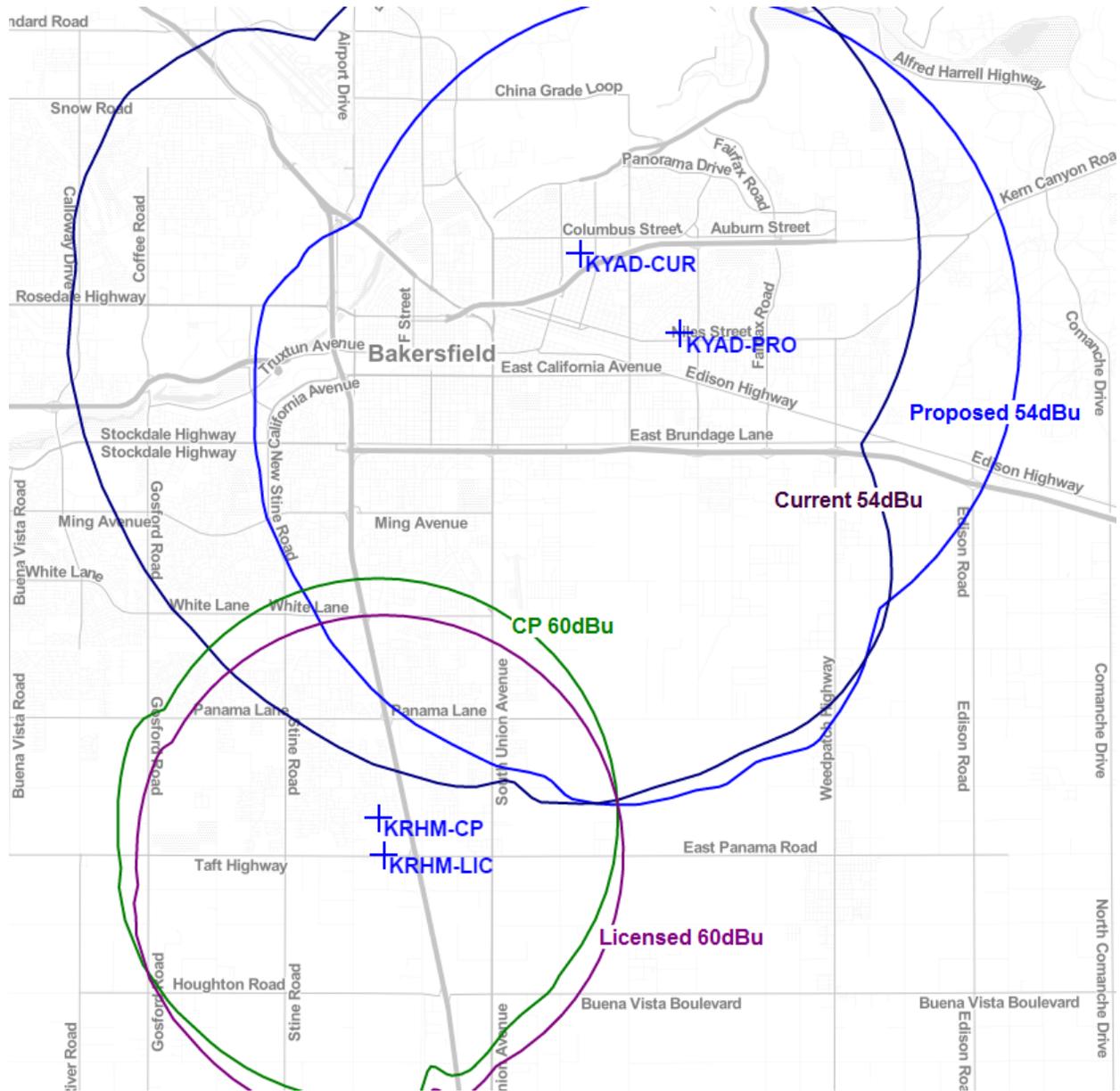
Prepared by
Michelle Bradley
REC Broadcast Services
July 29, 2016

² - See 47 C.F.R. § 73.870(a).

³ - See 47 C.F.R. § 73.807(a)(1).

⁴ - We note that while KSCA(FM), Glendale, CA would place a 34 dBu interfering contour over the station with their fully authorized facility, the station is blocked from Bakersfield by three mountain ranges. In addition, KSCA(FM) is a grandfathered Class-B station. With the ERP readjusted to 0.872 kW at 863 meters HAAT (in order to create a 65.1 km service contour), the 34 dBu interfering contour falls short of the proposed facility.

CHANNEL 277L1 (Current Channel)



CHANNEL 270L1

