

MULLANEY ENGINEERING, INC.

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GAITHERSBURG, MD 20877

ENGINEERING EXHIBIT EE:

RADIO STATION KDES-FM
PALM SPRINGS TO REDLANDS, CA

Ch. 284A 1.45 KW 205 M HAAT

MARCH 12, 2008

AMENDMENT
LOSS AREA SERVICES AND INTERFERENCE

ENGINEERING STATEMENT IN SUPPORT OF
AN APPLICATION FOR A
DOWNGRADE & NEW CITY OF LICENSE

BPH-20071128ACX - Facility ID: 67354

ATTACHED TO EXHIBIT 26 OF FCC FORM 301



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PALM SPRINGS TO REDLANDS, CA**

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NARRATIVE STATEMENT:

I. General:

This engineering statement has been prepared on behalf of R & R Radio Corporation, licensee of KDES-FM on Ch. 284B at Palm Springs, CA. The purpose of this statement is to amend its pending application for Construction Permit to downgrade from Ch. 284B to 284A and change its city of license from Palm Springs to Redlands, CA. This statement will also be used to respond to an informal objection filed by Gold Coast Broadcasting, LLC, licensee of co-channel facility KCAQ on Ch. 284B at Oxnard, CA.

The technical objections by KCAQ deal with the loss area showing contained in the application and the claim of interference that will be caused to KCAQ should the KDES-FM application receive a grant.

FM coverages are the 60 dbu and with the exception of KDES-FM, commercial FM service assumes maximum facilities (no Class C FM stations were involved). Daytime AM coverage is the 0.5 mV/m. At Nighttime only two AM stations have been used and since they are both Class A 50 kW facilities the 0.5 mV/m groundwave contour has been used for both stations.

II. Engineering Discussion:

A. Loss Area Showing:

As part of this statement, KDES is deleting Figures 6-A & 6-B and replacing them with the following figures:

Figure 7-A LOSS AREA - Daytime Service

Figure 7-B LOSS AREA - Full-Time / Night Service

Figure 7-B-1 LOSS AREA - Full-Time / Night Service - eastern area map

Figure 7-B-2 LOSS AREA - Full-Time / Night Service - eastern area satellite photo

Figure 8-A GAIN AREA - Daytime & Nighttime Service - (same as original Figure 6-B)

Figure 7-A is a map which shows other existing AM & FM stations presently providing service during **Daytime** hours to the “Loss Area” created upon grant of the KDES-FM application. There is an area which will receive less than 5 services and it is located on the Eastern edge of the KDES-FM’s existing service. There is an area of 89 sq.km which will now receive only 4 services and an area of 37 sq.km which will now only receive 3 services. This is a total Daytime area of **126 sq.km**. None of this area was found to contain any population and all of the area is located within the boundary of Joshua Tree National Park.

Figure 7-B is a map which shows other existing AM & FM stations presently providing service on a full-time basis or during **Nighttime** hours to the “Loss Area” created upon grant of the KDES-FM application. There are two areas which will receive less than 5 services. One is an expansion of the Daytime loss area to the East and the other is a new area on the Southern edge of the KDES-FM’s existing service. Only two Class A AM 50 kW facilities provide 0.5 mV/m interference-free nighttime groundwave service to this area and those contours are shown in orange (KNX & KFI). Only KFI provides

groundwave service to any under-served area to the East. However, it was determined that the entire area receives Nighttime skywave service from 5 additional Class A AMs (KNZR, KGO, KNBR, KFBK & KSL).

To the South, there is an area of 38 sq.km and 992 persons which will now receive only 4 services at Nighttime.

Figure 7-B-1 is an enlarged view of the under-served area to the East which consists of an area of: 37 sq.km receiving 1 service, 111 sq.km receiving 2 service, 55 sq.km receiving 3 service and 187 sq.km receiving 4 service. This is a total of **390 sq.km** which is within 5% of the area calculated by KCAQ (407 sq.km). None of this area was found to contain any population and all of the area is located within the boundary of Joshua Tree National Park. It should be noted that the vast majority of the National Park has no paved roadways and is mountainous.

Figure 7-B-2 is a similar enlarged view of the under-served area to the East except that points #1, 2, 3 & 4 locate a triangular shape which encompasses all of this Eastern under-served area on a **satellite photo**. The boundary of the National Park is drawn with green lines. In preparation of this photo exhibit, the scale was zoomed-in so as to identify if any homes existed. No homes were found. It should be noted that the vast majority of the National Park has no paved roadways and is mountainous.

B. Claim of Interference by KCAQ:

The interference claims of KCAQ is legally flawed given that no short spacing is proposed. Section 73.209(b) of the rules “Protection from interference” states:

(a) Permittees and licensees of FM broadcast stations are not protected from any interference which may be caused by the grant of a new station, or of authority to modify the facilities of an existing station, in accordance with the provisions of this subpart.

(b) The nature and extent of the protection from interference afforded FM broadcast stations operating on Channels 221-300 is limited to that which results when assignments are made in accordance with the rules in this subpart.

Figures 9-A & 9-B are channel studies from KCAQ’s 1998 Licensed site and from its 2008 PTA site (CP BMPH-20080115ADQ began operating under Program Test Authority on January 25, 2008). As can be see, both KCAQ’s 1998 & 2008 facilities exceed the minimum separation to KDES-FM’s existing Class B License and both the allotment point & application sites proposed for Ch. 284A at Redlands, CA, also exceed the minimum separation (Section 73.207). In fact, KCAQ had no problem filing for an obtaining a CP moving its facility 28.7 km closer to or just 3.9 km beyond the minimum to KDES-FM’s Class B Licensed site. It should be noted that the Class A proposal at Redlands would increase this to a clearance of 14.7 km or an increase of 10.8 km over what currently exists.

Given that no short spacing is being created, KCAQ is specifically barred by Section 73.209 from claiming objectionable interference or for trying to invoke the contour protection methodology provided for in Section 73.215 of the rules.


Should KCAQ be successful in retroactively changing the rules to prohibit any contour overlap between properly spaced stations, many other stations other than KDES-FM would have to come into compliance. Example of these stations are those located in Denver or even much closer on Mount Wilson. Stations at both locations experience significant HAAT enhancement in at least a third of their service area. Mount Wilson is unique in that these are several grandfathered Class B facilities operating with an ERP in excess of the current 50 kW equivalence. A review of the FCC's CDBS engineering data base indicates 18 of the 19 Class B FM's operating from Mount Wilson exceed the equivalent ERP for there HAAT with KLOS (FM) being the worst commercial offender with an ERP of 63 kW when at an HAAT of 954 meters the correct equivalent ERP is just 0.78 kW. So KPFK has an ERP nearly 81 times too large and yet the spacing to that facility is based upon the assumption of a normal facility of 50 kW at 150 meters.

Figure 9-C is a map showing the coverage of KCAQ's 1998 operation in black, its 2008 PTA facility in red and its two CPs for booster facilities in green & blue. While KCAQ was quick to point out the proposed improvements sought by KDES-FM (1,141,140 person increase) it failed to mention that its own

facility now under PTA increased its population within its 54 dBu contour by 2,297,130 person over twice that of KDES-FM.

III. SUMMARY:

KDES-FM herein amends its application with regard to Loss Area and responds to technical objections filed by KCAQ. This engineering proposal is in full compliance with the Commission's Rules with regard to protection of KCAQ.



John J. Mullaney, Consulting Engineer

March 12, 2006.