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ENGINEERING REPORT:

**APPLICATION FOR MINOR MODIFICATION
KDLE(FM) CHANNEL 276A, 103.1 MHz
NEWPORT BEACH, CA**

ENTRAVISION HOLDINGS, LLC

JUNE 2003

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1. Purpose of Application

This Engineering Report is part of an application for minor modification of FM station KDLE at Newport Beach, California, by Entravision Holdings, LLC. The proposed operation will be on FM Channel 276A (103.1 MHz) with a maximum lobe effective radiated power of 0.3 kilowatts (-5.23 dBk) at an antenna height above average terrain of 298 meters.

The instant application is being filed as part of a contingent application group. The contingent group is comprised of applications for two stations: KDLD 276A Santa Monica and KDLE 276A Newport Beach. These two stations are commonly-owned.

2. Allocation Considerations

Please see Exhibit B-16 for a complete discussion of the allocation considerations for the proposed KDLE facility.

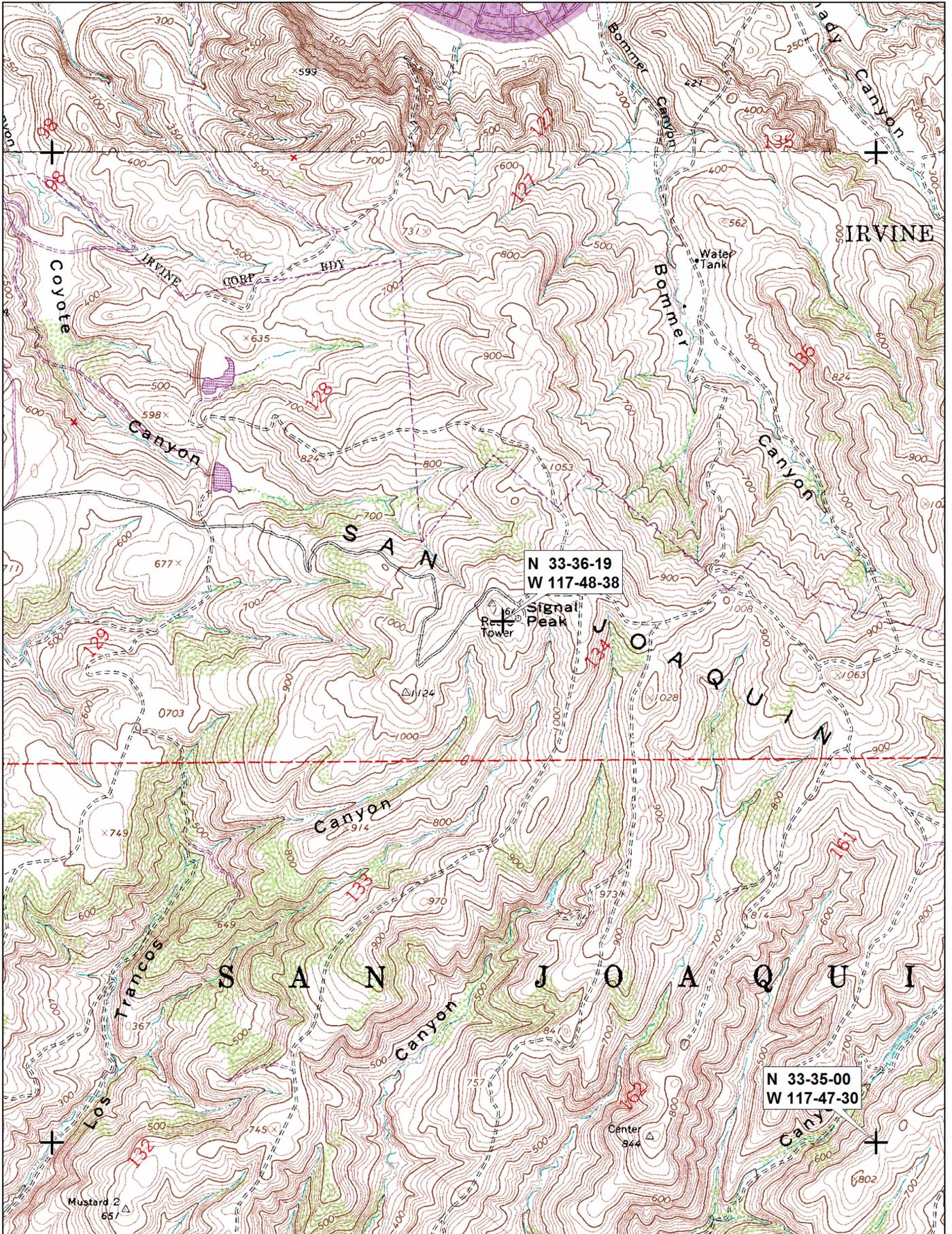
3. Facilities Proposed

a. Facility Description

The proposed operation will be on Channel 276A (103.1 MHz) with a maximum lobe effective radiated power of 0.3 kilowatts. Operation is proposed with an antenna to be side-mounted on an existing tower located at Signal Peak. The FCC Antenna Structure Registration Number for this tower is 1224018.

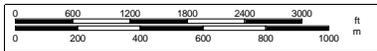
b. Blanketing Contour

The 115 dBu contour for the proposed facilities extends 216 meters from the tower, based on the calculation methodology shown in §73.318 of the Commission's Rules. The area within the blanketing contour is unpopulated. The height of the proposed antenna above ground and its vertical radiation characteristics should mitigate any adverse effects to nearby residents or other communications facilities. If such adverse effects occur, the applicant will be responsible for their amelioration as prescribed in §73.318, including receiver-induced intermodulation to facilities in existence or authorized or receivers in use prior to grant of this application.

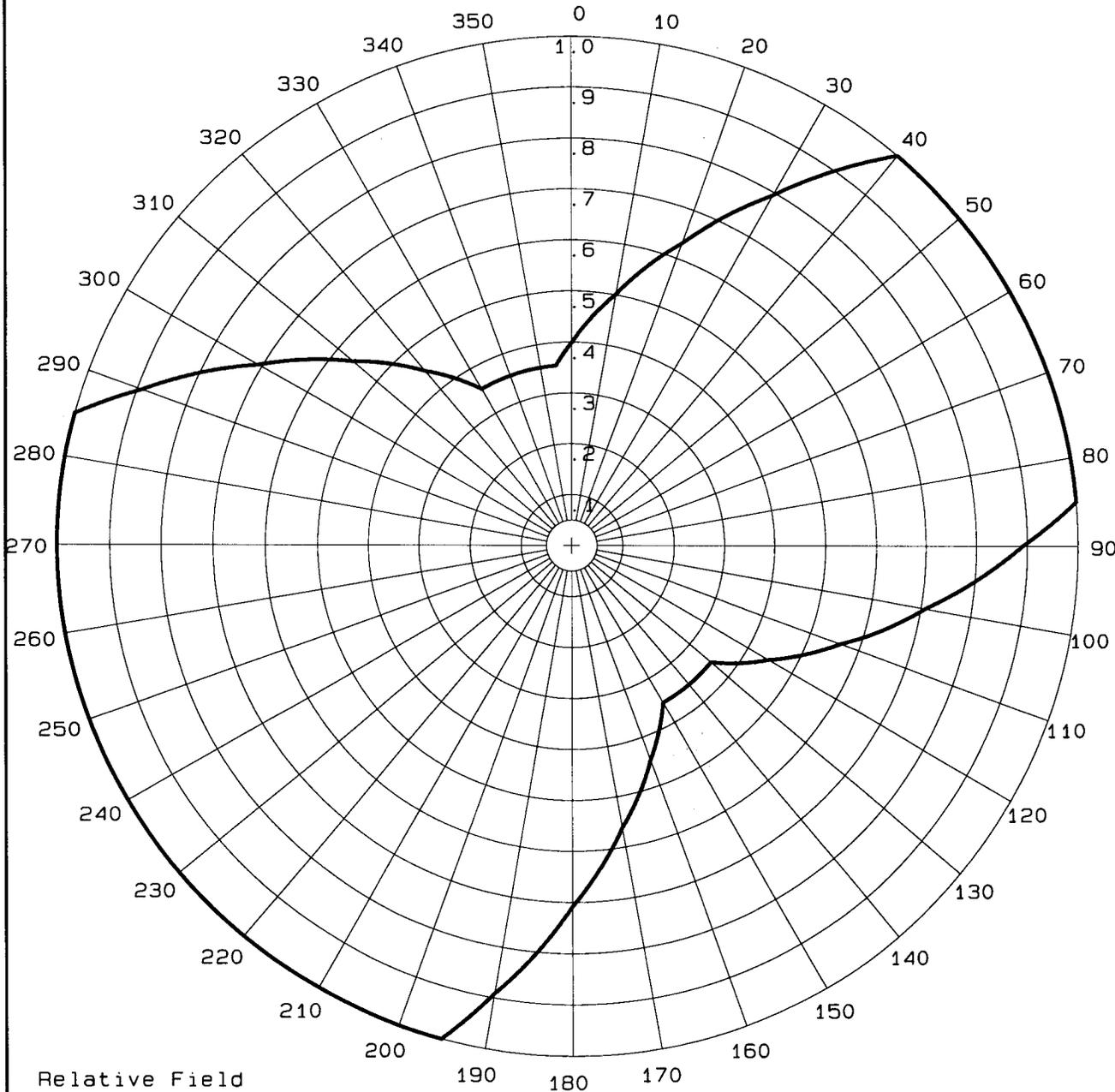


© 2002 DeLorme. XMap® 3.5. Data copyright of content owner.
 Zoom Level: 13-1 Datum: NAD27

Scale 1 : 24,000
 1" = 610 m

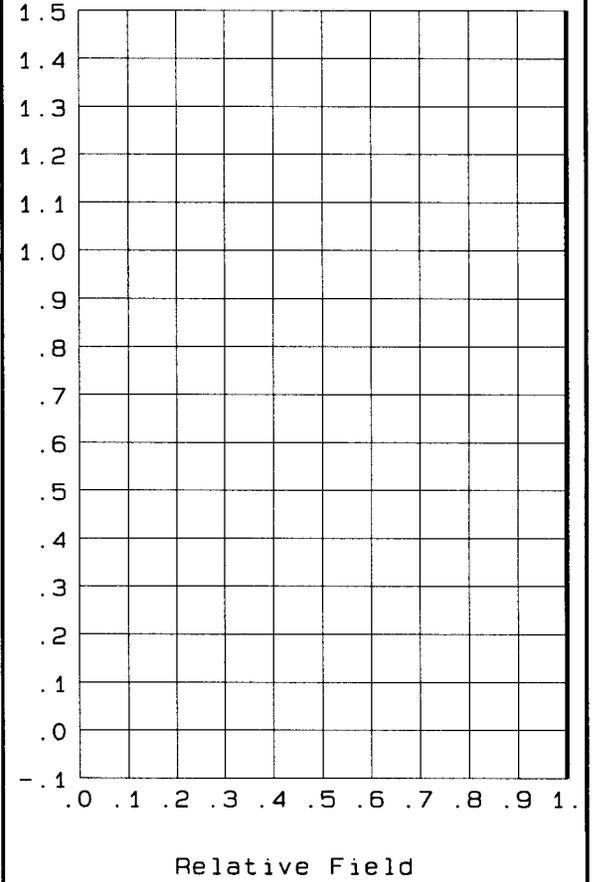


HORIZONTAL PLANE PATTERN



VERTICAL PLANE PATTERN

Azimuth: .0

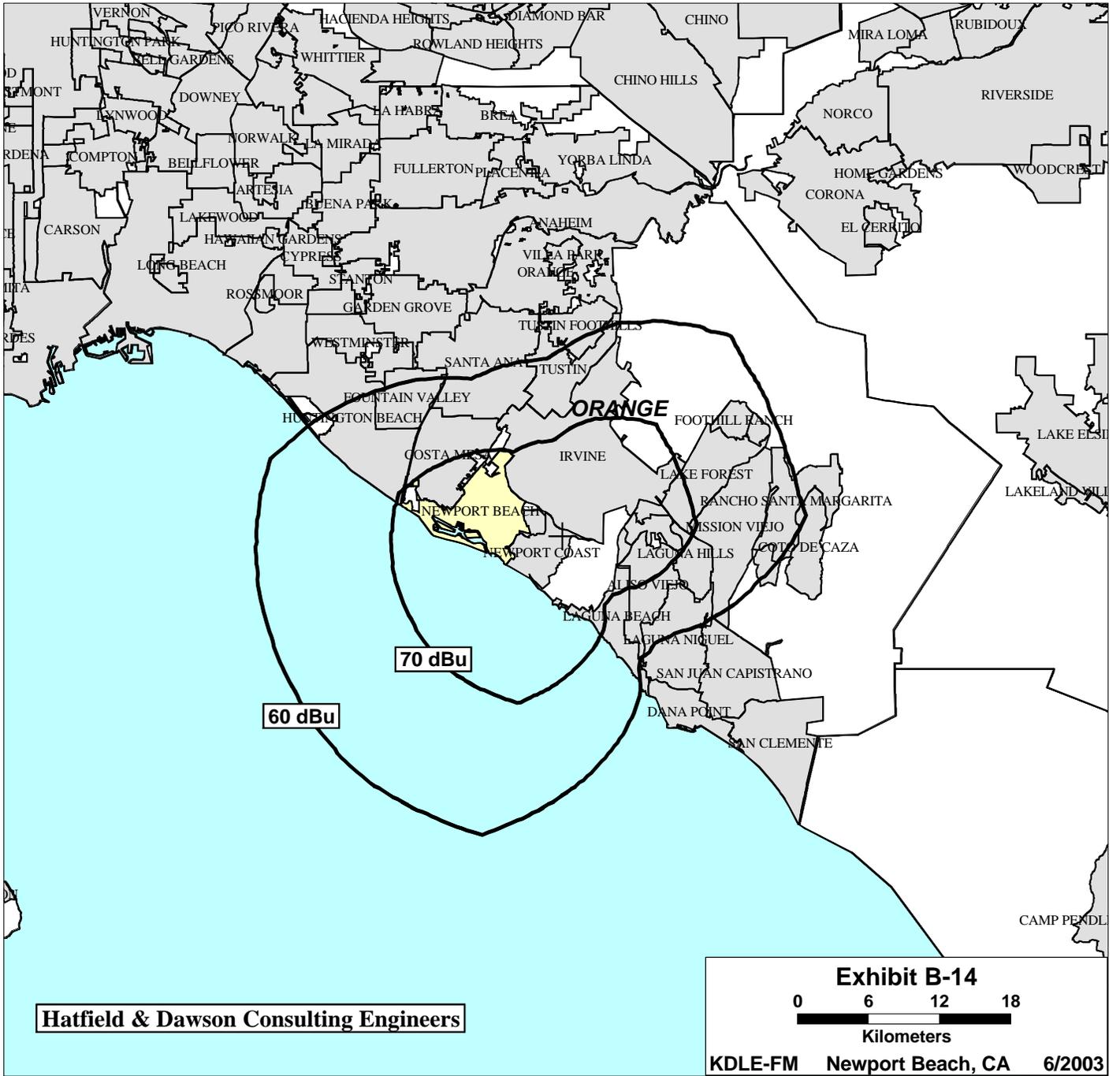


Pattern file: D:\KDLE\KDLE.PAT

Exhibit B-12

Envelope Pattern Plot

KDLE-FM Newport Beach, CA 6/2003



Hatfield & Dawson Consulting Engineers

Exhibit B-14
 0 6 12 18
 Kilometers
 KDLE-FM Newport Beach, CA 6/2003

Exhibit B-16
KDLE-FM Channel 276A Newport Beach, California
Allocation Study

Background

The attached spacing study shows that the proposed operation meets the co-channel and adjacent channel spacing requirements for Class A stations as prescribed in §73.207 of the Commission's Rules, with the exception of short-spacings to KGBB Channel 277A Temecula, KLQV Channel 275B San Diego, and KDLD Channel 276A Santa Monica. These short-spacings are addressed individually, below.

In addition, it should be noted that the proposed modification of KDLE will eliminate existing grandfathered short-spacings to KIIS Channel 274B Los Angeles and KOST Channel 278B Los Angeles.

KGBB Channel 277A Temecula

Processing pursuant to §73.215 of the Commission's Rules is requested with respect to KGBB, and the attached "Allocation Study Map A" is included to demonstrate the lack of prohibited contour overlap with KGBB, presuming KGBB operation with maximum Class A facilities of 6 kW ERP at 100 meters HAAT.

KLQV Channel 275B San Diego

Processing pursuant to §73.215 of the Commission's Rules is requested with respect to KLQV, and the attached "Allocation Study Map B" is included to demonstrate the lack of prohibited contour overlap caused to KLQV, presuming KLQV operation with maximum Class B facilities of 50 kW ERP at 150 meters HAAT.

There is a small land area within the proposed KDLE 60 dBu F(50,50) contour which would receive overlap from the KLQV 54 dBu F(50,10) contour. However, the licensed KDLE 60 dBu F(50,50) contour already receives overlap from the KLQV 54 dBu F(50,10) contour. Under the instant proposal, the land area of received overlap would be reduced from 1.0 km² to 0.7 km². See "Allocation Study Map B Detail". Commission policy permits areas of existing "fully-spaced" contour overlap to be maintained in short-spaced applications so

long as the area of overlap is not increased. Therefore, it is believed that the instant application complies with all allocation requirements with respect to KLQV.

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SEARCH PARAMETERS FM Database Date: 030605

Channel: 276A 103.1 MHz Page 1

Latitude: 33 36 19

Longitude: 117 48 38

Safety Zone: 32 km

Job Title: KDLE 276A at Signal Peak

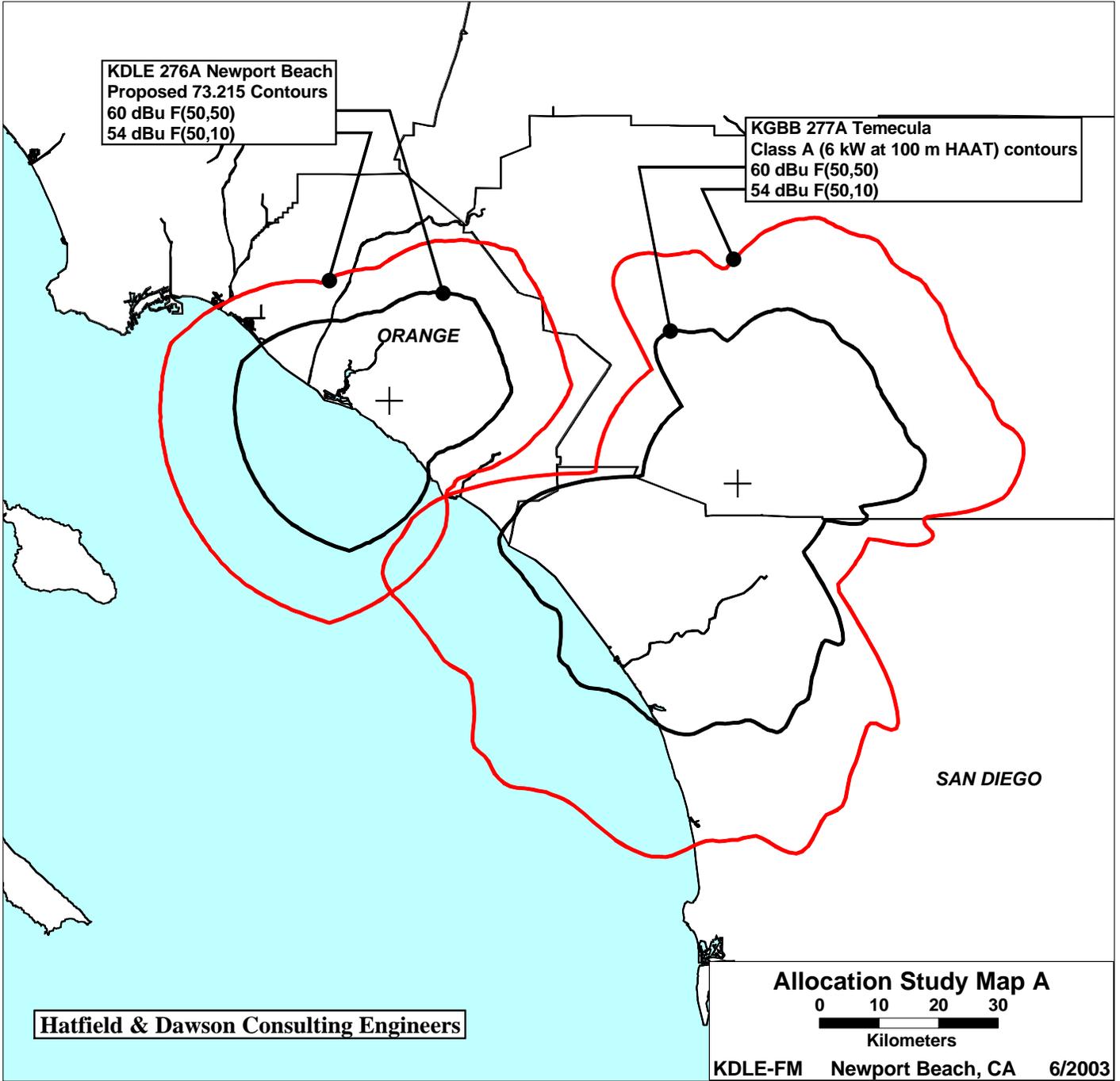
Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KIISaux LIC	LOS ANGELES CA	BLH-841121KR	274B 102.7	7.200 860.0	34-13-36 118-03-57	341.2	72.85 0.00	0 AUX
KIIS-FM LIC	LOS ANGELES CA	BLH-5361	274B 102.7	8.000 902.0	34-13-36 118-03-57	341.2	72.85 3.85	69 CLOSE
KIISaux APP	LOS ANGELES CA	BXPH-030501AAJ	274B 102.7	1.000 908.0	34-13-36 118-03-57	341.2	72.85 0.00	0 AUX
KLQV LIC	SAN DIEGO CA	BLH-880729KA	275B 102.9	32.000 188.0	32-50-24 117-14-52	148.2	99.78 -13.22	113 SHORT
ABSOLUTE MINIMUM 73.215 SPACING = 96 KM								
KLQVaux LIC	SAN DIEGO CA	BLH-930119KB	275B 102.9	1.950 562.0	32-41-48 116-56-10	140.9	129.65 0.00	0 AUX
NEW-T APP	MUSCOY CA	BPFT-971031TC	276D 103.1	0.010 1312.0	34-12-49 117-30-00	22.9	73.33 0.00	0 TRANS
KDLE LIC	NEWPORT BEACH CA	BLH-4773	276A 103.1	2.000 91.0	33-37-55 117-56-15	284.2	12.15 -102.85	115 SHORT
KEZNaux LIC	PALM DESERT CA	BLH-851213KB	276A 103.1	0.640 171.0	33-51-58 116-25-56	76.8	130.97 0.00	0 AUX
KEZN LIC	PALM DESERT CA	BMLH-960426KB	276A 103.1	1.900 180.0	33-51-58 116-25-56	76.8	130.97 15.97	115 CLEAR
KDLD LIC	SANTA MONICA CA	BLH-850419KR	276A 103.1	3.000 81.0	34-00-53 118-22-50	311.0	69.63 -45.37	115 SHORT
NOTE: KDLE IS 73.213(A) GRANDFATHERED WITH RESPECT TO KDLD								
KVFG CP	VICTORVILLE CA	BPH-010227AAM	276A 103.1	0.250 475.0	34-36-44 117-17-29	23.0	121.53 6.53	115 CLOSE
KVFG LIC	VICTORVILLE CA	BLH-800905AF	276A 103.1	0.100 434.0	34-36-45 117-17-31	22.9	121.54 6.54	115 CLOSE
KGBB LIC	TEMECULA CA	BLH-010109AAA	277A 103.3	1.250 218.0	33-28-51 117-10-58	103.2	59.92 -12.08	72 SHORT
ABSOLUTE MINIMUM 73.215 SPACING = 49 KM								

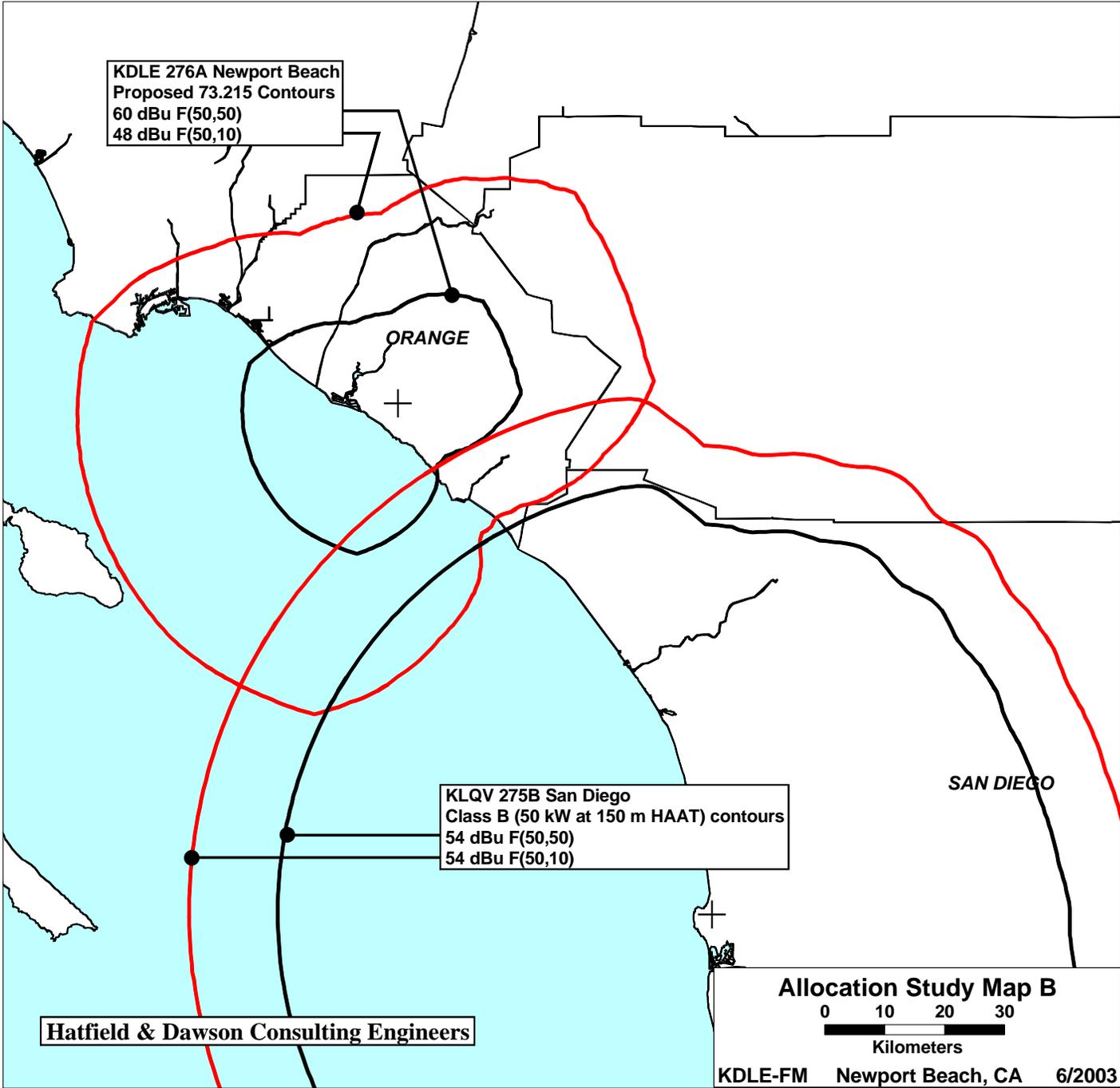
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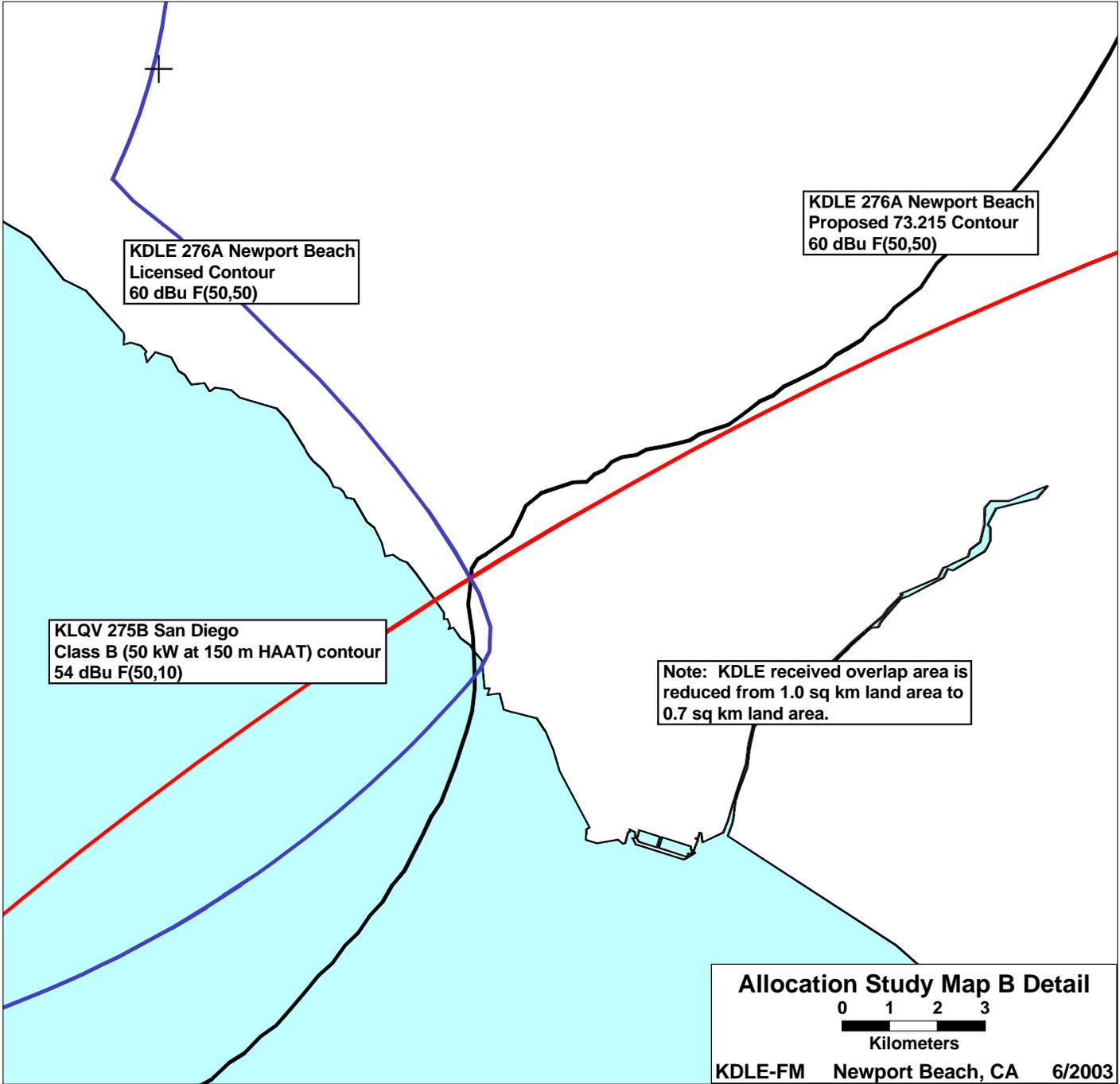
=====
SEARCH PARAMETERS                               FM Database Date: 030605
Channel: 276A 103.1 MHz                        Page 2
Latitude: 33 36 19
Longitude: 117 48 38
Safety Zone: 32 km
Job Title: KDLE 276A at Signal Peak
    
```

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KOST	LOS ANGELES		278B	4.200	34-13-32	341.3	72.70	0
LIC	CA	BLH-970324KE	103.5	858.0	118-03-52		0.00	AUX
KOST	LOS ANGELES		278B	12.500	34-13-32	341.3	72.70	69
LIC	CA	BLH-930831KD	103.5	949.0	118-03-52		3.70	CLOSE
KPLN	SAN DIEGO		279B	36.000	32-50-21	148.3	99.79	69
LIC	CA	BMLH-010723AAE	103.7	177.0	117-14-57		30.79	CLEAR

44444 END OF FM SPACING STUDY FOR CHANNEL 276 44444







“Pre 1964” Grandfathered Short-Spacing Between KDLA Channel 276A Santa Monica and KDLE Channel 276A Newport Beach

Cochannel stations KDLA Santa Monica and KDLE Newport Beach operate as “pre 1964” grandfathered short-spaced stations covered by §73.213(a) of the Commission’s Rules. The contingent applications being filed for these two stations propose to increase their distance separation from 59 km¹ to 70 km. Transmitting facilities have been designed which will ensure that the proposals comply with §73.213(a)(2) of the Commission’s Rules with respect to the areas and population subject to interference. This rule states:

For co-channel and first-adjacent channel stations, a showing that the public interest would be served by the changes proposed in an application must include exhibits demonstrating that the total area and population subject to co-channel or first-adjacent channel interference, caused and received, would be maintained or decreased. In addition, the showing must include exhibits demonstrating that the area and the population subject to co-channel or first-adjacent channel interference caused by the proposed facility to each short-spaced station individually is not increased. In all cases, the applicant must also show that any area predicted to lose service as a result of new co-channel or first-adjacent-channel interference has adequate aural service remaining. For the purpose of this section, adequate service is defined as 5 or more aural services (AM or FM).

The attached map exhibits titled “Licensed Interference Areas” and “Proposed Interference Areas” depict the KDLA/KDLE licensed and proposed interference areas. Interference area calculations have been made using the contour ratio method described in §73.213(a)(1) of the Commission’s Rules.

The following tables list the land areas and populations (2000 Census block centroids) subject to interference from the licensed and proposed facilities:

¹KDLA and KDLE are believed to be the two most-egregiously short-spaced Class A FM stations in the United States.

Licensed Facilities	Population	Land Area
KDLD Received Interference	1,475,272	389 km ²
KDLE Received Interference	504,289	196 km ²
Total	1,979,561	585 km ²

Proposed Facilities	Population	Land Area
KDLD Received Interference	642,413	234 km ²
KDLE Received Interference	341,133	191 km ²
Total	983,546	425 km ²

These figures demonstrate that the proposed facilities will result in a decrease in the total area and population subject to co-channel interference.

New Interference Areas: Grant of the KDLD and KDLE applications will result in the creation of some new areas subject to co-channel interference within the two stations' 60 dBu contours.

KDLD: As demonstrated on the attached map exhibit titled "KDLD Received Interference Areas", all new KDLD received interference areas will be located outside the licensed KDLD 60 dBu contour. In other words, none of the "new" KDLD received interference area currently receives service from KDLD. Therefore, no areas which presently receive interference-free service from KDLD will lose service as a result of the proposed KDLD and KDLE modifications.

KDLE: The attached map exhibit titled "KDLE Received Interference Areas" depicts the new area of received interference for KDLE. Certain other areas are either a) within the licensed KDLE interference-free limit but outside the proposed KDLE 60 dBu contour, or b) within the proposed KDLE interference area but outside the licensed KDLE 60 dBu contour. §73.213(a)(2) states, in part:

In all cases, the applicant must also show that any area predicted to lose service as a result of new co-channel or first-adjacent-channel interference has adequate aural service remaining.

This rule is not applicable to the areas described above. Case “a” describes areas where there is a loss of service due to a shift in service area from the licensed KDLE facility as compared with the proposed KDLE facility, associated with a transmitter site change. The loss of service in case “a” is not due to new interference. Case “b” describes “new” interference areas which do not presently receive service from KDLE. Thus, there is no actual loss of service in case “b”.

It is not believed necessary to include case “a” areas in evaluation of remaining aural service. Nevertheless, for the sake of a complete record an evaluation has been made of the aural services remaining in the “true” new interference area and the case “a” area. The following stations provide service to 100% of this combined area:

KFI	640 kHz	Los Angeles	(Class A 0.5 mV/m)
KNX	1070 kHz	Los Angeles	(Class A 0.5 mV/m)
KPFK	214B	Los Angeles	
KUSC	218B	Los Angeles	
KHHT	222B	Los Angeles	
KCBS	226B	Los Angeles	
KTWV	234B	Los Angeles	
KLOS	238B	Los Angeles	
KWIZ	244A	Santa Ana	
KLSX	246B	Los Angeles	
KLAX	250B	East Los Angeles	
KYSR	254B	Los Angeles	
KKLA	258B	Los Angeles	
KOLA	260B	San Bernardino	
KRTH	266B	Los Angeles	
KSCA	270B	Glendale	
KIIS	274B	Los Angeles	
KOST	278B	Los Angeles	
KBIG	282B	Los Angeles	
KMZT	286B	Los Angeles	
KPWR	290B	Los Angeles	
KALI	292A	Santa Ana	
KLVE	298B	Los Angeles	

In addition, numerous other AM and FM stations provide service to portions of the “true” new interference area and the case “a” area. The entire combined area will remain well-served, with in excess of five aural services remaining.

Conclusion: The preceding analysis demonstrates that the proposed modifications of KDLD and KDLE are in full compliance with the provisions of §73.213(a)(2) with respect to the interference areas. There is a reduction in the total interference area and population, as well as a reduction in the interference area and population for each station individually.

KDL Santa Monica
Received Interference Area
1,475,272 pop 389 sq km

KDLE Newport Beach
Received Interference Area
504,289 pop 196 sq km

(Land area only calculated)

LOS ANGELES

KDL 276A Santa Monica
Licensed Facility
60 dBu F(50,50)
40 dBu F(50,10)

Interference Area

Interference Area

ORANGE

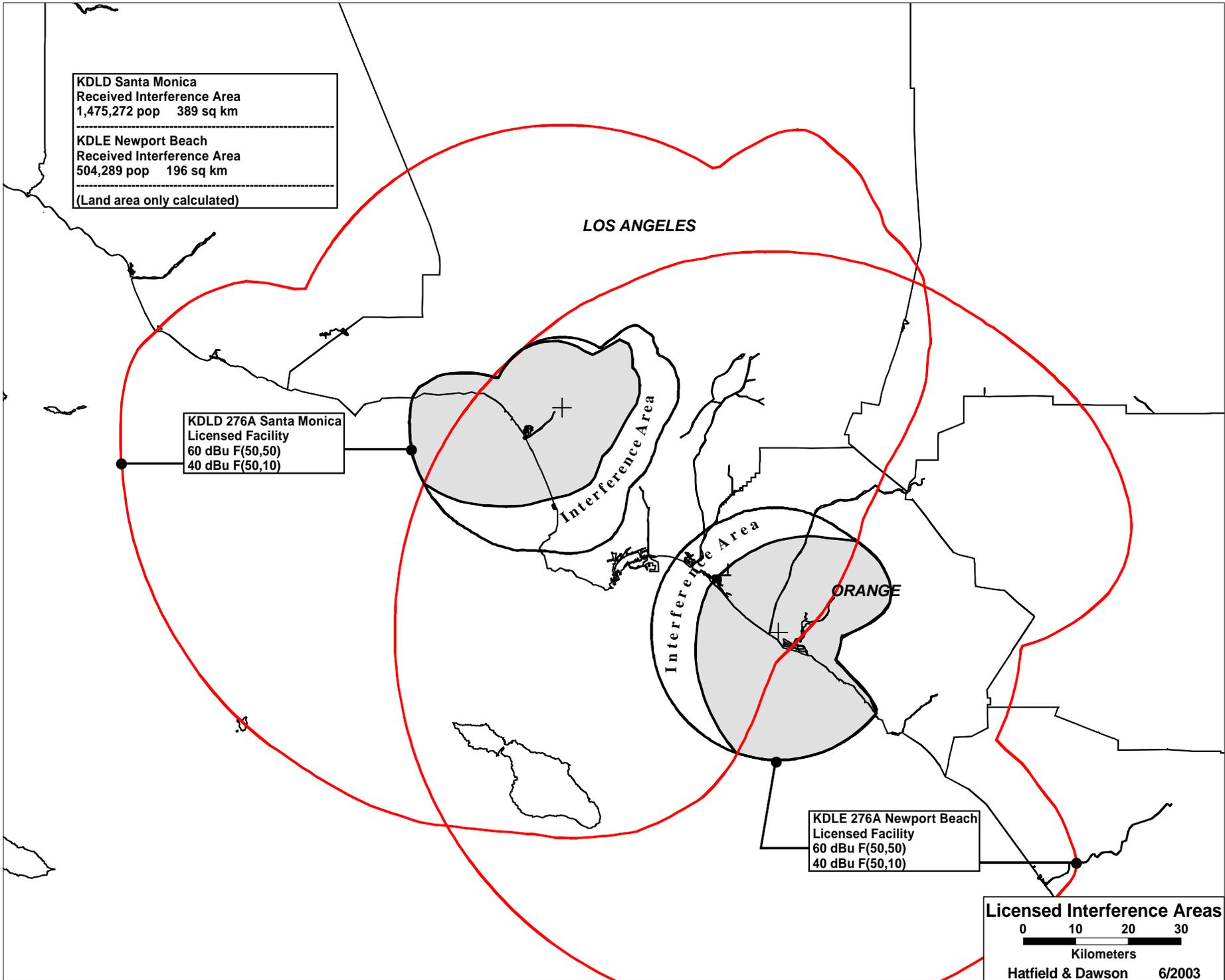
KDLE 276A Newport Beach
Licensed Facility
60 dBu F(50,50)
40 dBu F(50,10)

Licensed Interference Areas

0 10 20 30

Kilometers

Hatfield & Dawson 6/2003



KDL Santa Monica
Received Interference Area
642,413 pop 234 sq km

KDLE Newport Beach
Received Interference Area
341,133 pop 191 sq km

(Land area only calculated)

LOS ANGELES

KDL 276A Santa Monica
60 dBu F(50,50)
40 dBu F(50,10)

Interference Area

Interference Area
ORANGE

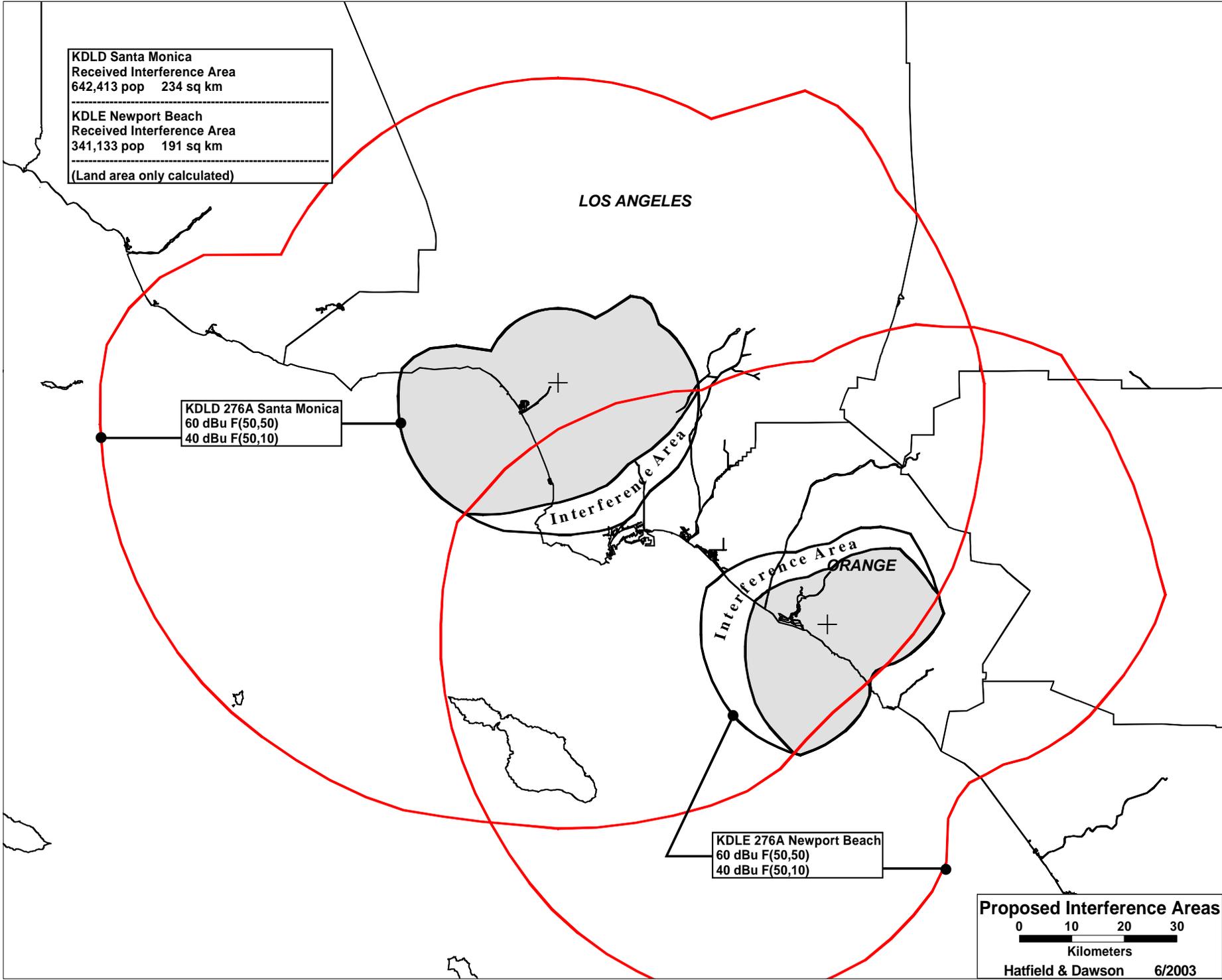
KDLE 276A Newport Beach
60 dBu F(50,50)
40 dBu F(50,10)

Proposed Interference Areas

0 10 20 30

Kilometers

Hatfield & Dawson 6/2003



LOS ANGELES

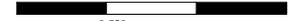
KDLD 276A Santa Monica
Licensed Facility
60 dBu F(50,50)
Interference Free Limit

KDLD 276A Santa Monica
Proposed Facility
60 dBu F(50,50)
Interference Free Limit

Shaded area indicates new areas of received interference for KDLD. All new areas of received interference are located outside the licensed KDLD 60 dBu contour. Thus, no areas which presently receive interference-free service from KDLD will lose service as a result of the proposed KDLD and KDLE modifications.

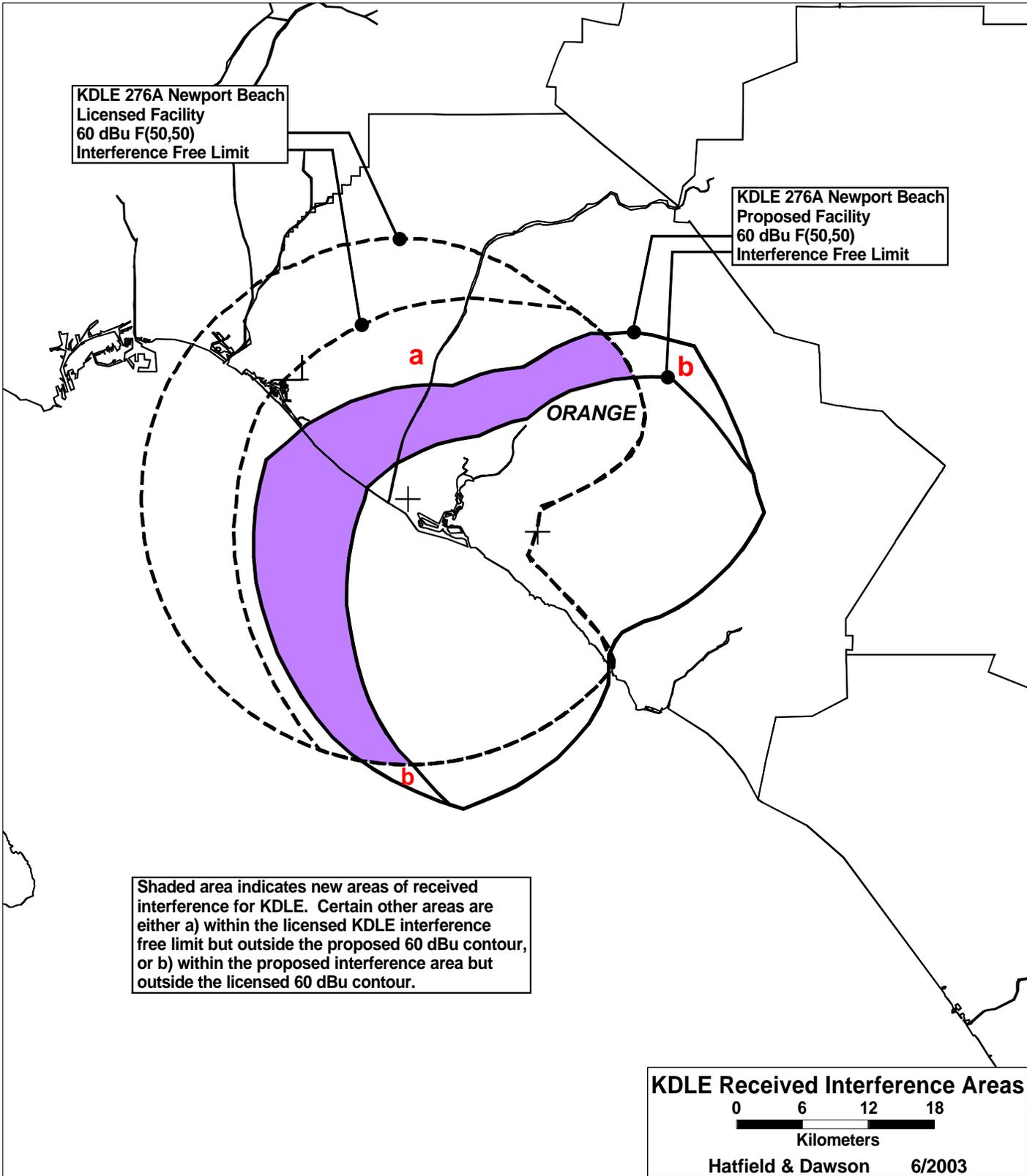
KDLD Received Interference Areas

0 6 12 18



Kilometers

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KDLE 276A Newport Beach
 Licensed Facility
 60 dBu F(50,50)
 Interference Free Limit

KDLE 276A Newport Beach
 Proposed Facility
 60 dBu F(50,50)
 Interference Free Limit

ORANGE

Shaded area indicates new areas of received interference for KDLE. Certain other areas are either a) within the licensed KDLE interference free limit but outside the proposed 60 dBu contour, or b) within the proposed interference area but outside the licensed 60 dBu contour.

KDLE Received Interference Areas

0 6 12 18



Kilometers

Hatfield & Dawson 6/2003

Exhibit B-17
KDLE-FM Channel 276A Newport Beach, California
NIER Analysis

Facilities Proposed

The proposed operation will be on Channel 276A (103.1 MHz) with a maximum lobe effective radiated power of 0.3 kilowatts. Operation is proposed with an antenna to be side-mounted on an existing tower located at Signal Peak. The FCC Antenna Structure Registration Number for the this tower is 1224018.

NIER Calculations

Study of the area within 1000 meters of the proposed site reveals no other likely sources of non-ionizing radiation except the authorized facility of KLIT Channel 224A Fountain Valley. Thus, the ground level NIER values near the base of the proposed structure are believed to be negligible. Precise calculations are made only with regard to the levels from this proposal and KLIT.

The power density calculations shown below were made using the techniques outlined in the EPA report titled: *An Engineering Assessment of the Potential Impact of Federal Radiation Protection Guidance on the AM, FM, and TV Broadcast Services* (Gailey & Tell, April, 1985). All calculations contained herein are based on the measured element patterns for the antenna, and follow the procedure shown in the Gailey and Tell report. The patterns were identified by applying the procedure outlined in the report to the measurement data contained in the report titled: *Element Pattern Measurements on FM Antennas* (EPA-520/ 6-85-107, June 1985).

"Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. Equation #1, contained in the Gailey & Tell report and

shown below, was used to calculate the ground level power density figures from each antenna at incremental distances from the base of its supporting tower.

$$S(\text{mW} / \text{cm}^2) = \frac{33.40981 \times \text{AdjERP}(\text{Watts})}{D^2}$$

Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 1000 meters. Values past this point are increasingly negligible.

It is not known at this time what type of antenna will be used for the proposed KDLE facility. Therefore, calculations of the power density produced by the KDLE antenna system have been made using the above formula, presuming that the antenna will radiate 600 Watts (300 Watts H + 300 Watts V) straight down. The results indicate a maximum ground level power density of 61.9 FW/cm². This is a worst-case figure. The actual ground level power densities from any antenna likely to be used will be lower.

Calculations of the power density produced by the KLIT antenna system assume a Type 3 element pattern, which is the element pattern for the ERI LP-2E-DA-HW 2-bay half-wave-spaced antenna used by that station. The highest calculated ground level power density occurs at a distance of 59 meters from the base of the antenna support structure. At this point the power density is calculated to be 4.9 FW/cm².

These calculations show that the maximum calculated power density produced at two meters above ground level by the proposed operation of KDLE and the authorized operation of KLIT is 66.8 FW/cm², 6.7% of 1000 FW/cm² (the FCC standard for controlled environments) and 33.4% of 200 FW/cm² (the FCC standard for uncontrolled environments).

Public access to the site is restricted and the antenna tower is posted with warning signs. Pursuant to OST Bulletin No. 65, all station personnel and contractors are required to follow appropriate safety procedures before any work is commenced on the antenna tower, including reduction in power or discontinuance of operation before any maintenance work is undertaken.

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.