INTERFERENCE ANALYSIS

Consideration was given to all licensed, authorized and proposed facilities within the latest version of the CDBS database. The proposed translator facility, Facility I.D. No. 156359, FCC File No. BNPFT-20030317HDY, complies with the requirements of 47 C.F.R. Section 74.1204. Special attention was given to KKDJ(FM) and KWSZ(FM), and the relevant interference contours of the proposed translator station will not create prohibited overlap with either of these facilities. A tabulation follows, which shows the limits at each bearing in one-degree azimuthal intervals.

The worst-case radiation limitation is imposed by KWSZ(FM), and that limit is 1.646 kW. Since the proposed translator will operate at 0.250 kW, no further consideration of this facility is necessary.

The proposed translator station is located within the protected 60 dBu F(50,50) contour of third adjacent channel Class A station KRAZ(FM), Facility I.D. No. 33439. Actual interference is considered to exist between second and third adjacent channel stations when the interfering signal is 40 dB or greater than that of the affected station. The KRAZ(FM) field strength level at the proposed translator site is 64.7 dBu, meaning that the translator will cause interference to areas in which its signal strength exceeds 104.7 dBu.

A detailed study was performed to determine the impact of the proposed translator on the aforementioned facilities. The free-space field strength at one kilometer of an FM broadcast station is determined by the following equation, where F_{kM} is the field strength in dBμ at one kilometer, and P_{kW} is the effective radiated power in kilowatts

$$F_{kM} = 106.9198528 + 10\log P_{kW}$$

Since the ERP of the proposed translator is 0.250 kW, the inverse-distance field strength at one kilometer is 100.9 dBμ. The equation for determining, $F_{dB\mu}$, the field strength in dBμ at, D_{kM}, the distance in kilometers, is

$$F_{dB\mu} = F_{kM} - 20 \log_{10} D_{kM}$$

At the proposed translator site, the KRAZ(FM) F(50,50) field strength is 64.7 dBμ. Thus, the proposed translator will create interference to KRAZ(FM) at locations where its field strength exceeds 104.7 dBμ. The following equation, which is derived from the above equation, produces the distance in kilometers, D_{kM}, to a specified field strength, $F_{dB\mu}$:

$$D_{kM} = 10^{\frac{F_{kM} - F_{dB\mu}}{20}}$$

Accordingly, since the proposed translator would cause interference to KRAZ(FM) if its field strength exceeded 104.7 dBμ, the above formula was used to determine that this field strength occurs 645.7 meters from the proposed antenna center of radiation. This, of course, is in the
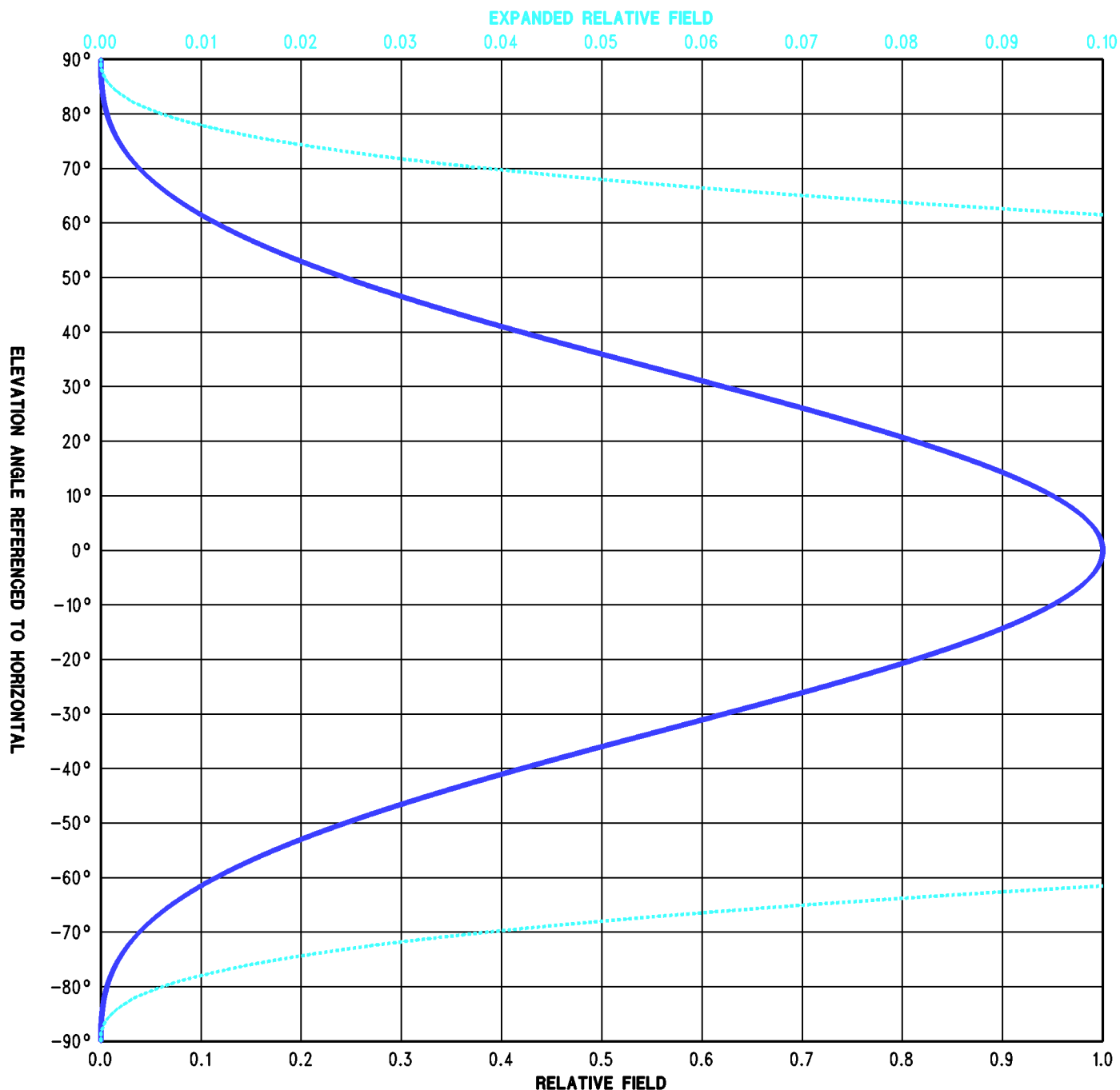
horizontal plane where radiation is at its maximum for the proposed antenna system, and is not affected by terrain or other losses, so inverse-distance is the only attenuating factor.

However, when consideration is given to the elevation plane relative field pattern, which is shown in figure 1, the outer limit of the interference area is reduced. A detailed analysis of actual interference to KRAZ(FM) was performed using the elevation and azimuth patterns of the proposed antenna system. The results are represented cartographically in figure 3. The area in yellow depicts the extent of actual interference to KRAZ(FM).

Interference to KRAZ(FM) is predicted to occur over an area of 1.306 square kilometers. But, the proposed site is located on an oil drilling platform off the coast of California. Also, because of suppressed downward radiation from the proposed reduced side lobe antenna, the interference does not occur until a horizontal distance of 10 meters. Since the interference area occurs entirely over water, and the area immediately beneath the antenna is not within the interference area, no population will be affected by this limited interference area.

Therefore, it is believed that the proposed facility falls within the provisions of 47 C.F.R. Section 74.1204(d) insofar as there is no population within the vicinity of the interference area. Furthermore, the applicant acknowledges its responsibilities under Section 74.1203 and will resolve immediately any and all complaints of interference that result from operation of the facility as proposed herein.

<div align="center">

Lawrence L. Morton, P.E.
Consulting Telecommunications Engineer
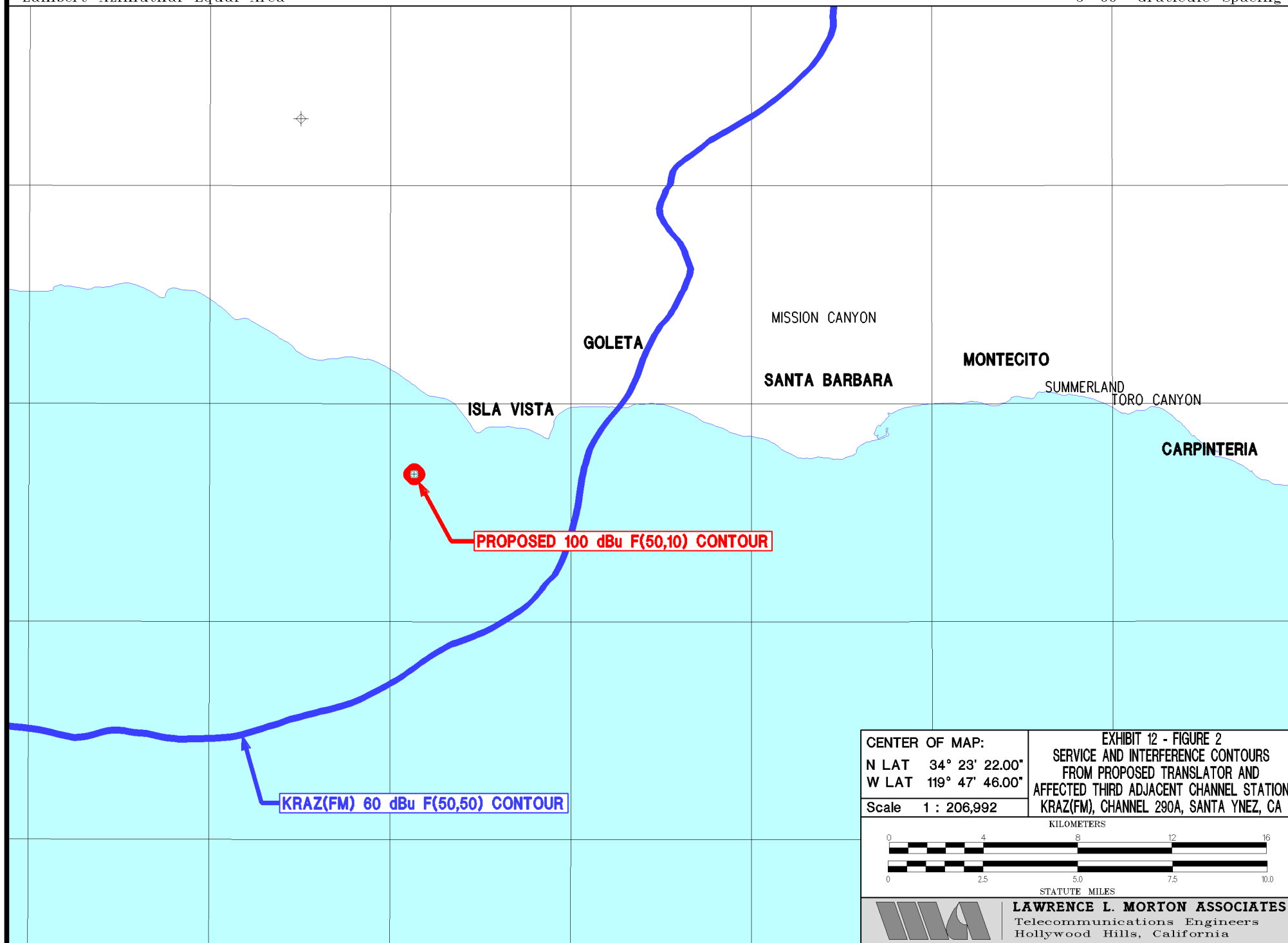**August 29, 2003**

</div>

EXPANDED RELATIVE FIELD

0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10

ELEVATION ANGLE REFERENCED TO HORIZONTAL

90° 80° 70° 60° 50° 40° 30° 20° 10° 0° -10° -20° -30° -40° -50° -60° -70° -80° -90°

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

RELATIVE FIELD

RELATIVE FIELD ELEVATION PATTERN

EXHIBIT 12 - FIGURE 1
GOLD COAST BROADCASTING LLC
ISLA VISTA, CALIFORNIA

ELEM. NO.	MAKE CODE	ELEMENT MANUFACTURER	ELEMENT MODEL NUMBER	PAT SRC	POLAR CODE	ORIENT °TN	NO. BAYS	BAY SPACE	MAXIMUM ELEMENT ERP IN WATTS HORIZONTAL POL.	VERTICAL POL.
1	SWR	SYSTEMS WITH RELIABILITY, INC.	FM-2EP RSL (REDUCED SIDE LOBE ANTENNA)	O	C	0.000°	2	180.0°	250.00000	250.00000

CALL:	NEW	AZIMUTH ANGLE:	0.000°
CHANNEL:	287	ELECTRICAL BEAM TILT:	0.000°
FREQUENCY:	105.30 MHz	MECHANICAL BEAM TILT:	0.000°
MAX H-POL ERP:	250.00 W	MECH. BEAM TILT AZIMUTH:	0.000°
MAX V-POL ERP:	250.00 W	1st NULL FILL:	0.000%
ARRAY POLARIZATION:	C	2nd NULL FILL:	0.000%
ARRAY ROTATION:	0.000° TN	3rd NULL FILL:	0.000%
LATITUDE:	N 34° 23' 23''	H-POL COSINE POWER:	1.000
LONGITUDE:	W 119° 54' 20''	V-POL G:	40.896°
DATE:	08/26/03	FIELD POLAR:	COMPOSITE OF H & V

LAWRENCE L. MORTON ASSOCIATES
Telecommunications Engineers
Hollywood Hills, California

Lambert Azimuthal Equal-Area   5' 00" Graticule Spacing

MISSION CANYON

GOLETA

MONTECITO

SANTA BARBARA

SUMMERLAND
TORO CANYON

ISLA VISTA

CARPINTERIA

PROPOSED 100 dBu F(50,10) CONTOUR

KRAZ(FM) 60 dBu F(50,50) CONTOUR

CENTER OF MAP:

N LAT   34° 23' 22.00"
W LAT   119° 47' 46.00"

Scale   1 : 206,992

EXHIBIT 12 - FIGURE 2
SERVICE AND INTERFERENCE CONTOURS
FROM PROPOSED TRANSLATOR AND
AFFECTED THIRD ADJACENT CHANNEL STATION
KRAZ(FM), CHANNEL 290A, SANTA YNEZ, CA

KILOMETERS

0	4	8	12	16

0	2.5	5.0	7.5	10.0

STATUTE MILES

LAWRENCE L. MORTON ASSOCIATES
Telecommunications Engineers
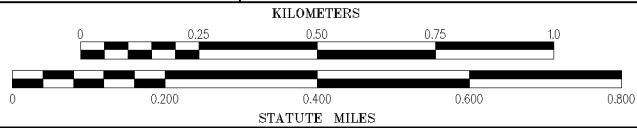Hollywood Hills, California

CENTER OF MAP:

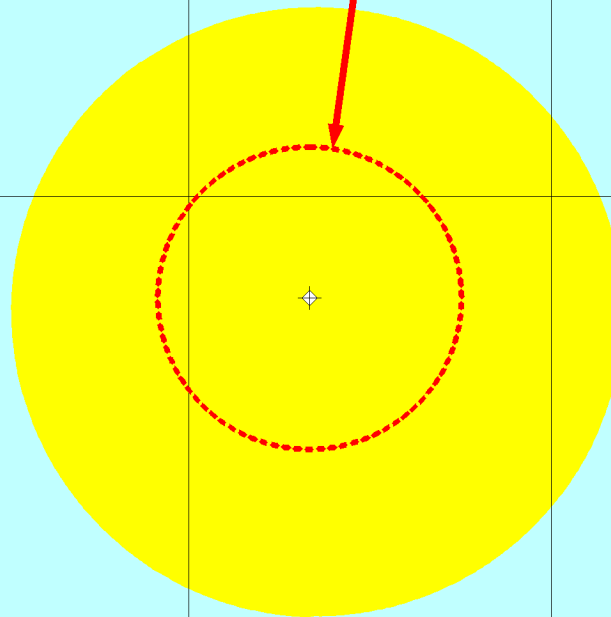N LAT　34° 23' 23.00"
W LAT　119° 54' 20.00"

Scale　1 : 16,030

EXHIBIT 12 - FIGURE 3
PROPOSED INTERFERENCE CONTOUR
AND AREA OF ACTUAL INTERFERENCE
TO THIRD ADJACENT CHANNEL STATION
KRAZ(FM), CHANNEL 290A, SANTA YNEZ, CA

KILOMETERS

0　　0.25　　0.50　　0.75　　1.0

STATUTE MILES

0　　0.200　　0.400　　0.600　　0.800

LAWRENCE L. MORTON ASSOCIATES
Telecommunications Engineers
Hollywood Hills, California

PROPOSED 100 dBu F(50,10) INTERFERENCE CONTOUR

AREA OF ACTUAL INTERFERENCE TO KRAZ(FM)

LATITUDE: N 34º 23' 23"   ARC =   25.9 meters AMSL
LONGITUDE: W 119º 54' 20"   TERRAIN = 3/30 Arc-Second

BEARING	MAX POWER IN WATTS	-CONTOURS IN DBU- PROPOSED	EXISTING	RADIAL HAAT-m	---LIMITING STATION--- CALL	CHAN	FILE

17.0	2456.3113	34 I	54 S	-289.1	KKDJ	287-B	3777400
18.0	2372.1873	34 I	54 S	-293.8	KKDJ	287-B	3777400
19.0	2301.1008	34 I	54 S	-303.8	KKDJ	287-B	3777400
20.0	2239.7251	34 I	54 S	-309.6	KKDJ	287-B	3777400
21.0	2187.8152	34 I	54 S	-302.7	KKDJ	287-B	3777400
22.0	2143.3420	34 I	54 S	-291.1	KKDJ	287-B	3777400
23.0	2105.7620	34 I	54 S	-282.1	KKDJ	287-B	3777400
24.0	2074.0808	34 I	54 S	-274.5	KKDJ	287-B	3777400
25.0	2048.1597	34 I	54 S	-265.1	KKDJ	287-B	3777400
26.0	2027.4911	34 I	54 S	-252.7	KKDJ	287-B	3777400
27.0	2011.2993	34 I	54 S	-243.1	KKDJ	287-B	3777400
28.0	2000.0632	34 I	54 S	-235.2	KKDJ	287-B	3777400
29.0	1992.6334	34 I	54 S	-226.7	KKDJ	287-B	3777400
30.0	1990.0282	34 I	54 S	-216.2	KKDJ	287-B	3777400
31.0	1990.8079	34 I	54 S	-207.1	KKDJ	287-B	3777400
32.0	1996.1177	34 I	54 S	-197.1	KKDJ	287-B	3777400
33.0	2005.1802	34 I	54 S	-184.0	KKDJ	287-B	3777400
34.0	2019.6748	34 I	54 S	-174.7	KKDJ	287-B	3777400
35.0	2039.4635	34 I	54 S	-168.2	KKDJ	287-B	3777400
36.0	2062.0229	34 I	54 S	-156.3	KKDJ	287-B	3777400
37.0	2090.2549	34 I	54 S	-144.1	KKDJ	287-B	3777400
38.0	2125.2581	34 I	54 S	-126.2	KKDJ	287-B	3777400
39.0	2167.2246	34 I	54 S	-116.3	KKDJ	287-B	3777400
40.0	2217.1177	34 I	54 S	-109.1	KKDJ	287-B	3777400
41.0	2276.1384	34 I	54 S	-102.0	KKDJ	287-B	3777400
42.0	2345.7256	34 I	54 S	-92.2	KKDJ	287-B	3777400
43.0	2420.2510	34 I	54 S	-84.2	KKDJ	287-B	3777400

249.0	2434.1599	54 S	54 S	25.9	KCAQ	284-B	2509200
250.0	2277.7546	54 S	54 S	25.9	KCAQ	284-B	2509200
251.0	2110.8547	54 S	54 S	25.9	KCAQ	284-B	2509200
252.0	1842.7462	54 S	54 S	25.9	KCAQ	284-B	2509200
253.0	1712.6737	54 S	54 S	25.9	KCAQ	284-B	2509200
254.0	1613.8148	54 S	54 S	25.9	KCAQ	284-B	2509200
255.0	1487.7188	54 S	54 S	25.9	KCAQ	284-B	2509200
256.0	1400.9523	54 S	54 S	25.9	KCAQ	284-B	2509200

LATITUDE: N 34º 23' 23"   ARC =   25.9 meters AMSL
LONGITUDE: W 119º 54' 20"   TERRAIN = 3/30 Arc-Second

BEARING	MAX POWER IN WATTS	CONTOURS IN DBU PROPOSED	EXISTING	RADIAL HAAT-m	LIMITING STATION CALL	CHAN	FILE
257.0	1366.2354	54 S	54 S	25.9	KCAQ	284-B	2509200
258.0	1331.5527	54 S	54 S	25.9	KCAQ	284-B	2509200
259.0	1297.1078	54 S	54 S	25.9	KCAQ	284-B	2509200
260.0	1269.1556	54 S	54 S	25.9	KCAQ	284-B	2509200
261.0	1252.9143	54 S	54 S	25.9	KCAQ	284-B	2509200
262.0	1251.9912	54 S	54 S	25.9	KCAQ	284-B	2509200
263.0	1260.0461	54 S	54 S	25.9	KCAQ	284-B	2509200
264.0	1270.9751	54 S	54 S	25.9	KCAQ	284-B	2509200
265.0	1277.5149	54 S	54 S	25.9	KCAQ	284-B	2509200
266.0	1315.5455	54 S	54 S	25.9	KCAQ	284-B	2509200
267.0	1453.5303	54 S	54 S	25.9	KCAQ	284-B	2509200
268.0	1644.0525	54 S	54 S	25.9	KCAQ	284-B	2509200
269.0	1857.4955	54 S	54 S	25.9	KCAQ	284-B	2509200
270.0	2008.1184	54 S	54 S	25.9	KCAQ	284-B	2509200
271.0	2013.2241	54 S	54 S	25.9	KCAQ	284-B	2509200
272.0	2016.5231	54 S	54 S	25.9	KCAQ	284-B	2509200
273.0	2021.5989	54 S	54 S	25.9	KCAQ	284-B	2509200
274.0	2024.5896	54 S	54 S	25.9	KCAQ	284-B	2509200
275.0	1985.4458	54 S	54 S	25.9	KCAQ	284-B	2509200
276.0	1892.2125	54 S	54 S	25.9	KCAQ	284-B	2509200
277.0	1794.5701	54 S	54 S	25.9	KCAQ	284-B	2509200
278.0	1732.4976	54 S	54 S	25.9	KCAQ	284-B	2509200
279.0	1694.0361	54 S	54 S	25.9	KCAQ	284-B	2509200
280.0	1617.6750	54 S	54 S	25.9	KCAQ	284-B	2509200
281.0	1536.1600	54 S	54 S	25.9	KCAQ	284-B	2509200
282.0	1473.3203	54 S	54 S	25.9	KCAQ	284-B	2509200
283.0	1448.5647	54 S	54 S	25.9	KCAQ	284-B	2509200
284.0	1415.1343	54 S	54 S	25.9	KCAQ	284-B	2509200
285.0	1367.6666	54 S	54 S	25.9	KCAQ	284-B	2509200
286.0	1321.1515	54 S	54 S	25.9	KCAQ	284-B	2509200
287.0	1290.4348	54 S	54 S	25.9	KCAQ	284-B	2509200
288.0	1269.1221	54 S	54 S	25.9	KCAQ	284-B	2509200
289.0	1206.6315	54 S	54 S	25.9	KCAQ	284-B	2509200
290.0	1129.3422	54 S	54 S	25.9	KCAQ	284-B	2509200
291.0	1056.0413	54 S	54 S	25.9	KCAQ	284-B	2509200
292.0	1000.4797	54 S	54 S	25.9	KCAQ	284-B	2509200
293.0	977.9641	54 S	54 S	25.9	KCAQ	284-B	2509200
294.0	958.0852	54 S	54 S	25.9	KCAQ	284-B	2509200
295.0	923.5577	54 S	54 S	25.9	KCAQ	284-B	2509200
296.0	887.1450	54 S	54 S	25.9	KCAQ	284-B	2509200

ISLA VISTA, CALIFORNIA
Translator Type is "Fill In"
08/29/03

LATITUDE: N 34º 23' 23"   ARC =   25.9 meters AMSL
LONGITUDE: W 119º 54' 20"   TERRAIN = 3/30 Arc-Second

BEARING	MAX POWER IN WATTS	-CONTOURS IN DBU- PROPOSED	EXISTING	RADIAL HAAT-m	---LIMITING STATION--- CALL	CHAN	FILE
297.0	855.5617	54 S	54 S	25.9	KCAQ	284-B	2509200
298.0	838.1282	54 S	54 S	25.9	KCAQ	284-B	2509200
299.0	839.4485	54 S	54 S	25.9	KCAQ	284-B	2509200
300.0	831.0818	54 S	54 S	25.8	KCAQ	284-B	2509200
301.0	816.8871	54 S	54 S	24.7	KCAQ	284-B	2509200
302.0	803.2881	54 S	54 S	22.9	KCAQ	284-B	2509200
303.0	795.8388	54 S	54 S	22.0	KCAQ	284-B	2509200
304.0	799.9134	54 S	54 S	19.2	KCAQ	284-B	2509200
305.0	800.9708	54 S	54 S	16.4	KCAQ	284-B	2509200
306.0	789.9365	54 S	54 S	12.9	KCAQ	284-B	2509200
307.0	777.5392	54 S	54 S	8.6	KCAQ	284-B	2509200
308.0	769.6645	54 S	54 S	4.1	KCAQ	284-B	2509200
309.0	772.7256	54 S	54 S	-3.5	KCAQ	284-B	2509200
310.0	1656.4720	54 I	60 S	-7.4	KWSZ	286-A	3830600
311.0	1662.5535	54 I	60 S	-13.0	KWSZ	286-A	3830600
312.0	1685.9977	54 I	60 S	-16.2	KWSZ	286-A	3830600
313.0	1701.5521	54 I	60 S	-19.5	KWSZ	286-A	3830600
314.0	1738.7909	54 I	60 S	-24.9	KWSZ	286-A	3830600
315.0	1770.8054	54 I	60 S	-32.7	KWSZ	286-A	3830600
316.0	1831.3044	54 I	60 S	-40.0	KWSZ	286-A	3830600
317.0	1891.7272	54 I	60 S	-47.3	KWSZ	286-A	3830600
318.0	1965.0908	54 I	60 S	-58.1	KWSZ	286-A	3830600
319.0	2062.5818	54 I	60 S	-67.3	KWSZ	286-A	3830600
320.0	2132.1743	54 I	60 S	-67.4	KWSZ	286-A	3830600
321.0	2217.1733	54 I	60 S	-74.6	KWSZ	286-A	3830600
322.0	2290.6978	54 I	60 S	-84.1	KWSZ	286-A	3830600
323.0	2266.8032	54 S	54 S	-93.9	KCAQ	284-B	2509200
324.0	2271.5151	54 S	54 S	-103.7	KCAQ	284-B	2509200
325.0	2283.8027	54 S	54 S	-109.7	KCAQ	284-B	2509200
326.0	2264.3635	54 S	54 S	-117.3	KCAQ	284-B	2509200
327.0	2245.0916	54 S	54 S	-129.8	KCAQ	284-B	2509200
328.0	2242.0391	54 S	54 S	-136.8	KCAQ	284-B	2509200
329.0	2283.8428	54 S	54 S	-146.2	KCAQ	284-B	2509200
330.0	2297.5188	54 S	54 S	-161.6	KCAQ	284-B	2509200
331.0	2289.9453	54 S	54 S	-171.7	KCAQ	284-B	2509200
332.0	2288.3066	54 S	54 S	-187.5	KCAQ	284-B	2509200
333.0	2318.2058	54 S	54 S	-202.4	KCAQ	284-B	2509200
334.0	2399.5300	54 S	54 S	-212.9	KCAQ	284-B	2509200
335.0	2453.0266	54 S	54 S	-216.0	KCAQ	284-B	2509200