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ENGINEERING EXHIBIT  
APPLICATION FOR MODIFICATION OF  
DTV CONSTRUCTION PERMIT  
HEARST- ARGYLE STATIONS, INC.  
KSBW-DT, SALINAS, CALIFORNIA  
CH. 10    21.4 KW (MAX-DA)    736 METERS

Hearst-Argyle Stations, Inc. (hereafter, Hearst-Argyle) has been issued a construction permit in BPCDT-20010820AAP for a new DTV facility for station KSBW-DT, Salinas, California. The specifications are for operation on Channel 10 with maximum effective radiated power of 16.5 kW using a directional antenna and antenna radiation center height of 729 meters above average terrain. By means of the instant application Hearst-Argyle seeks to modify the construction permit for continued operation on Channel 10, but with a maximum effective radiated power of 21.4 kW and a modified antenna radiation center height of 736 meters above average terrain. As shown herein, the modified facilities continue to provide the necessary 2% de minimis interference protection to all NTSC and DTV stations and allotments. In consonance with the FCC's electronic filing requirement that "on file" references are impermissible, much of the previously submitted information concerning the proposed operation is repeated herein.

The site to be employed is the same as set forth in the outstanding construction permit, i.e., 36° 45' 23" North Latitude; 121° 30' 05" West Longitude. The supporting tower is the same as employed to support the antenna for Channel 8 analog station KSBW (TV). The antenna structure registration (ASR) number is: 1215158. The KSBW-DT antenna will be mounted on the tower with the radiation center at an elevation of 96 meters above ground level, 1034 meters above mean sea level.

The antenna to be employed and the radiation pattern are the same as set forth in the underlying application for construction permit. The antenna is a Dielectric, Model THA-SP4-4H/16-1-R, and the azimuth pattern is furnished herein as Figure 1. The tabulation of relative fields for the pattern of Figure 1 is supplied in Figure 2. Figure 3 is the vertical plane radiation

pattern for the antenna, and Figure 4 is the tabulation of relative field data for the pattern of Figure 3.

Figure 5 is a map demonstrating that the entire principal community of Salinas continues to be encompassed by the 43 dBu, F(50,90) contour. The FCC, since the original submission of the petition to allot Channel 10 to Salinas, has adopted the 43 dBu signal strength level as the requirement for principal community coverage to supplant the previous 36 dBu signal strength level for high band VHF stations. Supporting data for the contour determination are provided in Figure 6. Calculations were performed at 15° radial intervals to provide greater definition of the coverage from the directional antenna than could be obtained using the standard eight 45° spaced radials only.

An allocation study using the FCC's FLR software has been conducted for the proposed KSBW-DT facility. An Alpha processor was employed. Two runs were performed. The first run was with the database for the stations of interest the same as employed by the FCC in establishing the data for Appendix B in the Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders in MM Docket No. 87-268. At that time KSBW-DT had been allotted Channel 43. The results of this run permitted a comparison with the FCC's results, and, also, provided a reference for comparison with the results obtained for the second run. Excellent agreement with the FCC's results was obtained.

For the second run, the facilities proposed herein for KSBW-DT were substituted for the original KSBW-DT, Channel 43, allotment facilities of the aforementioned Appendix B that were used in the first run. By this means, any changes in the results between the two runs would be attributable to the proposed KSBW-DT operation. The study results showed a 1.4% increase in the interference caused to co-channel station KTVX, Sacramento, California. The total

KSBW-DT, Salinas, California  
Engineering Exhibit (continued)

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interference from DTV sources was increased from 19,166 persons to 120,007 persons. The 100,841 person difference represents 1.2 % of the 8,477,539 persons within the KTVX Grade B contour. The 2% "de minimis" interference criterion is satisfied.

Station KNTV, San Jose, California, Channel 11, has been authorized for increased power to 182 kW from 79.4 kW since the initial Appendix B calculations were performed. The undersigned has conducted additional studies with, and without, the proposed KSBW-DT operation to ascertain the impact on KNTV as currently authorized. The results demonstrated an increase in interference from the proposed KSBW-DT operation which impacted 0.1% of the 6,526,044 persons within the KNTV Grade B contour. The proposed KSBW-DT operation satisfies the 2% de minimis interference limit constraint of the FCC Rules. No question arises of cumulative interference from all DTV sources exceeding the maximum permissible limit of 10 % of the Grade B population for either KTVX or KNTV.

The proposed KSBW-DT operation, when implemented, will have no significant impact on the environment. Since an existing site that is used for broadcasting purposes will be employed for the proposed KSBW-DT facility, only the concerns relating to radio-frequency radiation (rfr) exposure to the general public at uncontrolled locations and to workers at controlled locations merit discussion from among the list of environmentally sensitive items set forth in Section 1.1307 of the FCC Rules.

Insofar as rfr exposure to the public at uncontrolled locations is concerned, the isolated location of the site comports with the situation B conditions described in Appendix B of the FCC's OET Bulletin 65, Edition 97-01 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields". Situation B in Appendix B refers to high rfr levels produced at ground level in a remote area not likely to be visited by the

public. Under situation B, if the area of concern is marked by appropriate warning signs an applicant may assume that there is no significant effect on the human environment with regard to exposure of the general public. It is recommended that fences also be used where feasible. The site comports with these conditions.

Access to the site requires passage through a gate from the remotest portion of the road through Fremont Peak State Park. Also, the KSBW-TV/DT tower is surrounded by a fence which is kept locked at all times. Access within the fence is available only to authorized personnel. A radiation hazard warning sign is posted on the fence.

As a precautionary measure, Hearst-Argyle had a measurement survey conducted at the site in 1999 by the firm of Hammett & Edison. The ensuing report concluded that, based on spatially averaged measurements, the highest level of rfr observed was 75% of the FCC adopted safety standard, and this, relatively high value, occurred at only one location.

Since installation of the new KSBW-DT antenna will require a change in the mounting configuration for the KSBW (TV) antenna, as well, it is Hearst-Argyle's intent to have the site resurveyed at the completion of construction to ascertain the new levels of rfr. If remedial measures are determined to be necessary, they will be performed.

Worker protection to overexposure to rfr is accomplished through a cooperative procedure whereby the various licensees reduce power or cease operation, as appropriate, when work must be performed on the tower. These procedures will continue to be employed. Thus, the KSBW-DT operation will satisfy the FCC's requirements for the avoidance of overexposure to rfr for both controlled and uncontrolled locations. The instant proposal does not require an environmental assessment.

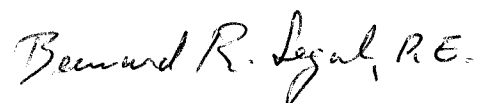
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KSBW-DT, Salinas, California  
Engineering Exhibit (continued)

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I declare under penalty of perjury that the foregoing is true and correct. Executed on June 5, 2002.

A handwritten signature in black ink that reads "Bernard R. Segal, P.E." in a cursive script.

Bernard R. Segal, P. E.



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

14 Aug 2001

KSBW-DT

Salinas, CA

THA-SP4-4H/16H-1-R

Revision

Channel 10

FIGURE 1

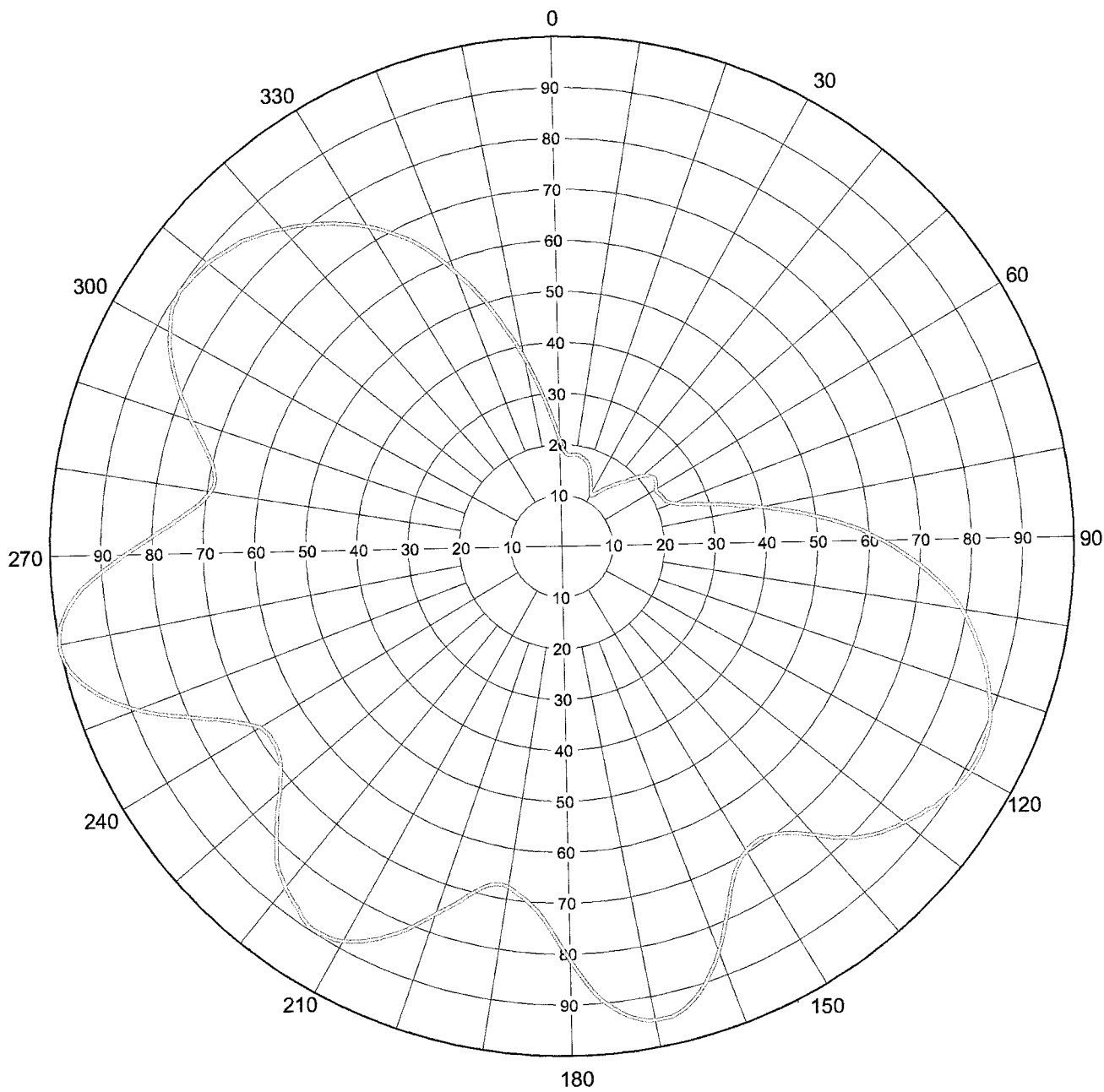
### AZIMUTH PATTERN

RMS Gain at Main Lobe  
Calculated / Measured

2.05 (3.12 dB)  
Calculated

Frequency  
Drawing #

195 MHz  
THA-SP4-195



Remarks:

FIGURE 2



Proposal Number  
 Date **14 Aug 2001**  
 Call Letters **KSBW-DT** Channel **10**  
 Location **Salinas, CA**  
 Customer  
 Antenna Type **THA-SP4-4H/16H-1-R**

### TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **THA-SP4-195**

Angle	Field	ERP (kW)	ERP (dBk)
0	0.212	0.7	-1.30
10	0.182	0.5	-2.62
20	0.166	0.5	-3.42
30	0.118	0.2	-6.39
40	0.152	0.4	-4.19
50	0.209	0.7	-1.42
60	0.214	0.8	-1.22
70	0.234	0.9	-0.44
80	0.397	2.6	4.15
90	0.626	6.5	8.11
100	0.791	10.3	10.14
110	0.883	12.9	11.09
120	0.911	13.7	11.37
130	0.861	12.2	10.87
140	0.750	9.3	9.68
150	0.698	8.0	9.05
160	0.852	12.0	10.78
170	0.948	14.8	11.71
180	0.812	10.9	10.37
190	0.676	7.5	8.77
200	0.763	9.6	9.83
210	0.885	12.9	11.11
220	0.858	12.1	10.84
230	0.730	8.8	9.44
240	0.688	7.8	8.93
250	0.890	13.1	11.16
260	1.000	16.5	12.17
270	0.853	12.0	10.79
280	0.693	7.9	8.99
290	0.764	9.6	9.84
300	0.873	12.6	11.00
310	0.886	13.0	11.12
320	0.827	11.3	10.52
330	0.733	8.9	9.48
340	0.579	5.5	7.43
350	0.378	2.4	3.72

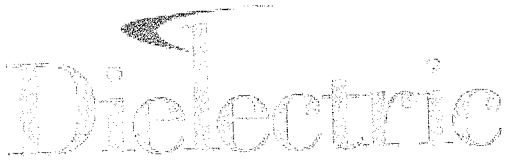
#### Maxima

Angle	Field	ERP (kW)	ERP (dBk)
11	0.182	0.5	-2.62
55	0.225	0.8	-0.78
118	0.913	13.8	11.38
170	0.948	14.8	11.71
214	0.894	13.2	11.20
259	1.000	16.5	12.17
305	0.897	13.3	11.23

#### Minima

Angle	Field	ERP (kW)	ERP (dBk)
6	0.180	0.5	-2.72
31	0.115	0.2	-6.61
61	0.214	0.8	-1.22
148	0.692	7.9	8.98
191	0.674	7.5	8.75
238	0.680	7.6	8.83
282	0.689	7.8	8.94

Remarks:



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

14 Aug 2001

KSBW-DT

Salinas, CA

THA-SP4-4H/16H-1-R

Revision

Channel 10

FIGURE 3

## ELEVATION PATTERN

RMS Gain at Main Lobe

RMS Gain at Horizontal

Calculated / Measured

4.4 (6.43 dB)

4.4 (6.43 dB)

Calculated

Beam Tilt

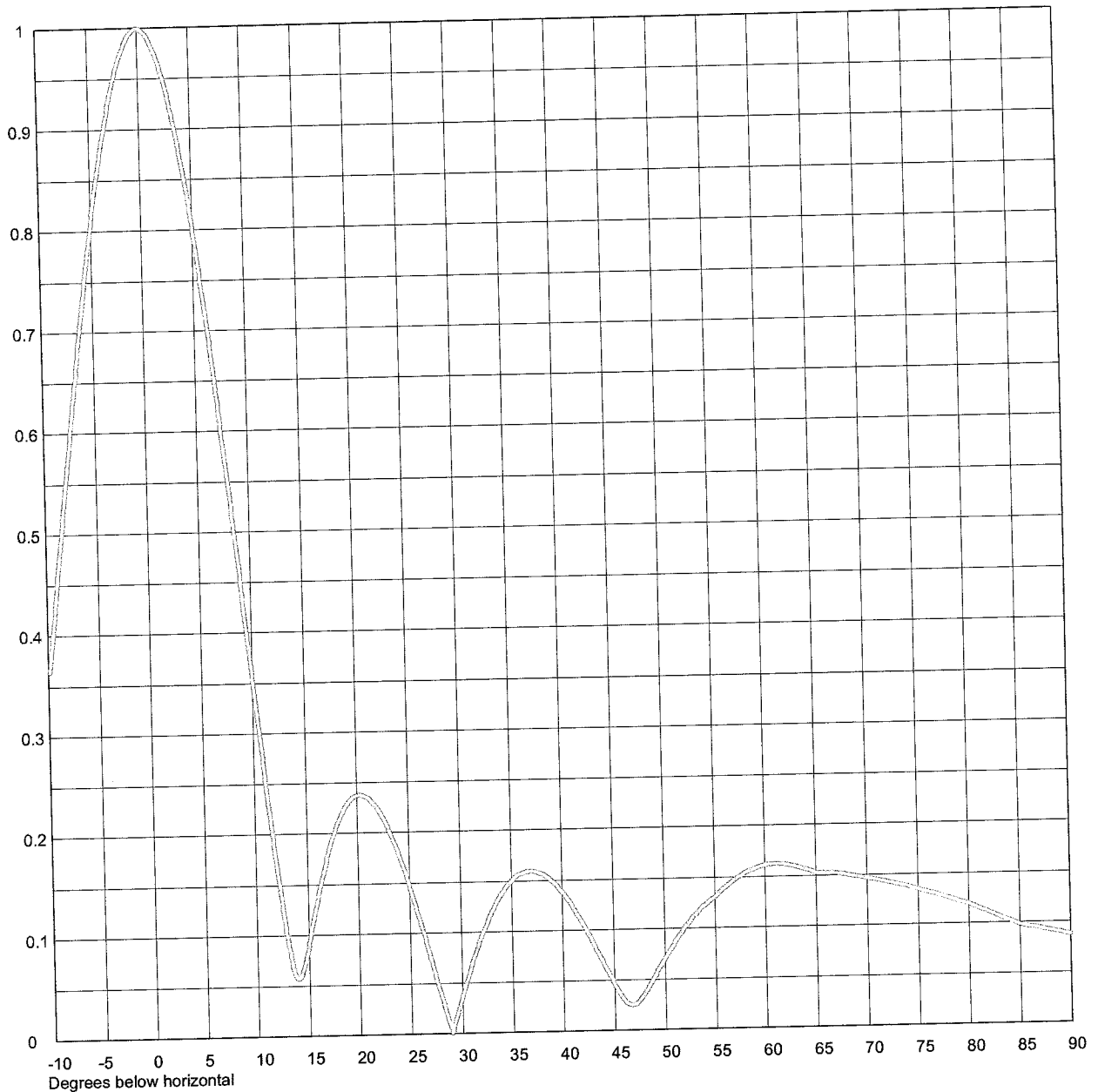
Frequency

Drawing #

0.00 Degrees

195.00 MHz

04H044000-195S-90



Remarks:



FIGURE 4



Proposal Number  
 Date **14 Aug 2001**  
 Call Letters **KSBW-DT** Channel **10**  
 Location **Salinas, CA**  
 Customer  
 Antenna Type **THA-SP4-4H/16H-1-R**

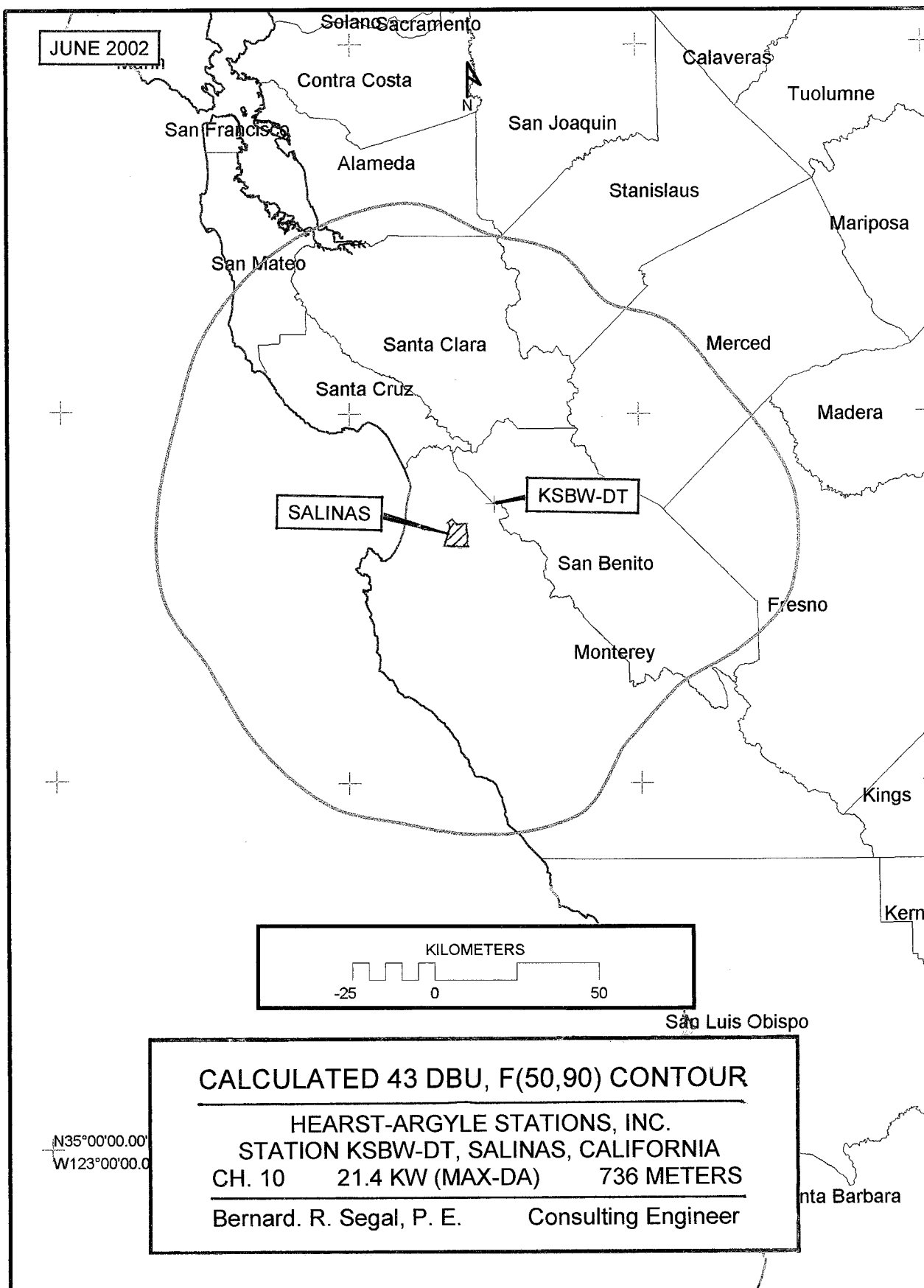
### TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **04H044000-195S-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.354	2.4	0.951	10.6	0.297	30.5	0.051	51.0	0.086	71.5	0.144
-9.5	0.402	2.6	0.942	10.8	0.278	31.0	0.067	51.5	0.093	72.0	0.143
-9.0	0.450	2.8	0.934	11.0	0.260	31.5	0.081	52.0	0.100	72.5	0.142
-8.5	0.498	3.0	0.925	11.5	0.215	32.0	0.095	52.5	0.107	73.0	0.140
-8.0	0.545	3.2	0.915	12.0	0.172	32.5	0.107	53.0	0.112	73.5	0.139
-7.5	0.592	3.4	0.905	12.5	0.132	33.0	0.118	53.5	0.118	74.0	0.138
-7.0	0.638	3.6	0.894	13.0	0.096	33.5	0.128	54.0	0.122	74.5	0.136
-6.5	0.682	3.8	0.882	13.5	0.068	34.0	0.137	54.5	0.126	75.0	0.135
-6.0	0.725	4.0	0.871	14.0	0.057	34.5	0.144	55.0	0.130	75.5	0.134
-5.5	0.766	4.2	0.858	14.5	0.067	35.0	0.150	55.5	0.135	76.0	0.132
-5.0	0.804	4.4	0.845	15.0	0.088	35.5	0.154	56.0	0.139	76.5	0.131
-4.5	0.839	4.6	0.832	15.5	0.112	36.0	0.157	56.5	0.143	77.0	0.129
-4.0	0.871	4.8	0.818	16.0	0.135	36.5	0.159	57.0	0.147	77.5	0.127
-3.5	0.899	5.0	0.804	16.5	0.157	37.0	0.159	57.5	0.150	78.0	0.126
-3.0	0.925	5.2	0.789	17.0	0.177	37.5	0.159	58.0	0.153	78.5	0.124
-2.8	0.934	5.4	0.774	17.5	0.194	38.0	0.157	58.5	0.156	79.0	0.123
-2.6	0.942	5.6	0.758	18.0	0.208	38.5	0.154	59.0	0.158	79.5	0.121
-2.4	0.951	5.8	0.741	18.5	0.219	39.0	0.150	59.5	0.160	80.0	0.119
-2.2	0.958	6.0	0.725	19.0	0.228	39.5	0.145	60.0	0.161	80.5	0.117
-2.0	0.965	6.2	0.708	19.5	0.234	40.0	0.138	60.5	0.162	81.0	0.115
-1.8	0.971	6.4	0.691	20.0	0.237	40.5	0.132	61.0	0.162	81.5	0.113
-1.6	0.977	6.6	0.673	20.5	0.238	41.0	0.124	61.5	0.162	82.0	0.111
-1.4	0.982	6.8	0.656	21.0	0.235	41.5	0.115	62.0	0.162	82.5	0.109
-1.2	0.986	7.0	0.638	21.5	0.231	42.0	0.107	62.5	0.161	83.0	0.107
-1.0	0.990	7.2	0.620	22.0	0.224	42.5	0.097	63.0	0.160	83.5	0.105
-0.8	0.994	7.4	0.601	22.5	0.216	43.0	0.087	63.5	0.158	84.0	0.102
-0.6	0.996	7.6	0.583	23.0	0.205	43.5	0.077	64.0	0.157	84.5	0.100
-0.4	0.998	7.8	0.564	23.5	0.193	44.0	0.067	64.5	0.155	85.0	0.098
-0.2	0.999	8.0	0.545	24.0	0.179	44.5	0.057	65.0	0.153	85.5	0.097
0.0	1.000	8.2	0.526	24.5	0.164	45.0	0.047	65.5	0.153	86.0	0.096
0.2	0.999	8.4	0.507	25.0	0.148	45.5	0.038	66.0	0.153	86.5	0.095
0.4	0.998	8.6	0.488	25.5	0.131	46.0	0.030	66.5	0.152	87.0	0.094
0.6	0.996	8.8	0.469	26.0	0.113	46.5	0.026	67.0	0.152	87.5	0.093
0.8	0.994	9.0	0.450	26.5	0.094	47.0	0.025	67.5	0.151	88.0	0.092
1.0	0.990	9.2	0.431	27.0	0.075	47.5	0.029	68.0	0.151	88.5	0.091
1.2	0.986	9.4	0.411	27.5	0.056	48.0	0.036	68.5	0.150	89.0	0.090
1.4	0.982	9.6	0.392	28.0	0.038	48.5	0.044	69.0	0.149	89.5	0.089
1.6	0.977	9.8	0.373	28.5	0.019	49.0	0.053	69.5	0.148	90.0	0.088
1.8	0.971	10.0	0.354	29.0	0.000	49.5	0.061	70.0	0.146		
2.0	0.965	10.2	0.335	29.5	0.018	50.0	0.070	70.5	0.146		
2.2	0.958	10.4	0.316	30.0	0.035	50.5	0.078	71.0	0.145		

Remarks:

FIGURE 5



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FIGURE 6  
TABULATION OF ELEVATIONS, RADIATION VALUES AND  
DISTANCES TO THE KSBW-DT 43 DBU, F(50,90) CONTOUR

<u>Azimuth</u> (Deg. True)	<u>Antenna Rad. Center Above Terrain Avg.</u> (meters)	<u>ERP</u> (kW)	<u>Distance to 43 dBu F(50,90) Contour</u> (km)
0	845	0.962	86.3
15	890	0.648	83.9
30	846	0.298	76.6
45	793	0.701	82.7
60	761	0.980	84.3
75	776	2.14	90.7
90	652	8.38	98.7
105	552	15.0	100.3
120	411	17.8	92.2
135	318	13.9	83.7
150	399	10.4	87.3
165	576	17.3	102.6
180	717	14.1	105.4
195	853	11.1	105.8
210	891	16.8	109.9
225	897	13.5	108.6
240	931	10.1	106.4
255	915	19.1	111.5
270	872	15.6	109.1
285	886	11.4	106.6
300	824	16.3	108.5
315	795	15.7	107.7
330	778	11.5	104.6
345	873	4.89	99.4

Notes: (1) Antenna radiation center is 1034 meters above mean sea level. (2) Terrain elevation data from USGS 3 arcsecond database. (3) Standard eight radial HAAT is 736 meters.