I was about to continue, proceeding through Waimea toward Hilo on Highway 19, when the station abruptly left the air. I terminated the test, and returned to Kailua Kona with my radio tuned to KLEO, where I am employed. I learned later that KRTR in Honolulu had been off the air and returned to the air at low power. The translator station on 105.5 MHz., is still apparently unable to receive the KRTR signal.

Signed:

David R. Fransen, Jr.

Executed this 17th day of May, 1993

STATE OF HAWAII)
) SS:
COUNTY OF HAWAII)

On this 17th day of May, 1993, before me personally appeared David R. Fransen, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

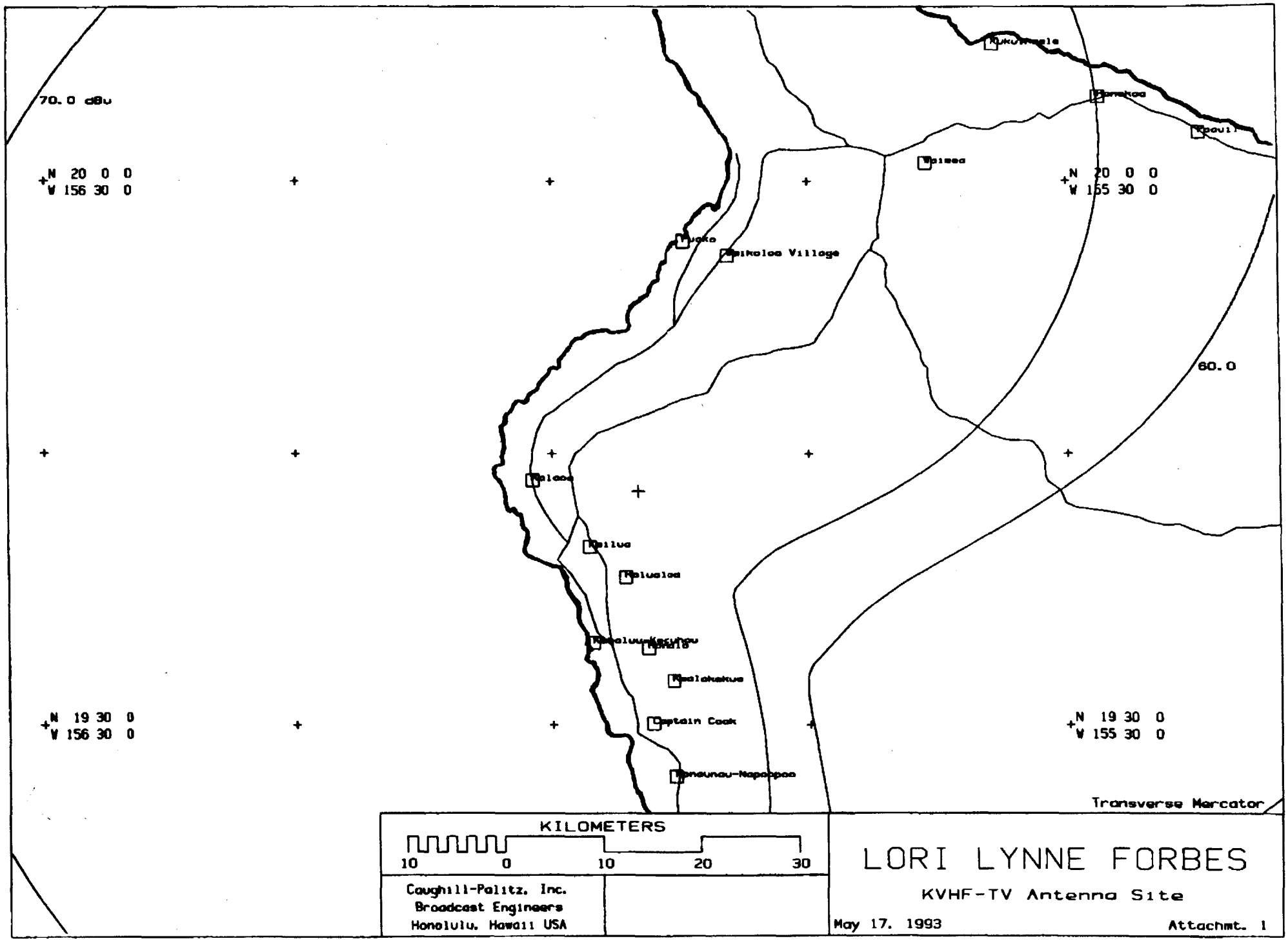
Notary Public,
State of Hawaii

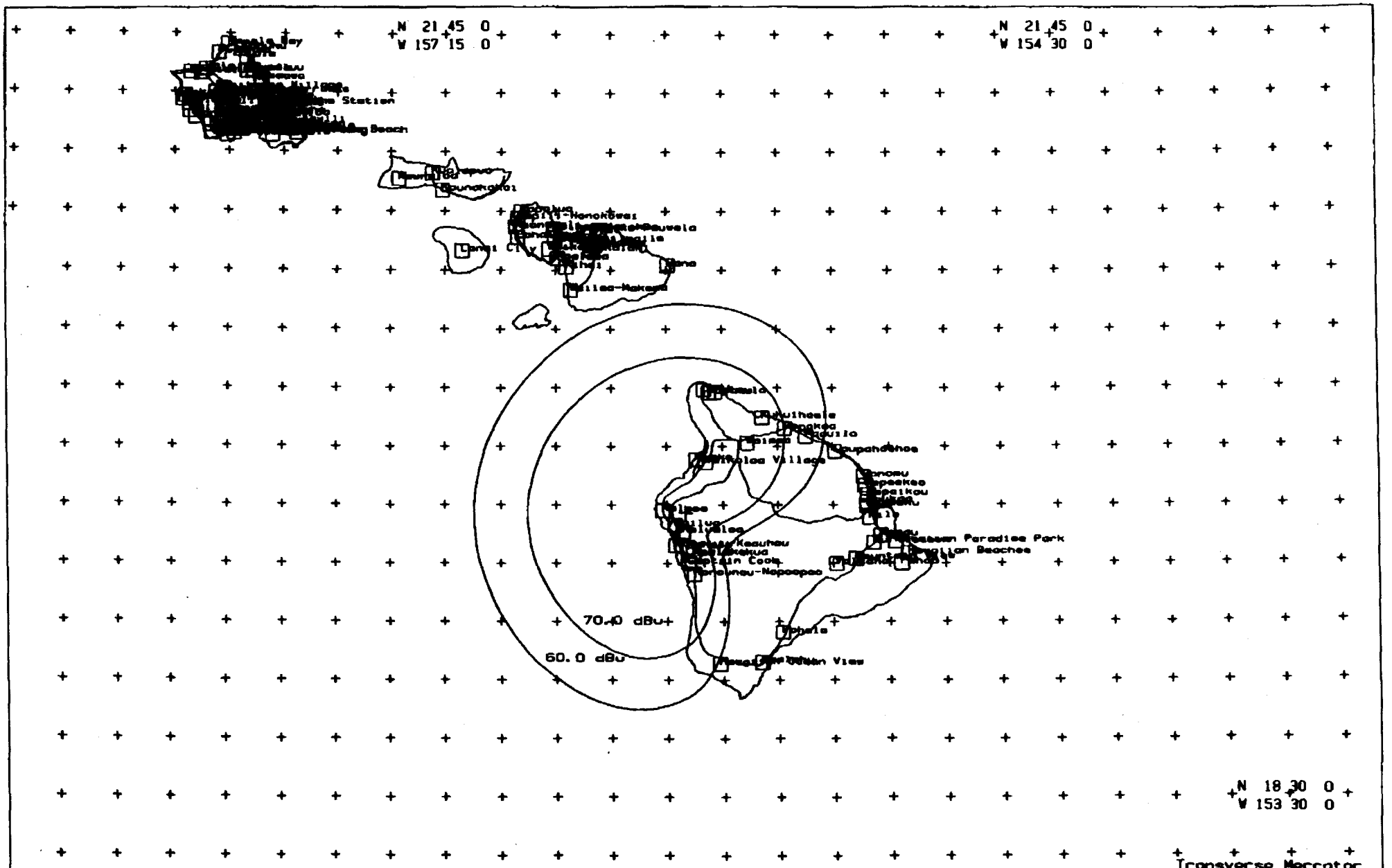
My Commission Expires: 12-27-96

Attachment 1

3.16 mV/m (70 dBu) and 1 mV/m (60 dBu) Contour Prediction

Note: Radial terrain data from which this coverage prediction was made is included as Attachment 1A


70.0 dBu
N 20 0 0
W 156 30 0
N 20 0 0
W 155 30 0
60.0
N 19 30 0
W 156 30 0
N 19 30 0
W 155 30 0
Pikoloa Village
Captain Cook
Transverse Mercator
KILOMETERS
10
0
10
20
30
Caughill-Palitz, Inc.
Broadcast Engineers
Honolulu, Hawaii USA
LORI LYNNE FORBES
KVHF-TV Antenna Site
May 17, 1993
Attachmt. 1



KILOMETERS

50 0 50 100 150

Coughill-Palitz, Inc.
Broadcast Engineers
Honolulu, Hawaii USA

LORI LYNNE FORBES

KVHF-TV Antenna Site

May 17, 1993

Attachmt. 1

Lori Lynne Forbes
Response to Petition to Enlarge Issues
Channel 252C, Waimea, Hawaii
May 17, 1993

Attachment 1A - Radial Profile Data

Information used in Computer Analysis
3.16 mV/m and 1 mV/m Contour Prediction

Note: A correction factor has been applied to the data on radials, the extremety of which, lie in sea water. This is noted by the term "corrected" prior to the average height listed. The correction is obtained by dividing the total number of points measured by the number of valid land points and multiplying the value thus obtained by the uncorrected aveerage height.

AZIMUTH = .000

Point	Dist	Elevation
1	3.00	1139.0
2	3.10	1121.0
3	3.20	1107.0
4	3.30	1088.0
5	3.40	1070.0
6	3.50	1049.0
7	3.60	1032.0
8	3.70	1020.0
9	3.80	1007.0
10	3.90	994.0
11	4.00	981.0
12	4.10	961.0
13	4.20	946.0
14	4.30	922.0
15	4.40	905.0
16	4.50	894.0
17	4.60	882.0
18	4.70	871.0
19	4.80	860.0
20	4.90	848.0
21	5.00	834.0
22	5.10	819.0
23	5.20	808.0
24	5.30	796.0
44	7.30	559.0
45	7.40	552.0
46	7.50	543.0
47	7.60	533.0
48	7.70	525.0
49	7.80	517.0
50	7.90	509.0
51	8.00	502.0
52	8.10	496.0
53	8.20	489.0
54	8.30	481.0
55	8.40	472.0
56	8.50	463.0
57	8.60	454.0
58	8.70	445.0
59	8.80	437.0
60	8.90	429.0
61	9.00	422.0
62	9.10	415.0
63	9.20	406.0
64	9.30	398.0
65	9.40	391.0
66	9.50	384.0
67	9.60	376.0
68	9.70	368.0
69	9.80	362.0
89	11.80	224.0
90	11.90	218.0
91	12.00	212.0
92	12.10	206.0
93	12.20	200.0
94	12.30	194.0
95	12.40	188.0
96	12.50	183.0
97	12.60	176.0
98	12.70	168.0
99	12.80	163.0
100	12.90	157.0
101	13.00	152.0
102	13.10	148.0
103	13.20	142.0
104	13.30	137.0
105	13.40	132.0
106	13.50	126.0
107	13.60	121.0
108	13.70	116.0
109	13.80	111.0
110	13.90	106.0
111	14.00	99.0
112	14.10	94.0
113	14.20	87.0
114	14.30	81.0

AZIMUTH = 45.000

Point	Dist	Elevation
1	3.00	1363.0
2	3.10	1353.0
44	7.30	911.0
45	7.40	909.0
46	7.50	907.0
47	7.60	906.0
89	11.80	753.0
90	11.90	751.0
91	12.00	750.0
92	12.10	749.0

AZIMUTH = 90.000

Point	Dist	Elevation
1	3.00	1939.0
2	3.10	1940.0
3	3.20	1942.0
4	3.30	1942.0
5	3.40	1940.0
6	3.50	1940.0
7	3.60	1937.0
8	3.70	1934.0
9	3.80	1937.0
10	3.90	1942.0
11	4.00	1943.0
12	4.10	1943.0
13	4.20	1943.0
14	4.30	1943.0
15	4.40	1943.0
16	4.50	1942.0
17	4.60	1943.0
18	4.70	1943.0
19	4.80	1943.0
20	4.90	1943.0
21	5.00	1943.0
22	5.10	1943.0
23	5.20	1942.0
24	5.30	1939.0
25	5.40	1928.0
26	5.50	1915.0
27	5.60	1901.0
28	5.70	1886.0
29	5.80	1876.0
30	5.90	1864.0
31	6.00	1845.0
32	6.10	1837.0
33	6.20	1819.0
34	6.30	1805.0
35	6.40	1794.0
36	6.50	1789.0
37	6.60	1782.0
38	6.70	1775.0
39	6.80	1761.0
40	6.90	1750.0
41	7.00	1737.0
42	7.10	1727.0
43	7.20	1719.0
44	7.30	1710.0
45	7.40	1691.0
46	7.50	1686.0
47	7.60	1671.0
48	7.70	1659.0
49	7.80	1654.0
50	7.90	1654.0
51	8.00	1654.0
52	8.10	1653.0
53	8.20	1650.0
54	8.30	1635.0
55	8.40	1618.0
56	8.50	1600.0
57	8.60	1592.0
58	8.70	1586.0
59	8.80	1579.0
60	8.90	1569.0
61	9.00	1562.0
62	9.10	1553.0
63	9.20	1545.0
64	9.30	1539.0
65	9.40	1533.0
66	9.50	1528.0
67	9.60	1521.0
68	9.70	1518.0
69	9.80	1510.0
70	9.90	1504.0
71	10.00	1500.0
72	10.10	1499.0
73	10.20	1498.0
74	10.30	1500.0
75	10.40	1500.0
76	10.50	1493.0
77	10.60	1482.0
78	10.70	1473.0
79	10.80	1469.0
80	10.90	1462.0
81	11.00	1460.0
82	11.10	1453.0
83	11.20	1445.0
84	11.30	1440.0
85	11.40	1435.0
86	11.50	1434.0
87	11.60	1430.0
88	11.70	1429.0
89	11.80	1427.0
90	11.90	1426.0
91	12.00	1422.0
92	12.10	1420.0
93	12.20	1416.0
94	12.30	1413.0
95	12.40	1408.0
96	12.50	1405.0
97	12.60	1402.0
98	12.70	1397.0
99	12.80	1394.0
100	12.90	1391.0
101	13.00	1389.0
102	13.10	1387.0
103	13.20	1384.0
104	13.30	1383.0
105	13.40	1382.0
106	13.50	1381.0
107	13.60	1381.0
108	13.70	1380.0
109	13.80	1380.0
110	13.90	1380.0
111	14.00	1380.0
112	14.10	1380.0
113	14.20	1380.0
114	14.30	1381.0
115	14.40	1382.0
116	14.50	1383.0
117	14.60	1382.0
118	14.70	1382.0
119	14.80	1380.0
120	14.90	1379.0
121	15.00	1380.0
122	15.10	1380.0
123	15.20	1379.0
124	15.30	1379.0
125	15.40	1379.0
126	15.50	1380.0
127	15.60	1381.0
128	15.70	1382.0
129	15.80	1384.0
130	15.90	1385.0
131	16.00	1386.0

AVERAGE = 1606.3

AZIMUTH = 135.000

Point	Dist	Elevation
1	3.00	1884.0
2	3.10	1894.0
3	3.20	1908.0
4	3.30	1922.0
5	3.40	1937.0
6	3.50	1951.0
7	3.60	1966.0
8	3.70	1976.0
9	3.80	1993.0
10	3.90	2010.0
11	4.00	2020.0
12	4.10	2028.0
13	4.20	2039.0
14	4.30	2049.0
15	4.40	2055.0
16	4.50	2056.0
17	4.60	2055.0
18	4.70	2046.0
19	4.80	2044.0
20	4.90	2047.0
21	5.00	2046.0
22	5.10	2043.0
23	5.20	2041.0
24	5.30	2038.0
25	5.40	2037.0
26	5.50	2036.0
27	5.60	2032.0
44	7.30	1915.0
45	7.40	1904.0
46	7.50	1889.0
47	7.60	1878.0
48	7.70	1864.0
49	7.80	1853.0
50	7.90	1844.0
51	8.00	1827.0
52	8.10	1810.0
53	8.20	1799.0
54	8.30	1790.0
55	8.40	1783.0
56	8.50	1782.0
57	8.60	1781.0
58	8.70	1782.0
59	8.80	1783.0
60	8.90	1784.0
61	9.00	1784.0
62	9.10	1784.0
63	9.20	1787.0
64	9.30	1788.0
65	9.40	1786.0
66	9.50	1785.0
67	9.60	1785.0
68	9.70	1784.0
69	9.80	1783.0
70	9.90	1782.0
71	10.00	1777.0
72	10.10	1775.0
89	11.80	1713.0
90	11.90	1711.0
91	12.00	1707.0
92	12.10	1707.0
93	12.20	1705.0
94	12.30	1696.0
95	12.40	1689.0
96	12.50	1683.0
97	12.60	1672.0
98	12.70	1666.0
99	12.80	1652.0
100	12.90	1641.0
101	13.00	1633.0
102	13.10	1628.0
103	13.20	1624.0
104	13.30	1625.0
105	13.40	1626.0
106	13.50	1626.0
107	13.60	1624.0
108	13.70	1620.0
109	13.80	1617.0
110	13.90	1612.0
111	14.00	1607.0
112	14.10	1603.0
113	14.20	1598.0
114	14.30	1593.0
115	14.40	1585.0
116	14.50	1582.0
117	14.60	1579.0

AZIMUTH = 180.000

Point	Dist	Elevation
1	3.00	1327.0
2	3.10	1314.0
3	3.20	1301.0
4	3.30	1289.0
5	3.40	1277.0
6	3.50	1270.0
7	3.60	1263.0
8	3.70	1255.0
9	3.80	1249.0
10	3.90	1241.0
11	4.00	1232.0
12	4.10	1223.0
13	4.20	1213.0
14	4.30	1203.0
15	4.40	1191.0
16	4.50	1182.0
17	4.60	1169.0
18	4.70	1157.0
19	4.80	1149.0
20	4.90	1144.0
21	5.00	1139.0
22	5.10	1137.0
23	5.20	1135.0
24	5.30	1132.0
25	5.40	1126.0
26	5.50	1120.0
27	5.60	1113.0
28	5.70	1099.0
29	5.80	1093.0
44	7.30	980.0
45	7.40	976.0
46	7.50	968.0
47	7.60	961.0
48	7.70	956.0
49	7.80	951.0
50	7.90	947.0
51	8.00	942.0
52	8.10	937.0
53	8.20	933.0
54	8.30	928.0
55	8.40	925.0
56	8.50	921.0
57	8.60	917.0
58	8.70	913.0
59	8.80	907.0
60	8.90	904.0
61	9.00	903.0
62	9.10	901.0
63	9.20	900.0
64	9.30	899.0
65	9.40	896.0
66	9.50	895.0
67	9.60	895.0
68	9.70	894.0
69	9.80	893.0
70	9.90	889.0
71	10.00	886.0
72	10.10	884.0
73	10.20	882.0
74	10.30	879.0
89	11.80	816.0
90	11.90	814.0
91	12.00	813.0
92	12.10	809.0
93	12.20	806.0
94	12.30	802.0
95	12.40	797.0
96	12.50	793.0
97	12.60	788.0
98	12.70	784.0
99	12.80	783.0
100	12.90	785.0
101	13.00	787.0
102	13.10	788.0
103	13.20	789.0
104	13.30	790.0
105	13.40	796.0
106	13.50	796.0
107	13.60	796.0
108	13.70	794.0
109	13.80	791.0
110	13.90	785.0
111	14.00	778.0
112	14.10	772.0
113	14.20	766.0
114	14.30	759.0
115	14.40	753.0
116	14.50	749.0
117	14.60	748.0
118	14.70	749.0
119	14.80	753.0

AZIMUTH = 225.000

Point	Dist	Elevation
1	3.00	1004.0
2	3.10	980.0
3	3.20	961.0
4	3.30	935.0
5	3.40	914.0
6	3.50	902.0
7	3.60	890.0
8	3.70	876.0
9	3.80	862.0
10	3.90	852.0
11	4.00	839.0
12	4.10	820.0
13	4.20	798.0
14	4.30	786.0
15	4.40	776.0
16	4.50	766.0
17	4.60	756.0
18	4.70	745.0
19	4.80	733.0
20	4.90	726.0
21	5.00	713.0
22	5.10	699.0
23	5.20	685.0
24	5.30	674.0
25	5.40	661.0
26	5.50	650.0
27	5.60	636.0
28	5.70	621.0
29	5.80	607.0
30	5.90	596.0
31	6.00	580.0
32	6.10	562.0
33	6.20	551.0
34	6.30	543.0
35	6.40	532.0
36	6.50	521.0
37	6.60	509.0
38	6.70	496.0
39	6.80	485.0
40	6.90	472.0
41	7.00	457.0
42	7.10	446.0
43	7.20	436.0
44	7.30	426.0
45	7.40	413.0
46	7.50	402.0
47	7.60	388.0
48	7.70	374.0
49	7.80	363.0
50	7.90	350.0
51	8.00	334.0
52	8.10	320.0
53	8.20	305.0
54	8.30	294.0
55	8.40	282.0
56	8.50	271.0
57	8.60	260.0
58	8.70	249.0
59	8.80	238.0
60	8.90	227.0
61	9.00	215.0
62	9.10	206.0
63	9.20	194.0
64	9.30	184.0
65	9.40	174.0
66	9.50	165.0
67	9.60	154.0
68	9.70	144.0
69	9.80	134.0
70	9.90	123.0
71	10.00	118.0
72	10.10	114.0
73	10.20	108.0
74	10.30	102.0
75	10.40	96.0
76	10.50	89.0
77	10.60	81.0
78	10.70	74.0
79	10.80	66.0
80	10.90	59.0
81	11.00	54.0
82	11.10	50.0
83	11.20	45.0
84	11.30	41.0
85	11.40	37.0
86	11.50	33.0
87	11.60	29.0
88	11.70	26.0
89	11.80	23.0
90	11.90	20.0
91	12.00	16.0
92	12.10	12.0
93	12.20	9.0
94	12.30	7.0
95	12.40	4.0
96	12.50	2.0
97	12.60	.0
98	12.70	.0
99	12.80	.0
100	12.90	.0
101	13.00	.0
102	13.10	.0
103	13.20	.0
104	13.30	.0
105	13.40	.0
106	13.50	.0
107	13.60	.0
108	13.70	.0
109	13.80	.0
110	13.90	.0
111	14.00	.0
112	14.10	.0
113	14.20	.0
114	14.30	.0
115	14.40	.0
116	14.50	.0
117	14.60	.0
118	14.70	.0
119	14.80	.0
120	14.90	.0
121	15.00	.0
122	15.10	.0
123	15.20	.0
124	15.30	.0
125	15.40	.0
126	15.50	.0
127	15.60	.0
128	15.70	.0
129	15.80	.0
130	15.90	.0
131	16.00	.0
Corrected		
AVERAGE =		397.5

AZIMUTH = 270.000

Point	Dist	Elevation
1	3.00	1009.0
2	3.10	990.0
3	3.20	971.0
4	3.30	955.0
5	3.40	938.0
6	3.50	927.0
7	3.60	913.0
8	3.70	899.0
9	3.80	884.0
10	3.90	866.0
11	4.00	849.0
12	4.10	830.0
13	4.20	814.0
14	4.30	794.0
15	4.40	780.0
16	4.50	766.0
17	4.60	748.0
18	4.70	733.0
19	4.80	719.0
20	4.90	708.0
21	5.00	694.0
22	5.10	682.0
23	5.20	670.0
24	5.30	655.0
25	5.40	639.0
26	5.50	625.0
27	5.60	615.0
28	5.70	599.0
29	5.80	585.0
30	5.90	570.0
31	6.00	552.0
32	6.10	538.0
33	6.20	521.0
34	6.30	508.0
35	6.40	492.0
36	6.50	481.0
37	6.60	467.0
38	6.70	451.0
39	6.80	435.0
40	6.90	423.0
41	7.00	410.0
42	7.10	393.0
43	7.20	379.0
44	7.30	366.0
45	7.40	355.0
46	7.50	344.0
47	7.60	334.0
48	7.70	326.0
49	7.80	316.0
50	7.90	307.0
51	8.00	298.0
52	8.10	288.0
53	8.20	277.0
54	8.30	268.0
55	8.40	261.0
56	8.50	255.0
57	8.60	250.0
58	8.70	244.0
59	8.80	237.0
60	8.90	226.0
61	9.00	216.0
62	9.10	205.0
63	9.20	196.0
64	9.30	188.0
65	9.40	180.0
66	9.50	176.0
67	9.60	169.0
68	9.70	162.0
69	9.80	156.0
70	9.90	150.0
71	10.00	145.0
72	10.10	138.0
73	10.20	134.0
74	10.30	127.0
75	10.40	121.0
76	10.50	116.0
77	10.60	111.0
78	10.70	105.0
79	10.80	99.0
80	10.90	94.0
81	11.00	88.0
82	11.10	82.0
83	11.20	75.0
84	11.30	70.0
85	11.40	65.0
86	11.50	61.0
87	11.60	61.0
88	11.70	59.0
89	11.80	58.0
90	11.90	56.0
91	12.00	55.0
92	12.10	54.0
93	12.20	52.0
94	12.30	51.0
95	12.40	48.0
96	12.50	45.0
97	12.60	42.0
98	12.70	40.0
99	12.80	37.0
100	12.90	34.0
101	13.00	31.0
102	13.10	29.0
103	13.20	26.0
104	13.30	22.0
105	13.40	20.0
106	13.50	16.0
107	13.60	12.0
108	13.70	8.0
109	13.80	5.0
110	13.90	4.0
111	14.00	2.0
112	14.10	1.0
113	14.20	.0
114	14.30	.0
115	14.40	.0
116	14.50	.0
117	14.60	.0
118	14.70	.0
119	14.80	.0
120	14.90	.0
121	15.00	.0
122	15.10	.0
123	15.20	.0
124	15.30	.0
125	15.40	.0
126	15.50	.0
127	15.60	.0
128	15.70	.0
129	15.80	.0
130	15.90	.0
131	16.00	.0

Corrected
AVERAGE = 396.7

AZIMUTH = 315.000

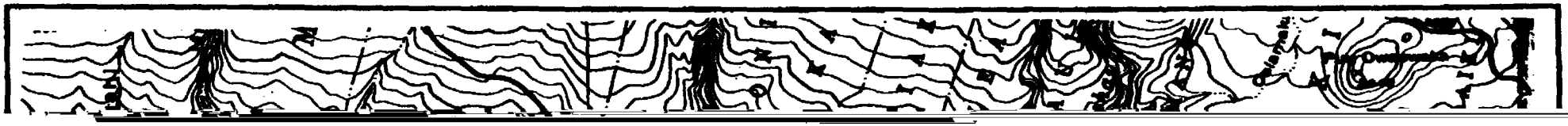
Point	Dist	Elevation
1	3.00	1211.0
2	3.10	1186.0
3	3.20	1158.0
4	3.30	1141.0
5	3.40	1119.0
6	3.50	1098.0
7	3.60	1081.0
8	3.70	1067.0
9	3.80	1050.0
10	3.90	1034.0
11	4.00	1014.0
12	4.10	992.0
13	4.20	973.0
14	4.30	958.0
15	4.40	940.0
16	4.50	925.0
17	4.60	913.0
18	4.70	903.0
19	4.80	890.0
20	4.90	878.0
21	5.00	867.0
22	5.10	856.0
23	5.20	845.0
24	5.30	836.0
25	5.40	825.0
26	5.50	815.0
27	5.60	806.0
28	5.70	800.0
29	5.80	794.0
30	5.90	787.0
31	6.00	767.0
32	6.10	747.0
33	6.20	730.0
34	6.30	714.0
35	6.40	696.0
36	6.50	678.0
37	6.60	663.0
38	6.70	649.0
39	6.80	633.0
40	6.90	617.0
41	7.00	604.0
42	7.10	588.0
43	7.20	573.0
44	7.30	559.0
45	7.40	545.0
46	7.50	531.0
47	7.60	519.0
48	7.70	506.0
49	7.80	495.0
50	7.90	487.0
51	8.00	477.0
52	8.10	463.0
53	8.20	450.0
54	8.30	438.0
55	8.40	428.0
56	8.50	417.0
57	8.60	409.0
58	8.70	399.0
59	8.80	389.0
60	8.90	380.0
61	9.00	374.0
62	9.10	368.0
63	9.20	360.0
64	9.30	353.0
65	9.40	345.0
66	9.50	338.0
67	9.60	333.0
68	9.70	324.0
69	9.80	316.0
70	9.90	310.0
71	10.00	308.0
72	10.10	304.0
73	10.20	291.0
74	10.30	274.0
75	10.40	257.0
76	10.50	244.0
77	10.60	236.0
78	10.70	227.0
79	10.80	216.0
80	10.90	205.0
81	11.00	196.0
82	11.10	187.0
83	11.20	177.0
84	11.30	170.0
85	11.40	163.0
86	11.50	155.0
87	11.60	148.0
88	11.70	141.0
89	11.80	133.0
90	11.90	127.0
91	12.00	118.0
92	12.10	107.0
93	12.20	100.0
94	12.30	95.0
95	12.40	90.0
96	12.50	85.0
97	12.60	79.0
98	12.70	75.0
99	12.80	72.0
100	12.90	68.0
101	13.00	65.0
102	13.10	62.0
103	13.20	59.0
104	13.30	55.0
105	13.40	51.0
106	13.50	46.0
107	13.60	40.0
108	13.70	33.0
109	13.80	26.0
110	13.90	16.0
111	14.00	7.0
112	14.10	1.0
113	14.20	.0
114	14.30	.0
115	14.40	.0
116	14.50	.0
117	14.60	.0
118	14.70	.0
119	14.80	.0
120	14.90	.0
121	15.00	.0
122	15.10	.0
123	15.20	.0
124	15.30	.0
125	15.40	.0
126	15.50	.0
127	15.60	.0
128	15.70	.0
129	15.80	.0
130	15.90	.0
131	16.00	.0

Corrected
AVERAGE = 480.1

Lori Lynne Forbes
Response to Petition to Enlarge Issues
Channel 252C, Waimea, Hawaii
May 17, 1993

Attachment 2

Radio Path Analyses to Locations
in the Waimea area from Transmitting Site
Proposed by Lori Lynne Forbes



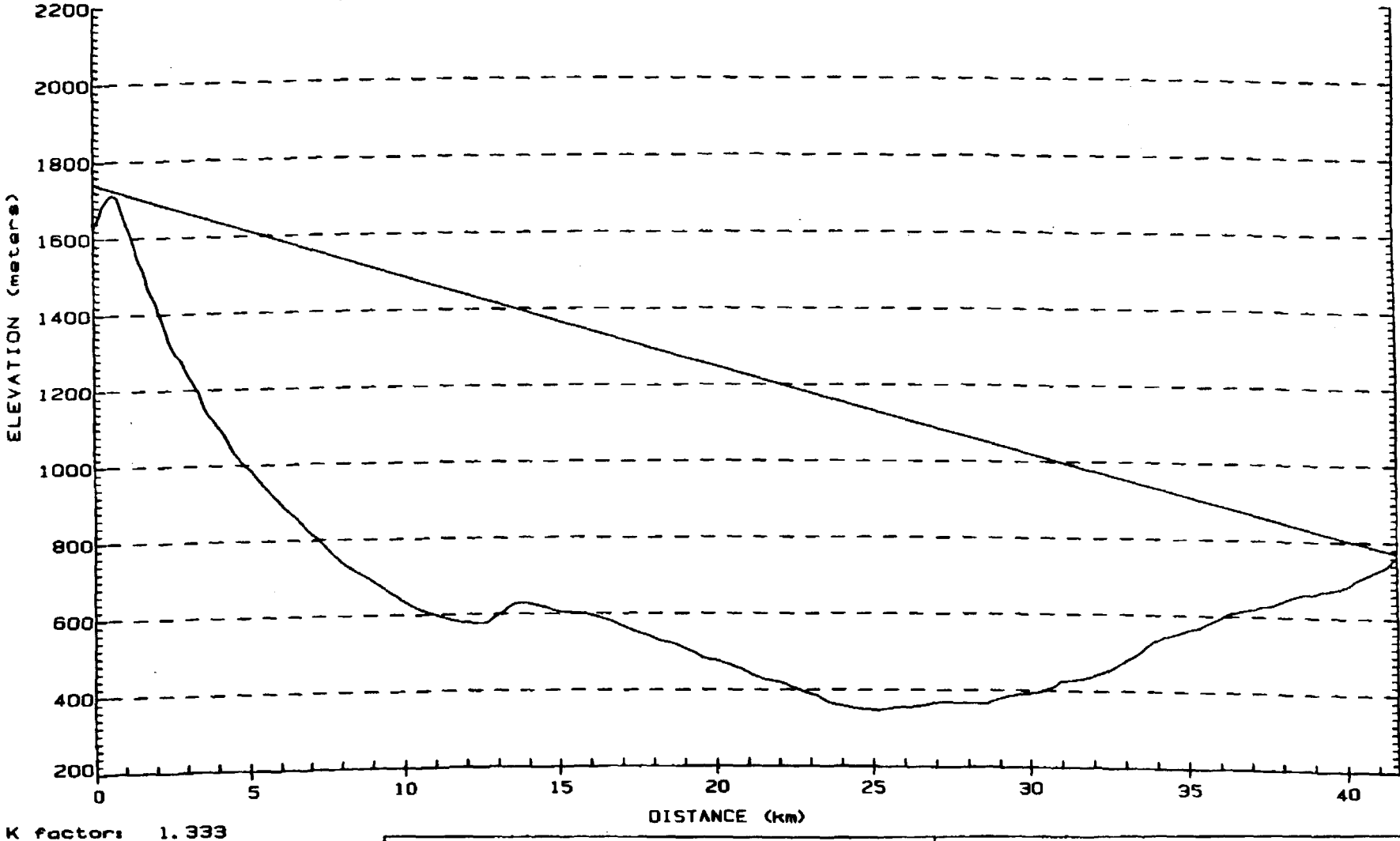
Lori Lynne Forbes
Response to Petition to Enlarge Issues
Channel 252C, Waimea, Hawaii
Key to Radio Path Analysis
Map 2 of 2 (Right)
May 17, 1993

Site: KVHF TV Ant	Frequency: 103.3 MHz	Site: HAWAII PREP ACAD.
N 19 42 56 W 155 55 0	Path Length: 42.0 km	N 20 2 0 W 155 42 0

Site: KVHF TV Ant
N 19 42 56 W 155 55 0
Ant. Elev. (AMSL): 1742.0 m
Path azimuth: 33.21 degs.

Frequency: 103.3 MHz
Path Length: 41.6 km
Total Path Loss: 108.1 dB
Excess Path Loss: 3.0 dB

Site: POWER PLANT
N 20 1 42 W 155 41 55
Ant. Elev. (AMSL): 771.0 m
Path azimuth: 213.29 degs.



K factor: 1.333
Fresnel Zone: .60
3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

Caughill-Politz, Inc.
Consulting Engineers
Honolulu, Hawaii USA

WAIAKA POWER PLANT

RADIO PATH

Lori Lynne Forbes

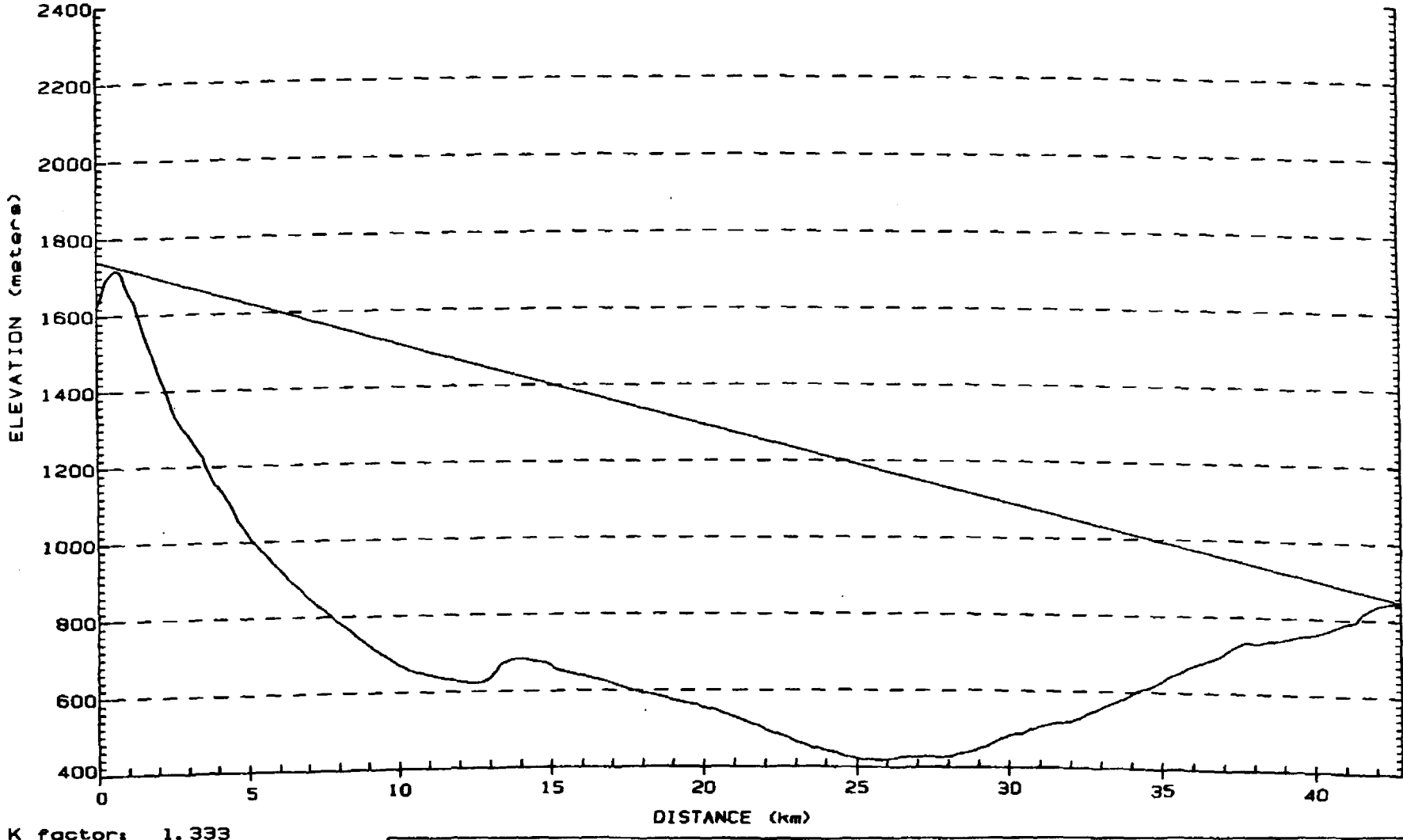
May 17, 1993

Attachment

Site: KVHF TV Ant
N 19 42 56 W 155 55 0
Ant. Elev. (AMSL): 1742.0 m
Path azimuth: 36.75 degs.

Frequency: 103.3 MHz
Path Length: 42.8 km
Total Path Loss: 109.2 dB
Excess Path Loss: 3.8 dB

Site: INTERSECTION
N 20 1 25 W 155 40 18
Ant. Elev. (AMSL): 848.2 m
Path azimuth: 216.84 degs.



K factor: 1.333
Fresnel Zone: .60
3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HIGHWAY 190 AND 19 INTERSECTION

Caughill-Palitz, Inc.
Consulting Engineers
Honolulu, Hawaii USA

RADIO PATH

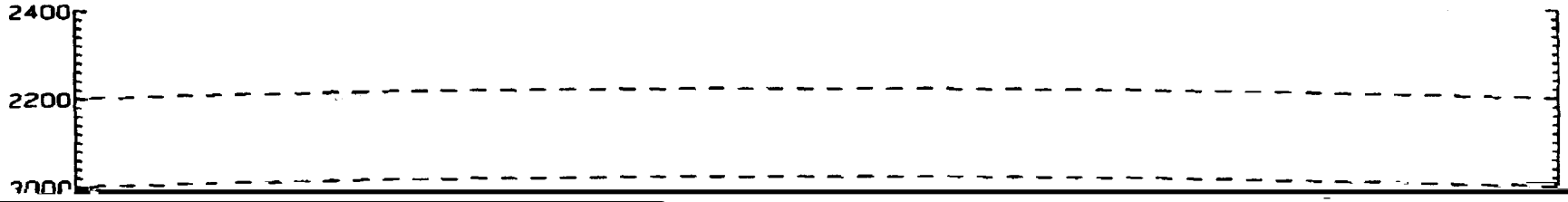
Lori Lynne Forbes

May 17, 1993

Attachment

Site: KVHF TV Ant	Frequency: 103.3 MHz	Site: Waimea Fire Stn.
N 19 42 56 W 155 55 0	Path Length: 43.5 km	N 20 1 35 W 155 39 50

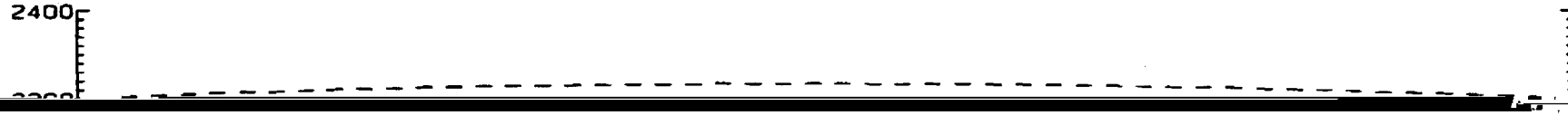
Site: KVHF TV Ant	Frequency: 103.3 MHz	Site: Airport
N 19 42 56 W 155 55 0	Path Length: 40.1 km	N 20 0 5 W 155 40 56
Ant. Elev. (AMSL): 1742.0 m	Total Path Loss: 109.5 dB	Ant. Elev. (AMSL): 790.0 m
Path azimuth: 37.61 degs.	Excess Path Loss: 4.7 dB	Path azimuth: 217.69 degs.



Site: KVHF TV Ant
N 19 42 56 W 155 55 0
Ant. Elev. (AMSL): 1742.0 m
Path azimuth: 40.02 degs.

Frequency: 103.3 MHz
Path Length: 47.4 km
Total Path Loss: 110.7 dB
Excess Path Loss: 4.5 dB

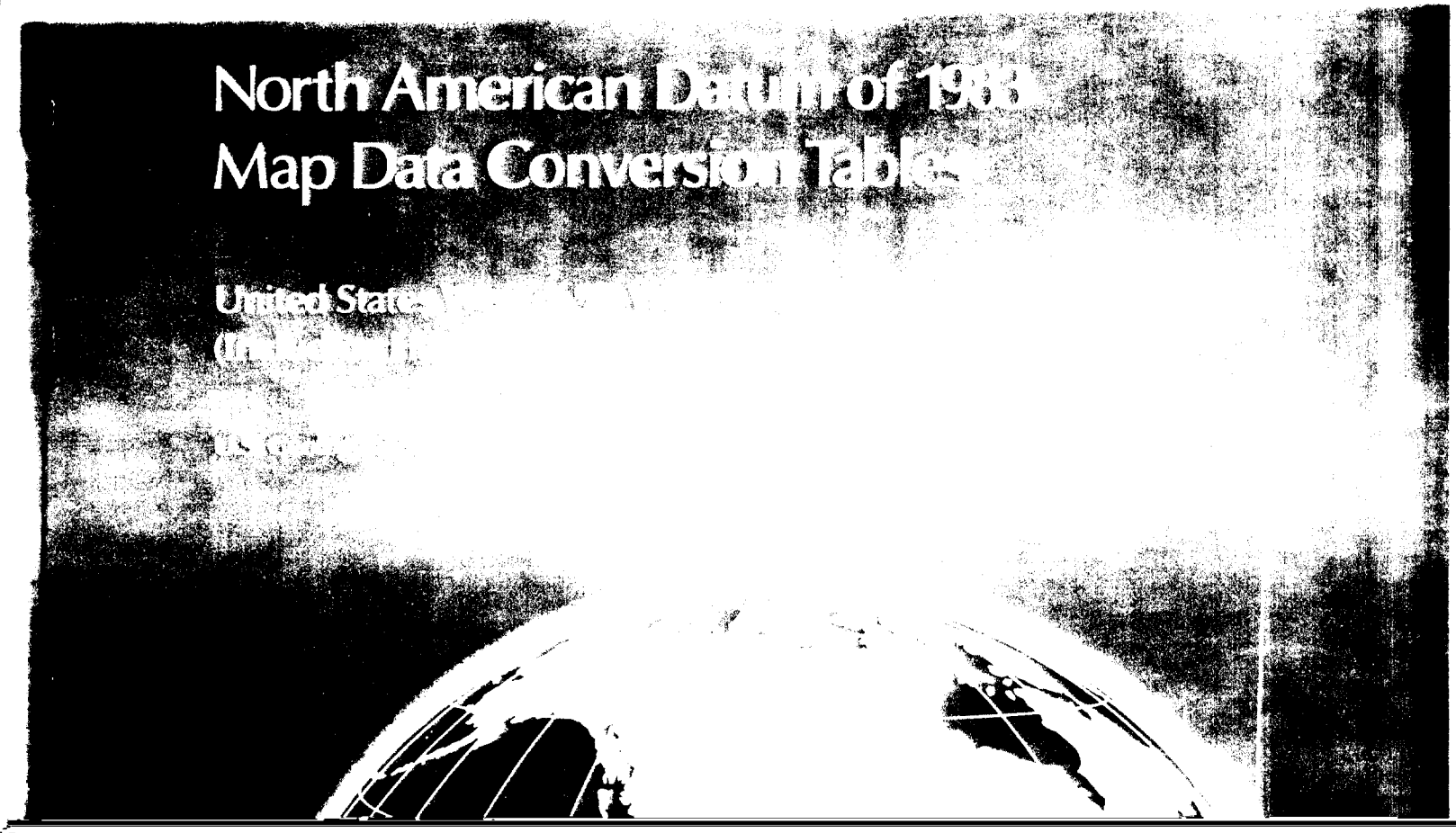
Site: Puukapu Homes
N 20 2 30 W 155 37 30
Ant. Elev. (AMSL): 909.8 m
Path azimuth: 220.12 degs.



ATTACHMENT 3

North American Datum of 1983
Map Data Conversion Tables

United States



NORTH AMERICAN DATUM OF 1983
MAP DATA CONVERSION TABLES

INTRODUCTION

In July 1986 the National Oceanic and Atmospheric Administration's National Geodetic Survey (NGS) completed the readjustment and redefinition of the North American Datum. The North American Datum of 1983 (NAD 83) is the culmination of 12 years of automation and analysis of every major horizontal control survey performed by NGS and its predecessor agency, the U.S. Coast and Geodetic Survey, as well as numerous Federal, State, municipal, and private organizations. This readjustment has resulted in the publication of new coordinate data for approximately 250,000 geodetic control survey points throughout the United States yielding coordinate shifts that exceed 400 meters in some parts of the country. The U.S. Geological Survey (USGS) and NGS have collaborated to provide these tables for the determination of the datum shifts as they relate to the use of mapping and charting products at scales of 1:10,000 and smaller. The geographic area of coverage of these tables generally corresponds to that of USGS' 1:250,000-scale quadrangle map series. Data are listed in 7.5-minute increments. All of the transformed 7.5-minute intersections listed in these tables were determined by the National Geodetic Survey utilizing the datum transformation program LEFTI (LEast-squares Fitting Transformation Interpolation) and reflect the shift from the North American Datum of 1927 (NAD 27) to NAD 83 as determined from the existing geodetic control in the area of each corner.

NEED FOR READJUSTMENT

The coordinate reference system that has become the NAD 83 had its beginning with the first geodetic surveys performed by the Survey of the Coast (later the U.S. Coast and Geodetic Survey, now the NGS) in 1816-17 in the New York Bay area. Originally designed to form the framework for a national system of nautical charts, the system has evolved from its beginning of eleven control stations to span the country with more than a quarter of a million geodetic survey stations. These stations support various activities, such as topographic mapping, nautical and aeronautical charting, engineering construction, public utility management, tectonic motion studies, environmental hazard analysis, and geographic information systems.

2