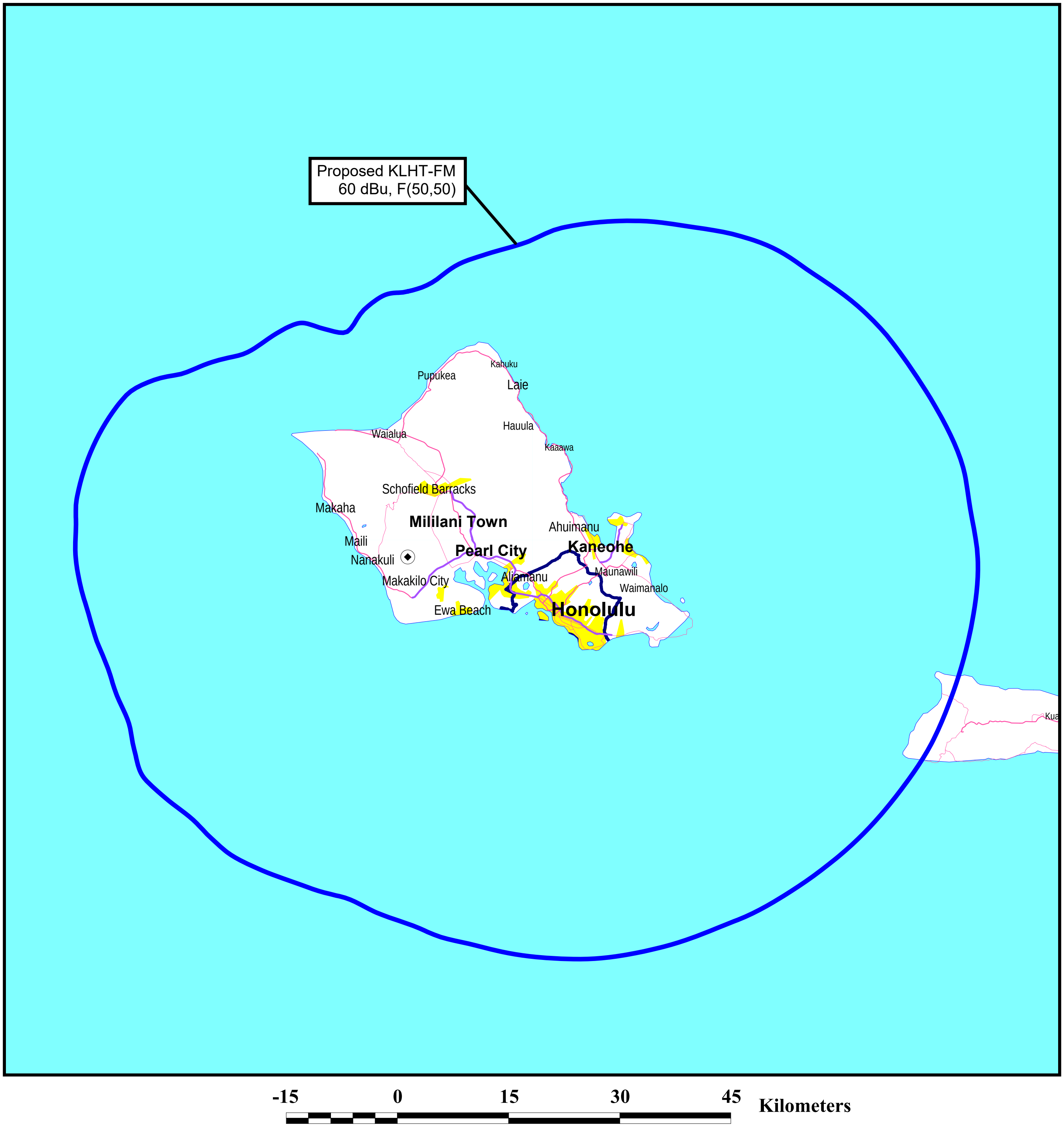

COMPLIANCE WITH SECTION 73.515

STATION KLHT-FM
HONOLULU, HAWAII
CH 218C (91.5 MHZ) 100 KW (DA) 564 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Shively Labs®
a division of Howell Laboratories, Inc.

P. O. Box 389 Harrison Rd.,
Bridgton, Maine 04009 USA
(207) 647-3327
888-SHIVELY
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S.O. 32097

Report of Test 6014-14/1-DA

for

Calvary Chapel of Honolulu, Inc.

KLHT 91.5 MHz Honolulu, HI

OBJECTIVE:

The objective of this test was to demonstrate the directional characteristics of a 6014-14/1-DA to meet the needs of KLHT and to comply with the requirements of the FCC construction permit, file number BNPED-1996041MA. This test characterizes only the radiation characteristics of the antenna when mounted on the tower as described. It does not represent or imply any guarantee of specific coverage which can be influenced by factors beyond the scope of this test.

RESULTS:

The following Figures are the results of the measurements from our pattern range:

Figure 1A - Measured Azimuth Pattern with the FCC Composite
Figure 1B - Measured Composite Azimuth Pattern with the FCC Composite
Figure 1C - Tabulation of the Horizontal Polarization for the Measured Azimuth Pattern
Figure 1D - Tabulation of the Vertical Polarization for the Measured Azimuth Pattern
Figure 1E - Tabulation of the Measured Composite Azimuth Pattern
Figure 1F - Tabulation of the FCC Composite

The calculated elevation pattern of the antenna is shown in Figure 3.

Construction permit file number BNPED-1996041MA indicates that the Horizontal radiation component shall not exceed 100 kW at any azimuth and is restricted to the following values at the azimuths specified:

220 - 230 Degrees True (clockwise): 4.0 kilowatts

From Figure 1A, the maximum radiation of the Horizontal component occurs at 84 Degrees True to 86 Degrees True. At the restricted azimuth of 20-230 Degrees True (clockwise) the Horizontal component is 16.773 dB down from the maximum of 100 kW, or 2.103 kW.

The R.M.S. of the Horizontal component is 0.464. The total Horizontal power gain is 33.624. The R.M.S. of the Vertical component is 0.459. The total Vertical power gain is 29.710. The R.M.S. of the FCC composite pattern is 0.530. The R.M.S. of the measured composite pattern is 0.471. Eighty-five percent (85%) of the original authorized FCC composite pattern is 0.451. Therefore this pattern complies with the FCC requirement of 73.316(c)(2)(ix)(A).

METHOD OF DIRECTIONALIZATION:
One bay of the 6014-14/1-DA was mounted on a tower of precise scale to the PI-Rod Self supported tower at the KLHT site. The spacing of the antenna to the tower was varied to achieve the horizontal and vertical patterns shown in Figure 1A. See Figure 2 for mechanical details.

METHOD OF MEASUREMENT:
As allowed by the construction permit, file number BNPED-1996041MA, a single level of the 6014-14/1-DA was set up on the Shively Labs scale model antenna pattern measuring range. A scale of 4.5:1 was used.

SUPERVISION:
Mr. Surette was graduated from Lowell Technological Institute, Lowell, Massachusetts in 1973 with the degree of Bachelor of Science in Electrical Engineering. He has been directly involved with design and development of broadcast antennas, filter systems and RF transmission components since 1974. As an RF Engineer for six years with the original Shively Labs in Raymond, ME and for a short period of time with Dielectric Communications.
He is currently a Life Senior Member of IEEE. He has authored a chapter on filters and combining systems for the latest edition of the CRC Electronics Handbook and for the 9th and 10th Editions of the NAB Handbook.

EQUIPMENT:

The scale model pattern range consists of a wooden rotating pedestal equipped with a position indicator. The scale model bay is placed on the top of this pedestal and is used in the transmission mode at approximately 20 feet above ground level. The receiving corner reflector is spaced 50 feet away from the rotating pedestal at the same level above ground as the transmitting model. The transmitting and receiving signals are carried to a control building by means of RG-9/U double shielded coax cable.

The control building is equipped with:

Hewlett Packard Model 4395A Network Analyzer
PC Based Controller
Hewlett Packard 7550A Graphics Plotter

All testing is carried out in strict accordance with approved procedures under our ISO9001:2008.

TEST PROCEDURES:

The receiving antenna system is mounted so that the horizontal and vertical azimuth patterns are measured independently. The network analyzer was set to 411.75 MHz Calibrated pads are used to check the linearity of the measuring system. For example, 6 dB padding yields a scale reading of 50 from an unpadded reading of 100 in voltage. From the recorded patterns, the R.M.S. values are calculated and recorded as shown in Figure 1A.

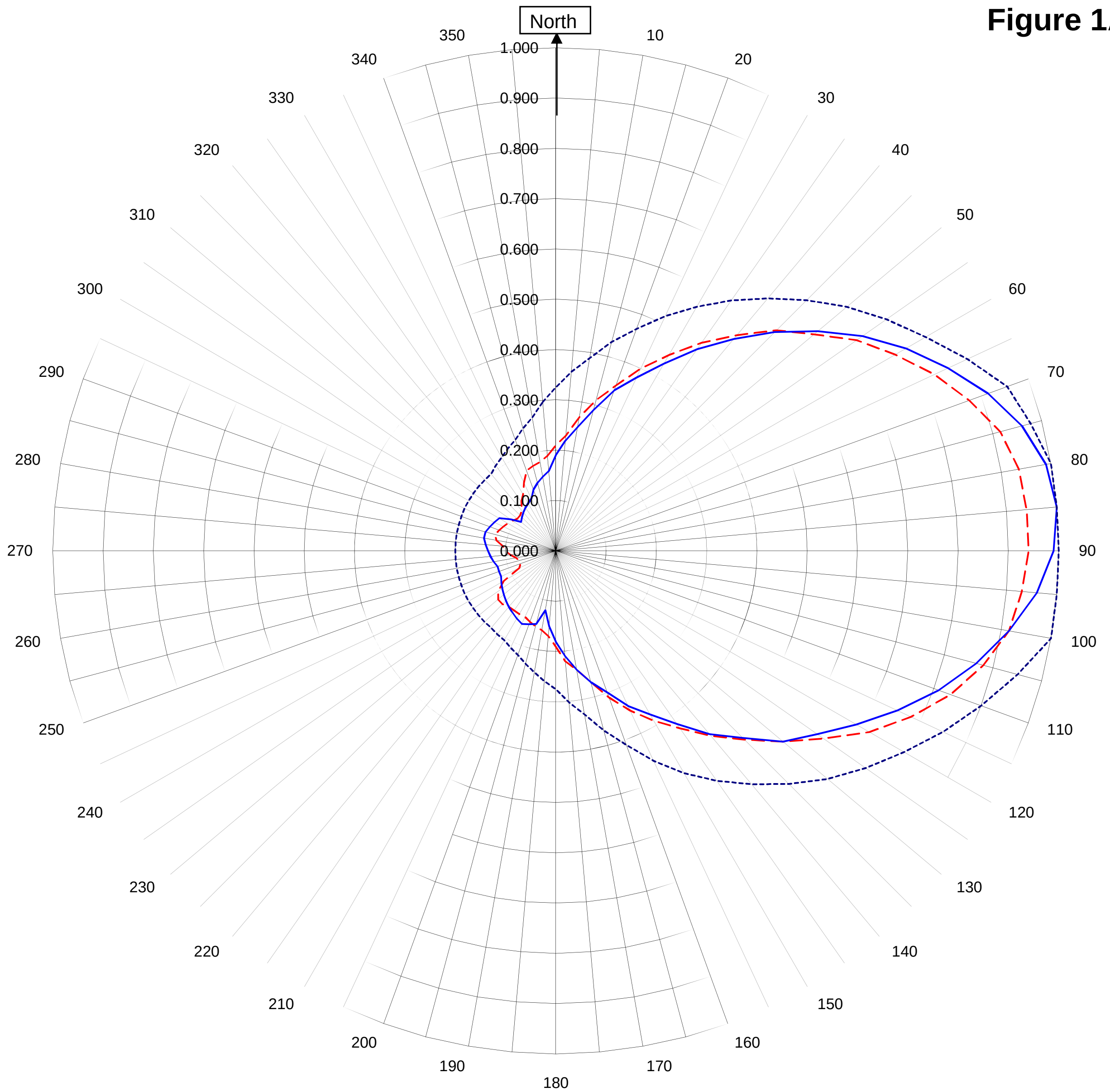
Respectfully submitted by:

Robert A. Surette
Director of Sales Engineering
S/O 32097
October 28, 2014

Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

Figure 1A



KLHT **Honolulu, HI**

32097

October 28, 2014

____________Horizontal RMS	0.464
_ _ _ _ _ _ _ _ _ Vertical RMS	0.459
H/V Composite RMS	0.471
...............FCC Composite RMS	0.530

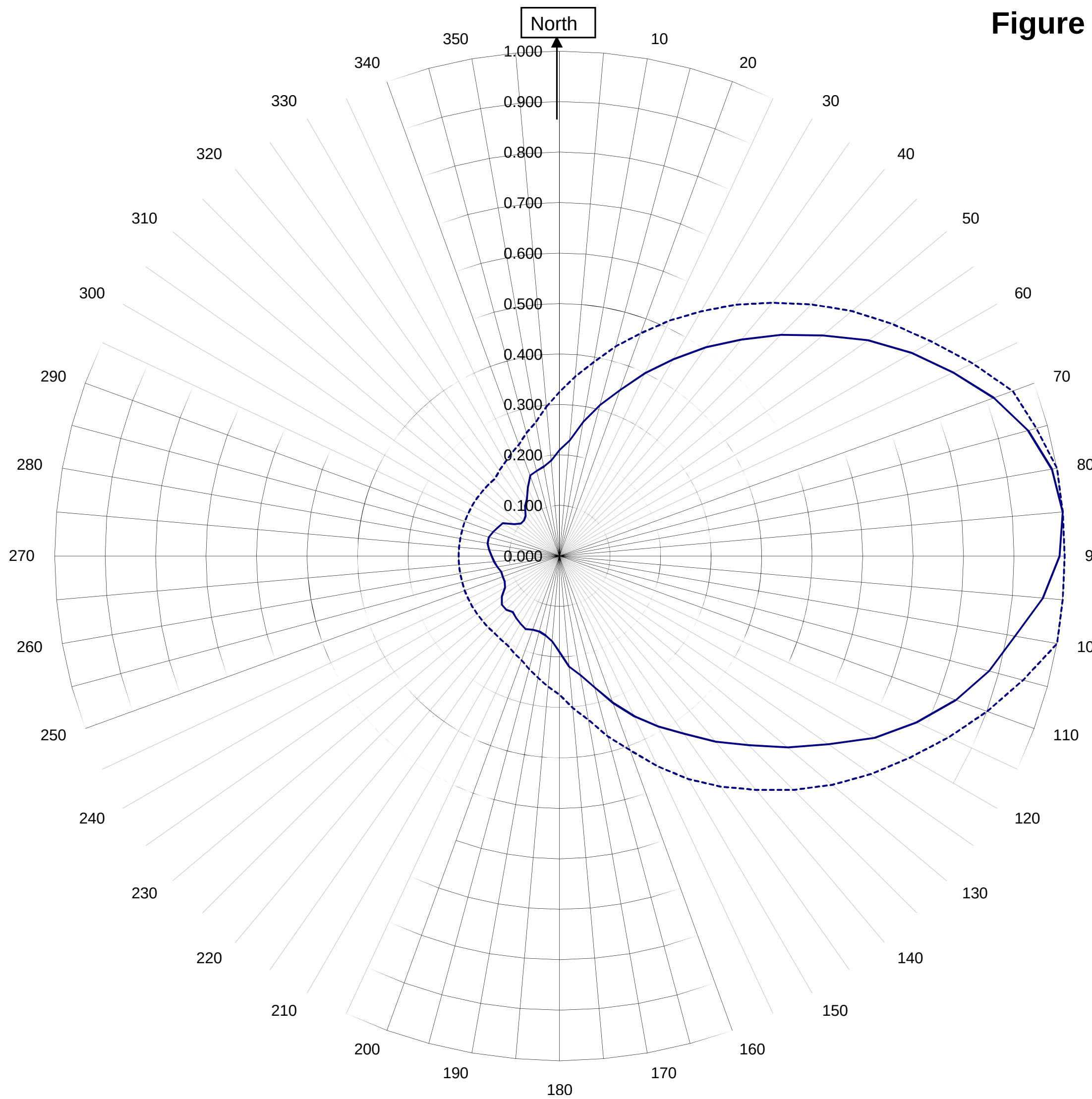
Frequency	91.5 / 411.75 mHz
Plot	Relative Field
Scale	4.5 : 1
	See Figure 2 for Mechanical Details

Antenna Model	6014-14/1-DA
Pattern Type	Directional Azimuth

Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

Figure 1B



KLHT Honolulu, HI

32097

October 28, 2014

___________H/VComposite RMS	0.471
……………FCC Composite RMS	0.530

Frequency	91.5 / 411.75 mHz
Plot	Relative Field
Scale	4.5 : 1
	See Figure 2 for Mechanical Details

Antenna Model	6014-14/1-DA
Pattern Type	Directional H/V Composite

Figure 1C

Tabulation of Horizontal Azimuth Pattern
KLHT Honolulu, HI

Azimuth	Rel Field	Azimuth	Rel Field
0	0.190	180	0.180
10	0.250	190	0.120
20	0.340	200	0.155
30	0.430	210	0.155
40	0.550	220	0.145
45	0.615	225	0.140
50	0.680	230	0.135
60	0.805	240	0.125
70	0.915	250	0.120
80	0.990	260	0.125
90	0.990	270	0.135
100	0.915	280	0.145
110	0.810	290	0.140
120	0.690	300	0.130
130	0.590	310	0.090
135	0.525	315	0.095
140	0.475	320	0.100
150	0.375	330	0.110
160	0.300	340	0.130
170	0.240	350	0.150

Figure 1D

Tabulation of Vertical Azimuth Pattern
KLHT Honolulu, HI

Azimuth	Rel Field	Azimuth	Rel Field
0	0.210	180	0.190
10	0.270	190	0.160
20	0.350	200	0.150
30	0.450	210	0.145
40	0.560	220	0.145
45	0.620	225	0.150
50	0.670	230	0.150
60	0.780	240	0.120
70	0.875	250	0.075
80	0.935	260	0.080
90	0.940	270	0.100
100	0.915	280	0.120
110	0.835	290	0.120
120	0.720	300	0.110
130	0.590	310	0.100
135	0.530	315	0.100
140	0.480	320	0.105
150	0.390	330	0.130
160	0.310	340	0.170
170	0.240	350	0.180

Figure 1E

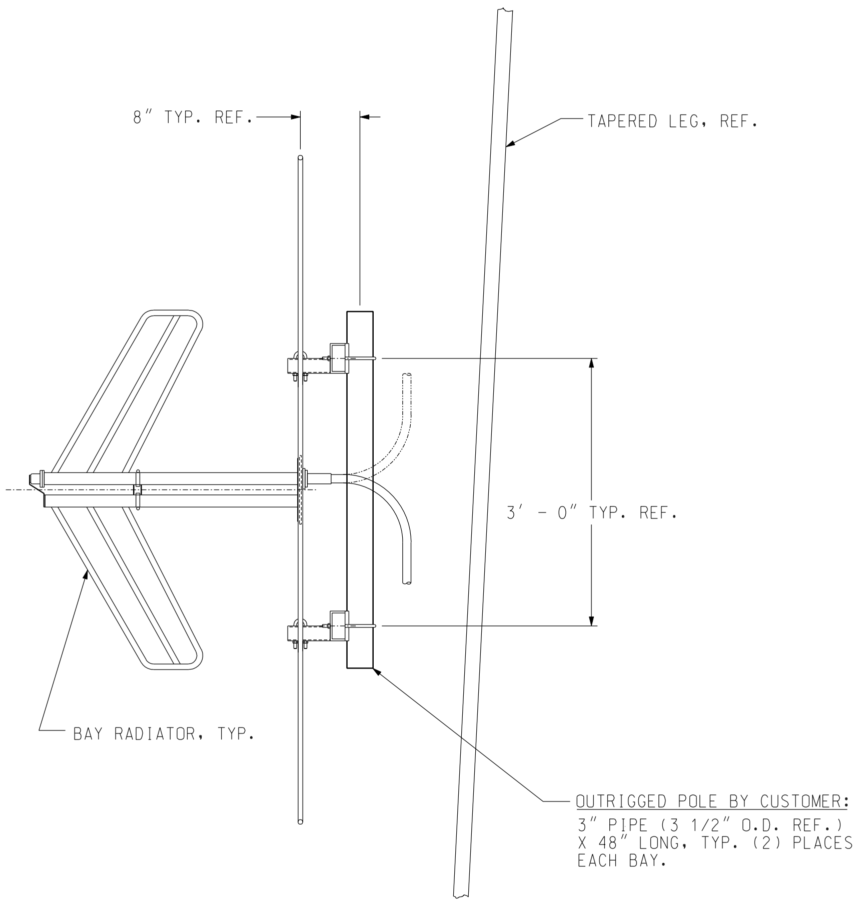
Tabulation of Composite Azimuth Pattern
KLHT Honolulu, HI

Azimuth	Rel Field	Azimuth	Rel Field
0	0.210	180	0.190
10	0.270	190	0.160
20	0.350	200	0.155
30	0.450	210	0.155
40	0.560	220	0.145
45	0.620	225	0.150
50	0.680	230	0.150
60	0.805	240	0.125
70	0.915	250	0.120
80	0.990	260	0.125
90	0.990	270	0.135
100	0.915	280	0.145
110	0.835	290	0.140
120	0.720	300	0.130
130	0.590	310	0.100
135	0.530	315	0.100
140	0.480	320	0.105
150	0.390	330	0.130
160	0.310	340	0.170
170	0.240	350	0.180

Figure 1F

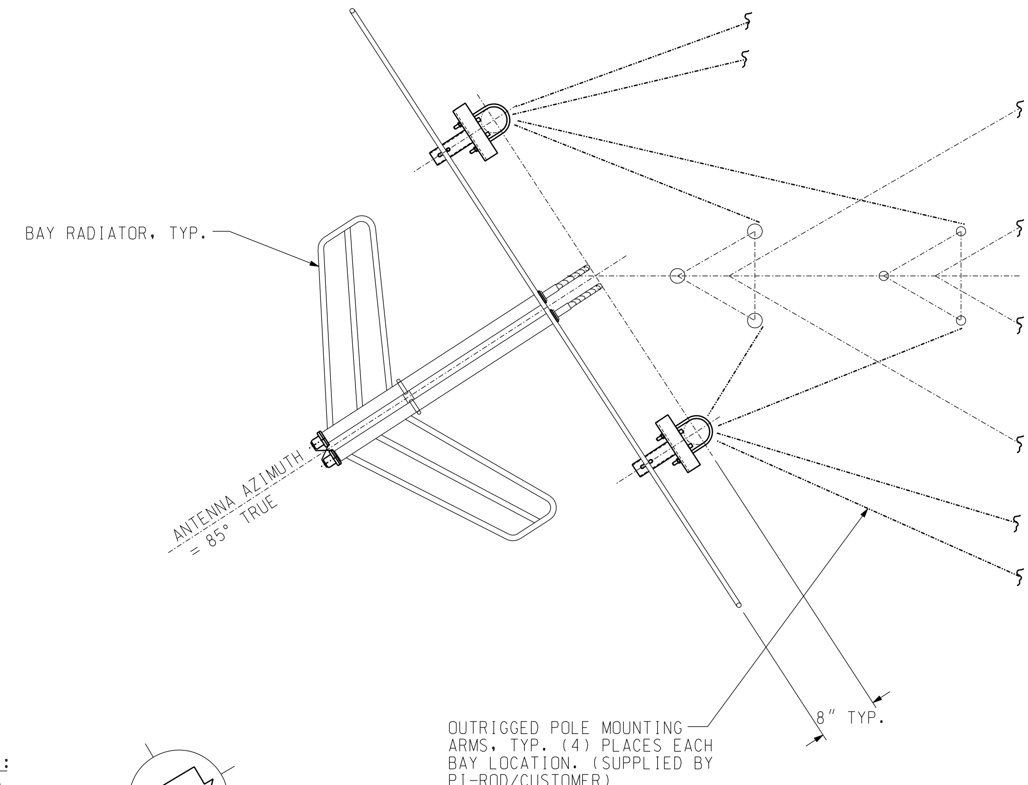
Tabulation of FCC Directional Composite
KLHT Honolulu, HI

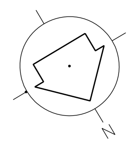
Azimuth	Rel Field	Azimuth	Rel Field
0	0.325	180	0.275
10	0.390	190	0.245
20	0.470	200	0.220
30	0.560	210	0.205
40	0.655	220	0.200
50	0.755	230	0.200
60	0.850	240	0.200
70	0.955	250	0.200
80	1.000	260	0.200
90	1.000	270	0.200
100	1.000	280	0.200
110	0.900	290	0.200
120	0.800	300	0.200
130	0.705	310	0.200
140	0.605	320	0.200
150	0.510	330	0.215
160	0.410	340	0.235
170	0.330	350	0.270



SIDE VIEW

TOWER MAKE: PI-ROD, SELF-SUPPORTING
8' FACE WIDTH (STRAIGHT SECTION) TO
12' FACE WIDTH (TAPERED SECTION) IN
APPERATURE OF ANTENNA

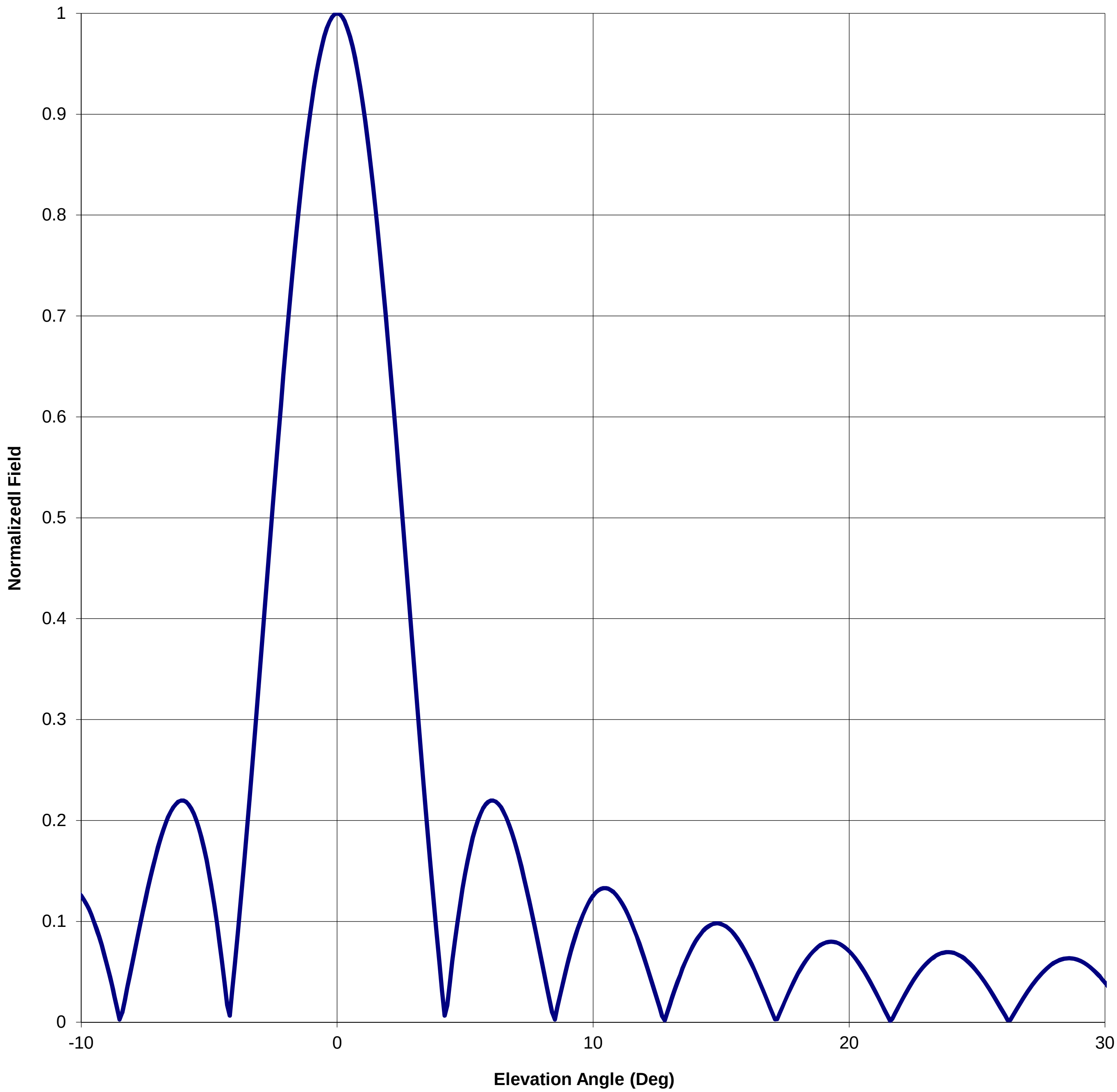




TOP VIEW

SHIVELY LABS			
A DIVISION OF HOWELL LABORATORIES INC., BRIDGTON, MAINE			
SHOP ORDER: 32097	FREQUENCY: 91.5 MHz HONOLULU, HI	SCALE: N.T.S.	DRAWN BY: ASP APPROVED BY:
TITLE: MODEL-6014-14/1-(BROADBAND) DIRECTIONAL ANTENNA			
DATE: 10-24-14	FIGURE 2		

Antenna Mfg.:	Shively Labs				Date:	10/28/2014
Antenna Type:	6014-14/1-DA					
Station:	new FM	Beam Tilt	0			
Frequency:	91.5	Gain (Max)	33.624	15.267	dB	
Channel #:	218	Gain (Horizon)	33.624	15.267	dB	
Figure:	3					



Antenna Mfg.: Shively Labs

Antenna Type: 6014-14/1-DA

Station: new FM

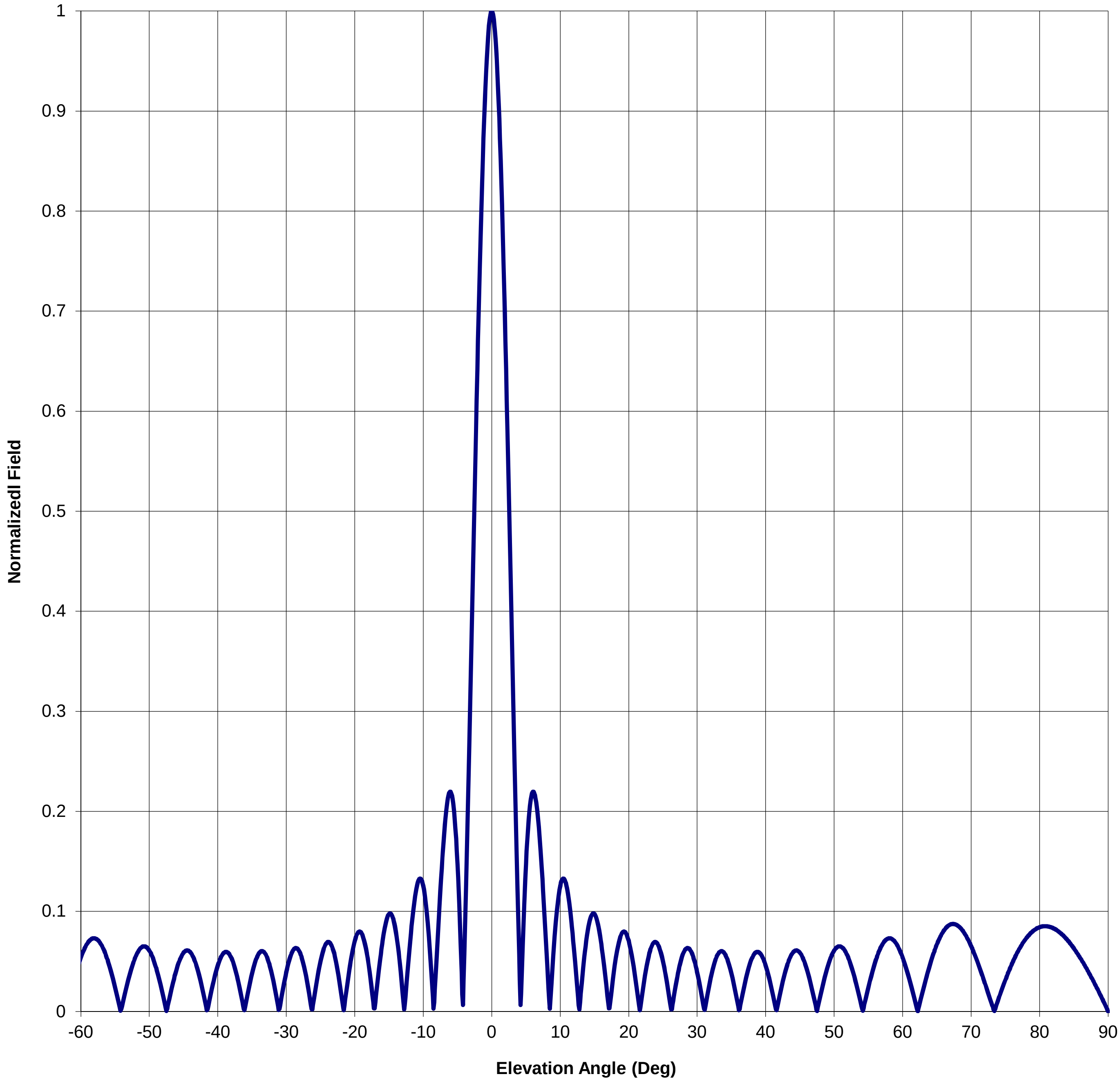
Frequency: 91.5

Channel #: 218

Figure: 3

Date: 10/28/2014

Beam Tilt	0		
Gain (Max)	33.624	15.267	dB
Gain (Horizon)	33.624	15.267	dB



Antenna Mfg.:	Shively Labs		Date: 10/28/2014
Antenna Type:	6014-14/1-DA		
Station:	new FM	Beam Tilt	0	
Frequency:	91.5	Gain (Max)	33.624	15.267 dB
Channel #:	218	Gain (Horizon)	33.624	15.267 dB
Figure:	3		

Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field
-90	0.000	-44	0.059	0	1.000	46	0.042
-89	0.015	-43	0.043	1	0.911	47	0.015
-88	0.028	-42	0.015	2	0.671	48	0.016
-87	0.041	-41	0.018	3	0.355	49	0.043
-86	0.053	-40	0.046	4	0.057	50	0.061
-85	0.063	-39	0.059	5	0.147	51	0.065
-84	0.072	-38	0.053	6	0.220	52	0.055
-83	0.079	-37	0.029	7	0.173	53	0.033
-82	0.083	-36	0.005	8	0.059	54	0.005
-81	0.085	-35	0.038	9	0.058	55	0.024
-80	0.084	-34	0.058	10	0.125	56	0.049
-79	0.080	-33	0.057	11	0.123	57	0.067
-78	0.073	-32	0.034	12	0.063	58	0.073
-77	0.062	-31	0.002	13	0.018	59	0.068
-76	0.048	-30	0.039	14	0.080	60	0.054
-75	0.031	-29	0.061	15	0.097	61	0.032
-74	0.012	-28	0.059	16	0.067	62	0.005
-73	0.008	-27	0.031	17	0.009	63	0.022
-72	0.029	-26	0.011	18	0.048	64	0.047
-71	0.048	-25	0.050	19	0.078	65	0.067
-70	0.065	-24	0.069	20	0.071	66	0.081
-69	0.078	-23	0.058	21	0.032	67	0.087
-68	0.086	-22	0.019	22	0.019	68	0.086
-67	0.087	-21	0.032	23	0.058	69	0.078
-66	0.081	-20	0.071	24	0.069	70	0.065
-65	0.067	-19	0.078	25	0.050	71	0.048
-64	0.047	-18	0.048	26	0.011	72	0.029
-63	0.022	-17	0.009	27	0.031	73	0.008
-62	0.005	-16	0.067	28	0.059	74	0.012
-61	0.032	-15	0.097	29	0.061	75	0.031
-60	0.054	-14	0.080	30	0.039	76	0.048
-59	0.068	-13	0.018	31	0.002	77	0.062
-58	0.073	-12	0.063	32	0.034	78	0.073
-57	0.067	-11	0.123	33	0.057	79	0.080
-56	0.049	-10	0.125	34	0.058	80	0.084
-55	0.024	-9	0.058	35	0.038	81	0.085
-54	0.005	-8	0.059	36	0.005	82	0.083
-53	0.033	-7	0.173	37	0.029	83	0.079
-52	0.055	-6	0.220	38	0.053	84	0.072
-51	0.065	-5	0.147	39	0.059	85	0.063
-50	0.061	-4	0.057	40	0.046	86	0.053
-49	0.043	-3	0.355	41	0.018	87	0.041
-48	0.016	-2	0.671	42	0.015	88	0.028
-47	0.015	-1	0.911	43	0.043	89	0.015
-46	0.042	0	1.000	44	0.059	90	0.000
-45	0.059			45	0.059		

FM Broadcast Field Strength Measurement KLHT FM

2/11/16

A field strength measurement was done at 11:45AM February 11, 2016 using a Audemat Navigator 100 FM monitor serial #001961 and confirmed with resident FCC agent Ryan Hagihara at the designated measurement point at the Waipahu, Hawaii monitoring station. Transmitter TPO was confirmed as 3.57 KW on 91.5 MHz. The reading averaged **4.8mv** on the linear scale of the FCC's FIM-71 field strength meter which agreed within 10% of the Audemat FM monitor and was thus proved to be far below the 27mv limit required at the Hawaii FCC monitoring station by the construction permit's Special operating conditions or restrictions, section 8.

Sincerely,
Ernie Nearman, Broadcast Resources Company

Ernie Nearman

Chief Engineer KLHT FM Honolulu Hawaii

BROADCAST RESOURCES
COMPANY

brc@hawaii.rr.com

KLHT FM RF Exposure Measurements to verify compliance with FCC OET Bulletin 65 limits for maximum permissible exposure (MPE) at the transmitter site

March 21, 2016

The transmitter site of KLHT FM is shared with KAIM FM, KQMQ FM, KORL FM & KHCM FM, with a common antenna system. Also utilizing the tower are KHLU TV, KALO TV, and KAAH TV. All stations were running at licensed power during the test, except KHCM FM, which is only used as an emergency backup for the main, a downtown site. No transmitter for KHCM FM is installed at the site.

The results of these measurements show the exposure levels for the uncontrolled areas at the KLHT FM shared transmitter site meet the FCC OET Bulletin 65 limit of 0.2 mw/cm^2 with a maximum of 0.02 mw/cm^2 just outside the entrance gate at the bottom of the site's driveway with gate closed.

The measurement results in the controlled area are in compliance with the FCC OET Bulletin 65 limit of 1.0 mw/cm^2, except in the immediate tower yard that is separately fenced with appropriate signage. Inside the tower fence area, the maximum was 1.63 mw/cm^2.
It is also nearly exceeded in the area within 3 feet outside of the tower's fence below the east leg of tower below the KHLU TV 46 antenna, next to driveway. The maximum reading was 0.945 mw/cm^2 in this hot area. Signage warning of this is installed.

These measurements were made with a Narda NBM 550 RF Exposure meter using recommended measurement procedures.

Further details of the test equipment used in this report are at the end of this report.

Sincerely,

Ernie Pearman

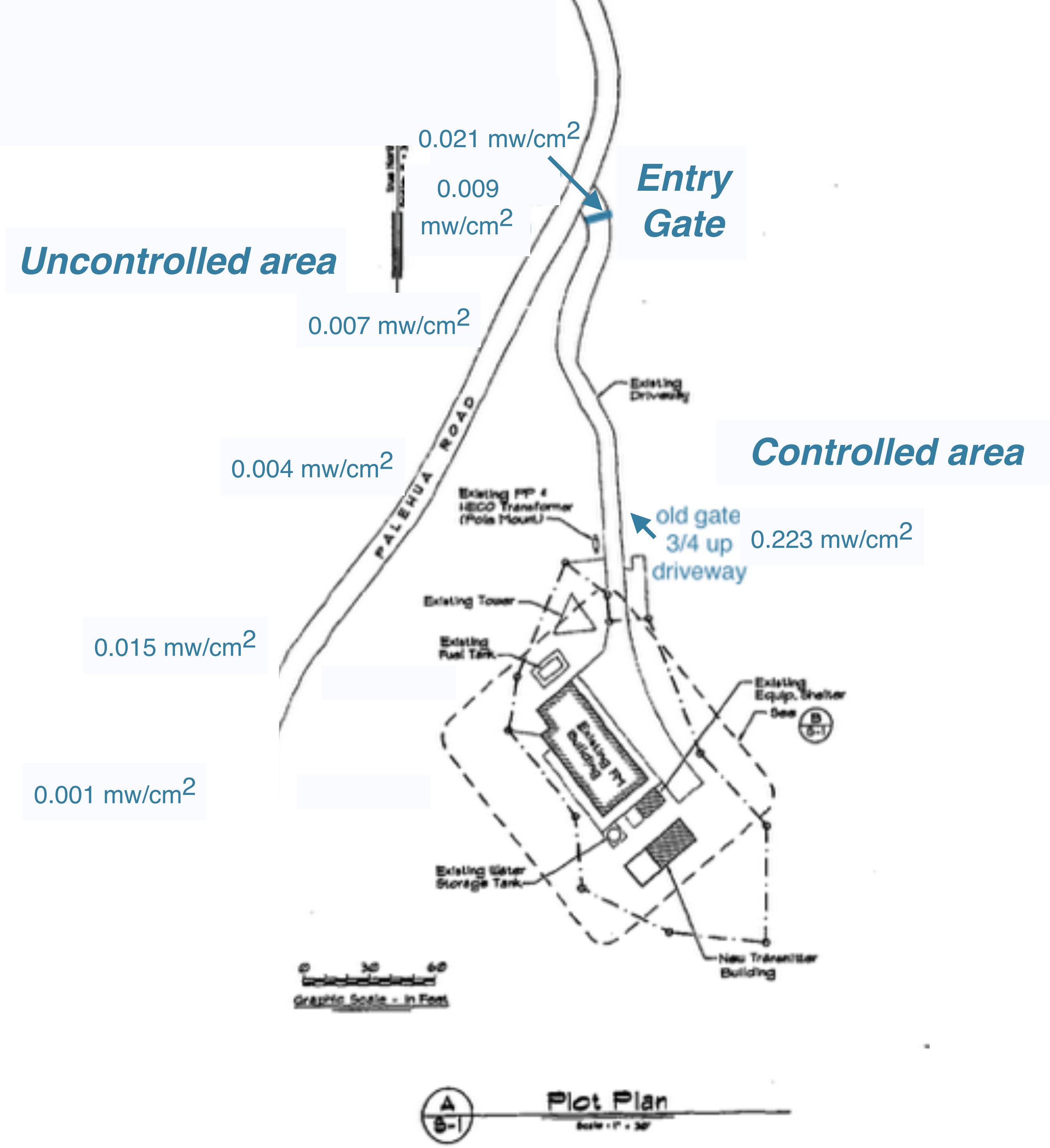
BROADCAST RESOURCES COMPANY

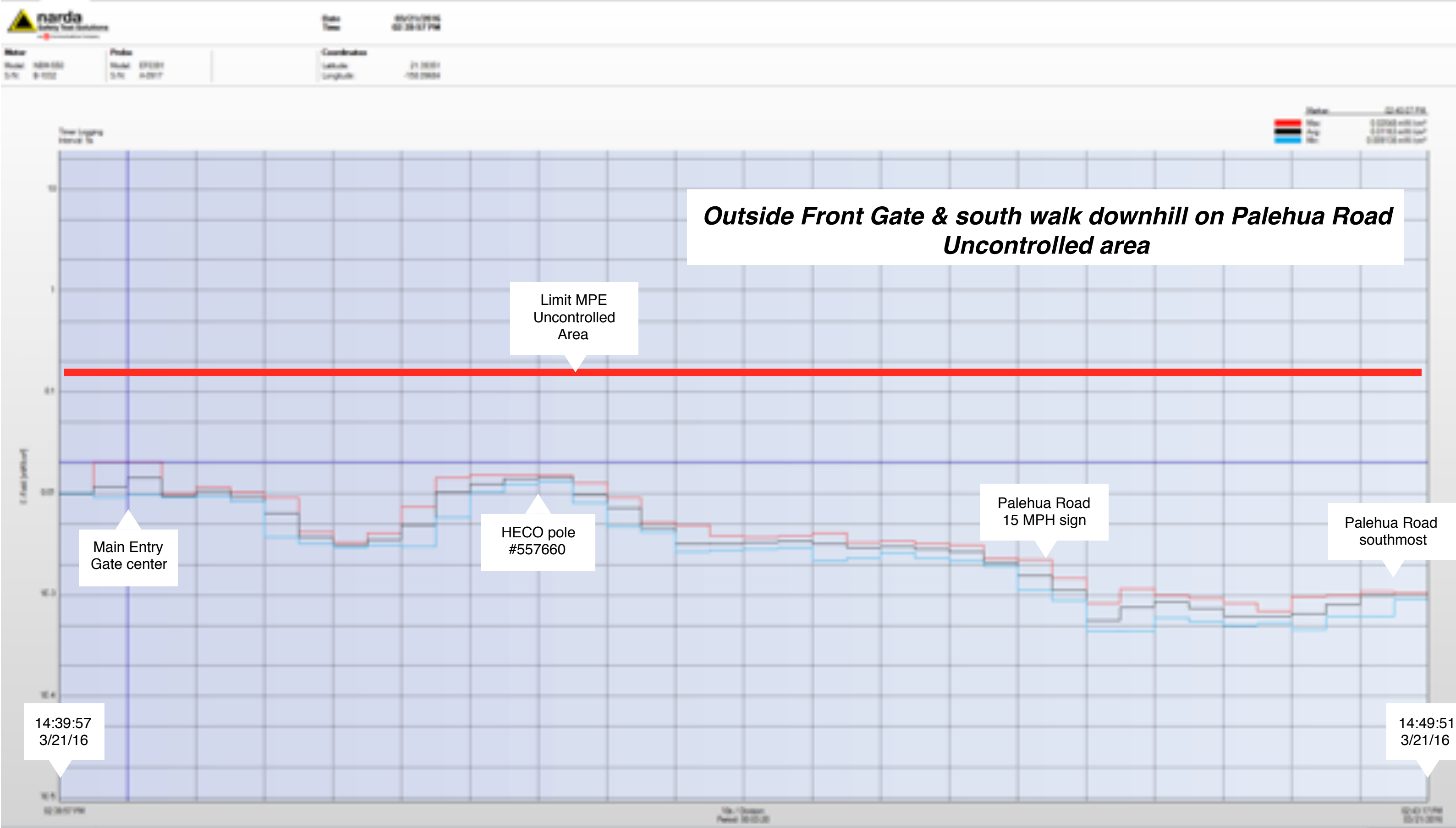
brc@hawaii.rr.com

KAIM, KQMQ, KLHT, KORL FM
& KHLU, KAAH, KALO TV
Transmitter Site
150 Palehua Road Kapolei, HI

3/21/2016

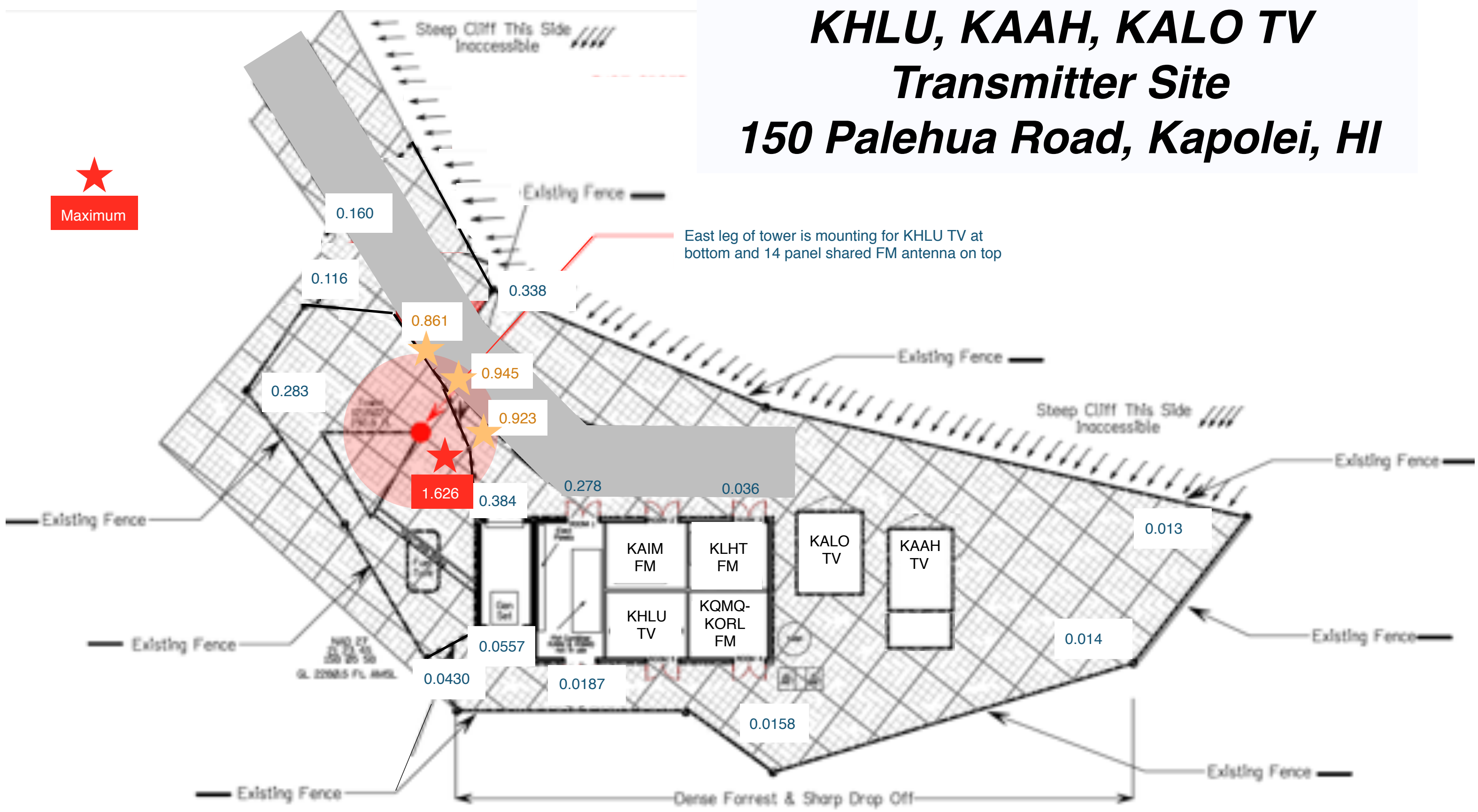
All mw/cm2 measurements are maximums



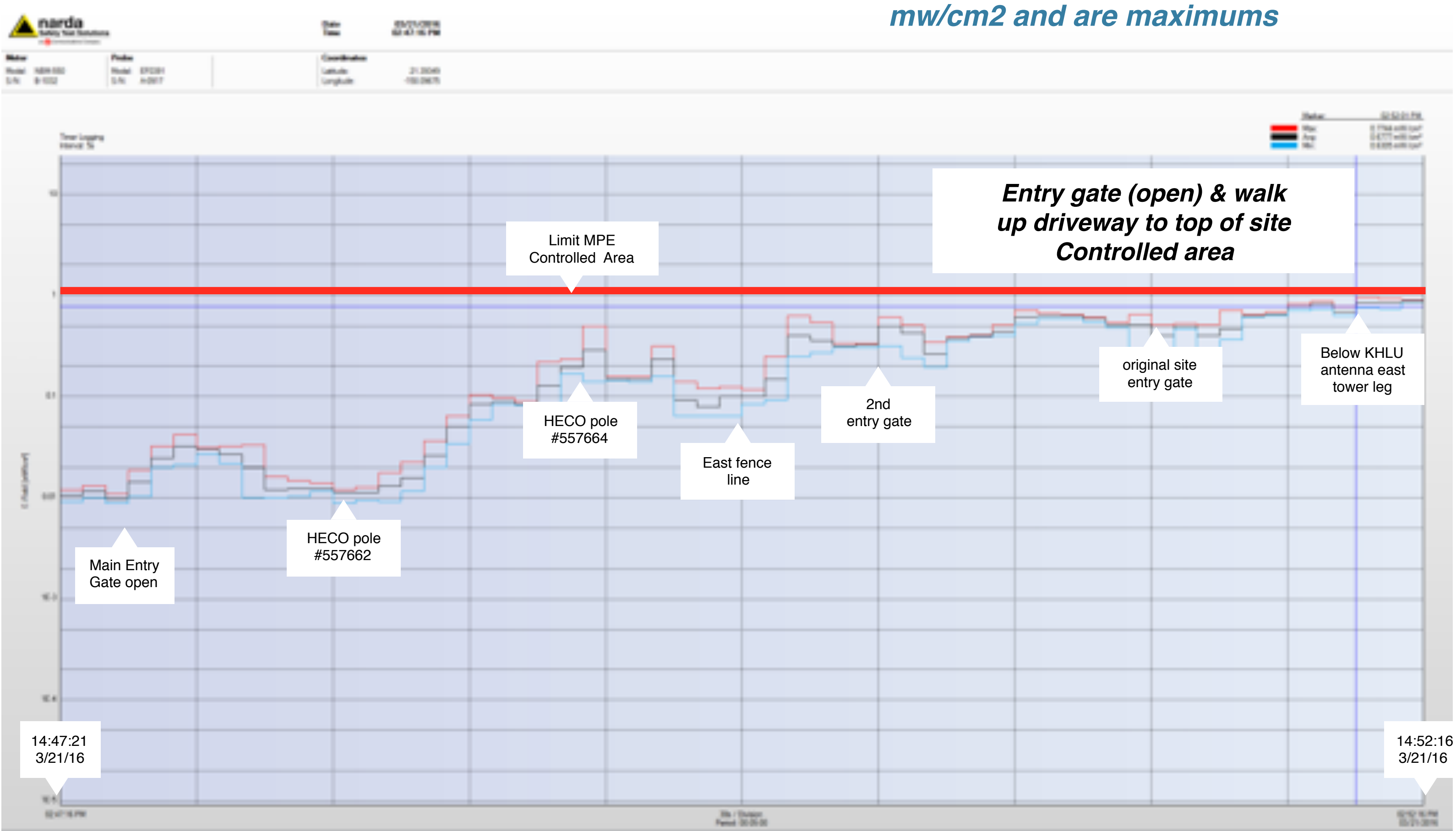


Index	Date/Time	Max (E-Field) [mW/cm²]	Avg (E-Field) [mW/cm²]	Min (E-Field) [mW/cm²]	Latitude	Longitude	Altitude	Location
1	3/21/2016 14:40:02	0.010091	0.010018	0.009955	21.39351	-158.09684	733 m	Left front of gate
2	3/21/2016 14:40:07	0.020479	0.011626	0.009138	21.39351	-158.09684	733 m	
3	3/21/2016 14:40:12	0.020704	0.014095	0.009552	21.39351	-158.09684	733 m	
4	3/21/2016 14:40:17	0.009818	0.009366	0.00906	21.39351	-158.09684	733 m	
5	3/21/2016 14:40:22	0.01155	0.01049	0.009338	21.39351	-158.09684	733 m	right front of gate
6	3/21/2016 14:40:27	0.01022	0.009141	0.008264	21.39352	-158.09684	733 m	
7	3/21/2016 14:40:32	0.009012	0.00636	0.003705	21.39352	-158.09684	732 m	
8	3/21/2016 14:40:37	0.004224	0.003681	0.003203	21.3935	-158.09686	731 m	
9	3/21/2016 14:40:42	0.003273	0.003123	0.002921	21.39347	-158.09687	730 m	
10	3/21/2016 14:40:47	0.004107	0.003488	0.003129	21.39346	-158.09687	730 m	
11	3/21/2016 14:40:52	0.007297	0.004919	0.002982	21.39346	-158.09687	730 m	
12	3/21/2016 14:40:57	0.014173	0.010226	0.005747	21.39343	-158.09688	727 m	
13	3/21/2016 14:41:02	0.015067	0.012338	0.010126	21.3934	-158.0969	725 m	
14	3/21/2016 14:41:07	0.015262	0.01406	0.012272	21.39336	-158.09692	724 m	Palehua Road # 557660 pole
15	3/21/2016 14:41:12	0.015025	0.014381	0.013166	21.39334	-158.09694	722 m	
16	3/21/2016 14:41:17	0.012626	0.009815	0.007977	21.39331	-158.09696	720 m	
17	3/21/2016 14:41:22	0.008981	0.007268	0.004697	21.39328	-158.09699	720 m	
18	3/21/2016 14:41:27	0.005141	0.004635	0.004118	21.39324	-158.09701	719 m	
19	3/21/2016 14:41:32	0.004893	0.003165	0.002673	21.3932	-158.09702	718 m	
20	3/21/2016 14:41:37	0.003863	0.003216	0.002778	21.39316	-158.09705	717 m	Halfway to 15 MPH sign
21	3/21/2016 14:41:42	0.003696	0.003294	0.002843	21.39312	-158.09707	715 m	
22	3/21/2016 14:41:47	0.003761	0.003354	0.002915	21.39312	-158.09706	712 m	
23	3/21/2016 14:41:52	0.004089	0.003187	0.002177	21.39309	-158.09709	712 m	
24	3/21/2016 14:41:57	0.003314	0.002926	0.002304	21.39306	-158.09713	711 m	
25	3/21/2016 14:42:02	0.003383	0.002963	0.002609	21.39303	-158.09715	710 m	
26	3/21/2016 14:42:07	0.003175	0.00281	0.002303	21.393	-158.09718	709 m	
27	3/21/2016 14:42:12	0.003069	0.002628	0.002131	21.39296	-158.09721	707 m	
28	3/21/2016 14:42:17	0.002313	0.002088	0.001922	21.39291	-158.09722	708 m	
29	3/21/2016 14:42:22	0.002211	0.001554	0.001124	21.39286	-158.09722	707 m	
30	3/21/2016 14:42:27	0.001438	0.001119	0.000884	21.39282	-158.09723	703 m	15 MPH sign
31	3/21/2016 14:42:32	0.000836	0.00056	0.000444	21.3928	-158.09722	702 m	
32	3/21/2016 14:42:37	0.001142	0.000756	0.000433	21.39279	-158.09723	702 m	
33	3/21/2016 14:42:42	0.000986	0.000843	0.0006	21.39276	-158.09723	703 m	
34	3/21/2016 14:42:47	0.00092	0.000736	0.00055	21.39273	-158.09724	703 m	
35	3/21/2016 14:42:52	0.000833	0.000618	0.00049	21.3927	-158.09722	702 m	
36	3/21/2016 14:42:57	0.000691	0.000615	0.000519	21.39267	-158.09718	701 m	
37	3/21/2016 14:43:02	0.000966	0.000645	0.000453	21.39263	-158.09717	700 m	
38	3/21/2016 14:43:07	0.000975	0.000801	0.000608	21.39261	-158.09716	700 m	
39	3/21/2016 14:43:12	0.001072	0.000981	0.000617	21.39261	-158.09715	700 m	
40	3/21/2016 14:43:17	0.001038	0.000999	0.000904	21.39261	-158.09715	699 m	southern most measurement point

KAIM, KQMQ, KLHT, KORL FM & KHLU, KAAH, KALO TV Transmitter Site 150 Palehua Road, Kapolei, HI

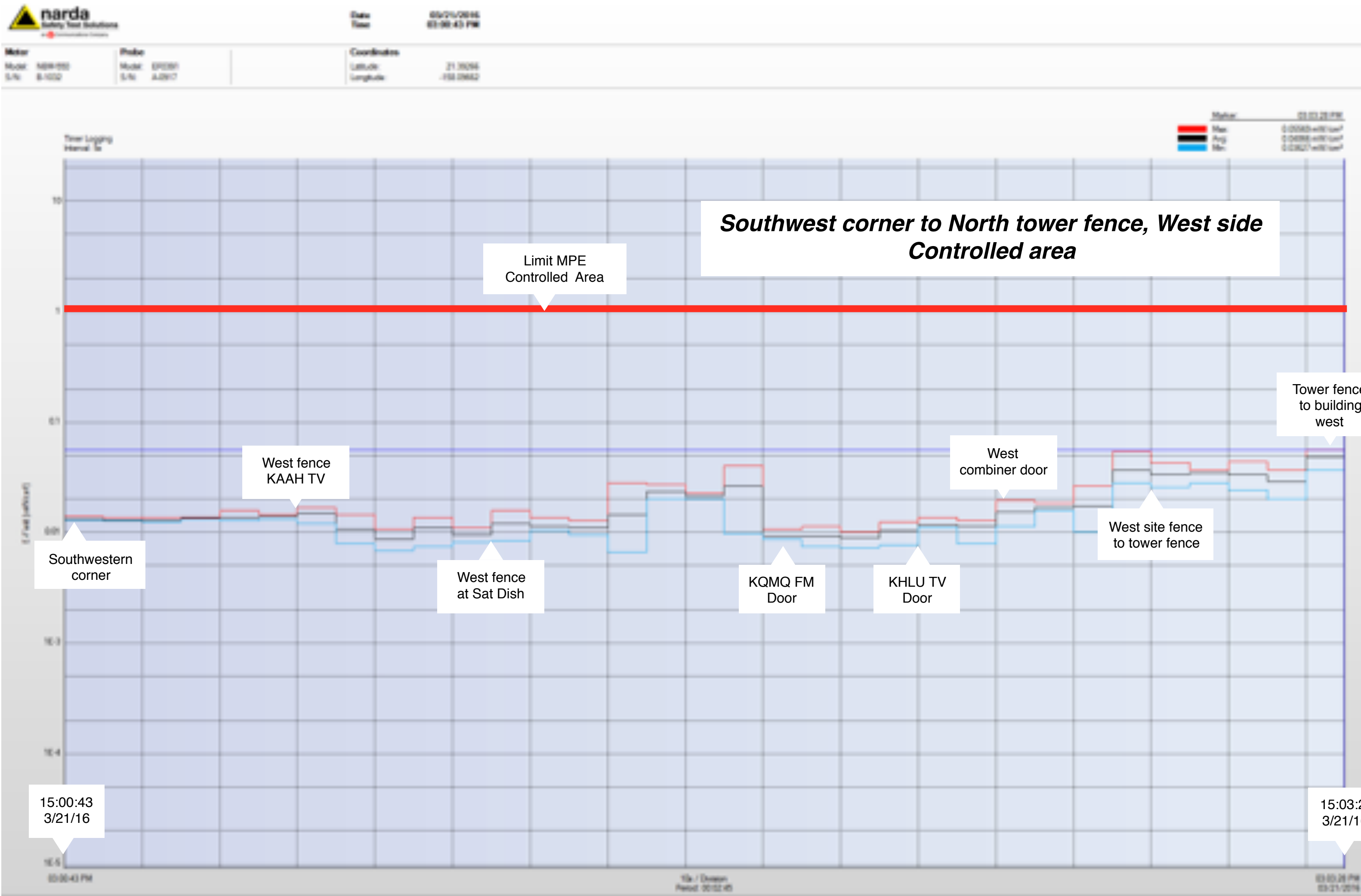


All measurements in mw/cm2 and are maximums



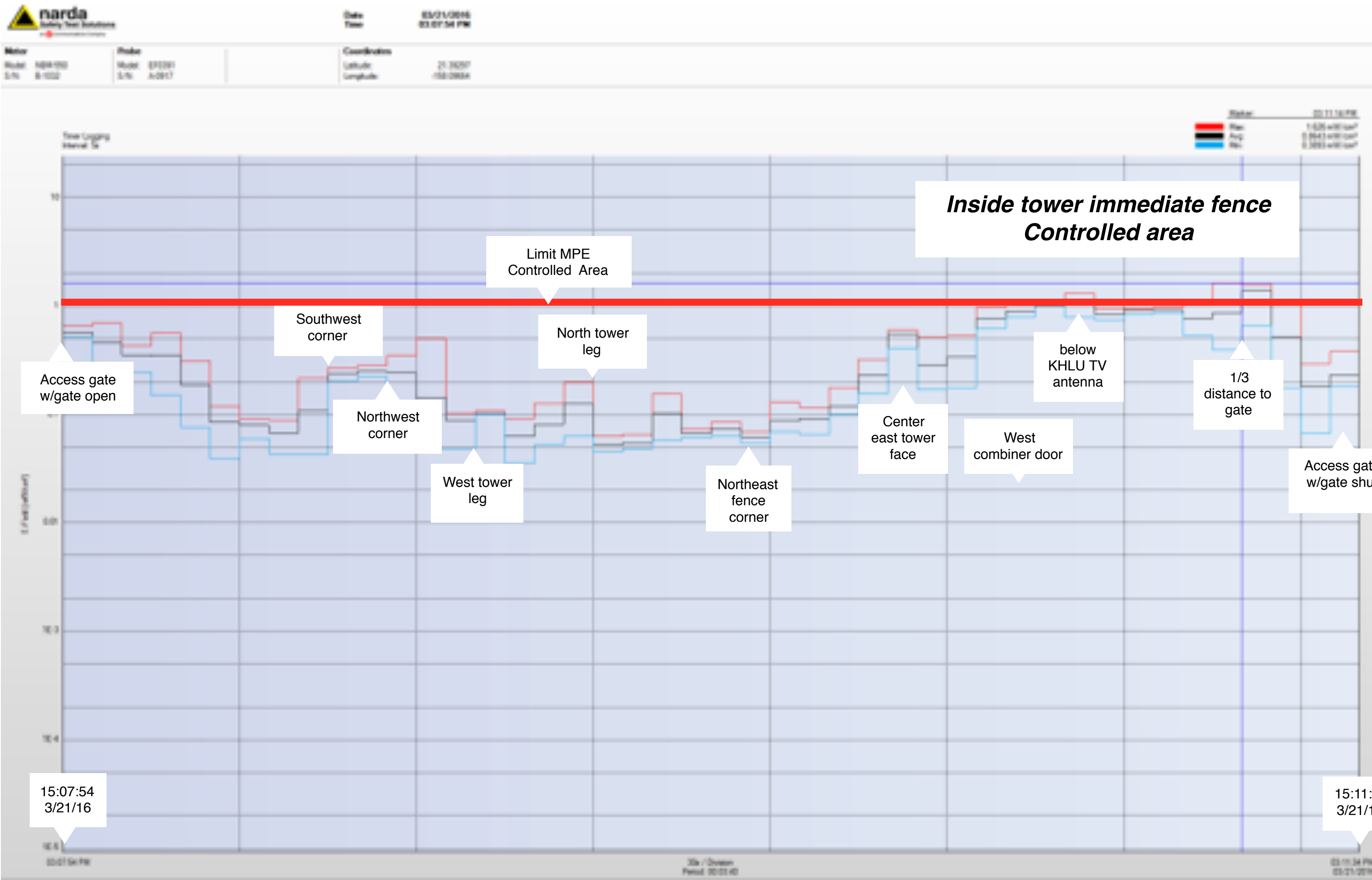
Entry gate open & walk up driveway to top of site
Controlled area

Index	Date/Time	Max (E-Field) [mW/cm²]	Avg (E-Field) [mW/cm²]	Min (E-Field) [mW/cm²]	Latitude	Longitude	Altitude	Location
1	3/21/2016 14:47:21	0.011758	0.01054	0.00899	21.39349	-158.09675	710 m	Gate open Palehua Road
2	3/21/2016 14:47:26	0.013172	0.011527	0.009932	21.39349	-158.09675	710 m	
3	3/21/2016 14:47:31	0.010868	0.009724	0.008818	21.39349	-158.09675	710 m	
4	3/21/2016 14:47:36	0.018594	0.014423	0.010126	21.39349	-158.09675	710 m	
5	3/21/2016 14:47:41	0.032176	0.0247	0.019717	21.39348	-158.09676	710 m	
6	3/21/2016 14:47:46	0.042025	0.031779	0.021061	21.39345	-158.09676	710 m	
7	3/21/2016 14:47:51	0.031575	0.029857	0.026511	21.39344	-158.09677	710 m	
8	3/21/2016 14:47:56	0.032523	0.026721	0.021618	21.3934	-158.09678	711 m	
9	3/21/2016 14:48:01	0.033303	0.019794	0.009825	21.39339	-158.09679	710 m	
10	3/21/2016 14:48:06	0.015995	0.011951	0.010068	21.39335	-158.09676	709 m	
11	3/21/2016 14:48:11	0.014514	0.01224	0.010222	21.39334	-158.09678	709 m	
12	3/21/2016 14:48:16	0.013842	0.012358	0.011615	21.39332	-158.09678	709 m	
13	3/21/2016 14:48:21	0.012003	0.011154	0.008737	21.39333	-158.09679	708 m	
14	3/21/2016 14:48:26	0.012742	0.011284	0.009466	21.39333	-158.09679	708 m	Power pole #557662 end of side fencing 1/2 way up driveway
15	3/21/2016 14:48:31	0.017544	0.012954	0.009123	21.39332	-158.09678	709 m	
16	3/21/2016 14:48:36	0.022606	0.015776	0.011624	21.39331	-158.09678	709 m	
17	3/21/2016 14:48:41	0.036248	0.025879	0.02014	21.39329	-158.09677	710 m	
18	3/21/2016 14:48:46	0.064856	0.049826	0.034418	21.39324	-158.09677	711 m	
19	3/21/2016 14:48:51	0.103897	0.08274	0.058671	21.3932	-158.09677	713 m	
20	3/21/2016 14:48:56	0.096304	0.087855	0.083417	21.39317	-158.09675	714 m	
21	3/21/2016 14:49:01	0.088072	0.084724	0.082662	21.39314	-158.09673	714 m	
22	3/21/2016 14:49:06	0.222233	0.128353	0.063571	21.39314	-158.09673	715 m	Main Power pole #557664 2nd gate point
23	3/21/2016 14:49:11	0.233323	0.195392	0.168879	21.39313	-158.09672	715 m	
24	3/21/2016 14:49:16	0.496973	0.284597	0.140661	21.39313	-158.09672	715 m	
25	3/21/2016 14:49:21	0.159881	0.150657	0.142954	21.39311	-158.09673	715 m	
26	3/21/2016 14:49:26	0.158539	0.147668	0.138904	21.39311	-158.09672	716 m	
27	3/21/2016 14:49:31	0.310944	0.235662	0.158757	21.39311	-158.09672	716 m	
28	3/21/2016 14:49:36	0.139502	0.091548	0.064388	21.3931	-158.09672	716 m	
29	3/21/2016 14:49:41	0.119559	0.078723	0.064228	21.39311	-158.09673	716 m	
30	3/21/2016 14:49:46	0.124581	0.100325	0.065008	21.39311	-158.09673	716 m	
31	3/21/2016 14:49:51	0.116353	0.100319	0.084049	21.39311	-158.09673	716 m	Northeast fence intersection w/tower fence
32	3/21/2016 14:49:56	0.250022	0.149806	0.092141	21.39311	-158.09673	716 m	
33	3/21/2016 14:50:01	0.62672	0.396204	0.25106	21.3931	-158.09673	716 m	
34	3/21/2016 14:50:06	0.531836	0.359396	0.272873	21.39308	-158.0967	716 m	
35	3/21/2016 14:50:11	0.330185	0.31609	0.302573	21.39308	-158.0967	716 m	
36	3/21/2016 14:50:16	0.338024	0.327394	0.301493	21.39308	-158.0967	716 m	East fence East of Northeast leg of tower across driveway
37	3/21/2016 14:50:21	0.600851	0.498273	0.316783	21.39308	-158.0967	716 m	
38	3/21/2016 14:50:26	0.503099	0.423299	0.241302	21.39308	-158.0967	716 m	
39	3/21/2016 14:50:31	0.340345	0.261633	0.195417	21.39308	-158.0967	716 m	
40	3/21/2016 14:50:36	0.389394	0.372399	0.353819	21.39308	-158.0967	716 m	West to tower fence @ Northeast
41	3/21/2016 14:50:41	0.402149	0.394104	0.385047	21.39308	-158.09671	717 m	
42	3/21/2016 14:50:46	0.51366	0.437132	0.397016	21.39308	-158.09671	717 m	
43	3/21/2016 14:50:51	0.700137	0.606222	0.52077	21.39307	-158.09671	717 m	
44	3/21/2016 14:50:56	0.658015	0.622044	0.589682	21.39306	-158.09671	717 m	
45	3/21/2016 14:51:01	0.655196	0.625156	0.593287	21.39306	-158.09671	717 m	
46	3/21/2016 14:51:06	0.60712	0.587418	0.540482	21.39306	-158.09671	717 m	
47	3/21/2016 14:51:11	0.53234	0.504959	0.479445	21.39306	-158.09671	717 m	
48	3/21/2016 14:51:16	0.643163	0.514676	0.260202	21.39306	-158.09671	717 m	
49	3/21/2016 14:51:21	0.507772	0.404504	0.154695	21.39306	-158.09671	717 m	Original gate point
50	3/21/2016 14:51:26	0.528864	0.494879	0.460078	21.39305	-158.0967	717 m	
51	3/21/2016 14:51:31	0.512263	0.395567	0.267024	21.39304	-158.0967	717 m	
52	3/21/2016 14:51:36	0.700677	0.47074	0.363409	21.39304	-158.0967	717 m	
53	3/21/2016 14:51:41	0.655825	0.635064	0.614585	21.39303	-158.09672	717 m	
54	3/21/2016 14:51:46	0.681418	0.638475	0.622553	21.39302	-158.09669	718 m	
55	3/21/2016 14:51:51	0.822759	0.765753	0.701026	21.39302	-158.09669	718 m	
56	3/21/2016 14:51:56	0.861818	0.820487	0.729101	21.39302	-158.09668	718 m	Below KHLU TV antenna
57	3/21/2016 14:52:01	0.77443	0.67769	0.630541	21.39302	-158.09668	718 m	
58	3/21/2016 14:52:06	0.944544	0.858432	0.73843	21.39302	-158.09668	718 m	
59	3/21/2016 14:52:11	0.923403	0.846709	0.739173	21.39302	-158.09669	718 m	
60	3/21/2016 14:52:16	0.904727	0.881569	0.860595	21.39302	-158.09669	718 m	



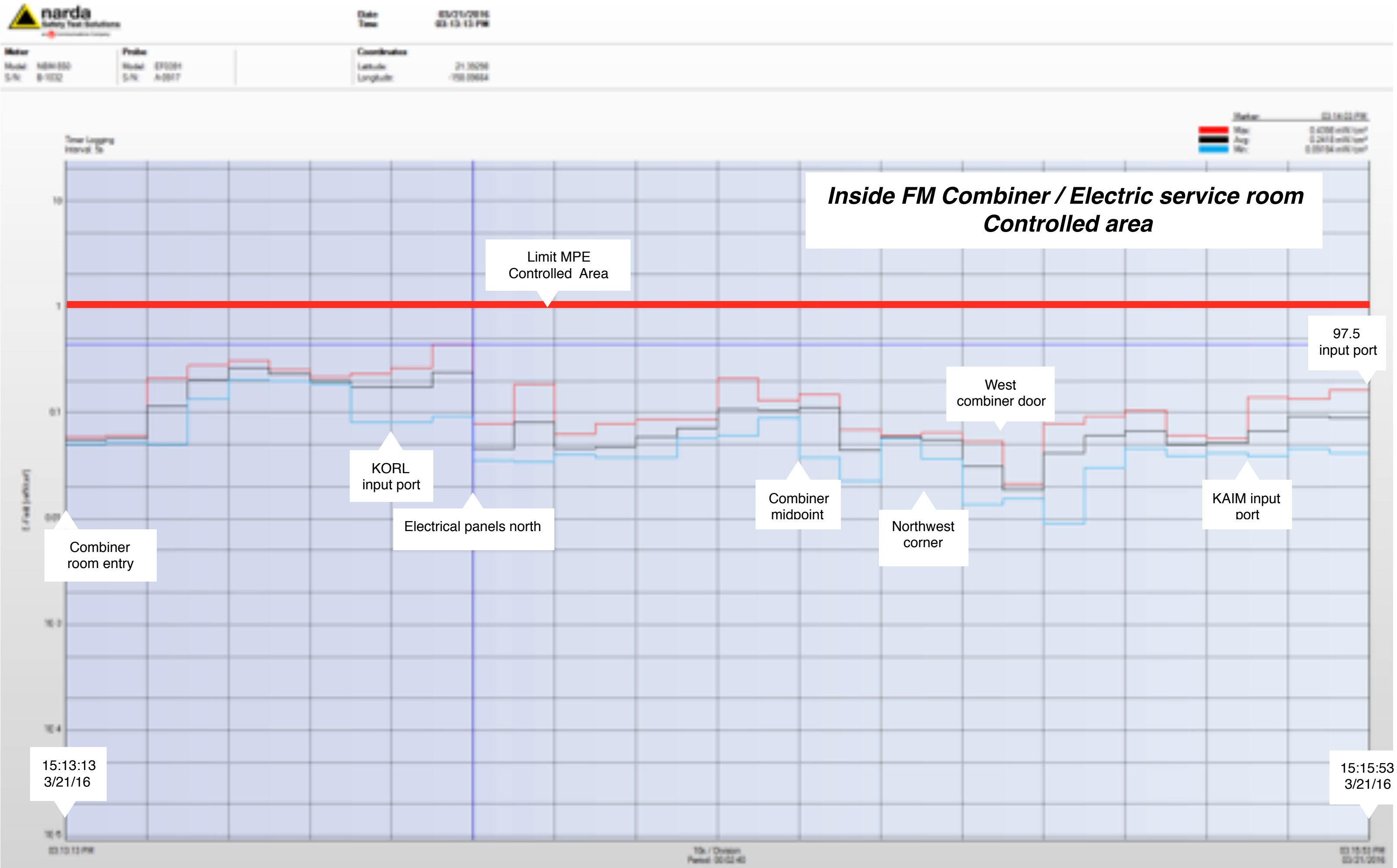
Southwest corner to North tower fence, West side
Controlled area

Index	Date/Time	Max (E-Field) [mW/cm²]	Avg (E-Field) [mW/cm²]	Min (E-Field) [mW/cm²]	Latitude	Longitude	Altitude	Location
1	3/21/2016 15:00:48	0.014053	0.013396	0.01287	21.39267	-158.09662	725 m	Southwestern corner walking north to west tower fence
2	3/21/2016 15:00:53	0.01375	0.012994	0.012784	21.39266	-158.09662	725 m	
3	3/21/2016 15:00:58	0.013613	0.012963	0.012585	21.39266	-158.09661	725 m	
4	3/21/2016 15:01:03	0.01369	0.013478	0.013236	21.39266	-158.09661	725 m	
5	3/21/2016 15:01:08	0.015793	0.01362	0.012745	21.39266	-158.09661	725 m	
6	3/21/2016 15:01:13	0.01454	0.013974	0.013171	21.39266	-158.09661	725 m	
7	3/21/2016 15:01:18	0.01664	0.014743	0.012103	21.39266	-158.09661	725 m	West fence behind KAAH TV building
8	3/21/2016 15:01:23	0.014688	0.010685	0.007912	21.39266	-158.09661	725 m	
9	3/21/2016 15:01:28	0.010824	0.00883	0.006945	21.39266	-158.09662	725 m	
10	3/21/2016 15:01:33	0.0138	0.010961	0.00742	21.39269	-158.09665	724 m	
11	3/21/2016 15:01:38	0.011204	0.009552	0.008287	21.39271	-158.09668	723 m	
12	3/21/2016 15:01:43	0.015778	0.011951	0.008338	21.39272	-158.09674	722 m	Western most fence corner at KHLU TV satellite dish
13	3/21/2016 15:01:48	0.013503	0.011376	0.010531	21.3927	-158.09673	721 m	
14	3/21/2016 15:01:53	0.012747	0.011181	0.00966	21.3927	-158.09673	721 m	
15	3/21/2016 15:01:58	0.028081	0.014378	0.006652	21.3927	-158.09673	721 m	
16	3/21/2016 15:02:03	0.027084	0.023452	0.020042	21.39273	-158.09673	720 m	
17	3/21/2016 15:02:08	0.022637	0.021603	0.020266	21.39275	-158.09672	719 m	West fence at KQMQ / KORL access door
18	3/21/2016 15:02:13	0.040269	0.026109	0.009729	21.39275	-158.09672	719 m	
19	3/21/2016 15:02:18	0.010716	0.009258	0.008622	21.39276	-158.09671	719 m	
20	3/21/2016 15:02:23	0.011259	0.009249	0.007431	21.39277	-158.0967	719 m	In front of KQMQ / KORL access door
21	3/21/2016 15:02:28	0.010217	0.008965	0.007344	21.39277	-158.0967	719 m	
22	3/21/2016 15:02:33	0.01234	0.010289	0.007728	21.39277	-158.09669	719 m	
23	3/21/2016 15:02:38	0.013809	0.011913	0.011228	21.39279	-158.0967	719 m	In front of KHLU TV access door
24	3/21/2016 15:02:43	0.012827	0.011442	0.007859	21.39279	-158.09671	719 m	
25	3/21/2016 15:02:48	0.019485	0.015201	0.011244	21.39279	-158.09672	720 m	
26	3/21/2016 15:02:53	0.018687	0.017072	0.015832	21.39281	-158.09674	720 m	In front of Combiner/Electrical service rear access door
27	3/21/2016 15:02:58	0.026542	0.017425	0.010145	21.39282	-158.09675	720 m	
28	3/21/2016 15:03:03	0.053573	0.036337	0.027708	21.39282	-158.09676	720 m	
29	3/21/2016 15:03:08	0.043044	0.033697	0.025719	21.39286	-158.09677	720 m	West intersection of tower fence to site fence
30	3/21/2016 15:03:13	0.036984	0.034983	0.02825	21.39287	-158.09678	720 m	
31	3/21/2016 15:03:18	0.043705	0.033238	0.024217	21.39288	-158.09678	720 m	
32	3/21/2016 15:03:23	0.036942	0.029242	0.01994	21.39289	-158.09676	720 m	
33	3/21/2016 15:03:28	0.055689	0.048656	0.036273	21.39289	-158.09676	720 m	tower fence joint w/ generator end of building



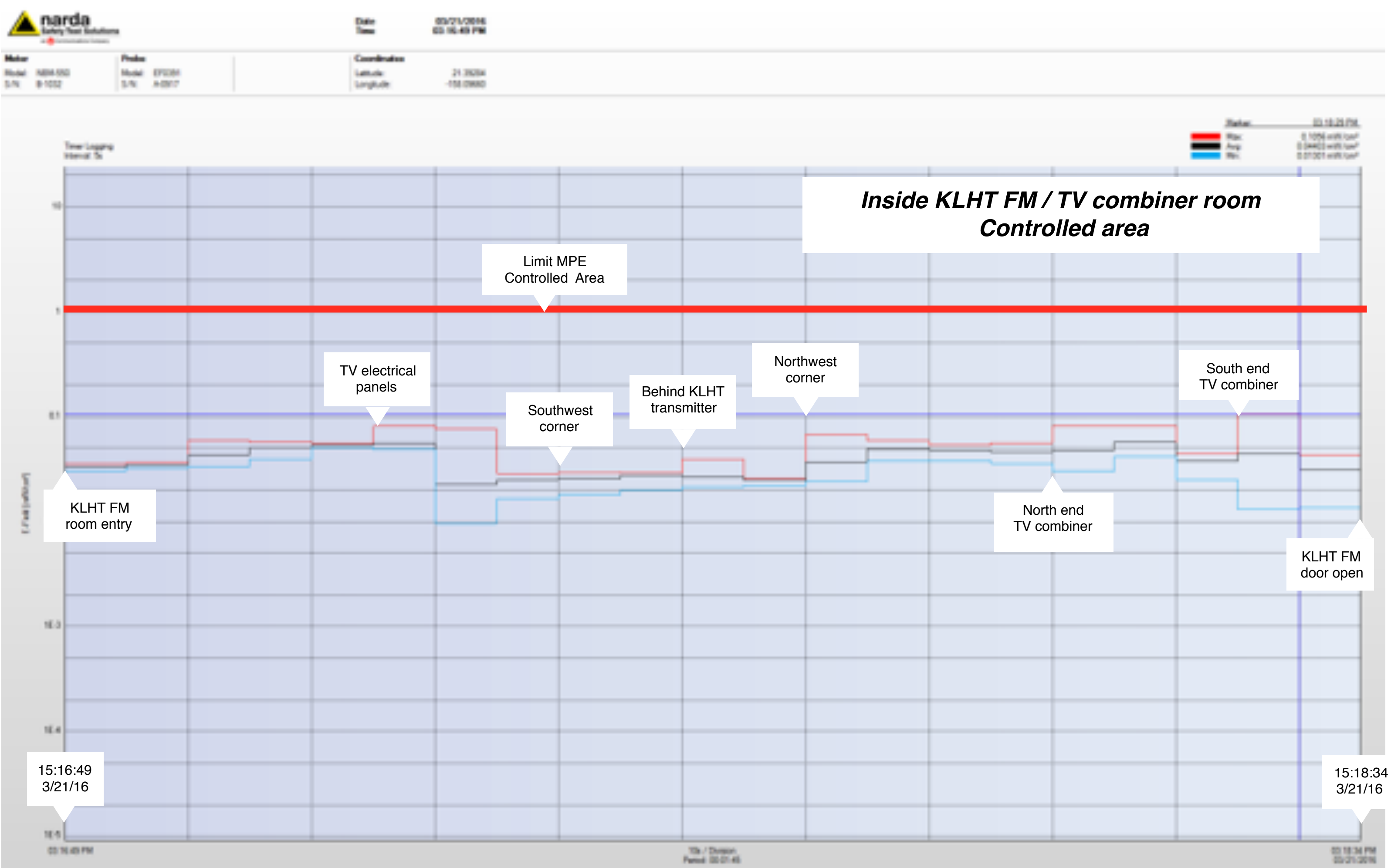
Inside tower immediate fence
Controlled area

Index	Date/Time	Max (E-Field) [mW/cm²]	Avg (E-Field) [mW/cm²]	Min (E-Field) [mW/cm²]	Latitude	Longitude	Altitude	Location
1	3/21/2016 15:07:59	0.646952	0.569527	0.522589	21.39297	-158.09664	719 m	
2	3/21/2016 15:08:04	0.69553	0.459952	0.240209	21.39297	-158.09664	719 m	tower fence gate open
3	3/21/2016 15:08:09	0.425726	0.353903	0.244784	21.39297	-158.09665	719 m	
4	3/21/2016 15:08:14	0.558824	0.346218	0.149415	21.39297	-158.09665	719 m	
5	3/21/2016 15:08:19	0.31436	0.186297	0.076687	21.39297	-158.09666	719 m	
6	3/21/2016 15:08:24	0.118696	0.084235	0.039086	21.39296	-158.0967	719 m	
7	3/21/2016 15:08:29	0.089758	0.079137	0.059879	21.39295	-158.09675	719 m	
8	3/21/2016 15:08:34	0.088288	0.067993	0.042945	21.39293	-158.09678	719 m	west end fence from gate
9	3/21/2016 15:08:39	0.216048	0.108675	0.042597	21.39293	-158.09677	719 m	
10	3/21/2016 15:08:44	0.267852	0.233152	0.2009	21.39296	-158.09678	719 m	
11	3/21/2016 15:08:49	0.282908	0.247995	0.22297	21.39297	-158.09677	719 m	north west corner fence
12	3/21/2016 15:08:54	0.346121	0.242902	0.07006	21.39297	-158.09678	719 m	
13	3/21/2016 15:08:59	0.505226	0.143275	0.048299	21.39297	-158.09678	718 m	
14	3/21/2016 15:09:04	0.101361	0.0868	0.048229	21.39297	-158.09675	719 m	
15	3/21/2016 15:09:09	0.106921	0.102162	0.099085	21.39298	-158.09674	719 m	west leg of tower
16	3/21/2016 15:09:14	0.091295	0.06294	0.03547	21.39299	-158.09674	719 m	
17	3/21/2016 15:09:19	0.125936	0.081076	0.052694	21.39299	-158.09674	719 m	
18	3/21/2016 15:09:24	0.196773	0.124078	0.062376	21.39301	-158.09675	720 m	
19	3/21/2016 15:09:29	0.062911	0.0521	0.045007	21.39303	-158.09675	720 m	north leg of tower
20	3/21/2016 15:09:34	0.065381	0.054378	0.048485	21.39303	-158.09674	720 m	
21	3/21/2016 15:09:39	0.154903	0.101724	0.057259	21.39303	-158.09674	720 m	
22	3/21/2016 15:09:44	0.074355	0.066147	0.060859	21.39305	-158.09673	720 m	
23	3/21/2016 15:09:49	0.084892	0.074367	0.063374	21.39306	-158.09673	720 m	
24	3/21/2016 15:09:54	0.069664	0.061921	0.054988	21.39306	-158.09672	720 m	east most corner of tower fence
25	3/21/2016 15:09:59	0.129478	0.087073	0.068518	21.39306	-158.09672	720 m	
26	3/21/2016 15:10:04	0.116544	0.090841	0.06541	21.39306	-158.09672	720 m	
27	3/21/2016 15:10:09	0.176742	0.119332	0.098744	21.39306	-158.09672	720 m	
28	3/21/2016 15:10:14	0.322732	0.229421	0.157366	21.39306	-158.09672	720 m	
29	3/21/2016 15:10:19	0.59997	0.546759	0.407533	21.39306	-158.09672	720 m	middle of tower face east
30	3/21/2016 15:10:24	0.522587	0.279074	0.167539	21.39306	-158.09672	720 m	
31	3/21/2016 15:10:29	0.535012	0.336612	0.175493	21.39306	-158.09672	720 m	
32	3/21/2016 15:10:34	0.961225	0.75684	0.619368	21.39304	-158.09671	721 m	
33	3/21/2016 15:10:39	1.016515	0.898987	0.787672	21.39304	-158.09671	720 m	
34	3/21/2016 15:10:44	1.035075	1.014457	0.987685	21.39304	-158.09671	719 m	
35	3/21/2016 15:10:49	1.294596	1.134762	0.792104	21.39304	-158.09671	719 m	below KHLU antenna east leg
36	3/21/2016 15:10:54	0.937801	0.836403	0.745205	21.39304	-158.09671	719 m	
37	3/21/2016 15:10:59	0.952115	0.918802	0.834044	21.39304	-158.09671	719 m	
38	3/21/2016 15:11:04	0.967494	0.904085	0.852841	21.39304	-158.09671	719 m	
39	3/21/2016 15:11:09	1.065925	0.758217	0.534352	21.39304	-158.09671	719 m	
40	3/21/2016 15:11:14	1.625541	0.86425	0.389296	21.39304	-158.09671	719 m	a third between east leg & gate
41	3/21/2016 15:11:19	1.570044	1.376163	0.656417	21.39303	-158.09672	720 m	
42	3/21/2016 15:11:24	1.076453	0.509968	0.17526	21.39302	-158.09673	720 m	
43	3/21/2016 15:11:29	0.294341	0.180107	0.066674	21.39302	-158.09673	720 m	
44	3/21/2016 15:11:34	0.384192	0.231179	0.179998	21.39303	-158.09673	720 m	back @ tower gate



Inside FM Combiner / Electric service room
Controlled area

Index	Date/Time	Max (E-Field) [mW/cm²]	Avg (E-Field) [mW/cm²]	Min (E-Field) [mW/cm²]	Latitude	Longitude	Altitude	Location
1	3/21/2016 15:13:18	0.05932	0.05497	0.050522	21.39298	-158.09664	724 m	Combiner door open entry
2	3/21/2016 15:13:23	0.060972	0.056596	0.052634	21.39298	-158.09664	724 m	
3	3/21/2016 15:13:28	0.208157	0.115728	0.050485	21.39298	-158.09664	724 m	
4	3/21/2016 15:13:33	0.278332	0.201722	0.134364	21.39298	-158.09664	724 m	
5	3/21/2016 15:13:38	0.313494	0.266462	0.204683	21.39298	-158.09664	724 m	
6	3/21/2016 15:13:43	0.251877	0.231392	0.201168	21.39298	-158.09664	724 m	
7	3/21/2016 15:13:48	0.22022	0.196359	0.188058	21.39298	-158.09664	724 m	
8	3/21/2016 15:13:53	0.235282	0.173422	0.081614	21.39297	-158.09664	724 m	Gas bottles/ KORL combiner input port
9	3/21/2016 15:13:58	0.263787	0.171889	0.082091	21.39297	-158.09664	724 m	
10	3/21/2016 15:14:03	0.439844	0.241798	0.091939	21.39297	-158.09665	724 m	
11	3/21/2016 15:14:08	0.078424	0.045201	0.035158	21.39296	-158.09665	724 m	North walk to electrical panels
12	3/21/2016 15:14:13	0.182935	0.082105	0.034354	21.39296	-158.09665	724 m	
13	3/21/2016 15:14:18	0.062618	0.04581	0.040121	21.39296	-158.09666	724 m	
14	3/21/2016 15:14:23	0.078667	0.047857	0.037649	21.39296	-158.09666	724 m	
15	3/21/2016 15:14:28	0.085127	0.059183	0.037614	21.39296	-158.09666	724 m	
16	3/21/2016 15:14:33	0.086115	0.072489	0.057939	21.39296	-158.09666	724 m	
17	3/21/2016 15:14:38	0.212177	0.108535	0.060471	21.39296	-158.09666	724 m	
18	3/21/2016 15:14:43	0.129593	0.105949	0.089536	21.39296	-158.09666	724 m	mid point of combiner network going west
19	3/21/2016 15:14:48	0.148395	0.112674	0.038094	21.39296	-158.09666	724 m	
20	3/21/2016 15:14:53	0.069965	0.043745	0.022422	21.39296	-158.09666	724 m	
21	3/21/2016 15:14:58	0.061043	0.059653	0.056252	21.39296	-158.09667	724 m	Northwest corner by exhaust fan
22	3/21/2016 15:15:03	0.064275	0.055085	0.036426	21.39296	-158.09667	724 m	
23	3/21/2016 15:15:08	0.053673	0.031509	0.013469	21.39296	-158.09667	724 m	Back door west
24	3/21/2016 15:15:13	0.021221	0.018588	0.015317	21.39296	-158.09667	724 m	
25	3/21/2016 15:15:18	0.077742	0.042094	0.008956	21.39296	-158.09667	724 m	
26	3/21/2016 15:15:23	0.090808	0.060287	0.03036	21.39296	-158.09667	724 m	
27	3/21/2016 15:15:28	0.105528	0.067257	0.046318	21.39295	-158.09667	724 m	
28	3/21/2016 15:15:33	0.061775	0.05094	0.039121	21.39295	-158.09668	724 m	
29	3/21/2016 15:15:38	0.057081	0.05141	0.041957	21.39294	-158.09668	724 m	KAIM input port area
30	3/21/2016 15:15:43	0.141537	0.067043	0.038338	21.39294	-158.09669	724 m	
31	3/21/2016 15:15:48	0.133729	0.09265	0.045481	21.39293	-158.0967	724 m	
32	3/21/2016 15:15:53	0.163078	0.088265	0.042026	21.39293	-158.09669	724 m	near 97.5 input port



Inside KLHT FM / TV combiner room
Controlled area

Index	Date/Time	Max (E-Field) [mW/cm²]	Avg (E-Field) [mW/cm²]	Min (E-Field) [mW/cm²]	Latitude	Longitude	Altitude	Location
1	3/21/2016 15:16:54	0.035849	0.032912	0.030602	21.39284	-158.0966	723 m	KLHT FM door open @ entry
2	3/21/2016 15:16:59	0.036895	0.034863	0.032585	21.39284	-158.0966	723 m	
3	3/21/2016 15:17:04	0.058857	0.043151	0.033652	21.39284	-158.09659	723 m	
4	3/21/2016 15:17:09	0.056815	0.05043	0.039665	21.39285	-158.0966	723 m	
5	3/21/2016 15:17:14	0.055651	0.053605	0.051135	21.39285	-158.0966	723 m	KLHT original power panel south end
6	3/21/2016 15:17:19	0.080714	0.05556	0.048571	21.39285	-158.09661	723 m	
7	3/21/2016 15:17:24	0.076452	0.02259	0.009599	21.39285	-158.09661	723 m	
8	3/21/2016 15:17:29	0.028745	0.024973	0.016398	21.39284	-158.09661	723 m	KLHT back southwest wall
9	3/21/2016 15:17:34	0.029589	0.025709	0.017954	21.39284	-158.09662	723 m	
10	3/21/2016 15:17:39	0.028889	0.027631	0.01994	21.39284	-158.09663	723 m	KLHT back of transmitter west wall
11	3/21/2016 15:17:44	0.03952	0.02686	0.021421	21.39284	-158.09663	723 m	
12	3/21/2016 15:17:49	0.025938	0.02477	0.02216	21.39284	-158.09663	723 m	
13	3/21/2016 15:17:54	0.068448	0.037073	0.023969	21.39285	-158.09663	723 m	KLHT new load center northwest wall
14	3/21/2016 15:17:59	0.058564	0.049464	0.037288	21.39285	-158.09663	723 m	
15	3/21/2016 15:18:04	0.053484	0.047651	0.038208	21.39285	-158.09663	723 m	
16	3/21/2016 15:18:09	0.056302	0.045812	0.036024	21.39285	-158.09663	723 m	TV combiner network north end
17	3/21/2016 15:18:14	0.080827	0.047917	0.029846	21.39286	-158.09664	723 m	
18	3/21/2016 15:18:19	0.081525	0.056697	0.041596	21.39286	-158.09664	723 m	
19	3/21/2016 15:18:24	0.043907	0.037522	0.025163	21.39286	-158.09664	723 m	TV combiner network south end
20	3/21/2016 15:18:29	0.105595	0.044028	0.013013	21.39286	-158.09664	723 m	
21	3/21/2016 15:18:34	0.043431	0.031653	0.013405	21.39285	-158.0966	723 m	KLHT entry door closed

East tower leg
Controlled area

Narda NBM-550 used in this test: equipment data

Operating Mode	HIGH FREQUENCY
Number of Sub Indices	60
Storing Date	3/21/16
Storing Time	14:47:16
Dataset Type	TIM
Voice Comment Available	NO
Dataset Fine Type	T1
GPS Flag	DIFF
Device Product Name	NBM-550
Device Serial Number	B-1032
Device Cal Due Date	9/29/17
Probe Product Name	EF0391
Probe Serial Number	A-0917
Probe Cal Due Date	11/19/17
Probe Field Type	E
Probe Connection Type	A
Probe Lower Frequency Limit	100 kHz
Probe Upper Frequency Limit	3 GHz
Probe Lower Frequency Limit	100 kHz
Probe Upper Frequency Limit	3 GHz
Probe Emin A	185.0 mV/m
Probe Emax A	300.0 V/m
Probe Emin B	185.0 mV/m
Probe Emax B	300.0 V/m
Shaped Probe	NO
Standard ID	1
Standard Name	FCC 1997 Occupationa
Apply Standard	ON
Frequency	10 MHz
Apply Correction Frequency	OFF
Eref_E(f)	184.2 V/m
Eref_H(f)	184.3 V/m
Combi Probe Use	E_H
Unit	mW/cm^2
Results Format	FIXED
Auto-Zero Interval	OFF