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April 16, 2010

VIA HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W., TW-A325
Washington, D.C. 20554

Re: Amendment to Application for AM Broadcast Station License
FCC File No. BL-20100329AFW
KLO(AM), Ogden, Utah (FIN-35069)

Dear Ms. Dortch:

Submitted herewith, on behalf of KLO Broadcasting Co. ("KLO"), is an amendment to the pending application for AM Broadcast Station License on FCC Form 302-AM for KLO(AM), Ogden, Utah. Specifically, this amendment reflects a change to the theoretical field ratio on tower number four in the daytime pattern. Simultaneously herewith, the minor modification application pending for KLO(AM), FCC File No. BMP-20100326ADI, is also being amended to reflect this change. A certificate of amendment executed on behalf of KLO accompanies this submission.

If there should be any questions regarding this matter, please contact the undersigned.

Sincerely,

Brendan Holland

cc: Susan Crawford
Enclosures

CERTIFICATE OF AMENDMENT

KLO Broadcasting, Co., licensee of KLO(AM), Ogden, Utah (FIN-35069), hereby amends the pending application for a covering license for KLO(AM), FCC File No. BL-20100329AFW, with the attached materials.

KLO BROADCASTING, CO.

By: _____
John Webb
President

Dated: April 16, 2010

Amendment to Application for License

Standard Broadcast Station KLO
KLO Broadcasting Co.
1430 KHz - 25 kW DA-D / 5 kW DA-N
Ogden, UT
April, 2010

State of Illinois)

)ss

County of Peoria)

Keith Turcot, being first duly sworn, deposes and says that he is a Consulting Engineer and that he has been retained by KLO Broadcasting Co. to prepare the following engineering exhibits, that he holds a Bachelor of Science Degree in Electrical Engineering, that his qualifications have been accepted by the Federal Communications Commission, and the following exhibits have been prepared by him and that they are true and correct to the best of his knowledge and belief.

Keith Turcot, Affiant

Subscribed and sworn to before me this 13th Day of April 2010.

OFFICIAL SEAL
PAULETTE J HOSKINS
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES MARCH 26, 2013

Amendment to Application for License

The following engineering statement and attached exhibits have been prepared for **KLO Broadcasting Co.** ("KLO"), licensee of standard broadcast station KLO at Ogden, Utah, and are in support of their amendment to application for license.[1] This submission seeks to amend the pending license application, BL-20100329AFW, which was filed to cover changes authorized under construction permit BP-20061130ATH as modified by BMP-20071121ACX. The application to further modify the construction permit under FCC File No. BMP-20100326ADI is also being concurrently amended. That application was submitted to modify the construction permit following the identification of discrepancies uncovered during a survey of the site. The site discrepancies necessitated a change in the theoretical parameters of the array and an error that was discovered requiring in a change in the daytime pattern.

This application for license contains antenna proof of performance measurements for both the day and night patterns. Proof of performance measurements contained herein were made pursuant to Section 73.151(c) of the Commission's Rules. Work on the array, including the acquisition of data required for the computer modeled proof of performance occurred between the dates of February 24, 2010 and March 16, 2010, inclusive.

Tower Array Impedance Matrix

The Tower array impedance matrix was generated by performing impedance measurements at the base of each of the elements in the array. These measurements were performed with all other elements in the array open circuited at their respective measurement locations. The

1 The Facility ID for KLO at Ogden, Utah is 35069.

measurement location for each element in the array is within one electrical degree of the elevation of the actual feed point, which is consistent with the calculated feed point location requirements under the Commission's Rules.

The physical model of the individual elements was calibrated in a moment method computer model to match the measured impedances within the limits permissible under Sections 73.151(c)(1)(i) through 73.151(c)(1)(viii) of the Commission's Rules. The measured impedance values comprising the matrix vary from the moment method modeled values by no more than 2 ohms and 4 percent for resistance and reactance. Each of the elements in the array was modeled by 20 wire segments.

Vertical wires were used to represent the towers between 87% and 108.1% of the radius of a circle with a circumference equal to the sum of the widths of the tower sides. The height of the modeled vertical wires used for each given tower was between 102.1% and 104.9% of the actual tower height. A lumped series inductance from the feed system between 0.68 and 3.5 microhenrys per element was assumed, while a shunt capacitance of 10 picofarads was assumed in the modeling of the base area. A summary of all measured and modeled parameters is contained within Exhibit A.

Each of the elements in the array is of uniform cross section and has identical physical cross section and structure with respect to each other, height excepted. The orientation, height, and distances among the individual antenna towers in the array was confirmed by a post-construction land survey. The survey and a summary is attached in Exhibit B. The errors in the locations of the array elements to each other precipitated the application for modification of construction permit previously mentioned.

The tower segment currents were produced using a method of moments computer model. The physical model used was calibrated against measured open circuit tower impedances. The array synthesis for the day and night patterns is detailed in Exhibit C.

Antenna Monitor Parameters

A sample loop method was utilized to establish and maintain station operating parameters. The sampling system was constructed meeting the requirements in 73.151(c)(2)(i) and 73.151(c)(2)(ii). Each tower was individually modeled using the calibrated model based on the measured antenna tower array impedance matrix to identify the location where a current minimum would occur when detuned. Sample loops were located at these locations on each tower while maintaining a consistent orientation with respect to the tower structure and cross members.

The sample lines connecting the tower mounted sensing element to the antenna monitor were measured by open-circuiting the sensing end of the line and measuring the frequency closest to the operating carrier frequency where series resonance occurred. These values were utilized to convert the line length to the length of transmission line at the operating frequency at an appropriate multiple of 90 degree segments. The sample lines were measured to be within one electrical degree in length of each other by this method. Additionally, the lines were measured using a time-domain reflectometery test set, which confirmed they were all 619.5 feet in length[2].

The impedance of each of the sample lines was measured at odd multiples of 1/8 wavelength immediately above and below the open circuit resonant frequency closest to the carrier

2 Measured lengths by this technique agreed with each other to within 0.1 feet. The velocity factor of the transmission line utilized for the sample lines is 0.86.

frequency, while open circuited, to establish the line characteristic impedance. The measured impedance of the four lines ranged from a low of 48.65 ohms to high of 49.21 ohms. The sample system measurement details are contained in Exhibit D.

The antenna system was adjusted to achieve the desired indicated operating parameters. The parameters on both patterns to which the array was adjusted are within five percent of the calculated field ratio and three degrees of the calculated phase. The sample system used to indicate the operating parameters also complies with the provisions of Section 73.68 of the Commission's Rules.

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant
KLO Broadcasting Co.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☑ Station License ☐ Direct Measurement of Power

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit (if applicable)	Frequency (kHz)	Hours of Operation	Power in kilowatts	
				Night	Day
KLO	BMP-2010326ADI	1430	Unlimited	5.0	25.0

2. Station location

State	City or Town
Utah	Ogden

3. Transmitter location

State	County	City or Town	Street address (or other identification)
Utah	Davis	Layton	3200 W. St. 0.9 mi. S of Gentile St.

4. Main studio location

State	County	City or Town	Street address (or other identification)
Utah	Salt Lake	Salt Lake City	257 E. 200 S., Suite 400

5. Remote control point location (specify only if authorized directional antenna)

State	County	City or Town	Street address (or other identification)
Utah	Salt Lake	Salt Lake City	257 E. 200., Suite 400

6. Has type-approved stereo generating equipment been installed? ☐ Yes ☑ No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68? ☑ Yes ☐ No ☐ Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed. Exhibit No. Exhibit D

8. Operating constants:

RF common point or antenna current (in amperes) without modulation for night system	RF common point or antenna current (in amperes) without modulation for day system
10.4	22.9

Measured antenna or common point resistance (in ohms) at operating frequency		Measured antenna or common point reactance (in ohms) at operating frequency	
Night	Day	Night	Day
50	50	0	0

Antenna indications for directional operation

Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents	
	Night	Day	Night	Day	Night	Day
#1	0.0	17.0	1.000	0.441	2.7	1.8
#2	91.5	0.0	0.665	1.000	8.4	2.2
#3	65.3	69.7	0.825	1.269	2.2	1.2
#4	23.7	-159.4	0.549	0.239	1.7	1.4

Manufacturer and type of antenna monitor: Potomac Instruments Model 1901

SECTION III - Page 2

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator	Overall height in meters of radiator above base insulator, or above base, if grounded.	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit.
See Exhibit B	See Exhibit B	See Exhibit B	See Exhibit B	Exhibit No. DNA

Excitation ☑ Series ☐ Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude	West Longitude
41 ° 2 ' 48.5 "	112 ° 1 ' 37.2 "

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits. Exhibit No. DNA

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system. Exhibit No. DNA

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

This application is submitted concurrently with application for modification of Construction Permit to address discrepancies uncovered during a survey of the site, (see exhibit B).

11. Give reasons for the change in antenna or common point resistance.

DNA

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

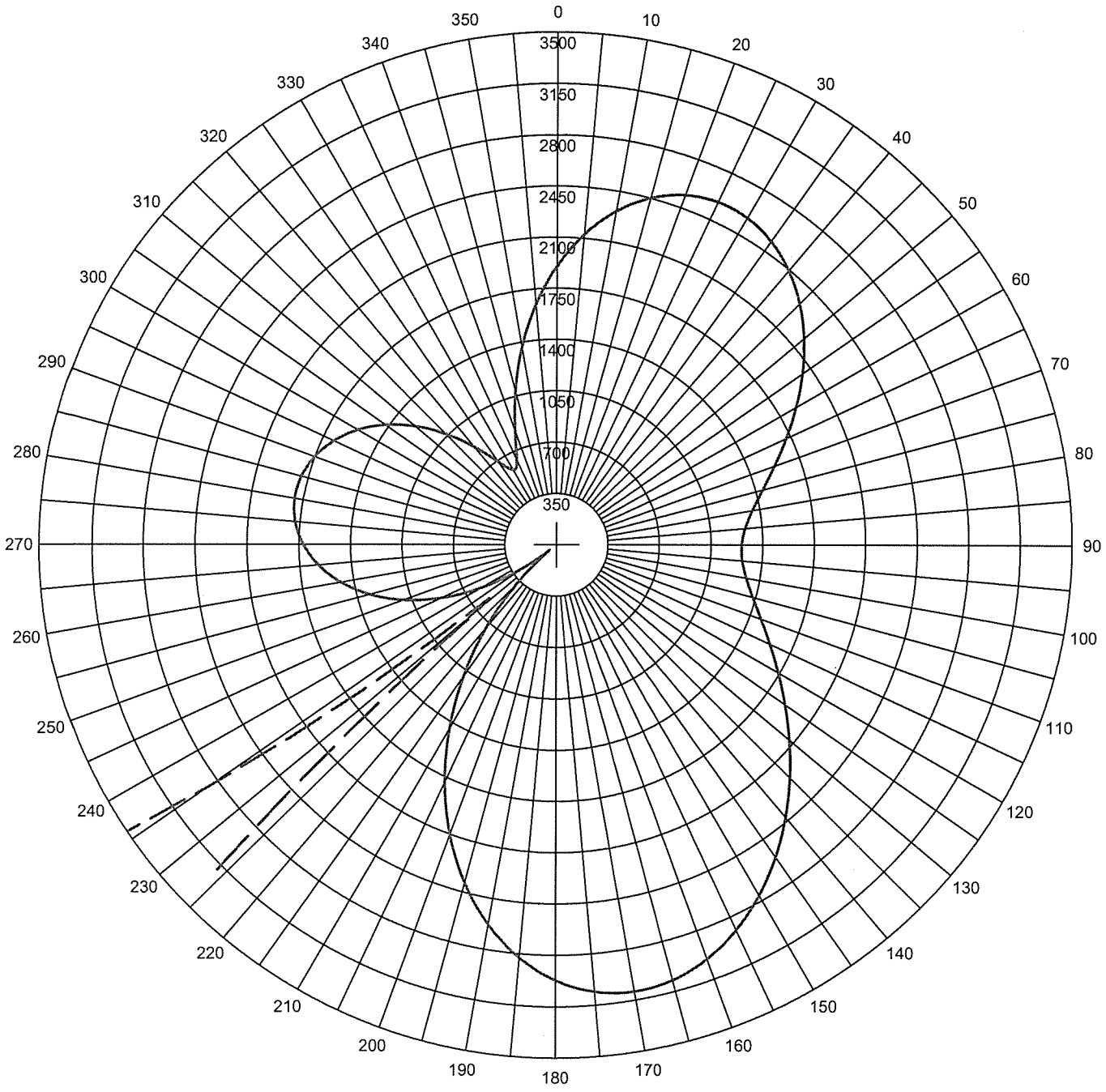
Name (Please Print or Type)	Signature (check appropriate box below)
Keith A. Turcot	
Address (include ZIP Code) D. L. Markley and Associates, Inc. 2104 West Moss Ave. Peoria, IL 61614	Date 4/13/2010 Telephone No. (Include Area Code) 309-673-7511 keith@dlmarkley.com

☐ Technical Director ☐ Registered Professional Engineer

☐ Chief Operator ☐ Technical Consultant

☑ Other (specify) Consulting Engineer

AM Directional Pattern



Standard Horizontal Plane Pattern

Pattern (mV/m @ 1km)
Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m@1km
@ 25.0 kW

AM Radiation Report

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Horizontal Plane Pattern

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1902.15	5.0	2127.79	10.0	2312.79
15.0	2451.68	20.0	2541.76	25.0	2582.94
30.0	2577.34	35.0	2528.99	40.0	2443.44
45.0	2327.36	50.0	2188.31	55.0	2034.49
60.0	1874.52	65.0	1717.31	70.0	1571.79
75.0	1446.51	80.0	1349.05	85.0	1285.09
90.0	1257.53	95.0	1266.21	100.0	1308.51
105.0	1380.67	110.0	1478.85	115.0	1599.68
120.0	1740.13	125.0	1897.07	130.0	2066.76
135.0	2244.50	140.0	2424.31	145.0	2598.96
150.0	2760.11	155.0	2898.75	160.0	3005.73
165.0	3072.52	170.0	3091.90	175.0	3058.66
180.0	2970.08	185.0	2826.18	190.0	2629.70
195.0	2385.83	200.0	2101.70	205.0	1785.78
210.0	1447.23	215.0	1095.34	220.0	739.17
225.0	387.71	230.0	67.27	235.0	287.89
240.0	587.46	245.0	861.33	250.0	1104.46
255.0	1313.73	260.0	1487.07	265.0	1623.26
270.0	1721.88	275.0	1783.16	280.0	1807.84
285.0	1797.00	290.0	1751.83	295.0	1673.61
300.0	1563.70	305.0	1423.85	310.0	1256.96
315.0	1068.63	320.0	870.82	325.0	691.04
330.0	589.14	335.0	637.99	340.0	826.10
345.0	1084.69	350.0	1366.25	355.0	1644.34

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 5.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1880.97	5.0	2102.80	10.0	2284.62
15.0	2421.08	20.0	2509.59	25.0	2550.04
30.0	2544.56	35.0	2497.11	40.0	2413.15
45.0	2299.26	50.0	2162.86	55.0	2012.01
60.0	1855.18	65.0	1701.11	70.0	1558.55
75.0	1435.87	80.0	1340.50	85.0	1277.96
90.0	1251.14	95.0	1259.89	100.0	1301.72
105.0	1372.94	110.0	1469.82	115.0	1589.01
120.0	1727.48	125.0	1882.11	130.0	2049.18
135.0	2224.01	140.0	2400.71	145.0	2572.16
150.0	2730.18	155.0	2865.92	160.0	2970.42
165.0	3035.33	170.0	3053.61	175.0	3020.16
180.0	2932.34	185.0	2790.17	190.0	2596.37
195.0	2356.01	200.0	2076.11	205.0	1764.97
210.0	1431.59	215.0	1085.09	220.0	734.38
225.0	388.26	230.0	70.60	235.0	277.11
240.0	572.01	245.0	841.71	250.0	1081.13
255.0	1287.23	260.0	1457.94	265.0	1592.06
270.0	1689.15	275.0	1749.44	280.0	1773.64
285.0	1762.78	290.0	1718.05	295.0	1640.69
300.0	1532.08	305.0	1394.00	310.0	1229.36
315.0	1043.83	320.0	849.53	325.0	674.25
330.0	578.10	335.0	631.59	340.0	820.10
345.0	1076.05	350.0	1353.64	355.0	1627.39

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 10.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1818.70	5.0	2029.46	10.0	2202.05
15.0	2331.51	20.0	2415.44	25.0	2453.82
30.0	2448.69	35.0	2403.86	40.0	2324.54
45.0	2216.98	50.0	2088.26	55.0	1946.01
60.0	1798.27	65.0	1653.28	70.0	1519.27
75.0	1404.12	80.0	1314.75	85.0	1256.37
90.0	1231.68	95.0	1240.66	100.0	1281.08
105.0	1349.58	110.0	1442.63	115.0	1556.98
120.0	1689.64	125.0	1837.49	130.0	1996.87
135.0	2163.22	140.0	2330.88	145.0	2493.05
150.0	2641.99	155.0	2769.34	160.0	2866.70
165.0	2926.24	170.0	2941.39	175.0	2907.41
180.0	2821.86	185.0	2684.80	190.0	2498.83
195.0	2268.76	200.0	2001.21	205.0	1704.02
210.0	1385.73	215.0	1054.98	220.0	720.23
225.0	389.87	230.0	83.20	235.0	246.53
240.0	527.52	245.0	784.92	250.0	1013.51
255.0	1210.31	260.0	1373.32	265.0	1501.36
270.0	1593.99	275.0	1651.37	280.0	1674.13
285.0	1663.23	290.0	1619.78	295.0	1544.99
300.0	1440.22	305.0	1307.32	310.0	1149.31
315.0	972.06	320.0	788.07	325.0	626.15
330.0	546.90	335.0	613.37	340.0	802.42
345.0	1050.35	350.0	1316.32	355.0	1577.41

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 15.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1718.99	5.0	1912.51	10.0	2070.75
15.0	2189.33	20.0	2266.19	25.0	2301.38
30.0	2296.85	35.0	2256.13	40.0	2184.05
45.0	2086.36	50.0	1969.57	55.0	1840.68
60.0	1707.02	65.0	1576.08	70.0	1455.31
75.0	1351.79	80.0	1271.73	85.0	1219.77
90.0	1198.41	95.0	1207.75	100.0	1245.96
105.0	1310.12	110.0	1397.02	115.0	1503.61
120.0	1626.98	125.0	1764.03	130.0	1911.23
135.0	2064.21	140.0	2217.70	145.0	2365.40
150.0	2500.24	155.0	2614.64	160.0	2701.05
165.0	2752.44	170.0	2762.95	175.0	2728.37
180.0	2646.60	185.0	2517.75	190.0	2344.22
195.0	2130.41	200.0	1882.34	205.0	1607.17
210.0	1312.68	215.0	1006.80	220.0	697.34
225.0	392.19	230.0	107.76	235.0	201.55
240.0	459.31	245.0	697.00	250.0	908.35
255.0	1090.37	260.0	1241.15	265.0	1359.54
270.0	1445.06	275.0	1497.79	280.0	1518.27
285.0	1507.31	290.0	1465.92	295.0	1395.25
300.0	1296.67	305.0	1172.10	310.0	1024.73
315.0	860.73	320.0	693.35	325.0	553.15
330.0	500.94	335.0	585.95	340.0	773.87
345.0	1008.34	350.0	1255.77	355.0	1496.95

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 20.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1587.67	5.0	1759.35	10.0	1899.46
15.0	2004.36	20.0	2072.35	25.0	2103.60
30.0	2099.90	35.0	2064.45	40.0	2001.55
45.0	1916.34	50.0	1814.60	55.0	1702.50
60.0	1586.50	65.0	1473.16	70.0	1368.95
75.0	1279.97	80.0	1211.53	85.0	1167.63
90.0	1150.45	95.0	1160.23	100.0	1195.56
105.0	1254.03	110.0	1332.85	115.0	1429.23
120.0	1540.39	125.0	1663.37	130.0	1794.79
135.0	1930.60	140.0	2066.00	145.0	2195.37
150.0	2312.48	155.0	2410.75	160.0	2483.62
165.0	2525.09	170.0	2530.17	175.0	2495.32
180.0	2418.79	185.0	2300.80	190.0	2143.47
195.0	1950.69	200.0	1727.75	205.0	1480.94
210.0	1217.11	215.0	943.32	220.0	666.59
225.0	394.32	230.0	141.52	235.0	151.97
240.0	375.60	245.0	587.11	250.0	775.88
255.0	938.66	260.0	1073.51	265.0	1179.31
270.0	1255.55	275.0	1302.21	280.0	1319.69
285.0	1308.65	290.0	1269.99	295.0	1204.79
300.0	1114.40	305.0	1000.84	310.0	867.50
315.0	721.01	320.0	575.77	325.0	465.07
330.0	448.02	335.0	552.64	340.0	735.55
345.0	951.27	350.0	1174.47	355.0	1390.10

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 25.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1432.21	5.0	1579.31	10.0	1699.12
15.0	1788.75	20.0	1846.91	25.0	1873.86
30.0	1871.21	35.0	1841.74	40.0	1789.18
45.0	1717.95	50.0	1633.00	55.0	1539.60
60.0	1443.21	65.0	1349.35	70.0	1263.42
75.0	1190.46	80.0	1134.83	85.0	1099.80
90.0	1087.22	95.0	1097.41	100.0	1129.34
105.0	1181.11	110.0	1250.41	115.0	1334.77
120.0	1431.62	125.0	1538.21	130.0	1651.41
135.0	1767.57	140.0	1882.46	145.0	1991.26
150.0	2088.66	155.0	2169.16	160.0	2227.35
165.0	2258.29	170.0	2257.95	175.0	2223.49
180.0	2153.58	185.0	2048.48	190.0	1910.05
195.0	1741.59	200.0	1547.59	205.0	1333.38
210.0	1104.79	215.0	867.91	220.0	628.92
225.0	394.66	230.0	178.62	235.0	115.04
240.0	287.00	245.0	466.46	250.0	628.57
255.0	768.80	260.0	885.05	265.0	976.15
270.0	1041.53	275.0	1081.07	280.0	1095.03
285.0	1083.92	290.0	1048.52	295.0	989.81
300.0	909.15	305.0	808.64	310.0	691.91
315.0	566.21	320.0	447.88	325.0	373.96
330.0	396.52	335.0	516.38	340.0	688.64
345.0	880.98	350.0	1075.91	355.0	1262.35

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 30.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1261.17	5.0	1382.85	10.0	1481.77
15.0	1555.76	20.0	1603.92	25.0	1626.56
30.0	1625.10	35.0	1601.87	40.0	1559.99
45.0	1503.12	50.0	1435.34	55.0	1360.97
60.0	1284.48	65.0	1210.32	70.0	1142.82
75.0	1085.95	80.0	1043.15	85.0	1016.99
90.0	1008.94	95.0	1019.34	100.0	1047.49
105.0	1091.97	110.0	1150.90	115.0	1222.19
120.0	1303.56	125.0	1392.55	130.0	1486.38
135.0	1581.87	140.0	1675.43	145.0	1763.05
150.0	1840.41	155.0	1903.09	160.0	1946.80
165.0	1967.71	170.0	1962.67	175.0	1929.56
180.0	1867.41	185.0	1776.54	190.0	1658.52
195.0	1516.06	200.0	1352.84	205.0	1173.21
210.0	981.99	215.0	784.25	220.0	585.29
225.0	391.20	230.0	213.20	235.0	112.39
240.0	206.64	245.0	347.41	250.0	479.69
255.0	595.24	260.0	691.29	265.0	766.45
270.0	820.05	275.0	851.85	280.0	861.98
285.0	850.81	290.0	818.99	295.0	767.42
300.0	697.44	305.0	611.22	310.0	512.70
315.0	410.16	320.0	323.21	325.0	293.04
330.0	353.13	335.0	478.89	340.0	634.43
345.0	799.98	350.0	964.45	355.0	1120.15

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 35.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1083.48	5.0	1180.57	10.0	1259.40
15.0	1318.43	20.0	1357.08	25.0	1375.70
30.0	1375.47	35.0	1358.29	40.0	1326.66
45.0	1283.50	50.0	1232.03	55.0	1175.69
60.0	1117.95	65.0	1062.26	70.0	1011.95
75.0	970.04	80.0	939.09	85.0	921.03
90.0	916.99	95.0	927.27	100.0	951.42
105.0	988.39	110.0	1036.71	115.0	1094.69
120.0	1160.41	125.0	1231.75	130.0	1306.35
135.0	1381.55	140.0	1454.43	145.0	1521.78
150.0	1580.22	155.0	1626.37	160.0	1656.97
165.0	1669.18	170.0	1660.68	175.0	1629.97
180.0	1576.42	185.0	1500.36	190.0	1403.08
195.0	1286.74	200.0	1154.24	205.0	1009.02
210.0	854.91	215.0	696.00	220.0	536.67
225.0	382.03	230.0	240.54	235.0	139.14
240.0	151.55	245.0	243.16	250.0	342.39
255.0	431.92	260.0	507.03	265.0	565.79
270.0	607.30	275.0	631.15	280.0	637.34
285.0	626.11	290.0	597.97	295.0	553.74
300.0	494.70	305.0	423.12	310.0	343.42
315.0	265.90	320.0	216.35	325.0	234.73
330.0	320.56	335.0	440.64	340.0	574.38
345.0	711.42	350.0	845.17	355.0	970.57

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 40.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	907.72	5.0	982.36	10.0	1042.95
15.0	1088.46	20.0	1118.56	25.0	1133.60
30.0	1134.52	35.0	1122.81	40.0	1100.38
45.0	1069.47	50.0	1032.53	55.0	992.14
60.0	950.91	65.0	911.41	70.0	876.07
75.0	847.08	80.0	826.27	85.0	815.01
90.0	814.13	95.0	823.87	100.0	843.91
105.0	873.52	110.0	911.60	115.0	956.82
120.0	1007.64	125.0	1062.33	130.0	1118.98
135.0	1175.48	140.0	1229.54	145.0	1278.71
150.0	1320.48	155.0	1352.34	160.0	1371.98
165.0	1377.36	170.0	1366.90	175.0	1339.57
180.0	1295.03	185.0	1233.60	190.0	1156.31
195.0	1064.82	200.0	961.33	205.0	848.46
210.0	729.15	215.0	606.57	220.0	484.14
225.0	365.85	230.0	257.50	235.0	171.24
240.0	136.34	245.0	168.81	250.0	229.72
255.0	291.61	260.0	345.40	265.0	387.78
270.0	417.30	275.0	433.30	280.0	435.56
285.0	424.18	290.0	399.53	295.0	362.31
300.0	313.74	305.0	256.21	310.0	195.22
315.0	146.38	320.0	145.32	325.0	205.23
330.0	296.89	335.0	401.33	340.0	510.33
345.0	618.98	350.0	723.51	355.0	820.68

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 45.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	741.40	5.0	796.57	10.0	841.41
15.0	875.31	20.0	898.08	25.0	910.04
30.0	911.92	35.0	904.81	40.0	890.11
45.0	869.46	50.0	844.64	55.0	817.49
60.0	789.90	65.0	763.66	70.0	740.49
75.0	721.88	80.0	709.10	85.0	703.06
90.0	704.33	95.0	713.06	100.0	729.07
105.0	751.81	110.0	780.51	115.0	814.16
120.0	851.59	125.0	891.47	130.0	932.34
135.0	972.60	140.0	1010.56	145.0	1044.43
150.0	1072.43	155.0	1092.82	160.0	1104.00
165.0	1104.62	170.0	1093.65	175.0	1070.45
180.0	1034.87	185.0	987.21	190.0	928.26
195.0	859.24	200.0	781.78	205.0	697.77
210.0	609.37	215.0	518.93	220.0	428.96
225.0	342.31	230.0	262.60	235.0	195.33
240.0	150.02	245.0	137.93	250.0	155.97
255.0	186.95	260.0	218.25	265.0	244.02
270.0	261.62	275.0	269.84	280.0	268.13
285.0	256.34	290.0	234.64	295.0	203.53
300.0	164.09	305.0	119.01	310.0	77.89
315.0	75.32	320.0	125.99	325.0	197.72
330.0	277.43	335.0	360.62	340.0	444.48
345.0	526.60	350.0	604.78	355.0	676.98

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 50.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	590.40	5.0	629.47	10.0	661.36
15.0	685.70	20.0	702.43	25.0	711.79
30.0	714.31	35.0	710.77	40.0	702.13
45.0	689.51	50.0	674.14	55.0	657.29
60.0	640.21	65.0	624.13	70.0	610.17
75.0	599.31	80.0	592.36	85.0	589.92
90.0	592.34	95.0	599.71	100.0	611.90
105.0	628.54	110.0	649.08	115.0	672.81
120.0	698.89	125.0	726.36	130.0	754.16
135.0	781.15	140.0	806.16	145.0	827.95
150.0	845.34	155.0	857.16	160.0	862.40
165.0	860.20	170.0	849.94	175.0	831.27
180.0	804.15	185.0	768.83	190.0	725.90
195.0	676.23	200.0	620.95	205.0	561.39
210.0	499.04	215.0	435.52	220.0	372.56
225.0	312.01	230.0	255.95	235.0	206.81
240.0	167.61	245.0	141.59	250.0	130.36
255.0	131.31	260.0	138.55	265.0	146.53
270.0	151.60	275.0	151.67	280.0	145.65
285.0	133.01	290.0	113.57	295.0	87.54
300.0	55.72	305.0	23.84	310.0	38.97
315.0	86.14	320.0	139.96	325.0	197.60
330.0	257.60	335.0	318.59	340.0	379.19
345.0	438.00	350.0	493.63	355.0	544.81

Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 55.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	458.58	5.0	484.93	10.0	506.61
15.0	523.40	20.0	535.30	25.0	542.48
30.0	545.30	35.0	544.24	40.0	539.96
45.0	533.17	50.0	524.66	55.0	515.24
60.0	505.71	65.0	496.84	70.0	489.32
75.0	483.77	80.0	480.68	85.0	480.40
90.0	483.13	95.0	488.93	100.0	497.69
105.0	509.17	110.0	523.00	115.0	538.71
120.0	555.72	125.0	573.40	130.0	591.03
135.0	607.87	140.0	623.12	145.0	636.02
150.0	645.79	155.0	651.75	160.0	653.27
165.0	649.86	170.0	641.17	175.0	627.02
180.0	607.44	185.0	582.64	190.0	553.03
195.0	519.18	200.0	481.86	205.0	441.92
210.0	400.34	215.0	358.16	220.0	316.45
225.0	276.32	230.0	238.87	235.0	205.16
240.0	176.17	245.0	152.65	250.0	134.89
255.0	122.41	260.0	113.96	265.0	107.74
270.0	101.92	275.0	95.05	280.0	86.24
285.0	75.28	290.0	63.04	295.0	52.55
300.0	50.55	305.0	62.97	310.0	87.34
315.0	118.95	320.0	155.03	325.0	193.96
330.0	234.56	335.0	275.79	340.0	316.66
345.0	356.23	350.0	393.59	355.0	427.95

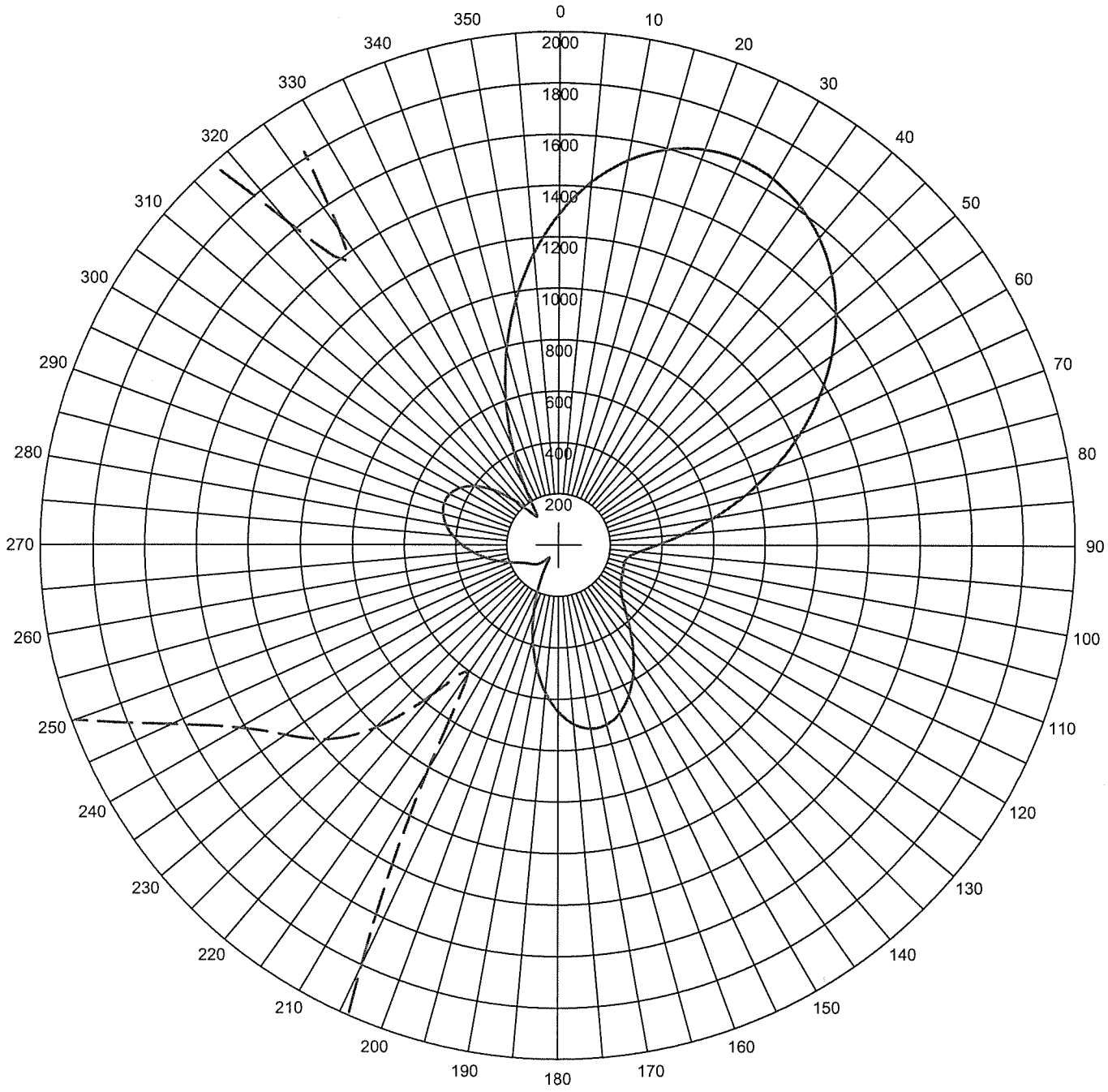
Call: KLO.DX
Freq: 1430 kHz
OGDEN, UT, US
Hours: D
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 25.0 kW
Theo RMS: 1802.56 mV/m @ 1km @ 25.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	0.344	18.9	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	1.000	0.0	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	1.000	70.7	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.187	200.8	218.3	310.4	152.6	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 60.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	347.60	5.0	364.37	10.0	378.35
15.0	389.40	20.0	397.54	25.0	402.88
30.0	405.62	35.0	406.07	40.0	404.61
45.0	401.67	50.0	397.71	55.0	393.21
60.0	388.65	65.0	384.47	70.0	381.07
75.0	378.80	80.0	377.95	85.0	378.70
90.0	381.16	95.0	385.35	100.0	391.21
105.0	398.57	110.0	407.21	115.0	416.82
120.0	427.07	125.0	437.53	130.0	447.78
135.0	457.36	140.0	465.79	145.0	472.62
150.0	477.41	155.0	479.75	160.0	479.31
165.0	475.83	170.0	469.13	175.0	459.14
180.0	445.91	185.0	429.59	190.0	410.45
195.0	388.85	200.0	365.25	205.0	340.18
210.0	314.22	215.0	287.97	220.0	262.05
225.0	237.04	230.0	213.50	235.0	191.89
240.0	172.56	245.0	155.72	250.0	141.37
255.0	129.32	260.0	119.23	265.0	110.66
270.0	103.21	275.0	96.64	280.0	91.01
285.0	86.77	290.0	84.80	295.0	86.26
300.0	92.14	305.0	102.82	310.0	117.97
315.0	136.85	320.0	158.61	325.0	182.40
330.0	207.45	335.0	233.05	340.0	258.52
345.0	283.25	350.0	306.66	355.0	328.25

Proposed KLO Night Pattern



Theo RMS: 735.039 mV/m@1km
Std RMS: 772.231 mV/m@1km
Q: 24.832 mV/m@1km

Standard Horizontal Plane Pattern

Pattern (mV/m @ 1km)
Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m@1km
@ 5.0 kW

AM Radiation Report

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Horizontal Plane Pattern

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1290.93	5.0	1419.71	10.0	1521.57
15.0	1594.89	20.0	1639.61	25.0	1656.91
30.0	1648.58	35.0	1616.64	40.0	1562.95
45.0	1489.13	50.0	1396.76	55.0	1287.64
60.0	1164.19	65.0	1029.72	70.0	888.58
75.0	746.26	80.0	609.30	85.0	485.34
90.0	383.07	95.0	311.06	100.0	273.26
105.0	263.03	110.0	266.49	115.0	273.18
120.0	281.01	125.0	295.01	130.0	323.03
135.0	369.75	140.0	433.17	145.0	506.23
150.0	579.95	155.0	645.47	160.0	695.11
165.0	722.83	170.0	724.73	175.0	699.33
180.0	647.68	185.0	573.30	190.0	481.79
195.0	380.34	200.0	277.03	205.0	180.54
210.0	101.37	215.0	61.27	220.0	75.54
225.0	100.62	230.0	117.56	235.0	128.71
240.0	142.03	245.0	164.74	250.0	198.62
255.0	240.65	260.0	286.52	265.0	332.46
270.0	375.59	275.0	413.60	280.0	444.29
285.0	465.31	290.0	474.02	295.0	467.59
300.0	443.27	305.0	398.84	310.0	333.47
315.0	249.80	320.0	163.96	325.0	149.15
330.0	258.68	335.0	420.24	340.0	600.40
345.0	786.12	350.0	968.19	355.0	1138.69

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 5.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1277.98	5.0	1405.09	10.0	1505.78
15.0	1578.40	20.0	1622.88	25.0	1640.31
30.0	1632.44	35.0	1601.23	40.0	1548.50
45.0	1475.86	50.0	1384.88	55.0	1277.37
60.0	1155.74	65.0	1023.23	70.0	884.12
75.0	743.74	80.0	608.43	85.0	485.51
90.0	383.23	95.0	309.76	100.0	269.30
105.0	256.41	110.0	258.27	115.0	264.68
120.0	273.39	125.0	289.09	130.0	318.99
135.0	367.03	140.0	430.87	145.0	503.55
150.0	576.40	155.0	640.90	160.0	689.60
165.0	716.66	170.0	718.30	175.0	693.11
180.0	642.13	185.0	568.80	190.0	478.61
195.0	378.57	200.0	276.55	205.0	180.82
210.0	101.02	215.0	56.78	220.0	68.54
225.0	93.76	230.0	111.17	235.0	122.93
240.0	136.90	245.0	160.11	250.0	194.16
255.0	236.10	260.0	281.68	265.0	327.25
270.0	369.97	275.0	407.55	280.0	437.80
285.0	458.41	290.0	466.80	295.0	460.20
300.0	435.95	305.0	391.97	310.0	327.57
315.0	245.76	320.0	163.61	325.0	153.30
330.0	261.59	335.0	420.38	340.0	597.63
345.0	780.48	350.0	959.82	355.0	1127.85

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 10.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1240.03	5.0	1362.25	10.0	1459.45
15.0	1529.99	20.0	1573.69	25.0	1591.48
30.0	1584.93	35.0	1555.82	40.0	1505.90
45.0	1436.72	50.0	1349.86	55.0	1247.12
60.0	1130.83	65.0	1004.12	70.0	871.02
75.0	736.46	80.0	606.21	85.0	486.77
90.0	385.22	95.0	308.61	100.0	261.40
105.0	241.07	110.0	238.13	115.0	243.51
120.0	254.63	125.0	274.95	130.0	309.68
135.0	360.80	140.0	425.22	145.0	496.37
150.0	566.46	155.0	627.84	160.0	673.75
165.0	698.88	170.0	699.79	175.0	675.23
180.0	626.22	185.0	556.03	190.0	469.79
195.0	374.03	200.0	276.01	205.0	183.13
210.0	102.98	215.0	48.33	220.0	49.11
225.0	74.16	230.0	92.75	235.0	106.14
240.0	121.93	245.0	146.51	250.0	181.06
255.0	222.65	260.0	267.36	265.0	311.81
270.0	353.31	275.0	389.61	280.0	418.61
285.0	438.07	290.0	445.56	295.0	438.53
300.0	414.62	305.0	372.07	310.0	310.73
315.0	234.64	320.0	163.57	325.0	165.14
330.0	269.78	335.0	420.61	340.0	589.44
345.0	763.92	350.0	935.28	355.0	1096.07

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 15.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1179.62	5.0	1294.02	10.0	1385.59
15.0	1452.69	20.0	1495.01	25.0	1513.23
30.0	1508.66	35.0	1482.85	40.0	1437.38
45.0	1373.75	50.0	1293.50	55.0	1198.41
60.0	1090.73	65.0	973.39	70.0	850.03
75.0	725.05	80.0	603.44	85.0	490.65
90.0	392.35	95.0	314.04	100.0	259.77
105.0	229.85	110.0	219.58	115.0	222.79
120.0	236.70	125.0	262.58	130.0	302.48
135.0	355.96	140.0	419.36	145.0	486.89
150.0	551.97	155.0	608.08	160.0	649.45
165.0	671.51	170.0	671.31	175.0	647.81
180.0	602.03	185.0	536.92	190.0	457.13
195.0	368.51	200.0	277.53	205.0	190.61
210.0	113.68	215.0	52.78	220.0	26.25
225.0	45.43	230.0	64.65	235.0	80.02
240.0	98.36	245.0	124.94	250.0	160.08
255.0	200.97	260.0	244.20	265.0	286.78
270.0	326.26	275.0	360.53	280.0	387.58
285.0	405.32	290.0	411.58	295.0	404.16
300.0	381.11	305.0	341.28	310.0	285.37
315.0	219.25	320.0	166.11	325.0	182.89
330.0	281.71	335.0	420.37	340.0	576.03
345.0	737.34	350.0	896.12	355.0	1045.48

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 20.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1100.58	5.0	1204.72	10.0	1288.79
15.0	1351.18	20.0	1391.42	25.0	1409.95
30.0	1407.75	35.0	1386.11	40.0	1346.41
45.0	1290.06	50.0	1218.53	55.0	1133.56
60.0	1037.26	65.0	932.29	70.0	821.90
75.0	709.86	80.0	600.38	85.0	497.87
90.0	406.76	95.0	331.16	100.0	274.34
105.0	237.86	110.0	220.86	115.0	220.79
120.0	235.50	125.0	264.03	130.0	305.46
135.0	357.57	140.0	416.57	145.0	477.55
150.0	535.11	155.0	583.95	160.0	619.28
165.0	637.37	170.0	635.81	175.0	613.81
180.0	572.33	185.0	513.98	190.0	442.80
195.0	363.88	200.0	282.81	205.0	205.17
210.0	135.95	215.0	79.30	220.0	39.13
225.0	23.92	230.0	32.76	235.0	47.74
240.0	68.56	245.0	97.25	250.0	132.72
255.0	172.37	260.0	213.41	265.0	253.37
270.0	290.11	275.0	321.69	280.0	346.28
285.0	362.02	290.0	367.05	295.0	359.61
300.0	338.34	305.0	302.88	310.0	255.21
315.0	203.55	320.0	172.99	325.0	203.65
330.0	294.88	335.0	418.56	340.0	557.55
345.0	702.01	350.0	844.60	355.0	979.18

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 25.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1007.46	5.0	1099.56	10.0	1174.64
15.0	1231.21	20.0	1268.66	25.0	1287.18
30.0	1287.46	35.0	1270.49	40.0	1237.45
45.0	1189.61	50.0	1128.35	55.0	1055.31
60.0	972.43	65.0	882.08	70.0	787.05
75.0	690.54	80.0	595.99	85.0	506.96
90.0	426.90	95.0	358.98	100.0	305.77
105.0	269.01	110.0	249.32	115.0	246.21
120.0	258.44	125.0	284.30	130.0	321.58
135.0	367.40	140.0	418.14	145.0	469.65
150.0	517.54	155.0	557.51	160.0	585.77
165.0	599.34	170.0	596.33	175.0	576.21
180.0	539.82	185.0	489.39	190.0	428.32
195.0	360.85	200.0	291.64	205.0	225.30
210.0	165.92	215.0	116.43	220.0	78.05
225.0	49.69	230.0	28.95	235.0	20.85
240.0	37.75	245.0	66.98	250.0	101.64
255.0	139.03	260.0	177.00	265.0	213.57
270.0	246.90	275.0	275.31	280.0	297.16
285.0	310.90	290.0	315.04	295.0	308.34
300.0	290.16	305.0	261.11	310.0	224.71
315.0	191.36	320.0	183.77	325.0	223.98
330.0	306.31	335.0	413.63	340.0	533.94
345.0	659.25	350.0	783.32	355.0	900.87

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 30.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	905.04	5.0	984.06	10.0	1049.21
15.0	1099.10	20.0	1133.09	25.0	1151.16
30.0	1153.73	35.0	1141.54	40.0	1115.55
45.0	1076.86	50.0	1026.73	55.0	966.62
60.0	898.28	65.0	823.76	70.0	745.39
75.0	665.81	80.0	587.79	85.0	514.15
90.0	447.58	95.0	390.53	100.0	345.01
105.0	312.48	110.0	293.74	115.0	288.82
120.0	297.00	125.0	316.82	130.0	346.17
135.0	382.37	140.0	422.30	145.0	462.53
150.0	499.52	155.0	529.90	160.0	550.70
165.0	559.62	170.0	555.27	175.0	537.27
180.0	506.35	185.0	464.33	190.0	413.91
195.0	358.42	200.0	301.53	205.0	246.75
210.0	197.04	215.0	154.23	220.0	118.66
225.0	89.07	230.0	63.36	235.0	40.77
240.0	28.87	245.0	43.19	250.0	71.88
255.0	104.67	260.0	138.18	265.0	170.42
270.0	199.72	275.0	224.59	280.0	243.65
285.0	255.65	290.0	259.54	295.0	254.67
300.0	241.15	305.0	220.72	310.0	198.31
315.0	184.74	320.0	195.89	325.0	240.51
330.0	313.12	335.0	403.90	340.0	504.98
345.0	610.30	350.0	714.85	355.0	814.32

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 35.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	797.92	5.0	863.61	10.0	918.43
15.0	961.16	20.0	991.16	25.0	1008.28
30.0	1012.75	35.0	1005.07	40.0	986.00
45.0	956.46	50.0	917.52	55.0	870.46
60.0	816.78	65.0	758.16	70.0	696.52
75.0	633.95	80.0	572.62	85.0	514.68
90.0	462.19	95.0	416.96	100.0	380.50
105.0	353.88	110.0	337.71	115.0	332.06
120.0	336.43	125.0	349.74	130.0	370.38
135.0	396.25	140.0	424.91	145.0	453.69
150.0	479.89	155.0	500.95	160.0	514.65
165.0	519.27	170.0	513.81	175.0	498.03
180.0	472.52	185.0	438.63	190.0	398.38
195.0	354.25	200.0	308.84	205.0	264.63
210.0	223.58	215.0	186.81	220.0	154.45
225.0	125.79	230.0	99.76	235.0	75.83
240.0	55.62	245.0	45.88	250.0	54.53
255.0	76.10	260.0	102.15	265.0	128.52
270.0	152.98	275.0	173.98	280.0	190.30
285.0	201.01	290.0	205.49	295.0	203.67
300.0	196.47	305.0	186.50	310.0	179.19
315.0	183.01	320.0	206.08	325.0	250.64
330.0	313.06	335.0	387.99	340.0	470.50
345.0	556.31	350.0	641.64	355.0	723.14

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 40.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	690.22	5.0	743.08	10.0	787.75
15.0	823.23	20.0	848.94	25.0	864.65
30.0	870.47	35.0	866.72	40.0	853.98
45.0	832.95	50.0	804.53	55.0	769.77
60.0	729.86	65.0	686.16	70.0	640.16
75.0	593.46	80.0	547.66	85.0	504.36
90.0	465.05	95.0	431.01	100.0	403.30
105.0	382.66	110.0	369.49	115.0	363.80
120.0	365.23	125.0	373.02	130.0	385.99
135.0	402.66	140.0	421.27	145.0	439.89
150.0	456.58	155.0	469.51	160.0	477.10
165.0	478.14	170.0	471.94	175.0	458.33
180.0	437.74	185.0	411.13	190.0	379.87
195.0	345.64	200.0	310.18	205.0	275.09
210.0	241.62	215.0	210.48	220.0	181.83
225.0	155.39	230.0	130.72	235.0	107.62
240.0	86.66	245.0	69.92	250.0	61.48
255.0	64.79	260.0	77.69	265.0	95.06
270.0	113.09	275.0	129.55	280.0	143.10
285.0	152.94	290.0	158.81	295.0	161.13
300.0	161.33	305.0	162.20	310.0	168.00
315.0	183.46	320.0	211.68	325.0	252.85
330.0	304.99	335.0	365.28	340.0	430.75
345.0	498.54	350.0	565.96	355.0	630.58

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 45.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	585.51	5.0	626.63	10.0	661.83
15.0	690.35	20.0	711.70	25.0	725.65
30.0	732.21	35.0	731.59	40.0	724.20
45.0	710.56	50.0	691.36	55.0	667.40
60.0	639.60	65.0	608.98	70.0	576.65
75.0	543.74	80.0	511.41	85.0	480.77
90.0	452.84	95.0	428.50	100.0	408.45
105.0	393.16	110.0	382.88	115.0	377.60
120.0	377.05	125.0	380.69	130.0	387.74
135.0	397.17	140.0	407.82	145.0	418.37
150.0	427.53	155.0	434.08	160.0	436.95
165.0	435.36	170.0	428.83	175.0	417.26
180.0	400.92	185.0	380.41	190.0	356.61
195.0	330.56	200.0	303.33	205.0	275.92
210.0	249.09	215.0	223.32	220.0	198.81
225.0	175.55	230.0	153.43	235.0	132.48
240.0	113.00	245.0	95.82	250.0	82.43
255.0	74.79	260.0	74.14	265.0	79.66
270.0	88.92	275.0	99.47	280.0	109.65
285.0	118.56	290.0	126.02	295.0	132.56
300.0	139.46	305.0	148.70	310.0	162.58
315.0	183.08	320.0	211.22	325.0	246.85
330.0	289.00	335.0	336.15	340.0	386.57
345.0	438.45	350.0	490.00	355.0	539.53

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 50.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	486.71	5.0	517.57	10.0	544.36
15.0	566.51	20.0	583.66	25.0	595.61
30.0	602.32	35.0	603.93	40.0	600.68
45.0	592.97	50.0	581.26	55.0	566.14
60.0	548.27	65.0	528.36	70.0	507.16
75.0	485.48	80.0	464.07	85.0	443.68
90.0	424.96	95.0	408.48	100.0	394.68
105.0	383.86	110.0	376.16	115.0	371.56
120.0	369.87	125.0	370.74	130.0	373.65
135.0	377.96	140.0	382.92	145.0	387.71
150.0	391.52	155.0	393.58	160.0	393.24
165.0	390.00	170.0	383.57	175.0	373.88
180.0	361.07	185.0	345.49	190.0	327.64
195.0	308.13	200.0	287.57	205.0	266.55
210.0	245.54	215.0	224.87	220.0	204.75
225.0	185.28	230.0	166.53	235.0	148.63
240.0	131.80	245.0	116.48	250.0	103.32
255.0	93.13	260.0	86.69	265.0	84.37
270.0	85.80	275.0	90.07	280.0	96.13
285.0	103.23	290.0	111.08	295.0	119.88
300.0	130.26	305.0	143.11	310.0	159.37
315.0	179.71	320.0	204.45	325.0	233.45
330.0	266.19	335.0	301.85	340.0	339.42
345.0	377.81	350.0	415.87	355.0	452.51

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 55.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	396.04	5.0	418.33	10.0	437.95
15.0	454.53	20.0	467.82	25.0	477.65
30.0	483.99	35.0	486.90	40.0	486.54
45.0	483.15	50.0	477.04	55.0	468.61
60.0	458.26	65.0	446.49	70.0	433.77
75.0	420.60	80.0	407.48	85.0	394.84
90.0	383.12	95.0	372.64	100.0	363.67
105.0	356.39	110.0	350.87	115.0	347.10
120.0	344.96	125.0	344.22	130.0	344.57
135.0	345.64	140.0	346.97	145.0	348.09
150.0	348.54	155.0	347.85	160.0	345.67
165.0	341.69	170.0	335.75	175.0	327.80
180.0	317.89	185.0	306.22	190.0	293.05
195.0	278.70	200.0	263.50	205.0	247.79
210.0	231.86	215.0	215.93	220.0	200.17
225.0	184.75	230.0	169.77	235.0	155.40
240.0	141.83	245.0	129.32	250.0	118.23
255.0	108.94	260.0	101.87	265.0	97.29
270.0	95.33	275.0	95.88	280.0	98.67
285.0	103.41	290.0	109.92	295.0	118.15
300.0	128.27	305.0	140.51	310.0	155.12
315.0	172.27	320.0	191.99	325.0	214.13
330.0	238.37	335.0	264.24	340.0	291.16
345.0	318.48	350.0	345.52	355.0	371.58

Call: KLO.NX
Freq: 1430 kHz
OGDEN, UT, US
Hours: N
Lat: 41-02-48.50 N
Lng: 112-01-37.20 W
Power: 5.0 kW
Theo RMS: 735.04 mV/m @ 1km @ 5.0 kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	146.7	0	0	0.0	0.0	0.0	0.0
2	0.865	91.2	85.1	240.7	183.1	0	0	0.0	0.0	0.0	0.0
3	0.832	65.2	235.7	271.0	151.8	0	0	0.0	0.0	0.0	0.0
4	0.559	23.9	218.3	310.4	149.2	0	0	0.0	0.0	0.0	0.0

Standard Pattern
Calculated at 60.0 Degrees Elevation

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	314.95	5.0	330.33	10.0	344.09
15.0	355.98	20.0	365.84	25.0	373.56
30.0	379.10	35.0	382.50	40.0	383.82
45.0	383.22	50.0	380.88	55.0	377.03
60.0	371.92	65.0	365.83	70.0	359.05
75.0	351.88	80.0	344.60	85.0	337.46
90.0	330.71	95.0	324.53	100.0	319.08
105.0	314.46	110.0	310.71	115.0	307.81
120.0	305.69	125.0	304.24	130.0	303.28
135.0	302.59	140.0	301.95	145.0	301.09
150.0	299.77	155.0	297.74	160.0	294.81
165.0	290.83	170.0	285.70	175.0	279.37
180.0	271.90	185.0	263.34	190.0	253.85
195.0	243.56	200.0	232.67	205.0	221.35
210.0	209.78	215.0	198.09	220.0	186.45
225.0	174.96	230.0	163.77	235.0	153.00
240.0	142.82	245.0	133.40	250.0	124.95
255.0	117.69	260.0	111.85	265.0	107.60
270.0	105.10	275.0	104.39	280.0	105.49
285.0	108.35	290.0	112.91	295.0	119.13
300.0	127.00	305.0	136.52	310.0	147.69
315.0	160.48	320.0	174.83	325.0	190.57
330.0	207.48	335.0	225.29	340.0	243.66
345.0	262.20	350.0	280.53	355.0	298.23

Exhibit A - Modeled Impedance Matrix

The antenna array open circuit impedance measurements were performed on February 28, 2010. All measurements were taken at the base of the respected array elements with all feed, sample, and tower lighting cables removed. Local stations KSL(AM) and KANN(AM) operated at reduced power in order to minimize interference. The weather was clear and dry with an approximate temperature of 35 degrees Fahrenheit. Measurements were acquired using a Delta Electronics OIB-3 impedance bridge serial number 342. The computer model was developed using Expert MININEC Broadcast Professional; Version 14.5; Copyright 2008 - EM Scientific Inc.

Calibrated Impedance Model

Tower	$Z_{base\ OC}$ (Measured @ base)	Z_{shunt} (10 pf base assumed)	Z_{series} (assumed)	Z_{series} (assumed, µH)	Z_{base} (modeled)
1	834+j28.6	825+j91	+j23	2.6	826+j68
2	116-j375	124-j387	+j31	3.5	124-j418
3	650+j0	648+j38	+j21	2.3	650+j17
4	693-j34	695+j9.8	+j6.1	0.68	695+j3.7

Tower Heights

Tower	Tower Height (degrees)	Model Height (degrees)	Vp assumed	Modeled tower height
1	146.7	153.9	95.3%	104.9%
2	183.1	196.2	93.3%	107.2%
3	151.8	155.0	97.9%	102.1%
4	149.2	156.0	95.6%	104.6%

Tower Diameters

Tower	Tower Face & Size	Model wire diameter	Modeled wire diameter
1	triangle, 18"	0.1900	87.0%
2	triangle, 18"	0.2360	108.1%
3	triangle, 18"	0.2250	103.1%
4	triangle, 18"	0.2220	101.7%

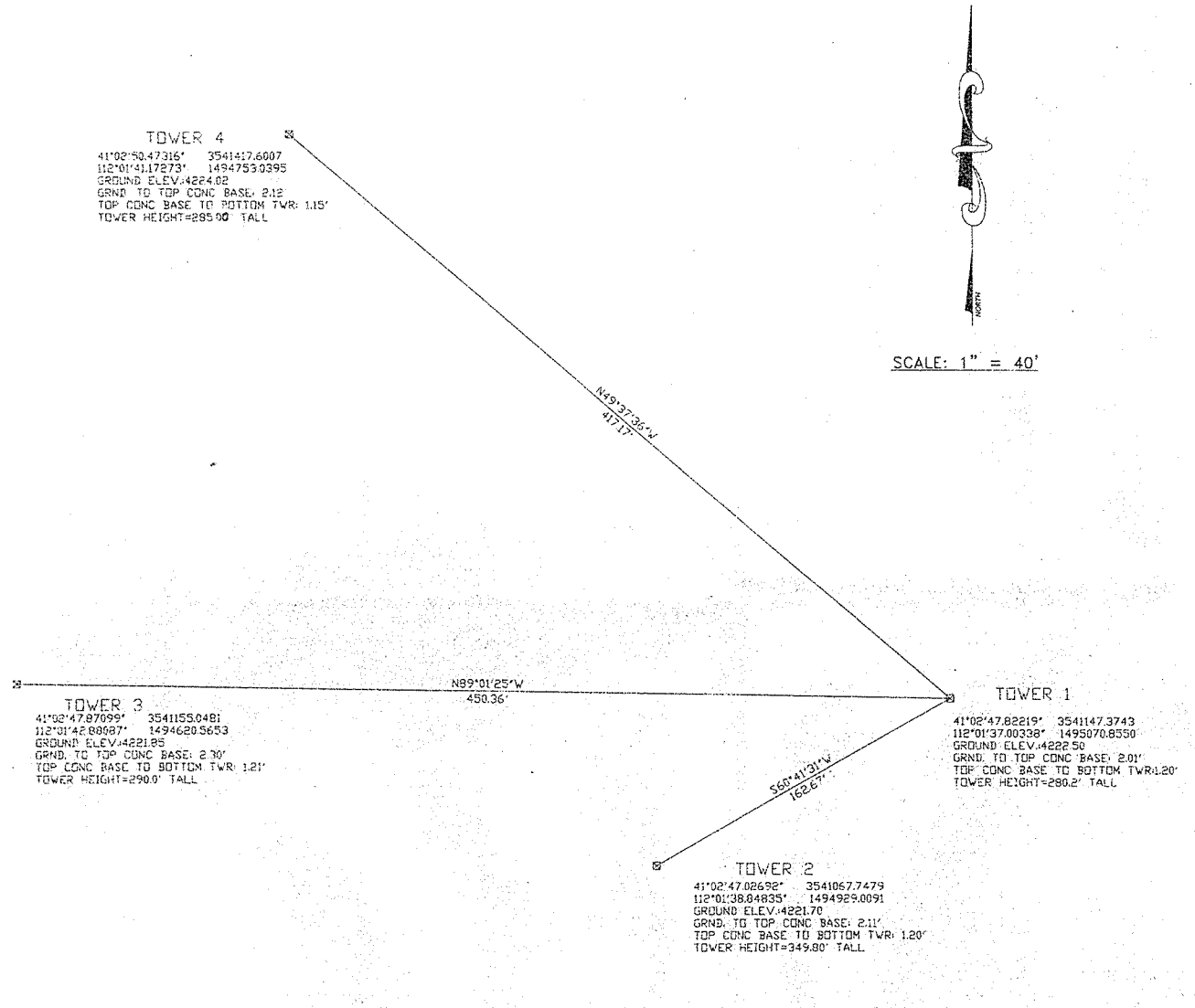
Exhibit B - Towers and Land Survey

Towers are guyed steel structures of uniform cross section. A land survey was completed December 28, 2009 identified variances between the actual tower locations and those specified on both the license and construction permit. The measured dimensions and variances are summarized below. The concurrently filed application for modification of construction permit addresses these variances.

BMP-20071121ACX			
Tower	Spacing	Orientation	Height
1	0.0000	0.0000	148.5
2	78.4000	240.4000	186.4
3	235.5000	270.7000	150.7
4	218.3000	310.1000	152.6

Survey Results 28Dec09			
Tower	Overall height of radiator above base insulator (meters)	Overall height above ground, without lighting (meters)	Overall height above ground, with lighting (meters)
1	85.4	86.4	86.4
2	106.6	107.6	108.5
3	88.4	89.5	89.5
4	86.9	87.9	88.7

Survey Results 28Dec09									
Tower	Spacing (feet)	Spacing (degrees)	Spacing Error (degrees)	Orientation (degrees)	Orientation (degrees)	Orientation Error (degrees)	Height radiator (feet)	Height radiator (degrees)	Height Error (degrees)
1	0.0000	*0.0000*	*0.0000*	0.0000	*0.0000*	*0.00*	280.20	*146.66*	*-1.84*
2	162.67	*85.1420*	*6.7420*	S60d41'31"W	*240.6919*	*0.29*	349.80	*183.09*	*-3.31*
3	450.36	*235.7198*	*0.2198*	N89d01'25"W	*270.9764*	*0.28*	290.00	*151.79*	*1.09*
4	417.17	*218.3481*	*0.0481*	N49d37'36"W	*310.3734*	*0.27*	285.05	*149.20*	*-3.40*



SCALE: 1" = 40'

3200 WEST STREET

SURVEYOR'S CERTIFICATE

I, DALLAS K. BUTTARS, HOLDING LICENSE NUMBER 167594 IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THE PLAT IN ACCORDANCE WITH SECTION 17-23-17 AND HAVE VERIFIED ALL MEASUREMENTS AND PLACED MONUMENTS AS REPRESENTED ON THE PLAT

SIGNED THIS 06 DAY OF January 2010

PROFESSIONAL LAND SURVEYOR DALLAS K. BUTTARS 167594 STATE OF UTAH

Dallas K. Buttars

NOTES

COORDINATES ARE NAD 83
ELEVATIONS ARE NAVD 29
12-21-09: TEMP. 29° F FOG VISIBILITY: 1/2 MILE

NARRATIVE

THE PURPOSE OF THIS SURVEY WAS TO DETERMINE THE NORTH AMERICA DATUM 1983 COORDINATES FOR THE K. L. D RADIO TOWERS LOCATED IN SOUTH WEST LAYTON, UTAH AS SHOWN. THIS IS NOT A BOUNDARY SURVEY AND NO SURVEY MONUMENTS WERE SET.

LANDMARK SURVEYING, INC.
A COMPLETE LAND SURVEYING SERVICE
4646 S. 3500 W. #-3; WEST HAVEN, UTAH 84401
PHONE 801-731-4075

CLIENT: JOHN WEBB

LOCATION: 3200 WEST GENTILE
LAYTON, UTAH

SURVEYED: 12-21-09

REVISIONS:		DRAWN BY: D.B.
AAAA		CHECKED BY: D.B.
		DATE: 12-28-09
		FILE: 3130

Exhibit C - Pattern Array Synthesis

Day Pattern Field Ratios

MEDIUM WAVE ARRAY SYNTHESIS FROM FIELD RATIOS

Frequency = 1430 KHz

tower	field ratio magnitude	phase (deg)
1	.344	18.9
2	1.	0
3	1.	70.7
4	.1872	200.8

VOLTAGES AND CURRENTS - rms

source node	voltage magnitude	phase (deg)	current magnitude	phase (deg)
1	765.466	57.8	3.4134	51.2
21	3,151.3	64.5	8.44941	120.
41	3,168.06	150.7	2.3312	125.2
61	1,048.59	277.2	1.65415	344.5

Sum of square of source currents = 182.429
Total power = 25,000. watts

Day Pattern Array Synthesis

CURRENT rms
Frequency = 1430 KHz
Input power = 25,000. watts
Efficiency = 100. %
coordinates in degrees

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	3.41341	51.2	2.13958	2.65961
2	0	0	7.695	3.51226	41.8	2.61803	2.34134
3	0	0	15.39	3.59521	35.8	2.9147	2.10477
4	0	0	23.085	3.65732	31.	3.13436	1.88463
5	0	0	30.78	3.69142	27.	3.29005	1.67398
6	0	0	38.475	3.6928	23.5	3.38707	1.47125
7	0	0	46.17	3.65851	20.4	3.42853	1.27667
8	0	0	53.865	3.58704	17.7	3.41704	1.0912
9	0	0	61.56	3.4781	15.3	3.3553	.916035
10	0	0	69.255	3.3324	13.1	3.24633	.752482
11	0	0	76.95	3.15154	11.	3.09354	.601808
12	0	0	84.645	2.93775	9.1	2.90069	.465203
13	0	0	92.34	2.6939	7.3	2.67188	.343729
14	0	0	100.035	2.42324	5.6	2.4115	.238295
15	0	0	107.73	2.12932	4.	2.12406	.149646
16	0	0	115.425	1.81582	2.5	1.81412	.0783545
17	0	0	123.12	1.48626	1.	1.48606	.0248373
18	0	0	130.815	1.14374	359.5	1.14369	-.0106102

19	0	0	138.51	.789942	358.	.789456	-.0277033
20	0	0	146.205	.422682	356.5	.421892	-.025837
END	0	0	153.9	0	0	0	0
GND	-41.679	74.2407	0	8.44942	120.	-4.22726	7.31594
22	-41.679	74.2407	9.81	6.1245	103.6	-1.43555	5.95389
23	-41.679	74.2407	19.62	4.92682	82.9	.612269	4.88862
24	-41.679	74.2407	29.43	4.5796	57.5	2.46091	3.8622
25	-41.679	74.2407	39.24	5.03929	34.6	4.14956	2.85931
26	-41.679	74.2407	49.05	5.97759	18.4	5.67172	1.88761
27	-41.679	74.2407	58.86	7.07286	7.8	7.00706	.962528
28	-41.679	74.2407	68.67	8.13258	.7	8.13194	.101957
29	-41.679	74.2407	78.48	9.04924	355.7	9.02395	-.676017
30	-41.679	74.2407	88.29	9.75869	352.	9.66424	-1.35445
31	-41.679	74.2407	98.1	10.2205	349.2	10.0389	-1.91842
32	-41.679	74.2407	107.91	10.4099	346.9	10.1399	-2.35565
33	-41.679	74.2407	117.72	10.3137	345.1	9.96553	-2.657
34	-41.679	74.2407	127.53	9.92847	343.5	9.52055	-2.81667
35	-41.679	74.2407	137.34	9.2598	342.2	8.81599	-2.83236
36	-41.679	74.2407	147.15	8.32062	341.	7.86861	-2.70511
37	-41.679	74.2407	156.96	7.12978	340.	6.69962	-2.43901
38	-41.679	74.2407	166.77	5.70977	339.1	5.33281	-2.04027
39	-41.679	74.2407	176.58	4.08123	338.2	3.78955	-1.51517
40	-41.679	74.2407	186.39	2.24809	337.4	2.07547	-.863893
END	-41.679	74.2407	196.2	0	0	0	0
GND	4.03169	235.686	0	2.33121	125.2	-1.34289	1.90557
42	4.03169	235.686	7.75	4.13342	91.1	-.0823482	4.1326
43	4.03169	235.686	15.5	5.65336	82.2	.768809	5.60084
44	4.03169	235.686	23.25	6.97451	77.6	1.49283	6.81288
45	4.03169	235.686	31.	8.1033	74.8	2.11886	7.82138
46	4.03169	235.686	38.75	9.0403	72.9	2.65485	8.64169
47	4.03169	235.686	46.5	9.78169	71.5	3.10177	9.27688
48	4.03169	235.686	54.25	10.323	70.4	3.45829	9.72646
49	4.03169	235.686	62.	10.6604	69.6	3.72265	9.98929
50	4.03169	235.686	69.75	10.792	68.9	3.89348	10.0652
51	4.03169	235.686	77.5	10.7181	68.3	3.97023	9.95564
52	4.03169	235.686	85.25	10.4416	67.8	3.95337	9.66424
53	4.03169	235.686	93.	9.96786	67.3	3.84452	9.19663
54	4.03169	235.686	100.75	9.30496	66.9	3.64641	8.56073
55	4.03169	235.686	108.5	8.4631	66.6	3.36285	7.76629
56	4.03169	235.686	116.25	7.45403	66.3	2.99848	6.82435
57	4.03169	235.686	124.	6.29061	66.	2.55841	5.74685
58	4.03169	235.686	131.75	4.98457	65.7	2.04748	4.54464
59	4.03169	235.686	139.5	3.54246	65.5	1.46842	3.22378
60	4.03169	235.686	147.25	1.95315	65.3	.816545	1.77427
END	4.03169	235.686	155.	0	0	0	0
GND	141.43	166.356	0	1.65415	344.5	1.59404	-.44184
62	141.43	166.356	7.8	.924196	323.8	.745849	-.545755
63	141.43	166.356	15.6	.629936	284.9	.162	-.608749
64	141.43	166.356	23.4	.739913	242.2	-.344557	-.654791
65	141.43	166.356	31.2	1.04877	220.9	-.792716	-.686668
66	141.43	166.356	39.	1.38084	210.7	-1.18701	-.705482
67	141.43	166.356	46.8	1.68493	205.	-1.52717	-.711872
68	141.43	166.356	54.6	1.94415	201.3	-1.81128	-.706391
69	141.43	166.356	62.4	2.15065	198.7	-2.03707	-.689666
70	141.43	166.356	70.2	2.29992	196.7	-2.20245	-.662446
71	141.43	166.356	78.	2.38924	195.2	-2.30587	-.625629

72	141.43	166.356	85.8	2.41716	193.9	-2.34648	-.580269
73	141.43	166.356	93.6	2.38332	192.8	-2.3242	-.527556
74	141.43	166.356	101.4	2.28831	191.8	-2.23977	-.468809
75	141.43	166.356	109.2	2.13362	191.	-2.09475	-.405441
76	141.43	166.356	117.	1.92146	190.2	-1.89133	-.338932
77	141.43	166.356	124.8	1.65448	189.4	-1.63217	-.270771
78	141.43	166.356	132.6	1.33526	188.7	-1.31984	-.202397
79	141.43	166.356	140.4	.965143	188.	-.955647	-.135054
80	141.43	166.356	148.2	.540546	187.4	-.53607	-.0694256
END	141.43	166.356	156.	0	0	0	0

Night Pattern Field Ratios

MEDIUM WAVE ARRAY SYNTHESIS FROM FIELD RATIOS

Frequency = 1430 KHz

tower	field ratio magnitude	phase (deg)
1	1.	0
2	.865	91.2
3	.832	65.2
4	.559	23.9

VOLTAGES AND CURRENTS - rms

source node	voltage magnitude	phase (deg)	current magnitude	phase (deg)
1	1,651.26	73.1	1.99822	55.6
21	967.234	182.	.633494	284.1
41	1,201.24	144.6	1.38759	99.3
61	615.656	91.8	1.73942	51.

Sum of square of source currents = 18.6904
Total power = 5,000. watts

Night Pattern Array Synthesis

CURRENT rms
Frequency = 1430 KHz
Input power = 5,000. watts
Efficiency = 100. %
coordinates in degrees

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	1.99811	55.6	1.12829	1.64905
2	0	0	7.695	2.64996	28.8	2.32144	1.27797
3	0	0	15.39	3.28071	17.9	3.12159	1.0093
4	0	0	23.085	3.85899	11.5	3.78208	.766576
5	0	0	30.78	4.36476	7.1	4.33097	.542057
6	0	0	38.475	4.78793	4.	4.77623	.334392
7	0	0	46.17	5.12157	1.6	5.11953	.144377
8	0	0	53.865	5.36067	359.7	5.3606	-.0264195
9	0	0	61.56	5.5018	358.2	5.49898	-.176216
10	0	0	69.255	5.54303	356.9	5.53472	-.303298
11	0	0	76.95	5.4839	355.8	5.46884	-.406171
12	0	0	84.645	5.32546	354.8	5.30345	-.483666
13	0	0	92.34	5.07017	353.9	5.04186	-.534988
14	0	0	100.035	4.72183	353.2	4.68854	-.559755
15	0	0	107.73	4.28544	352.5	4.24895	-.557987
16	0	0	115.425	3.76687	351.9	3.72938	-.530091
17	0	0	123.12	3.17248	351.4	3.13645	-.476775
18	0	0	130.815	2.50821	350.8	2.47629	-.39889
19	0	0	138.51	1.77747	350.4	1.75248	-.297022
20	0	0	146.205	.974983	349.9	.959997	-.170289
END	0	0	153.9	0	0	0	0
GND	-41.679	74.2407	0	.633468	284.1	.154005	-.614462

22	-41.679	74.2407	9.81	.354906	70.5	.118349	.334592
23	-41.679	74.2407	19.62	1.0346	85.2	.0867254	1.03096
24	-41.679	74.2407	29.43	1.66015	88.2	.0533642	1.65929
25	-41.679	74.2407	39.24	2.23225	89.5	.0188419	2.23217
26	-41.679	74.2407	49.05	2.7465	90.3	-.0155224	2.74646
27	-41.679	74.2407	58.86	3.19455	90.9	-.0481925	3.19419
28	-41.679	74.2407	68.67	3.56709	91.2	-.0776773	3.56625
29	-41.679	74.2407	78.48	3.85537	91.5	-.102689	3.854
30	-41.679	74.2407	88.29	4.05193	91.7	-.122245	4.05009
31	-41.679	74.2407	98.1	4.15123	91.9	-.135724	4.14901
32	-41.679	74.2407	107.91	4.14986	92.	-.142881	4.1474
33	-41.679	74.2407	117.72	4.04681	92.	-.143835	4.04426
34	-41.679	74.2407	127.53	3.84348	92.1	-.139013	3.84096
35	-41.679	74.2407	137.34	3.54358	92.1	-.12908	3.54122
36	-41.679	74.2407	147.15	3.15292	92.1	-.114835	3.15083
37	-41.679	74.2407	156.96	2.67895	92.1	-.0971042	2.67719
38	-41.679	74.2407	166.77	2.12995	92.1	-.0766414	2.12857
39	-41.679	74.2407	176.58	1.51309	92.	-.0540072	1.51212
40	-41.679	74.2407	186.39	.829088	92.	-.0293732	.828568
END	-41.679	74.2407	196.2	0	0	0	0
GND	4.03169	235.686	0	1.38757	99.2	-.222965	1.36954
42	4.03169	235.686	7.75	2.18298	81.	.340798	2.15622
43	4.03169	235.686	15.5	2.76309	74.9	.718564	2.66802
44	4.03169	235.686	23.25	3.25298	71.4	1.03687	3.0833
45	4.03169	235.686	31.	3.66282	69.1	1.30885	3.42099
46	4.03169	235.686	38.75	3.99481	67.4	1.53815	3.68682
47	4.03169	235.686	46.5	4.24841	66.	1.72527	3.88232
48	4.03169	235.686	54.25	4.42249	65.	1.86977	4.00779
49	4.03169	235.686	62.	4.51615	64.1	1.97098	4.06335
50	4.03169	235.686	69.75	4.52918	63.4	2.02843	4.04957
51	4.03169	235.686	77.5	4.46224	62.8	2.04205	3.96757
52	4.03169	235.686	85.25	4.31696	62.2	2.01224	3.81929
53	4.03169	235.686	93.	4.09593	61.7	1.93991	3.6074
54	4.03169	235.686	100.75	3.8027	61.3	1.82649	3.33533
55	4.03169	235.686	108.5	3.44165	60.9	1.6739	3.00716
56	4.03169	235.686	116.25	3.01777	60.5	1.48441	2.62744
57	4.03169	235.686	124.	2.53631	60.2	1.26049	2.20092
58	4.03169	235.686	131.75	2.00211	59.9	1.00449	1.73189
59	4.03169	235.686	139.5	1.41781	59.6	.717652	1.22277
60	4.03169	235.686	147.25	.779071	59.3	.39767	.669932
END	4.03169	235.686	155.	0	0	0	0
GND	141.43	166.356	0	1.73965	50.9	1.09665	1.35046
62	141.43	166.356	7.8	2.09251	40.6	1.58946	1.36096
63	141.43	166.356	15.6	2.34097	35.4	1.90818	1.35609
64	141.43	166.356	23.4	2.54497	31.8	2.16392	1.33953
65	141.43	166.356	31.2	2.7077	29.	2.3686	1.31201
66	141.43	166.356	39.	2.82909	26.8	2.52595	1.27409
67	141.43	166.356	46.8	2.90829	24.9	2.63708	1.22637
68	141.43	166.356	54.6	2.94461	23.4	2.70239	1.16954
69	141.43	166.356	62.4	2.93772	22.1	2.72223	1.10439
70	141.43	166.356	70.2	2.88784	20.9	2.69724	1.03175
71	141.43	166.356	78.	2.79579	19.9	2.6285	.952587
72	141.43	166.356	85.8	2.66297	19.	2.51758	.867862
73	141.43	166.356	93.6	2.49134	18.2	2.36654	.778618
74	141.43	166.356	101.4	2.28341	17.5	2.17796	.685902
75	141.43	166.356	109.2	2.0421	16.8	1.95478	.590746

76	141.43	166.356	117.	1.77066	16.2	1.7003	.494155
77	141.43	166.356	124.8	1.47242	15.6	1.41788	.397041
78	141.43	166.356	132.6	1.15045	15.1	1.11061	.300142
79	141.43	166.356	140.4	.80657	14.6	.780393	.203818
80	141.43	166.356	148.2	.43868	14.2	.42532	.107441
END	141.43	166.356	156.	0	0	0	0

Exhibit D - Current Sampling System

The sampling system as constructed is in accordance with the provisions of Section 73.68 of the Commission's Rules.

The detuned current distribution for Tower 1 is minimized with a base load of 0+j277.13 Ohms. This yields a current minimum in the horizontal plane at model segment 8 as shown below. Segment 8 is at a modeled height of 53.865 electrical degrees, which when correct to the actual tower height, is 51.35 electrical degrees, or 98.1 feet. The sample loop for Tower 1 was mounted at 98.1 feet above the base insulator and orientated identically with respect to the tower cross members and the other towers.

```
CURRENT rms
Frequency    = 1.43 MHz
Plane wave zenith (deg)   =  90
Plane wave azimuth (deg)  =  0
Polarization angle (deg)  =  0
coordinates in degrees
```

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	2.57694	271.	.0445343	-2.57656
2	0	0	7.695	2.02337	271.	.0350898	-2.02306
3	0	0	15.39	1.61912	271.	.0284661	-1.61886
4	0	0	23.085	1.25042	271.	.022683	-1.25021
5	0	0	30.78	.905832	271.1	.0175198	-.905662
6	0	0	38.475	.583426	271.3	.0129119	-.583283
7	0	0	46.17	.284565	271.8	8.84E-03	-.284427
8	0	0	53.865	.0128668	294.4	5.31E-03	-.0117181
9	0	0	61.56	.231784	89.4	2.32E-03	.231773
10	0	0	69.255	.442917	90.	-1.29E-04	.442917
11	0	0	76.95	.618766	90.2	-2.06E-03	.618762
12	0	0	84.645	.756676	90.3	-3.47E-03	.756668
13	0	0	92.34	.854423	90.3	-4.41E-03	.854411
14	0	0	100.035	.910215	90.3	-4.9E-03	.910202
15	0	0	107.73	.92276	90.3	-4.99E-03	.922746
16	0	0	115.425	.891179	90.3	-4.73E-03	.891167
17	0	0	123.12	.814916	90.3	-4.16E-03	.814905
18	0	0	130.815	.693448	90.3	-3.37E-03	.69344
19	0	0	138.51	.525537	90.3	-2.39E-03	.525532
20	0	0	146.205	.306992	90.2	-1.29E-03	.306989
END	0	0	153.9	0	0	0	0

The detuned current distribution for Tower 2 is minimized with a base load of 0+j160.00 Ohms. This yields a current minimum in the horizontal plane at model segment 8 as shown below. Segment 8 is at a modeled height of 65.67 electrical degrees which, when corrected to the actual tower height, is 64.09 electrical degrees, or 122.4 feet. The sample loop for Tower 2 was mounted at 122.4 feet above the base insulator and orientated identically with respect to the tower cross members and the other towers.

```
CURRENT rms
Frequency    = 1.43 MHz
Plane wave zenith (deg)  =  90
Plane wave azimuth (deg) =  0
Polarization angle (deg) =  0
coordinates in degrees
```

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	4.40054	271.9	.148902	-4.39802
2	0	0	9.81	3.68353	272.	.126085	-3.68137
3	0	0	19.62	3.09972	272.	.110599	-3.09775
4	0	0	29.43	2.51656	272.2	.0977646	-2.51466
5	0	0	39.24	1.92808	272.6	.0870632	-1.92611
6	0	0	49.05	1.34098	273.3	.0782909	-1.3387
7	0	0	58.86	.766962	275.3	.0713018	-.76364
8	0	0	68.67	.223868	287.1	.0659319	-.213939
9	0	0	78.48	.303318	78.2	.0619713	.29692
10	0	0	88.29	.758103	85.5	.059161	.755791
11	0	0	98.1	1.15185	87.2	.0571954	1.15043
12	0	0	107.91	1.47103	87.8	.0557303	1.46997
13	0	0	117.72	1.70612	88.2	.0543936	1.70525
14	0	0	127.53	1.84986	88.4	.0527971	1.84911
15	0	0	137.34	1.89712	88.5	.0505485	1.89645
16	0	0	147.15	1.84497	88.5	.0472623	1.84436
17	0	0	156.96	1.69239	88.6	.0425666	1.69185
18	0	0	166.77	1.43978	88.6	.0360999	1.43932
19	0	0	176.58	1.0874	88.6	.0274837	1.08705
20	0	0	186.39	.630836	88.5	.0162087	.630628
END	0	0	196.2	0	0	0	0

The detuned current distribution for Tower 3 is minimized with a base load of 0+j263.11 Ohms. This yields a current minimum in the horizontal plane at model segment 8 as shown below. Segment 8 is at a modeled height of 54.25 electrical degrees which, when corrected to the actual tower height, is 53.13 electrical degrees, or 101.5 feet. The sample loop for Tower 3 was mounted

at 101.5 feet above the base insulator and orientated identically with respect to the tower cross members and the other towers.

```
CURRENT rms
Frequency    = 1.43 MHz
Plane wave zenith (deg)   =  90
Plane wave azimuth (deg) =  0
Polarization angle (deg) =  0
coordinates in degrees
current                                  mag       phase  real       imaginary
no.     X          Y          Z          (amps)    (deg)  (amps)     (amps)
GND     0          0          0          2.72265   271.1  .0500955   -2.72219
 2      0          0          7.75       2.1301    271.1  .0393335   -2.12974
 3      0          0          15.5       1.70491   271.1  .0319263   -1.70461
 4      0          0          23.25      1.31747   271.1  .0254736   -1.31722
 5      0          0          31.        .955392   271.2  .0197211   -.955188
 6      0          0          38.75      .616459   271.4  .0145918   -.616287
 7      0          0          46.5       .302063   271.9  .0100662   -.301895
 8      0          0          54.25      .0159944  292.6  6.14E-03   -.0147681
 9      0          0          62.        .24185    89.3   2.82E-03   .241833
 10     0          0          69.75      .46458    90.    9.35E-05   .46458
 11     0          0          77.5       .650322   90.2   -2.05E-03  .650318
 12     0          0          85.25      .796232   90.3   -3.62E-03  .796223
 13     0          0          93.        .899912   90.3   -4.67E-03  .899899
 14     0          0          100.75     .959452   90.3   -5.22E-03  .959438
 15     0          0          108.5      .973439   90.3   -5.33E-03  .973424
 16     0          0          116.25     .940904   90.3   -5.05E-03  .94089
 17     0          0          124.       .861232   90.3   -4.45E-03  .861221
 18     0          0          131.75     .733802   90.3   -3.59E-03  .733793
 19     0          0          139.5      .557233   90.3   -2.54E-03  .557227
 20     0          0          147.25     .326954   90.2   -1.37E-03  .326951
END     0          0          155.       0         0      0          0
```

The detuned current distribution for Tower 4 is minimized with a base load of 0+j261.43 Ohms. This yields a current minimum in the horizontal plane at model segment 8 as shown below. Segment 8 is at a modeled height of 54.60 degrees which, when corrected to the actual tower height, is 52.22 electrical degrees, or 99.8 feet. The sample loop for Tower 4 was mounted at 99.8 feet above the base insulator and orientated identically with respect to the tower cross members and the other towers.

CURRENT rms
Frequency = 1.43 MHz
Plane wave zenith (deg) = 90
Plane wave azimuth (deg) = 0
Polarization angle (deg) = 0
coordinates in degrees

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	2.74715	271.1	.0515793	-2.74666
2	0	0	7.8	2.1532	271.1	.0405761	-2.15282
3	0	0	15.6	1.72523	271.1	.0329801	-1.72492
4	0	0	23.4	1.33456	271.1	.0263585	-1.3343
5	0	0	31.2	.968889	271.2	.0204527	-.968673
6	0	0	39.	.626154	271.4	.0151858	-.62597
7	0	0	46.8	.307894	272.	.0105385	-.307713
8	0	0	54.6	.0180098	291.2	6.51E-03	-.0167924
9	0	0	62.4	.243421	89.3	3.1E-03	.243402
10	0	0	70.2	.469417	90.	3.E-04	.469416
11	0	0	78.	.65799	90.2	-1.9E-03	.657988
12	0	0	85.8	.806208	90.2	-3.52E-03	.806201
13	0	0	93.6	.911585	90.3	-4.59E-03	.911574
14	0	0	101.4	.972158	90.3	-5.16E-03	.972145
15	0	0	109.2	.986463	90.3	-5.27E-03	.986449
16	0	0	117.	.953533	90.3	-5.E-03	.953519
17	0	0	124.8	.872729	90.3	-4.4E-03	.872718
18	0	0	132.6	.743468	90.3	-3.54E-03	.743459
19	0	0	140.4	.564377	90.3	-2.5E-03	.564372
20	0	0	148.2	.330906	90.2	-1.34E-03	.330903
END	0	0	156.	0	0	0	0

Sample Lines

Measurements performed on March 15, 2010 confirmed that the sample lines from each of the sample loops to the antenna monitor matched within one electrical degree of each other and 2 ohms in impedance. Sample lines are direct buried and utilize phase stabilized cable with a solid outer conductor.

Sample Line Length

	Tower 1	Tower 2	Tower 3	Tower 4
Series resonant frequency (MHz)	1.363	1.362	1.362	1.363
Number of multiples of 90 degrees	4	4	4	4
length at carrier frequency (degrees)	377.7	378.0	378.0	377.7
Line phase velocity	86%	86%	86%	86%
Measured length using a TDR (feet)	619.5	619.5	619.5	619.5

Sample Line Impedance

	Tower 1	Tower 2	Tower 3	Tower 4
Impedance + 1/8 λ from series res. Freq.	49.30	49.15	49.26	49.37
Impedance - 1/8 λ from series res. Freq.	48.00	49.06	49.15	48.92
Line impedance (mean of above)	48.65	49.10	49.20	49.14

Operating Parameters Sampling System Summary

Operating parameters were derived from the method of moments analysis and computer model. Current sample loops were positioned at the location on the towers where an analysis of the currents on that tower when detuned would result in a current minimum. This location for each tower was noted and the modeled operating current, at the height of the sample loop, was then normalized against the reference tower to product the following operating parameters.

Sample System Operating Parameters

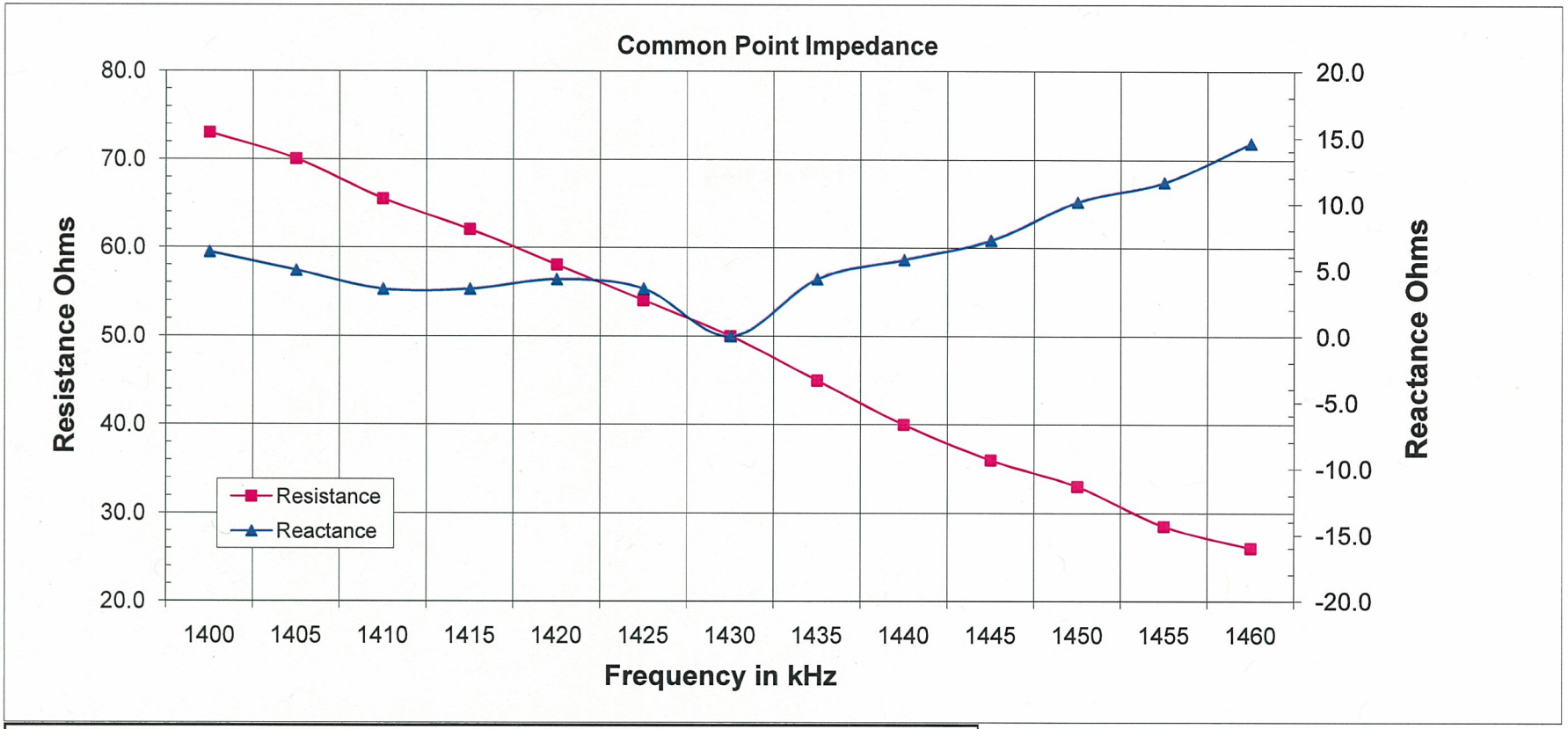
	Tower 1	Tower 2	Tower 3	Tower 4
Daytime	0.441 ∠ 17.0d	1.000 ∠ 0.0d	1.269 ∠ 69.7d	0.239 ∠ -159.4d
Nighttime	1.000 ∠ 0.0d	0.665 ∠ 91.5d	0.825 ∠ 65.3d	0.549 ∠ 23.7d

Common Point Power

	Power	Current	Impedance
Daytime	25 kW	22.9 A	50+j0
Nighttime	5 kW	10.4 A	50+j0

Base Currents

	Tower 1	Tower 2	Tower 3	Tower 4
Daytime	2.7 A	8.4 A	2.2 A	1.7 A
Nighttime	1.8 A	2.2 A	1.2 A	1.4 A

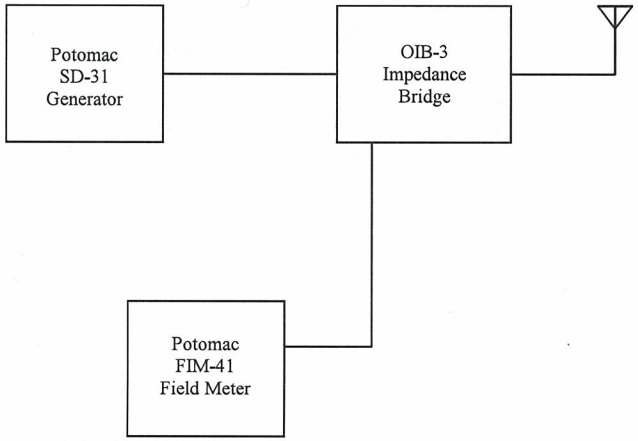


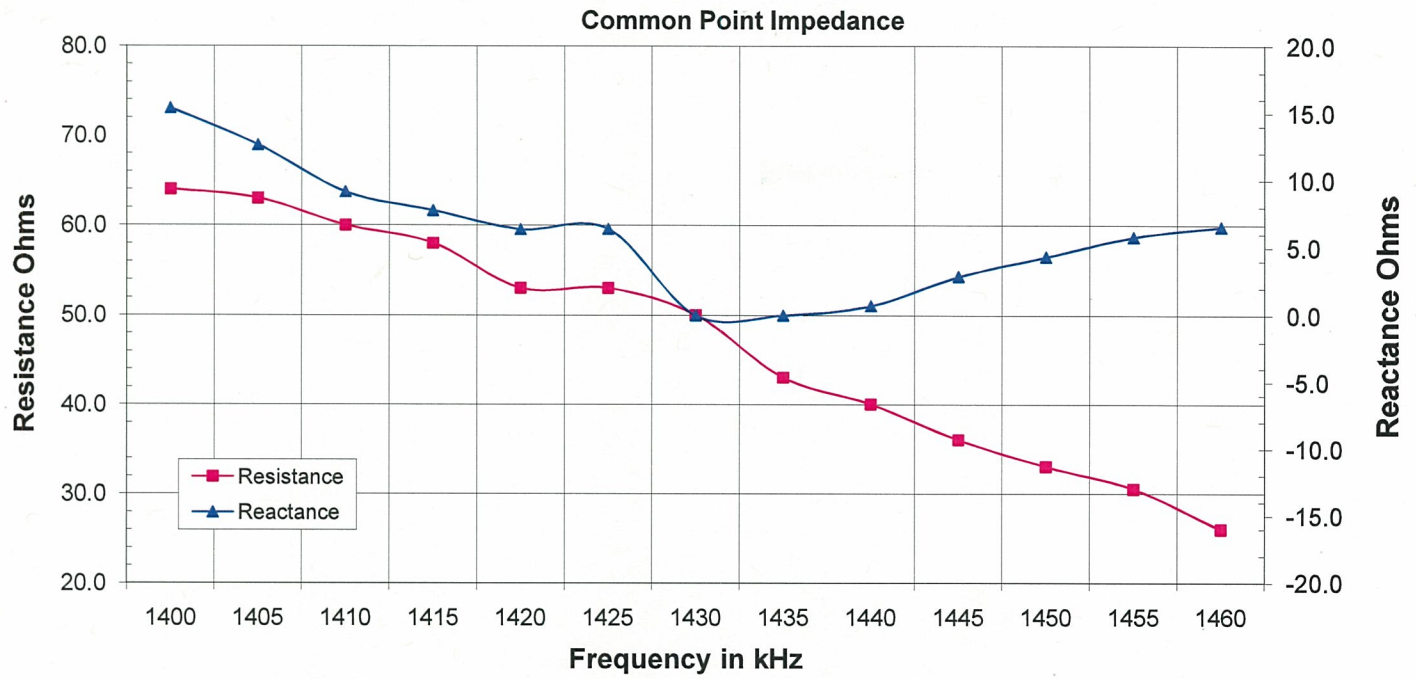
Measured Common Point Impedance Data

Frequency		Reactance	
kHz	Resistance	Corrected	Un-Corrected
1400	73.0	6.3	4.5
1405	70.0	4.9	3.5
1410	65.5	3.5	2.5
1415	62.0	3.5	2.5
1420	58.0	4.3	3.0
1425	54.0	3.6	2.5
1430	**50.0**	**0.0**	**0.0**
1435	45.0	4.3	3.0
1440	40.0	5.8	4.0
1445	36.0	7.2	5.0
1450	33.0	10.2	7.0
1455	28.5	11.6	8.0
1460	26.0	14.6	10.0

Station: KLO
Location: Ogden, Utah
Freq.: 1,430 kHz
Mode: DA-D
Date: March-2010

D.L. Markley & Associates, Inc.
Consulting Engineers
2104 West Moss Avenue
Peoria, IL 61604





Measured Common Point Impedance Data				
Frequency		Reactance		Station: KLO
kHz	Resistance	Corrected	Un-Corrected	Location: Ogden, Utah
1400	64.0	15.4	11.0	Freq.: 1,430 kHz
1405	63.0	12.6	9.0	Mode: DA-N
1410	60.0	9.2	6.5	Date: March-2010
1415	58.0	7.8	5.5	
1420	53.0	6.4	4.5	
1425	53.0	6.4	4.5	
1430	**50.0**	**0.0**	**0.0**	
1435	43.0	0.0	0.0	
1440	40.0	0.7	0.5	
1445	36.0	2.9	2.0	**D.L. Markley & Associates, Inc.**
1450	33.0	4.4	3.0	*Consulting Engineers*
1455	30.5	5.8	4.0	2104 West Moss Avenue
1460	26.0	6.6	4.5	*Peoria, IL 61604*

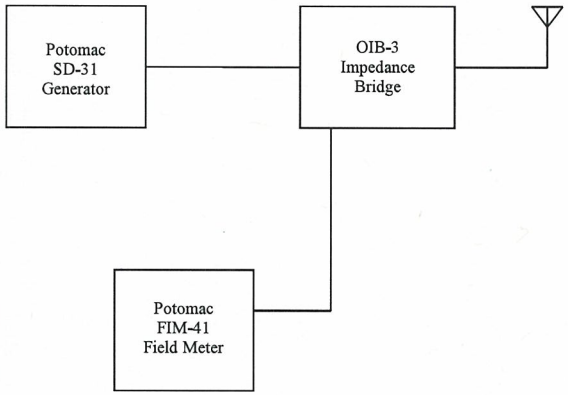


Exhibit E - Reference Field Measurements

Day pattern measurements points summary[3].

Point	Radial	Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field	Local
	Az (°)	(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)	Date/time
101	22.5	0.9	41	3	15.0	112	1	25.2	41	3	14.8	112	1	28.0	2,640	3/14/2010 16:50
102	22.5	1.0	41	3	17.9	112	1	23.6	41	3	17.7	112	1	26.4	2,300	3/14/2010 16:47
103	22.5	1.1	41	3	20.6	112	1	22.0	41	3	20.4	112	1	24.8	1,710	3/14/2010 16:46
*104	22.5	1.7	41	3	37.3	112	1	12.9	41	3	37.1	112	1	15.7	1,420	3/16/2010 18:18
201	83.5	1.0	41	2	51.6	112	0	57.5	41	2	51.4	112	1	0.3	1,180	3/14/2010 13:11
202	83.5	1.1	41	2	52.0	112	0	52.9	41	2	51.8	112	0	55.7	1,050	3/15/2010 10:36
203	83.5	1.2	41	2	52.4	112	0	48.6	41	2	52.2	112	0	51.4	958	3/15/2010 10:39
*204	83.5	4.9	41	3	5.8	111	58	12.4	41	3	5.6	111	58	15.2	212	3/16/2010 18:06
301	169.5	1.0	41	2	16.1	112	1	32.1	41	2	15.9	112	1	34.9	2,220	3/14/2010 14:17
302	169.5	1.1	41	2	13.1	112	1	31.3	41	2	12.9	112	1	34.1	1,940	3/14/2010 14:23
303	169.5	1.2	41	2	10.1	112	1	30.6	41	2	9.9	112	1	33.4	2,230	3/14/2010 14:26
*304	169.5	31.8	40	45	55.5	111	57	32.4	40	45	55.3	111	57	35.2	104	3/16/2010 16:47
401	231	0.9	41	2	29.6	112	2	10.1	41	2	29.4	112	2	12.9	284	3/14/2010 15:07
402	231	1.0	41	2	27.5	112	2	13.5	41	2	27.3	112	2	16.3	228	3/14/2010 15:11
403	231	1.1	41	2	25.6	112	2	16.7	41	2	25.4	112	2	19.5	192	3/14/2010 15:14
*404	231	15.6	40	57	29.9	112	10	21.5	40	57	29.7	112	10	24.3	13	3/16/2010 13:44
501	278	0.9	41	2	52.0	112	2	18.4	41	2	51.8	112	2	21.2	1,800	3/14/2010 15:49
502	278	1.0	41	2	52.6	112	2	22.6	41	2	52.4	112	2	25.4	1,630	3/14/2010 15:53
503	278	1.1	41	2	52.9	112	2	26.8	41	2	52.7	112	2	29.6	1,450	3/14/2010 15:56
*504	278	17.0	41	4	4.1	112	13	41.8	41	4	3.9	112	13	44.6	102	3/16/2010 13:25
601	328	0.9	41	3	12.8	112	2	0.6	41	3	12.6	112	2	3.4	593	3/14/2010 16:26
602	328	1.0	41	3	15.5	112	2	2.7	41	3	15.3	112	2	5.5	571	3/14/2010 16:30
603	328	1.1	41	3	18.2	112	2	5.1	41	3	18.0	112	2	7.9	526	3/14/2010 16:32
*604	328	5.8	41	5	27.5	112	3	52.1	41	5	27.3	112	3	54.9	72	3/16/2010 16:07

Points X01 through X03 are located in the nature preserve and open grazing land in the area surrounding the transmitter facility. Access to these points is by foot and / or all terrain vehicle. No unique landmarks are available for these points. These locations must be identified through the use of a GPS or other global navigational satellite system. Points X04 marked with an asterisk (*) are easily accessible around the Great Salt Lake These points are documented in more detail to facilitate regular monitoring.

[3] All points were acquired with a Potomac Instruments; model 4100; serial # 141; calibrated 10 Oct 2008.

Night pattern measurements points summary[4].

Point	Radial	Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field	Local
	Az (°)	(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)	Date/time
701	26	0.9	41	3	14.2	112	1	23.1	41	3	14.0	112	1	25.9	1,890	3/15/2010 13:41
702	26	1.0	41	3	17.2	112	1	21.1	41	3	17.0	112	1	23.9	1,730	3/15/2010 13:39
703	26	1.1	41	3	20.0	112	1	19.4	41	3	19.8	112	1	22.2	1,580	3/15/2010 13:37
*704	26	1.7	41	3	37.3	112	1	8.2	41	3	37.1	112	1	11.0	1,030	3/16/2010 18:15
801	106.5	0.4	41	2	44.3	112	1	23.5	41	2	44.1	112	1	26.3	1,570	3/15/2010 14:57
802	106.5	1.0	41	2	38.9	112	0	58.7	41	2	38.7	112	1	1.5	321	3/16/2010 10:46
803	106.5	1.1	41	2	37.9	112	0	54.7	41	2	37.7	112	0	57.5	299	3/16/2010 10:43
*804	106.5	7.2	41	1	41.7	111	56	43.1	41	1	41.5	111	56	45.9	22	3/16/2010 17:51
901	158	0.9	41	2	20.9	112	1	25.5	41	2	20.7	112	1	28.3	715	3/15/2010 16:23
902	158	1.0	41	2	18.0	112	1	24.0	41	2	17.8	112	1	26.8	624	3/15/2010 16:12
903	158	1.1	41	2	15.0	112	1	22.4	41	2	14.8	112	1	25.2	563	3/15/2010 16:10
*904	158	25.5	40	50	1.8	111	54	50.9	40	50	1.6	111	54	53.7	23	3/16/2010 17:22
1001	217	0.9	41	2	24.8	112	2	3.2	41	2	24.6	112	2	6.0	157	3/15/2010 16:46
1002	217	1.0	41	2	22.9	112	2	6.2	41	2	22.7	112	2	9.0	142	3/15/2010 16:51
1003	217	1.1	41	2	19.5	112	2	8.5	41	2	19.3	112	2	11.3	129	3/15/2010 17:00
*1004	217	20.1	40	54	8.3	112	10	19.3	40	54	8.1	112	10	22.1	7	3/16/2010 14:25
1101	290.5	0.9	41	2	58.1	112	2	16.1	41	2	57.9	112	2	18.9	530	3/16/2010 9:49
1102	290.5	1.0	41	2	59.4	112	2	20.4	41	2	59.2	112	2	23.2	470	3/16/2010 9:46
1103	290.5	1.1	41	3	0.5	112	2	24.3	41	3	0.3	112	2	27.1	431	3/16/2010 9:45
*1104	290.5	13.5	41	5	21.6	112	10	44.6	41	5	21.4	112	10	47.4	40	3/16/2010 13:17
1201	323	0.9	41	3	11.3	112	2	3.4	41	3	11.1	112	2	6.2	291	3/15/2010 14:01
1202	323	1.0	41	3	13.8	112	2	5.9	41	3	13.6	112	2	8.7	264	3/15/2010 13:58
1203	323	1.1	41	3	16.5	112	2	8.3	41	3	16.3	112	2	11.1	228	3/15/2010 14:14
*1204	323	6.0	41	5	22.0	112	4	13.8	41	5	21.8	112	4	16.6	41	3/16/2010 15:41

Points X01 through X03 are located in the nature preserve and open grazing land in the area surrounding the transmitter facility. Access to these points is by foot and / or all terrain vehicle. No unique landmarks are available for these points. These locations must be identified through the use of a GPS or other global navigational satellite system. Points X04 marked with an asterisk (*) are easily accessible around the Great Salt Lake These points are documented in more detail to facilitate regular monitoring.

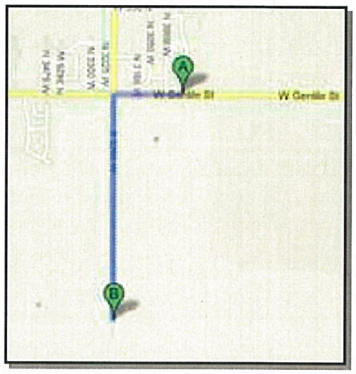
[4] All points were acquired with a Potomac Instruments; model 4100; serial # 141; calibrated 10 Oct 2008.

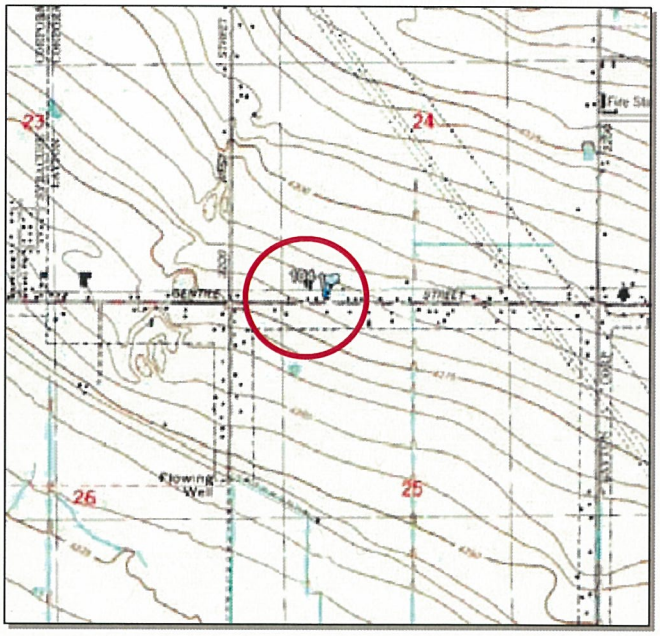
Point 104 is on the 22.5 degree radial recorded as part of the Day pattern. The point is located on the South West corner of the intersection of West Gentile Street and a new Street one block East of N3000W Street as shown in the picture looking West below. It is also shown plotted on the 7.5" Clearfield, UT topographical map dated 1999.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
1.7	41	3	37.3	112	1	12.9	41	3	37.1	112	1	15.7	1,420

Directions from the KLO transmitter:

1. Head **north** on **S 3200 W** toward **W Gentile St** 0.9 mi
2. Take the 1st **right** onto **W Gentile St** 0.3 mi
3. Take the 3rd **left** 46 ft
   Destination will be on the left

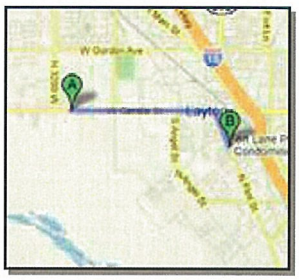




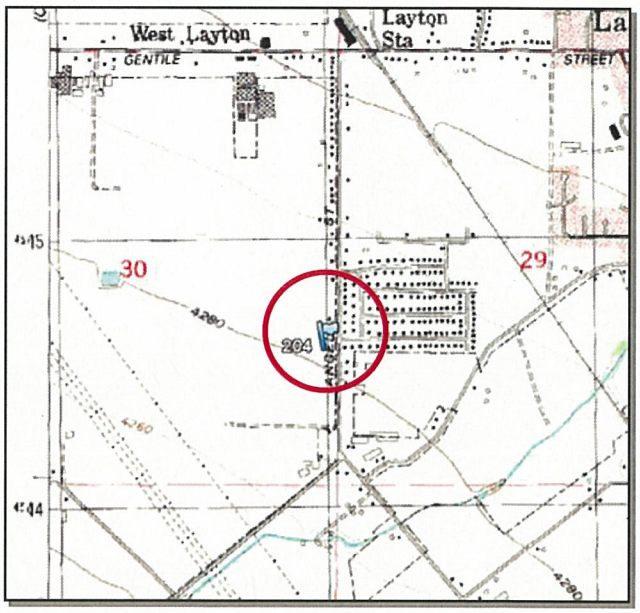
Point 204 is on the 83.5 degree radial recorded as part of the Day pattern. The point is located in front of 604 Flint Street as shown in the picture looking South below. It is also shown plotted on the 7.5" Kaysville, UT topographical map dated 1992.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
4.9	41	3	5.8	111	58	12.4	41	3	5.6	111	58	15.2	212

Directions from point 104:



1. Head **south** toward **W Gentile St** 46 ft
2. Turn **left** at **W Gentile St** 2.4 mi
3. Turn **right** at **Flint St**
   Destination will be on the right

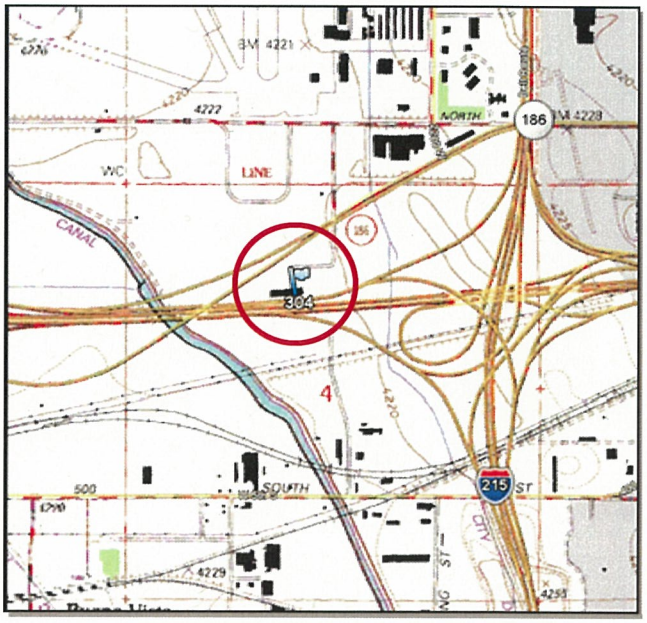


Point 304 is on the 169.5 degree radial recorded as part of the Day pattern. The point is located in on the West bound lane of Interstate 80 immediately West of the Interstate 215 entrance ramp as shown in the picture looking West below. It is also shown plotted on the 7.5" Salt Lake City North, UT topographical map dated 1998.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
31.8	40	45	55.5	111	57	32.4	40	45	55.3	111	57	35.2	104

Directions from point 204:

1. Head **south** on **Flint St** toward **700 S** — 1.0 mi
2. Turn **left** at **W 200 N** — 0.7 mi
3. Turn **right** to merge onto **I-15 S** — 15.3 mi
4. Slight **right** at **Belt Route / I-215 S** (signs for **I-215 / S.L. Int'l Airport / Belt Route**) — 5.8 mi
5. Take exit **22A** for **I-80 W** toward **Airport Reno**
   Destination will be on the right

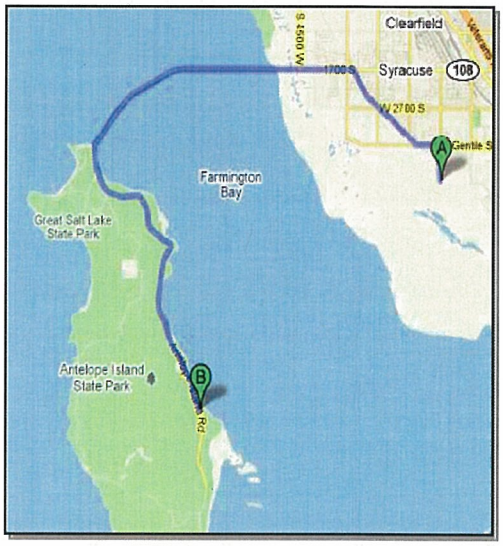


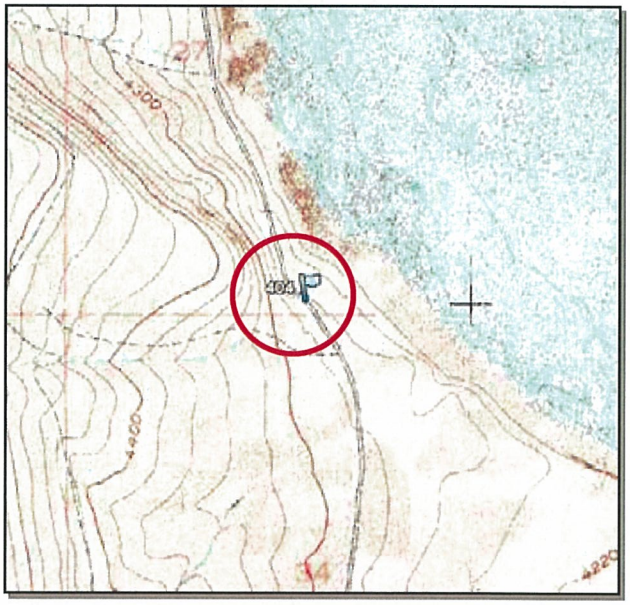
Point 404 is on the 231.0 degree radial recorded as part of the Day pattern. The point is located on Antelope Island Road within the park as shown in the picture looking North below. A GPS is required to properly identify the location. The entry gate will wave access fees by advising them of the business purpose of your visit. It is also shown plotted on the 7.5" Antelope Island, UT topographical map dated 1972.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
15.6	40	57	29.9	112	10	21.5	40	57	29.7	112	10	24.3	13

Directions from the KLO transmitter:

1. Head **north** on **S 3200 W** toward **W Gentile St** 0.9 mi
2. Take the 1st **left** onto **W Gentile St** 0.8 mi
3. Slight **right** at **S Bluff Rd** 1.6 mi
4. At the traffic circle, take the **3rd** exit and stay on **S Bluff Rd** 1.3 mi
5. Turn **left** at **1700 S** 9.0 mi
6. Slight **left** at **Antelope Island Rd** 0.6 mi
7. Take the 1st **left** to stay on **Antelope Island Rd** 8.4 mi
   Destination will be on the left

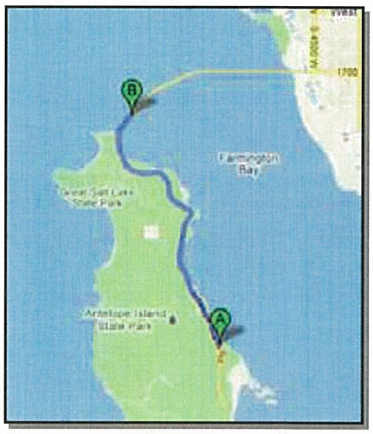




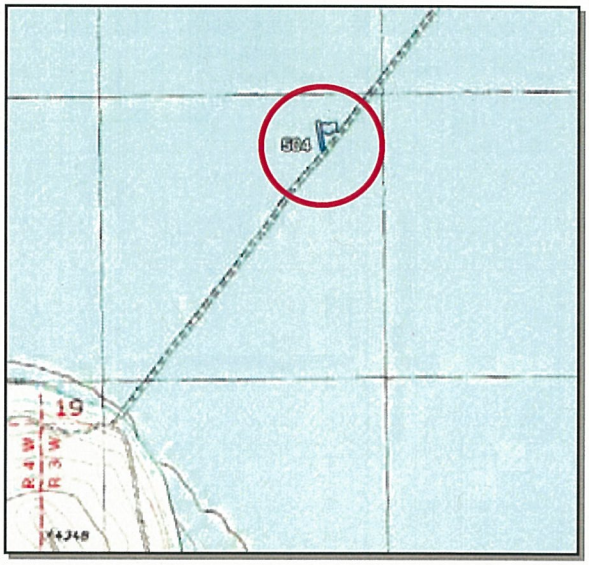
Point 504 is on the 278.0 degree radial recorded as part of the Day pattern. The point is located along South side the causeway on Antelope Island Road, shortly East of the bridge as shown in the picture looking South West below. It is also shown plotted on the 7.5" Antelope Island North, UT topographical map dated 1991.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
17.0	41	4	4.1	112	13	41.8	41	4	3.9	112	13	44.6	102

Directions from the point 404:



1. Head **northwest** on **Antelope Island Rd** 8.4 mi
2. Turn **right** to stay on **Antelope Island Rd** 1.3 mi
   Destination will be on the right

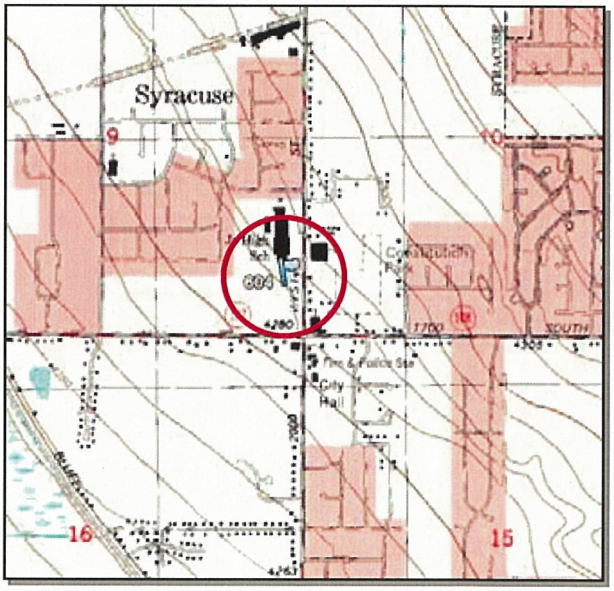


Point 604 is on the 328.0 degree radial recorded as part of the Day pattern. The point is located in the parking lot of a new commercial development North West of the Intersection of 1700S Street and S2000W Street as shown in the picture looking North East below. It is also shown plotted on the 7.5" Clearfield, UT topographical map dated 1999.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
5.8	41	5	27.5	112	3	52.1	41	5	27.3	112	3	54.9	72

Directions from the point 504:

1. Head **south** on **S 2000 W** toward **1700 S** 0.1 mi
2. Take the 2nd **right** onto **1700 S** 9.1 m
   Destination will be on the left

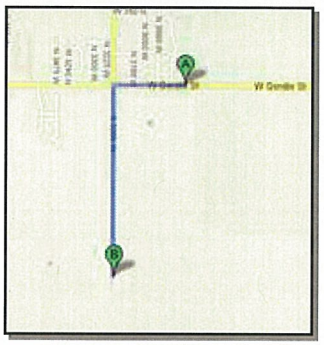


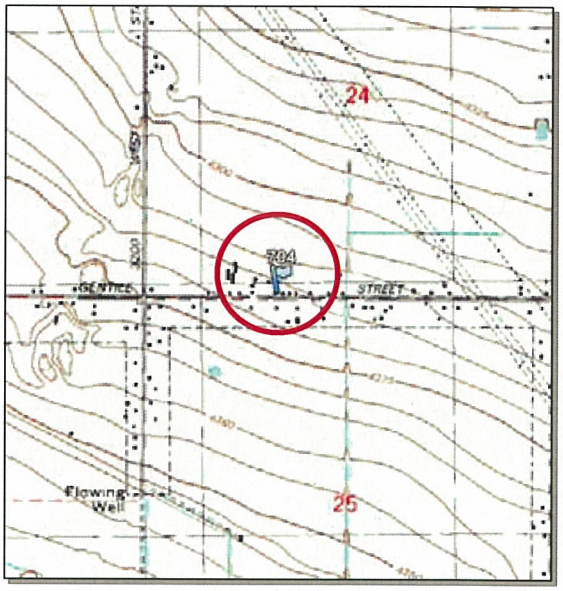
Point 704 is on the 26.0 degree radial recorded as part of the Night pattern. The point is located in the front of 2864 West Gentile Street on the north side of the street as shown in the picture looking West below. It is also shown plotted on the 7.5" Clearfield, UT topographical map dated 1999.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
1.7	41	3	37.3	112	1	8.2	41	3	37.1	112	1	11.0	1,030

Directions from the KLO transmitter:

1. Head **west** on **W Gentile St** toward **N 3050 W** 0.3 mi
2. Take the 1st **left** onto **S 3200 W** 0.9 mi



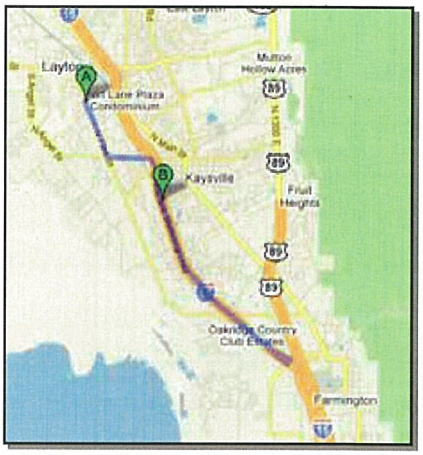


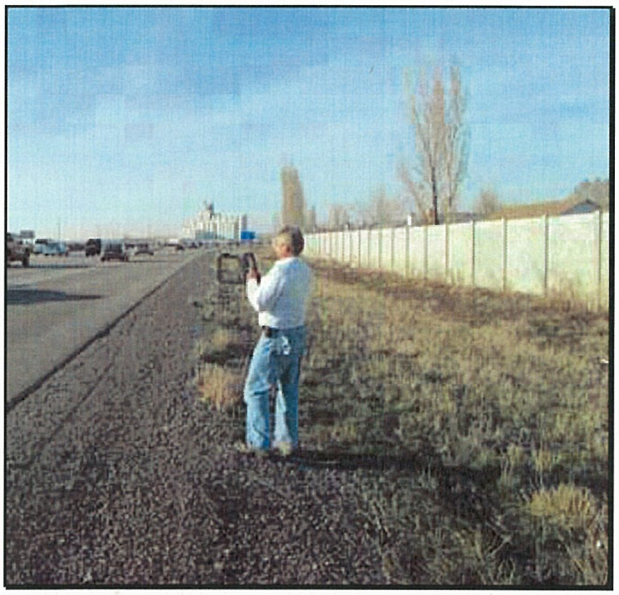
Point 804 is on the 106.5 degree radial recorded as part of the Night pattern. The point is located in the North bound lane of Interstate 15 about 600 meters before Exit 328 as shown in the picture looking North below. It is also shown plotted on the 7.5" Kaysville, UT topographical map dated 1992.

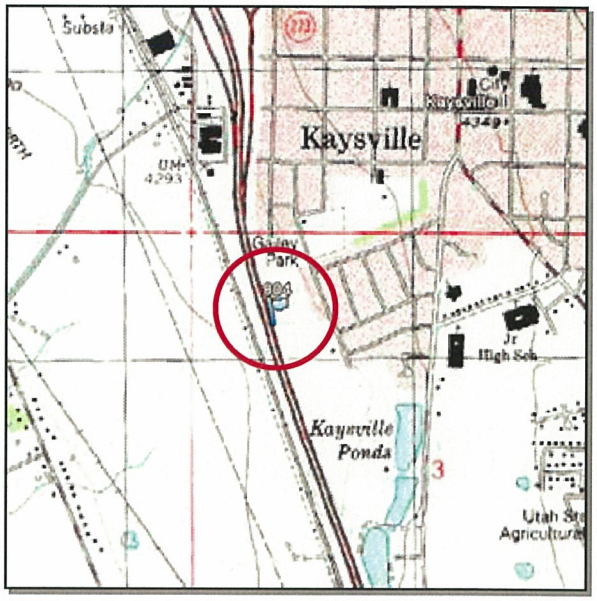
Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
7.2	41	1	41.7	111	56	43.1	41	1	41.5	111	56	45.9	22

Directions from point 704:

1. Head **south** on **Flint St** toward **700 S**	1.0 mi
2. Turn **left** at **W 200 N**	0.7 mi
3. Turn **right** to merge onto **I-15 S**	3.8 mi
4. Take exit **325** toward **US-89 N/Lagoon/Fairgrounds**	0.4 mi
5. Turn **left** at **UT-225 E**	472 ft
6. Turn **left** to merge onto **I-15 N** toward **Ogden** Destination will be on the right	3.5 mi





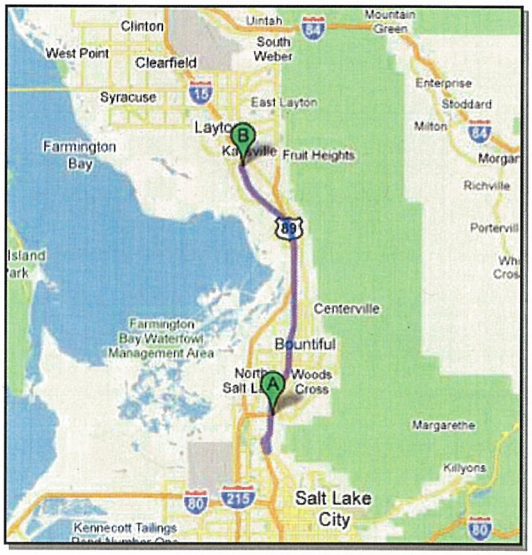


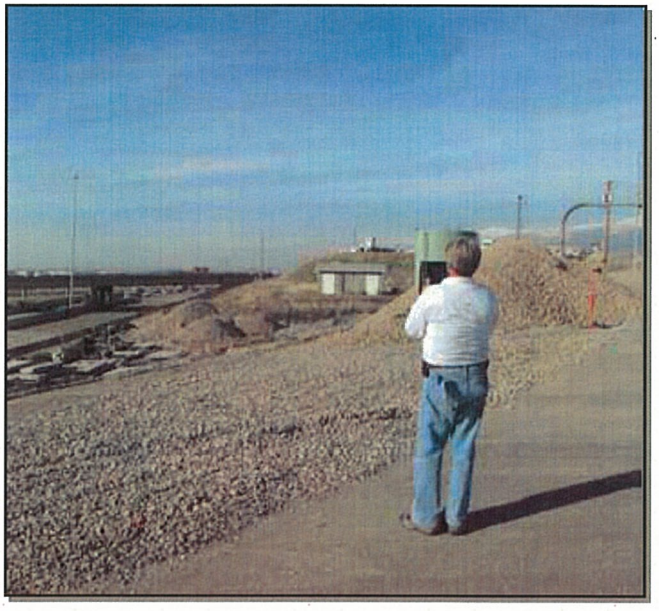
Point 904 is on the 158.0 degree radial recorded as part of the Night pattern. The point is located one exit ramp traveling from South Main Street (State Route 89) continuing to State Route 89 South as shown in the picture looking North West below. It is also shown plotted on the 7.5" Salt Lake City North, UT topographical map dated 1998.

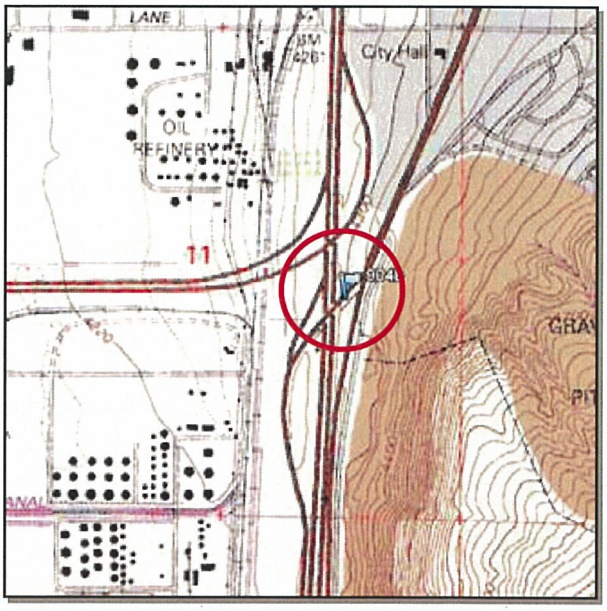
Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
25.5	40	50	1.8	111	54	50.9	40	50	1.6	111	54	53.7	23

Directions from point 804:

1. Head **north** on **I-15 N** toward **Exit 328**	0.3 mi
2. Take exit **328** toward **Kaysville/UT-273**	0.4 mi
3. Turn **left** at **W 200 N**	0.1 mi
4. Turn **left** to merge onto **I-15 S**	10.4 mi
5. Take exit **317** on the **left** for **US-89 S/500 W**	0.4 mi
6. Merge onto **N 500 W St/US-89 S** Continue to follow US-89 S	4.6 mi
7. Take the **I-15 S/US-89 S/Beck St** ramp Destination will be on the left	0.2 mi





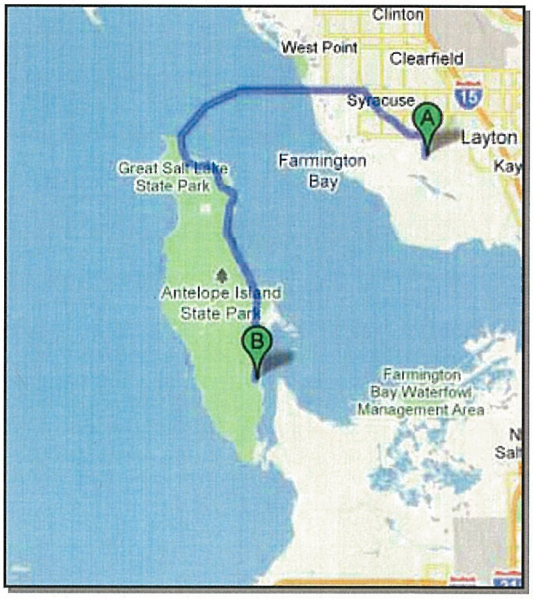


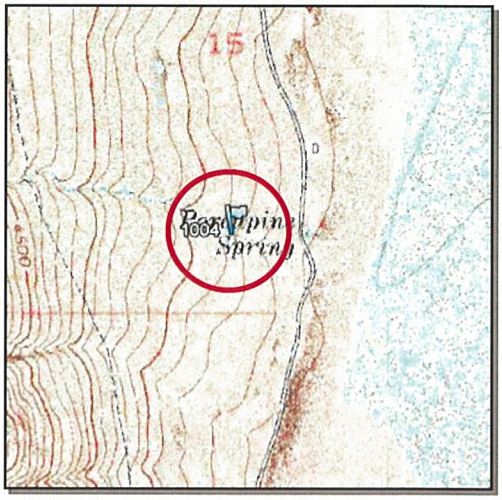
Point 1004 is on the 217.0 degree radial recorded as part of the Night pattern. The point is located on Antelope Island Road as shown in the picture looking North East below. The entry gate will wave access fees to the park by advising them of the business purpose of your visit. You will need to continue on foot 2800 meters to the measurement point from the parking lot. It is also shown plotted on the 7.5" Antelope Island, UT topographical map dated 1972 (the dirt road has been moved West about 190 meters from where shown on this map).

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
20.1	40	54	8.3	112	10	19.3	40	54	8.1	112	10	22.1	7

Directions from the KLO transmitter:

1. Head **north** on **S 3200 W** toward **W Gentile St**	0.9 mi
2. Take the 1st **left** onto **W Gentile St**	0.8 mi
3. Slight **right** at **S Bluff Rd**	1.6 mi
4. At the traffic circle, take the **3rd** exit and stay on **S Bluff Rd**	1.3 mi
5. Turn **left** at **1700 S**	9.0 mi
6. Slight **left** at **Antelope Island Rd**	0.6 mi
7. Take the 1st **left** to stay on **Antelope Island Rd**	11.2 mi



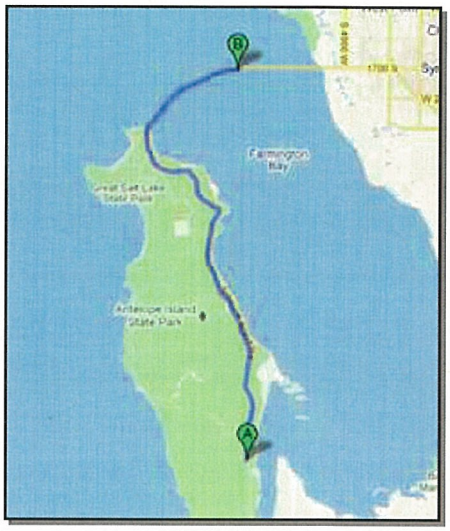


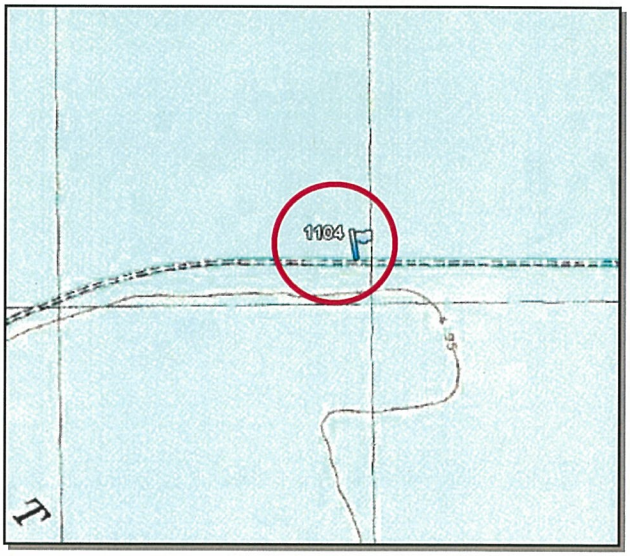
Point 1104 is on the 290.5 degree radial recorded as part of the Night pattern. The point is located along South side the causeway on Antelope Island Road as shown in the picture looking South West below. It is also shown plotted on the 7.5" Antelope Island North, UT topographical map dated 1991.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
13.5	41	5	21.6	112	10	44.6	41	5	21.4	112	10	47.4	40

Directions from the point 1004:

1. Head **north** on **Antelope Island Rd** 12.4 mi
2. Turn **right** to stay on **Antelope Island Rd** 4.4 mi





Point 1204 is on the 323.0 degree radial recorded as part of the Night pattern. The point is located across the street (on the North side) from 2354 1700S Street as shown in the picture looking South West below. It is also shown plotted on the 7.5" Clearfield, UT topographical map dated 1999.

Dist.	Lat. (NAD27)			Long. (NAD27)			Lat. (NAD83)			Long. (NAD83			Field
(kM)	°N	'	"	°W	'	"	°N	'	"	°W	'	"	(mV/m)
6.0	41	5	22.0	112	4	13.8	41	5	21.8	112	4	16.6	41

Directions from the point 1104:

1. Head **east**	2.8 mi
2. Continue straight onto **1700 S** Destination will be on the left	2.8