



Fax Correspondence

Date. 4/9/01

To: DAVID THRALL

From: BOB CONNORS

Pages to follow (including this cover): 11

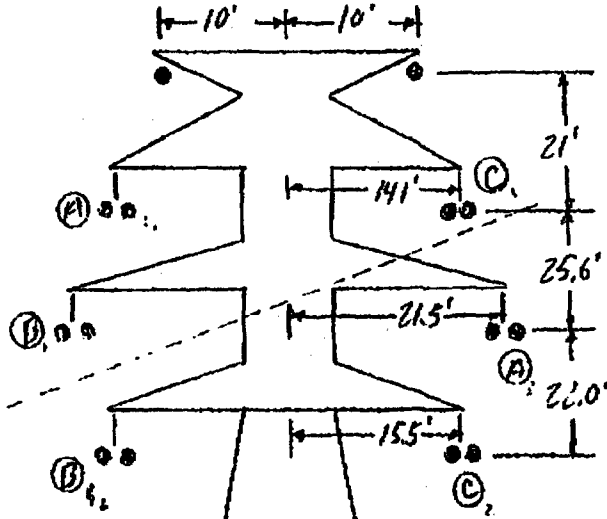
DAVID:

HERE IS THE INFO. FROM PAUL BARRY THAT I MENTIONED
IN MY EMAIL. IF YOU HAVE ANY QUESTIONS, YOU CAN
CALL HIM DIRECTLY AT 781-441-8608.

THANKS,

Bob Connors

LINE 342



LINE 355

RPW 15 - SEGMENT 1: JORDAN TRP TO MALCO

LOOKING EAST TO ALGRIA

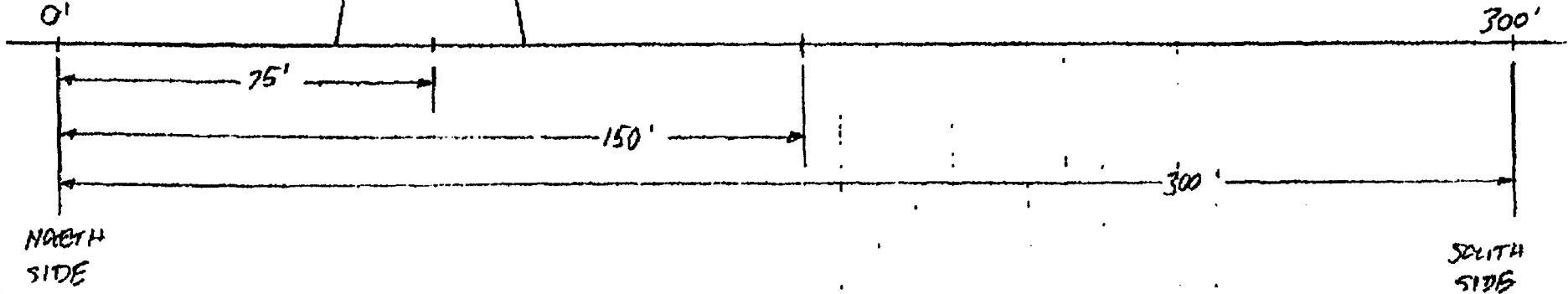
FILE: ORW15A

BUNDLE SPACING: 18"

CONDUCTOR: 'LEPWINGE'
1703 KCMIL AACSR
48/13

STATIC: 7"9 ALUMINOX

MINIMUM GROUND CLEARANCE
ASSUMED TO BE 28'



===== GENERAL PARAMETERS =====

Title.....: ROW 15: JORDAN RD TO STA 650.
 System of measurement: E

===== BUNDLE SPECIFICATIONS =====

End. No.	Circ. No.	Angle	Voltage (kV $\bar{0}-\bar{0}$)	Current (Amps)	No. of Subcnd	Reg. End.	- Coordinates - X (ft) Y (ft)	
1	1	120	345.0	3975	2	Y	89.1	75.6
2	1	0	345.0	3975	2	Y	60.9	75.6
3	1	240	345.0	3975	2	Y	53.5	50.0
4	2	0	345.0	3975	2	Y	96.5	50.0
5	2	120	345.0	3975	2	Y	90.5	28.0
6	2	240	345.0	3975	2	Y	59.5	28.0
7	3	0	0.0	0	1	Y	85.0	96.6
8	4	0	0.0	0	1	Y	65.0	96.6

===== SUBCONDUCTOR SPECIFICATIONS (REGULAR BUNDLES) =====

End. No.	Subconductor Name	Subcond. Spacing (in)	Subcond Diam. (in)	DC Resist. at 25 $\frac{1}{2}$ C (ohms/mi)	60 Hz Res. at 25 $\frac{1}{2}$ C (ohms/mi)	60 Hz Reactance (ohms/mi)
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
6	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
7	7#9AW	0.0	0.34	3.02000	3.08000	0.76300
8	7#9AW	0.0	0.34	3.02000	3.08000	0.76300

===== SUBCONDUCTOR SPECIFICATIONS (IRREGULAR BUNDLES) =====

===== LATERAL PROFILE SPECIFICATIONS =====

Interval	Start (ft)	Stop (ft)	Increment (ft)
1	0.0	150.0	5.0
2	150.0	300.0	10.0
3	0.0	0.0	0.0

===== WEATHER MODEL DATA =====

Fog information --
 Starting time (military time): 0000
 Duration (hours) : 9.00

DAY NIGHT
 === =====

Rain information --
 Duration (hours).....: 2.50 1.50
 Periods.....: 3 2
 Median rate (in/hour).....: 0.15 0.08
 L5 rate (in/hour).....: 0.75 0.40

SNOW duration (hours).....: 2.00 3.00

===== MISCELLANEOUS INFORMATION =====

Field sensor height (feet).....: 3.2
Altitude (feet above sea level)..: 0
Earthresistivity (ohm-meters)....: 100.0

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: B:\TLW\ENVIRO\data\ENQRW15A.I01

DATE: 3/23/1992 TIME: 14:20

FILE QEW15A

WINTER NORMAL

ROW 15: JORDAN RD TO STA 650.

* BUNDLE INFORMATION *

BNDL #	CIRC #	VOLTAGE (KV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES (FT)		PHASE
1	1	345.0	120.0	3975.0	120.0	2	89.1	75.6	C
2	1	345.0	.0	3975.0	.0	2	60.9	75.6	A
3	1	345.0	240.0	3975.0	240.0	2	53.5	50.0	B
4	2	345.0	.0	3975.0	.0	2	96.5	50.0	A
5	2	345.0	120.0	3975.0	120.0	2	90.5	28.0	C
6	2	345.0	240.0	3975.0	240.0	2	59.5	28.0	B
7	3	.0	.0	.0	.0	1	85.0	96.6	GND
8	4	.0	.0	.0	.0	1	65.0	96.6	GND

* MINIMUM GROUND CLEARANCE = 28.000 FT. *

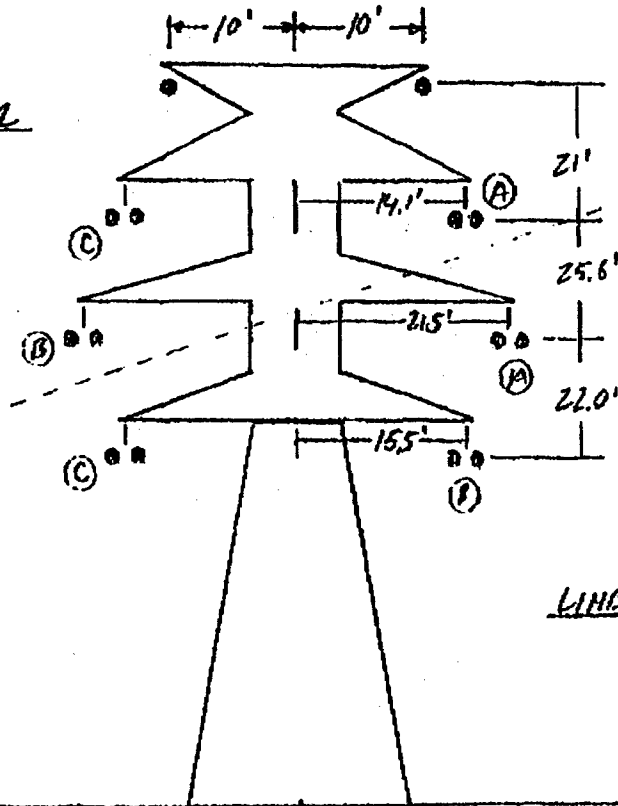
* SUBCONDUCTOR INFORMATION - REGULAR BUNDLES *

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.504	18.000	.05630	.06150	.368000
2	1.504	18.000	.05630	.06150	.368000
3	1.504	18.000	.05630	.06150	.368000
4	1.504	18.000	.05630	.06150	.368000
5	1.504	18.000	.05630	.06150	.368000
6	1.504	18.000	.05630	.06150	.368000
7	.343	.000	3.02000	3.08000	.763000
8	.343	.000	3.02000	3.08000	.763000

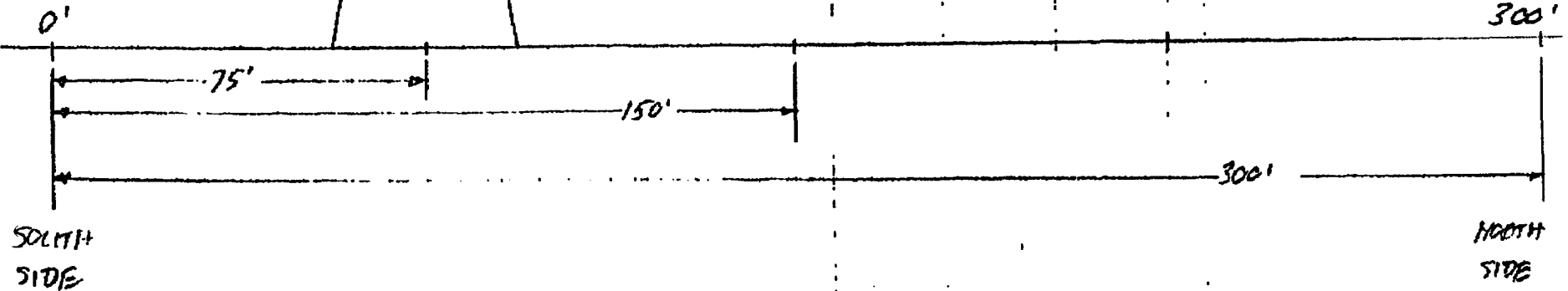
 *
 * AC ELECTRIC FIELD PROFILE *
 * at 3.28 feet above ground *
 *

LATERAL DISTANCE (feet) (meters)	MAXIMUM FIELD (kV/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kV/m)	HORIZONTAL (kV/m)	SPACE POTENTIAL (kV)	
.0	.00	1.720	.026	1.711	.186	1.717
5.0	1.52	2.023	.025	2.012	.223	2.020
10.0	3.05	2.388	.024	2.374	.267	2.383
15.0	4.57	2.826	.023	2.809	.320	2.820
20.0	6.10	3.349	.022	3.328	.380	3.341
25.0	7.62	3.969	.021	3.945	.446	3.958
30.0	9.14	4.693	.020	4.666	.514	4.678
35.0	10.67	5.516	.019	5.487	.572	5.495
40.0	12.19	6.407	.019	6.380	.596	6.375
45.0	13.72	7.284	.020	7.264	.547	7.236
50.0	15.24	7.986	.024	7.979	.387	7.916
55.0	16.76	8.280	.033	8.280	.274	8.184
60.0	18.29	7.948	.054	7.935	.628	7.830
65.0	19.81	6.960	.098	6.910	1.075	6.831
70.0	21.34	5.588	.189	5.515	1.388	5.482
75.0	22.86	4.448	.322	4.427	1.498	4.426
80.0	24.38	4.399	.308	4.386	1.394	4.364
85.0	25.91	5.190	.182	5.160	1.096	5.086
90.0	27.43	5.870	.109	5.862	.704	5.758
95.0	28.96	6.005	.080	6.004	.487	5.912
100.0	30.48	5.606	.073	5.594	.552	5.540
105.0	32.00	4.913	.075	4.890	.605	4.872
110.0	33.53	4.170	.079	4.145	.563	4.148
115.0	35.05	3.516	.078	3.495	.470	3.505
120.0	36.58	2.990	.072	2.975	.370	2.985
125.0	38.10	2.578	.061	2.567	.284	2.575
130.0	39.62	2.252	.049	2.244	.220	2.251
135.0	41.15	1.987	.037	1.981	.174	1.986
140.0	42.67	1.766	.027	1.761	.142	1.765
145.0	44.20	1.577	.019	1.573	.119	1.576
150.0	45.72	1.413	.013	1.410	.102	1.412
160.0	48.77	1.146	.006	1.143	.077	1.145
170.0	51.82	.940	.002	.938	.060	.939
180.0	54.86	.778	.000	.777	.047	.778
190.0	57.91	.652	.000	.651	.037	.651
200.0	60.96	.551	.000	.550	.030	.550
210.0	64.01	.469	.000	.469	.024	.469
220.0	67.06	.404	.000	.403	.019	.404
230.0	70.10	.350	.001	.349	.016	.350
240.0	73.15	.305	.001	.305	.013	.305
250.0	76.20	.268	.001	.268	.011	.268
260.0	79.25	.237	.001	.237	.009	.237
270.0	82.30	.211	.002	.211	.008	.211
280.0	85.34	.188	.002	.188	.007	.188
290.0	88.39	.169	.002	.169	.006	.169
300.0	91.44	.153	.002	.153	.005	.153

LINE 342



LINE 355



ROW 15 - SEGMENT 2: JORDAN TRAP TO SHAKE HILL

LOOKING WEST:

FILE ORW 15B

BUNDLE SPACING: .18"

CONDUCTOR: 'LAPWING 2'

1703 KCMIL AACAR

48/13

STATIC: 7#9 ALUMOWELD

MINIMUM GROUND CLEARANCE
ASSUMED TO BE 28'

===== GENERAL PARAMETERS =====

Title.....: ROW 15: JORDAN RD TO SNAKE HIL
 System of measurement: E

===== BUNDLE SPECIFICATIONS =====

Bnd. No.	Circ. No.	Angle	Voltage (kV U-U)	Current (Amps)	No. of Subcnd	Req. Bnd.	- Coordinates - X (ft) Y (ft)	
1	1	0	345.0	3975	2	Y	89.1	75.6
2	1	120	345.0	3975	2	Y	60.9	75.6
3	1	240	345.0	3975	2	Y	53.5	50.0
4	2	0	345.0	3975	2	Y	96.5	50.0
5	2	240	345.0	3975	2	Y	90.5	28.0
6	2	120	345.0	3975	2	Y	59.5	28.0
7	3	0	0.0	0	1	Y	85.0	96.6
8	4	0	0.0	0	1	Y	65.0	96.6

===== SUBCONDUCTOR SPECIFICATIONS (REGULAR BUNDLES) =====

Bnd.	Subconductor Name	Subcond. Spacing (in)	Subcond. Diam. (in)	DC Resist. at 25 °C (ohms/mi)	60 Hz Res. at 25 °C (ohms/mi)	60 Hz Reactance (ohms/mi)
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
3	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
6	LAPWING2	18.0	1.50	0.05630	0.06150	0.36800
7	7#9AW	0.0	0.34	3.02000	3.08000	0.76300
8	7#9AW	0.0	0.34	3.02000	3.08000	0.76300

===== SUBCONDUCTOR SPECIFICATIONS (IRREGULAR BUNDLES) =====

===== LATERAL PROFILE SPECIFICATIONS =====

Interval	Start (ft)	Stop (ft)	Increment (ft)
1	0.0	150.0	5.0
2	150.0	300.0	10.0
3	0.0	0.0	0.0

===== WEATHER MODEL DATA =====

Fog information --
 Starting time (military time): 0000
 Duration (hours) : 9.00

	DAY	NIGHT
Duration (hours).....:	2.50	1.50
Periods.....:	3	2
Median rate (in/hour).....:	0.15	0.08
L5 rate (in/hour).....:	0.75	0.40

Snow duration (hours).....: 2.00 3.00

MISCELLANEOUS INFORMATION

Field sensor height (feet).....: 3.2
Altitude (feet above sea level)..: 0
Earthresistivity (ohm-meters).....: 100.0

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: B:\TLW\ENVIRO\data\ENQRW15B.I01

DATE: 3/23/1992 TIME: 14:31

FILE QRW15B

WINTER NORMAL

ROW 15: JORDAN RD TO SNAKE HIL

BUNDLE INFORMATION

BNDL #	CIRC #	VOLTAGE (KV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	COORDINATES Y (FT)	PHASE
1	1	345.0	.0	3975.0	.0	2	89.1	75.6	A
2	1	345.0	120.0	3975.0	120.0	2	60.9	75.6	C
3	1	345.0	240.0	3975.0	240.0	2	53.5	50.0	B
4	2	345.0	.0	3975.0	.0	2	96.5	50.0	A
5	2	345.0	240.0	3975.0	240.0	2	90.5	28.0	B
6	2	345.0	120.0	3975.0	120.0	2	59.5	28.0	C
7	3	.0	.0	.0	.0	1	85.0	96.6	GND
8	4	.0	.0	.0	.0	1	65.0	96.6	GND

MINIMUM GROUND CLEARANCE = 28.000 FT.

SUBCONDUCTOR INFORMATION - REGULAR BUNDLES

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.504	18.000	.05630	.06150	.368000
2	1.504	18.000	.05630	.06150	.368000
3	1.504	18.000	.05630	.06150	.368000
4	1.504	18.000	.05630	.06150	.368000
5	1.504	18.000	.05630	.06150	.368000
6	1.504	18.000	.05630	.06150	.368000
7	.343	.000	3.02000	3.08000	.763000
8	.343	.000	3.02000	3.08000	.763000

 *
 * AC ELECTRIC FIELD PROFILE *
 * at 3.28 feet above ground *
 *

LATERAL DISTANCE		MAXIMUM FIELD	MINOR/MAJOR ELLIPSE AXES	VERTICAL	HORIZONTAL	SPACE POTENTIAL
(feet)	(meters)	(kV/m)	(ratio)	(kV/m)	(kV/m)	(kV)
.0	.00	1.238	.000	1.233	.111	1.237
5.0	1.52	1.423	.006	1.417	.132	1.421
10.0	3.05	1.642	.014	1.635	.158	1.640
15.0	4.57	1.904	.022	1.895	.193	1.902
20.0	6.10	2.222	.032	2.210	.240	2.219
25.0	7.62	2.612	.041	2.597	.303	2.608
30.0	9.14	3.098	.048	3.078	.383	3.091
35.0	10.67	3.702	.051	3.677	.474	3.690
40.0	12.19	4.432	.048	4.403	.550	4.410
45.0	13.72	5.245	.037	5.219	.560	5.207
50.0	15.24	6.002	.019	5.988	.431	5.943
55.0	16.76	6.463	.008	6.462	.145	6.383
60.0	18.29	6.392	.050	6.387	.407	6.298
65.0	19.81	5.755	.117	5.729	.870	5.667
70.0	21.34	4.876	.220	4.850	1.185	4.832
75.0	22.86	4.427	.291	4.427	1.287	4.426
80.0	24.38	4.861	.224	4.839	1.182	4.807
85.0	25.91	5.646	.137	5.627	.905	5.547
90.0	27.43	6.134	.093	6.132	.592	6.028
95.0	28.96	6.044	.081	6.039	.545	5.951
100.0	30.48	5.448	.088	5.427	.683	5.377
105.0	32.00	4.616	.105	4.584	.731	4.570
110.0	33.53	3.808	.123	3.779	.667	3.782
115.0	35.05	3.165	.133	3.146	.549	3.152
120.0	36.58	2.711	.129	2.700	.425	2.704
125.0	38.10	2.401	.114	2.395	.320	2.396
130.0	39.62	2.179	.094	2.175	.239	2.175
135.0	41.15	2.003	.075	2.000	.183	1.999
140.0	42.67	1.850	.059	1.848	.145	1.847
145.0	44.20	1.710	.047	1.708	.120	1.707
150.0	45.72	1.579	.038	1.577	.103	1.576
160.0	48.77	1.340	.026	1.338	.081	1.338
170.0	51.82	1.133	.019	1.131	.066	1.132
180.0	54.86	.958	.015	.957	.054	.957
190.0	57.91	.813	.012	.811	.044	.812
200.0	60.96	.692	.010	.691	.036	.692
210.0	64.01	.593	.009	.592	.030	.593
220.0	67.06	.511	.008	.510	.025	.511
230.0	70.10	.443	.007	.442	.021	.442
240.0	73.15	.386	.006	.386	.017	.386
250.0	76.20	.338	.006	.338	.014	.338
260.0	79.25	.298	.005	.298	.012	.298
270.0	82.30	.265	.005	.264	.010	.265
280.0	85.34	.236	.005	.236	.009	.236
290.0	88.39	.211	.004	.211	.008	.211
300.0	91.44	.190	.004	.190	.007	.190