ANEXO 25

RESULTADOS DE CORTOCIRCUITO

ÍNDICE GENERAL

1. **Cortocircuito Año 2009**
2. **Cortocircuito Año 2010**
3. **Cortocircuito Año 2011**
4. **Cortocircuito Año 2012**
5. **Cortocircuito Año 2015**
6. **Cortocircuito Año 2021**

    1) Falla y Apertura de un circuito de Guasquitas – Veladero
    2) Falla y Apertura de un circuito de Llano Sánchez – Panamá II
    3) Falla y Apertura de un circuito de Fortuna - Guasquitas

1. CORTOCIRCUITO AÑO 2009

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E WED, JUN 24 2009 14:39
PLAN EXP-SIN CON C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2009 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
1	[PAN230	230.00] AMPS	6362.1	-79.83	4902.0	-84.01
2	[PAN115	115.00] AMPS	11702.7	-80.93	8076.0	-86.38
3	[PANII230	230.00] AMPS	6312.2	-79.92	5281.0	-83.92
4	[PANII115	115.00] AMPS	8811.4	-83.87	2842.4	-85.79
5	[CHO230	230.00] AMPS	5626.7	-80.28	4933.8	-83.78
6	[CHO115	115.00] AMPS	3160.2	-92.05	0.0	0.00
7	[CHO34	34.500] AMPS	16160.8	-88.87	0.0	0.00
8	[LSA230	230.00] AMPS	5603.9	-76.69	4379.7	-75.81
9	[LSA115	115.00] AMPS	4474.9	-83.86	0.0	0.00
10	[L.S.34	34.500] AMPS	8227.1	-87.79	0.0	0.00
11	[M.N230	230.00] AMPS	6854.6	-71.26	4975.9	-69.40
12	[M.N115	115.00] AMPS	5373.0	-73.15	3476.3	-63.49
13	[MDNA34	34.500] AMPS	22337.8	-76.19	0.0	0.00
14	[PRO230	230.00] AMPS	4438.5	-71.67	2551.7	-69.73
15	[PRO115	115.00] AMPS	2983.1	-78.99	0.0	0.00
16	[PRO34	34.500] AMPS	14378.2	-77.05	0.0	0.00
18	[CAC115	115.00] AMPS	11595.5	-81.02	8062.4	-86.58
19	[C.V115	115.00] AMPS	8223.1	-83.10	3452.9	-87.18
20	[CH.AZUL	115.00] AMPS	1840.1	-75.93	0.0	0.00
21	[C.BAN115	115.00] AMPS	10285.5	-80.95	6277.9	-86.87
23	[CH115	115.00] AMPS	5990.0	-85.95	4007.9	-88.20
26	[LOC115	115.00] AMPS	10571.4	-80.76	6906.8	-86.66
30	[MAR115	115.00] AMPS	9413.3	-81.28	5811.4	-86.36
33	[STM115	115.00] AMPS	10507.7	-81.32	7056.4	-86.30
37	[SAN115	115.00] AMPS	9804.6	-81.39	5320.7	-87.17
48	[TINAJ115	115.00] AMPS	8930.9	-82.95	5286.6	-87.15
50	[M.O115	115.00] AMPS	9485.7	-82.52	5808.3	-87.08
51	[TAP401	44.000] AMPS	5588.6	-90.18	4237.0	-92.97
52	[TOC115	115.00] AMPS	7075.3	-84.65	2370.8	-85.87
53	[TAP402	44.000] AMPS	5588.6	-90.18	4247.8	-93.06
54	[LM1115	115.00] AMPS	8599.3	-87.56	10197.4	-89.45
55	[LM2115	115.00] AMPS	8630.5	-87.76	10299.7	-89.82
56	[L.M.44	44.000] AMPS	6938.7	-93.61	2701.2	-92.93
57	[L.M.13	13.800] AMPS	11523.1	-98.35	0.0	0.00
58	[MHOPE	44.000] AMPS	6372.2	-90.16	4539.4	-93.86
61	[FFIELD	115.00] AMPS	6879.7	-87.85	7192.7	-85.27
62	[FF44	44.000] AMPS	6884.2	-92.97	4157.7	-94.53
64	[COLON44	44.000] AMPS	6627.8	-90.85	4184.2	-94.02
66	[BLM13B	13.800] AMPS	30935.5	-97.27	23733.2	-98.09
67	[BLM13C	13.800] AMPS	32390.6	-97.33	32389.6	-97.87
68	[BLM13D	13.800] AMPS	15254.2	-99.73	0.0	0.00
69	[TGJB13.8	13.800] AMPS	18863.0	-98.97	0.0	0.00
70	[TGJB13A	13.800] AMPS	15066.2	-99.73	0.0	0.00
71	[TGJB13B	13.800] AMPS	15066.2	-99.73	0.0	0.00
72	[BLMCCA	13.800] AMPS	15066.2	-99.73	0.0	0.00
73	[BLMCCB	13.800] AMPS	15066.2	-99.73	0.0	0.00
74	[IND44	44.000] AMPS	5586.9	-90.12	4234.9	-92.87
75	[IND2	2.4000] AMPS	35902.3	-94.21	0.1	-102.99
79	[PM44-2	44.000] AMPS	6974.4	-92.49	4137.3	-94.39
80	[PM44-3	44.000] AMPS	6656.5	-90.76	4347.3	-94.04
85	[PTP230	230.00] AMPS	3187.1	-55.78	3352.4	-49.78
86	[CC13.8	13.800] AMPS	18863.0	-98.97	0.0	0.00
87	[CAL115	115.00] AMPS	5035.1	-70.81	6650.9	-69.95
88	[EST115	115.00] AMPS	4592.4	-69.79	6435.9	-69.88
89	[EST.13	13.800] AMPS	37639.8	-69.82	25811.7	-71.34
90	[EST-13L	13.800] AMPS	19761.7	-68.24	20870.2	-68.39
91	[EST-13T	13.800] AMPS	19761.7	-68.24	20870.2	-68.39
92	[L.V115	115.00] AMPS	4871.5	-70.41	6799.3	-70.48
93	[L.V.13	13.800] AMPS	39569.2	-70.38	26384.7	-71.77
94	[LV-13.8L	13.800] AMPS	19935.7	-68.22	20999.2	-68.35
95	[LV-13.8T	13.800] AMPS	19935.7	-68.22	20999.2	-68.35
96	[FOR230	230.00] AMPS	7427.3	-71.10	7829.3	-73.10
97	[FOR13A	13.800] AMPS	56787.4	-72.60	50331.0	-73.14
98	[FOR13B	13.800] AMPS	56787.4	-72.60	50331.0	-73.14
99	[FOR13C	13.800] AMPS	56787.4	-72.60	50331.0	-73.14

100	[BAY230	230.00]	AMPS	4799.5	-82.14	5371.5	-84.69
101	[BAY13A	13.800]	AMPS	36052.2	-87.43	31483.2	-88.50
102	[BAY13B	13.800]	AMPS	36052.2	-85.42	31483.2	-86.49
103	[COPESA23	230.00]	AMPS	5425.0	-80.93	4470.3	-83.90
104	[COPESA13	13.800]	AMPS	18922.0	-93.96	0.0	0.00
105	[PAN-AM23	230.00]	AMPS	5595.7	-80.37	4918.9	-83.88
106	[PANAM13A	13.800]	AMPS	29522.9	-88.94	25236.9	-89.58
107	[PANAM13B	13.800]	AMPS	29522.9	-88.94	25236.9	-89.58
108	[BAY13C	13.800]	AMPS	36569.4	-85.44	34987.9	-86.37
109	[STA RITA115	115.00]	AMPS	8041.9	-87.58	7684.0	-86.04
112	[TGP13.8	13.800]	AMPS	32059.9	-95.94	0.0	0.00
113	[TGP13A	13.800]	AMPS	85089.1	-84.30	0.0	0.00
114	[TGP13B	13.800]	AMPS	32153.8	-95.92	0.0	0.00
115	[PACORA23	230.00]	AMPS	5197.8	-81.54	4765.6	-84.73
116	[PACORA13	13.800]	AMPS	29947.7	-89.20	28259.2	-90.38
142	[CANJ13A	13.800]	AMPS	15734.3	-59.03	12867.0	-59.13
143	[CANJ13B	13.800]	AMPS	15734.3	-59.03	12867.0	-59.13
144	[CANJ230	230.00]	AMPS	5995.5	-72.15	5391.1	-72.25
147	[GUASQ230	230.00]	AMPS	6229.3	-72.15	5678.2	-72.37
148	[VELADERO 230	230.00]	AMPS	6358.1	-73.75	4707.3	-72.64
154	[CEMPAN15	115.00]	AMPS	6114.9	-87.52	6269.3	-90.49
160	[GEEHAN13.8	13.800]	AMPS	4993.1	-91.00	5253.0	-93.00
190	[CHANG230	230.00]	AMPS	2965.8	-59.32	2347.4	-63.26
191	[CHANG115	115.00]	AMPS	2359.4	-72.70	2700.8	-73.70
192	[CHANG34	34.500]	AMPS	3713.8	-76.78	2327.4	-80.95
301	[CONC13.8	13.800]	AMPS	34516.6	-79.06	9669.8	-81.93
302	[PASOANCH13.8	13.800]	AMPS	32085.3	-79.15	1938.0	-82.61
321	[CALDERA34.5	34.500]	AMPS	5064.3	-72.69	5646.4	-72.91
521	[EGIRAL13.8 1	13.800]	AMPS	11731.9	-97.04	9018.8	-97.74
522	[TCATIVÁ 115	115.00]	AMPS	8625.0	-87.71	10324.6	-89.84
523	[TCATIVÁ 13A	13.800]	AMPS	34379.3	-96.16	25771.3	-97.44
524	[TCATIVÁ 13B	13.800]	AMPS	18880.9	-99.01	0.0	0.00
525	[TCOLON 13A	13.800]	AMPS	14935.5	-99.57	0.0	0.00
526	[TCOLON 13B	13.800]	AMPS	14935.5	-99.57	0.0	0.00
527	[TCOLON 13C	13.800]	AMPS	14935.5	-99.57	0.0	0.00
529	[TCOLON 115	115.00]	AMPS	7975.4	-87.75	7689.6	-75.51
531	[EGIRAL13.8 2	13.800]	AMPS	13892.9	-98.75	0.0	0.00
601	[PAN II 13T1	13.800]	AMPS	8723.3	-96.13	0.0	0.00
602	[PAN II 13T2	13.800]	AMPS	8723.3	-96.13	0.0	0.00
603	[PAN 13T1	13.800]	AMPS	9639.2	-96.54	0.0	0.00
604	[PAN 13T2	13.800]	AMPS	9639.2	-96.54	0.0	0.00
605	[PAN 13T3	13.800]	AMPS	8445.7	-96.50	0.0	0.00
6000	[FRONTER	230.00]	AMPS	4418.4	-71.77	2446.2	-69.67

OUTPUT FOR AREA 7 [ACANAL]

				THREE PHASE FAULT		ONE PHASE FAULT	
X---------- BUS ----------X				/I+/	AN(I+)	/IA/	AN(IA)
123	[MIR115	115.00]	AMPS	7465.5	-85.11	6637.8	-89.70
124	[MIR44	44.000]	AMPS	14180.6	-90.17	17749.5	-90.83
126	[MIR13A	12.000]	AMPS	9021.6	-95.48	0.0	0.00
127	[MIR13B	12.000]	AMPS	8988.1	-96.09	0.0	0.00
128	[MIR13C	12.000]	AMPS	10258.9	-89.46	0.0	0.00
129	[MIR13D	13.800]	AMPS	23492.8	-87.79	26749.9	-88.94
130	[MIR13F	13.800]	AMPS	20834.6	-93.62	19659.5	-94.25
131	[BAL44	44.000]	AMPS	8372.6	-88.12	7349.1	-87.45
132	[SUM44	44.000]	AMPS	7912.3	-85.62	7562.7	-85.27
133	[MAD44	44.000]	AMPS	3230.9	-83.57	4063.9	-85.48
134	[MAD6A	6.9000]	AMPS	8654.8	-92.28	0.0	0.00
135	[MAD6B	6.9000]	AMPS	8594.6	-92.32	0.0	0.00
136	[MAD6C	6.9000]	AMPS	8602.7	-92.32	0.0	0.00
137	[GAM44	44.000]	AMPS	6092.7	-84.65	4575.3	-83.26
138	[ACL44	44.000]	AMPS	5445.3	-89.11	4746.7	-91.16
139	[GAT44	44.000]	AMPS	5188.5	-88.34	5181.3	-91.95
140	[GAT6A	6.9000]	AMPS	13533.4	-95.95	11353.1	-97.58
141	[GAT6B	6.9000]	AMPS	14253.9	-94.27	12210.5	-95.84
170	[MIR13G	13.800]	AMPS	17872.3	-93.48	13596.9	-94.41
171	[MIR13H	13.800]	AMPS	23505.6	-91.98	21587.6	-92.72

2. CORTOCIRCUITO AÑO 2010

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E WED, JUN 24 2009 14:43
PLAN EXP-SIN CON C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2010 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	AN(I+)	ONE PHASE FAULT /IA/	AN(IA)
1	[PAN230	230.00] AMPS	5949.8	-80.02	4878.9	-84.76
2	[PAN115	115.00] AMPS	11659.6	-80.99	8188.9	-87.40
3	[PANII230	230.00] AMPS	5897.9	-80.05	5206.3	-84.57
4	[PANII115	115.00] AMPS	8502.3	-84.13	2871.3	-87.47
5	[CHO230	230.00] AMPS	5030.4	-80.28	4795.1	-84.40
6	[CHO115	115.00] AMPS	3076.7	-93.45	0.0	0.00
7	[CHO34	34.500] AMPS	15183.8	-89.70	0.0	0.00
8	[LSA230	230.00] AMPS	5465.9	-75.89	4487.4	-76.27
9	[LSA115	115.00] AMPS	4372.9	-83.77	0.0	0.00
10	[L.S.34	34.500] AMPS	8143.3	-88.09	0.0	0.00
11	[M.N230	230.00] AMPS	7197.0	-69.33	5356.1	-66.96
12	[M.N115	115.00] AMPS	6039.6	-68.44	3623.2	-58.36
13	[MDNA34	34.500] AMPS	22541.1	-74.55	0.0	0.00
14	[PRO230	230.00] AMPS	4502.8	-69.95	2633.4	-67.84
15	[PRO115	115.00] AMPS	2991.3	-77.41	0.0	0.00
16	[PRO34	34.500] AMPS	14459.2	-75.45	0.0	0.00
18	[CAC115	115.00] AMPS	11572.0	-81.11	8180.7	-87.62
19	[C.V115	115.00] AMPS	8051.2	-83.53	3490.2	-88.72
20	[CH.AZUL	115.00] AMPS	1840.9	-74.34	0.0	0.00
21	[C.BAN115	115.00] AMPS	10233.4	-81.18	6362.6	-88.07
23	[CH115	115.00] AMPS	6269.2	-86.92	4145.2	-89.41
26	[LOC115	115.00] AMPS	10522.7	-80.95	6999.4	-87.79
30	[MAR115	115.00] AMPS	9417.5	-81.65	5899.4	-87.60
33	[STM115	115.00] AMPS	10496.4	-81.53	7159.7	-87.43
37	[SAN115	115.00] AMPS	9745.4	-81.67	5393.1	-88.46
48	[TINAJ115	115.00] AMPS	8954.5	-83.36	5370.4	-88.43
50	[M.O115	115.00] AMPS	9499.3	-82.86	5898.6	-88.31
51	[TAP401	44.000] AMPS	5755.9	-91.38	4350.3	-94.10
52	[TOC115	115.00] AMPS	6907.1	-85.21	2399.6	-87.61
53	[TAP402	44.000] AMPS	5755.9	-91.38	4361.4	-94.19
54	[LM1115	115.00] AMPS	9950.0	-88.89	11593.4	-90.96
55	[LM2115	115.00] AMPS	10017.3	-89.24	11747.8	-91.48
56	[L.M.44	44.000] AMPS	7252.4	-94.79	2793.8	-93.77
57	[L.M.13	13.800] AMPS	11948.8	-99.38	0.0	0.00
58	[MHOPE	44.000] AMPS	6616.3	-91.27	4689.4	-94.87
61	[FFIELD	115.00] AMPS	7744.6	-89.08	7907.9	-86.18
62	[FF44	44.000] AMPS	7213.2	-94.16	4324.0	-95.53
64	[COLON44	44.000] AMPS	6907.5	-92.00	4332.7	-95.01
66	[BLM13B	13.800] AMPS	31722.4	-97.91	24196.8	-98.62
67	[BLM13C	13.800] AMPS	33198.5	-97.96	33084.7	-98.44
68	[BLM13D	13.800] AMPS	33832.5	-98.06	33503.6	-98.58
69	[TGJB13.8	13.800] AMPS	19807.7	-100.02	0.0	0.00
70	[TGJB13A	13.800] AMPS	15726.8	-100.68	0.0	0.00
71	[TGJB13B	13.800] AMPS	15726.8	-100.68	0.0	0.00
72	[BLMCCA	13.800] AMPS	15726.8	-100.68	0.0	0.00
73	[BLMCCB	13.800] AMPS	15726.8	-100.68	0.0	0.00
74	[IND44	44.000] AMPS	5754.2	-91.32	4348.2	-94.00
75	[IND2	2.4000] AMPS	36790.3	-95.28	0.1	-103.98
79	[PM44-2	44.000] AMPS	7298.9	-93.68	4296.9	-95.38
80	[PM44-3	44.000] AMPS	6928.7	-91.90	4497.4	-95.04
85	[PTP230	230.00] AMPS	3210.3	-53.63	3411.2	-46.23
86	[CC13.8	13.800] AMPS	19807.7	-100.02	0.0	0.00
87	[CAL115	115.00] AMPS	6179.3	-65.65	7974.0	-64.55
88	[EST115	115.00] AMPS	5417.5	-64.21	7527.9	-64.31
89	[EST.13	13.800] AMPS	43243.5	-64.30	27378.9	-65.83
90	[EST-13L	13.800] AMPS	20242.9	-62.63	21233.2	-62.75
91	[EST-13T	13.800] AMPS	20242.9	-62.63	21233.2	-62.75
92	[L.V115	115.00] AMPS	5889.3	-65.07	8132.4	-65.14
93	[L.V.13	13.800] AMPS	46315.0	-65.06	28144.1	-66.34
94	[LV-13.8L	13.800] AMPS	20458.3	-62.62	21391.1	-62.72
95	[LV-13.8T	13.800] AMPS	20458.3	-62.62	21391.1	-62.72
96	[FOR230	230.00] AMPS	7880.3	-69.23	8774.3	-70.49
97	[FOR13A	13.800] AMPS	57329.4	-70.71	50630.2	-71.23
98	[FOR13B	13.800] AMPS	57329.4	-70.71	50630.2	-71.23
99	[FOR13C	13.800] AMPS	57329.4	-70.71	50630.2	-71.23
100	[BAY230	230.00] AMPS	4568.7	-82.69	5198.6	-85.51

101	[BAY13A 13.800]	AMPS	35341.7	-87.04	31002.9	-88.29
102	[BAY13B 13.800]	AMPS	35341.7	-86.86	31002.9	-88.11
103	[COPESA23 230.00]	AMPS	5126.5	-81.28	4408.3	-84.82
104	[COPESA13 13.800]	AMPS	18850.6	-95.51	0.0	0.00
105	[PAN-AM23 230.00]	AMPS	4996.7	-80.38	4772.3	-84.51
106	[PANAM13A 13.800]	AMPS	19618.7	-94.58	11753.4	-96.18
107	[PANAM13B 13.800]	AMPS	14851.1	-96.07	0.0	0.00
108	[BAY13C 13.800]	AMPS	35489.8	-86.83	34090.3	-87.90
109	[STA RITA115 115.00]	AMPS	9067.9	-88.79	8408.0	-87.03
115	[PACORA23 230.00]	AMPS	4828.2	-81.95	4607.1	-85.65
116	[PACORA13 13.800]	AMPS	21944.4	-93.81	14414.6	-96.45
142	[CANJ13A 13.800]	AMPS	15767.5	-56.82	12882.7	-56.91
143	[CANJ13B 13.800]	AMPS	15767.5	-56.82	12882.7	-56.91
144	[CANJ230 230.00]	AMPS	6476.2	-70.29	7178.0	-70.67
145	[BJOMIN230 230.00]	AMPS	3570.5	-70.17	2117.5	-67.99
146	[GUALACA230 230.00]	AMPS	6201.6	-64.69	7436.3	-66.87
147	[GUASQ230 230.00]	AMPS	6756.3	-70.28	7781.9	-71.00
148	[VELADERO 230230.00]	AMPS	6503.9	-72.29	5056.4	-71.33
150	[GUALACA 13-213.800]	AMPS	12183.1	-74.36	8077.3	-74.96
151	[GUALACA13.8 13.800]	AMPS	12061.3	-74.33	7996.5	-74.93
154	[CEMPAN15 115.00]	AMPS	7184.4	-89.05	7174.2	-92.18
160	[GEEHAN13.8 13.800]	AMPS	4751.6	-96.34	5086.5	-98.52
190	[CHANG230 230.00]	AMPS	2976.2	-57.33	2237.4	-60.51
191	[CHANG115 115.00]	AMPS	2356.3	-70.97	2526.9	-71.67
192	[CHANG34 34.500]	AMPS	3660.7	-75.95	2037.9	-80.47
204	[BJOMIN13 13.800]	AMPS	20368.4	-77.40	19781.9	-78.72
301	[CONC13.8 13.800]	AMPS	34688.0	-77.44	9683.6	-80.31
302	[PASOANCH13.813.800]	AMPS	32247.9	-77.53	1939.3	-80.99
304	[ALGA13.8 13.800]	AMPS	23563.1	-61.97	9702.7	-62.13
317	[MENDRE13.8 13.800]	AMPS	21477.0	-60.37	16200.4	-60.42
321	[CALDERA34.5 34.500]	AMPS	12862.2	-62.15	10411.5	-62.32
323	[COCHEA 13.8 13.800]	AMPS	21484.5	-61.07	21148.1	-61.11
324	[POTRER 13.8 13.800]	AMPS	23090.4	-62.14	1937.7	-62.35
342	[LORENA13.8 13.800]	AMPS	15741.7	-73.56	10680.6	-74.79
345	[LORENA230 230.00]	AMPS	5476.3	-58.23	6564.9	-61.67
346	[LORENA 13-2 13.800]	AMPS	15741.7	-73.56	10680.6	-74.79
511	[LGUIAS230 230.00]	AMPS	3589.0	-79.50	3228.2	-82.35
512	[LGUIAS 34.5 34.500]	AMPS	5391.4	-91.30	0.0	0.00
521	[EGIRAL13.8 113.800]	AMPS	12028.5	-97.71	9205.6	-98.31
522	[TCATIVÁ 115 115.00]	AMPS	9995.1	-89.12	11764.7	-91.45
523	[TCATIVÁ 13A 13.800]	AMPS	35418.9	-97.31	26312.1	-98.42
524	[TCATIVÁ 13B 13.800]	AMPS	19833.5	-100.06	0.0	0.00
525	[TCOLON 13A 13.800]	AMPS	15561.8	-100.55	0.0	0.00
526	[TCOLON 13B 13.800]	AMPS	15561.8	-100.55	0.0	0.00
527	[TCOLON 13C 13.800]	AMPS	15561.8	-100.55	0.0	0.00
529	[TCOLON 115 115.00]	AMPS	9060.7	-89.01	8460.6	-75.65
531	[EGIRAL13.8 213.800]	AMPS	25455.7	-96.58	35063.0	-97.39
601	[PAN II 13T1 13.800]	AMPS	8747.7	-98.01	0.0	0.00
602	[PAN II 13T2 13.800]	AMPS	8747.7	-98.01	0.0	0.00
603	[PAN 13T1 13.800]	AMPS	9670.0	-98.45	0.0	0.00
604	[PAN 13T2 13.800]	AMPS	9670.0	-98.45	0.0	0.00
605	[PAN 13T3 13.800]	AMPS	8472.9	-98.47	0.0	0.00
6000	[FRONTER 230.00]	AMPS	4475.3	-70.10	2519.7	-67.83

OUTPUT FOR AREA 7 [ACANAL]

			THREE PHASE FAULT		ONE PHASE FAULT	
X---------- BUS ----------X			/I+/	AN(I+)	/IA/	AN(IA)
123	[MIR115 115.00]	AMPS	7530.4	-86.00	6743.4	-91.01
124	[MIR44 44.000]	AMPS	14385.6	-91.79	18022.7	-92.53
126	[MIR13A 12.000]	AMPS	9148.2	-97.29	0.0	0.00
127	[MIR13B 12.000]	AMPS	9113.3	-97.91	0.0	0.00
128	[MIR13C 12.000]	AMPS	10400.9	-91.28	0.0	0.00
129	[MIR13D 13.800]	AMPS	23663.6	-89.64	26949.0	-90.81
130	[MIR13F 13.800]	AMPS	21126.4	-95.48	19936.3	-96.14
131	[BAL44 44.000]	AMPS	8490.8	-89.84	7454.5	-89.25
132	[SUM44 44.000]	AMPS	8037.1	-87.25	7682.1	-86.95
133	[MAD44 44.000]	AMPS	3278.9	-85.26	4125.3	-87.19
134	[MAD6A 6.9000]	AMPS	8780.8	-94.00	0.0	0.00
135	[MAD6B 6.9000]	AMPS	8719.7	-94.04	0.0	0.00
136	[MAD6C 6.9000]	AMPS	8727.9	-94.03	0.0	0.00

137	[GAM44	44.000]	AMPS	6195.4	-86.22	4649.5	-84.86
138	[ACL44	44.000]	AMPS	5567.8	-90.31	4844.9	-92.33
139	[GAT44	44.000]	AMPS	5298.1	-89.49	5284.7	-93.10
140	[GAT6A	6.9000]	AMPS	13552.7	-97.06	11363.9	-98.68
141	[GAT6B	6.9000]	AMPS	14274.0	-95.41	12222.3	-96.97
170	[MIR13G	13.800]	AMPS	18116.4	-95.34	13782.8	-96.30
171	[MIR13H	13.800]	AMPS	23822.0	-93.88	21879.8	-94.65

3. CORTOCIRCUITO AÑO 2011

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E WED, JUN 24 2009 14:44
PLAN EXP-SIN CON C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2011 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X				THREE PHASE FAULT RE(I+)	IM(I+)	ONE PHASE FAULT RE(IA)	IM(IA)
1	[PAN230	230.00]	P.U.	7.3163	-19.9065	4.2543	-17.7197
2	[PAN115	115.00]	P.U.	6.6015	-18.9393	2.9856	-15.3897
3	[PANII230	230.00]	P.U.	7.1314	-19.9453	4.6048	-18.9384
4	[PANII115	115.00]	P.U.	4.5526	-16.5228	1.0824	-6.9637
5	[CHO230	230.00]	P.U.	6.2683	-17.1362	4.3190	-17.1876
6	[CHO115	115.00]	P.U.	0.4584	-5.8875	0.0000	0.0000
7	[CHO34	34.500]	P.U.	1.3462	-8.4962	0.0000	0.0000
8	[LSA230	230.00]	P.U.	10.0285	-19.6329	6.9362	-15.4021
9	[LSA115	115.00]	P.U.	4.4297	-11.8030	0.0000	0.0000
10	[L.S.34	34.500]	P.U.	1.0543	-4.4770	0.0000	0.0000
11	[M.N230	230.00]	P.U.	20.5706	-27.5898	13.8434	-16.9745
12	[M.N115	115.00]	P.U.	7.6854	-9.8425	5.5111	-4.8821
13	[MDNA34	34.500]	P.U.	7.7150	-12.4780	0.0000	0.0000
14	[PRO230	230.00]	P.U.	14.2896	-18.3223	5.8995	-6.5971
15	[PRO115	115.00]	P.U.	3.3585	-5.4898	0.0000	0.0000
16	[PRO34	34.500]	P.U.	5.5100	-8.4992	0.0000	0.0000
18	[CAC115	115.00]	P.U.	6.4920	-18.8298	2.9182	-15.3800
19	[C.V115	115.00]	P.U.	4.1276	-14.8846	1.0969	-7.7661
20	[CH.AZUL	115.00]	P.U.	2.2143	-3.1442	0.0000	0.0000
21	[C.BAN115	115.00]	P.U.	5.7365	-17.1229	2.1351	-12.4190
23	[CH115	115.00]	P.U.	2.3073	-11.1373	1.0307	-7.8744
26	[LOC115	115.00]	P.U.	5.9610	-17.4779	2.4233	-13.4563
30	[MAR115	115.00]	P.U.	5.1272	-15.9238	2.0071	-11.3498
33	[STM115	115.00]	P.U.	5.7751	-17.4069	2.5414	-13.5544
37	[SAN115	115.00]	P.U.	5.3324	-16.5278	1.7284	-10.8302
48	[TINAJ115	115.00]	P.U.	4.4528	-15.3543	1.6413	-10.3279
50	[M.O115	115.00]	P.U.	4.8761	-16.1133	1.8579	-11.2995
51	[TAP401	44.000]	P.U.	0.3341	-4.2883	0.0694	-3.2560
52	[TOC115	115.00]	P.U.	3.2368	-13.5148	0.8366	-5.6043
53	[TAP402	44.000]	P.U.	0.3341	-4.2883	0.0645	-3.2645
54	[LM1115	115.00]	P.U.	3.4685	-16.9470	3.0905	-20.3813
55	[LM2115	115.00]	P.U.	3.4372	-16.9476	3.0286	-20.5252
56	[L.M.44	44.000]	P.U.	0.1550	-5.4205	0.0490	-2.0781
57	[L.M.13	13.800]	P.U.	-0.1799	-2.7926	0.0000	0.0000
58	[MHOPE	44.000]	P.U.	0.4165	-4.9030	0.0301	-3.4954
61	[FFIELD	115.00]	P.U.	2.4661	-13.6528	2.9142	-14.2016
62	[FF44	44.000]	P.U.	0.2138	-5.3330	-0.0072	-3.2084
64	[COLON44	44.000]	P.U.	0.3840	-5.1156	0.0186	-3.2242
66	[BLM13B	13.800]	P.U.	-0.1950	-7.4949	-0.2601	-5.7415
67	[BLM13C	13.800]	P.U.	-0.2154	-7.8467	-0.3146	-7.8392
68	[BLM13D	13.800]	P.U.	-0.2961	-3.6975	0.0000	0.0000
69	[TGJB13.8	13.800]	P.U.	-0.2896	-4.5834	0.0000	0.0000
70	[TGJB13A	13.800]	P.U.	-0.2957	-3.6543	0.0000	0.0000
71	[TGJB13B	13.800]	P.U.	-0.2957	-3.6543	0.0000	0.0000
72	[BLMCCA	13.800]	P.U.	-0.2957	-3.6543	0.0000	0.0000
73	[BLMCCB	13.800]	P.U.	-0.2957	-3.6543	0.0000	0.0000
74	[IND44	44.000]	P.U.	0.3389	-4.2865	0.0752	-3.2542
75	[IND2	2.4000]	P.U.	-0.0041	-1.5044	0.0000	0.0000
79	[PM44-2	44.000]	P.U.	0.2612	-5.4021	0.0001	-3.1913
80	[PM44-3	44.000]	P.U.	0.3915	-5.1347	0.0187	-3.3492
85	[PTP230	230.00]	P.U.	11.4224	-14.9643	10.6314	-11.6891
86	[CC13.8	13.800]	P.U.	-0.2896	-4.5834	0.0000	0.0000
87	[CAL115	115.00]	P.U.	8.2718	-9.5872	10.8909	-12.1240
88	[EST115	115.00]	P.U.	7.4448	-8.1966	10.3132	-11.3918
89	[EST.13	13.800]	P.U.	7.1058	-7.8534	4.3411	-5.0537
90	[EST-13L	13.800]	P.U.	3.4102	-3.5819	3.5673	-3.7626
91	[EST-13T	13.800]	P.U.	3.4102	-3.5819	3.5673	-3.7626

92	[L.V115 115.00]	P.U.	7.9692	-9.0467	10.9753	-12.4835
93	[L.V.13 13.800]	P.U.	7.5065	-8.5206	4.4176	-5.2328
94	[LV-13.8L 13.800]	P.U.	3.4479	-3.6195	3.5971	-3.7881
95	[LV-13.8T 13.800]	P.U.	3.4479	-3.6195	3.5971	-3.7881
96	[FOR230 230.00]	P.U.	22.3726	-30.4841	20.7824	-30.3533
97	[FOR13A 13.800]	P.U.	8.3392	-11.8097	7.2271	-10.3716
98	[FOR13B 13.800]	P.U.	8.3392	-11.8097	7.2271	-10.3716
99	[FOR13C 13.800]	P.U.	8.3392	-11.8097	7.2271	-10.3716
100	[BAY230 230.00]	P.U.	3.7478	-15.1787	3.3722	-18.0919
101	[BAY13A 13.800]	P.U.	0.6098	-8.1742	0.3206	-7.2734
102	[BAY13B 13.800]	P.U.	0.7579	-8.1618	0.4524	-7.2664
103	[COPESA23 230.00]	P.U.	5.5836	-17.6157	3.6136	-16.1453
104	[COPESA13 13.800]	P.U.	0.0371	-4.4038	0.0000	0.0000
105	[PAN-AM23 230.00]	P.U.	6.1910	-17.0337	4.2694	-17.1164
106	[PANAM13A 13.800]	P.U.	0.0712	-3.4480	0.0000	0.0000
107	[PANAM13B 13.800]	P.U.	0.0712	-3.4480	0.0000	0.0000
108	[BAY13C 13.800]	P.U.	0.1867	-5.2356	0.0000	0.0000
109	[STA RITA115 115.00]	P.U.	3.4766	-16.3877	2.7252	-16.9689
115	[PACORA23 230.00]	P.U.	4.8522	-16.3755	3.4457	-16.6247
116	[PACORA13 13.800]	P.U.	0.0556	-4.1875	0.0000	0.0000
142	[CANJ13A 13.800]	P.U.	2.7447	-2.7187	2.2353	-2.2191
143	[CANJ13B 13.800]	P.U.	2.7447	-2.7187	2.2353	-2.2191
144	[CANJ230 230.00]	P.U.	18.5972	-25.9560	15.1356	-20.9930
145	[BJOMIN230 230.00]	P.U.	11.7875	-14.9658	5.0928	-5.5592
146	[GUALACA230 230.00]	P.U.	20.4414	-22.9587	15.5431	-18.9201
147	[GUASQ230 230.00]	P.U.	19.6328	-27.4062	16.0926	-22.4710
148	[VELADERO 230230.00]	P.U.	15.6431	-24.2790	10.6971	-16.4780
150	[GUALACA 13-213.800]	P.U.	1.5484	-2.5168	0.6933	-1.1524
151	[GUALACA13.8 13.800]	P.U.	1.5484	-2.5168	1.0042	-1.6628
154	[CEMPAN15 115.00]	P.U.	2.0420	-11.2338	1.3093	-11.9602
160	[GEEHAN13.8 13.800]	P.U.	-0.0551	-1.0727	-0.1091	-1.1606
190	[CHANG230 230.00]	P.U.	12.8480	-16.0259	9.6966	-10.6648
191	[CHANG115 115.00]	P.U.	4.0261	-5.8558	4.3185	-6.1380
192	[CHANG34 34.500]	P.U.	1.4755	-2.2332	0.7780	-1.2721
193	[GEBONYIC 13.800]	P.U.	3.3306	-4.4263	2.7850	-3.7313
204	[BJOMIN13 13.800]	P.U.	4.0240	-5.7035	4.3698	-6.3154
205	[BAITUN13.8 13.800]	P.U.	5.2669	-7.1095	4.1328	-5.7503
301	[CONC13.8 13.800]	P.U.	4.1830	-7.4972	1.0358	-2.0507
302	[PASOANCH13.813.800]	P.U.	3.8799	-6.9851	0.2018	-0.4098
304	[ALGA13.8 13.800]	P.U.	3.9719	-4.0715	1.6291	-1.6788
306	[CHAN1 230 230.00]	P.U.	12.3577	-15.2733	14.0477	-9.3072
307	[CHAN1 A 13.800]	P.U.	6.1349	-7.9585	3.9461	-5.3388
308	[CHAN1 B 13.800]	P.U.	3.6389	-5.4573	0.0000	0.0000
310	[CONCEPCION23230.00]	P.U.	15.7042	-20.5554	7.3721	-8.4772
317	[MENDRE13.8 13.800]	P.U.	3.7177	-3.6065	2.8010	-2.7217
320	[CONCEP34.5 34.500]	P.U.	2.9803	-4.7798	0.0000	0.0000
321	[CALDERA34.5 34.500]	P.U.	5.4059	-5.5786	4.3589	-4.5214
323	[COCHEA 13.8 13.800]	P.U.	3.6633	-3.6648	3.6021	-3.6088
324	[POTRER 13.8 13.800]	P.U.	3.8757	-3.9965	0.3236	-0.3359
340	[PEDGALITO13813.800]	P.U.	2.6256	-3.9387	1.9955	-3.0142
341	[PRUDENCIA230230.00]	P.U.	19.0368	-14.3530	13.4190	-12.8981
342	[LORENA13.8 13.800]	P.U.	2.0525	-3.2405	1.3387	-2.1972
343	[PRUDENCIA13813.800]	P.U.	3.4715	-5.0489	2.5802	-4.0110
344	[PRUDENCI13-213.800]	P.U.	3.4715	-5.0489	1.7124	-2.7258
345	[LORENA230 230.00]	P.U.	20.0537	-17.9437	14.4414	-15.3209
346	[LORENA 13-2 13.800]	P.U.	2.0525	-3.2405	0.9251	-1.5312
350	[MACANO 13.8 13.800]	P.U.	5.2973	-8.4302	0.2463	-0.4484
351	[PERLAS N 13 13.800]	P.U.	5.6408	-8.9834	0.5947	-1.0672
352	[PERLAS S 13 13.800]	P.U.	5.6408	-8.9834	0.5947	-1.0672
353	[PORVEN N 13 13.800]	P.U.	5.3027	-8.4403	0.2466	-0.4489
511	[LGUIAS230 230.00]	P.U.	6.9547	-16.2258	5.1163	-14.9059
512	[LGUIAS 34.5 34.500]	P.U.	0.4535	-3.2597	0.0000	0.0000
521	[EGIRAL13.8 113.800]	P.U.	-0.1885	-1.7473	0.0000	0.0000
522	[TCATIVÁ 115 115.00]	P.U.	3.4412	-16.9698	3.0197	-20.6165
523	[TCATIVÁ 13A 13.800]	P.U.	-0.1823	-8.2379	-0.3206	-6.1612
524	[TCATIVÁ 13B 13.800]	P.U.	-0.2909	-4.5854	0.0000	0.0000
525	[TCOLON 13A 13.800]	P.U.	-0.2381	-3.4225	0.0000	0.0000
526	[TCOLON 13B 13.800]	P.U.	-0.2381	-3.4225	0.0000	0.0000
527	[TCOLON 13C 13.800]	P.U.	-0.2381	-3.4225	0.0000	0.0000
529	[TCOLON 115 115.00]	P.U.	2.0827	-12.4269	4.8286	-6.6811
531	[EGIRAL13.8 213.800]	P.U.	-0.2140	-3.3058	0.0000	0.0000
540	[ANTON 230 230.00]	P.U.	3.7848	-13.9225	2.4621	-9.8162
541	[TOABRE 0.6000]	P.U.	2.4777	-10.6218	0.3835	-4.5155
601	[PAN II 13T1 13.800]	P.U.	-0.0819	-2.0554	0.0000	0.0000
602	[PAN II 13T2 13.800]	P.U.	-0.0819	-2.0554	0.0000	0.0000
603	[PAN 13T1 13.800]	P.U.	-0.1019	-2.2711	0.0000	0.0000

604	[PAN 13T2	13.800]	P.U.	-0.1019	-2.2711	0.0000	0.0000
605	[PAN 13T3	13.800]	P.U.	-0.0299	-4.1247	0.0000	0.0000
6000	[FRONTER	230.00]	P.U.	13.6276	-17.4465	5.6972	-6.4153

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E WED, JUN 24 2009 14:44
PLAN EXP-SIN CON C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2011 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X			THREE PHASE FAULT RE(I+)	IM(I+)	ONE PHASE FAULT RE(IA)	IM(IA)
123	[MIR115	115.00] P.U.	2.9828	-13.5896	1.4896	-12.8889
124	[MIR44	44.000] P.U.	0.8591	-10.7600	0.8699	-13.5265
126	[MIR13A	12.000] P.U.	-0.0614	-1.9011	0.0000	0.0000
127	[MIR13B	12.000] P.U.	-0.0823	-1.8925	0.0000	0.0000
128	[MIR13C	12.000] P.U.	0.1557	-2.1549	0.0000	0.0000
129	[MIR13D	13.800] P.U.	0.5624	-5.6241	0.5055	-6.4219
130	[MIR13F	13.800] P.U.	-0.0006	-5.0455	-0.0640	-4.7670
131	[BAL44	44.000] P.U.	0.6745	-6.3827	0.6253	-5.6235
132	[SUM44	44.000] P.U.	0.9029	-5.9874	0.8722	-5.7440
133	[MAD44	44.000] P.U.	0.4378	-2.4489	0.4460	-3.1001
134	[MAD6A	6.9000] P.U.	0.0229	-1.0480	0.0000	0.0000
135	[MAD6B	6.9000] P.U.	0.0220	-1.0407	0.0000	0.0000
136	[MAD6C	6.9000] P.U.	0.0221	-1.0417	0.0000	0.0000
137	[GAM44	44.000] P.U.	0.7667	-4.6053	0.6419	-3.4601
138	[ACL44	44.000] P.U.	0.3889	-4.1587	0.1891	-3.6366
139	[GAT44	44.000] P.U.	0.4208	-3.9548	0.1549	-3.9707
140	[GAT6A	6.9000] P.U.	-0.0579	-1.6173	-0.0892	-1.3544
141	[GAT6B	6.9000] P.U.	-0.0114	-1.7045	-0.0519	-1.4590
170	[MIR13G	13.800] P.U.	0.0130	-4.3244	-0.0545	-3.2962
171	[MIR13H	13.800] P.U.	0.1617	-5.6834	0.0672	-5.2299

4. CORTOCIRCUITO AÑO 2012

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E MON, JUN 29 2009 10:56
PLAN. EXP-SIN - C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2012 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 6 [PANAMA]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	AN(I+)	ONE PHASE FAULT /IA/	AN(IA)
1	[PAN230	230.00] AMPS	6836.6	-73.58	4891.1	-79.51
2	[PAN115	115.00] AMPS	12369.4	-74.82	8740.1	-81.31
3	[PANII230	230.00] AMPS	6759.3	-74.00	5610.8	-79.64
4	[PANII115	115.00] AMPS	10147.1	-78.67	3556.6	-81.69
5	[CHO230	230.00] AMPS	5457.5	-73.85	4762.9	-79.48
6	[CHO115	115.00] AMPS	3096.9	-87.79	0.0	0.00
8	[LSA230	230.00] AMPS	6935.5	-67.08	4500.8	-68.98
9	[LSA115	115.00] AMPS	7158.5	-73.84	3925.8	-77.94
11	[M.N230	230.00] AMPS	9738.8	-59.82	6331.2	-56.28
12	[M.N115	115.00] AMPS	6536.0	-58.84	3857.8	-48.25
14	[PRO230	230.00] AMPS	6461.1	-59.89	4172.5	-60.14
15	[PRO115	115.00] AMPS	3350.7	-66.18	0.0	0.00
18	[CAC115	115.00] AMPS	12247.3	-74.99	8810.5	-81.40
19	[C.V115	115.00] AMPS	8960.4	-78.20	3945.2	-82.40
20	[CH.AZUL	115.00] AMPS	1983.4	-62.31	0.0	0.00
21	[C.BAN115	115.00] AMPS	10829.0	-75.31	6315.5	-80.19
23	[CH115	115.00] AMPS	6284.7	-80.94	4170.2	-83.92
26	[LOC115	115.00] AMPS	11135.2	-75.01	7100.2	-79.65
30	[MAR115	115.00] AMPS	9880.6	-75.77	6114.2	-80.80
33	[STM115	115.00] AMPS	11068.9	-75.48	7576.4	-81.44
37	[SAN115	115.00] AMPS	10319.4	-75.93	5500.1	-81.06
48	[TINAJ115	115.00] AMPS	9369.8	-77.51	5601.4	-82.67

50	[M.O115	115.00]	AMPS	9967.9	-76.94	6178.8	-82.49
52	[TOC115	115.00]	AMPS	7927.0	-80.09	2851.3	-82.02
54	[LM1115	115.00]	AMPS	10077.9	-81.71	12184.6	-84.67
55	[LM2115	115.00]	AMPS	10041.3	-81.65	12157.6	-84.63
61	[FFIELD	115.00]	AMPS	7816.7	-82.51	8151.1	-80.29
85	[PTP230	230.00]	AMPS	5050.2	-58.61	0.0	0.00
87	[CAL115	115.00]	AMPS	6584.8	-56.20	8575.2	-55.29
88	[EST115	115.00]	AMPS	5767.5	-54.79	7982.5	-54.87
92	[L.V115	115.00]	AMPS	6273.4	-55.62	8643.7	-55.66
96	[FOR230	230.00]	AMPS	10500.0	-59.91	10884.7	-58.69
100	[BAY230	230.00]	AMPS	4952.2	-79.65	5472.8	-82.68
103	[COPESA23	230.00]	AMPS	5724.0	-75.97	5330.8	-80.77
105	[PAN-AM23	230.00]	AMPS	5412.8	-73.96	4742.6	-79.57
109	[STA RITA115	115.00]	AMPS	10326.5	-81.71	9410.3	-82.97
115	[PACORA23	230.00]	AMPS	5226.8	-76.94	4956.8	-81.20
144	[CANJ230	230.00]	AMPS	8726.1	-60.86	7870.8	-59.99
145	[BJOMIN230	230.00]	AMPS	5166.6	-59.66	3970.2	-61.29
146	[GUALACA230	230.00]	AMPS	8329.8	-53.95	7873.4	-54.96
147	[GUASQ230	230.00]	AMPS	9252.9	-60.86	8566.1	-60.20
148	[VELADERO 230	230.00]	AMPS	8361.6	-63.93	5450.6	-63.45
149	[BBLANCO	230.00]	AMPS	6922.2	-64.44	0.0	0.00
154	[CEMPAN15	115.00]	AMPS	6298.1	-82.13	6233.3	-85.71
190	[CHANG230	230.00]	AMPS	5790.7	-56.87	3526.7	-56.17
191	[CHANG115	115.00]	AMPS	3699.2	-60.80	4125.3	-60.75
306	[CHAN1 230	230.00]	AMPS	5805.0	-56.02	6254.3	-52.77
310	[CONCEPCION23	230.00]	AMPS	7756.0	-59.93	3915.8	-56.70
311	[PANDO230	230.00]	AMPS	5987.5	-59.36	0.0	0.00
341	[PRUDENCIA230	230.00]	AMPS	6236.5	-40.91	5936.6	-41.34
345	[LORENA230	230.00]	AMPS	7175.3	-46.74	6791.1	-47.17
511	[LGUIAS230	230.00]	AMPS	5164.5	-70.90	4013.6	-74.45
522	[TCATIVÁ 115	115.00]	AMPS	10062.2	-81.69	12189.6	-84.71
529	[TCOLON 115	115.00]	AMPS	8370.2	-84.22	0.0	0.00
540	[ANTON 230	230.00]	AMPS	4427.5	-76.93	2657.2	-78.53
6000	[FRONTER	230.00]	AMPS	6065.7	-60.02	3726.3	-59.55

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E MON, JUN 29 2009 10:56
PLAN. EXP-SIN - C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2012 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 7 [ACANAL]

				THREE PHASE FAULT		ONE PHASE FAULT	
X---------- BUS ----------X				/I+/	AN(I+)	/IA/	AN(IA)
123	[MIR115	115.00]	AMPS	7791.2	-80.55	7033.2	-85.39

5. CORTOCIRCUITO AÑO 2015

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E MON, JUN 29 2009 11:26
PLAN EXP-SIN - C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2015 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 6 [PANAMA]

				THREE PHASE FAULT		ONE PHASE FAULT	
X---------- BUS ----------X				/I+/	AN(I+)	/IA/	AN(IA)
1	[PAN230	230.00]	AMPS	6290.9	-68.28	4848.6	-76.22
2	[PAN115	115.00]	AMPS	11377.2	-70.03	8609.8	-78.55
3	[PANII230	230.00]	AMPS	6248.8	-68.56	5521.4	-75.81
4	[PANII115	115.00]	AMPS	9574.9	-73.99	3622.7	-80.33
5	[CHO230	230.00]	AMPS	5242.8	-69.63	4770.3	-76.48
6	[CHO115	115.00]	AMPS	3191.9	-85.91	0.0	0.00
8	[LSA230	230.00]	AMPS	7438.9	-63.62	4761.4	-67.28
9	[LSA115	115.00]	AMPS	7512.7	-71.87	4182.0	-76.88
11	[M.N230	230.00]	AMPS	10275.3	-58.13	6493.0	-55.04
12	[M.N115	115.00]	AMPS	6499.5	-58.39	3820.2	-47.82
14	[PRO230	230.00]	AMPS	6763.9	-57.34	4272.5	-57.69
15	[PRO115	115.00]	AMPS	3408.7	-63.81	0.0	0.00
18	[CAC115	115.00]	AMPS	11272.5	-70.26	8671.7	-78.64
19	[C.V115	115.00]	AMPS	8553.5	-74.07	4009.0	-80.95
20	[CH.AZUL	115.00]	AMPS	2009.6	-59.92	0.0	0.00
21	[C.BAN115	115.00]	AMPS	10132.1	-70.87	6315.6	-78.17
23	[CH115	115.00]	AMPS	5956.9	-78.22	4149.4	-82.86
26	[LOC115	115.00]	AMPS	10382.6	-70.52	7063.0	-77.42

30	[MAR115	115.00]	AMPS	9333.2	-71.68	6123.0	-78.85
33	[STM115	115.00]	AMPS	10321.9	-71.05	7519.2	-79.02
37	[SAN115	115.00]	AMPS	9709.6	-71.59	5530.7	-79.26
48	[TINAJ115	115.00]	AMPS	8902.8	-73.51	5630.9	-80.82
50	[M.O115	115.00]	AMPS	9411.5	-72.76	6189.2	-80.46
52	[TOC115	115.00]	AMPS	7657.0	-76.19	2917.9	-80.89
54	[LM1115	115.00]	AMPS	8343.6	-77.82	10518.7	-81.15
55	[LM2115	115.00]	AMPS	8305.7	-77.73	10485.2	-81.07
61	[FFIELD	115.00]	AMPS	6792.2	-79.41	7414.9	-78.64
85	[PTP230	230.00]	AMPS	5575.8	-56.48	0.0	0.00
87	[CAL115	115.00]	AMPS	6475.3	-55.77	8428.4	-54.87
88	[EST115	115.00]	AMPS	5655.1	-54.39	7825.3	-54.48
92	[L.V115	115.00]	AMPS	6162.7	-55.20	8488.9	-55.24
96	[FOR230	230.00]	AMPS	11134.2	-58.55	11327.0	-57.61
100	[BAY230	230.00]	AMPS	4345.8	-75.43	5016.9	-79.06
103	[COPESA23	230.00]	AMPS	5339.1	-71.12	5219.2	-77.10
105	[PAN-AM23	230.00]	AMPS	5204.3	-69.76	4751.4	-76.58
109	[STA RITA115	115.00]	AMPS	8619.6	-77.75	8490.4	-80.62
115	[PACORA23	230.00]	AMPS	4876.5	-72.42	4839.2	-77.76
144	[CANJ230	230.00]	AMPS	9437.8	-59.73	8260.6	-59.41
145	[BJOMIN230	230.00]	AMPS	5354.8	-57.13	4059.5	-58.85
146	[GUALACA230	230.00]	AMPS	8915.5	-52.29	8232.4	-54.09
147	[GUASQ230	230.00]	AMPS	10059.0	-59.62	9029.3	-59.54
148	[VELADERO 230	230.00]	AMPS	8920.3	-61.72	5684.5	-62.20
149	[BBLANCO	230.00]	AMPS	7327.6	-62.46	0.0	0.00
154	[CEMPAN15	115.00]	AMPS	5796.8	-79.59	5966.5	-84.01
155	[TABASARAII	230.00]	AMPS	6393.5	-62.63	4493.7	-62.56
190	[CHANG230	230.00]	AMPS	6871.2	-53.17	3777.4	-51.99
191	[CHANG115	115.00]	AMPS	3838.6	-56.82	4256.0	-56.71
306	[CHAN1 230	230.00]	AMPS	6493.2	-52.79	6769.9	-49.20
310	[CONCEPCION23	230.00]	AMPS	8396.6	-57.91	4032.8	-54.68
311	[PANDO230	230.00]	AMPS	6654.1	-57.50	0.0	0.00
341	[PRUDENCIA230	230.00]	AMPS	6492.6	-39.12	6099.6	-40.33
345	[LORENA230	230.00]	AMPS	7550.1	-44.92	7023.7	-46.15
506	[CHAN2 230	230.00]	AMPS	6381.2	-53.30	0.0	0.00
511	[LGUIAS230	230.00]	AMPS	5226.8	-67.63	4138.5	-72.47
522	[TCATIVÁ 115	115.00]	AMPS	8324.3	-77.77	10513.9	-81.14
529	[TCOLON 115	115.00]	AMPS	6949.5	-80.99	0.0	0.00
540	[ANTON 230	230.00]	AMPS	4365.5	-73.70	2725.1	-76.93
6000	[FRONTER	230.00]	AMPS	6309.3	-57.30	3803.0	-56.93

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS(R)E MON, JUN 29 2009 11:26
PLAN EXP-SIN - C.A. JUNIO 2009 SHORT CIRCUIT
AñO 2015 ESC MOD DEM MAX INV FAULT CURRENTS
OUTPUT FOR AREA 7 [ACANAL]

				THREE PHASE FAULT		ONE PHASE FAULT	
X---------- BUS ----------X				/I+/	AN(I+)	/IA/	AN(IA)
123	[MIR115	115.00]	AMPS	7601.7	-77.88	7048.2	-83.65

6. CORTOCIRCUITO AÑO