ANEXO 7

ANALISIS DE CORTOCIRCUITO

PLAN DE EXPANSIÓN DEL SIN CON CENTROAMÉRICA 2008
ESCENARIO MODERADO DE DEMANDA
DEMANDA MÁXIMA DE INVIERNO

AÑO 2008


REPÚBLICA DE PANAMÁ
AUTORIDAD NACIONAL DE LOS SERVICIOS PÚBLICOS


REPÚBLICA DE PANAMÁ
AUTORIDAD NACIONAL DE LOS SERVICIOS PÚBLICOS

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	6806.1	-81.71	6398.0	-84.87
2	[PAN115	115.00] AMPS	12495.5	-82.18	11653.6	-86.48
3	[PANII230	230.00] AMPS	6665.2	-81.85	6187.0	-84.89
4	[PANII115	115.00] AMPS	9226.3	-85.34	8453.7	-88.82
5	[CHO230	230.00] AMPS	5876.6	-82.22	5911.8	-85.42
6	[CHO115	115.00] AMPS	4632.3	-90.71	5431.2	-92.34
8	[LSA230	230.00] AMPS	5726.9	-78.88	4533.8	-80.91
9	[LSA115	115.00] AMPS	4415.6	-85.90	4742.5	-87.86
11	[M.N230	230.00] AMPS	6912.9	-74.49	5766.9	-73.71
12	[M.N115	115.00] AMPS	7949.5	-76.85	8000.6	-76.08
14	[PRO230	230.00] AMPS	4447.8	-73.87	2920.5	-77.92
15	[PRO115	115.00] AMPS	4127.4	-79.37	4333.4	-80.47
18	[CAC115	115.00] AMPS	12364.9	-82.31	11406.8	-86.62
19	[C.V115	115.00] AMPS	8524.7	-84.41	6309.8	-87.15
20	[CH.AZUL	115.00] AMPS	2212.0	-76.42	1672.8	-75.04
21	[C.BAN115	115.00] AMPS	10834.3	-82.22	8663.4	-86.49
23	[CH115	115.00] AMPS	6422.3	-86.10	4413.7	-87.09
26	[LOC115	115.00] AMPS	11166.2	-82.02	9576.1	-86.32
30	[MAR115	115.00] AMPS	9923.3	-82.27	7560.9	-85.79
33	[STM115	115.00] AMPS	11159.2	-82.41	9675.9	-86.19
37	[SAN115	115.00] AMPS	10280.2	-82.66	7497.0	-86.77
48	[TINAJ115	115.00] AMPS	9421.0	-83.77	6677.8	-87.04
50	[M.O115	115.00] AMPS	10032.8	-83.40	7511.9	-87.02
52	[TOC115	115.00] AMPS	7350.0	-85.90	5344.6	-87.50
54	[LM1115	115.00] AMPS	10325.7	-88.46	11192.2	-90.43
55	[LM2115	115.00] AMPS	10348.9	-88.57	11226.8	-90.42
87	[CAL115	115.00] AMPS	6238.2	-74.58	8091.3	-73.87
88	[EST115	115.00] AMPS	5437.3	-73.72	7525.8	-74.00
92	[L.V115	115.00] AMPS	5933.0	-74.22	8169.0	-74.47
96	[FOR230	230.00] AMPS	7500.8	-74.77	7991.1	-76.19
100	[BAY230	230.00] AMPS	4906.2	-83.85	5439.3	-86.19
103	[COPESA23	230.00] AMPS	5651.5	-82.75	5556.7	-85.67
105	[PAN-AM23	230.00] AMPS	5841.2	-82.31	5867.6	-85.49
109	[STA RITA115	115.00] AMPS	9334.7	-88.36	7683.5	-87.77
110	[PTMD115A	115.00] AMPS	6259.5	-89.05	3283.3	-87.42
111	[PTMD115B	115.00] AMPS	6259.5	-89.05	3283.3	-87.42
115	[PACORA23	230.00] AMPS	5382.5	-83.39	5216.9	-85.94
144	[CANJ230	230.00] AMPS	6045.9	-75.46	5510.4	-75.04
147	[GUASQ230	230.00] AMPS	6284.3	-75.48	5815.0	-75.18
148	[VELAD230	230.00] AMPS	6440.5	-76.48	4848.9	-75.72
154	[CEMPAN15	115.00] AMPS	6463.6	-87.14	4677.2	-87.17
190	[CHANG230	230.00] AMPS	3123.1	-72.70	1439.5	-79.77
191	[CHANG115	115.00] AMPS	2385.3	-78.72	2302.4	-80.50
511	[LGUIAS230	230.00] AMPS	3791.1	-81.34	2836.2	-81.18
515	[PANPOWER230	230.00] AMPS	4161.5	-85.32	2928.1	-85.41
522	[TBALBOA 115	115.00] AMPS	10340.2	-88.53	11226.1	-90.41
6000	[FRONTER	230.00] AMPS	4425.7	-73.91	2781.6	-77.00

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:24
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2008 ESTUDIOS BASICOS FAULT CURRENTS

OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
123	[MIR115	115.00] AMPS	9242.4	-84.27	8758.8	-88.13

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:24
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2008 ESTUDIOS BASICOS FAULT CURRENTS

OUTPUT FOR AREA 9 [COLON]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
61	[FFIELD	115.00] AMPS	7833.2	-88.00	7637.1	-85.05


REPÚBLICA DE PANAMÁ
AUTORIDAD NACIONAL DE LOS SERVICIOS PÚBLICOS

AÑO 2009


REPÚBLICA DE PANAMÁ
AUTORIDAD NACIONAL DE LOS SERVICIOS PÚBLICOS

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 18:52
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2009 ESTUDIOS BÁSICOS 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	7492.0	-79.99	6803.1	-82.88
2 [PAN115	115.00] AMPS	14180.6	-79.63	12595.8	-83.85
3 [PANII230	230.00] AMPS	7251.7	-80.26	6526.8	-83.04
4 [PANII115	115.00] AMPS	9903.8	-83.48	8859.0	-86.74
5 [CHO230	230.00] AMPS	6261.4	-80.49	6168.6	-83.54
6 [CHO115	115.00] AMPS	4767.8	-88.69	5546.1	-90.27
8 [LSA230	230.00] AMPS	5912.4	-77.74	4611.5	-79.61
9 [LSA115	115.00] AMPS	4489.2	-84.57	4788.7	-86.57
11 [M.N230	230.00] AMPS	6862.1	-73.88	5747.4	-73.23
12 [M.N115	115.00] AMPS	7606.6	-76.49	7763.8	-75.96
14 [PRO230	230.00] AMPS	4444.6	-73.36	2922.6	-77.47
15 [PRO115	115.00] AMPS	4130.8	-78.89	4338.2	-80.03
18 [CAC115	115.00] AMPS	14031.6	-79.74	12318.7	-83.95
19 [C.V115	115.00] AMPS	9141.9	-82.25	6538.9	-84.66
20 [CH.AZUL	115.00] AMPS	2214.8	-75.98	1675.0	-74.65
21 [C.BAN115	115.00] AMPS	12039.6	-79.67	9165.5	-83.74
23 [CH115	115.00] AMPS	7077.5	-82.06	4625.3	-82.60
26 [LOC115	115.00] AMPS	12461.6	-79.44	10193.3	-83.60
30 [MAR115	115.00] AMPS	10954.3	-79.57	7954.1	-82.84
33 [STM115	115.00] AMPS	12488.7	-79.77	10325.2	-83.37
37 [SAN115	115.00] AMPS	11342.4	-80.16	7869.7	-83.99
48 [TINAJ115	115.00] AMPS	10354.8	-81.11	6989.8	-84.03
50 [M.O115	115.00] AMPS	11096.1	-80.78	7904.2	-84.08
52 [TOC115	115.00] AMPS	7768.1	-83.87	5499.1	-85.11
54 [LM1115	115.00] AMPS	13401.1	-83.92	13444.2	-85.51
55 [LM2115	115.00] AMPS	13440.4	-84.07	13495.7	-85.50
87 [CAL115	115.00] AMPS	6092.9	-74.88	7926.9	-74.22
88 [EST115	115.00] AMPS	5335.6	-74.15	7395.6	-74.44
92 [L.V115	115.00] AMPS	5805.1	-74.58	8006.9	-74.84
96 [FOR230	230.00] AMPS	7483.9	-74.31	7982.8	-75.77
100 [BAY230	230.00] AMPS	5130.3	-82.85	5631.1	-85.12
103 [COPESA23	230.00] AMPS	6053.2	-81.17	5822.5	-83.90
105 [PAN-AM23	230.00] AMPS	6220.3	-80.57	6120.1	-83.60
109 [STA RITA115	115.00] AMPS	12727.0	-84.19	9063.3	-82.01
110 [PTMD115A	115.00] AMPS	7119.7	-85.08	3451.4	-82.33
111 [PTMD115B	115.00] AMPS	7119.7	-85.08	3451.4	-82.33
115 [PACORA23	230.00] AMPS	5714.0	-81.85	5432.7	-84.22
144 [CANJ230	230.00] AMPS	6056.7	-74.96	5522.0	-74.56
147 [GUASQ230	230.00] AMPS	6295.3	-74.97	5827.1	-74.69
148 [VELAD230	230.00] AMPS	6514.2	-75.73	4884.8	-74.93
154 [CEMPAN15	115.00] AMPS	8199.4	-82.66	5256.4	-81.33
190 [CHANG230	230.00] AMPS	3124.7	-72.30	1425.5	-79.44
191 [CHANG115	115.00] AMPS	2387.6	-78.33	2284.9	-80.17
511 [LGUIAS230	230.00] AMPS	3911.2	-79.80	2887.8	-79.46
515 [PANPOWER230	230.00] AMPS	4369.2	-83.65	3007.8	-83.34
522 [TBALBOA 115	115.00] AMPS	13451.8	-84.10	13512.0	-85.55
6000 [FRONTER	230.00] AMPS	4424.6	-73.40	2784.3	-76.54

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 18:52
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2009 ESTUDIOS BÁSICOS FAULT CURRENTS
OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X		THREE PHASE FAULT /I+/	AN(I+)	ONE PHASE FAULT /IA/	AN(IA)
123 [MIR115	115.00] AMPS	10070.4	-81.49	9248.4	-85.24

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 18:52
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2009 TBALBOA, TCARIBE Y TATLANTICO (EN STA RITA) FAULT CURRENTS
OUTPUT FOR AREA 9 [COLON]

X---------- BUS ----------X		THREE PHASE FAULT /I+/	AN(I+)	ONE PHASE FAULT /IA/	AN(IA)
61 [FFIELD	115.00] AMPS	9506.9	-82.81	8665.4	-78.86

AÑO 2010

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:45
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2010 ESTUDIOS BASICOS 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	7714.2	-81.96	6928.2	-84.97
2	[PAN115	115.00] AMPS	14800.7	-81.11	12911.8	-85.58
3	[PANII230	230.00] AMPS	7432.7	-82.19	6627.9	-85.09
4	[PANII115	115.00] AMPS	10110.4	-85.41	8969.3	-88.79
5	[CHO230	230.00] AMPS	6362.3	-83.02	6241.0	-86.17
6	[CHO115	115.00] AMPS	4810.1	-91.36	5587.4	-92.99
8	[LSA230	230.00] AMPS	5839.4	-81.93	4603.8	-84.00
9	[LSA115	115.00] AMPS	4501.0	-88.91	4811.1	-91.03
11	[M.N230	230.00] AMPS	6448.3	-80.15	5816.5	-80.07
12	[M.N115	115.00] AMPS	7457.4	-82.94	7753.4	-82.74
14	[PRO230	230.00] AMPS	5045.1	-79.90	3683.0	-82.34
15	[PRO115	115.00] AMPS	4396.0	-85.81	4763.0	-86.49
18	[CAC115	115.00] AMPS	14646.3	-81.22	12624.1	-85.67
19	[C.V115	115.00] AMPS	9338.3	-84.11	6602.9	-86.67
20	[CH.AZUL	115.00] AMPS	2299.7	-82.71	1745.0	-81.07
21	[C.BAN115	115.00] AMPS	12467.1	-81.23	9321.4	-85.55
23	[CH115	115.00] AMPS	7377.3	-83.01	4705.4	-83.53
26	[LOC115	115.00] AMPS	12924.8	-80.98	10390.3	-85.39
30	[MAR115	115.00] AMPS	11316.1	-81.13	8072.4	-84.62
33	[STM115	115.00] AMPS	12965.7	-81.29	10533.7	-85.11
37	[SAN115	115.00] AMPS	11713.5	-81.78	7980.5	-85.84
48	[TINAJ115	115.00] AMPS	10679.6	-82.74	7081.5	-85.81
50	[M.O115	115.00] AMPS	11470.8	-82.37	8023.2	-85.85
52	[TOC115	115.00] AMPS	7895.6	-85.85	5541.2	-87.18
54	[LM1115	115.00] AMPS	15899.7	-84.72	15030.2	-86.04
55	[LM2115	115.00] AMPS	15864.7	-84.62	15040.3	-85.86
87	[CAL115	115.00] AMPS	6035.1	-81.45	7868.1	-80.84
88	[EST115	115.00] AMPS	5298.5	-80.76	7351.1	-81.05
92	[L.V115	115.00] AMPS	5755.8	-81.16	7948.1	-81.45
96	[FOR230	230.00] AMPS	6646.2	-80.69	7381.5	-82.29
100	[BAY230	230.00] AMPS	5195.3	-83.96	5685.6	-86.27
103	[COPESA23	230.00] AMPS	6173.4	-83.02	5899.2	-85.83
105	[PAN-AM23	230.00] AMPS	6319.7	-83.11	6191.4	-86.23
109	[STA RITA115	115.00] AMPS	14445.7	-84.81	9614.9	-82.06
110	[PTMD115A	115.00] AMPS	7444.3	-86.06	3500.8	-83.06
111	[PTMD115B	115.00] AMPS	7444.3	-86.06	3500.8	-83.06
115	[PACORA23	230.00] AMPS	5811.7	-83.59	5493.8	-86.03
144	[CANJ230	230.00] AMPS	5611.0	-81.19	5298.7	-81.13
147	[GUASQ230	230.00] AMPS	5809.9	-81.17	5574.4	-81.23
148	[VELAD230	230.00] AMPS	6206.1	-81.19	4793.9	-80.76
154	[CEMPAN15	115.00] AMPS	8715.4	-83.04	5393.5	-81.58
190	[CHANG230	230.00] AMPS	3070.4	-79.42	1425.4	-86.64
191	[CHANG115	115.00] AMPS	2383.2	-85.49	2288.3	-87.39
310	[CONCEPCION23	230.00] AMPS	4830.5	-80.05	3335.8	-79.71
511	[LGUIAS230	230.00] AMPS	3923.2	-83.43	2903.1	-83.21
515	[PANPOWER230	230.00] AMPS	4424.8	-86.12	3030.7	-85.87
522	[TBALBOA 115	115.00] AMPS	15918.7	-84.77	15083.8	-85.99
6000	[FRONTER	230.00] AMPS	4880.2	-79.91	3364.0	-81.43

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:45
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2010 ESTUDIOS BASICOS FAULT CURRENTS
OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
123	[MIR115	115.00] AMPS	10353.5	-83.11	9402.0	-87.00

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:45
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2010 ESTUDIOS BASICOS FAULT CURRENTS
OUTPUT FOR AREA 9 [COLON]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
61	[FFIELD	115.00] AMPS	10704.1	-83.13	9308.9	-78.60

AÑO 2011

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:45
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2011 ESTUDIOS BASICOS 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	8256.1	-79.53	7457.1	-82.06
2	[PAN115	115.00] AMPS	15292.8	-78.65	13655.2	-82.50
3	[PANII230	230.00] AMPS	8103.9	-80.07	7205.3	-82.30
4	[PANII115	115.00] AMPS	12324.0	-82.17	10537.8	-84.71
5	[CHO230	230.00] AMPS	6654.2	-80.06	6454.2	-82.96
6	[CHO115	115.00] AMPS	4878.6	-88.21	5665.2	-89.74
8	[LSA230	230.00] AMPS	6039.7	-77.65	4676.9	-79.46
9	[LSA115	115.00] AMPS	4539.7	-84.41	4834.6	-86.47
11	[M.N230	230.00] AMPS	6746.3	-74.03	5977.7	-73.64
12	[M.N115	115.00] AMPS	7799.1	-76.50	7989.1	-76.13
14	[PRO230	230.00] AMPS	5189.1	-73.54	3730.9	-75.84
15	[PRO115	115.00] AMPS	4444.7	-79.37	4799.4	-79.99
18	[CAC115	115.00] AMPS	15111.2	-78.72	13413.3	-82.54
19	[C.V115	115.00] AMPS	10516.4	-81.05	7167.2	-82.87
20	[CH.AZUL	115.00] AMPS	2311.7	-76.14	1748.7	-74.45
21	[C.BAN115	115.00] AMPS	12995.6	-78.71	9799.2	-82.39
23	[CH115	115.00] AMPS	7450.6	-80.30	4729.7	-80.96
26	[LOC115	115.00] AMPS	13441.5	-78.47	10959.4	-82.25
30	[MAR115	115.00] AMPS	11661.1	-78.54	8414.4	-81.46
33	[STM115	115.00] AMPS	13353.0	-78.77	11040.0	-82.02
37	[SAN115	115.00] AMPS	12268.5	-79.20	8363.7	-82.63
48	[TINAJ115	115.00] AMPS	10956.5	-80.09	7327.6	-82.77
50	[M.O115	115.00] AMPS	11782.4	-79.79	8331.0	-82.80
52	[TOC115	115.00] AMPS	9204.5	-82.49	6130.5	-82.95
54	[LM1115	115.00] AMPS	17176.4	-81.71	16177.3	-84.14
55	[LM2115	115.00] AMPS	17064.7	-81.46	15901.7	-84.12
87	[CAL115	115.00] AMPS	6453.5	-74.98	8365.6	-74.30
88	[EST115	115.00] AMPS	5631.0	-74.23	7792.0	-74.51
92	[L.V115	115.00] AMPS	6138.7	-74.67	8449.6	-74.94
96	[FOR230	230.00] AMPS	7004.9	-74.43	7744.1	-75.80
100	[BAY230	230.00] AMPS	5353.9	-82.72	5795.0	-84.94
103	[COPESA23	230.00] AMPS	6589.1	-80.94	6230.5	-83.30
105	[PAN-AM23	230.00] AMPS	6606.7	-80.14	6399.7	-83.02
109	[STA RITA115	115.00] AMPS	16062.9	-81.80	11993.1	-80.35
115	[PACORA23	230.00] AMPS	6142.6	-81.67	5729.4	-83.79
144	[CANJ230	230.00] AMPS	5832.6	-75.19	5448.3	-74.87
147	[GUASQ230	230.00] AMPS	6049.2	-75.18	5742.1	-74.97
148	[VELAD230	230.00] AMPS	6433.5	-75.80	4879.7	-75.07
154	[CEMPAN15	115.00] AMPS	8856.7	-80.28	5418.0	-79.30
190	[CHANG230	230.00] AMPS	3563.7	-71.74	2439.4	-67.67
191	[CHANG115	115.00] AMPS	2497.0	-77.28	2718.1	-76.45
306	[CHANG75	230.00] AMPS	3828.6	-72.00	3679.0	-55.25
310	[CONCEPCION23	230.00] AMPS	4978.0	-73.74	3380.7	-73.19
511	[LGUIAS230	230.00] AMPS	4010.1	-79.52	2930.9	-79.06
515	[PANPOWER230	230.00] AMPS	4614.0	-83.42	3128.7	-82.60
522	[TBALBOA 115	115.00] AMPS	17159.3	-81.68	16030.1	-84.21
6000	[FRONTER	230.00] AMPS	5003.5	-73.50	3400.1	-74.86

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:45
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2011 ESTUDIOS BASICOS FAULT CURRENTS
OUTPUT FOR AREA 7 [ACANAL]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
123	[MIR115	115.00] AMPS	10587.1	-80.45	9714.3	-83.93

PTI INTERACTIVE POWER SYSTEM SIMULATOR--PSS/E THU, DEC 27 2007 13:45
P. EXP-SIN CON C.A. JUNIO 2008 ESC MOD DEM MAX INV SHORT CIRCUIT
AñO 2011 ESTUDIOS BASICOS FAULT CURRENTS
OUTPUT FOR AREA 9 [COLON]

X---------- BUS ----------X			THREE PHASE FAULT /I+/	THREE PHASE FAULT AN(I+)	ONE PHASE FAULT /IA/	ONE PHASE FAULT AN(IA)
61	[FFIELD	115.00] AMPS	11277.1	-80.33	9752.9	-76.26