COUCH
WHITE
Counselors and Attorneys at Law

Couch White, LLP
540 Broadway
P.O. Box 22222
Albany, New York 12201-2222
(518) 426-4600
Telecopier: (518) 426-0376

Leonard H. Singer
Partner

e-mail: lsinger@couchwhite.com

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ALS MOYNIHAN
MR. P. POWERS
MR. R. KING
MR. J. SMOLINSKY (W/ EXTRA)
MS. S RAPAZZO

April 4, 2000

VIA HAND DELIVERY

Hon. Debra Renner
Acting Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

Re: Case 00-T-0409 - Application of Southern Energy Bowline, L.L.C. for a Certificate of Environmental Compatibility and Public Need for the Construction of a 345 kilovolt underground electric transmission line, approximately 1.7 miles in length, located in the Town of Haverstraw, Rockland County

Dear Secretary Renner:

On behalf of Southern Energy Bowline, L.L.C., enclosed for filing as part of the record in the above referenced proceeding are an original and 10 copies of the "Bowline Combined Cycle Plant: Stability, Relay Coordination and Auto-Reclosing Analysis." This analysis supplements the "Application of Southern Energy Bowline, L.L.C. Pursuant to Subpart 85 - 2 of the Public Service Commission's Rules of Procedure for a Certificate of Environmental Compatibility and Public Need for an Electric Transmission Line" filed with the New York State Public Service Commission on March 3, 2000 pursuant to Article VII of the New York Public Service Law. Also enclosed is an Affidavit of Service.

Kindly date-stamp the additional copy of this letter and return it to our messenger.

Very truly yours,

COUCH WHITE, LLP

Leonard H. Singer

LHS\dap
Enclosure
cc: ALJ Walter T. Moynihan (via hand delivery w/enclosure)
Steven Blow, Esq (via hand delivery w/enclosure)
Meghan A. Purvee, Esq. (via hand delivery w/enclosure)
Parties on Attached List (via U.S. Mail w/enclosure)
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ARTICLE VII
ELECTRIC SERVICE LIST

Hon. Debra Renner
Acting Secretary
NYS Public Service Commission
Three Empire State Plaza, 14th Floor
Albany, New York 12223-1350

Hon. Thomas Lawless, Supervisor
Town of Haverstraw
1 Rosman Road
Garnerville, New York 10923

Hon. John P. Cahill, Commissioner
New York State Department of
Environmental Conservation
50 Wolf Road
Executive Office, Room 608
Albany, New York 12233-1500

Hon. Charles A. Gargano, Commissioner
Empire State Development Corporation
633 Third Avenue
New York, New York 10017

Hon. Joseph H. Boardman
Commissioner
NYS Department of Transportation
5 Governor Harriman State Campus
Albany, New York 12232

Hon. Thomas P. Morahan
150 Airport Executive Park
Nanuet, New York 10954

Hon. Alexander Gromack
67 North Main Street
New City, New York 10956

Hon. Alexander F. Treadwell
Secretary of State
New York State Department of State
41 State Street
Albany, New York 12231-0001

Mr. Nathan Rudgers, Commissioner
New York State Department of
Agriculture and Markets
1 Winners Circle
Albany, New York 12235

Hon. Bernadette Castro, Commissioner
New York State Office of Parks, Recreation
and Historic Preservation
Empire State Plaza - Agency Building 1
Albany, New York 12238

Hon. Edward P. Zugibe, Mayor
Village of West Haverstraw
Village Hall
15 Bridge Street
Garnerville, New York 10923

Hon. C. Scott Vanderhoef
County Executive
County of Rockland
11 New Hempstead Road
New City, New York 10956

Mr. George Stafford
Director of Coastal Resources
New York State Department of State
41 State Street
Albany, New York 12231-0001

Hon. Francis Wassmer, Mayor
Village of Haverstraw
Village Hall
40 New Main Street
Haverstraw, NY 10927

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NEW YORK STATE
PUBLIC SERVICE COMMISSION

IN THE MATTER

- of the -

In the Matter of the Application of Southern Energy Bowline, L.L.C. Pursuant to Subpart 85-2 of the Public Service Commission's Rules of Procedure for a Certificate of Environmental Compatibility and Public Need for an Electric Transmission Line

Affidavit of Service by Mail

Case No. 00-T-0409

STATE OF NEW YORK)
) ss.:
COUNTY OF ALBANY)

Denise Poutre, being duly sworn, deposes and says that she is over the age of eighteen (18) years; that on April 4, 2000, she served the within Bowline Combined Cycle Plant: Stability, Relay Coordination and Auto-Reclosing Analysis upon the attached list by depositing true and correct copies of the Application in a post-paid wrapper in the official depository maintained and exclusively controlled by the United States Post Office at 540 Broadway, Albany, New York.

Denise Poutre

Sworn to before me this
4th day of April, 2000.

Notary Public
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SHARON MATTHEWS
Notary Public, State of New York
Qualified in Rensselaer County
No. 01MA5072657
Commission Expires July 30, 2001

Report

ORIGINAL

Bowline Combined Cycle Plant: Stability, Relay Coordination and Auto-Reclosing Analysis

Prepared for
Southern Energy Bowline, L.L.C.

Submitted by
Johnny R. Willis – Executive Consultant

Douglas R. Brown – Senior Consultant

Consulting Services Department

April 3, 2000

R16-00

POWER TECHNOLOGIES, INC.®

A Stone & Webster Company

1482 ERIE BLVD. P.O. BOX 1058 SCHENECTADY, NY 12301-1058
Phone: 518-395-5000
www.pti-us.com

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Appendix A Proposed Stipulation No. 4: Electric Transmission Facilities, Article X Proceeding

Appendix B Proposed Interconnection Diagram for Bowline 3

Appendix C Bowline 3 Model Data

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Section 1

Introduction

This report summarizes preliminary analysis conducted by Power Technologies, Inc. (PTI) for Southern Energy Bowline, L.L.C. (Southern Energy) regarding the Bowline 3 electric power generating station. This new combined cycle plant will be located at the site of the existing Bowline 1 and 2 units in Haverstraw New York. It consists of one steam turbine and three combustion turbines and is expected to have a nominal 750 MW rating. It will be interconnected to the New York power system at a new 345 kV substation at Bowline. To accommodate the additional generation, Southern Energy plans to install an additional 345 kV underground transmission line to the West Haverstraw 345 kV substation.

The analysis conducted here has been guided by the requirements of the rules and regulations of the New York State Public Service Commission 16NYCRR Section 88.4 and Stipulation No. 4: Electric Transmission Facilities, which is included in Southern Energy's Article X application as part of Appendix A. This report provides a preliminary examination of the following aspects of the Stipulation:

Stability Analysis: Computer simulations are used to examine the effect on system dynamic response of the addition of the Bowline 3 plant. The system is simulated both with and without Bowline 3. In the assessment, proposed generation at Athens, Sithe (Ramapo), and ANP (Ramapo) is assumed to be in service in some scenarios.

Relay Coordination: Characteristics of additional protective relaying that will be added to accommodate Bowline 3, as well as how Bowline 3 may need to be considered in settings of existing protective relaying, are discussed.

Auto-Reclosing: The transmission system in the neighborhood of Bowline 3 currently uses high-speed auto-reclosing to improve the reliability of the transmission network. This report addresses the issue of auto-reclosing with respect to Bowline 3.

This preliminary analysis has been guided by discussions with Southern Energy and Con Edison and data provided by these companies, as well as PTI's experience in similar studies. The interconnection studies for the proposed Sithe (Ramapo) and ANP (Ramapo) plants have been reviewed, see Ref. 1 and 2.

PTI requested a stability data base from Con Edison as a basis for conducting this study. Con Edison provided PTI with a 2001 summer peak and winter peak data base. However, Stipulation No. 4 specifies a year 2003 data base for the analysis, so PTI then requested a 2003 data base. Con Edison informed PTI that a 2003 data base is unavailable. Because a 2003 data base was unavailable, PTI used the 2001 data base. However, PTI added the proposed generation at Athens, Sithe (Ramapo) and ANP (Ramapo) to the 2001 data base.

PTI also requested stability data for modeling the ANP (Ramapo) plant from Con Edison. Con Edison informed PTI that they are not able to release this data. PTI therefore modeled this plant using data from the Athens plant.

Section
2

Summary of Results

2.1 Stability Analysis

The transient stability performance of the interconnected system was evaluated under peak and off-peak loading conditions for the following 2001 scenarios:

- Base case without Bowline 3.
- Base case with proposed plants at Athens, ANP and Sithe on-line.
- Base case with Bowline 3, Athens, ANP and Sithe on-line.
- Base case with Bowline 3, Athens, ANP and Sithe on-line with Bowline 3 displacing Indian Point 2.

Seven design criteria contingencies and three extreme criteria contingencies were simulated; system response is stable and positively damped for all of the applied contingencies. Stuck circuit breaker analysis shows Bowline 3 has a negligible impact on the critical clearing time at the Ramapo substation.

Comparison of simulations performed with and without Bowline 3 shows that, for the specific contingencies and system conditions studied, the transient stability performance of the bulk power transmission system is not degraded by the Bowline 3 plant.

In one scenario, post-contingency steady-state voltages at some western New York buses are below 90% following simultaneous loss of Bowline 1, 2, and 3 (totaling 1940 MW) assuming that phase shifting and LTC transformers regulate. If phase shifters are held fixed, voltages are above 90% at all buses 100 kV and above.

2.2 Relaying Considerations

Characteristics of additional protective relaying that will be added to accommodate Bowline 3 are discussed. Bowline 3 will be located at the site of the existing Bowline 1 and 2 units. A new Bowline 345 kV substation will be constructed and connected to the bulk power transmission system at West Haverstraw using two existing 345 kV underground cables and one new 345 kV underground cable. New protective relaying equipment will be required for the Bowline substation, the interconnection at West Haverstraw as well as any modifications to the West Haverstraw substation. Settings of relays in the nearby bulk power system will need to be reviewed.

2.3 Auto-Reclosing Considerations

The status and settings of auto-reclosing systems at the Ladentown 345 kV substation are not known. Feeders 77, 5018, W72 and 94 in the Ramapo substation are equipped with auto-reclosing systems. In order to determine the relay settings required for auto-reclosing, the NYS PSC requires a Shaft Torque Study for the project prior to commercial operation. A Shaft Torque Study will be submitted prior to commercial operation.

Section
3

Data Base Preparation

3.1 Data provided by Consolidated Edison

Con Edison provided two PSS/E data bases for use in the stability analysis: a 2001 summer peak case (SUMMER01.12) and a 2001/02 winter peak (light load) case (PSCWLF.DAT). Con Edison also supplied a data base of dynamics model data (PSCDYDA.DAT) and code for user-written equipment models.

In addition to the data described above, Con Edison provided an IPLAN executable program file to set cross-trips on HVDC lines and PSS/E response files to convert load and net generation with load.

3.2 Data Provided by Southern Energy

3.2.1 Bowline 3 Plant Interconnection

With regard to the detail required for this study, Southern Energy offered the following plans to interconnect Bowline 3 with the Con Edison system:

- The existing substation at Bowline will be modified such that the existing units and Bowline 3 can be connected together at 345 kV.
- A third 345 kV underground line will be added from Bowline to West Haverstraw.

The proposed plant interconnection is shown in Appendix B.

3.2.2 Summary of Manufacturer Data

Manufacturer's data was provided by Southern Energy for the Bowline 3 combined cycle plant. A summary of the data is contained in Table 3.1.

Table 3.1: Bowline 3 Machine Data

Summary of Manufacturer's Information - SEI Bowline Configuration: Combined Cycle, One Steam Turbine and Three Combustion Turbines					
	Steam Turbine 1		Combustion Turbine 1, 2 & 3		
General	Required for Load Flow and Fault Analysis	Required for Stability Analysis	Required for Load Flow and Fault Analysis	Required for Stability Analysis	Comments
Maximum Gross MW Output of Unit	308 MW		188 MW		808 MW Total Gross
Total Plant Aux Power Requirements (MW, MVAr)	to be provided		to be provided		
One Line Diagram of plant with Interconnection to Con Edison	provided		provided		
Step-Up Transformer					
Rated Voltage on HV side	345 kV		345 kV		assumed data
Rated Voltage on LV side	18 kV		18 kV		assumed data
MVA rating	240 MVA (OA)		130 MVA (OA)		assumed data
Taps HV side	2 @ +/- 2.5%		2 @ +/- 2.5%		assumed data
Taps LV Side	none		none		assumed data
Z1 (positive sequence impedance), in pu on specified base	9% on OA Rating		9% on OA Rating		assumed data
X / R ratio	47		47		assumed data
Generator (p. u. reactances are on rated MVA, kV values)					
Manufacturer	GE		GE		
Rated MVA	405 MVA		218.2 MVA		
Rated kV	18 kV		18 kV		
Power factor	0.85 pf		0.85		
Reactive Capability Curves	provided		provided		
Open Circuit Saturation Curve		to be provided		provided	
V Curve		to be provided		provided	
H (turbine + generator inertia constant)		4.2 MWs/MVA		378.620 lbm-ft**2	assumed ST data
X2 (Unsatruated negative sequence reactance)	0.291 pu		0.207 pu		
X0 (Unsaturated zero sequence reactance)	0.172 pu		0.129 pu		
Xd (direct axis synchronous reactance (unsaturated))		2.472 pu		2.027 pu	
X'd (direct axis transient reactance (unsaturated))		0.424 pu		0.303 pu	
X"d (direct axis subtransient reactance (unsaturated))		0.303 pu		0.213 pu	
T'do (direct axis open-circuit transient time constant))		4.251 sec		3.787 sec	
T"do (direct axis open-circuit sub-transient time constant))		0.032 sec		0.033 sec	
Xq (quadrature axis synchronous reactance (unsaturated))		2.366 pu		1.947 pu	
X'q quadrature axis transient reactance (unsaturated))		0.630 pu		0.450 pu	assumed CT data
X"q (quadrature axis subtransient reactance (unsaturated))		0.299 pu		0.206 pu	
T'qo (quadrature axis open-circuit transient time constant)		0.391 sec		0.429 sec	
T"qo (quadrature axis open-circuit sub-transient time constant)		0.064 sec		0.071 sec	
XL (stator leakage reactance)		0.250 pu		0.178 pu	
R1 (positive sequence armature resistance)	0.004 pu		0.003 pu		
R2 (Negative sequence armature resistance)	0.018 pu		0.015 pu		
R0 (Zero sequence armature resistance)	0.006 pu		0.006 pu		
Automatic Voltage Regulator and Excitation System					
Type (e.g., static, brushless, etc.)		EX2000 bus-fed		EX2000 bus-fed	
Model		IEEE ST4B		IEEE ST4B	
Parameters		provided		provided	
Power System Stabilizer					
Model		*		*	
Parameters		*		*	
Turbine and Governor					
Model		Steam (PSS/E TGOV1)		Gas (PSS/E GAST2A)	
Parameters		provided		provided	
Miscellaneous					
Out-Of Step Relaying		*		*	

* Stability analysis has not indicated a need for power system stabilizers or out-of-step relaying

Detailed information on the Bowline 3 plant has been included in PTI Report R9-2000, previously prepared for Southern Energy (Ref. 4).

3.3 Power Flow Cases

Con Edison provided power flow cases for year 2001 summer peak and winter peak. Though the Stipulation specifies study of the year 2003 system (as in the power flow analysis of Reference 4), PTI was told by Con Edison that year 2003 cases suitable for use with the corresponding stability data base are unavailable at this time. Therefore, this preliminary analysis used the year 2001 cases with modifications required for this study.

3.3.1 Summer Peak Cases

Starting with the summer peak case provided by Con Edison (SUMMER01.12), the following changes were made to develop a new base case "DS1":

1) The system topology changes to add Bowline 3 discussed above were incorporated but left out-of-service.
2) The proposed units at Athens, Sithe (Ramapo) and ANP (Ramapo) were incorporated but left out-of-service.

Additional summer peak (heavy load) cases were constructed from case DS1 as summarized in Table 3.2 and Table 3.3 below.

Table 3.2: Summer Peak Cases - Dispatch

	Case DS1 * (MW)	Case DS2 ** (MW)	Case DS3 ** (MW)	Case DS4 ** (MW)
Athens	Off	1080	1080	1080
Sithe (Ramapo)	Off	857	857	857
ANP (Ramapo)	Off	1100	1100	1100
Bowline 1 & 2	448 & 500	570 & 570	570 & 570	570 & 570
Bowline 3	-	Off	806	806

* Case provided by Con Edison
** Case developed by PTI

Table 3.3: Summer Peak Cases - Transfers

	Case DS1 * (MW)	Case DS2 ** (MW)	Case DS3 ** (MW)	Case DS4 ** (MW)
UPNY – Con Ed	4332	5467	5473	6402
UPNY – SENY	4178	3733	2921	3735
Central East	2474	2608	2181	2606
Total East	4592	4567	3719	4569
NY – NE	124	1003	999	1004
NY – PJM	-820	-796	-813	-800
Moses South	978	978	531	978

* Case provided by Con Edison
** Case developed by PTI

One objective for the DS2 and DS3 cases was to keep on-line as much of the generation local to the Bowline area as possible, and this was done with the exception of Roseton 1 (426 MW) and Danskammer 3 (131 MW), which are off in these cases. Thus, both Indian Point 2 and Indian Point 3 are on in all three cases DS1, DS2, and DS3. Also, in developing DS2 and DS3, the output of Bowline 1 and Bowline 2 were increased to their maximum values.

Another objective was to increase transfer from upper New York into Con Edison. Generation was reduced in Con Edison by a reduction of Ravenswood 3 to its minimum value of 387 MW and Astoria 4 to its minimum value of 75 MW. Arthur Kill (335 MW) was turned off. This reduction was the maximum reduction in Con Edison that we were able to achieve without having problems with convergence of the load flow case.

Regarding the reduction in some New York transfer levels between cases DS2 (Bowline 3 off) and DS3 (Bowline 3 on), it did not seem possible to keep them the same unless another major unit in the area of Bowline was turned off. In case DS3 we chose to reduce the transfers by shutting off generation in northern and western New York (Moses and Kintigh) to accommodate Bowline 3. Note however, that we did keep transfers into Con Edison constant when developing cases DS2 and DS3.

The objective for the DS4 case was to maintain New York transfer levels from the DS2 case. This accomplished by turning off Indian Point 2 and turning on Danskammer 3 to accommodate Bowline 3. Note that this displacement increases flow on the Con Edison interface.

3.3.2 Winter Peak Cases

Starting with the winter peak case provided by Con Edison (PSCWLF.dat), the following changes were made to develop a new base case "DW1":

- The system topology changes to add Bowline 3 discussed above were incorporated but left out-of-service.
- The proposed units at Athens and ANP (Ramapo) were incorporated but left out-of-service.
- The proposed units at Sithe (Ramapo) were removed from service and replaced by increasing the output of on-line units in the NYPP to maximum values.

Additional winter peak (light load) cases were constructed from case DW1 as summarized in Table 3.4 and Table 3.5 below.

Table 3.4: Winter Peak Cases - Dispatches

	Case DW1 * (MW)	Case DW2 ** (MW)	Case DW3 ** (MW)	Case DW4 ** (MW)
Athens	Off	1080	1080	1080
Sithe (Ramapo)	Off	857	857	857
ANP (Ramapo)	Off	1100	1100	1100
Bowline 1 & 2	570 & Off	570 & Off	570 & Off	570 & Off
Bowline 3	-	Off	806	806

* Case provided by Con Edison
** Case developed by PTI

Table 3.5: Winter Peak Cases - Transfers

	Case DW1 * (MW)	Case DW2 ** (MW)	Case DW3 ** (MW)	Case DW4 ** (MW)
UPNY – Con Ed	3925	5148	5155	6108
UPNY – SENY	3328	3310	2619	3324
Central East	2458	2545	2127	2545
Total East	4922	4924	4088	4942
NY – NE	106	831	829	832
NY – PJM	-1308	-1307	-1266	-1324
Moses South	401	401	66	401

* Case provided by Con Edison
** Case developed by PTI

The objectives for cases DW2, DW3 and DW4 were similar to the objectives outlined for the summer peak case in Section 3.3.1. Note that in all winter cases, Bowline 2 is off-line.

3.4 Dynamics Models

The dynamics models incorporated the data provided by Con Edison and the Bowline 3 manufacturer's data provided by Southern Energy. Unavailability of data required the assumptions detailed below.

3.4.1 Bowline 3

The steam turbine output was assumed to be controlled by steam pressure and not the turbine governor. Thus, in the simulations, turbine mechanical power was assumed to be constant. This is a reasonable assumption for the time frame of the stability study (10 seconds after the disturbance). The inertia constant for the steam turbine-generator was assumed to be 4.2 MW-sec/MVA. Models for Bowline 3 are listed in Appendix C.

3.4.2 Proposed ANP Plant

Dynamics models for the proposed ANP plant were not included in the dynamics model data and were not publicly available from Con Edison. The ANP Article 10 Application shows the proposed combined-cycle plant will consist of four generators, four combustion turbines and four steam turbines configured in four single-shaft power trains.

The rated output of each ANP generator is similar to that of the CT generators at the proposed Athens plant; the ANP generators were modeled using the Athens generator and exciter data.

Models for ANP are listed in Appendix D.

Section
4

Stability Analysis

4.1 Methodology

PTI's PSS/E (Power System Simulator, Revision 26) was used to conduct the stability analysis. The approach was to evaluate the transient stability performance of the interconnected system in the following scenarios:

- Bowline 3, Athens, ANP and Sithe off-line.
- Bowline 3 off-line with Athens, ANP and Sithe on-line.
- Bowline 3, Athens, ANP and Sithe on-line.
- Bowline 3, Athens, ANP and Sithe on-line with Bowline 3 displacing Indian Point 2.

These scenarios correspond to the power flow cases discussed in Section 3.3 and were evaluated under peak and off-peak conditions.

4.2 Contingencies Simulated

Design criteria contingencies and extreme contingencies were simulated to determine system response. The contingencies examined are divided into the following general categories by Stipulation No. 4:

Design Criteria Contingencies

- Loss of a single project generating unit for a three phase-to-ground fault.
- Loss of the entire project for a three phase-to-ground fault.
- Loss of a large adjacent generating complex for a three phase-to-ground fault.
- Loss of a single circuit for a three phase-to-ground fault.
- Loss of a tower for a three phase-to-ground fault.

Extreme Criteria Contingencies

- Loss of a transmission right-of-way for a three phase-to-ground fault.
- Loss of all lines emanating from a bulk power station for a three phase-to-ground fault.
- Stuck breaker (three-phase) following a three phase-to ground fault to determine the back-up breaker critical clearing time.

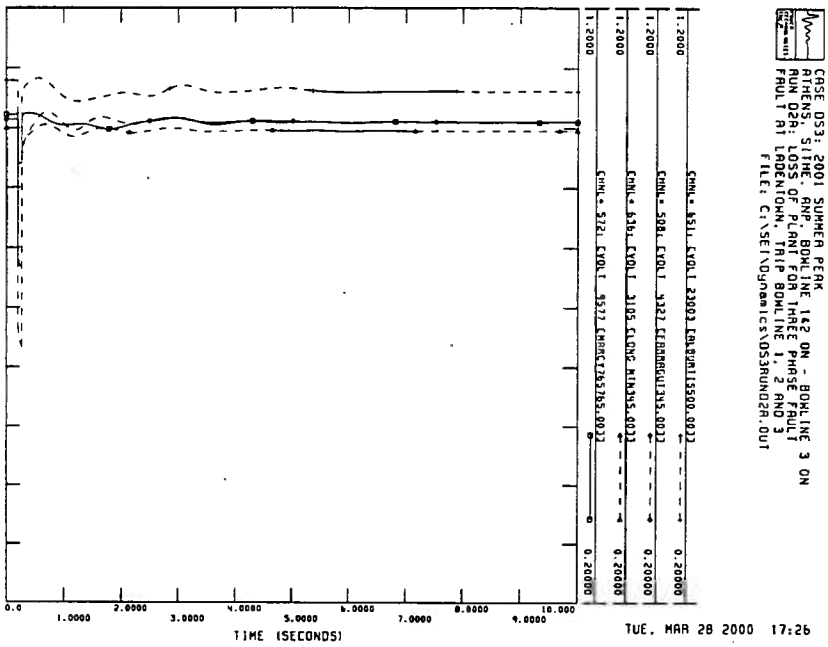
The contingencies actually simulated were chosen with regard to these categories. See Appendix E for a complete explanation of the contingencies analyzed.

4.3 Summary of Stability Simulations

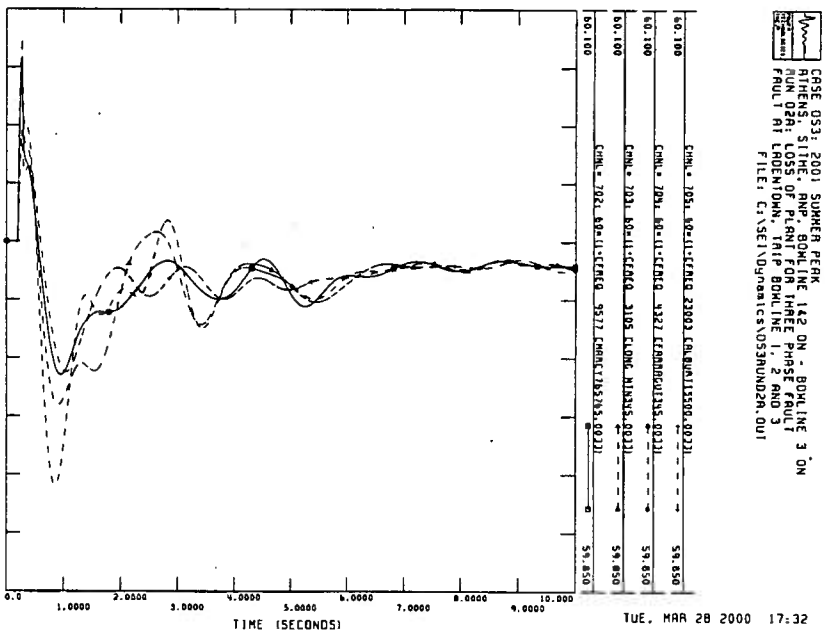
Appendix F contains stability plots illustrating system responses to the applied contingencies.

System response is stable and positively damped for all of the applied contingencies. The diagrams below illustrate system response to the loss of Bowline 1, 2 and 3 (contingency D2A) in summer peak case DS3 (Indian Point 2 on-line). The response is typical of the winter peak case DW3 and the cases with Indian Point 2 off-line (DS4 and DW4).

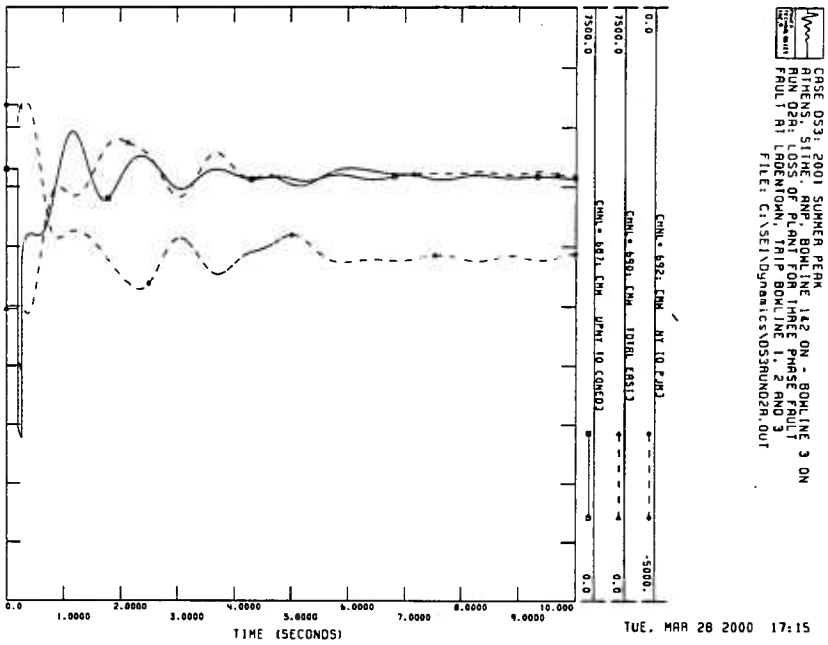
Figure 1 shows bus voltages at various buses in NY, NE and PJM areas, specifically the Marcy 765 kV, Long Mountain 345 kV, Farragut 345 kV and Alburtis 500 kV buses. Voltages recover quickly following clearance of the disturbance and reflect good damping performance of machine rotor angles. Figure 2 shows system frequencies at those same buses. The frequency at the Farragut 345 kV bus momentarily dips to 59.9 Hz after Bowline is tripped but system frequencies quickly settle to within 0.013 Hz of nominal. Figure 3 shows interface flows for the UPNY-ConEd, Total East and NY-PJM interfaces.



• Figure 1: Bus Voltages Following Loss of Bowline 1, 2 and 3



• Figure 2: Bus Frequencies following loss of Bowline 1, 2 and 3



• Figure 3: Interface Flows following loss of Bowline 1, 2 and 3

Referring to Figure 3, before loss of Bowline 3, the PJM to NY transfer is about 810 MW. Following loss of Bowline 1, 2 and 3 the PJM to NY transfer increases to about 2100 MW. Similarly, Total East transfer increases from about 3700 MW to about 5300 MW. Post-contingency flow on the UPNY-ConEd interface is not significantly affected by the end of the 10 second simulation.

A post-contingency power flow was created from the summer peak case with Indian Point 2 on-line (DS3) to look at line loading and system voltages after the loss of Bowline 1, 2 and 3. In the power flow, all loads are modeled as constant power, generator reactive power limits are enforced and system generation was scaled to replace the Bowline 1, 2 and 3 generation.

Flows and voltages were compared in three scenarios:

1) Before transformer load-tap changers (LTC) or phase angle regulators (PAR) operate
2) After transformers LTCs operate but before PARs operate
3) After transformer LTCs and PARs operate

Loading on branches in New York, New England and PJM was compared against long-term emergency ratings. Buses in these areas were also monitored for changes in voltage greater than 1½ % from pre-contingency levels.

Immediately after transients die out, and again after transformer LTC action, the increased transfer of power into New York does not result in any new overloads and no existing

overloads are aggravated by more than 2 %. PAR action causes an increase in flow through western New York resulting in the overloads summarized in Table 4.1:

Table 4.1: Post-Contingency Power Flow - Branch Overloads

Bus	Pre-Contingency Loading	Post-Contingency Overloads Following Loss of Bowline 1, 2, and 3		
		Loading Before Transformer Adjustment	Loading after LTC Adjustment	Loading after LTC and PAR Adjustment
Falconer-Jamestown #1 115 kV	131%	132%	132%	137%
Falconer-Jamestown #2 115 kV	118%	118%	118%	123%
Station 162-Station 158 115 kV	86%	89%	89%	110%

After system transients die out, all system voltages are within 2% of pre-contingency levels before transformer taps adjust to regulate voltage with the exception of the Watercure 345 kV bus. Buses with voltages less than 95% before LTC action are listed in Table 4.2. System voltages improve when transformer taps adjust with the exception of some buses in western New York.

Table 4.2: Post-Contingency Power Flow - Low Voltages

Bus	Pre-Contingency Voltage	Post-Contingency Voltages Following Loss of Bowline 1, 2, and 3		
		Voltage Before Transformer Adjustment	Voltage after LTC Adjustment	Voltage after LTC and PAR Adjustment
Astoria 138 kV	97.0%	95.0%	97.4%	97.6%
Hellgate 138 kV	96.8%	94.8%	97.2%	97.4%
Queensbridge 138 kV	96.9%	94.9%	97.3%	97.5%
Watercure 345 kV	96.5%	94.3%	93.0%	86.5%
Elm 230 kV	95.1%	94.5%	94.2%	90.0%
Gardenville 230 kV	95.4%	94.7%	94.4%	90.1%
Stolle Road 230 kV	96.2%	95.3%	95.0%	90.1%
Jamestown 115 kV	91.5%	91.0%	90.8%	87.5%

If phase-angle regulators are allowed to adjust before generation is restored in New York, the increased flow of power through western New York results in lower voltages in western New York as summarized in the right hand column of Table 4.2. After PAR and LTC action, approximately 35 buses (nominal voltage 115 kV and above) in NY, NE and PJM have voltages below 95% of nominal. The five lowest bus voltages are listed in the table above.

Table 4.3 shows the five western New York bus voltages after loss of the Bowline plant and LTC and PAR action in the summer peak cases. Note that in case DS1 and DS2 only Bowline 1 and 2 are on-line.

Table 4.3: Bus Voltages after LTC and PAR Action

Bus	Bus Voltages After LTC and PAR Action Following Loss of Bowline 1, 2, and 3			
	Case DS1 Bowline 3, ANP, Athens and Sithe Off-Line	Case DS2 Bowline 3 Off-Line ANP, Athens and Sithe On-Line	Case DS3 Bowline 3, ANP, Athens and Sithe On-Line	Case DS4 Bowline 3, ANP, Athens and Sithe On-Line Indian Point 2 Off
Watercure 345 kV	90.1%	89.3%	86.5%	90.9%
Elm 230 kV	93.8%	93.5%	90.0%	93.9%
Gardenville 230 kV	93.8%	93.6%	90.1%	94.0%
Stolle Road 230 kV	94.1%	93.6%	90.1%	94.2%
Jamestown 115 kV	90.5%	90.7%	87.5%	90.6%

The post-transient power flow illustrates the importance of restoring generation in New York before adjusting the phase angle regulators on the New York-PJM interface. It seems this approach could be considered, as we found no instances where adjustment of the phase shifters is required to relieve overloads or restore low voltages. (If the phase angle regulators are allowed to adjust in the summer peak case after Bowline 1, 2 and 3 are tripped, the additional flow through western New York results in 115 kV system voltages 3% to 5% below pre-contingency levels with voltages at several 345 kV, 230 kV and 115 kV buses below 95%.)

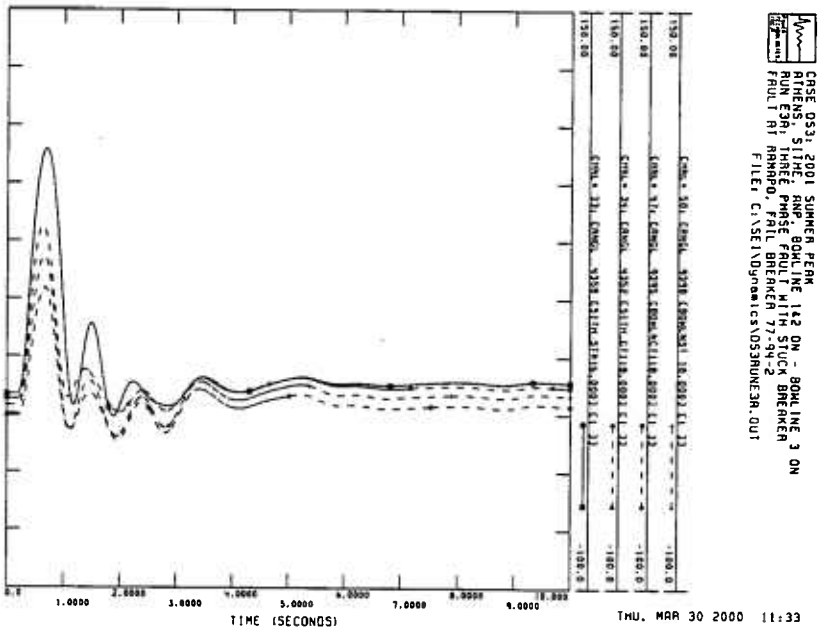
Critical clearing times were an item for study specified by Stipulation No. 4. We studied the critical clearing time at Ramapo because the report on the ANP (Ramapo) plant (Ref. 2) identified that addition of the ANP plant reduces critical clearing time at Ramapo to nine cycles. We felt that it would be important to assess whether or not Bowline 3 would have a significant effect on the critical clearing time at Ramapo. (Critical clearing time at Ladentown was not studied because any stuck breaker would require generation tripping at Bowline.

Critical clearing times at the Ramapo bus were calculated for the contingency designated E3A in Appendix E (4 cycle fault on the Ramapo-Buchanan line, stuck circuit breaker, followed by trip of Ramapo-ANP circuit #1). The critical clearing times calculated in this analysis are summarized in Table 4.4. (This contingency does no cause islanding of any generation at ANP.)

Table 4.4: Critical Clearing Times at Ramapo

	Summer Peak		Winter Peak	
	Case	Clearing Time	Case	Clearing Time
Bowline 3, off-line. Athens, ANP and Sithe on-line	DS2	9.75 cycles	DW2	9.75 cycles
Bowline 3, Athens, ANP and Sithe on-line	DS3	9.50 cycles	DW3	9.50 cycles
Bowline 3, Athens, ANP and Sithe on-line, Indn Pt 2 off-line	DS4	9.75 cycles	DW4	9.50 cycles

The critical clearing time is limited by the transient stability of the Sithe steam unit. For example, in Figure 4 below, the Sithe steam turbine exhibits the largest rotor angle excursion for a 9.5 cycle clearing time. The ANP interconnection study (Ref. 2) found that after the addition of the ANP plant at Ramapo, a stuck circuit breaker at the 345 kV substation resulted in a critical clearing time of 10 cycles for a peak load case, and 9 cycles for an off-peak case. This corresponds closely to the critical clearing times found for the cases with Athens, ANP and Sithe on-line (DS2 and DW2). Stuck circuit breaker analysis shows that Bowline 3 has a negligible impact on the critical clearing time at the Ramapo substation.



• Figure 4: Machine Rotor Angles following Ramapo 345 kV Stuck Circuit Breaker

Specific stability constrained transfer limits were not calculated as a part of the analysis. However, a stability analysis was conducted with the UPNY-ConEd interface stressed to

about 5500 MW and 6400 MW in the summer case and 5100 MW and 6100 MW in the winter case. System response is stable and positively damped for all of the applied contingencies. Comparison of simulations performed with and without Bowline 3 shows that, for the specific contingencies and system conditions studied, the transient stability performance of the bulk power transmission system is not degraded by installation of the proposed Bowline 3 plant.

Section

5

Relaying Considerations

The addition of Bowline 3 will require additional protective relaying for the new equipment such as the turbine-generators, step-up transformers, station service supply and equipment, and the new 345 kV substation. The equipment manufacturer provides much of this protection equipment. NPCC Document A-5 "Bulk Power System Protection Criteria", Section 4.4 discusses generating station protection requirements.

Protection for the turbine generators will be: Short-circuit (phase and ground), unbalanced phase currents (negative sequence), loss of excitation, reverse power, over-temperature, excessive vibration, over-excitation, out-of-step operation, field ground, inadvertent energization.

The protective relaying will be set to protect the turbine generators as well as to minimize the chances for unnecessary operation due to disturbances in the bulk power system.

Additional equipment, and perhaps resetting of existing protection, will be required for the interconnection of Bowline 3 with the bulk power transmission system at West Haverstraw, as well as any modifications to the West Haverstraw substation. In particular, a new 345 kV underground cable is planned between Bowline and West Haverstraw. Protective relaying will conform to NPCC Document A-5 "Bulk Power System Protection Criteria", which requires such characteristics as:

- Independently operating protection groups, avoiding use of common components.
- Provision of backup relaying in case of failure of primary relaying.
- Provision for tripping of additional breakers in case of failure of a circuit breaker to operate.
- Redundant secure communications channels.
- Avoidance of tripping for stable power swings.

Basic primary protection for each major equipment type interconnecting to the bulk power system will be:

Underground cable to West Haverstraw: differential relaying

Bowline 345 kV substation: bus differential relaying

18/345 kV Step-up transformers: differential, sudden pressure, over-temperature, overcurrent.

Section
6

Auto-Reclosing Considerations

Auto-reclosing systems are designed to quickly restore transmission lines to service following automatic tripping of circuit breakers due to electrical faults. Feeders 77, 5018, W72 and 94 in the Ramapo substation are equipped with auto-reclosing systems. The status and settings of auto-reclosing systems at the Ladentown 345 kV substation are not known.

In the transient stability simulations, fast reclosing (31 cycles) was modeled on the Ramapo to Ladentown line (Feeder W72). In order to determine the relay settings required for auto-reclosing, the NYS PSC requires a Shaft Torque Study for the project prior to commercial operation. A Shaft Torque Study will be submitted prior to commercial operation.

Section
7

References

1) "Interconnection Study for Sithe Energies 860 MW Plant at Ramapo Substation", Draft Revision 3, Nov. 10, 1999, prepared by Consolidated Edison Company of New York, Inc.

2) "Interconnection Study Ramapo Energy Limited Partnership 1,100 MW Plant at Ramapo Substation", Draft, Sept. 23, 1999, prepared by Consolidated Edison Company of New York, Inc.

3) "System Impact Study for the Athens Generation Plant and Bethlehem Repowering Projects", New York Independent System Operator, Report of the Transmission Planning Advisory Subcommittee to the NYISO Operating Committee, January 5, 2000.

4) "Bowline Combined Cycle Plant: Thermal, Transfer, Voltage and Short Circuit Analysis", Report R9-2000, Power Technologies, Inc., March 3, 2000.

Appendix
A

Proposed Stipulation No. 4: Electric Transmission Facilities, Article X Proceeding

E-mail message dated 2/04/2000

From: Don K. Gray, Southern Electric Company

To: "Coggins, Terry J." <tjcoggin@seiworldwide.com>, Johnny Willis/MCI/SWEC@SWEC

cc: "Kirk, Charles R." <crkirk@msn.com>

Subject: RE: SEI Bowline: Meeting at Con Edison

Please note the agreed to Stipulation and ensure the work performed will accomodate the identified information. If not we must incorporate those missing elements. Let me know. Also, I hope we are working per our schedule and will have some product in the next few days. Please confirm or deny.

STIPULATION NO. 4: ELECTRIC TRANSMISSION FACILITIES

ARTICLE VII PROCEEDING

1. Southern Energy will commence a proceeding in accordance with Article VII of the Public Service Law for a Certificate of Environmental Compatibility and Public Need to construct and operate a 345 kV transmission line to interconnect the Facility to the Haverstraw substation. Probable environmental impacts and proposed mitigation measures, if warranted, will be evaluated in the Article VII proceeding and described in the Article VII Application.

2. The Article VII Application will be incorporated by reference in Southern Energy's Article X Application.

3. The Article VII Application will be filed at the New York State Public Service Commission prior to or contemporaneously with the filing of the Article X Application.

INTERCONNECTION STUDY

4. Power Technologies, Inc. ("PTI"), a Stone & Webster Company, will perform a "System Impact Study for the Electrical Connection of 800 MW Southern Energy Bowline, LLC with the Con Edison Transmission System" ("Study"). The Study will include the necessary technical analyses (Thermal, Voltage, Short Circuit and Stability) to evaluate the impact of the interconnection of the Project on the Con Edison system, New York Independent System Operator ("NYISO") system, and the New England Independent System Operator ("NEISO") and the Pennsylvania-Jersey-Maryland Independent System Operator ("PJMISO") systems. Both summer and winter peak load conditions will be investigated. in accordance with the "NPCC Basic Criteria for the Design and Operation of Interconnected Power System", the NYPP "Standards for Planning and Operating the New York Power Pool Bulk Power System" and the Con Edison "Transmission Design and Operating Criteria". The NYISO, PJMISO, and NE ISO analyses will be limited to the current availability of data and PTI knowledge and requirements of these systems.

CONTENTS OF ARTICLE X APPLICATION

5. Thermal Analysis: Calculate transfer limits for the base 2003 system for the following interfaces: UPNY-SENY, UPNY-Con Ed (including all elements and contingencies of the Millwood South Interface up to the New York City Cable Interface), Central East, Total East, and the PJMISO-NYISO and NEISO-NYISO Interfaces. The New York City Cable Interface will not be tabulated in the Study because it is not affected, due to its remoteness

from West Haverstraw, by the new plant installation. NYISO transfer limits will be evaluated in the west-to-east/north-to-south direction. NYISO-NEISO and NYISO-PJMISO transfer limits will be evaluated in both directions. In each case, sufficient analysis will be conducted to determine the most limiting of the thermal, voltage, or stability limit.

The analyses will also evaluate the effect of dispatching Southern Energy Bowline Unit 3 on the phase-shifted tie-lines regulating the 1000 MW wheeling contract between Con Edison and PSE&G.

6. Voltage Analysis: Evaluate voltage performance of the Con Edison system, pre-disturbance and immediately following the sequential (non-simultaneous) loss of each of the two most critical reactive power sources on the Con Edison system.

7. Short Circuit Analysis: Evaluate the effect of interconnecting the Project on the fault duty levels of individual breakers at all 69kV, 138 kV, and 345kV Con Edison Substations, as well as selected interconnecting Utilities' Substations, for summer peak load conditions only. In addition, the adequacy of station breakers installed and owned by the Project will also be tested. The analysis will be performed in accordance with the Classical Method. Fault duty calculations will be expressed in symmetrical values, and will include simulations for three types of fault:

(a) three phase-to-ground fault;

(b) double phase-to-ground fault; and

(c) single phase-to-ground fault.

Whenever breaker upgrading is not feasible, or is prohibitively costly, alternate mitigating measures will be investigated.

STUDIES TO BE PROVIDED WITHIN 45 DAYS OF FILING OF ARTICLE X APPLICATION

8. (a) Stability Analysis: Evaluate the transient stability performance of the Project and of the interconnected system for the five (5) most critical Design Criteria contingencies and three (3) Extreme Contingency Assessment scenarios, in accordance with the NYISO standards, as follows:

Design Criteria:

Loss of a single Project generating unit, for a three phase-to-ground fault;

Loss of the entire Project, for a three phase-to-ground fault;

Loss of a large adjacent (to Project) generating complex, for a three phase-to--ground fault;

Loss of a single circuit, for a three phase-to-ground fault; and

Loss of a tower, for a three phase-to-ground fault.

Extreme, Contingency Criteria:

Loss of a transmission right-of-way, for a three phase-to-ground fault;

Loss of all lines emanating from a Bulk Power Station, for a three phase-to -ground fault; and

Stuck breaker following a three phase-to-ground fault to determine the back-up breaker Critical Clearing Time.

(b) Relay-Coordination: The study will evaluate any relay coordination changes that may be necessary and identify and provide such proposed changes to the NYPP/NYISO, PJMISO and NEISO.

(c) Auto-Reclosing: Auto-reclosing is applicable to the Facility and the interconnection to Con Edison. An analysis of the Project's impact on auto-reclosing will be provided.

9. It is agreed that the studies set forth in paragraph 8(a)-(c) above need not be completed for the Chairman of the Siting Board to determine that the Application complies with Section 164 of the Public Service Law, on condition that the studies be completed and submitted within 45 days of the filing of the Article X Application, on or before March 30, 2000, or else the lack of the studies may be considered cause for an extension of the schedule in the Article X proceeding for a period of time equal to the time beyond March 30, 2000 the 45 days taken by the aApplicant to complete and submit the studies.

CONSULTATION PROCESS

10. Upon finalization, the Scope of Study and Study will be provided to NYSDPS, NYISO, and PJMISO.

11. Southern Energy will keep NYSDPS and NYISO advised of the Study as it progresses.

12. NYSDPS may request technical conferences with PTI and Southern Energy together from time to time to discuss the Study as it progresses.

13. All updates and draft reports will be provided concurrently to NYSDPS and NYISO (including computer input data and output cases that are used in performing the analysis).

14. Upon completion, the Study will be provided to NYSDPS and NYISO and PJM ISO, and the Applicant will arrange a technical conference with PTI and NYSDPS to explain to NYSDPS the scope, inputs, assumptions. change cases and other relevant parameters of the Study.

15. Upon receipt, the Applicant will provide to NYSDPS, NYISO or PJMISO response to the Study.

16. Upon receipt, Southern Energy will provide to NYDPS any study performed by NYISO regarding the Project.

17. If acceptance of the Study by NYISO is required, Southern Energy will inform NYSDPS of the occurrence of acceptance of the Study by the NYISO.

18. Southern Energy agrees to notify, or have PTI notify, the PJM ISO and NEISO about the Project and work cooperatively on any joint studies with those ISOs that are required by their respective FERC-approved tariffs.

19. Southern Energy agrees to provide to NYSDPS concurrently copies of any draft or final studies submitted to those ISOs as well as any computer input data and output data. Comments provided by those ISOs will be provided to NYSDPS as they are received by Southern Energy.

ELECTRIC AND MAGNETIC FIELDS

20. The Application will include a discussion that will comply with the (a) Public Service Commission's applicable electric field strength standards. as set forth in Opinion 78-13, and (b) with the applicable provisions of the Commission's Interim Policy Statement on Magnetic Fields, dated September 11, 1990.

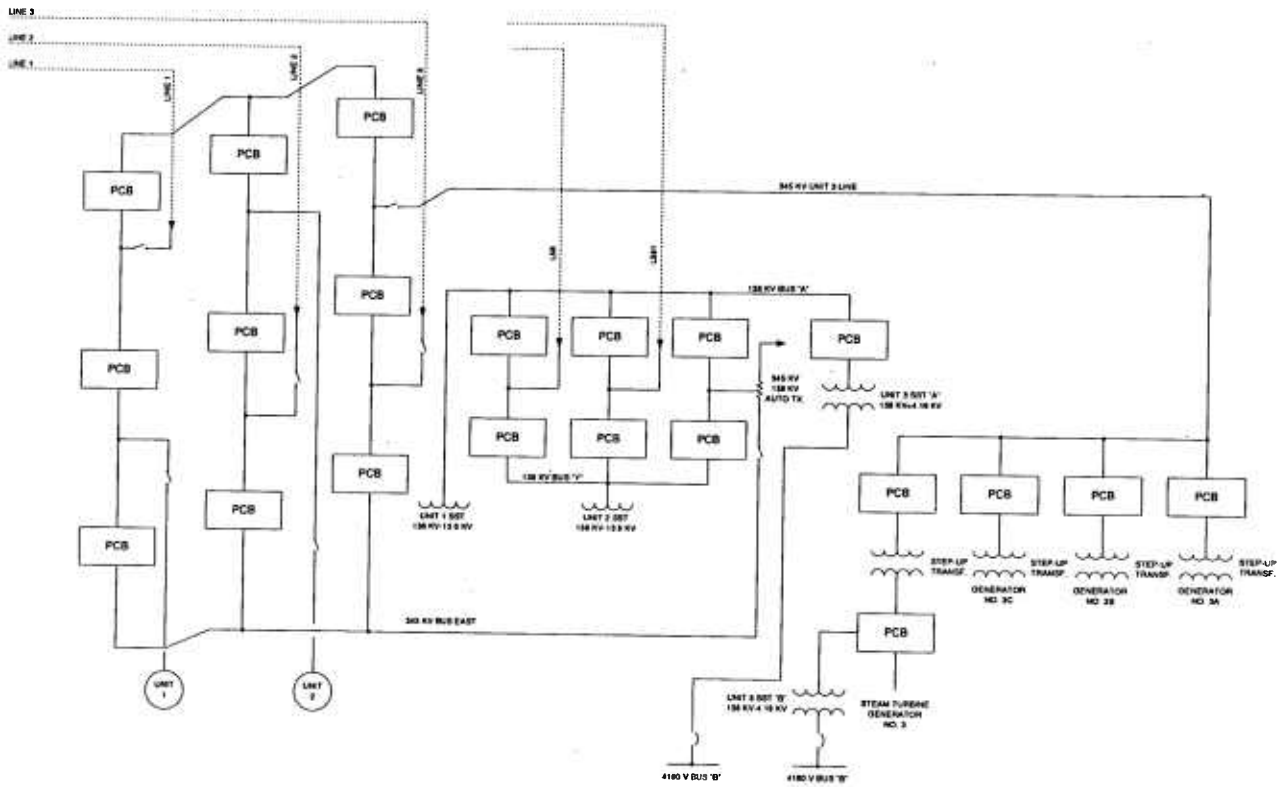
CONFIDENTIALITY

21. Regarding information to be provided to NYSDPS as required in this Stipulation, nothing herein shall prejudice Southern Energy's ability to formally invoke trade secret protection pursuant to 16 NYCRR § 6-1.3 and 6-1.4 by submitting the information to the presiding administrative law judge along with Southern Energy's reasons why the information should not be disclosed to parties other than NYSDPS. If trade secret protection is invoked, Southern Energy will cooperate with NYSDPS in obtaining a

protective order so that NYSDPS may have access to the information without delay.

Appendix
B

Proposed Interconnection Diagram for Bowline 3


LINE 3
LINE 2
LINE 1
PCB
345 KV UNIT 3 LINE
138 KV BUS "A"
138 KV BUS "Y"
345 KV
138 KV
AUTO TX
UNIT 3 GST "A"
UNIT 1 GST
UNIT 2 GST
345 KV BUS EAST
STEP-UP
TRANSF.
GENERATOR
NO. 3C
GENERATOR
NO. 3B
GENERATOR
NO. 3A
UNIT 3 GST "B"
STEAM TURBINE
GENERATOR
NO. 3
4160 V BUS "B"
4160 V BUS "B"
UNIT
1
UNIT
2

Appendix
C

Bowline 3 Model Data

```
** GENROU ** BUS   NAME    BSKV MACH    C O N S     S T A T E S
                 9395 BOWLNCT1 18.0  1    30377-30390   13205-13210

            MBASE     Z S O R C E         X T R A N       GENTAP
            218.2  0.00000+J 0.21300  0.00000+J 0.00000  1.00000

T'D0 T''D0  T'Q0 T''Q0     H   DAMP   XD     XQ     X'D    X'Q   X''D   XL
3.80 0.033  0.43 0.071    5.20  0.00 2.0270 1.9470 0.3030 0.4500 0.2130 0.1760

                          S(1.0)  S(1.2)
                          0.0900  0.4600

      ** URST4B ** BUS   NAME    BSKV MACH    C O N S     S T A T E S
                   9395 BOWLNCT1 18.0  1    63910-63926   23470-23473

  TR    KPR     KIR     VRMAX    VRMIN    TA     KPM     KIM     VMMAX   VMMIN
0.000   3.570   3.570   1.000   -0.870   0.010   1.000   0.000   1.000   -0.870

          KG      KP      KI     VBMAX     KC      XL    THETAP
        0.000   5.600   0.000   7.000   0.160  0.0000   0.000

** GAST2A ** BUS   NAME    BSKV MACH    C O N S     S T A T E S     V A R S
               9395 BOWLNCT1 18.0  1    78369-78399   29804-29816    4914-4917

  W      X      Y      Z      ETD    TCD    TRATE    T     MAX    MIN    ECR   K3
25.00  0.000  0.050  1.00   0.040  0.200  167.00   0.00  1.65   -0.17  0.010 0.770

   A      B      C     TF     KF     K5     K4      T3      T4      TT     T5
 1.00   0.05   1.00  0.40   0.000  0.200  0.800   15.00   2.500   450.0  3.30

            AF1     BF1     AF2     BF2     CF2     TR      K6      TC
          700.0   550.0  -0.299   1.300   0.500  1100.0   0.230  1100.0

      ** GENROU ** BUS   NAME    BSKV MACH    C O N S     S T A T E S
                   9396 BOWLNCT2 18.0  1    30391-30404   13211-13216

            MBASE     Z S O R C E         X T R A N       GENTAP
            218.2  0.00000+J 0.21300  0.00000+J 0.00000  1.00000

T'D0 T''D0  T'Q0 T''Q0     H   DAMP   XD     XQ     X'D    X'Q   X''D   XL
3.80 0.033  0.43 0.071    5.20  0.00 2.0270 1.9470 0.3030 0.4500 0.2130 0.1760

                          S(1.0)  S(1.2)
                          0.0900  0.4600

      ** URST4B ** BUS   NAME    BSKV MACH    C O N S     S T A T E S
                   9396 BOWLNCT2 18.0  1    63927-63943   23474-23477

  TR    KPR     KIR     VRMAX    VRMIN    TA     KPM     KIM     VMMAX   VMMIN
0.000   3.570   3.570   1.000   -0.870   0.010   1.000   0.000   1.000   -0.870

          KG      KP      KI     VBMAX     KC      XL    THETAP
        0.000   5.600   0.000   7.000   0.160  0.0000   0.000

** GAST2A ** BUS   NAME    BSKV MACH    C O N S     S T A T E S     V A R S
               9396 BOWLNCT2 18.0  1    78400-78430   29817-29829    4918-4921

  W      X      Y      Z      ETD    TCD    TRATE    T     MAX    MIN    ECR   K3
25.00  0.000  0.050  1.00   0.040  0.200  167.00   0.00  1.65   -0.17  0.010 0.770

   A      B      C     TF     KF     K5     K4      T3      T4      TT     T5
 1.00   0.05   1.00  0.40   0.000  0.200  0.800   15.00   2.500   450.0  3.30

            AF1     BF1     AF2     BF2     CF2     TR      K6      TC
          700.0   550.0  -0.299   1.300   0.500  1100.0   0.230  1100.0
```

** GENROU ** BUS NAME BSKV MACH C O N S S T A T E S
9397 BOWLNCT3 18.0 1 30405-30418 13217-13222

MBASE Z S O R C E X T R A N GENTAP
218.2 0.00000+J 0.21300 0.00000+J 0.00000 1.00000

T'D0	T''D0	T'Q0	T''Q0	H	DAMP	XD	XQ	X'D	X'Q	X''D	XL
3.80	0.033	0.43	0.071	5.20	0.00	2.0270	1.9470	0.3030	0.4500	0.2130	0.1760

S(1.0) S(1.2)
0.0900 0.4600

** URST4B ** BUS NAME BSKV MACH C O N S S T A T E S
9397 BOWLNCT3 18.0 1 63944-63960 23478-23481

TR	KPR	KIR	VRMAX	VRMIN	TA	KPM	KIM	VMMAX	VMMIN
0.000	3.570	3.570	1.000	-0.870	0.010	1.000	0.000	1.000	-0.870

KG	KP	KI	VBMAX	KC	XL	THETAP
0.000	5.600	0.000	7.000	0.160	0.0000	0.000

** GAST2A ** BUS NAME BSKV MACH C O N S S T A T E S V A R S
9397 BOWLNCT3 18.0 1 78431-78461 29830-29842 4922-4925

W	X	Y	Z	ETD	TCD	TRATE	T	MAX	MIN	ECR	K3
25.00	0.000	0.050	1.00	0.040	0.200	167.00	0.00	1.65	-0.17	0.010	0.770

A	B	C	TF	KF	K5	K4	T3	T4	TT	T5
1.00	0.05	1.00	0.40	0.000	0.200	0.800	15.00	2.500	450.0	3.30

AF1	BF1	AF2	BF2	CF2	TR	K6	TC
700.0	550.0	-0.299	1.300	0.500	1100.0	0.230	1100.0

** GENROU ** BUS NAME BSKV MACH C O N S S T A T E S
9398 BOWLNST 18.0 1 30419-30432 13223-13228

MBASE Z S O R C E X T R A N GENTAP
405.0 0.00000+J 0.30300 0.00000+J 0.00000 1.00000

T'D0	T''D0	T'Q0	T''Q0	H	DAMP	XD	XQ	X'D	X'Q	X''D	XL
4.25	0.032	0.39	0.064	4.20	0.00	2.4720	2.3880	0.4240	0.6300	0.3030	0.2500

S(1.0) S(1.2)
0.0900 0.4600

** URST4B ** BUS NAME BSKV MACH C O N S S T A T E S
9398 BOWLNST 18.0 1 63961-63977 23482-23485

TR	KPR	KIR	VRMAX	VRMIN	TA	KPM	KIM	VMMAX	VMMIN
0.000	3.260	3.260	1.000	-0.870	0.010	1.000	0.000	1.000	-0.870

KG	KP	KI	VBMAX	KC	XL	THETAP
0.000	6.130	0.000	7.670	0.090	0.0000	0.000

Appendix
D

ANP (Ramapo) Model Data: Assumed Data

** GENROU **	BUS	NAME	BSKV	MACH	C O N S	S T A T E S
	4361	ANPG121	21.0	1	30237-30250	13145-13150

MBASE	Z S O R C E	X T R A N	GENTAP
360.0	0.00000+J 0.32650	0.00000+J 0.00000	1.00000

T'D0	T''D0	T'Q0	T''Q0	H	DAMP	XD	XQ	X'D	X'Q	X''D	XL
5.89	0.042	0.65	0.063	4.46	0.00	2.4430	2.3870	0.4123	0.6065	0.3265	0.2558

S(1.0)	S(1.2)
0.2000	0.8000

** EXST1 **	BUS	NAME	BSKV	MACH	C O N S	S T A T E S
	4361	ANPG121	21.0	1	63790-63801	23430-23433

TR	VIMAX	VIMIN	TC	TB	KA	TA
0.000	0.170	-0.170	1.000	8.000	250.0	0.020

VRMAX	VRMIN	KC	KF	TF
7.180	-6.462	0.107	0.000	1.000

** GENROU **	BUS	NAME	BSKV	MACH	C O N S	S T A T E S
	4362	ANPG221	21.0	2	30251-30264	13151-13156

MBASE	Z S O R C E	X T R A N	GENTAP
360.0	0.00000+J 0.32650	0.00000+J 0.00000	1.00000

T'D0	T''D0	T'Q0	T''Q0	H	DAMP	XD	XQ	X'D	X'Q	X''D	XL
5.89	0.042	0.65	0.063	4.46	0.00	2.4430	2.3870	0.4123	0.6065	0.3265	0.2558

S(1.0)	S(1.2)
0.2000	0.8000

** EXST1 **	BUS	NAME	BSKV	MACH	C O N S	S T A T E S
	4362	ANPG221	21.0	2	63802-63813	23434-23437

TR	VIMAX	VIMIN	TC	TB	KA	TA
0.000	0.170	-0.170	1.000	8.000	250.0	0.020

VRMAX	VRMIN	KC	KF	TF
7.180	-6.462	0.107	0.000	1.000

```
** GENROU ** BUS   NAME   BSKV MACH    C O N S     S T A T E S
                 4363 ANPG321  21.0  3    30265-30278   13157-13162

          MBASE     Z S O R C E          X T R A N       GENTAP
          360.0  0.00000+J 0.32650  0.00000+J 0.00000  1.00000

T'D0 T''D0  T'Q0 T''Q0     H   DAMP   XD     XQ     X'D    X'Q   X''D    XL
5.89 0.042  0.65 0.063   4.46  0.00 2.4430 2.3870 0.4123 0.6065 0.3265 0.2558

                          S(1.0)  S(1.2)
                          0.2000  0.8000

      ** EXST1 **  BUS   NAME   BSKV MACH    C O N S     S T A T E S
                  4363 ANPG321  21.0  3    63814-63825   23438-23441

          TR    VIMAX   VIMIN     TC      TB      KA      TA
        0.000   0.170  -0.170   1.000   8.000   250.0   0.020

                VRMAX   VRMIN     KC      KF      TF
                7.180  -6.462   0.107   0.000   1.000


     ** GENROU ** BUS   NAME   BSKV MACH    C O N S     S T A T E S
                 4364 ANPG421  21.0  4    30279-30292   13163-13168

          MBASE     Z S O R C E          X T R A N       GENTAP
          360.0  0.00000+J 0.32650  0.00000+J 0.00000  1.00000

T'D0 T''D0  T'Q0 T''Q0     H   DAMP   XD     XQ     X'D    X'Q   X''D    XL
5.89 0.042  0.65 0.063   4.46  0.00 2.4430 2.3870 0.4123 0.6065 0.3265 0.2558

                          S(1.0)  S(1.2)
                          0.2000  0.8000

      ** EXST1 **  BUS   NAME   BSKV MACH    C O N S     S T A T E S
                  4364 ANPG421  21.0  4    63826-63837   23442-23445

          TR    VIMAX   VIMIN     TC      TB      KA      TA
        0.000   0.170  -0.170   1.000   8.000   250.0   0.020

                VRMAX   VRMIN     KC      KF      TF
                7.180  -6.462   0.107   0.000   1.000
```

Appendix
E

Stability Analysis Faults Simulated

Stability Analysis Faults Simulated

Stipulation Requirement Design Criteria	Fault Location	Fault Duration	Contingency	Code
Loss of a single Project generating unit, for a three phase-to-ground fault	Bowline 345 kV Bus	4 cycles	Trip Bowline 3 ST	D1A
Loss of the entire project, for a three phase-to-ground fault	At Ladentown on 67 to West Haverstraw	4 cycles	Trip both Ladentown-Bowline circuits and Trip Bowline 1, 2 and 3	D2A
Loss of a large adjacent (to Project) generating complex, for a three-phase-to-ground fault	Buchanan South 345 kV Bus	4 cycles	Trip Indian Point #3	D3A
Loss of a single circuit, for a three phase-to-ground fault	At Ladentown on W72 to Ramapo	4 cycles	Trip Ladentown-Ramapo with reclosing at 31 cycles.	D4A
	At Ladentown on Y88 to Buchanan South	4 cycles	Trip Ladentown-Buchanan South	D4B
	At Buchanan North on line to Eastview	4 cycles	Trip Buchanan North-Eastview	D4C
Loss of a tower, for a three phase-to-ground fault	At Buchanan South on line to Millwood	4 cycles	Trip both Buchanan-Millwood circuits	D5A

Stipulation Requirement Extreme Criteria	Fault Location	Fault Duration	Contingency	Code
Loss of a transmission right-of-way, for a three phase-to-ground fault	At Ladentown on Y88 to Buchanan South	4 cycles	Trip Buchanan South-Ladentown and Buchanan North-Ramapo (Hudson river crossing)	E1A
Loss of all lines emanating for a Bulk Power Station, for a three phase-to-ground fault	Ramapo 345 kV Bus	4 cycles	Disconnect Ramapo 345 kV Bus Trip ANP and Sithe	E2A
Stuck breaker following a three phase-to-ground fault to determine the back-up breaker Critical Clearing Time	At Ramapo on 94 to Buchanan North		Trip Ramapo-Buchanan North at 4 cycles. Trip Ramapo-ANP #1 to determine critical clearing time. No ANP generation is tripped.	E3A

Appendix

F

Simulation Results

APPENDIX F.1 - Summer Peak Case DS1

Bowline 3, Athens, ANP and Sithe Off-Line

Bowline 1 and 2 On-Line

CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                           / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                           / TRIP BOWLINE 2
DISCONNECT BUS 4310                              /
DISCONNECT BUS 4311                              /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]

180.00 -180.0

FRI, MAR 31 2000 9:36
RUN D2A PLOT 2

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT

CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT1 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

FRI, MAR 31 2000 9:36
RUN D2A PLOT 4

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT

CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP*3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

FRI, MAR 31 2000 9:36
RUN D2A PLOT 1

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT

CHNL= 18: CANGL 9528 CGILBOA*217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA*117.000] C1]]
CHNL= 16: CANGL 4193 CORNSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

180.00 -180.0

FRI, MAR 31 2000 9:36
RUN D2A PLOT 3

TIME (SECONDS)
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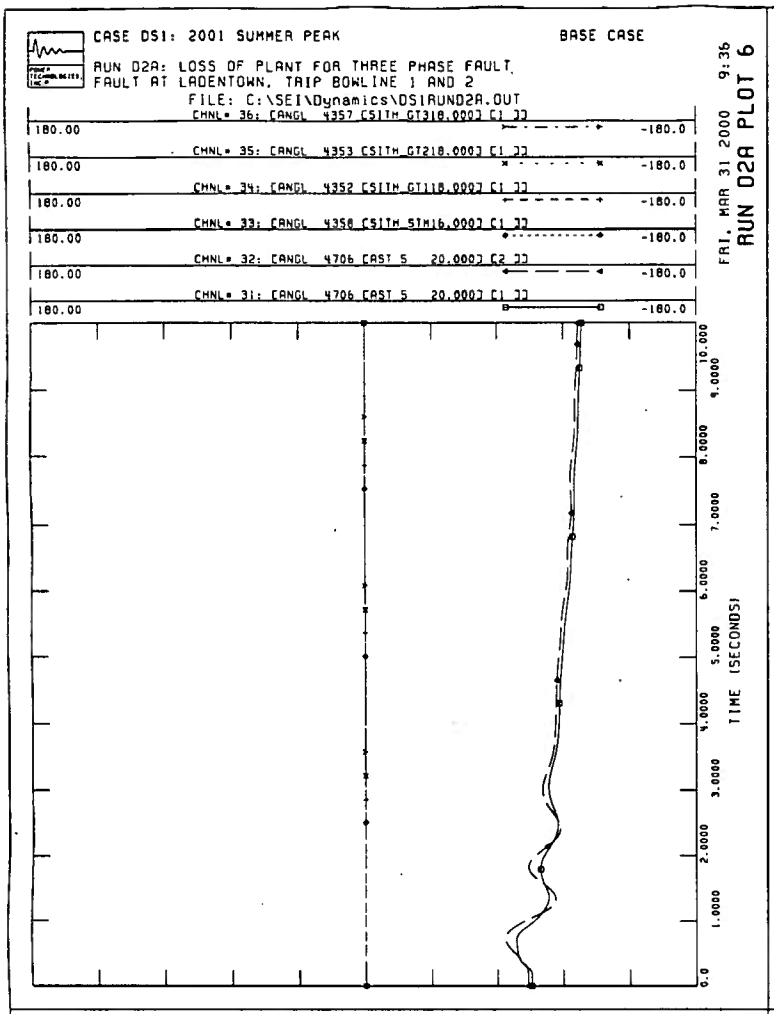
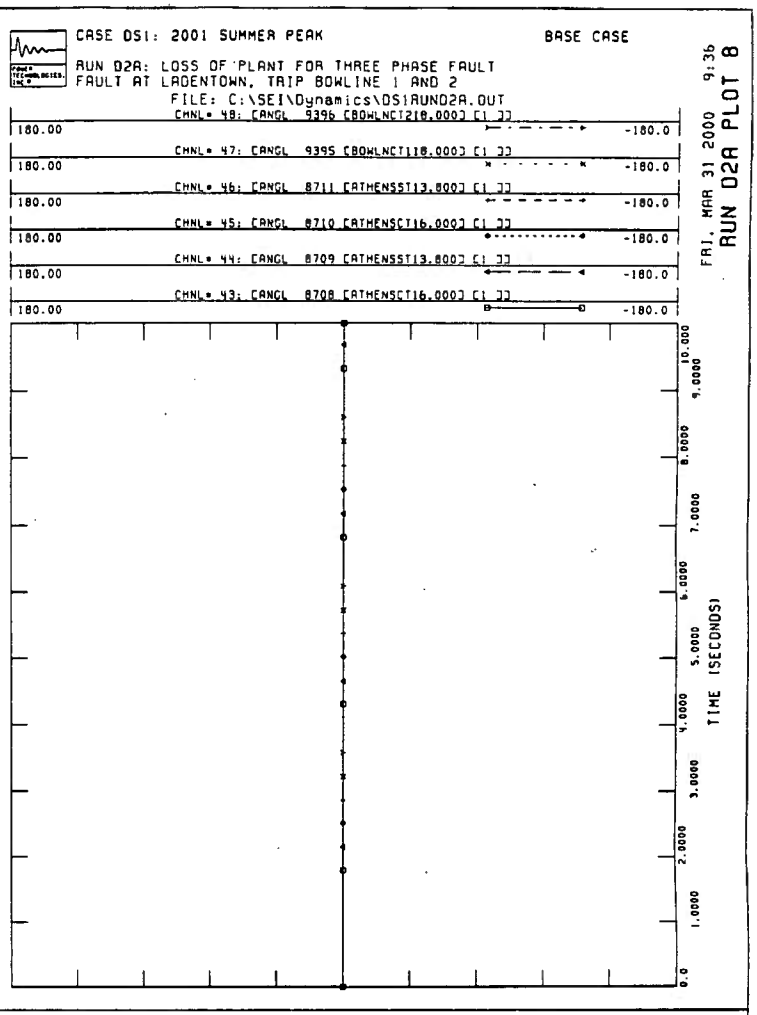
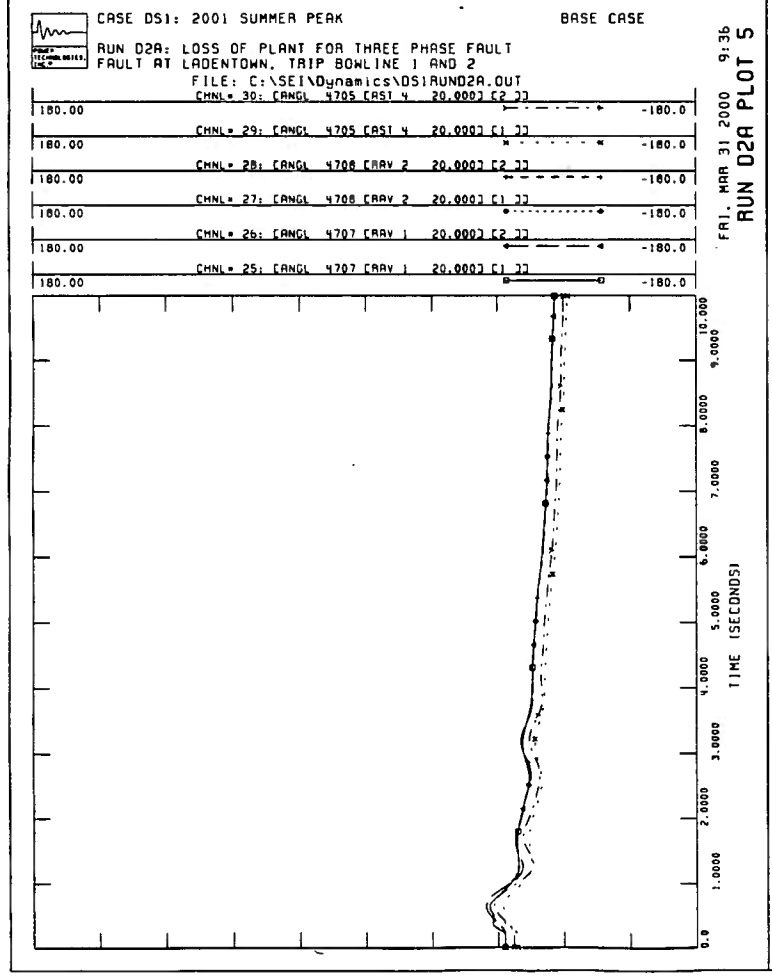
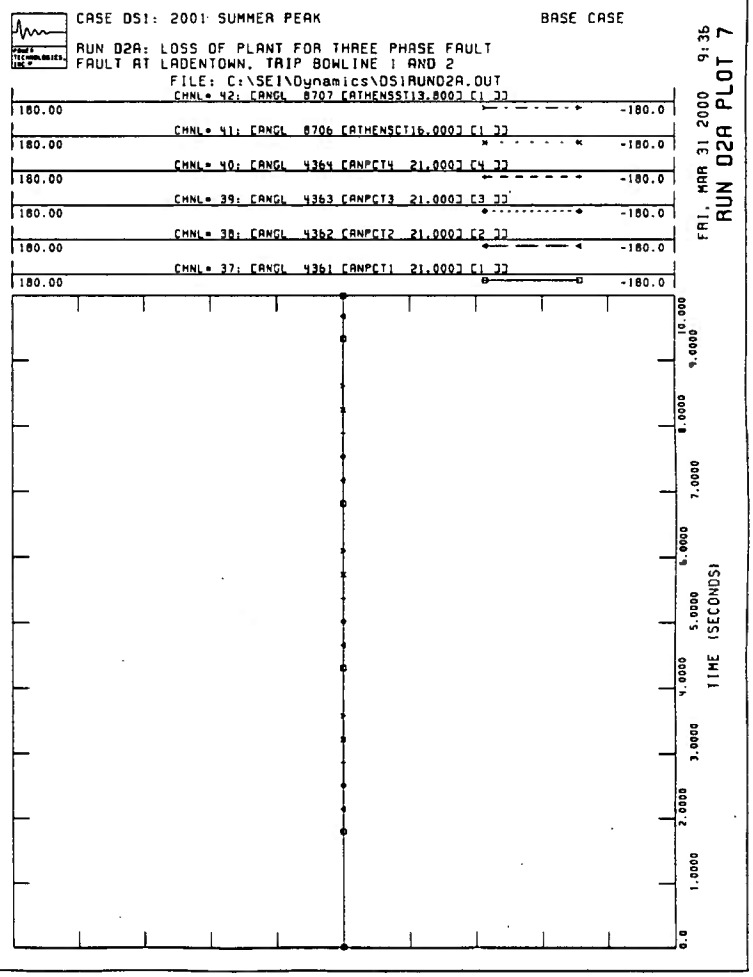
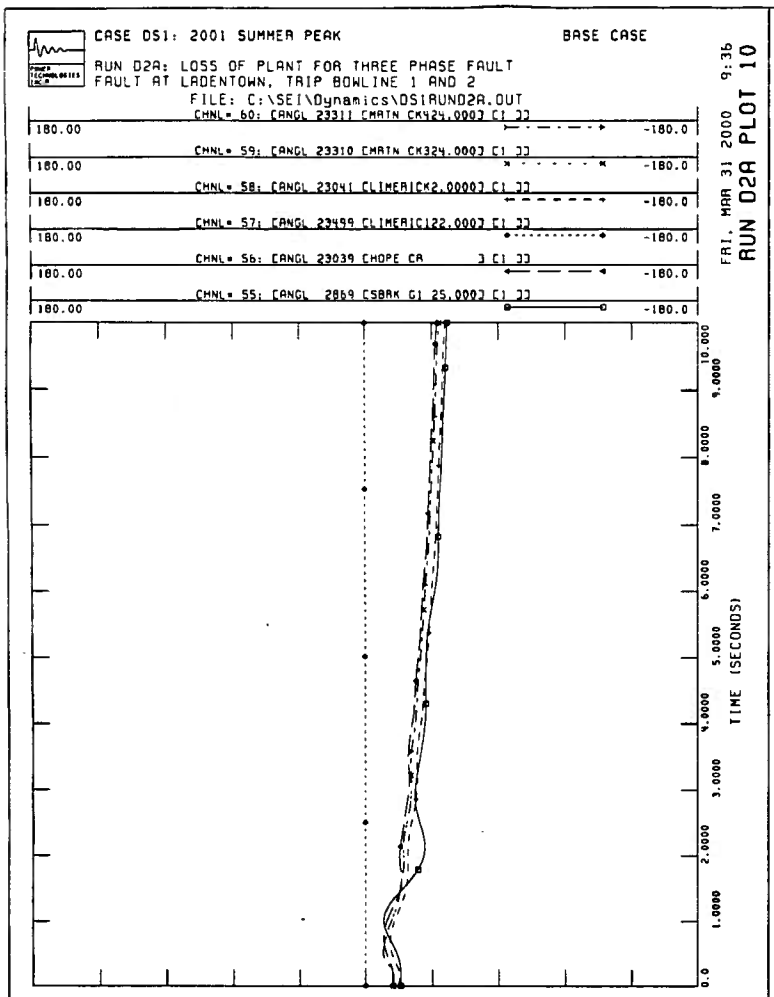
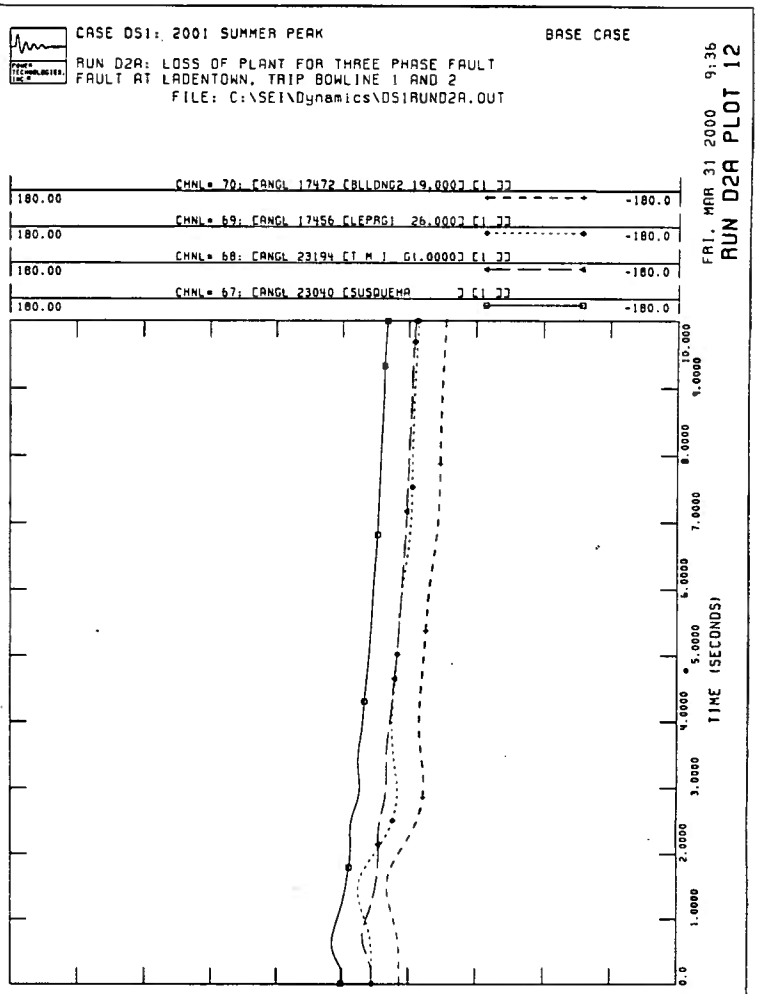

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1\RUND2A.OUT
CHNL= 36: CANGL 4357 CS1TH GT310.000] C1]]
CHNL= 35: CANGL 4353 CS1TH GT218.000] C1]]
CHNL= 34: CANGL 4352 CS1TH GT118.000] C1]]
CHNL= 33: CANGL 4358 CS1TH STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 6

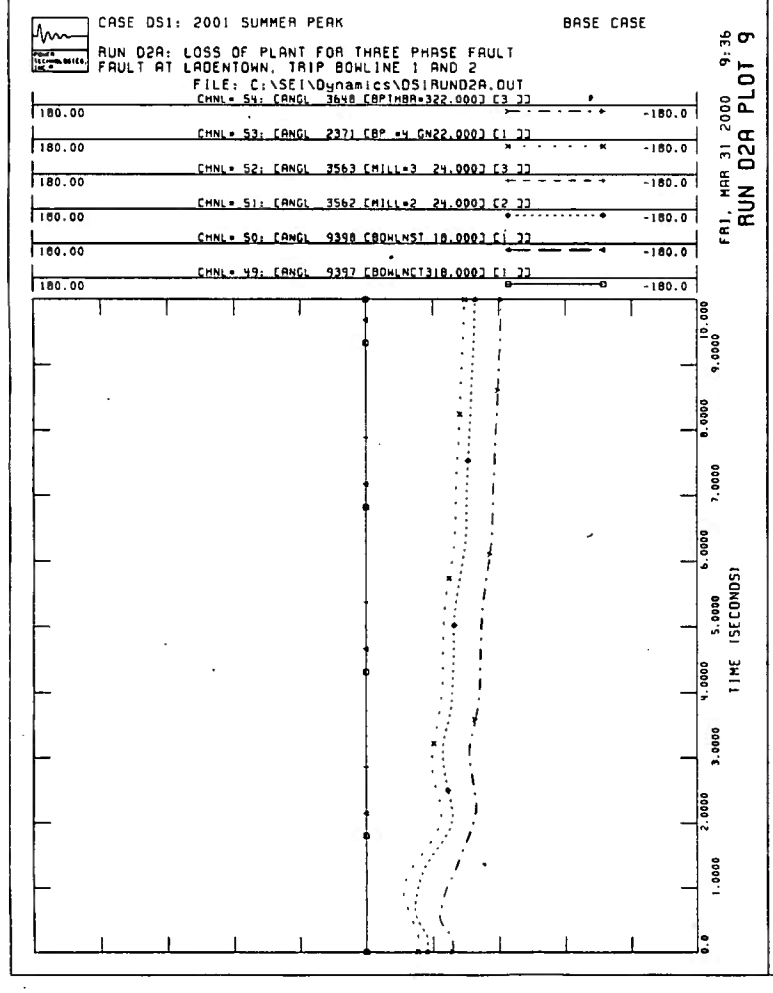

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1\RUND2A.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 8

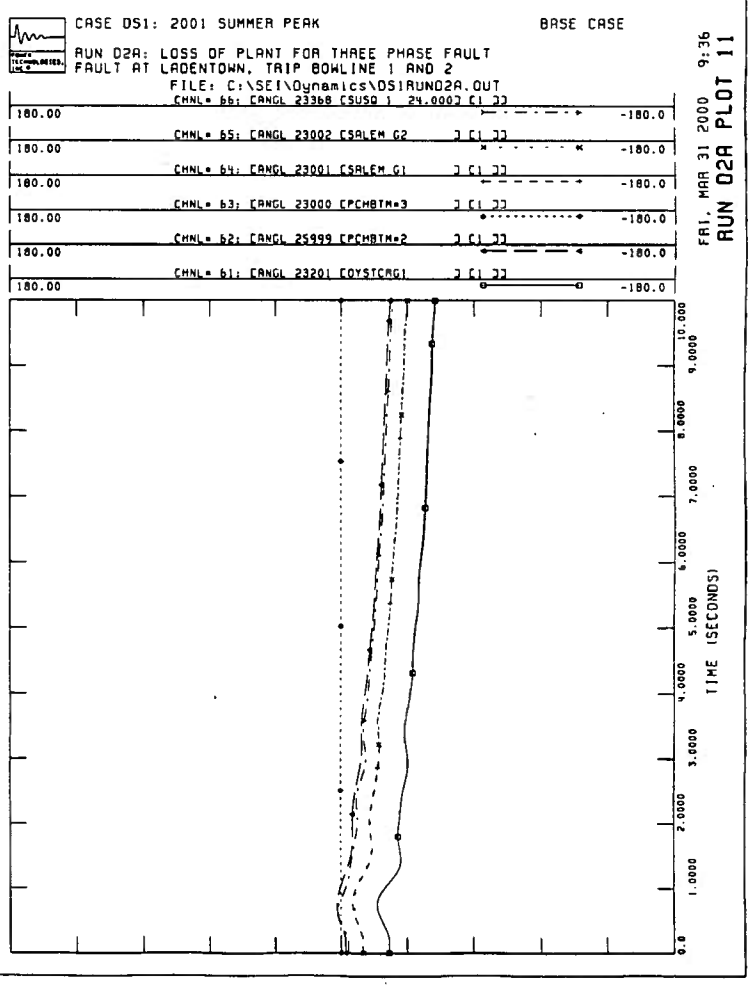

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1\RUND2A.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 5


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1\RUND2A.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:35
RUN D2A PLOT 7


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 10

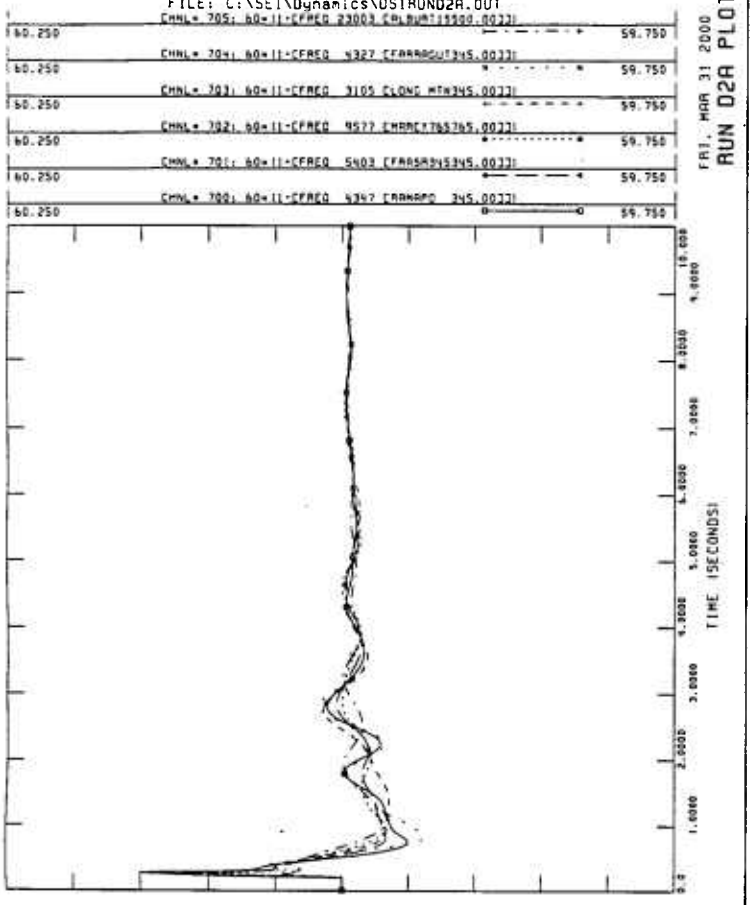

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPRG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEMA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 12


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT
CHNL= 54: CANGL 3648 CBPTMBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 9


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCRG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D2A PLOT 11

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT



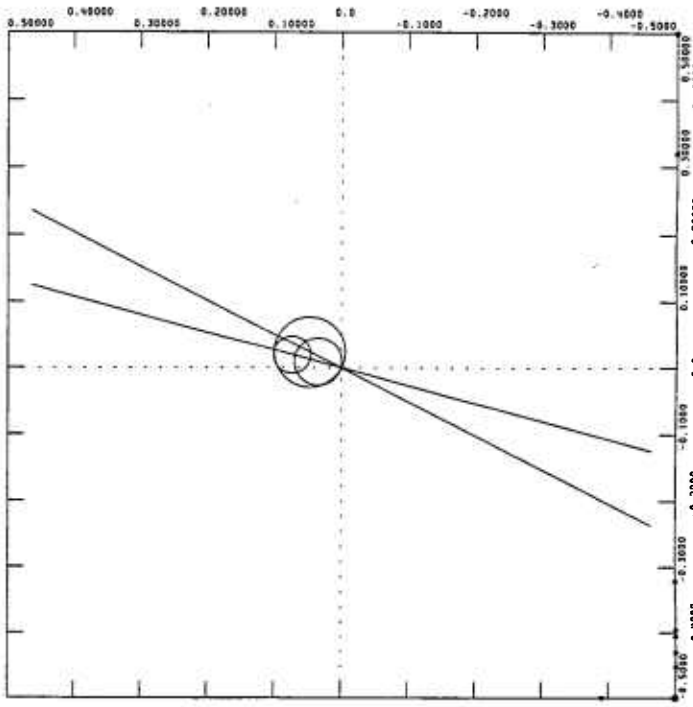
FRI, MAR 31 2000 9:36
RUN D2A PLOT 14

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2

FILE: C:\SEI\Dynamics\DS1RUND2A.OUT

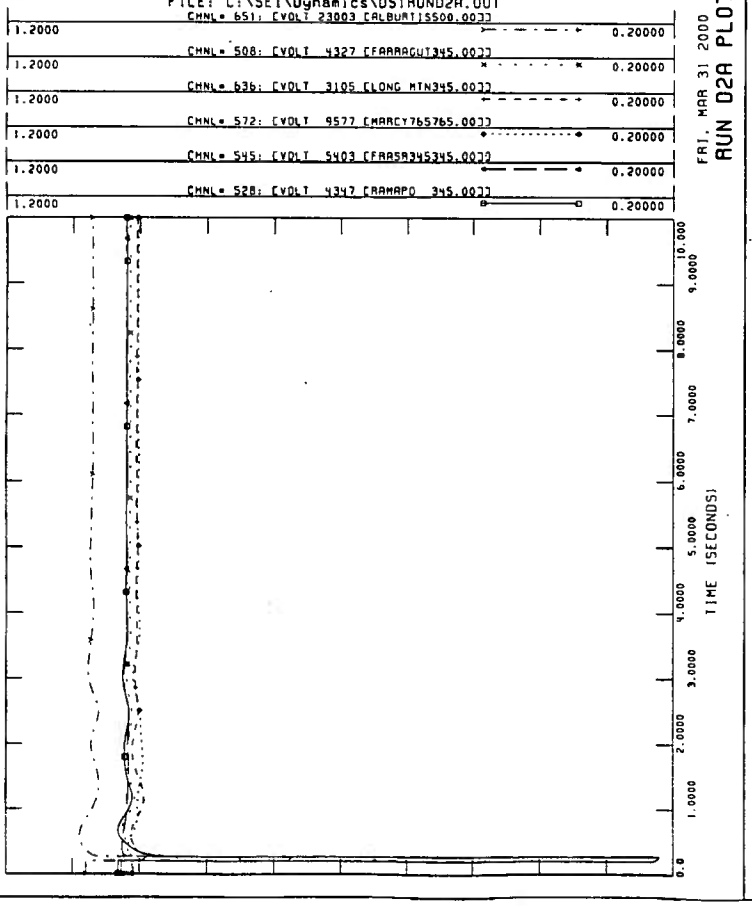
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL• 697: [APPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 9:36
RUN D2A PLOT 16

CASE DS1: 2001 SUMMER PEAK BASE CASE

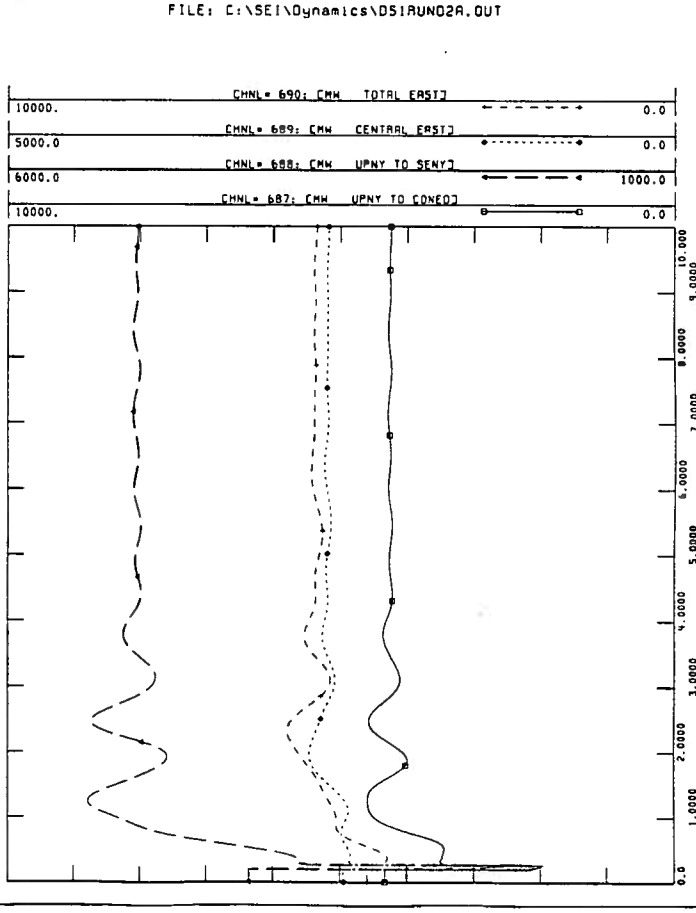
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT



FRI, MAR 31 2000 9:36
RUN D2A PLOT 13

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUND2A.OUT



FRI, MAR 31 2000 9:36
RUN D2A PLOT 15

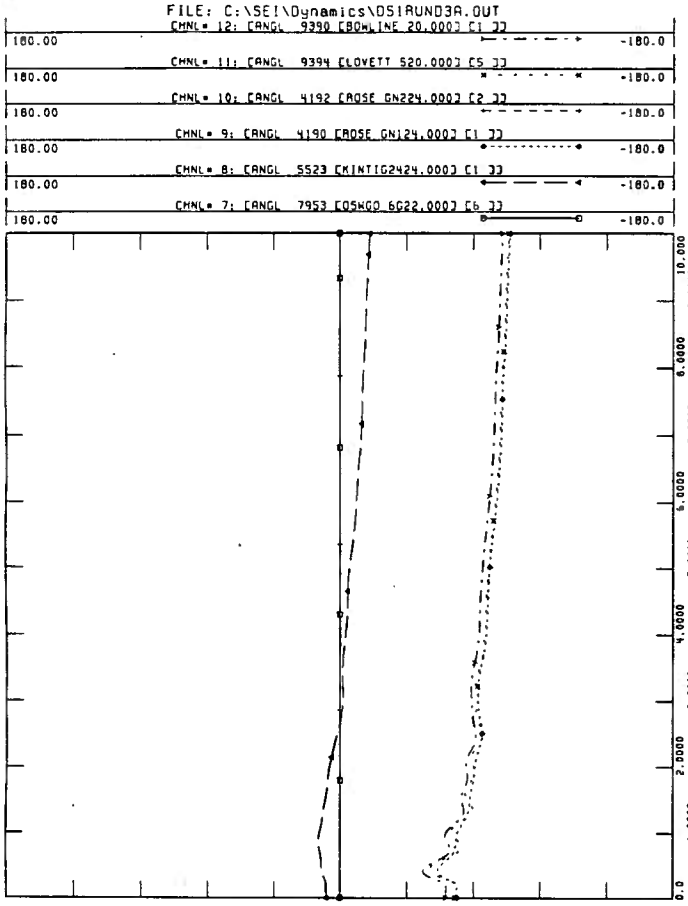
CONTINGENCY D3A

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                           / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DS1RUND3A.OUT

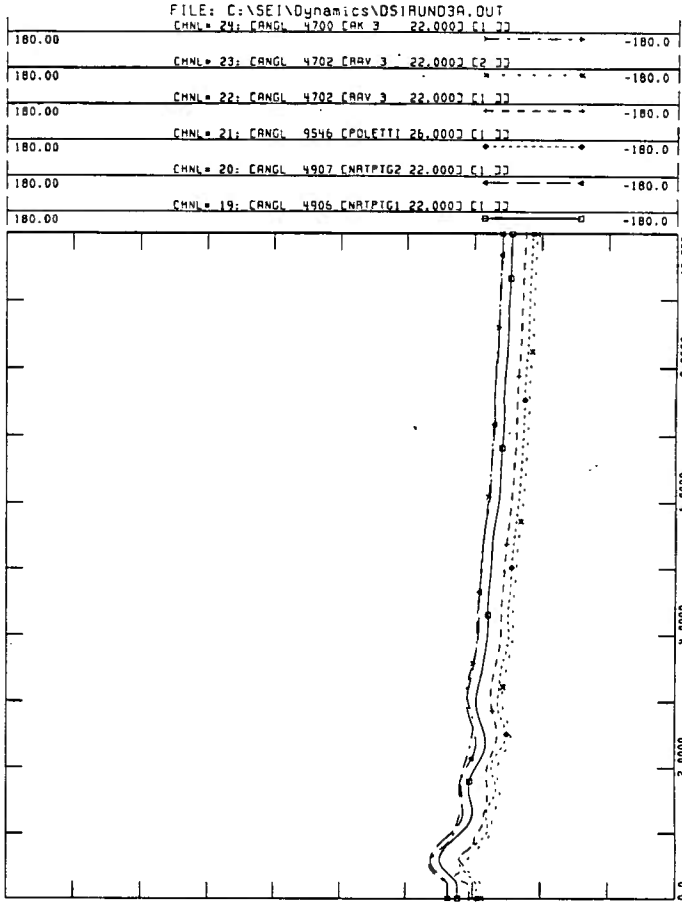


FRI, MAR 31 2000 9:36
RUN D3A PLOT 2

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DS1RUND3A.OUT

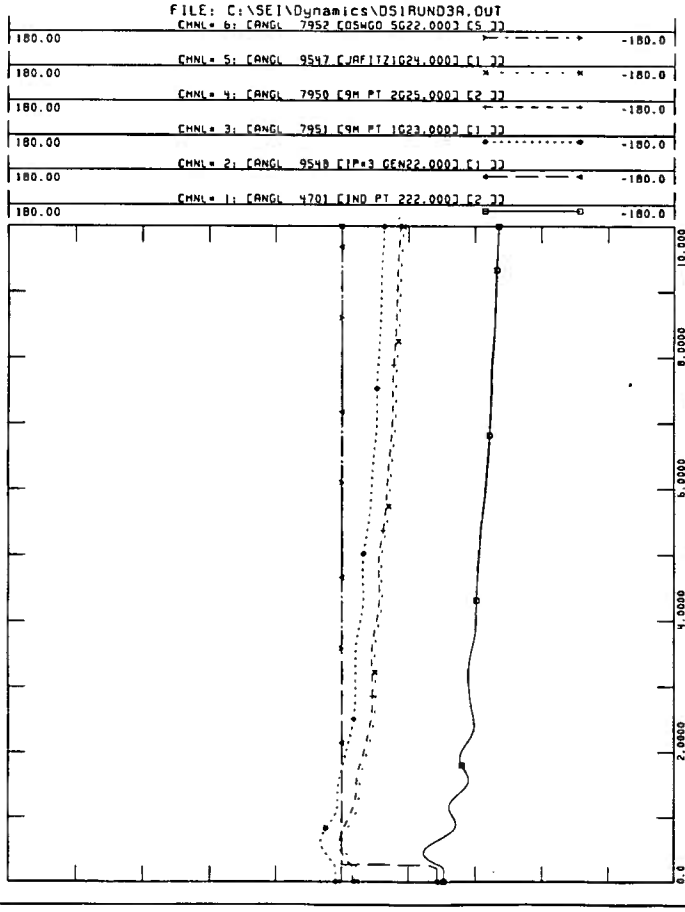


FRI, MAR 31 2000 9:36
RUN D3A PLOT 4

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DS1RUND3A.OUT

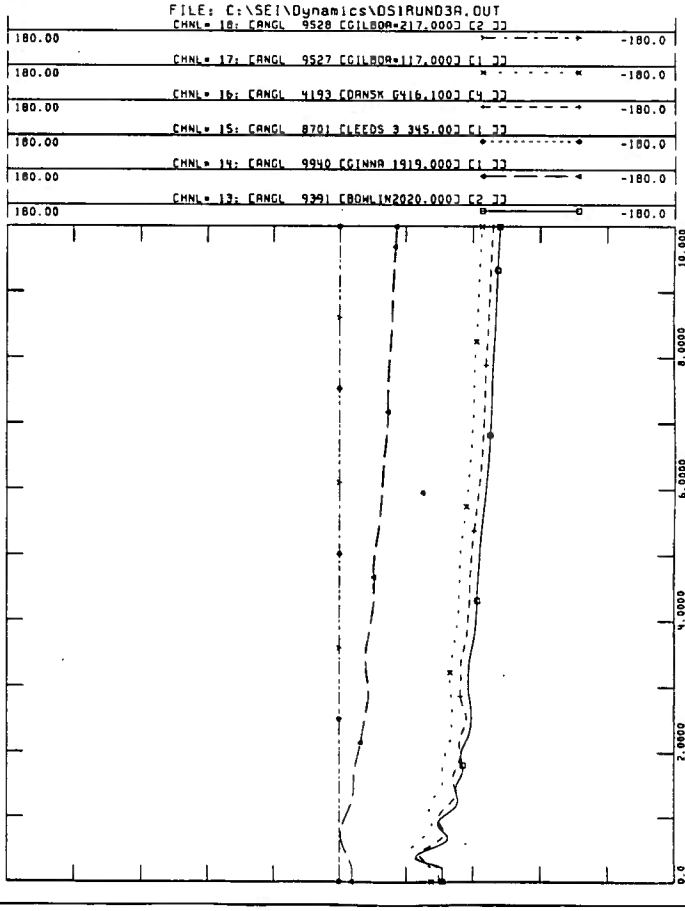


FRI, MAR 31 2000 9:36
RUN D3A PLOT 1

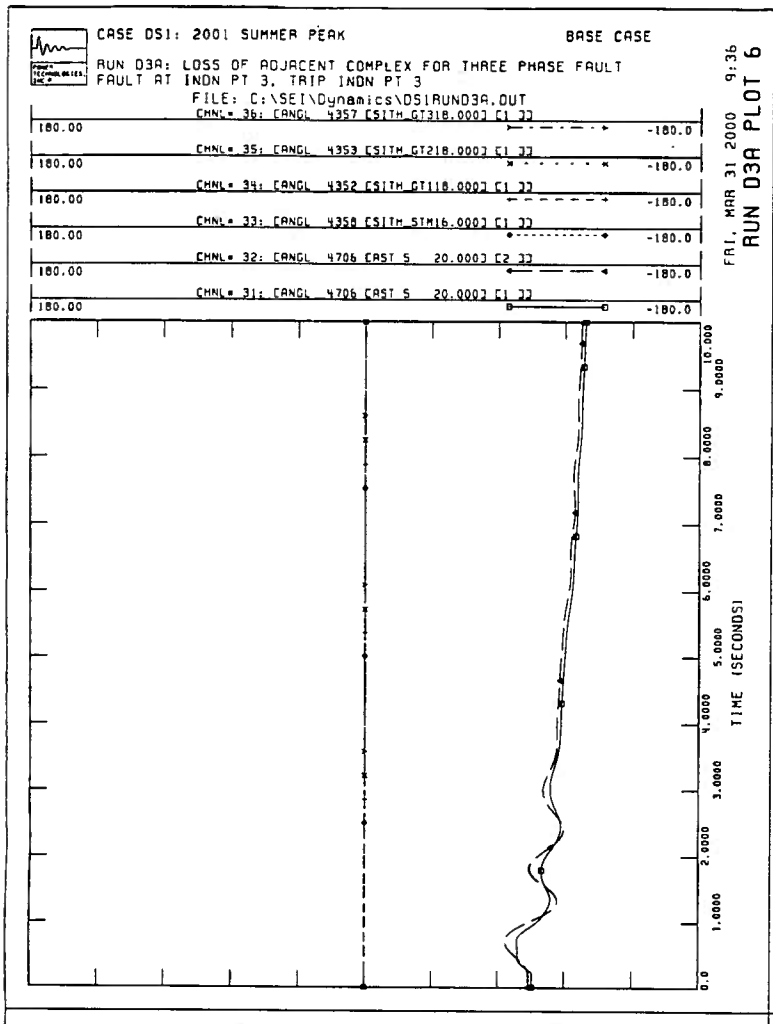
CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DS1RUND3A.OUT



FRI, MAR 31 2000 9:36
RUN D3A PLOT 3


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
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7.0000
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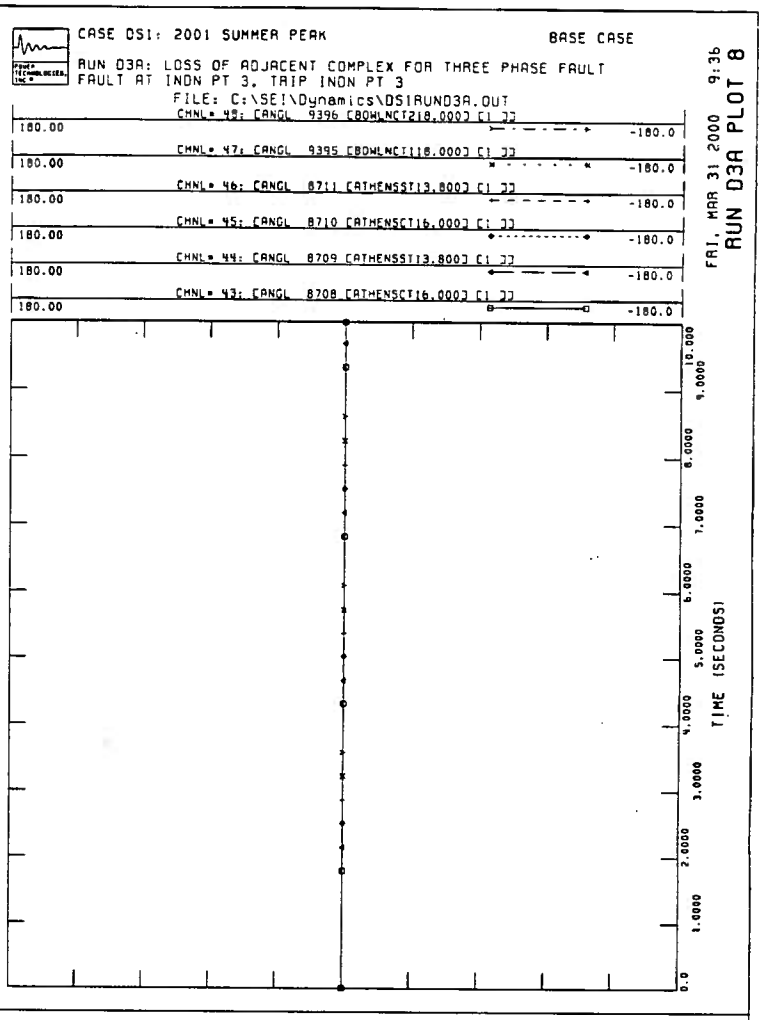
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D3A PLOT 6


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST3.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST3.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
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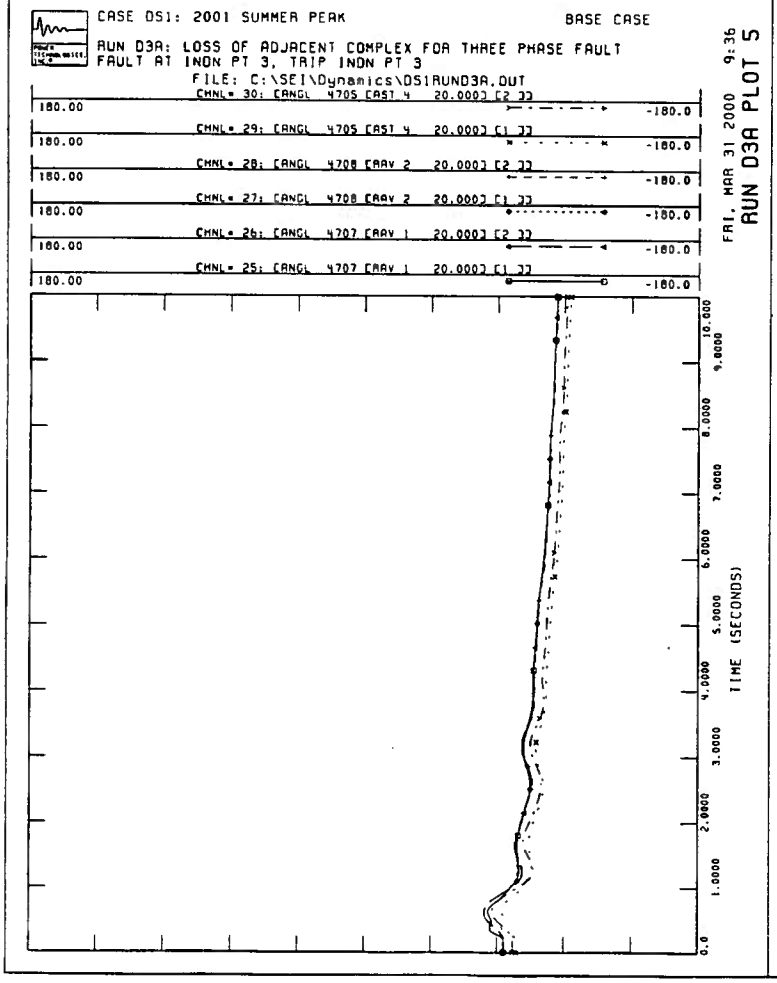
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D3A PLOT 8


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CAAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CAAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CAAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CAAV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
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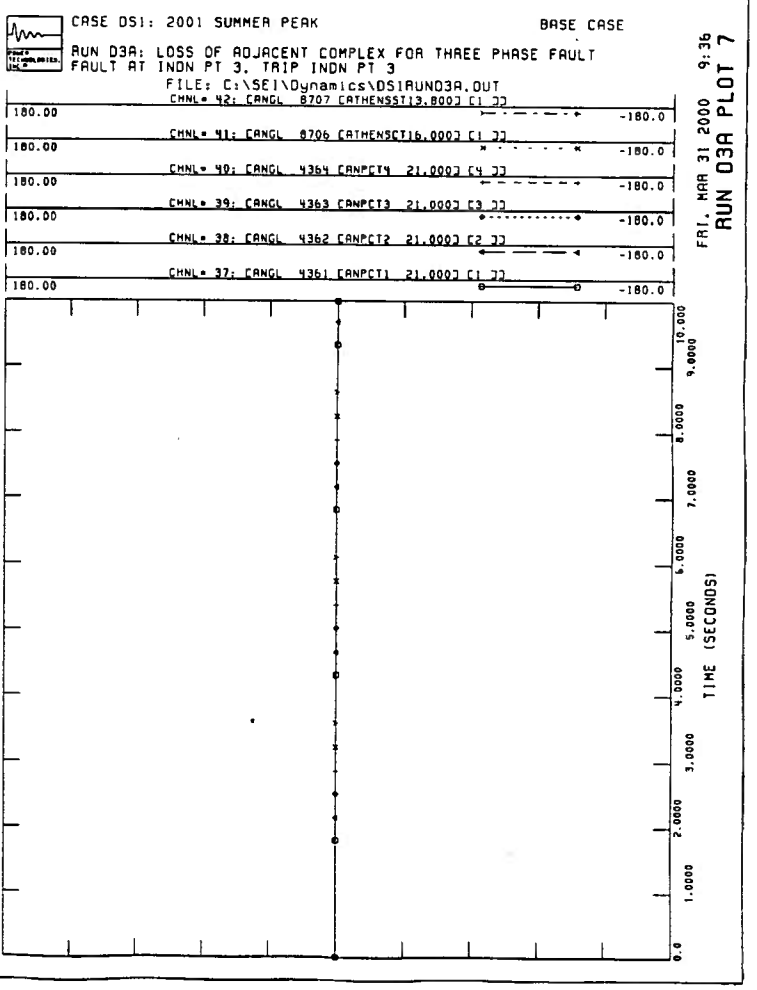
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D3A PLOT 5


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
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9.0000
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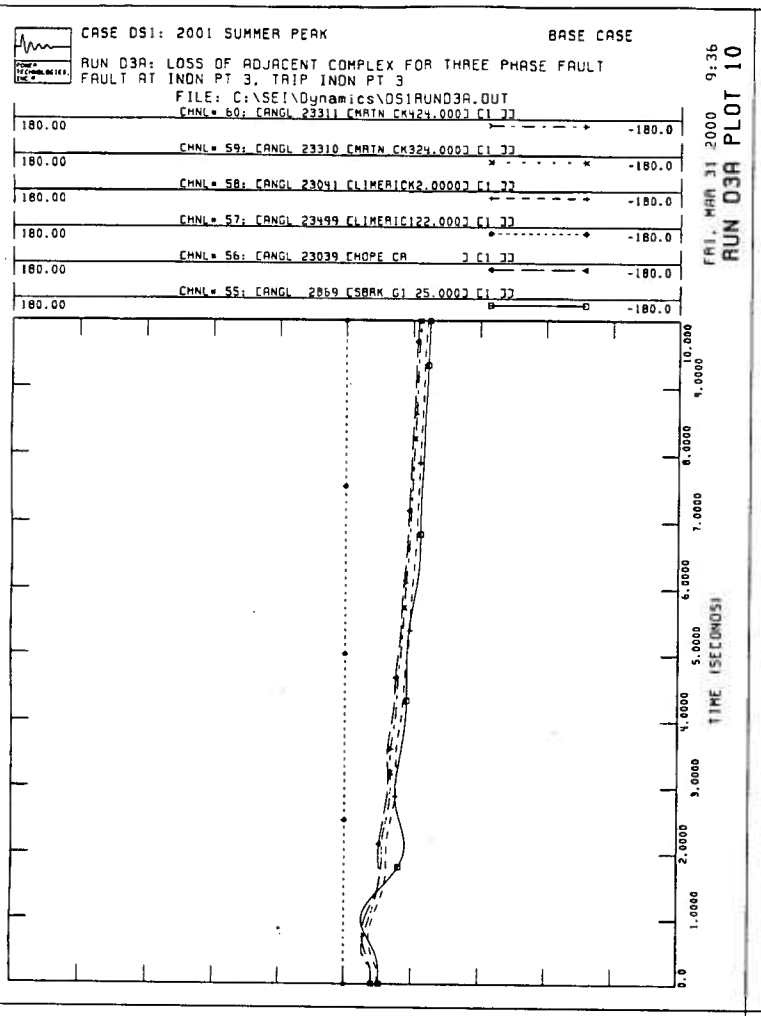
TIME (SECONDS)
FRI, MAR 31 2000 9:36
RUN D3A PLOT 7


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 60: CANGL 23311 CMATN CK424.000] C1]]
CHNL= 59: CANGL 23310 CMATN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CMOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 9:36
RUN D3A PLOT 10
TIME (SECONDS)
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1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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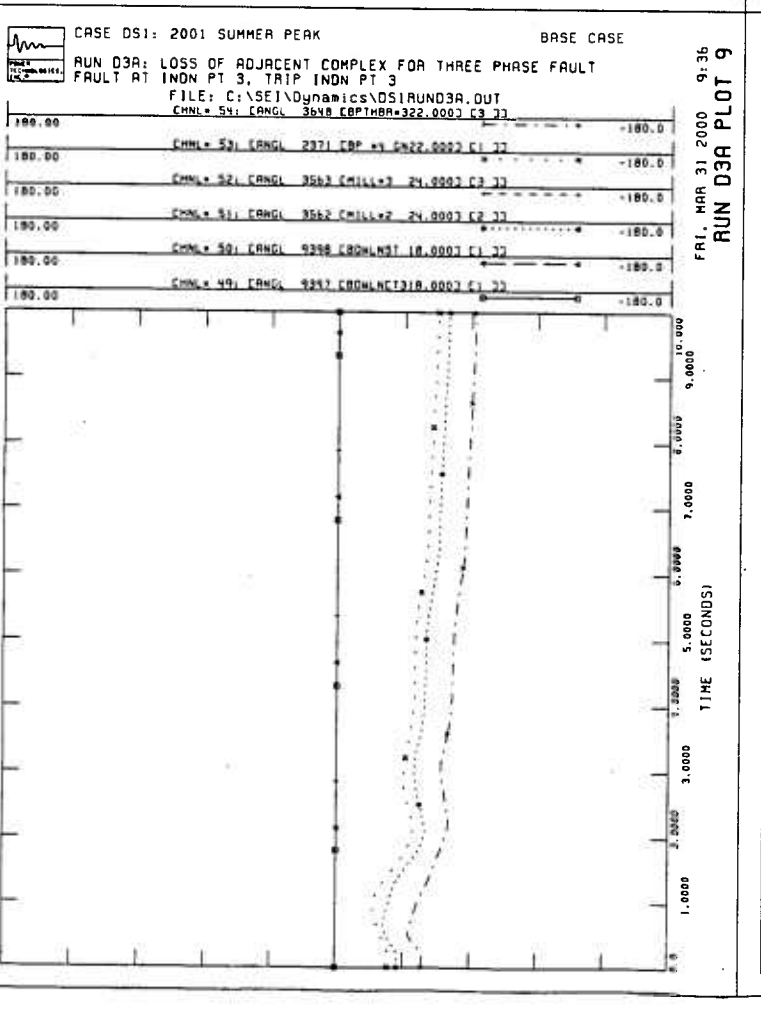
9.0000
10.000


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =3 CK22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLN3T 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 9:36
RUN D3A PLOT 9
TIME (SECONDS)
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2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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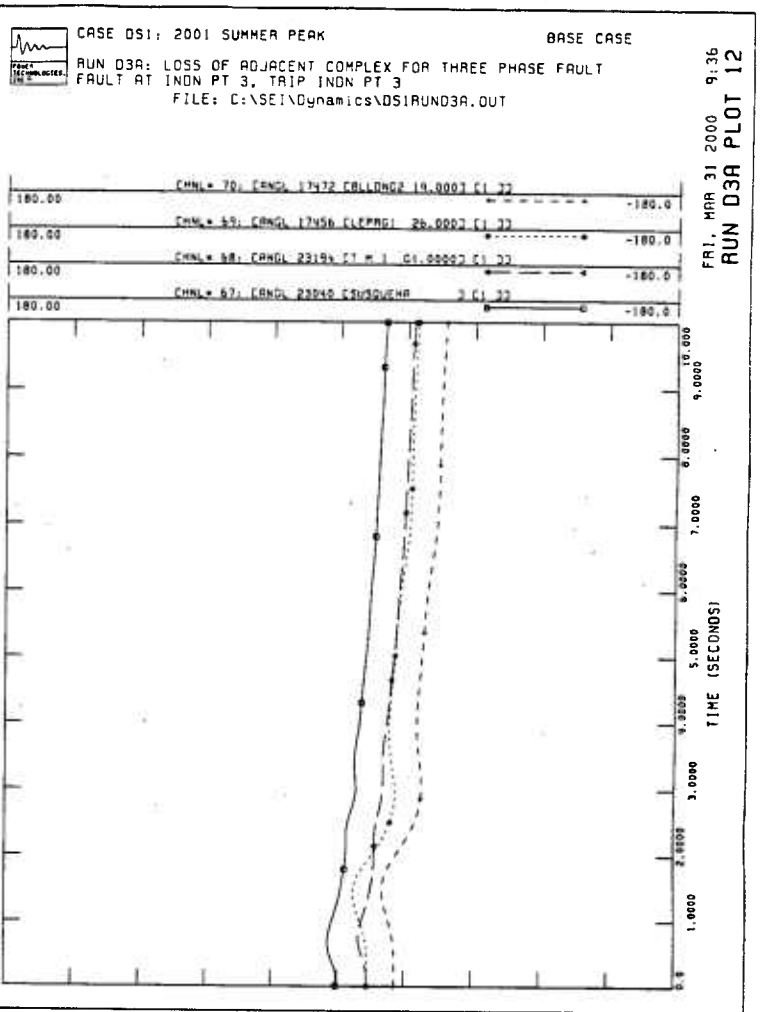
9.0000
10.000


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPNG1 26.000] C1]]
CHNL= 68: CANGL 23194 C1 = 1 C1.0000] C1]]
CHNL= 67: CANGL 23048 CSUSQUEHA] C1]]
180.00
-180.0
FRI, MAR 31 2000 9:36
RUN D3A PLOT 12
TIME (SECONDS)
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2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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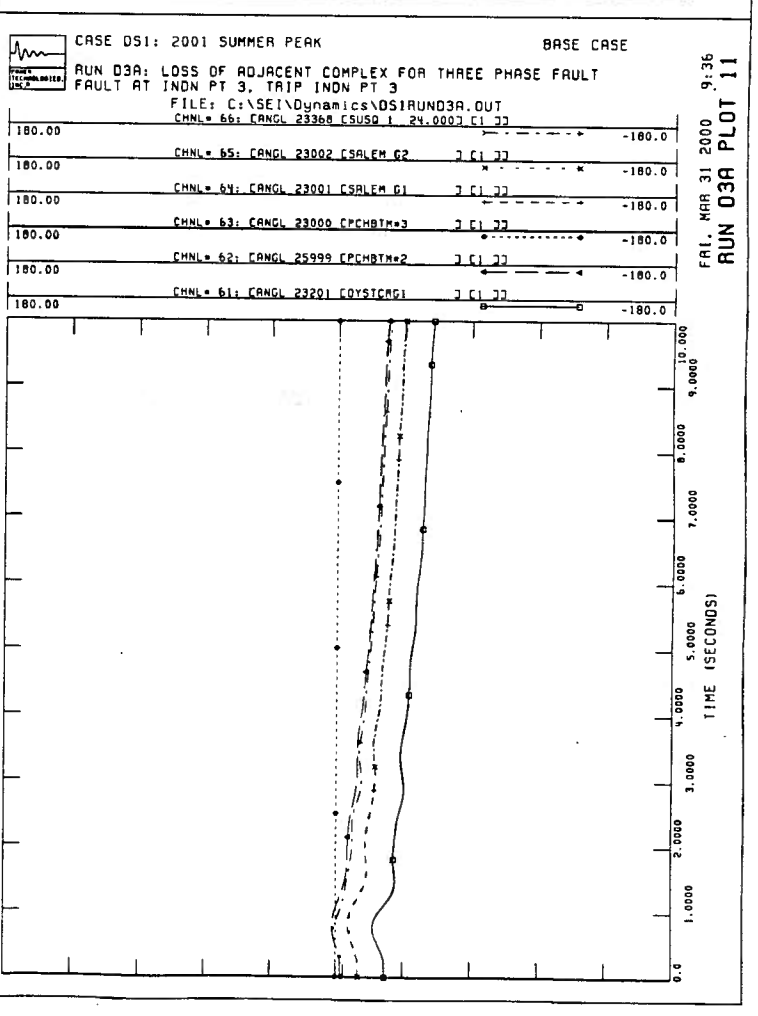
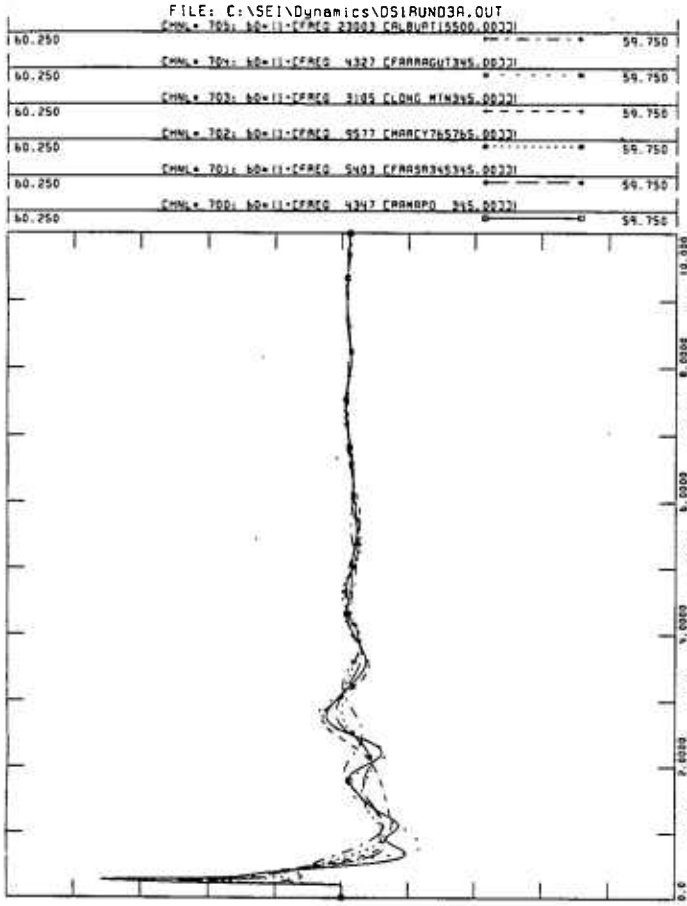
10.000


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 CDYSTCRG1] C1]]
180.00
-180.0
FRI, MAR 31 2000 9:36
RUN D3A PLOT 11
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT



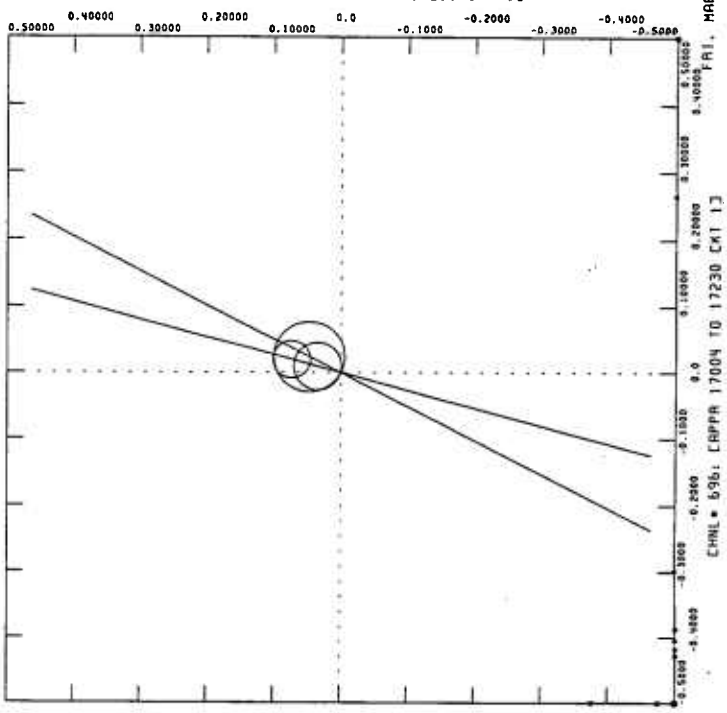
FRI, MAR 31 2000 9:36
RUN D3A PLOT 14

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DS1RUND3A.OUT

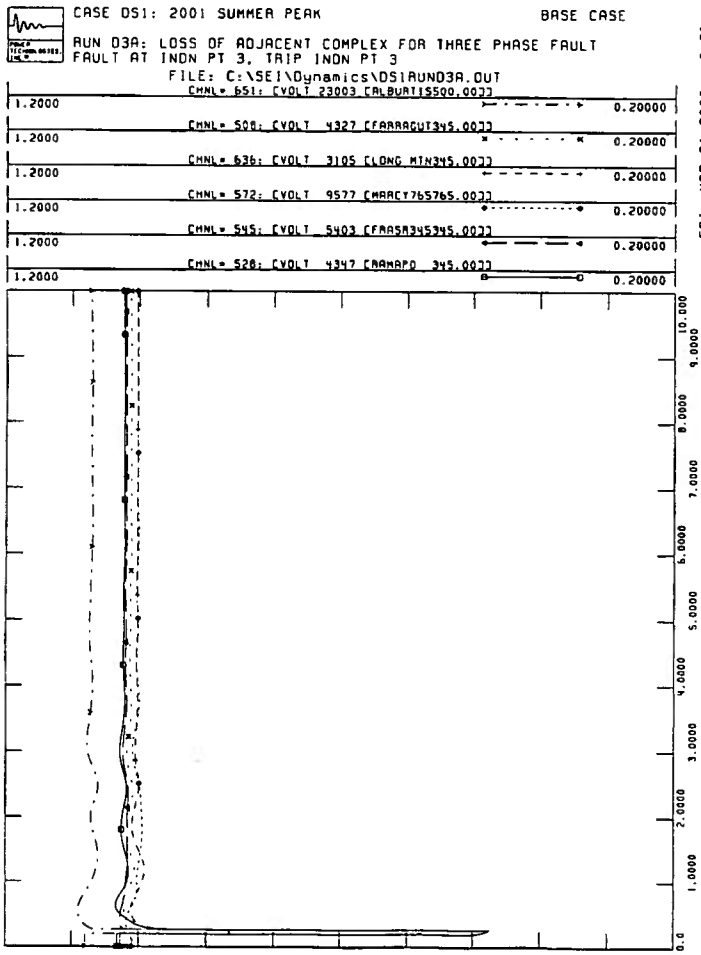
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 9:36
RUN D3A PLOT 16

CASE DS1: 2001 SUMMER PEAK BASE CASE

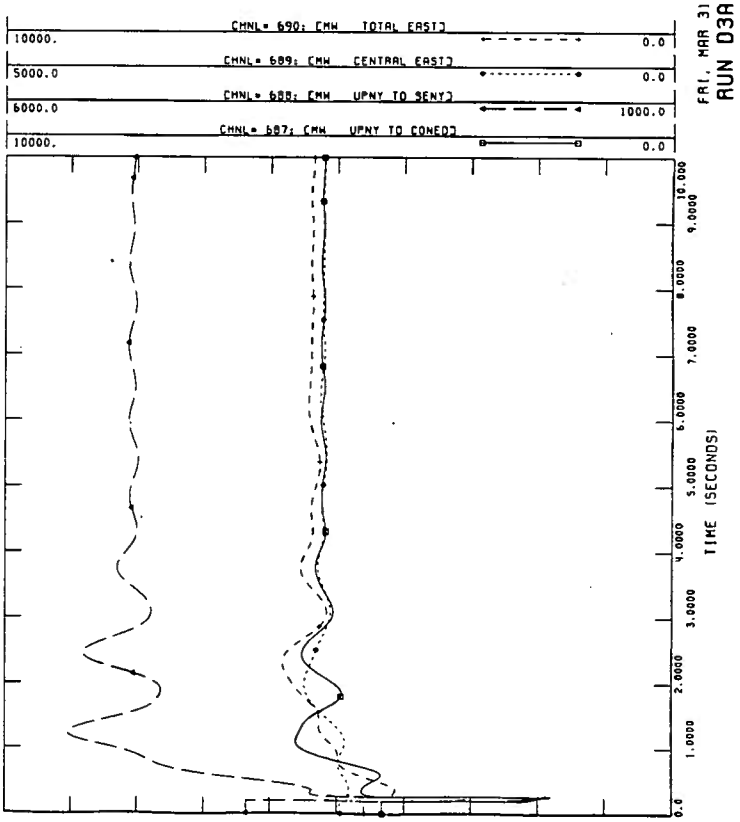
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT



FRI, MAR 31 2000 9:36
RUN D3A PLOT 13

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS1RUND3A.OUT



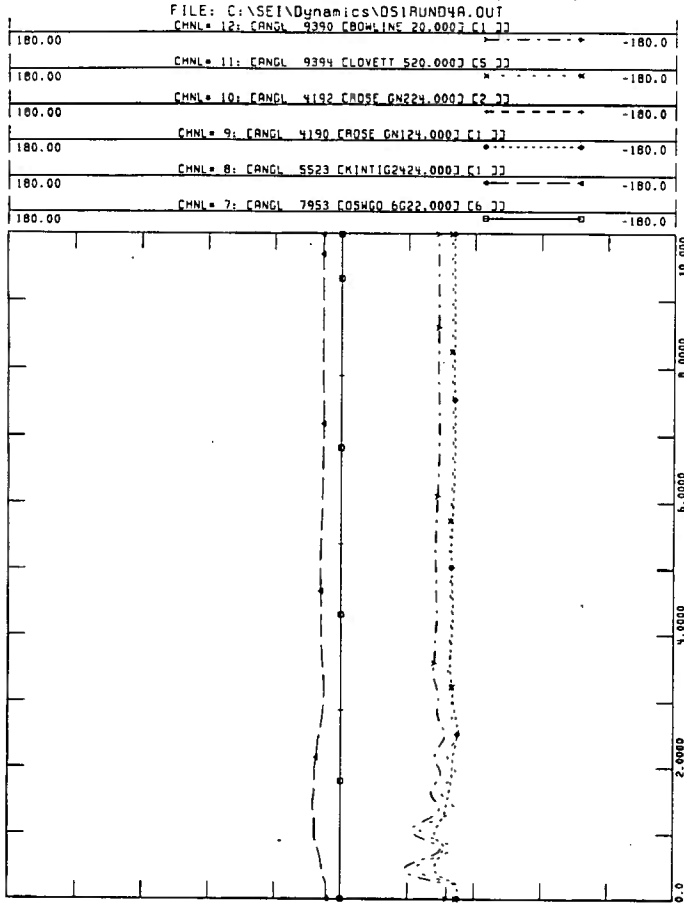
FRI, MAR 31 2000 9:36
RUN D3A PLOT 15

CONTINGENCY D4A

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA      / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1              / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345   / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

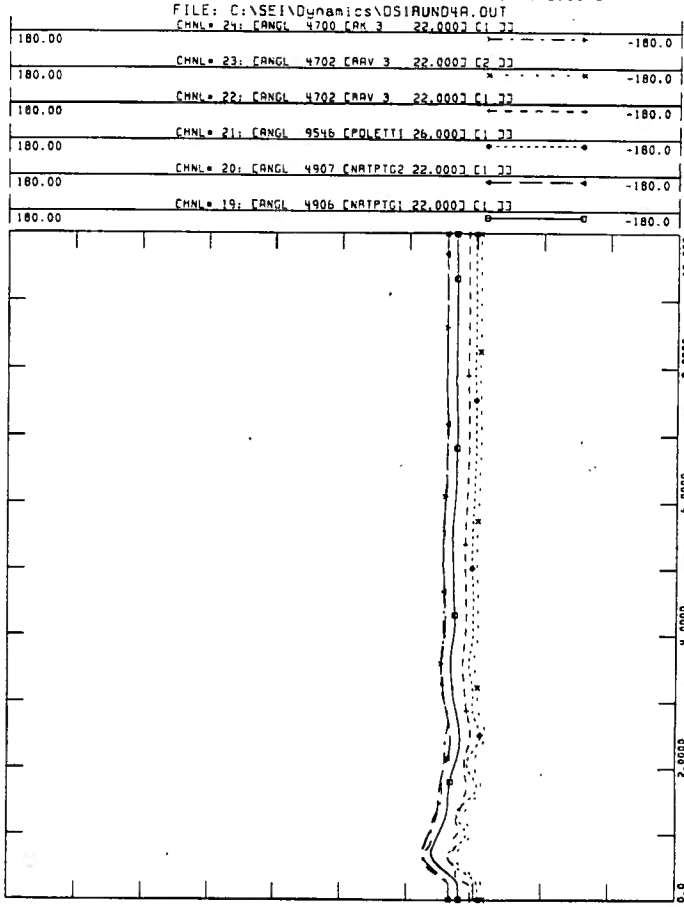
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT



FRI, MAR 31 2000 9:40
RUN D4A PLOT 2

CASE DS1: 2001 SUMMER PEAK BASE CASE

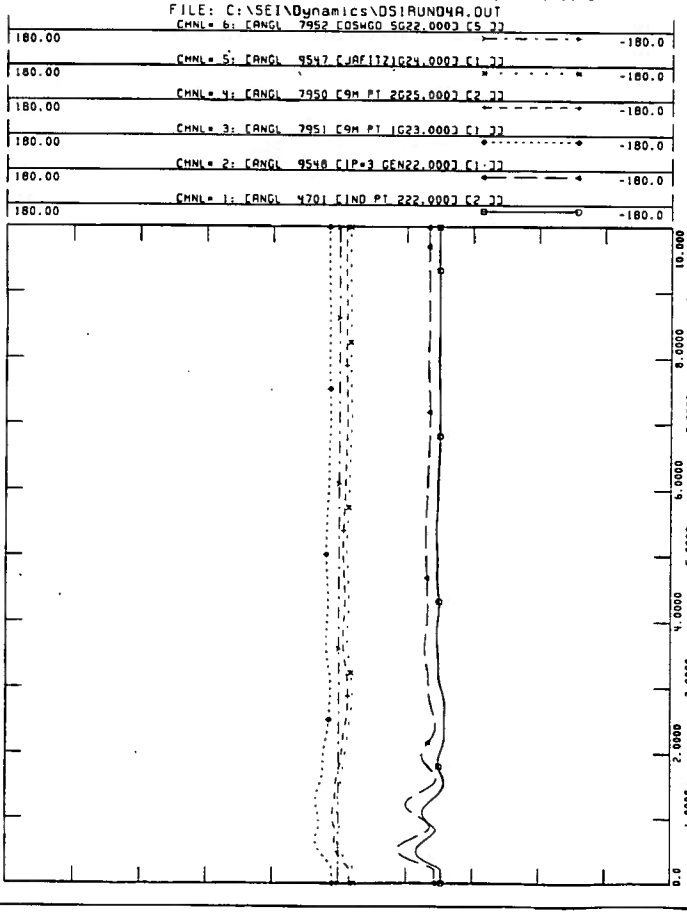
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT



FRI, MAR 31 2000 9:40
RUN D4A PLOT 4

CASE DS1: 2001 SUMMER PEAK BASE CASE

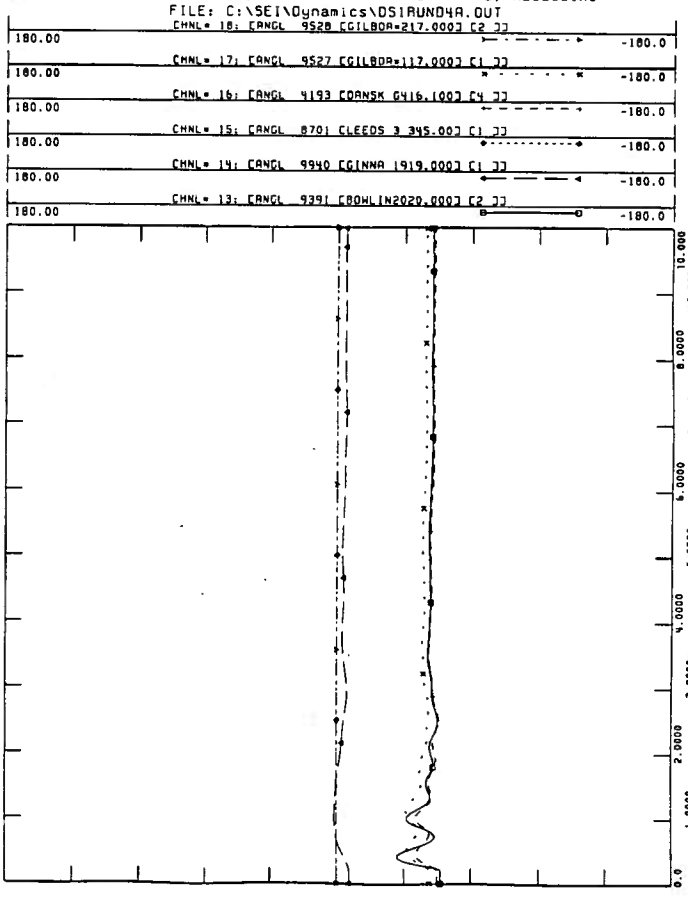
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT



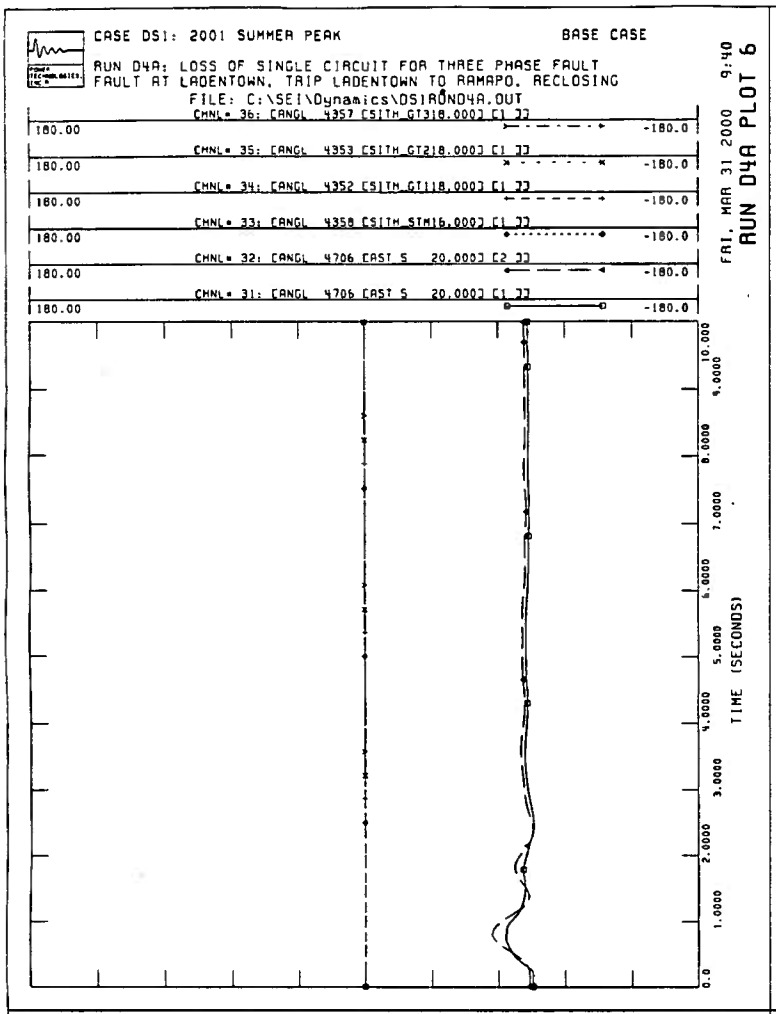
FRI, MAR 31 2000 9:40
RUN D4A PLOT 1

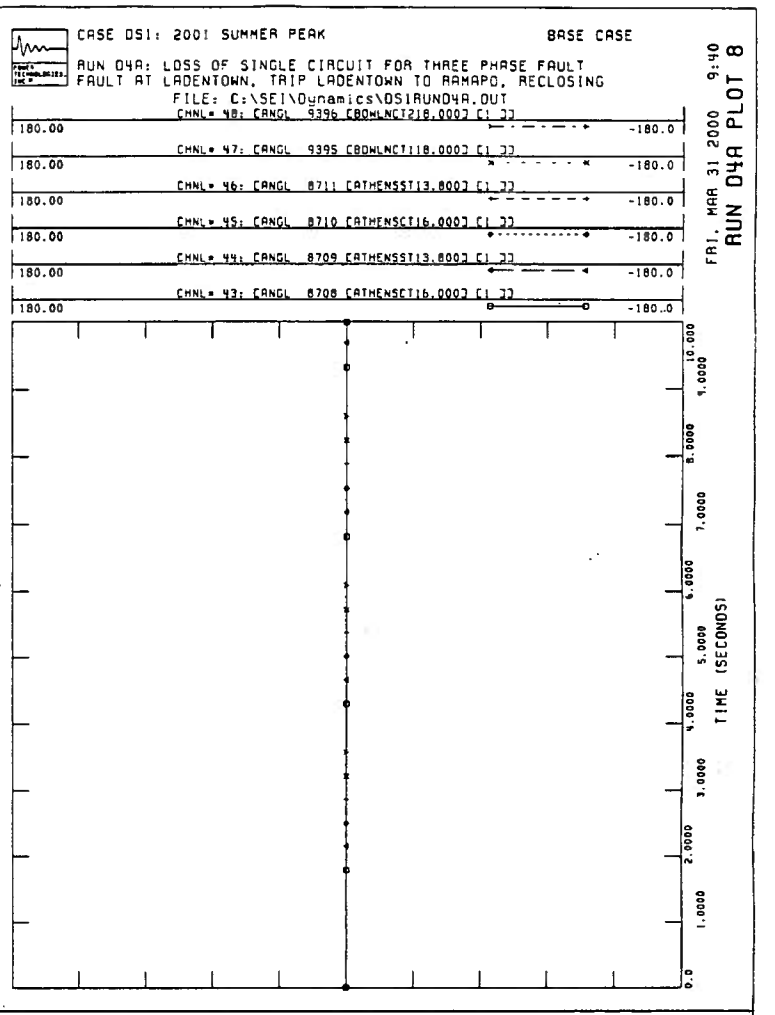
CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT



FRI, MAR 31 2000 9:40
RUN D4A PLOT 3


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 36: CANGL 4357 CS1TH_GT218.000] [1]]
CHNL= 35: CANGL 4353 CS1TH_GT218.000] [1]]
CHNL= 34: CANGL 4352 CS1TH_GT118.000] [1]]
CHNL= 33: CANGL 4358 CS1TH_STM16.000] [1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] [2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 9:40
RUN D4A PLOT 6


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
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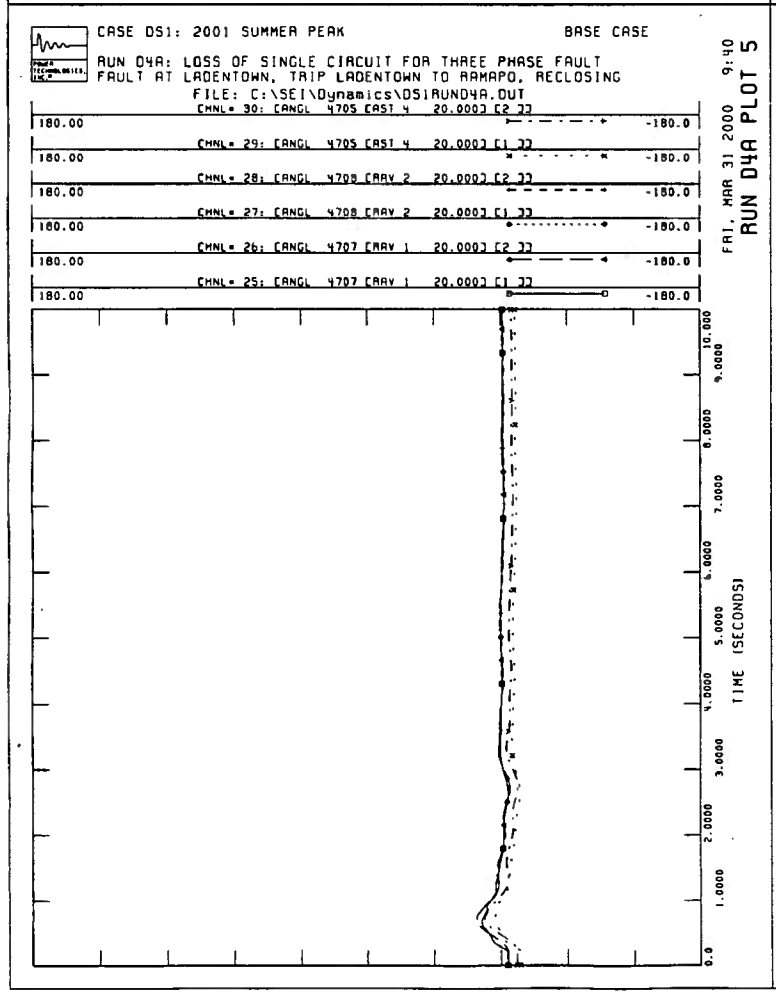
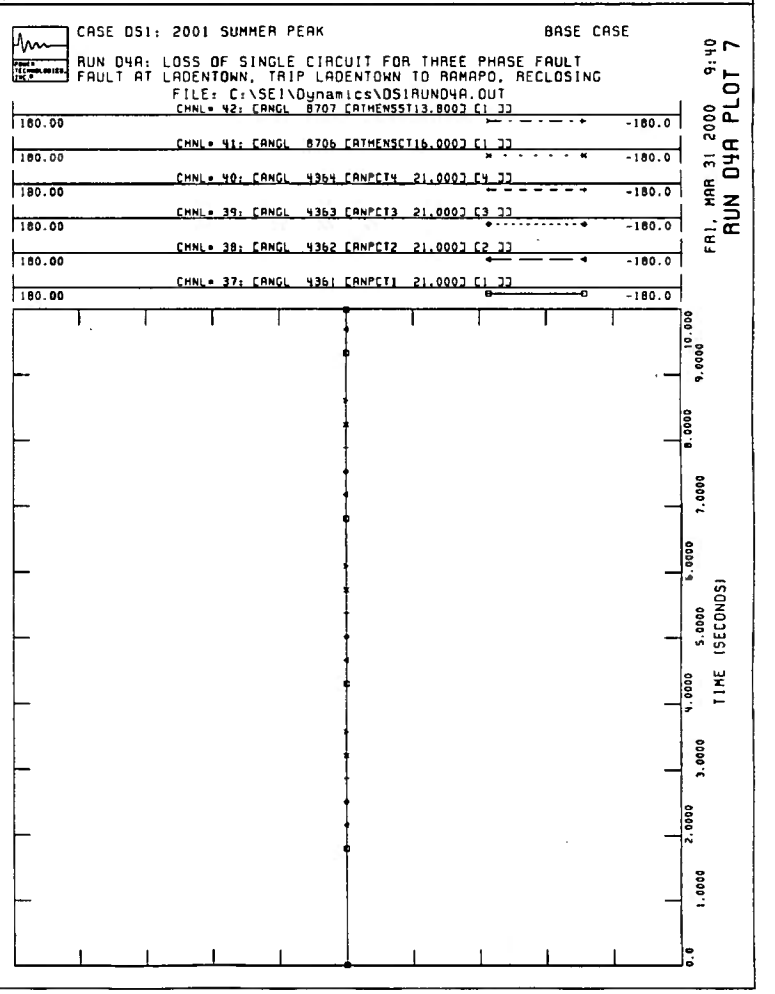
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 9:40
RUN D4A PLOT 8


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] [2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] [1]]
CHNL= 28: CANGL 4709 CARV 2 20.000] [2]]
CHNL= 27: CANGL 4709 CARV 2 20.000] [1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] [2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 9:40
RUN D4A PLOT 5


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 9:40
RUN D4A PLOT 7

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT

CHNL= 60: CANGL 23311 CMATN CK324.0000 C1 J1
CHNL= 59: CANGL 23310 CMATN CK324.0000 C1 J1
CHNL= 58: CANGL 23041 CLIMERICK2.0000 C1 J1
CHNL= 57: CANGL 23499 CLIMERIC122.000 C1 J1
CHNL= 56: CANGL 23039 CHOPE CR J1 C1 J1
CHNL= 55: CANGL 2869 CSOAK G1 25.000 C1 J1

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

FRI, MAR 31 2000 9:40
RUN D4A PLOT 10

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT

CHNL= 70: CANGL 17472 CBLLDNG2 19.000 C1 J1
CHNL= 69: CANGL 17456 CLEPAG1 26.000 C1 J1
CHNL= 68: CANGL 23194 CT M 1 G1.00000 C1 J1
CHNL= 67: CANGL 23040 CSUSQUEH= J1 C1 J1

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

FRI, MAR 31 2000 9:40
RUN D4A PLOT 12

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT

CHNL= 54: CANGL 3648 CBP1HBA=322.000 C3 J1
CHNL= 53: CANGL 2371 CBP =4 GN22.000 C1 J1
CHNL= 52: CANGL 3563 CMILL=3 24.000 C3 J1
CHNL= 51: CANGL 3562 CMILL=2 24.000 C2 J1
CHNL= 50: CANGL 9398 CBOWLNST 18.000 C1 J1
CHNL= 49: CANGL 9397 CBOWLNC1318.000 C1 J1

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

FRI, MAR 31 2000 9:40
RUN D4A PLOT 9

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT

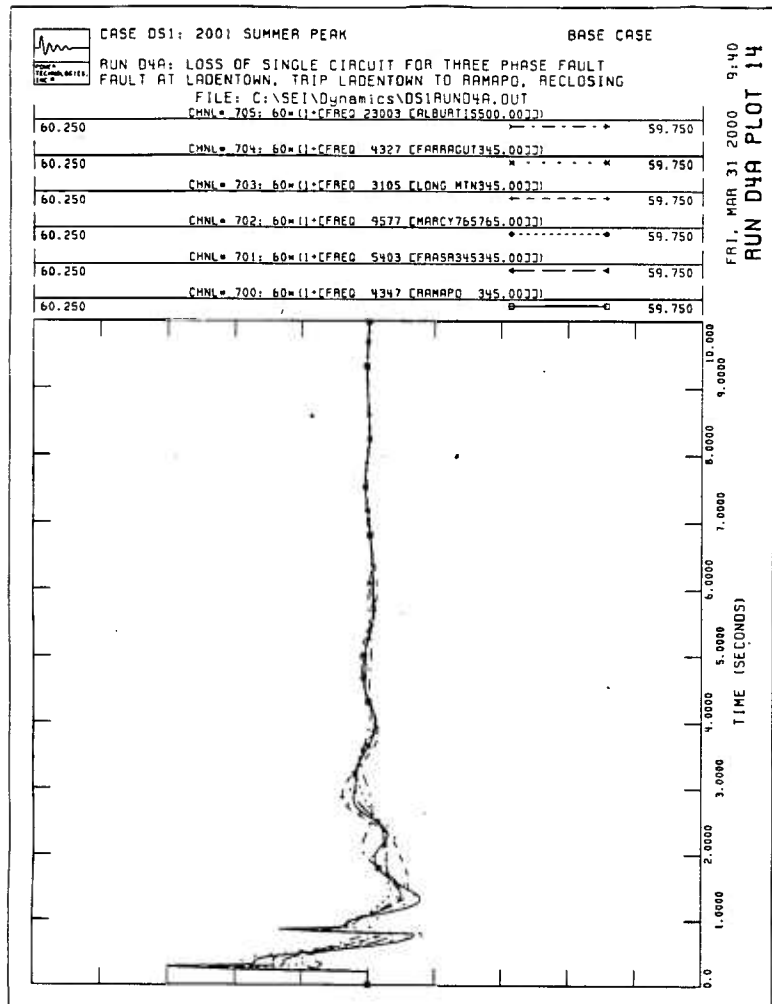
CHNL= 66: CANGL 23368 CSUSQ 1 24.000 C1 J1
CHNL= 65: CANGL 23002 CSALEM G2 J1 C1 J1
CHNL= 64: CANGL 23001 CSALEM G1 J1 C1 J1
CHNL= 63: CANGL 23000 CPCHBTM=3 J1 C1 J1
CHNL= 62: CANGL 25999 CPCHBTM=2 J1 C1 J1
CHNL= 61: CANGL 23201 COYSTCAG1 J1 C1 J1

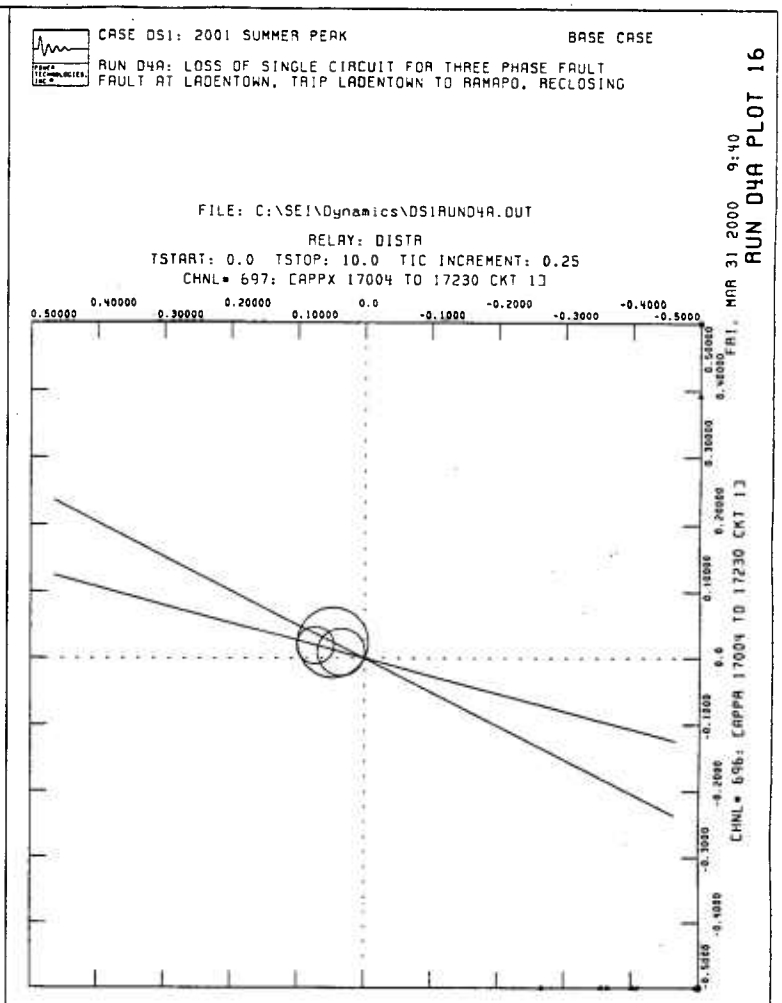
180.00 -180.0

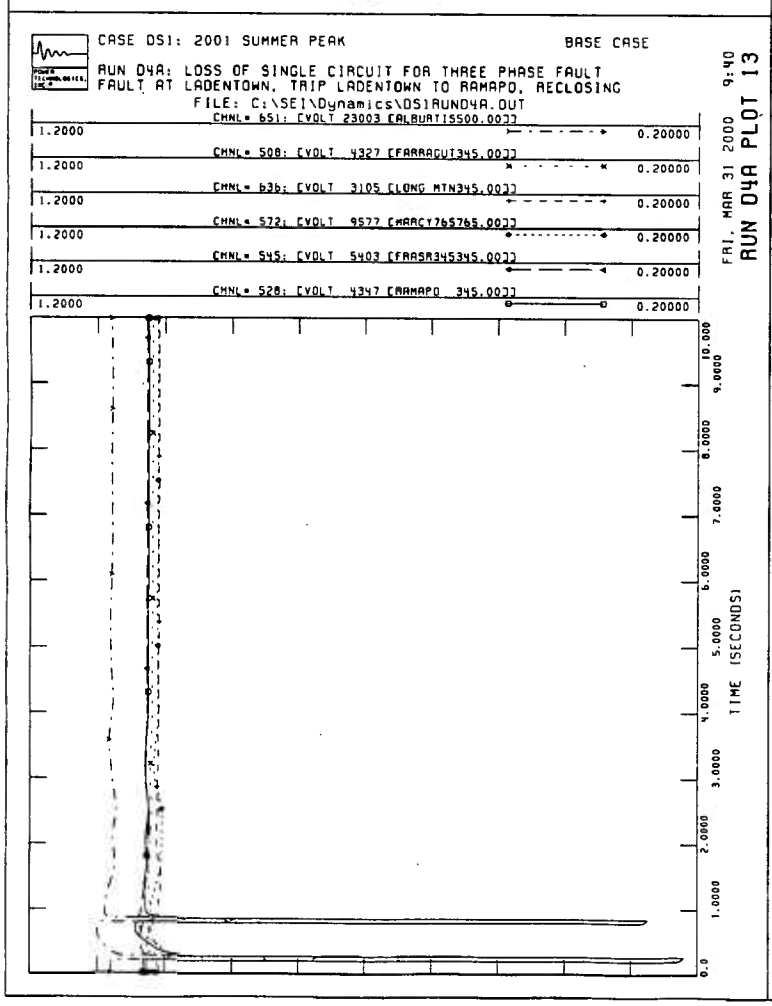
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

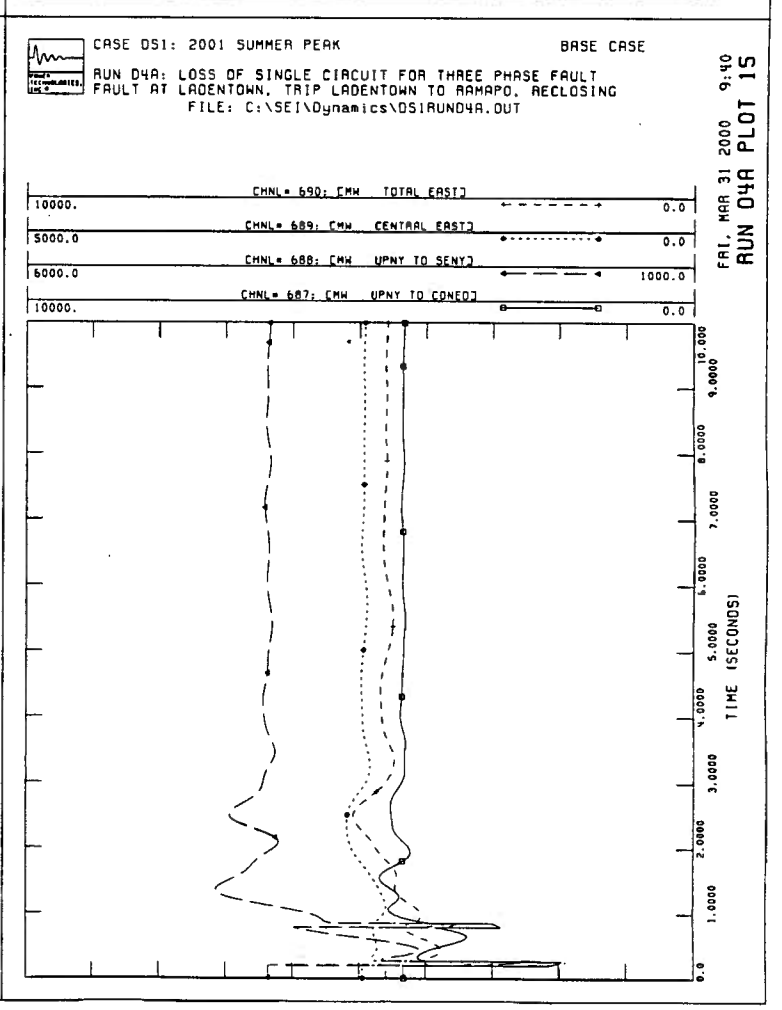
TIME (SECONDS)

FRI, MAR 31 2000 9:40
RUN D4A PLOT 11


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURTIS500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 9:40
RUN D4A PLOT 14
TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
0.50000
0.40000
0.30000
0.20000
0.10000
0.0
-0.1000
-0.2000
-0.3000
-0.4000
-0.5000
FRI, MAR 31 2000 9:40
RUN D4A PLOT 16
CHNL= 696: [APPA 17004 TO 17230 CKT 1]


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 9:40
RUN D4A PLOT 13
TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS1RUND4A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 9:40
RUN D4A PLOT 15
TIME (SECONDS)

CONTINGENCY D4B

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA      / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1               / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 CDSWGO 6G22.000] C6]]

180.00 / -180.0

FRI, MAR 31 2000 9:40
RUN D4B PLOT 2

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT

CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 / -180.0

FRI, MAR 31 2000 9:40
RUN D4B PLOT 4

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT

CHNL= 6: CANGL 7952 CDSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 C1P=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 / -180.0

FRI, MAR 31 2000 9:40
RUN D4B PLOT 1

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

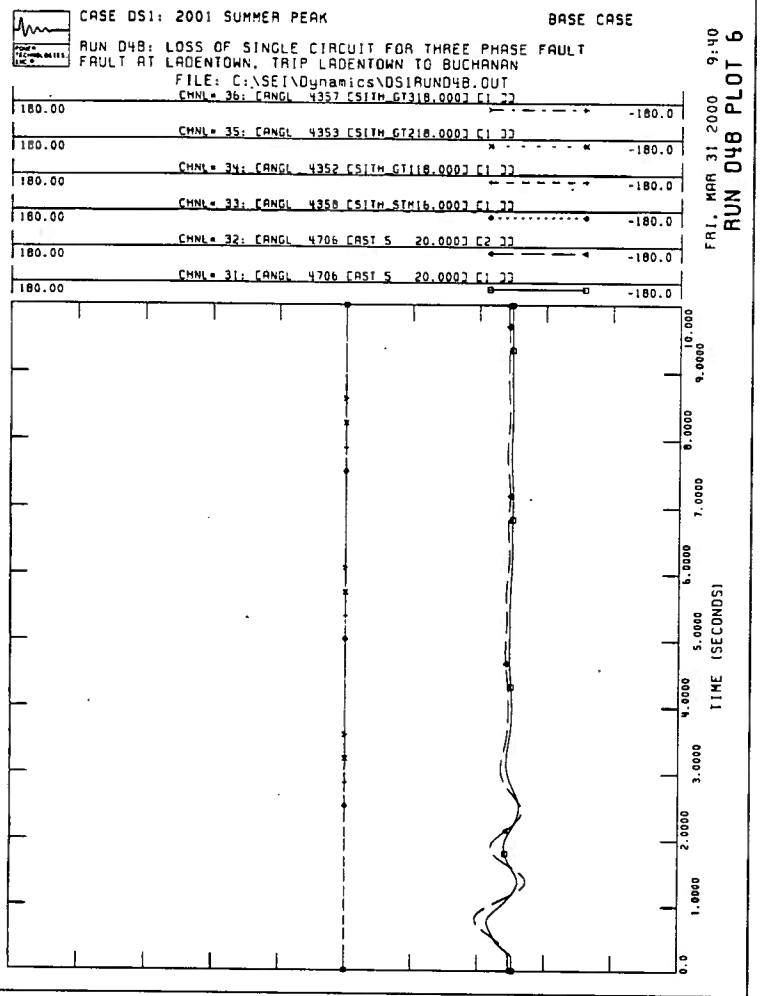
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT

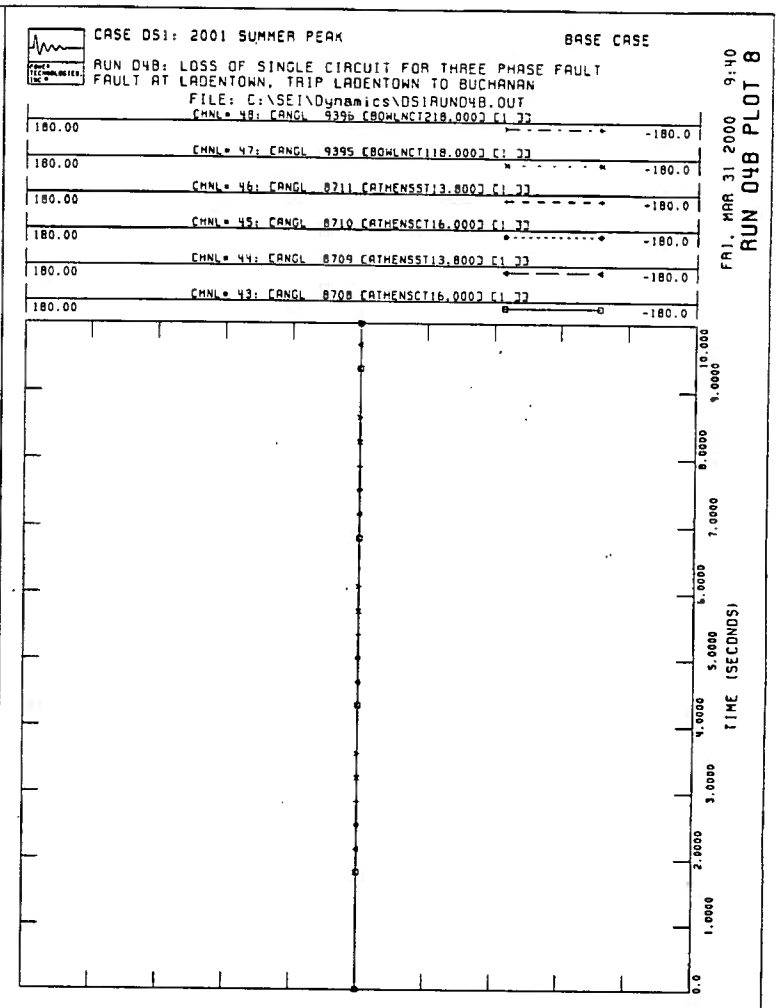
CHNL= 18: CANGL 9528 CG1L80A=217.000] C2]]
CHNL= 17: CANGL 9527 CG1L80A=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CDINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

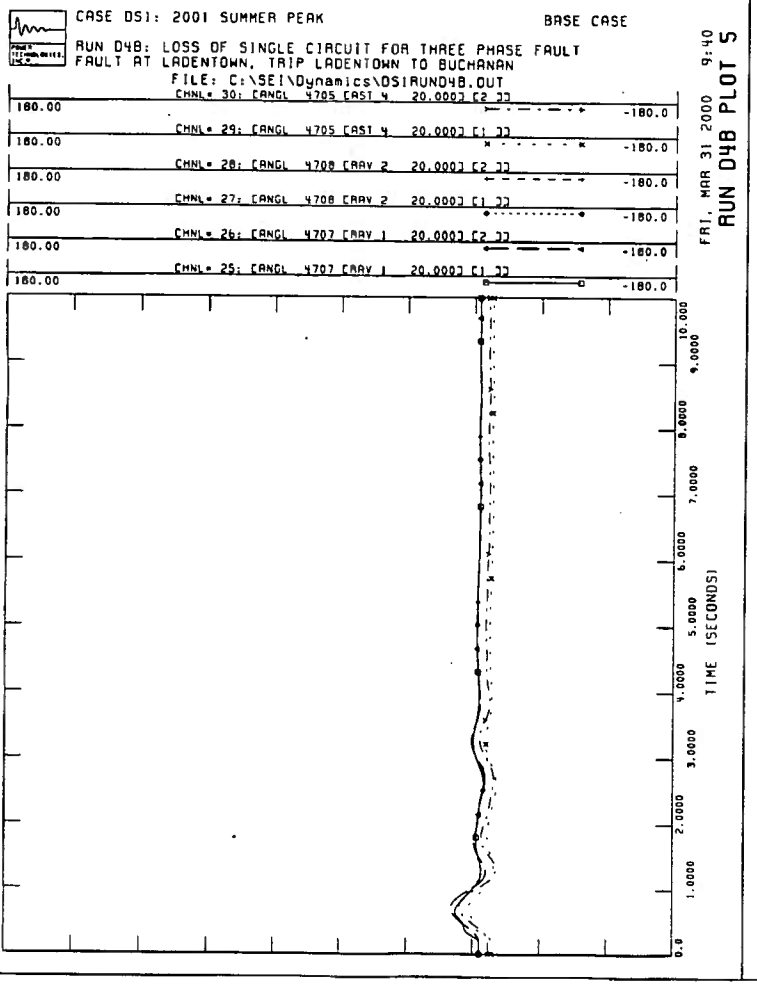
180.00 / -180.0

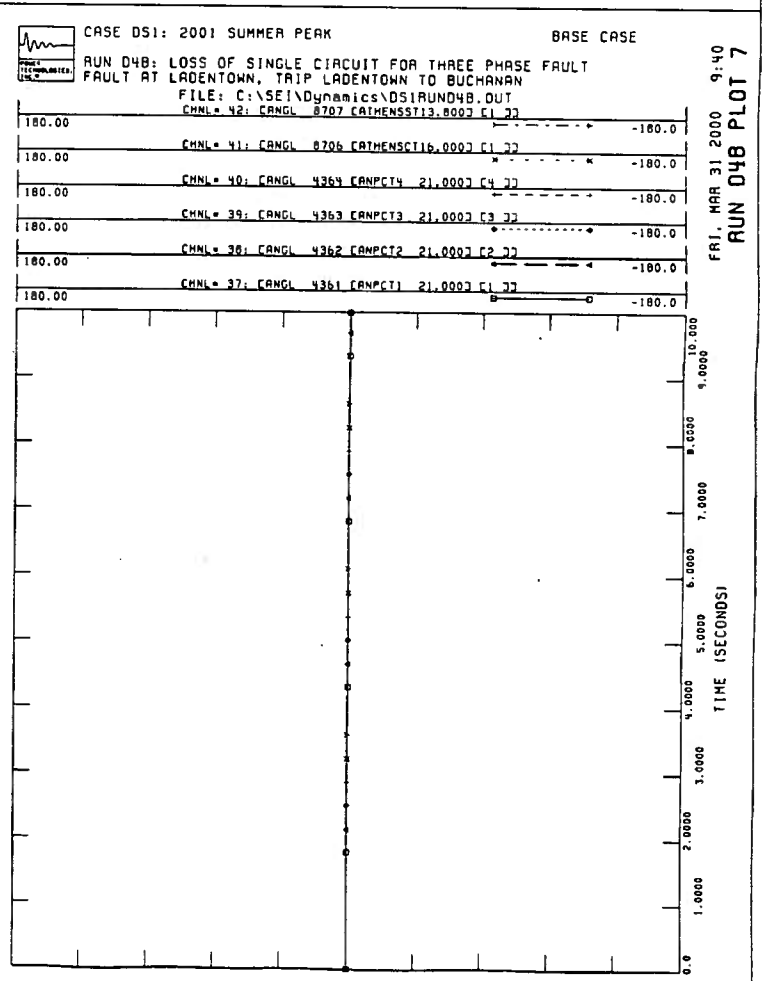
FRI, MAR 31 2000 9:40
RUN D4B PLOT 3

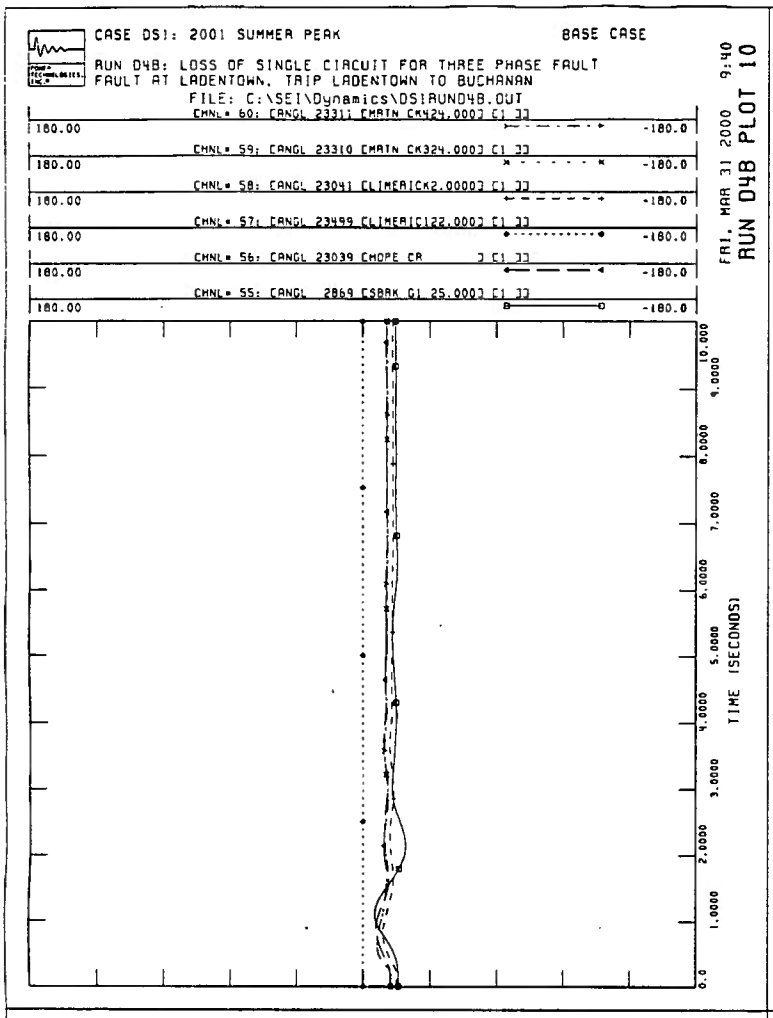
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

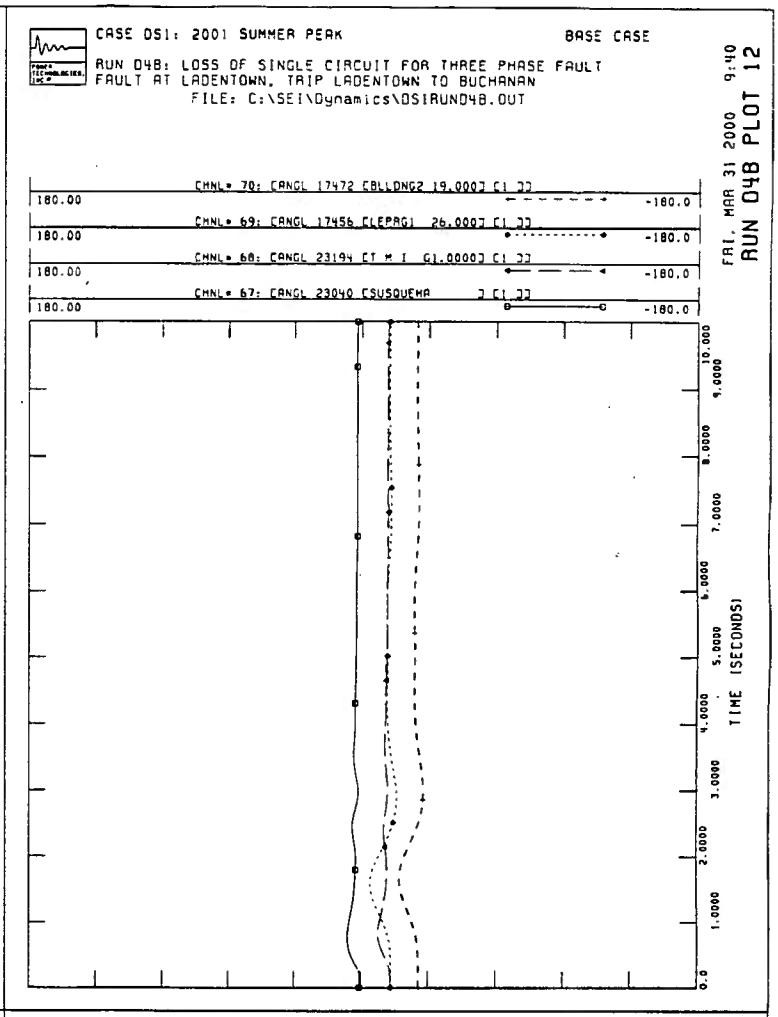

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND48.OUT
CHNL= 36: CANGL 4357 CS1TH_GT218.000] C1]]
CHNL= 35: CANGL 4353 CS1TH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CS1TH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CS1TH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN 048 PLOT 6

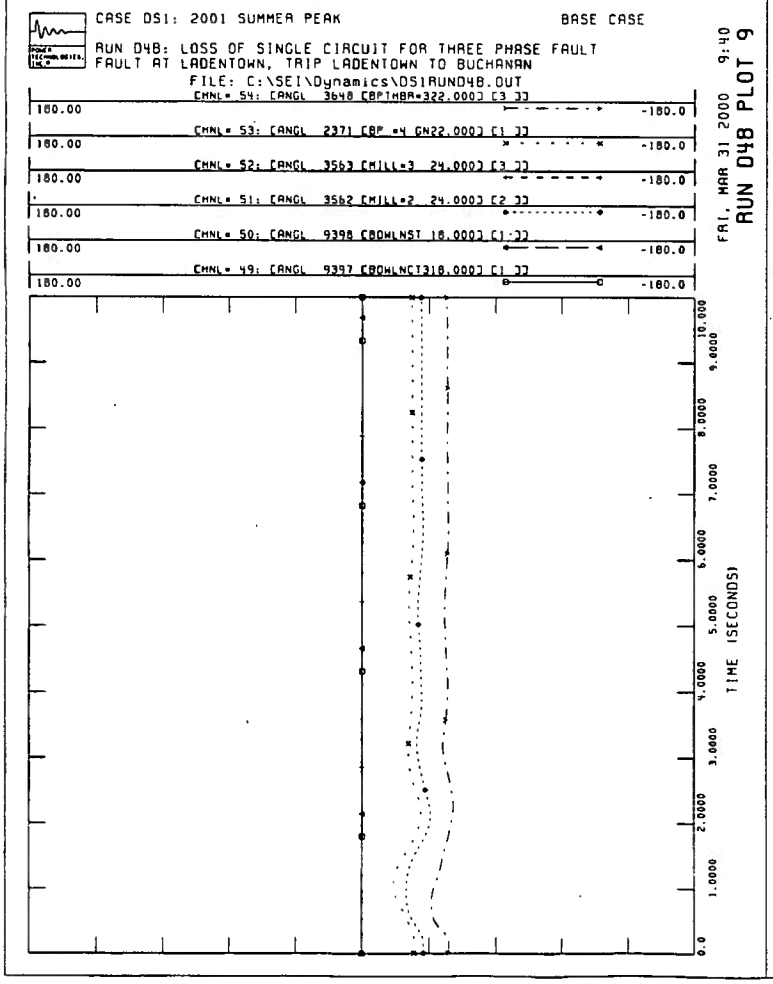

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND48.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN 048 PLOT 8

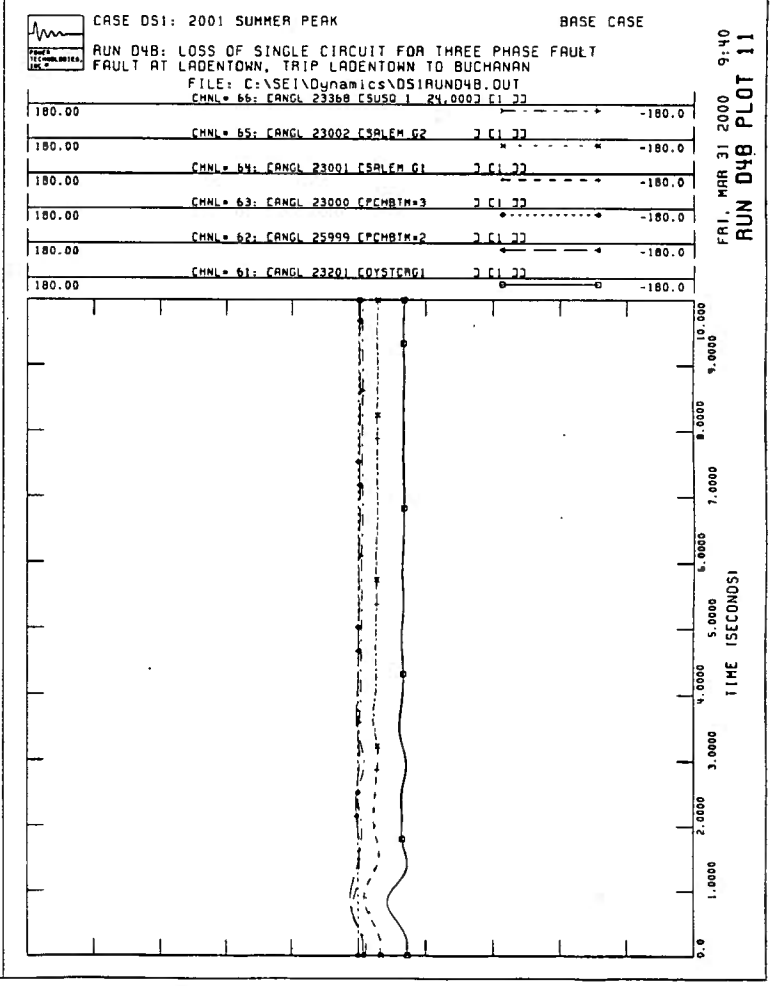

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND48.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN 048 PLOT 5

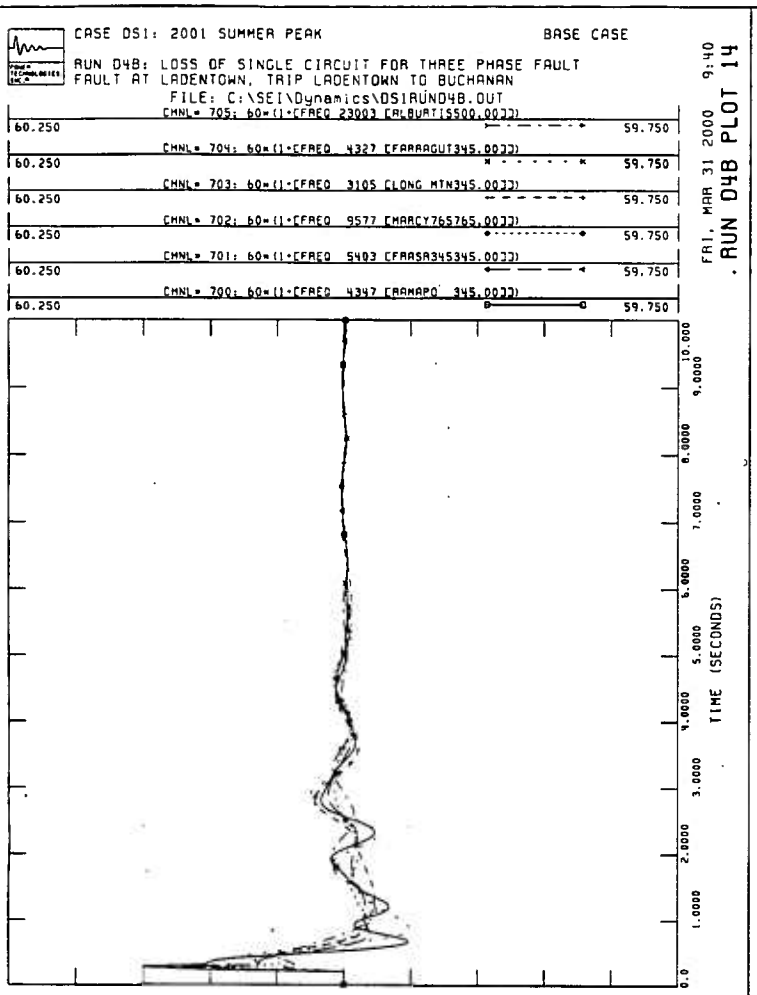

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND48.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN 048 PLOT 7

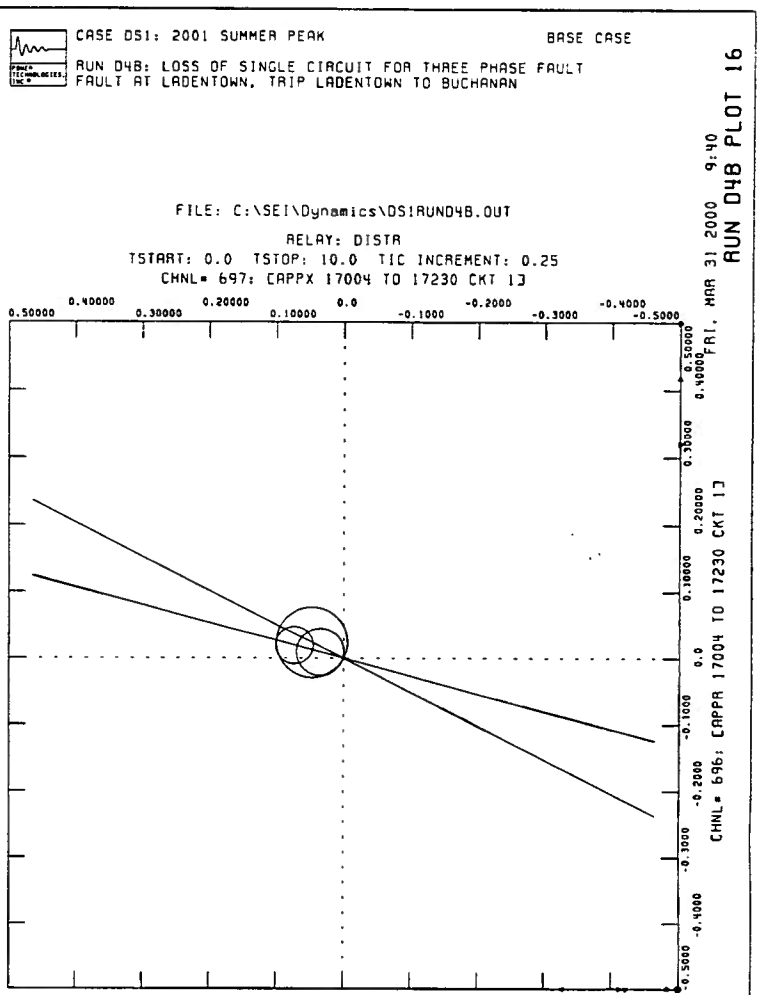

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUN48.OUT
FRI, MAR 31 2000 9:40
RUN D48 PLOT 10
TIME (SECONDS)

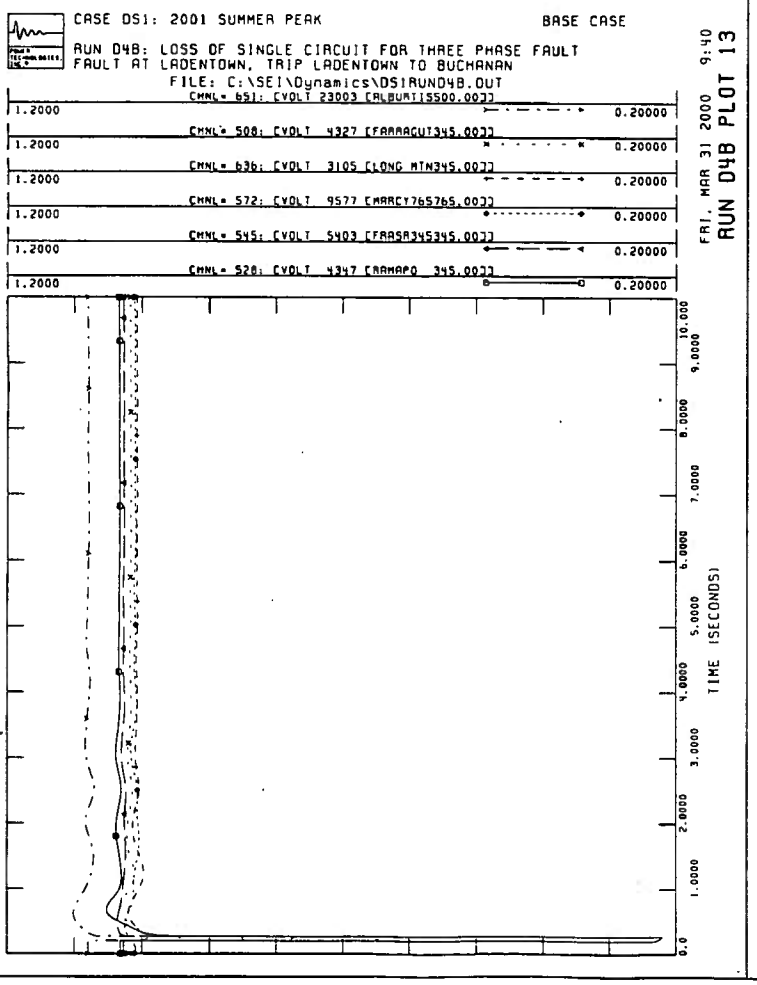

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUN48.OUT
FRI, MAR 31 2000 9:40
RUN D48 PLOT 12
TIME (SECONDS)

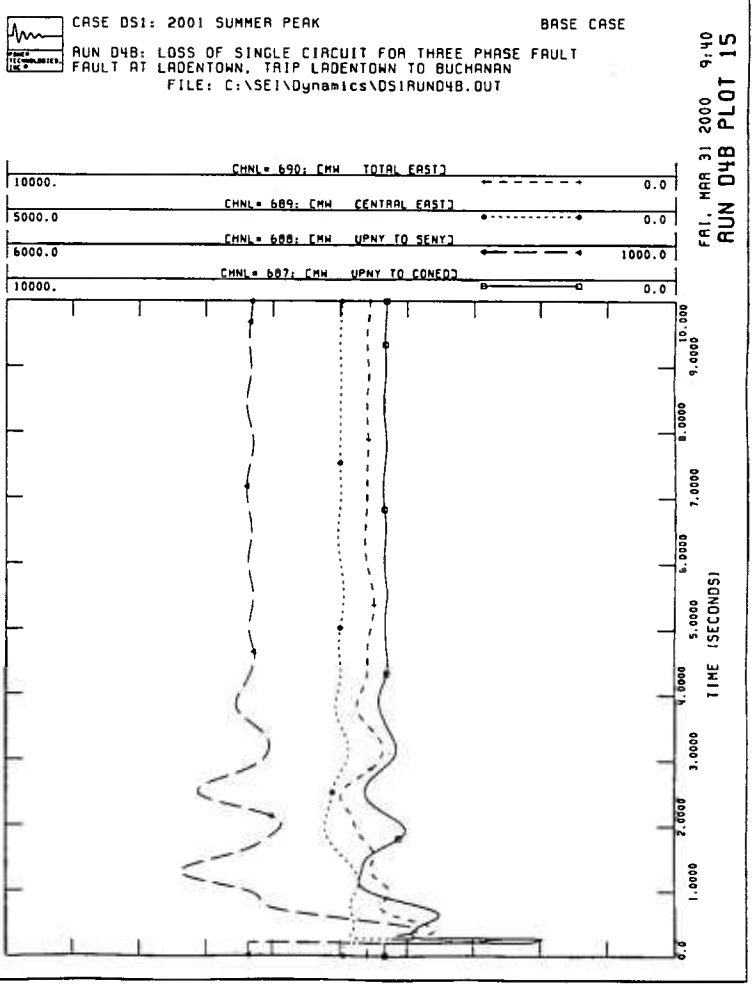

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUN48.OUT
FRI, MAR 31 2000 9:40
RUN D48 PLOT 9
TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUN48.OUT
FRI, MAR 31 2000 9:40
RUN D48 PLOT 11
TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT
CHNL= 705: 60=(1•CFREQ 23003 [ALBURT[5500.000]]
CHNL= 704: 60=(1•CFREQ 4327 [FARRAGUT345.000]]
CHNL= 703: 60=(1•CFREQ 3105 [LONG MTN345.000]]
CHNL= 702: 60=(1•CFREQ 9577 [MARCY765765.000]]
CHNL= 701: 60=(1•CFREQ 5403 [FRASR345345.000]]
CHNL= 700: 60=(1•CFREQ 4347 [RAMAPO 345.000]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN D4B PLOT 14


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 9:40
RUN D4B PLOT 16


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT
CHNL= 651: CVOLT 23003 [ALBURT[5500.000]]
CHNL= 508: CVOLT 4327 [FARRAGUT345.000]]
CHNL= 636: CVOLT 3105 [LONG MTN345.000]]
CHNL= 572: CVOLT 9577 [MARCY765765.000]]
CHNL= 545: CVOLT 5403 [FRASR345345.000]]
CHNL= 528: CVOLT 4347 [RAMAPO 345.000]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN D4B PLOT 13


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS1RUND4B.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 9:40
RUN D4B PLOT 15

CONTINGENCY D4C

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

CHNL= 12: CANGL 9390 CBOWLINE 20.0000 [1]]
CHNL= 11: CANGL 9394 CLOVETT 520.0000 [5]]
CHNL= 10: CANGL 4192 CROSE GN224.0000 [2]]
CHNL= 9: CANGL 4190 CROSE GN124.0000 [1]]
CHNL= 8: CANGL 5523 CKINTIG2424.0000 [1]]
CHNL= 7: CANGL 7953 COSWEGO 6G22.0000 [6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:40
RUN D4C PLOT 2

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

CHNL= 24: CANGL 4700 CAK 3 22.0000 [1]]
CHNL= 23: CANGL 4702 CARV 3 22.0000 [2]]
CHNL= 22: CANGL 4702 CARV 3 22.0000 [1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.0000 [1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.0000 [1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.0000 [1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:40
RUN D4C PLOT 4

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

CHNL= 6: CANGL 7952 COSWEGO 5G22.0000 [5]]
CHNL= 5: CANGL 9547 CJAFITZIG24.0000 [1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.0000 [2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.0000 [1]]
CHNL= 2: CANGL 9548 CIP-3 GEN22.0000 [1]]
CHNL= 1: CANGL 4701 CIND PT 222.0000 [2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:40
RUN D4C PLOT 1

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

CHNL= 18: CANGL 9528 CGILBOA-217.0000 [2]]
CHNL= 17: CANGL 9527 CGILBOA-117.0000 [1]]
CHNL= 16: CANGL 4193 CDANSK G416.1002 [4]]
CHNL= 15: CANGL 6701 CLEEDS 3 345.002 [1]]
CHNL= 14: CANGL 9940 CGINNA 1919.0002 [1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.0002 [2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:40
RUN D4C PLOT 3

CASE DS1: 2001 SUMMER PEAK — BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

FRI, MAR 31 2000 9:40 RUN D4C PLOT 6

CHNL= 36: CANGL 4357 CS1TH GT318.000] C1]]
CHNL= 35: CANGL 4353 CS1TH GT218.000] C1]]
CHNL= 34: CANGL 4352 CS1TH GT118.000] C1]]
CHNL= 33: CANGL 4358 CS1TH STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 ... -180.0

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK — BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

FRI, MAR 31 2000 9:40 RUN D4C PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 ... -180.0

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK — BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

FRI, MAR 31 2000 9:40 RUN D4C PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CAAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CAAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CAAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CAAV 1 20.000] C1]]

180.00 ... -180.0

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK — BASE CASE

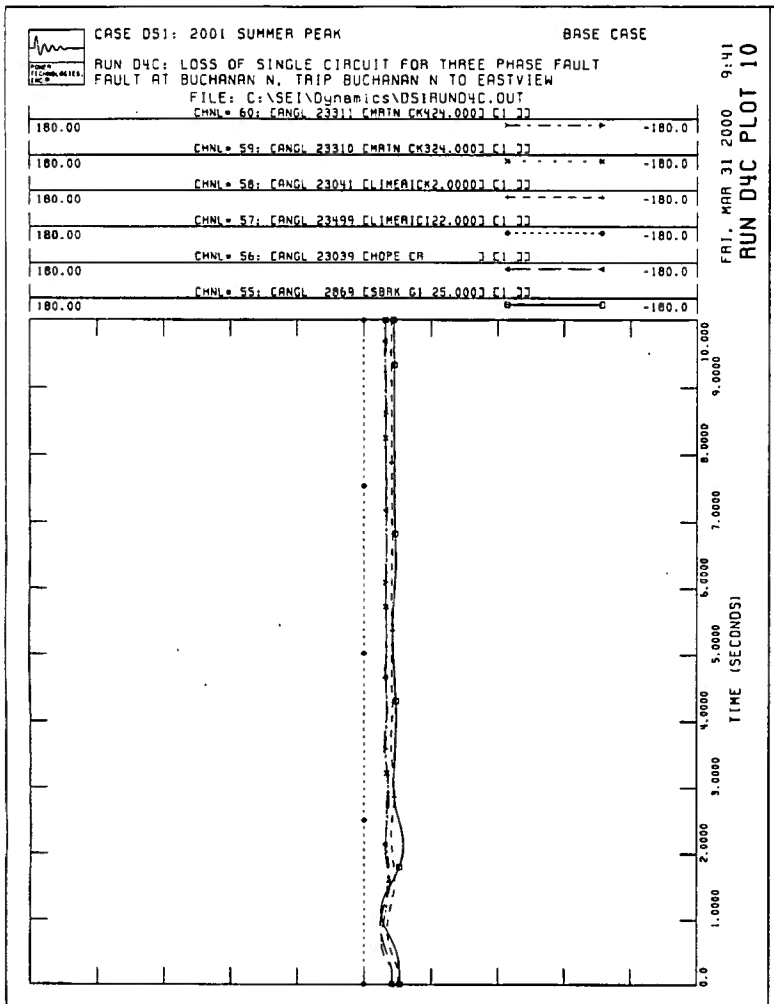
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

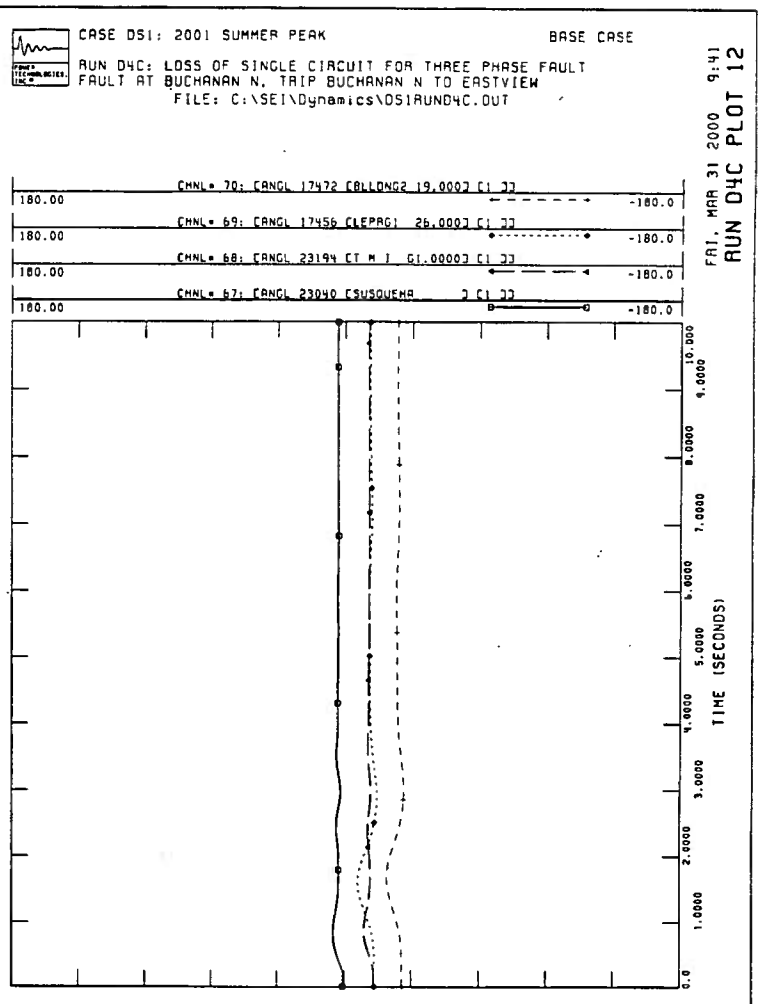
FRI, MAR 31 2000 9:40 RUN D4C PLOT 7

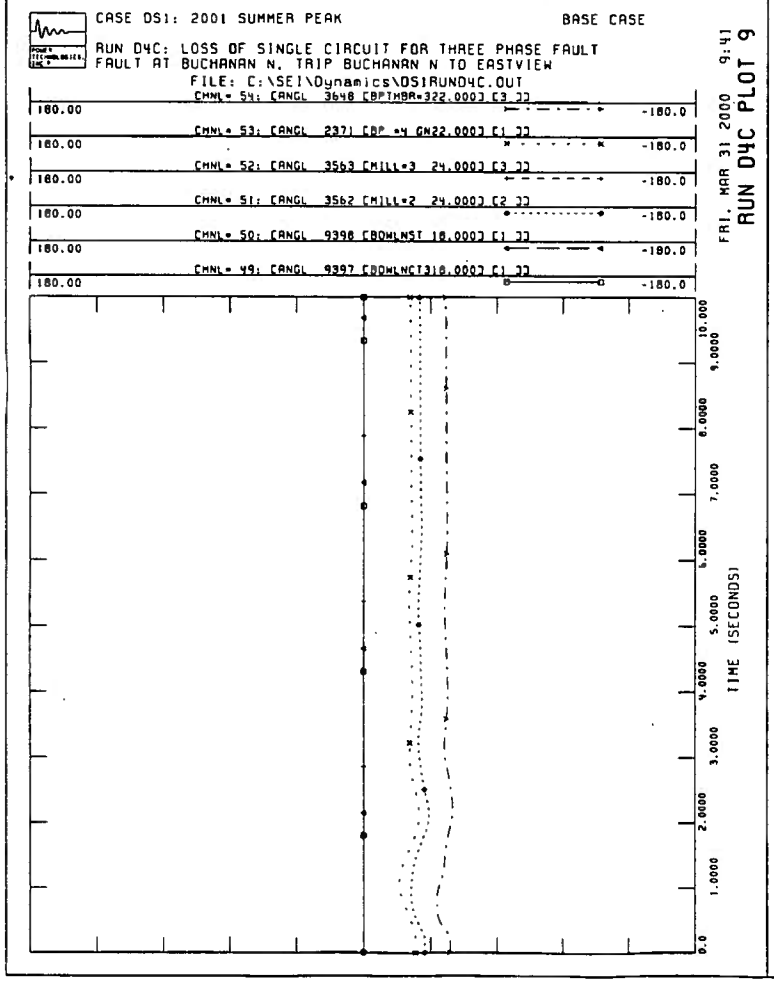
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

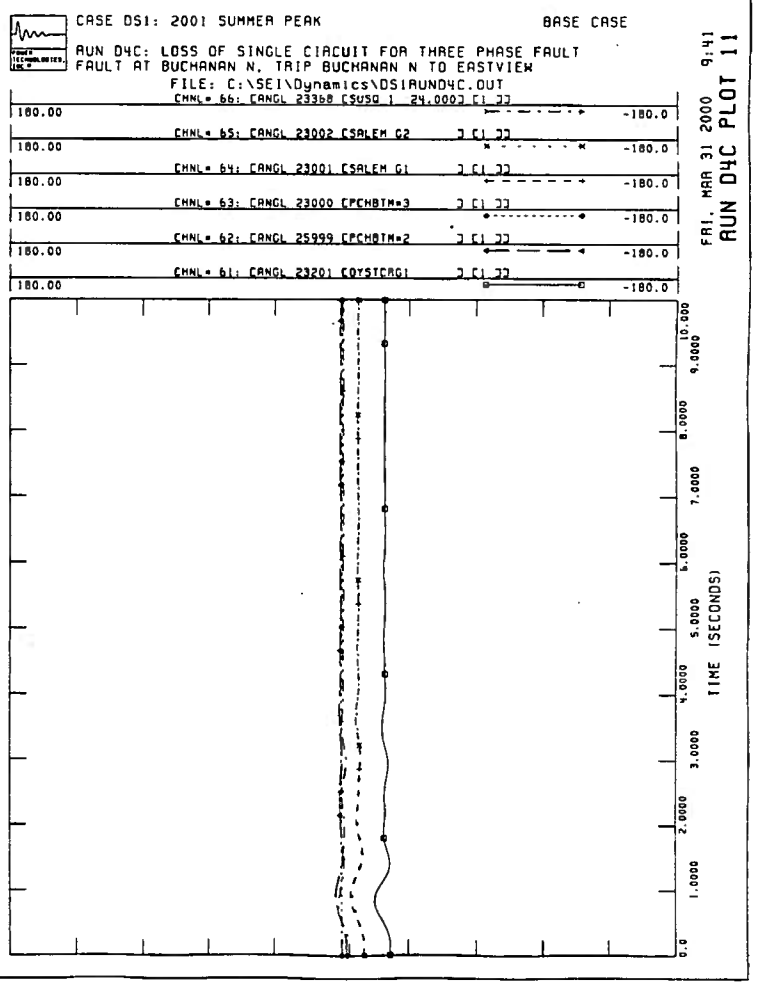
180.00 ... -180.0

TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT
CHNL= 60: CANGL 2331: CMAIN CK424.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERICK22.000] C1]]
CHNL= 56: CANGL 23039 CMOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:41
RUN D4C PLOT 10

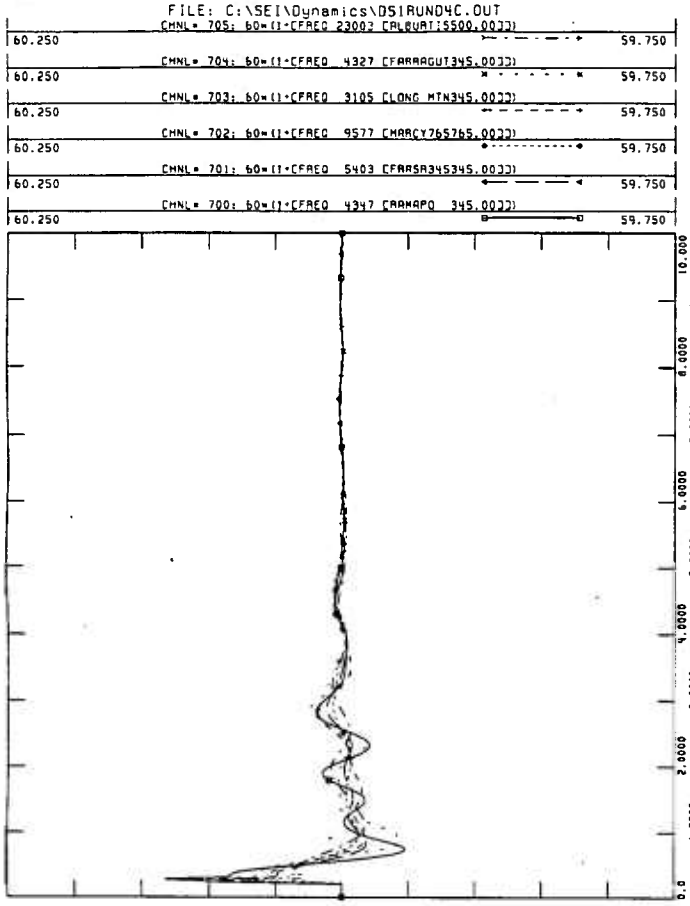

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT
CHNL= 70: CANGL 17472 CBLLONG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPRG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M] G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:41
RUN D4C PLOT 12


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT
CHNL= 54: CANGL 3648 CBPTHBR=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GM22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLMST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:41
RUN D4C PLOT 9


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 CDYSTCRG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:41
RUN D4C PLOT 11

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT



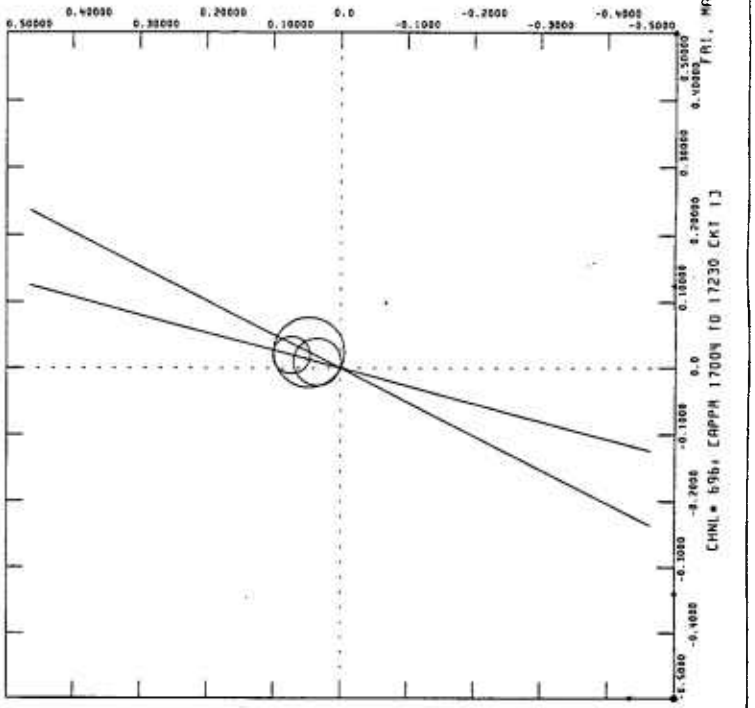
FRI, MAR 31 2000 9:41
RUN D4C PLOT 14

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW

FILE: C:\SEI\Dynamics\DS1RUND4C.OUT

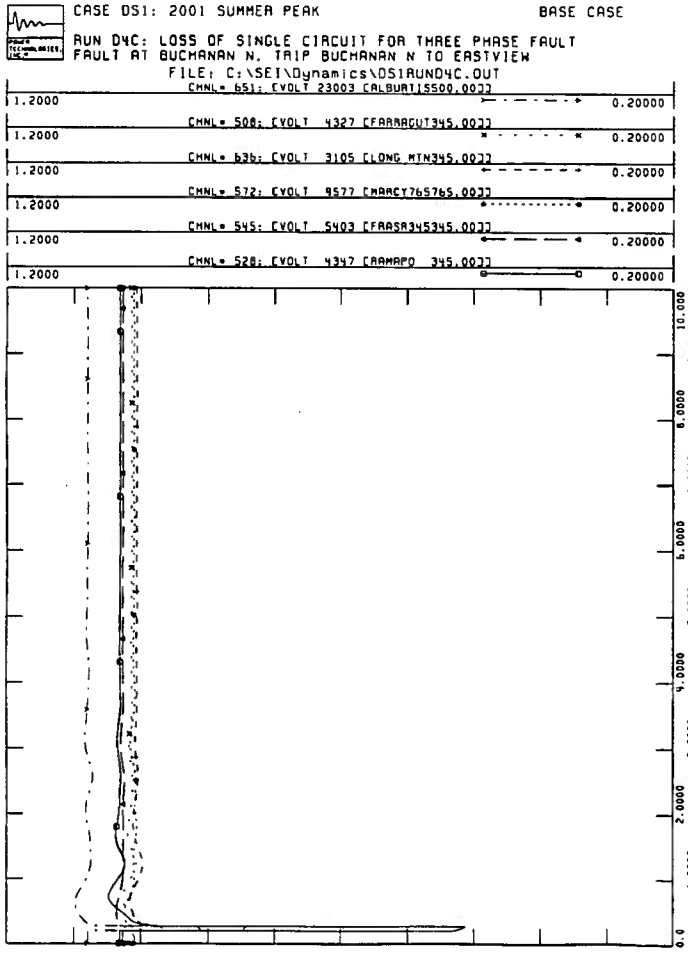
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 9:41
RUN D4C PLOT 16

CASE DS1: 2001 SUMMER PEAK BASE CASE

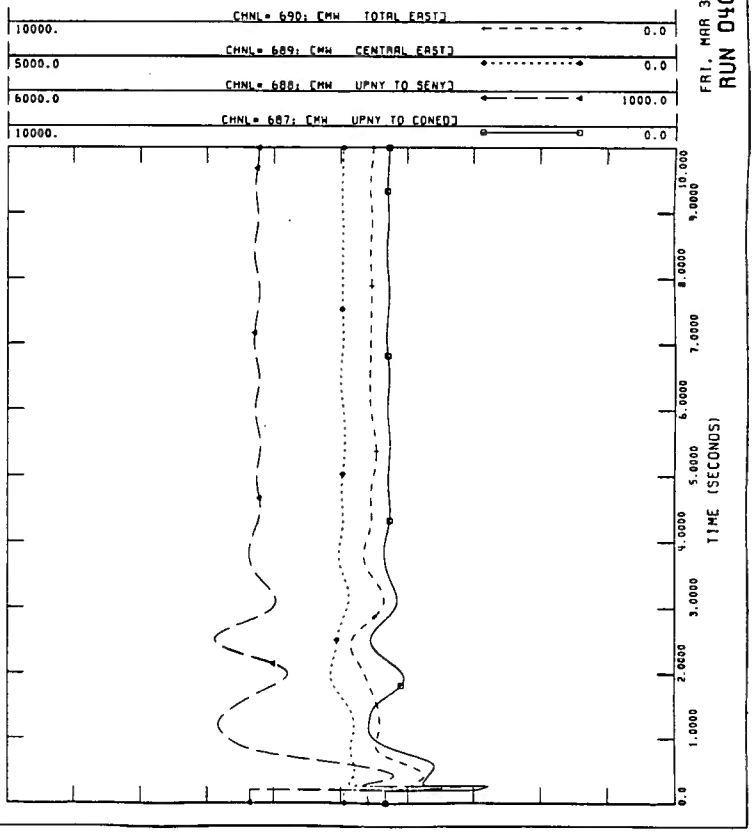
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT



FRI, MAR 31 2000 9:41
RUN D4C PLOT 13

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS1RUND4C.OUT



FRI, MAR 31 2000 9:41
RUN D4C PLOT 15

CONTINGENCY D5A

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1              / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2              / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

FRI, MAR 31 2000 9:44

RUN DSA PLOT 2

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

FRI, MAR 31 2000 9:44

RUN DSA PLOT 4

CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT] 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

FRI, MAR 31 2000 9:44

RUN DSA PLOT 1

CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFJIZIG24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

FRI, MAR 31 2000 9:44

RUN DSA PLOT 3

CHNL= 18: CANGL 9528 CGILBDA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBDA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.000] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

CHNL= 36: CANGL 4357 CS1TH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CS1TH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CS1TH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CS1TH_STH16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:44
RUN DSA PLOT 6

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:44
RUN DSA PLOT 8

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:44
RUN DSA PLOT 5

CASE DS1: 2001 SUMMER PEAK BASE CASE

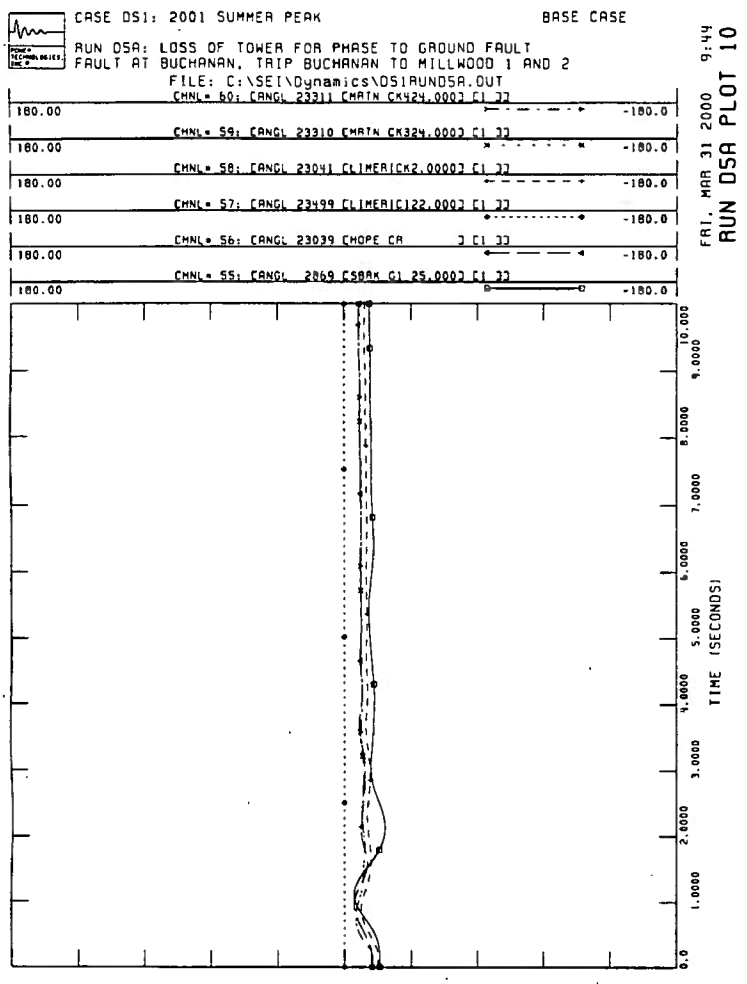
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

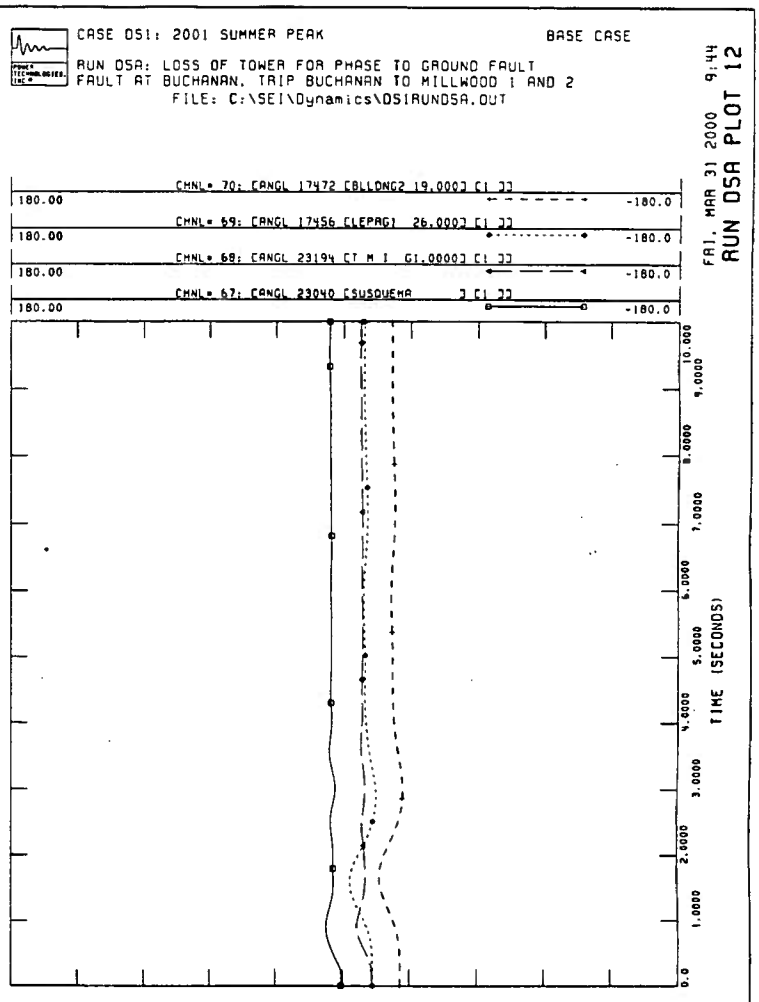
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

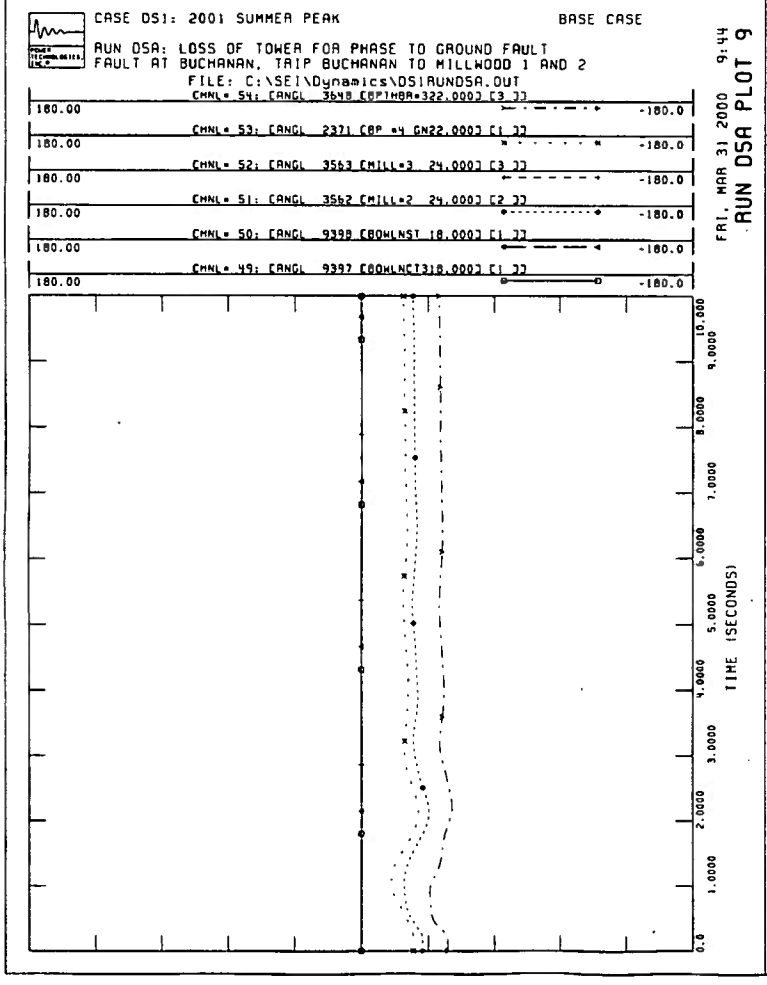
180.00 -180.0

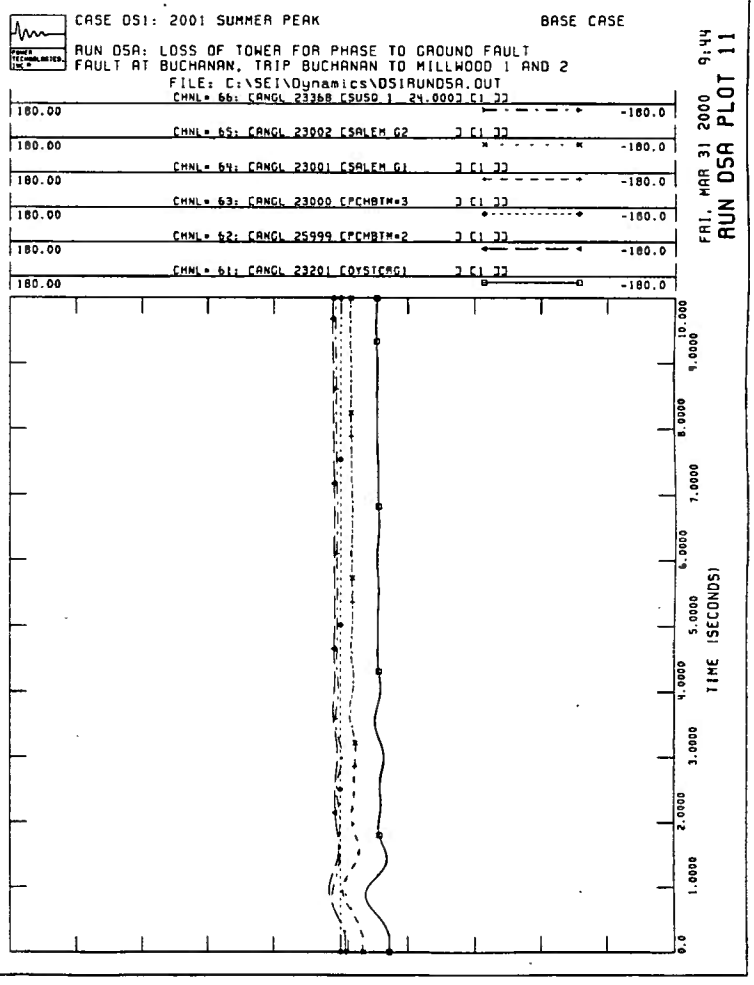
TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 9:44
RUN DSA PLOT 7


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT
FRI, MAR 31 2000 9:44
RUN DSA PLOT 10
TIME (SECONDS)

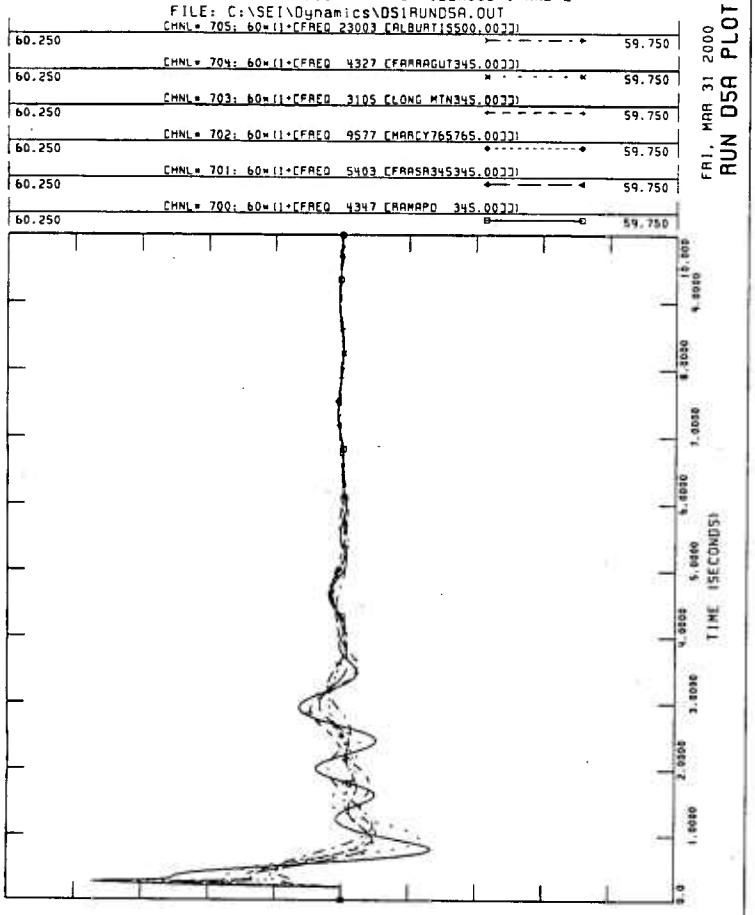

CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT
FRI, MAR 31 2000 9:44
RUN DSA PLOT 12
TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT
FRI, MAR 31 2000 9:44
RUN DSA PLOT 9
TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT
FRI, MAR 31 2000 9:44
RUN DSA PLOT 11
TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT



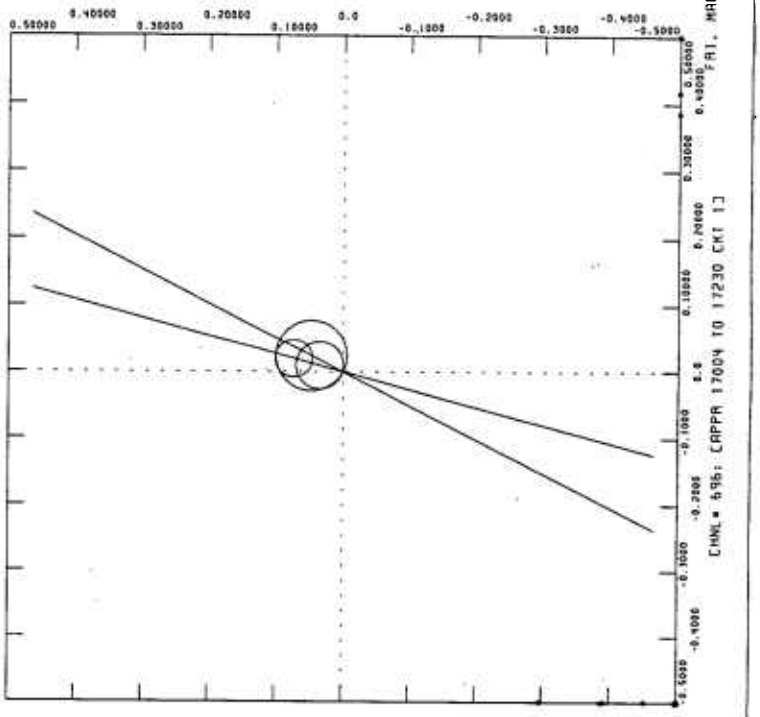
FRI, MAR 31 2000 9:44
RUN DSA PLOT 14

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2

FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT

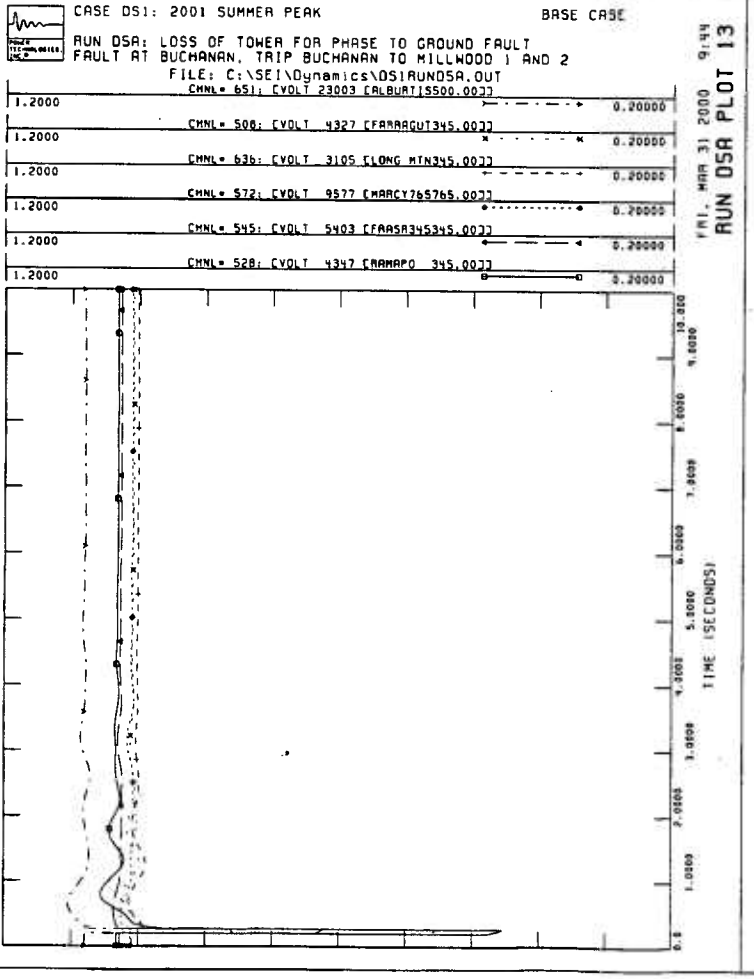
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 9:44
RUN DSA PLOT 16

CASE DS1: 2001 SUMMER PEAK BASE CASE

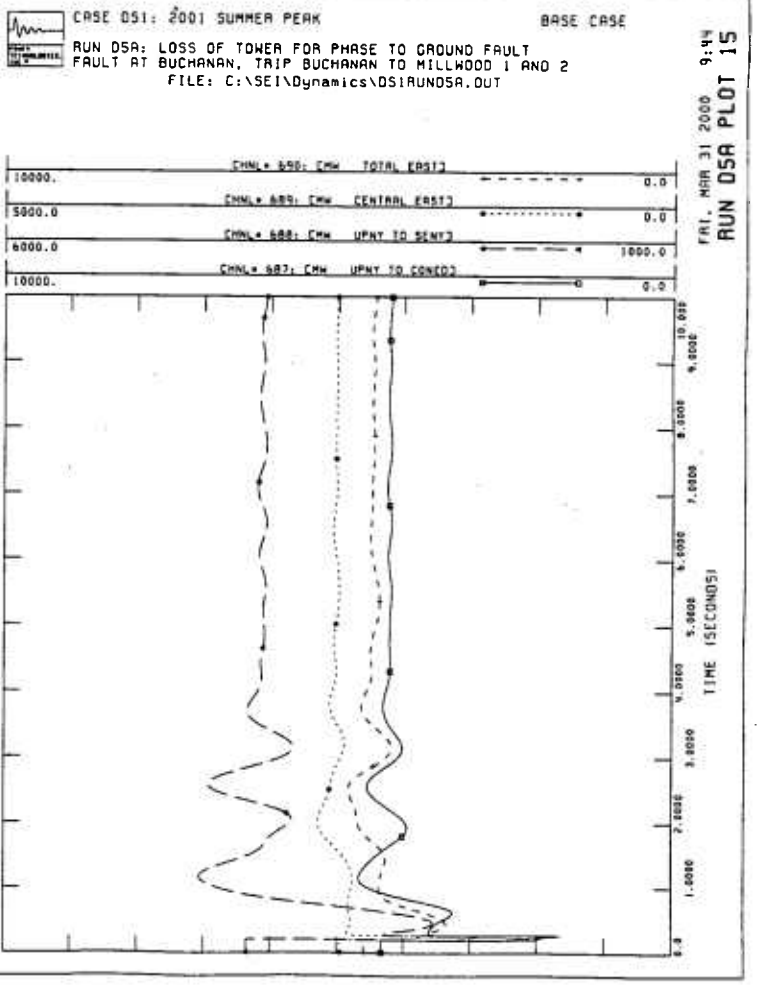
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT



FRI, MAR 31 2000 9:44
RUN DSA PLOT 13

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS1RUNDSA.OUT



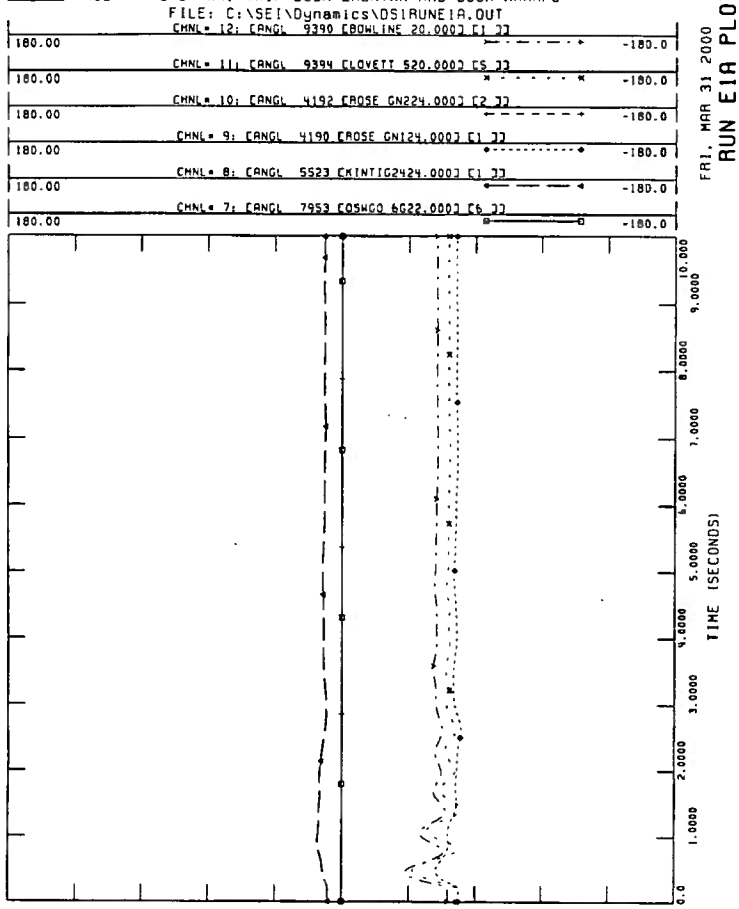
FRI, MAR 31 2000 9:44
RUN DSA PLOT 15

CONTINGENCY E1A

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

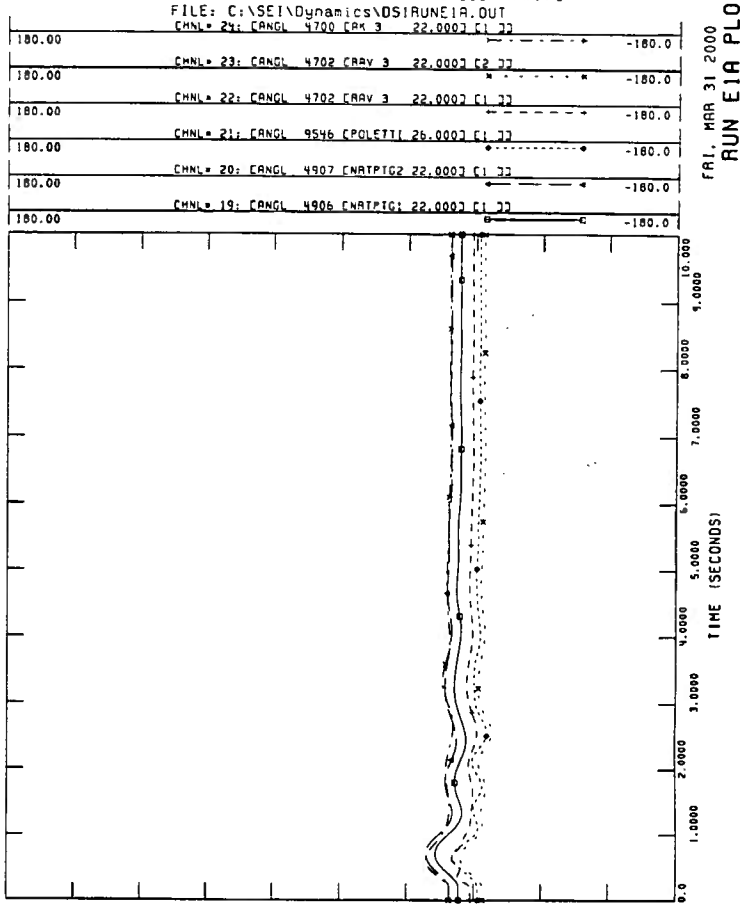
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT



FRI, MAR 31 2000 9:44
RUN E1A PLOT 2

CASE DS1: 2001 SUMMER PEAK BASE CASE

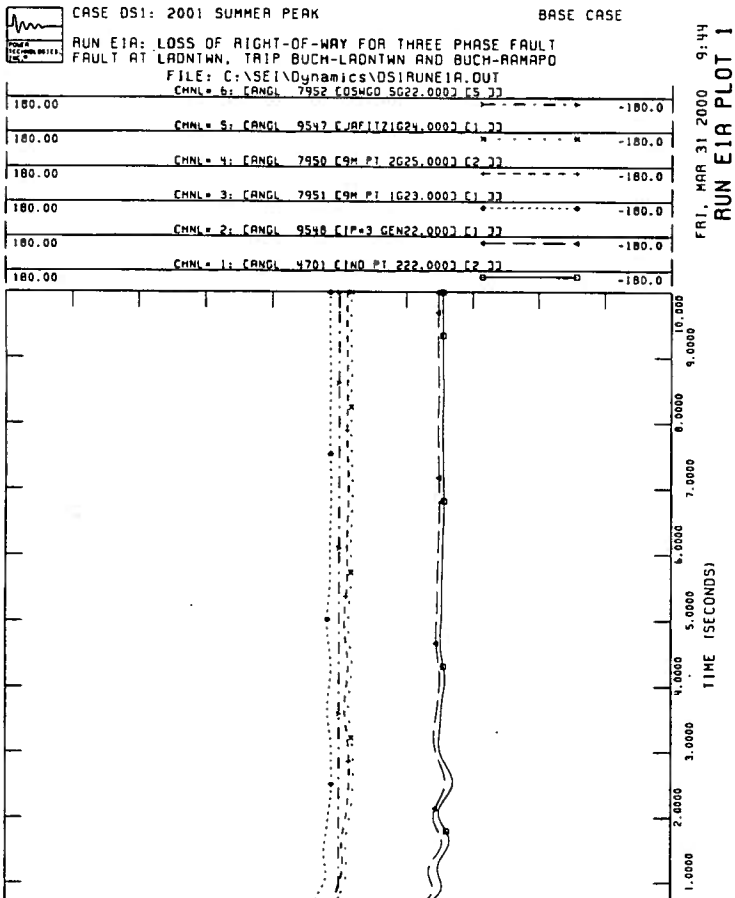
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT



FRI, MAR 31 2000 9:44
RUN E1A PLOT 4

CASE DS1: 2001 SUMMER PEAK BASE CASE

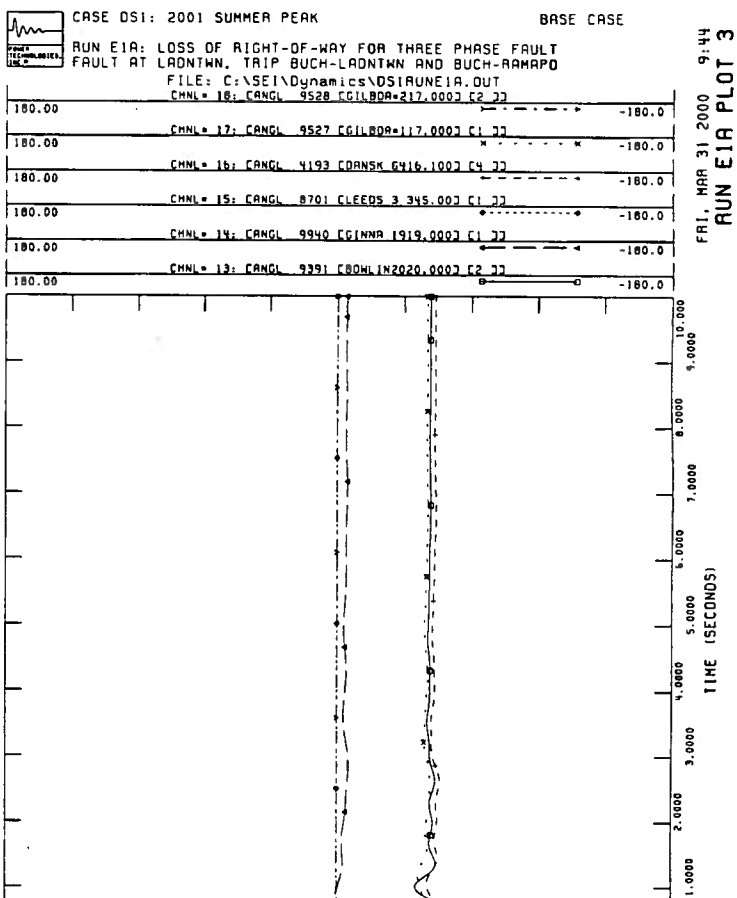
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT



FRI, MAR 31 2000 9:44
RUN E1A PLOT 1

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT



FRI, MAR 31 2000 9:44
RUN E1A PLOT 3

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

FRI, MAR 31 2000 9:44
RUN E1A PLOT 6

CHNL= 36: CANGL 4357 [S1TH_GT318.000] [1]]
CHNL= 35: CANGL 4353 [S1TH_GT218.000] [1]]
CHNL= 34: CANGL 4352 [S1TH_GT118.000] [1]]
CHNL= 33: CANGL 4358 [S1TH_STM16.000] [1]]
CHNL= 32: CANGL 4706 [AST_5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST_5 20.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

FRI, MAR 31 2000 9:44
RUN E1A PLOT 8

CHNL= 48: CANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

FRI, MAR 31 2000 9:44
RUN E1A PLOT 5

CHNL= 30: CANGL 4705 [AST_4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST_4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARV_2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARV_2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARV_1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARV_1 20.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

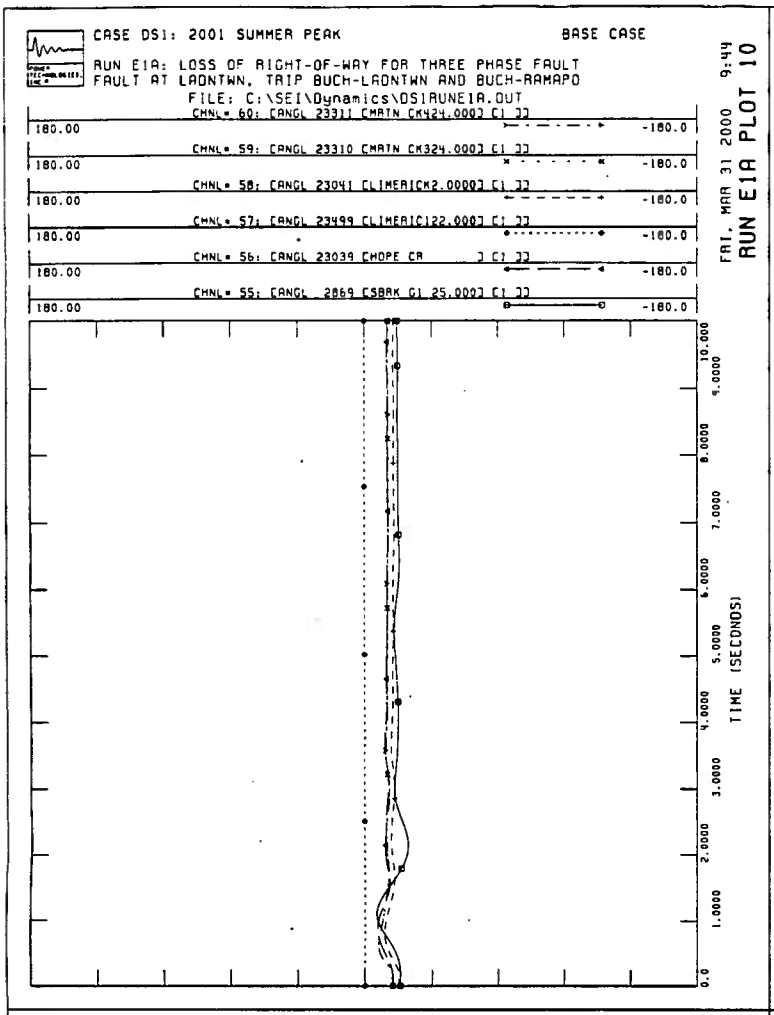
FRI, MAR 31 2000 9:44
RUN E1A PLOT 7

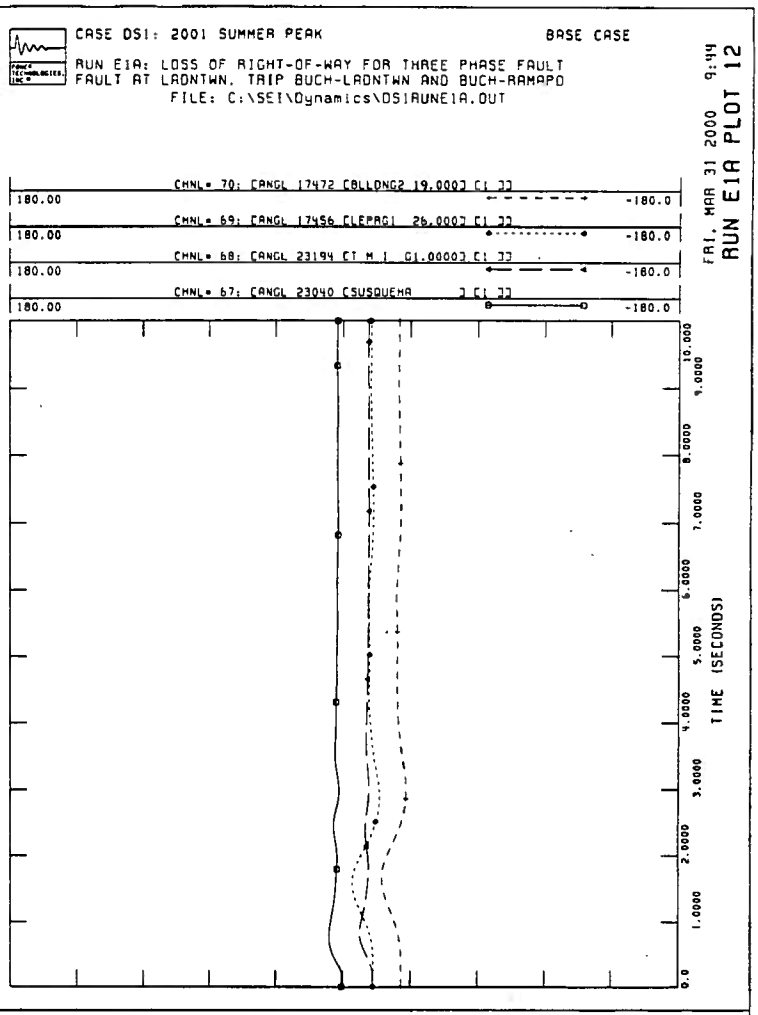
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [ANPCT1 21.000] [1]]

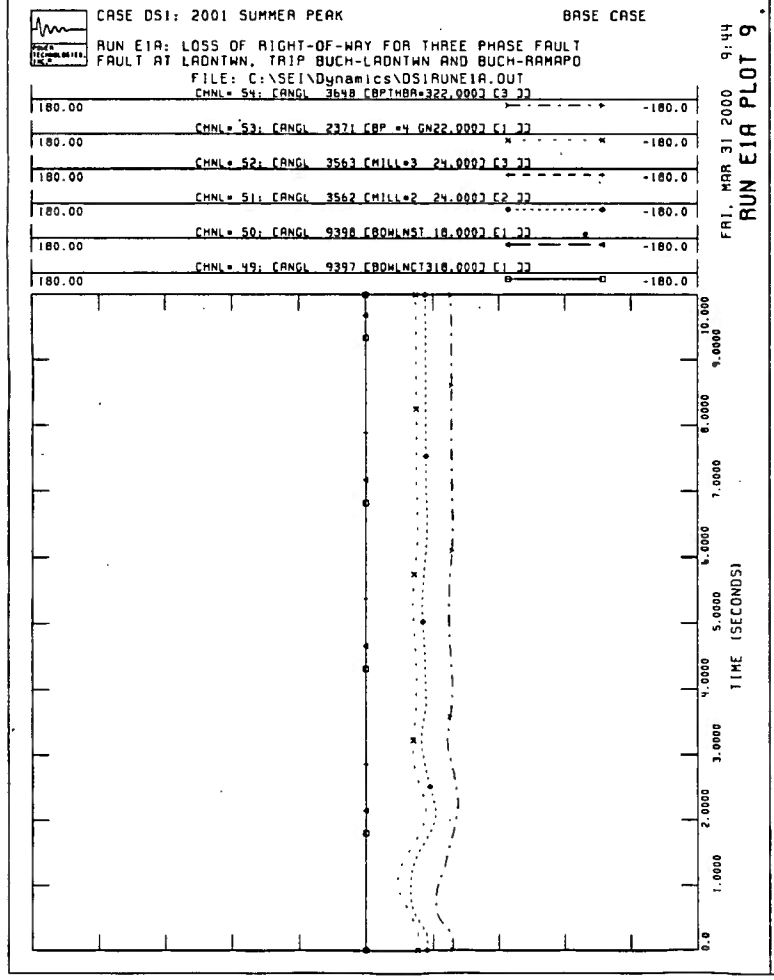
180.00 -180.0

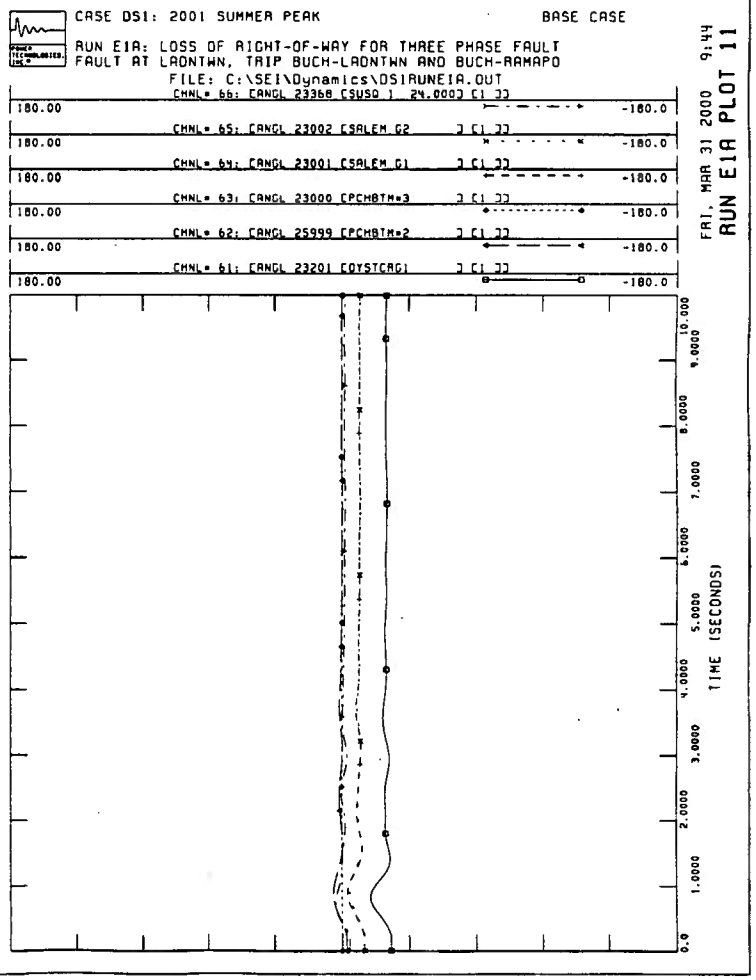
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:44
RUN E1A PLOT 10


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:44
RUN E1A PLOT 12


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:44
RUN E1A PLOT 9


CASE DS1: 2001 SUMMER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCMBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCMBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCRG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 9:44
RUN E1A PLOT 11

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO

FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

CHNL= 705: 60=(1*CFREQ 23003 [ALBURTIS500,003])
60.250 59.750

CHNL= 704: 60=(1*CFREQ 4327 [FRAMAPGUT345,003])
60.250 59.750

CHNL= 703: 60=(1*CFREQ 3105 [LONG MTN345,003])
60.250 59.750

CHNL= 702: 60=(1*CFREQ 9577 [MARCY765765,003])
60.250 59.750

CHNL= 701: 60=(1*CFREQ 5403 [FRASR345345,003])
60.250 59.750

CHNL= 700: 60=(1*CFREQ 4347 [RAMAPO 345,003])
60.250 59.750

10.000 9.0000 8.0000 7.0000 6.0000 5.0000 4.0000 3.0000 2.0000 1.0000 0.0

TIME (SECONDS)

FRI, MAR 31 2000 9:44

RUN E1A PLOT 14

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO

FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]

0.50000 0.40000 0.30000 0.20000 0.10000 0.0 -0.1000 -0.2000 -0.3000 -0.4000 -0.5000

0.50000 0.40000 0.30000 0.20000 0.10000 0.0 -0.1000 -0.2000 -0.3000 -0.4000 -0.5000

CHNL= 696: CAPPA 17004 TO 17230 CKT 1]

FRI, MAR 31 2000 9:44

RUN E1A PLOT 16

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

CHNL= 651: EVOLT 23003 [ALBURTIS500,003]
1.2000 0.20000

CHNL= 508: EVOLT 4327 [FRAMAPGUT345,003]
1.2000 0.20000

CHNL= 636: EVOLT 3105 [LONG MTN345,003]
1.2000 0.20000

CHNL= 572: EVOLT 9577 [MARCY765765,003]
1.2000 0.20000

CHNL= 545: EVOLT 5403 [FRASR345345,003]
1.2000 0.20000

CHNL= 528: EVOLT 4347 [RAMAPO 345,003]
1.2000 0.20000

10.000 9.0000 8.0000 7.0000 6.0000 5.0000 4.0000 3.0000 2.0000 1.0000 0.0

TIME (SECONDS)

FRI, MAR 31 2000 9:44

RUN E1A PLOT 13

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS1RUNE1A.OUT

CHNL= 690: CMW TOTAL EAST]
10000. 0.0

CHNL= 689: CMW CENTRAL EAST]
5000.0 0.0

CHNL= 688: CMW UPNY TO SENY]
6000.0 1000.0

CHNL= 687: CMW UPNY TO CONED]
10000. 0.0

10.000 9.0000 8.0000 7.0000 6.0000 5.0000 4.0000 3.0000 2.0000 1.0000 0.0

TIME (SECONDS)

FRI, MAR 31 2000 9:44

RUN E1A PLOT 15

CONTINGENCY E2A

```
RECOVER FROM D1.SNP AND DS1.CNV
START OUTPUT DS1RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                              / DISCONNECT RAMAPO SUBSTATION
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 2

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 4

CHNL= 24: CANGL 4700 CRK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 1

CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 3

CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44

RUN E2A PLOT 6

CHNL= 36: CANGL 4357 CS1TH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CS1TH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CS1TH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CS1TH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44

RUN E2A PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44

RUN E2A PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44

RUN E2A PLOT 7

CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

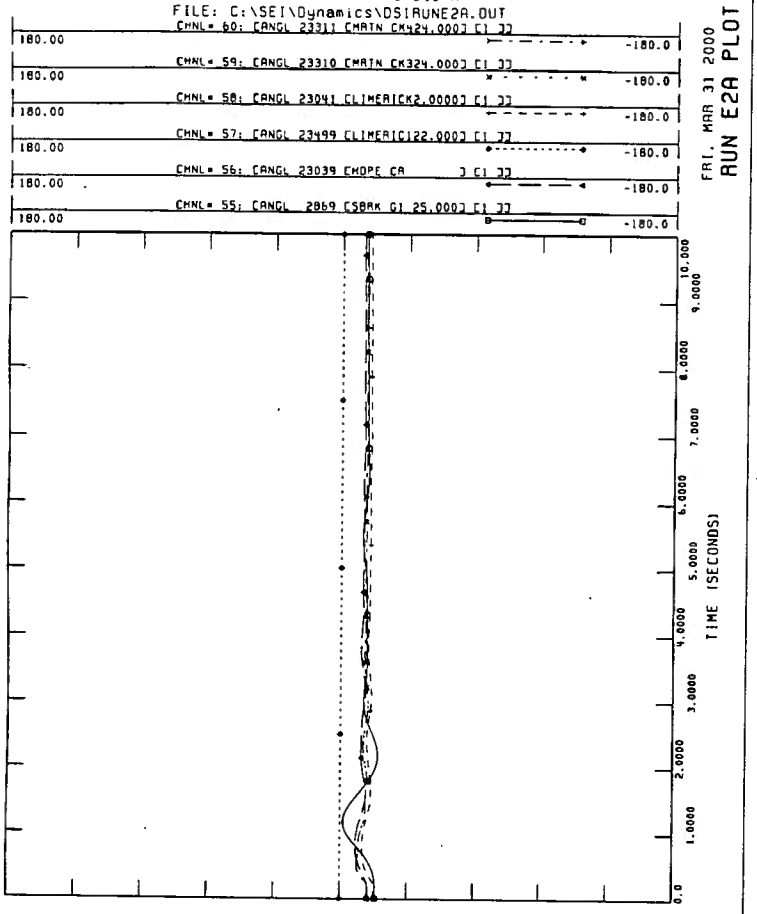
TIME (SECONDS)

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 10

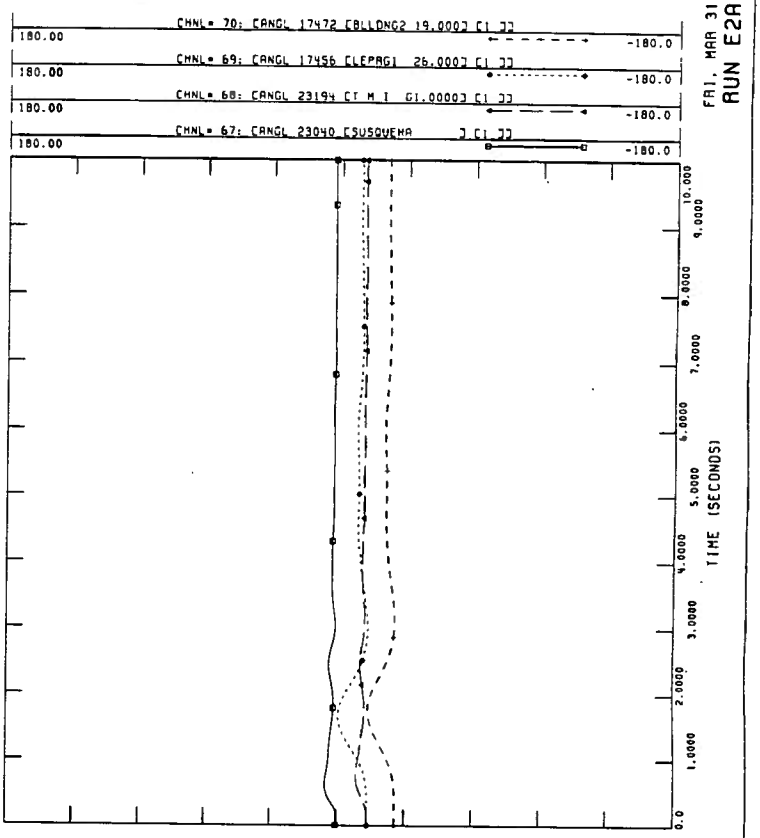


CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 12

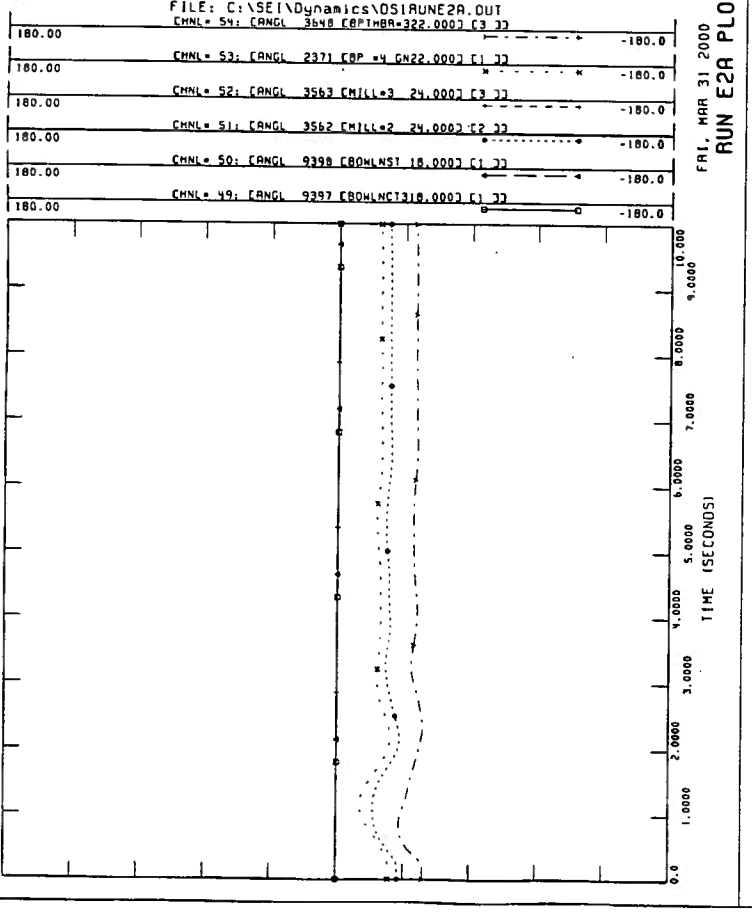


CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

FRI, MAR 31 2000 9:44
RUN E2A PLOT 9

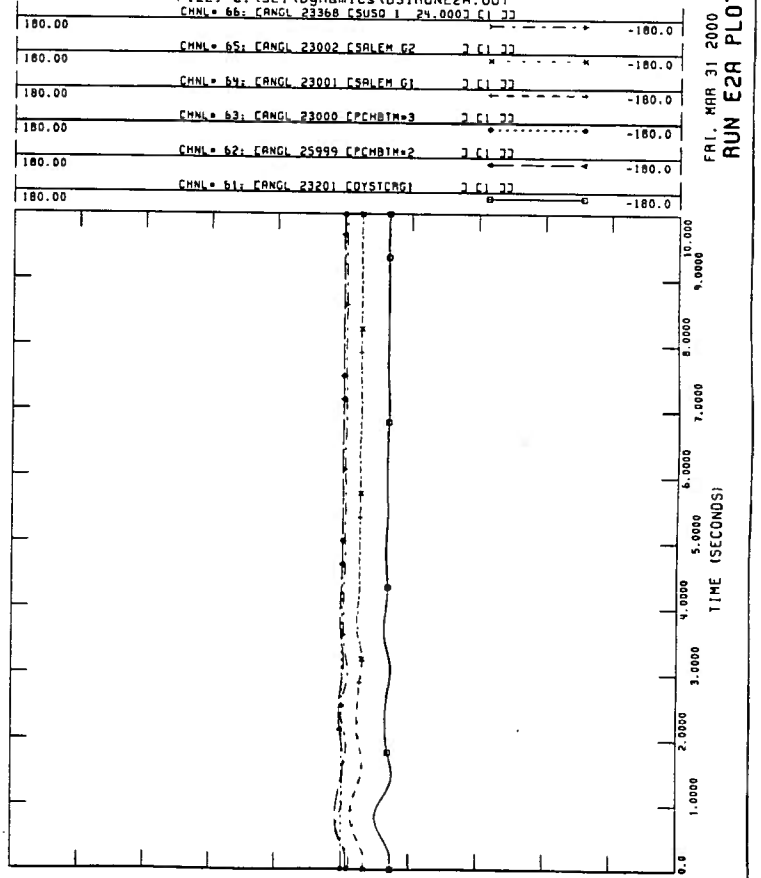


CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

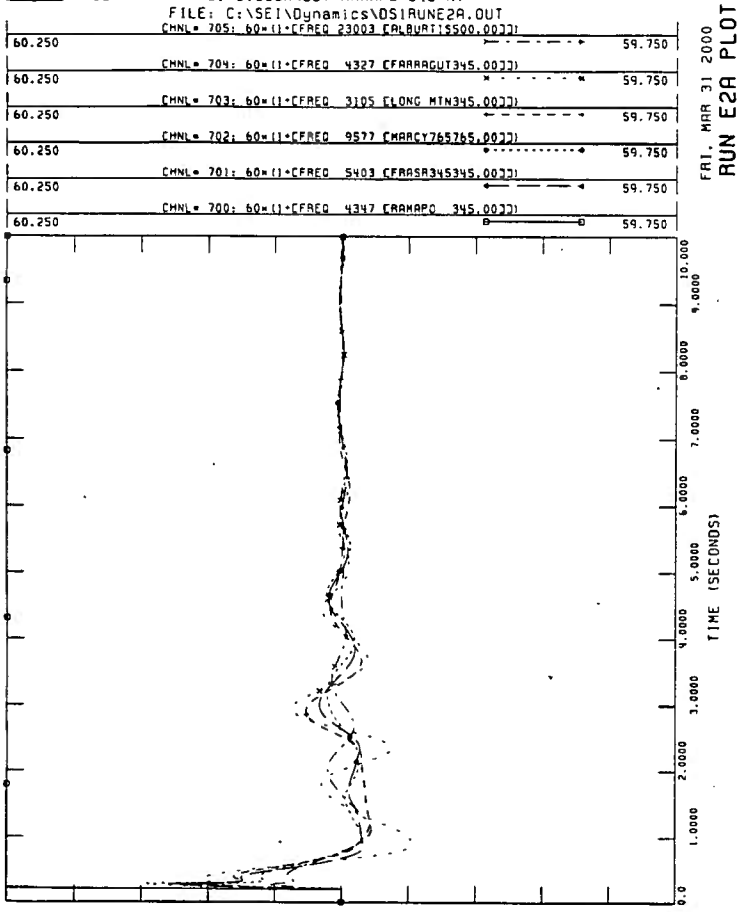
FRI, MAR 31 2000 9:44
RUN E2A PLOT 11



CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO. DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT



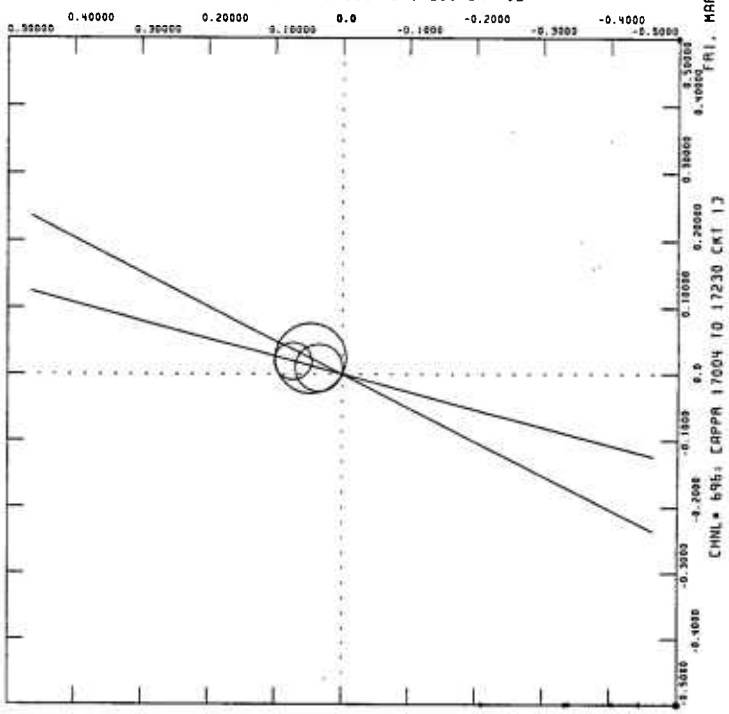
FRI, MAR 31 2000 9:44
RUN E2A PLOT 14

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO. DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT

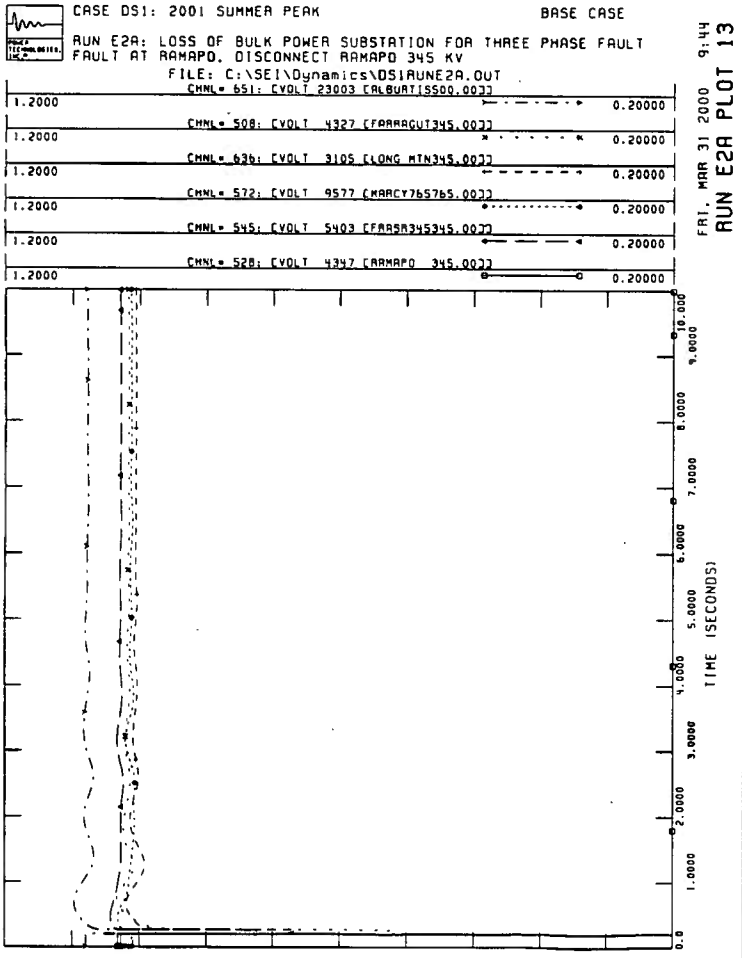
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 13



FRI, MAR 31 2000 9:44
RUN E2A PLOT 16

CASE DS1: 2001 SUMMER PEAK BASE CASE

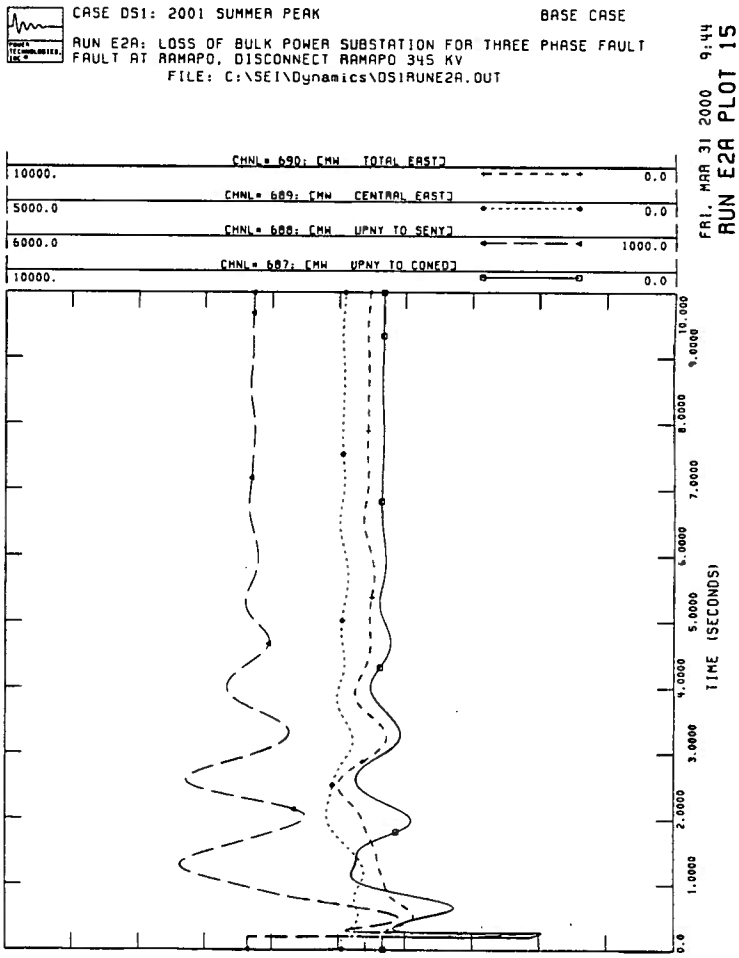
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO. DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT



FRI, MAR 31 2000 9:44
RUN E2A PLOT 13

CASE DS1: 2001 SUMMER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS1RUNE2A.OUT



FRI, MAR 31 2000 9:44
RUN E2A PLOT 15

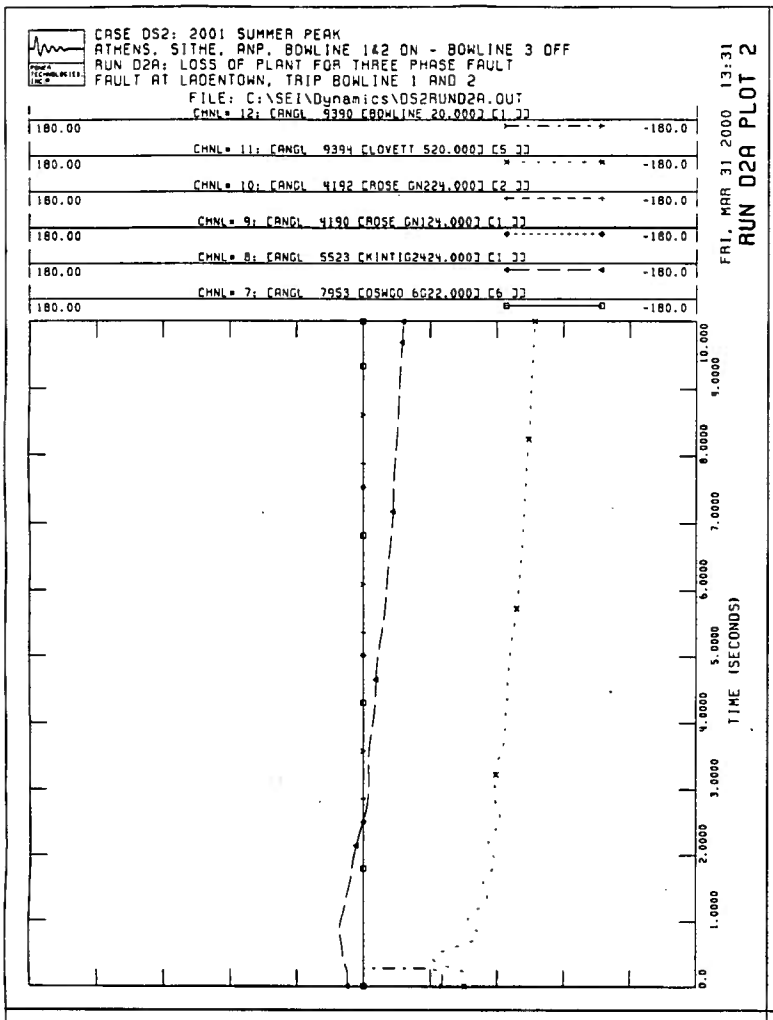
APPENDIX F.2 - Summer Peak Case DS2

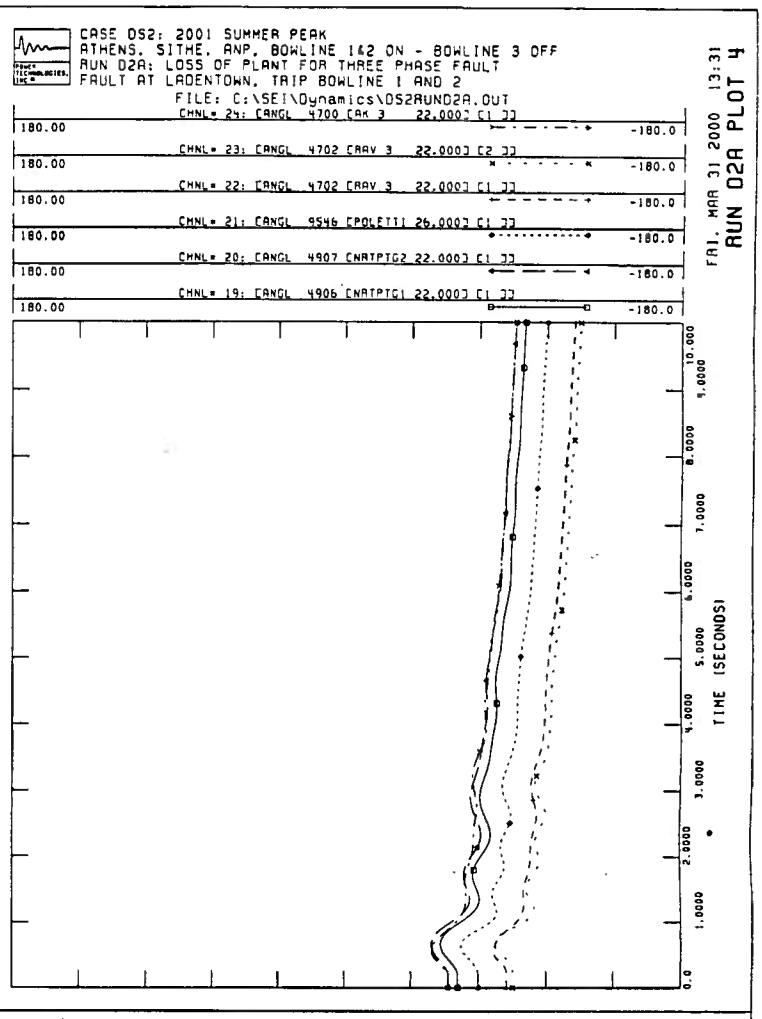
Bowline 3 Off-Line

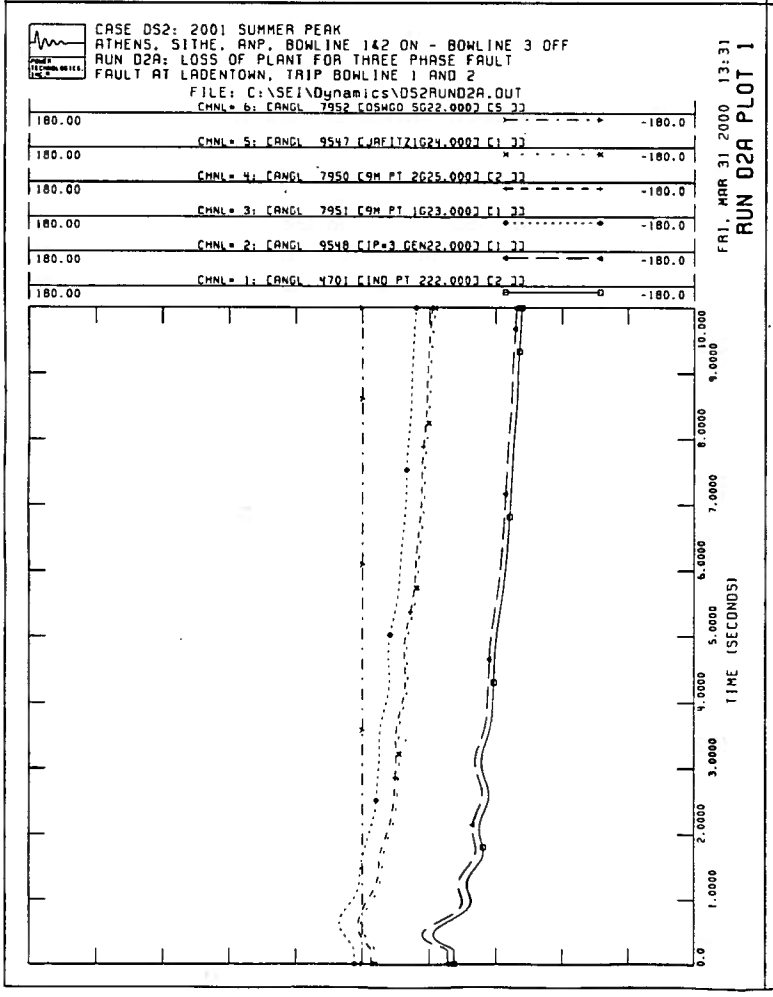
Bowline 1 and 2, Athens, ANP and Sithe On-Line

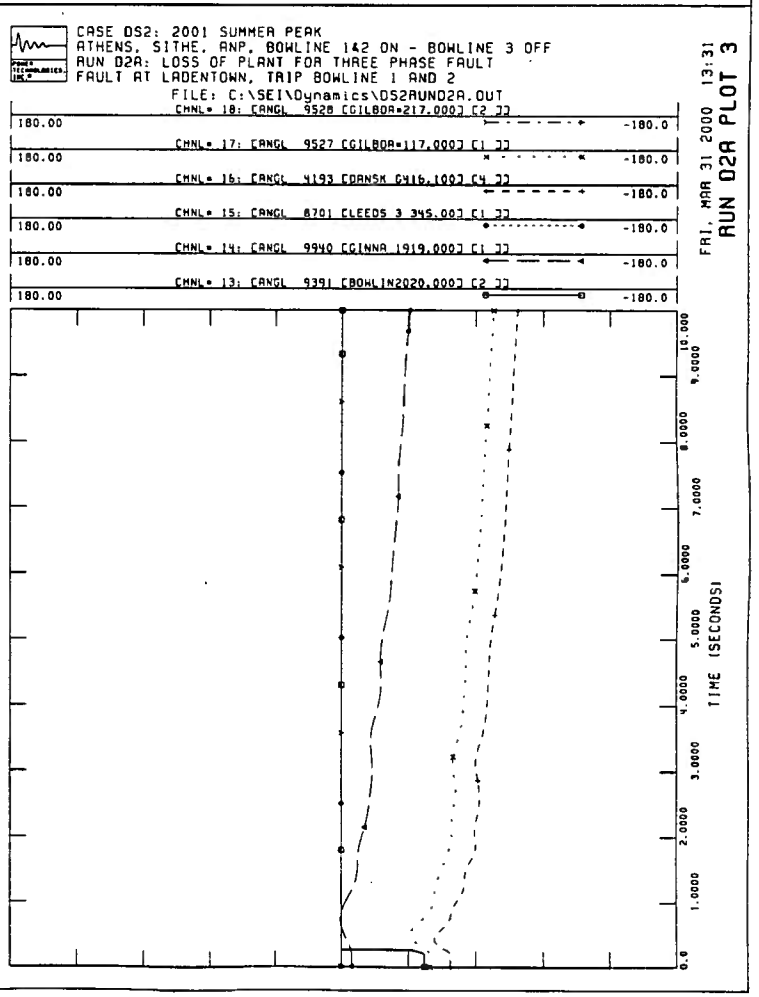
CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                          / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                          / TRIP BOWLINE 2
DISCONNECT BUS 9300                                   /
DISCONNECT BUS 9301                                   /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

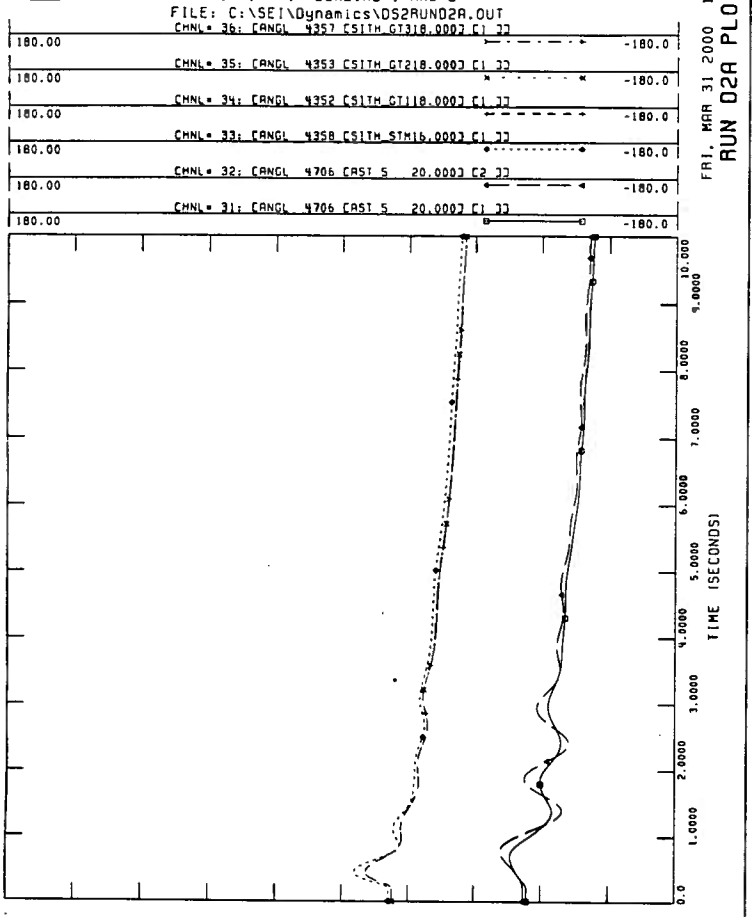

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 2
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 4
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 1
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)

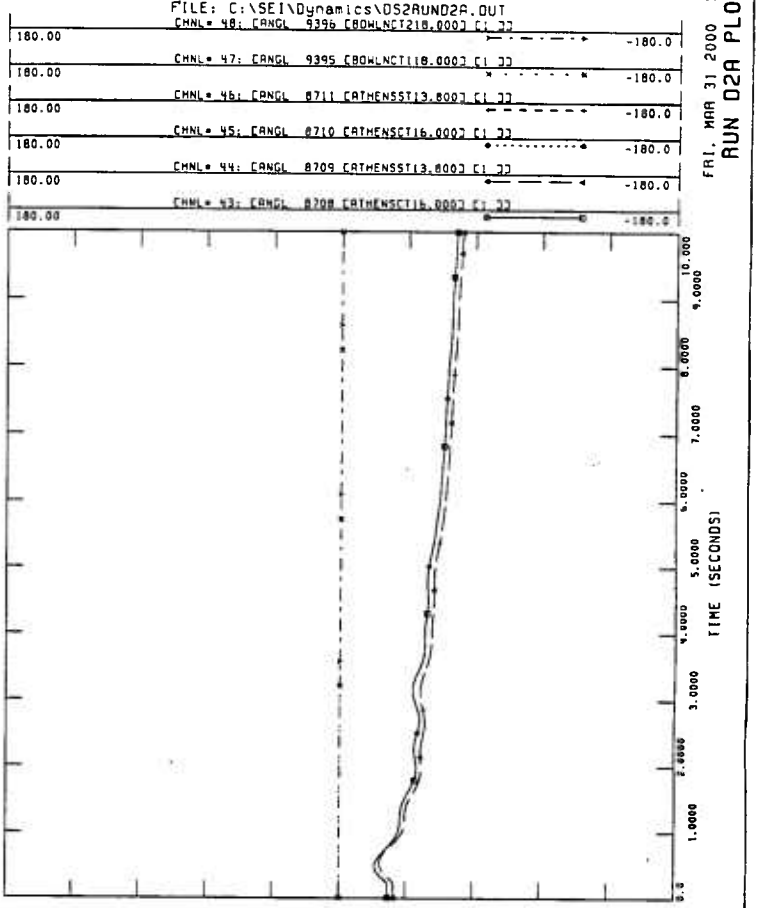

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 3
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT



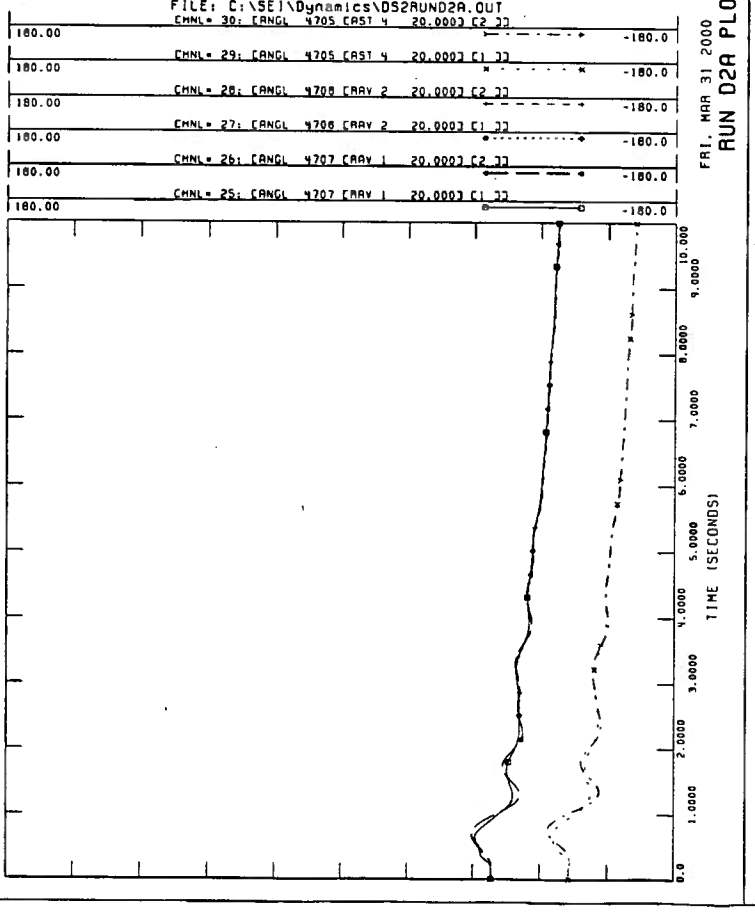
FRI, MAR 31 2000 13:31
RUN D2A PLOT 6

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT



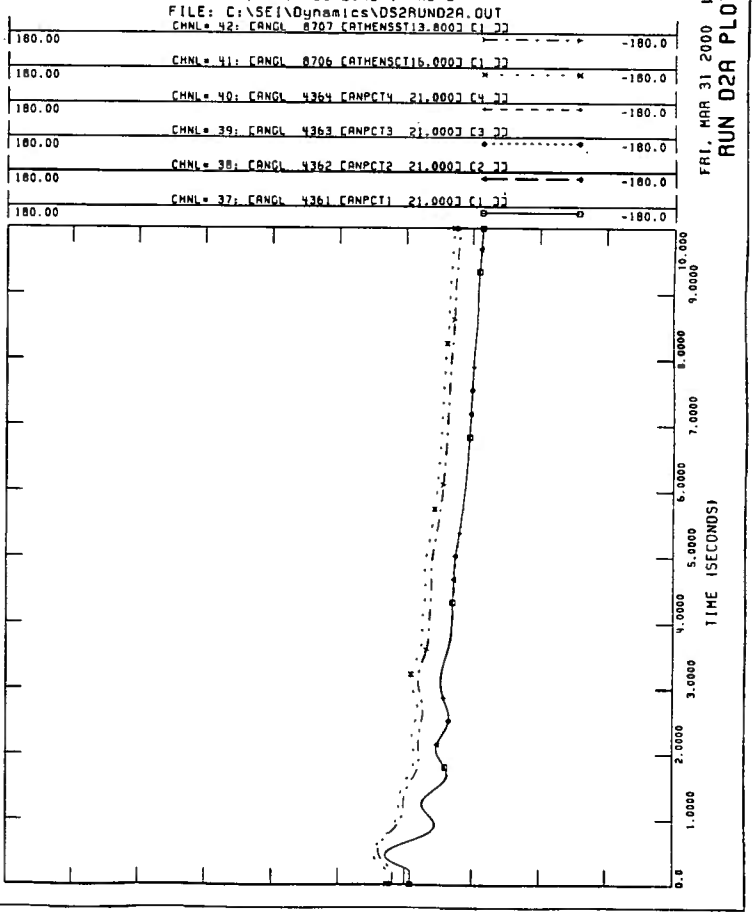
FRI, MAR 31 2000 13:31
RUN D2A PLOT 8

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT

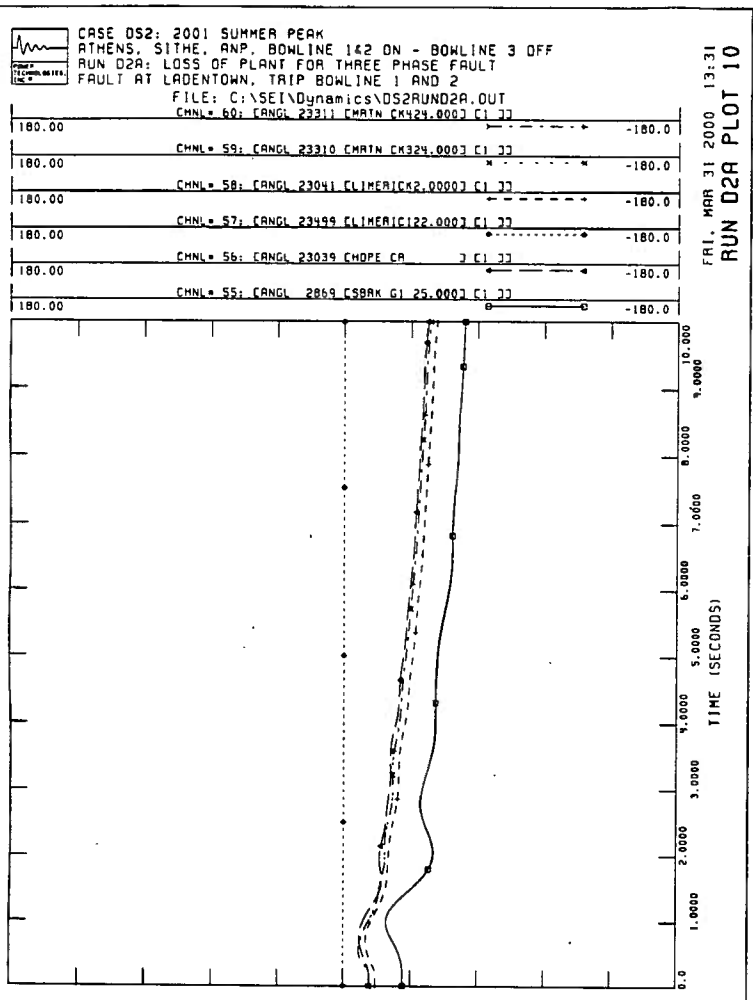


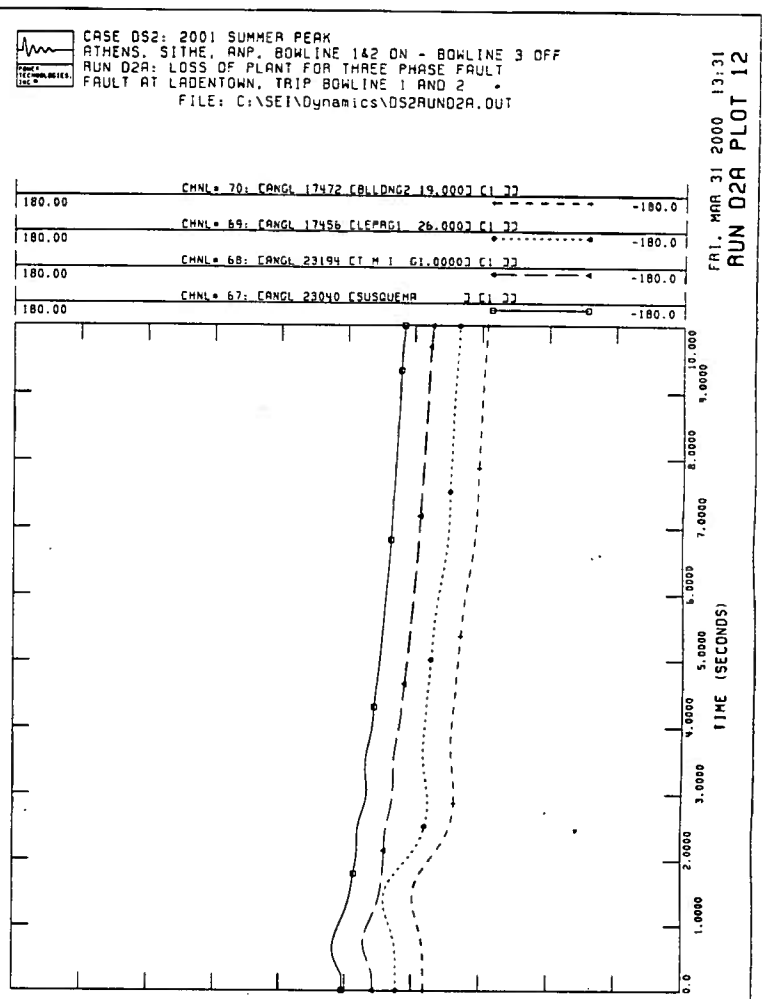
FRI, MAR 31 2000 13:31
RUN D2A PLOT 5

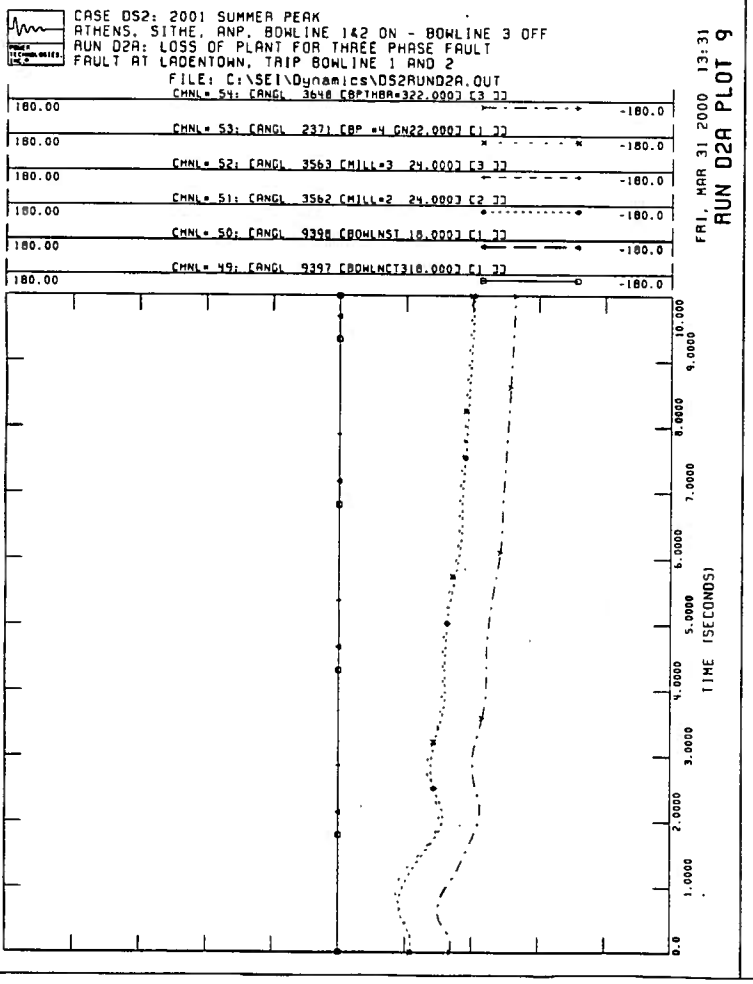
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT

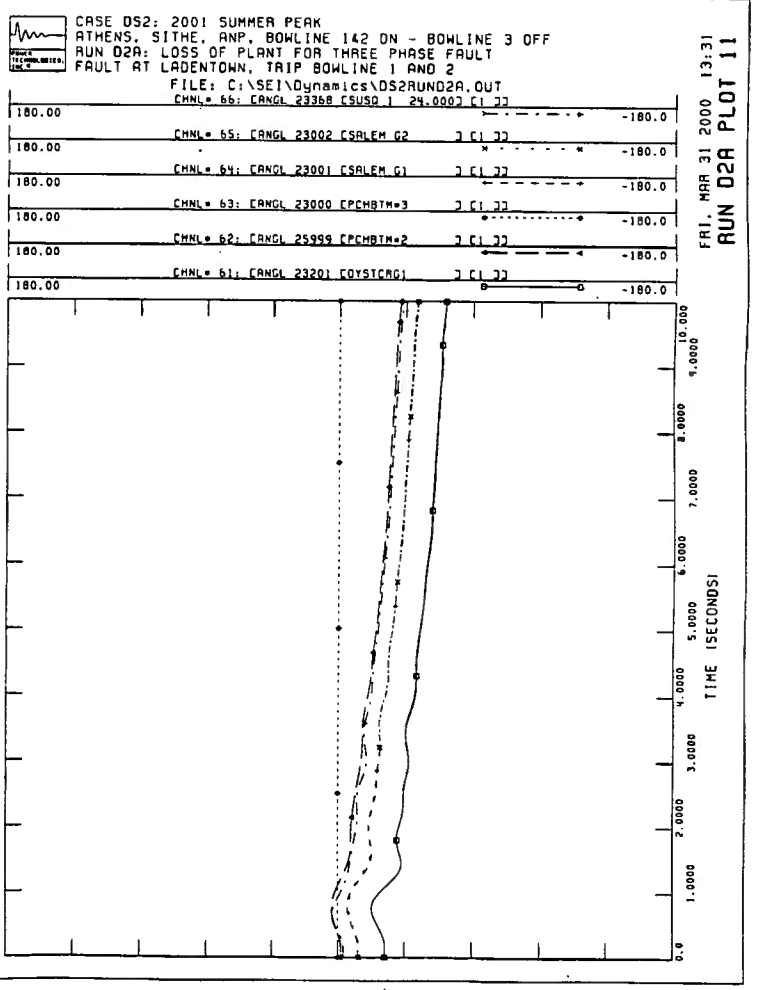


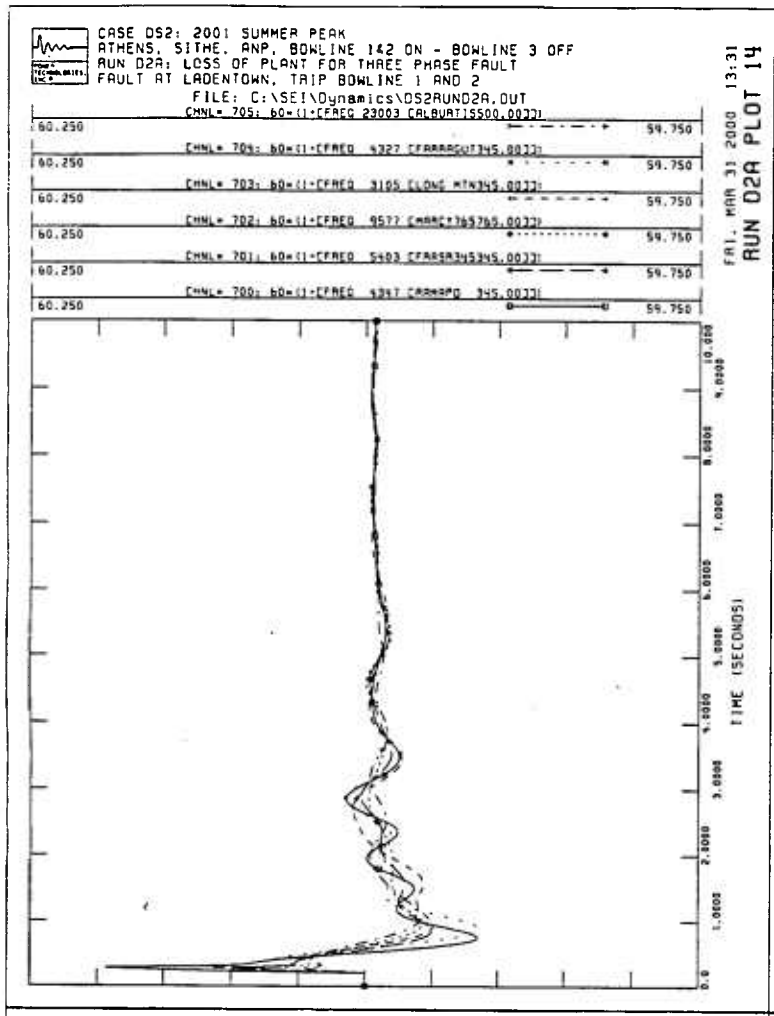
FRI, MAR 31 2000 13:31
RUN D2A PLOT 7

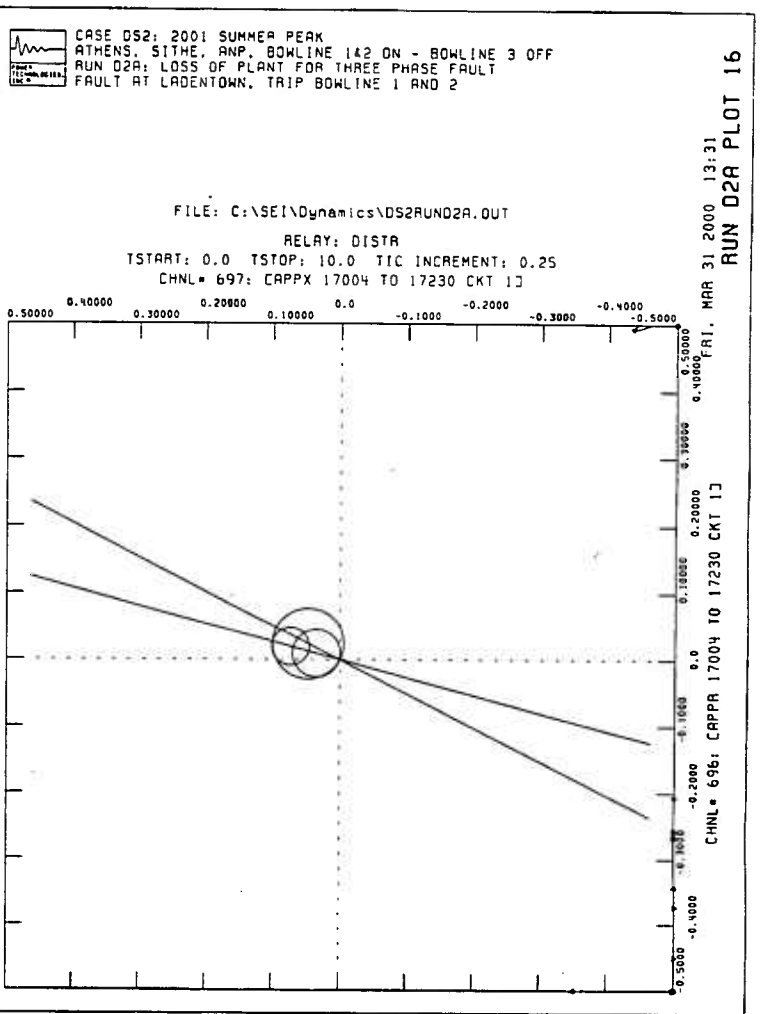

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 60: CANGL 23311 CMAIN CK429.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERICI22.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 10
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

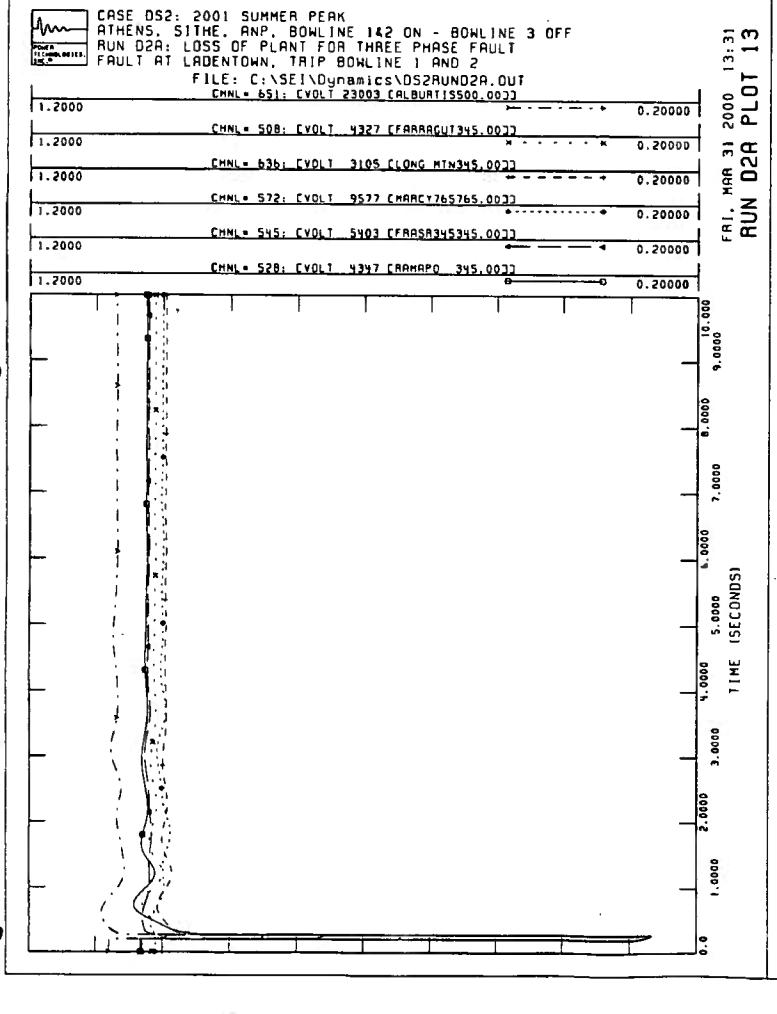

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M I G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 12
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

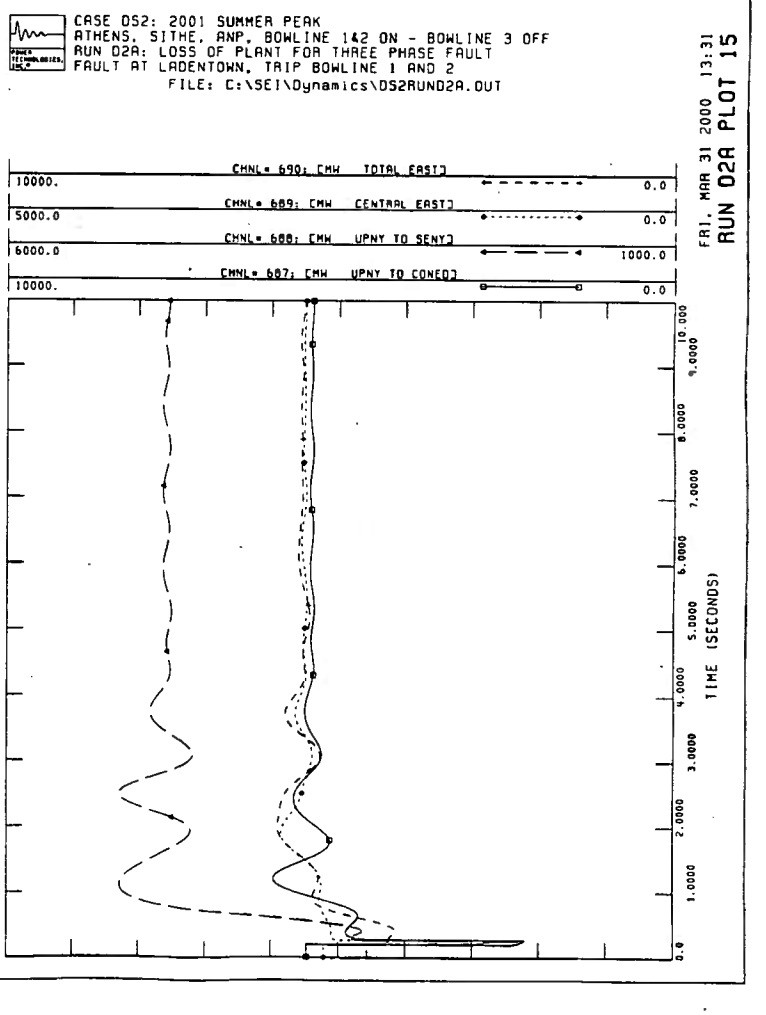

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3]]
CHNL= 53: CANGL 237] CBP =4 GN22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNS1 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 9
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCMBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCMBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCAG1] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:31
RUN D2A PLOT 11
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
FRI, MAR 31 2000 13:31
RUN D2A PLOT 14
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1
CHNL= 696: CAPPR 17004 TO 17230 CKT 1
FRI, MAR 31 2000 13:31
RUN D2A PLOT 16

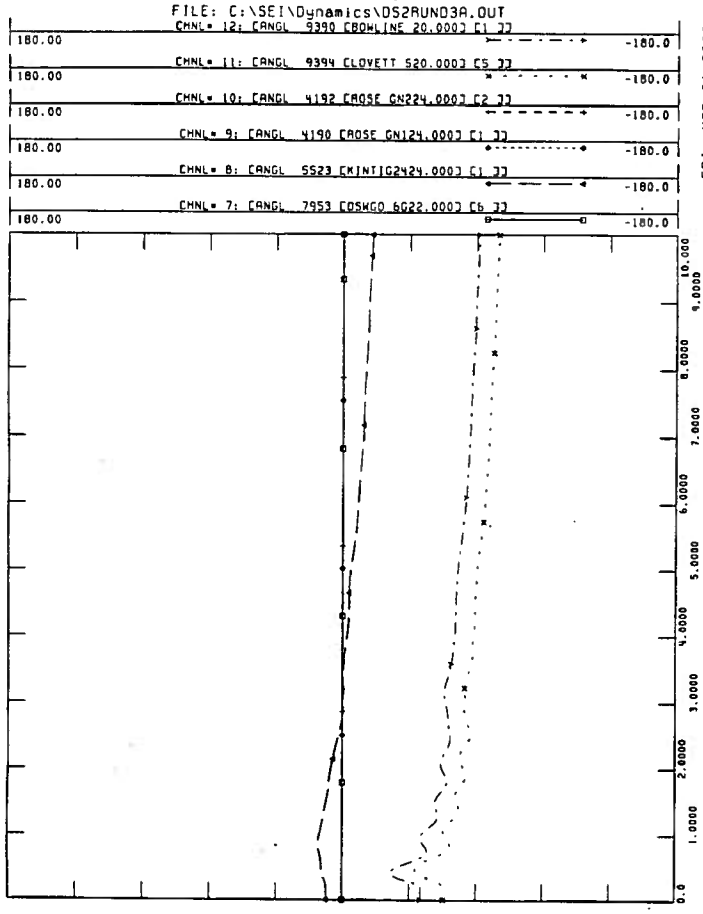

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
FRI, MAR 31 2000 13:31
RUN D2A PLOT 13
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUND2A.OUT
FRI, MAR 31 2000 13:31
RUN D2A PLOT 15
TIME (SECONDS)

CONTINGENCY D3A

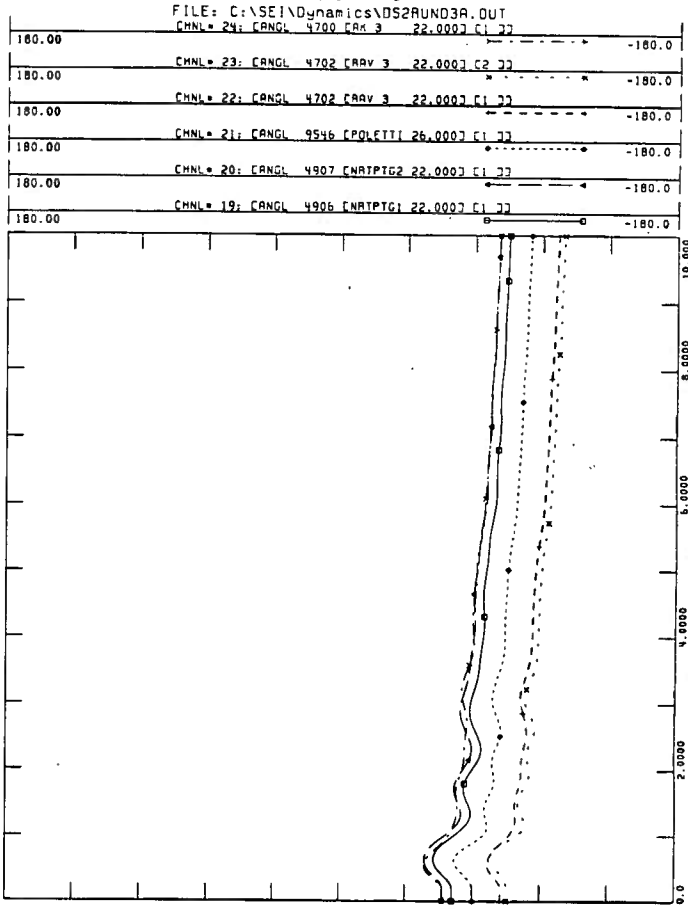
```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                           / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



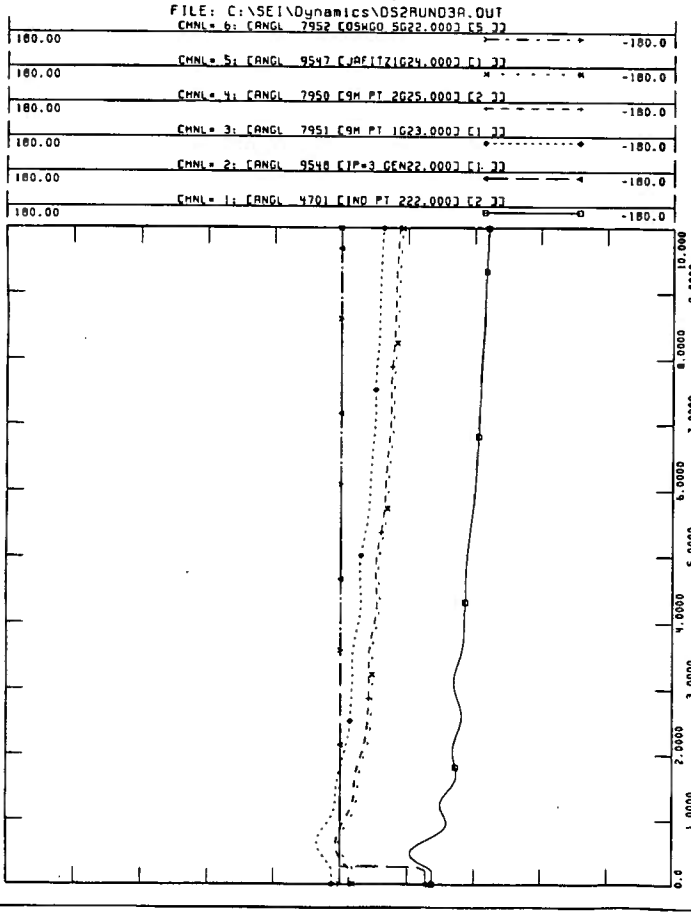
FRI, MAR 31 2000 13:31
RUN D3A PLOT 2

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



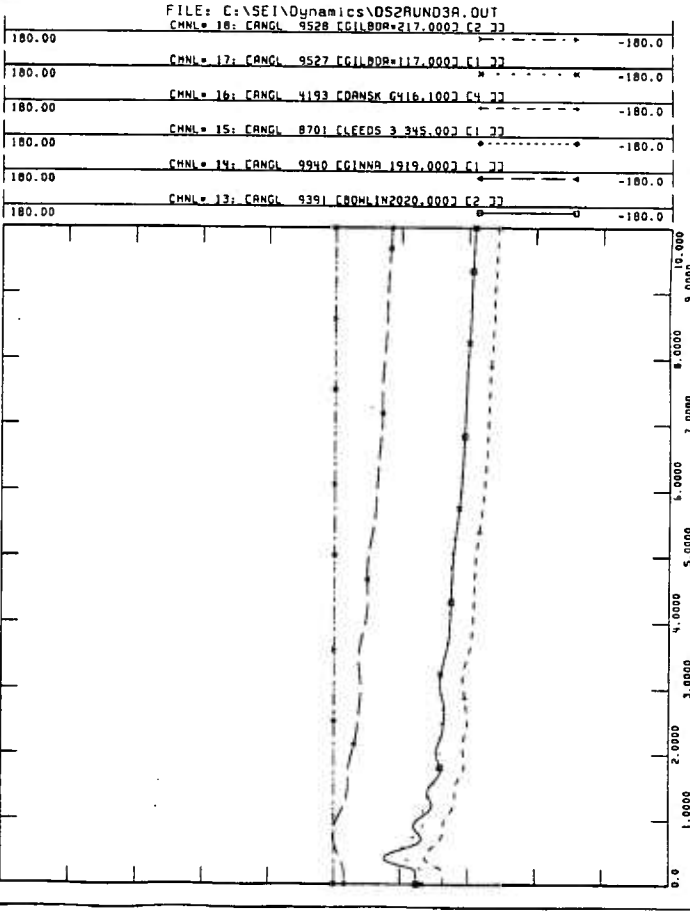
FRI, MAR 31 2000 13:31
RUN D3A PLOT 4

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



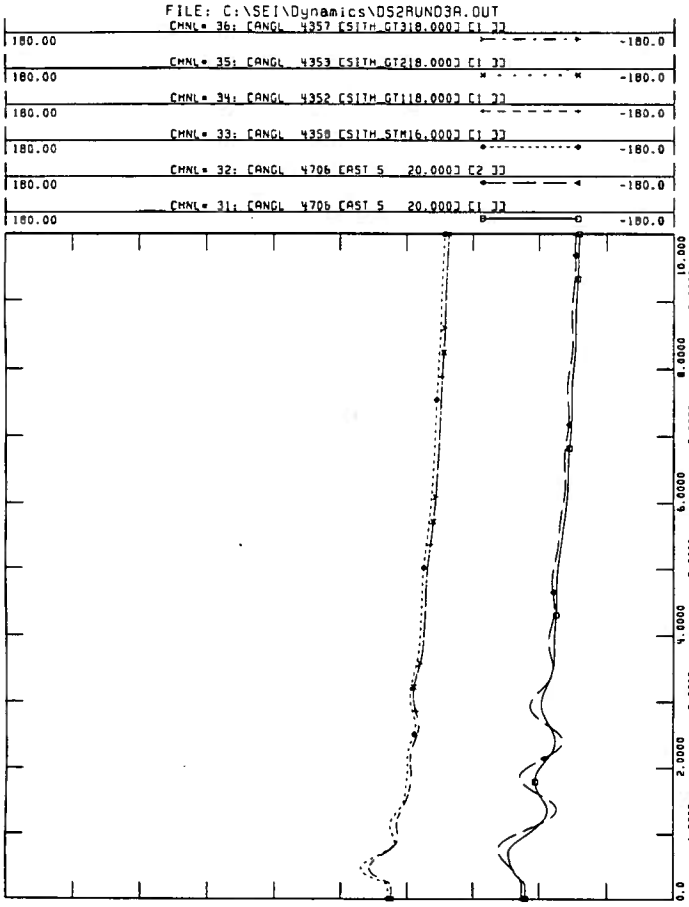
FRI, MAR 31 2000 13:31
RUN D3A PLOT 1

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



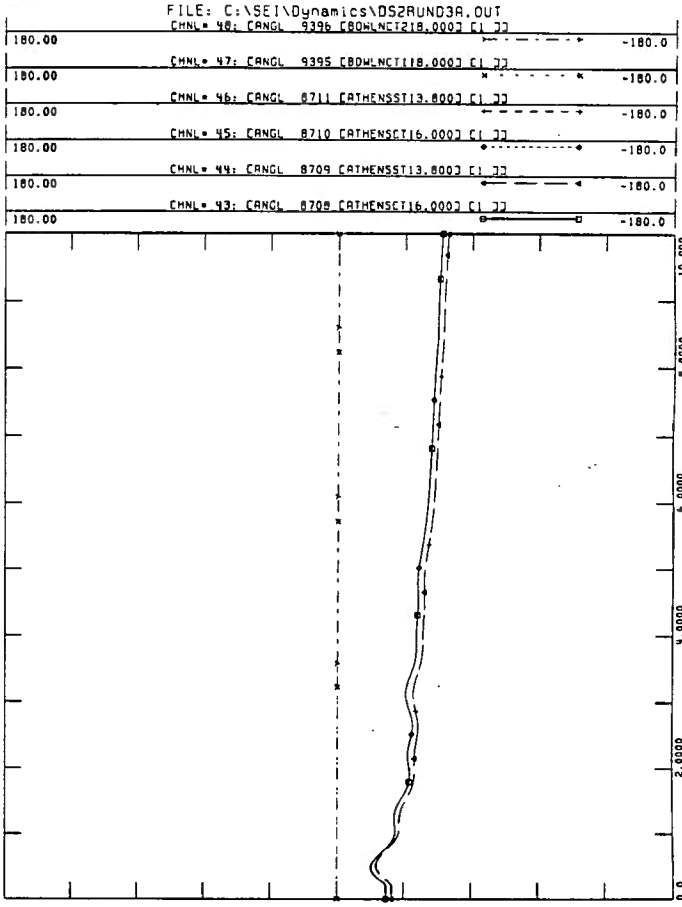
FRI, MAR 31 2000 13:31
RUN D3A PLOT 3

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



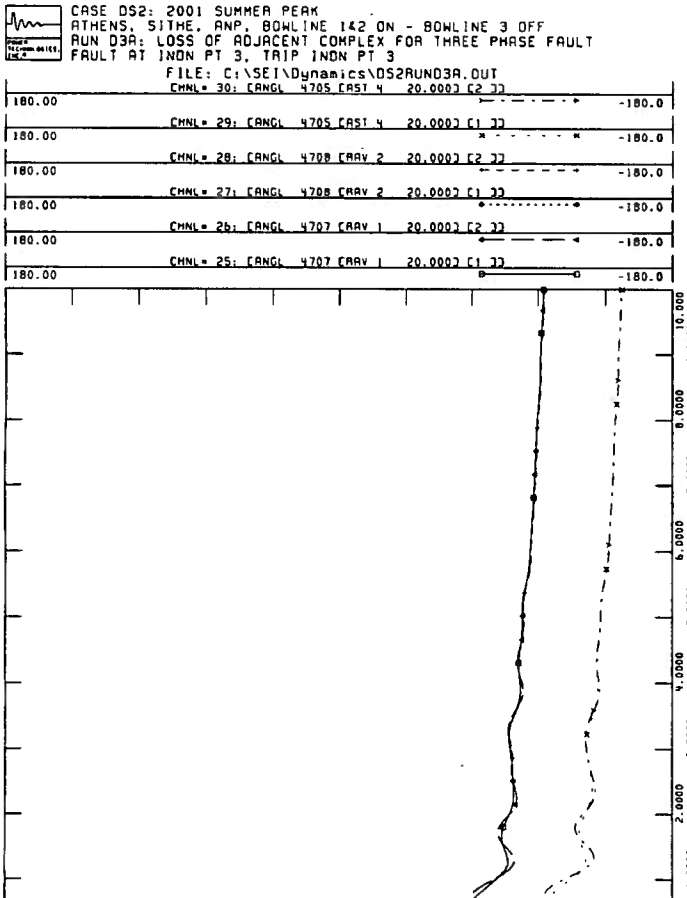
FRI, MAR 31 2000 13:31
RUN D3A PLOT 6

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



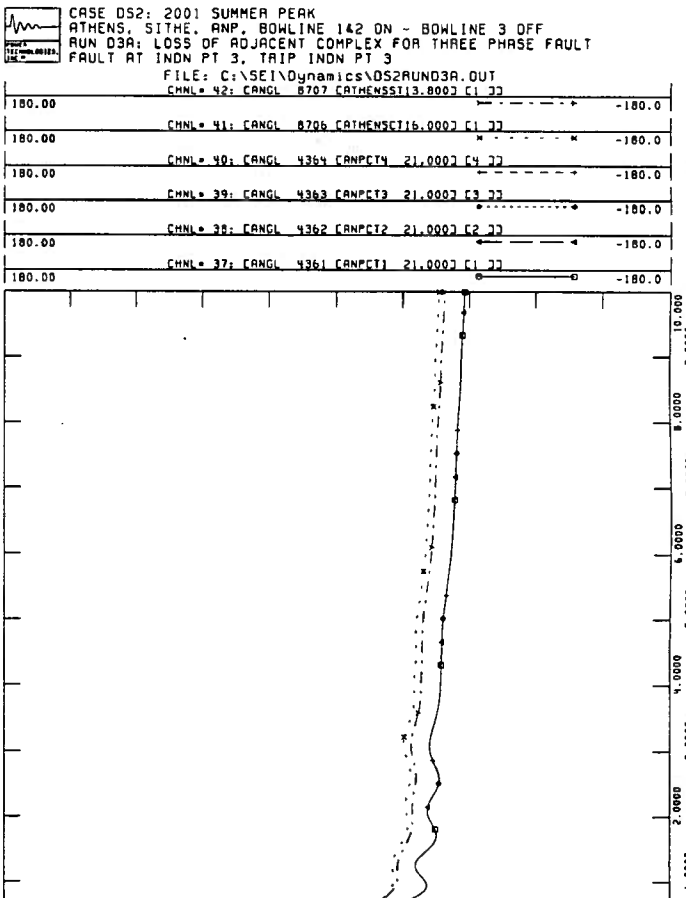
FRI, MAR 31 2000 13:31
RUN D3A PLOT 8

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



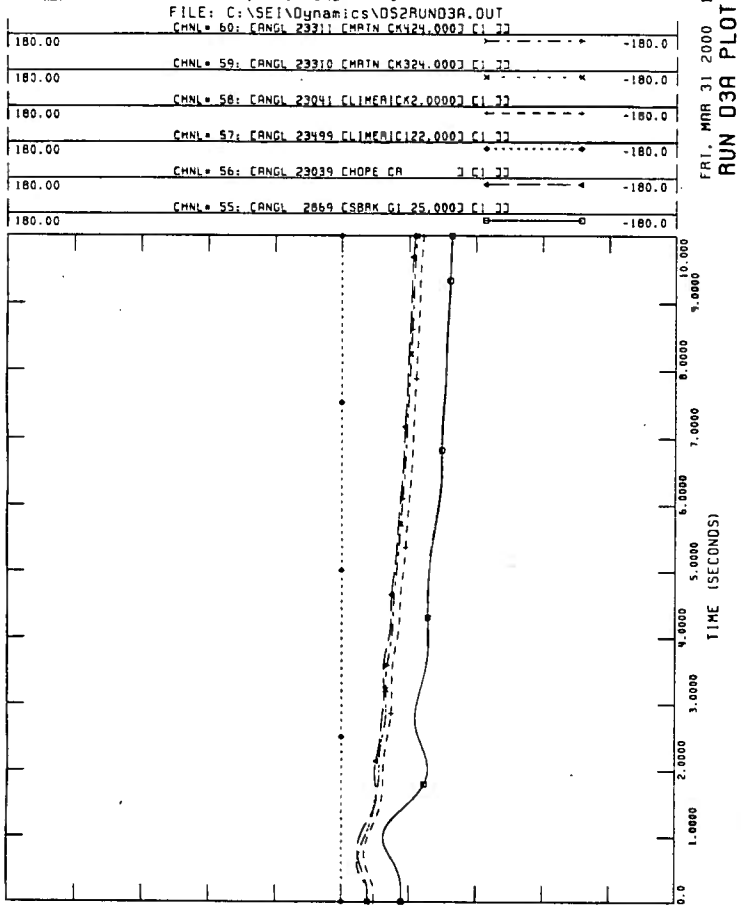
FRI, MAR 31 2000 13:31
RUN D3A PLOT 5

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



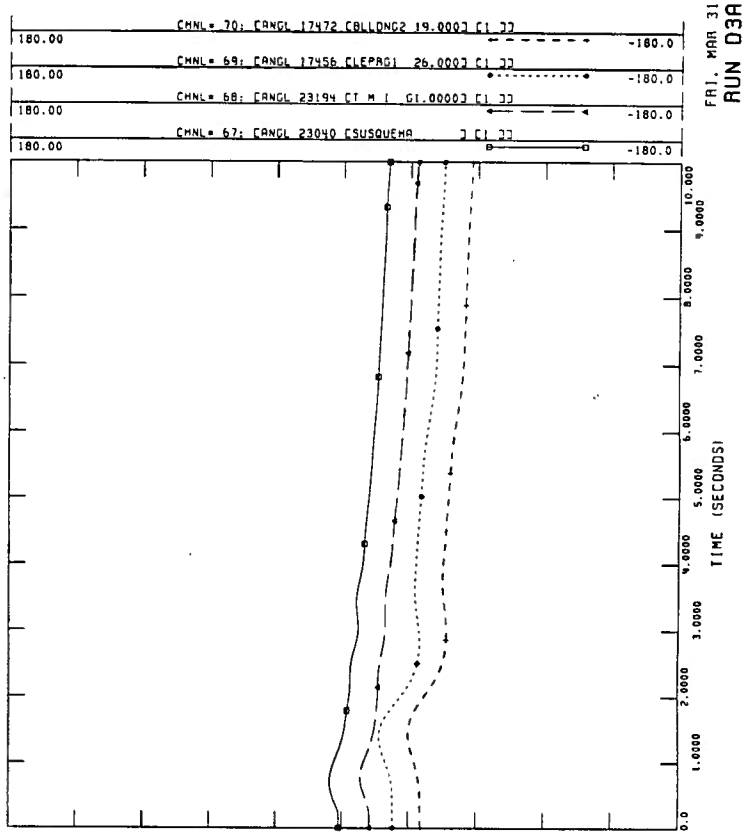
FRI, MAR 31 2000 13:31
RUN D3A PLOT 7

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



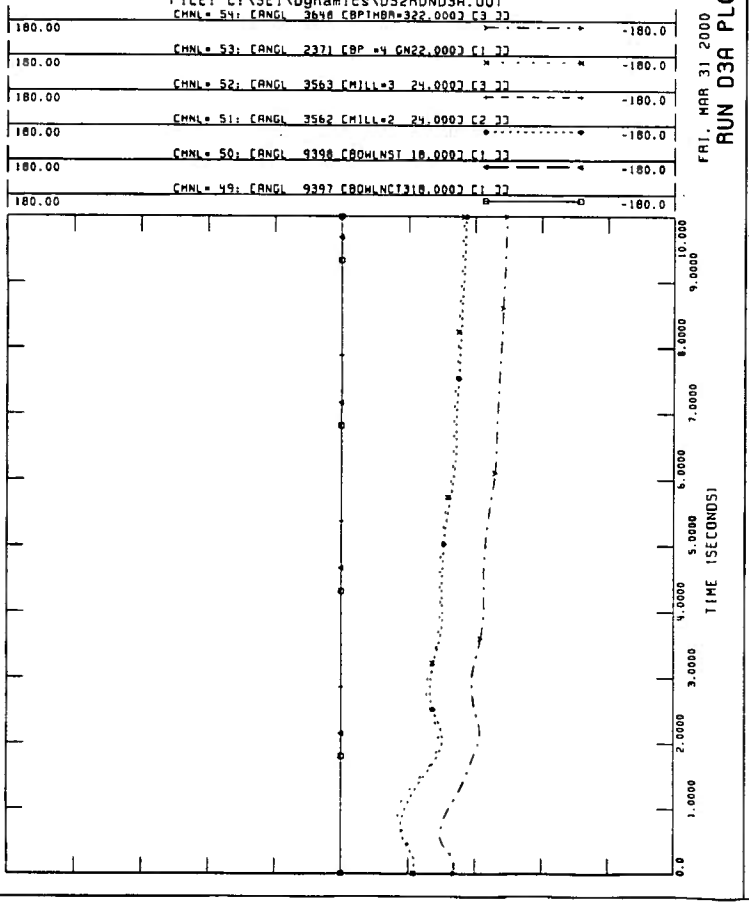
FRI, MAR 31 2000 13:31
RUN D3A PLOT 10

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



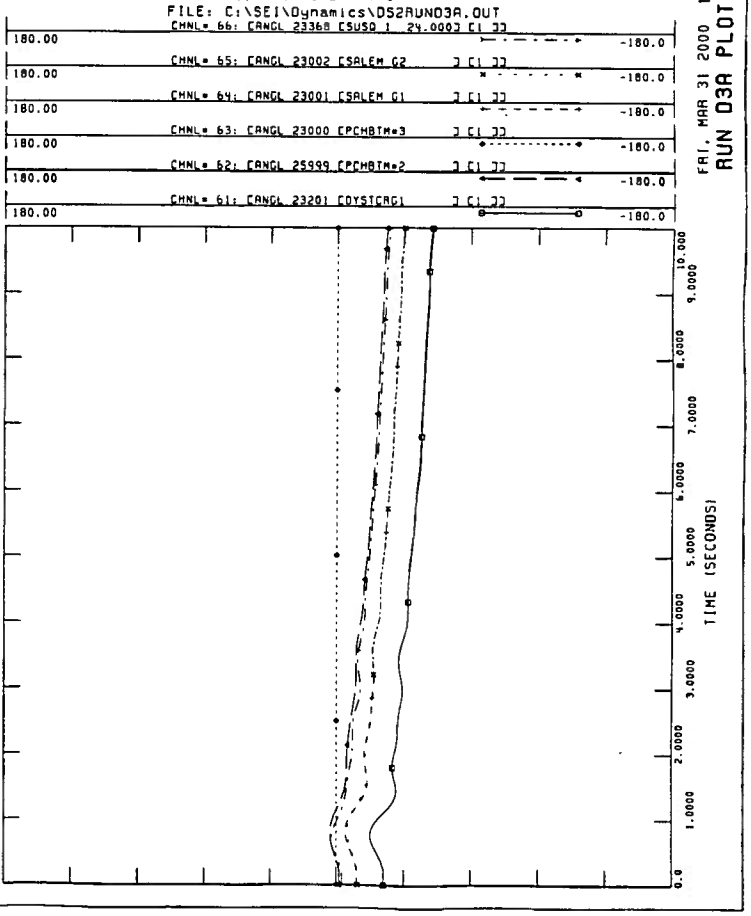
FRI, MAR 31 2000 13:31
RUN D3A PLOT 12

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



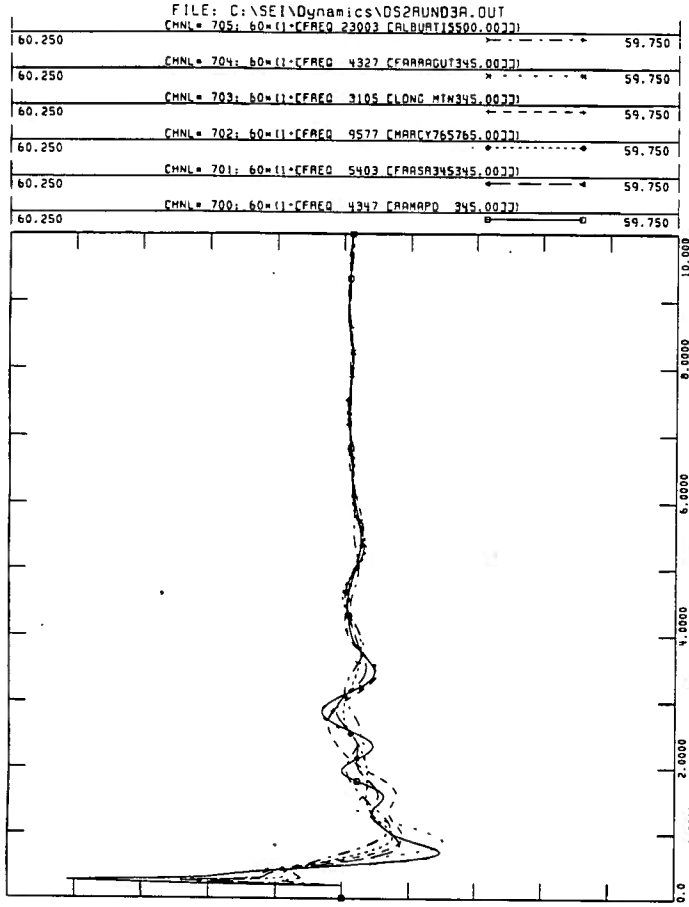
FRI, MAR 31 2000 13:31
RUN D3A PLOT 9

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



FRI, MAR 31 2000 13:31
RUN D3A PLOT 11

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT

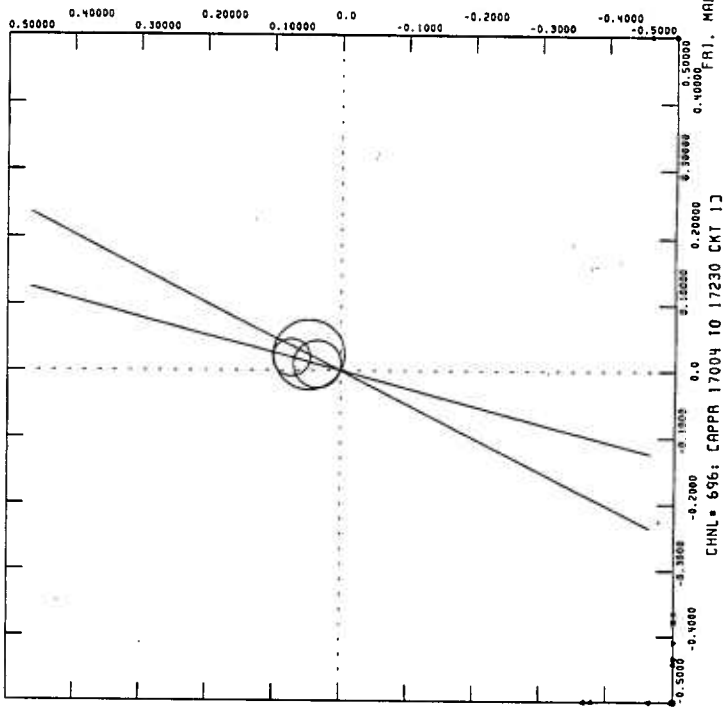


FRI, MAR 31 2000 13:31
RUN D3A PLOT 14

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3

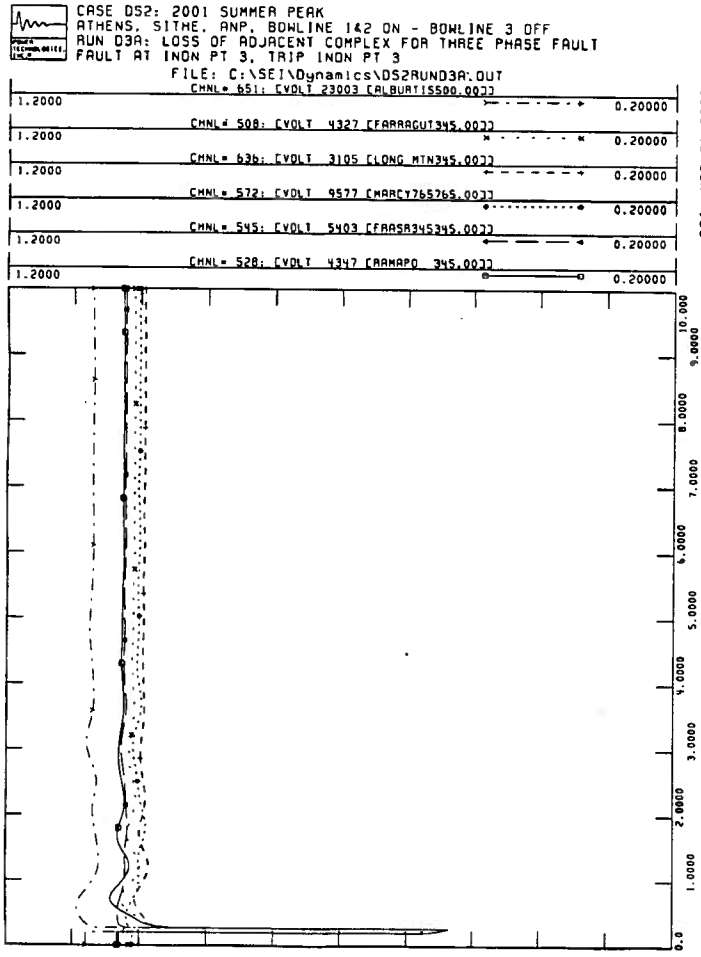
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT

RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



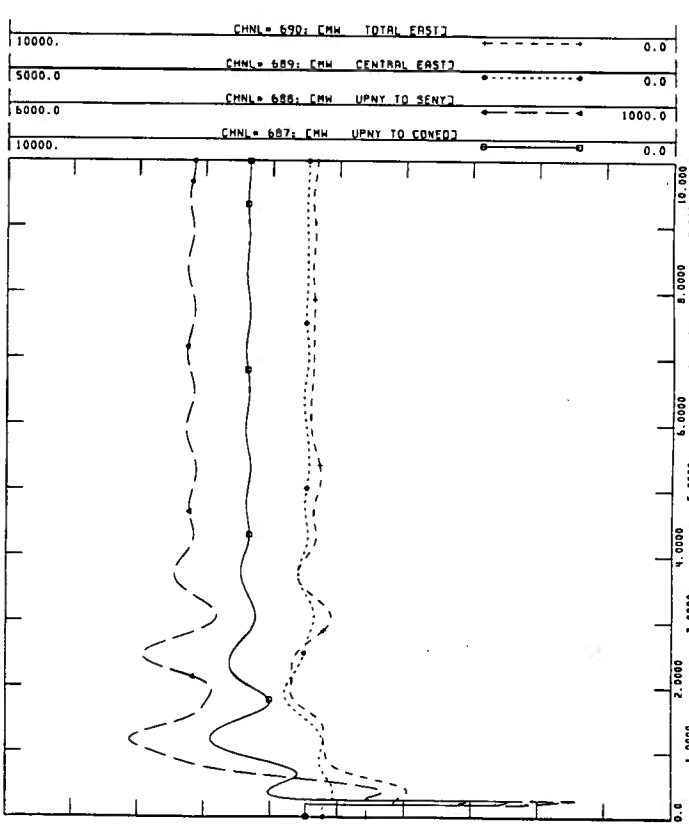
FRI, MAR 31 2000 13:31
RUN D3A PLOT 16

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT



FRI, MAR 31 2000 13:31
RUN D3A PLOT 13

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DS2RUND3A.OUT

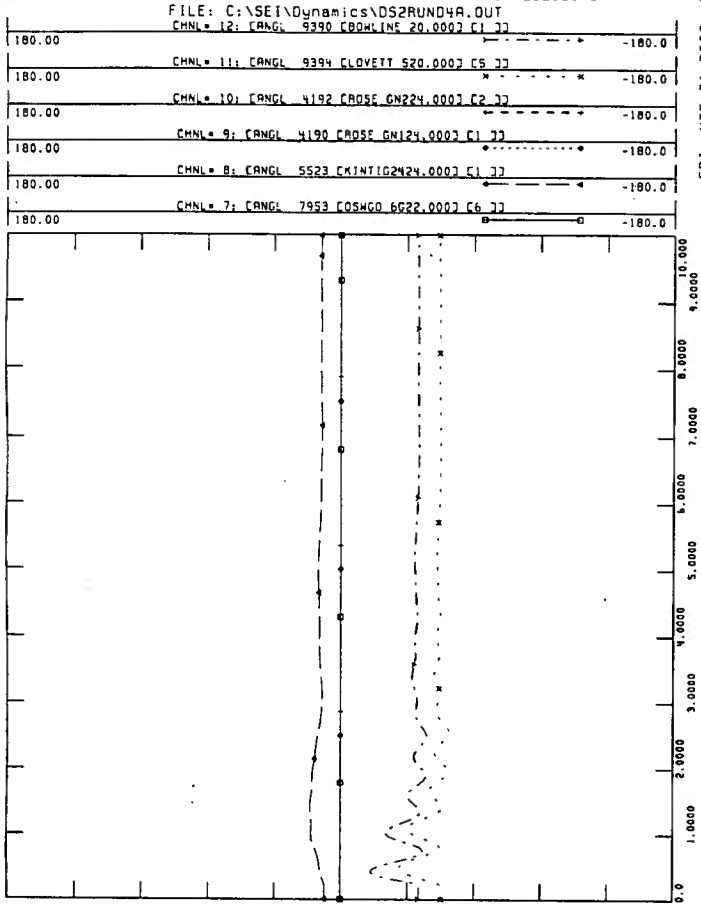


FRI, MAR 31 2000 13:31
RUN D3A PLOT 15

CONTINGENCY D4A

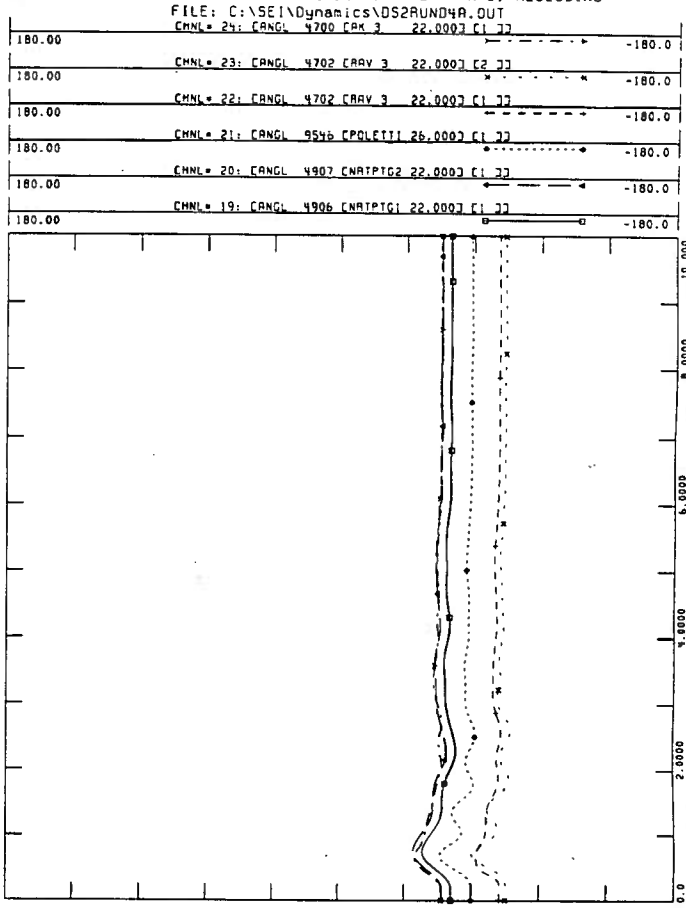
```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1             / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345  / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT



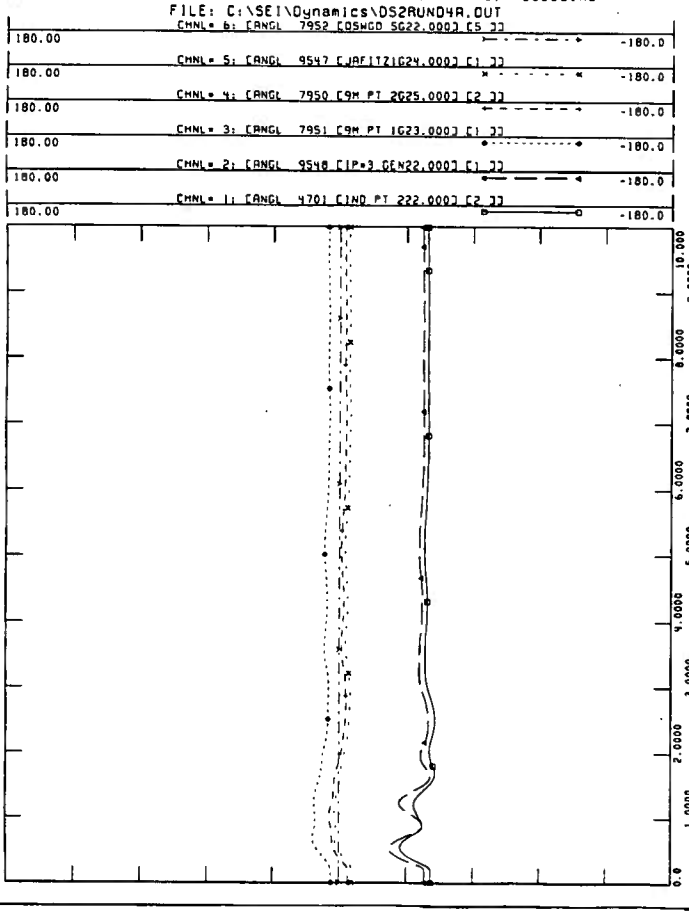
FRI, MAR 31 2000 13:31
RUN D4A PLOT 2

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT



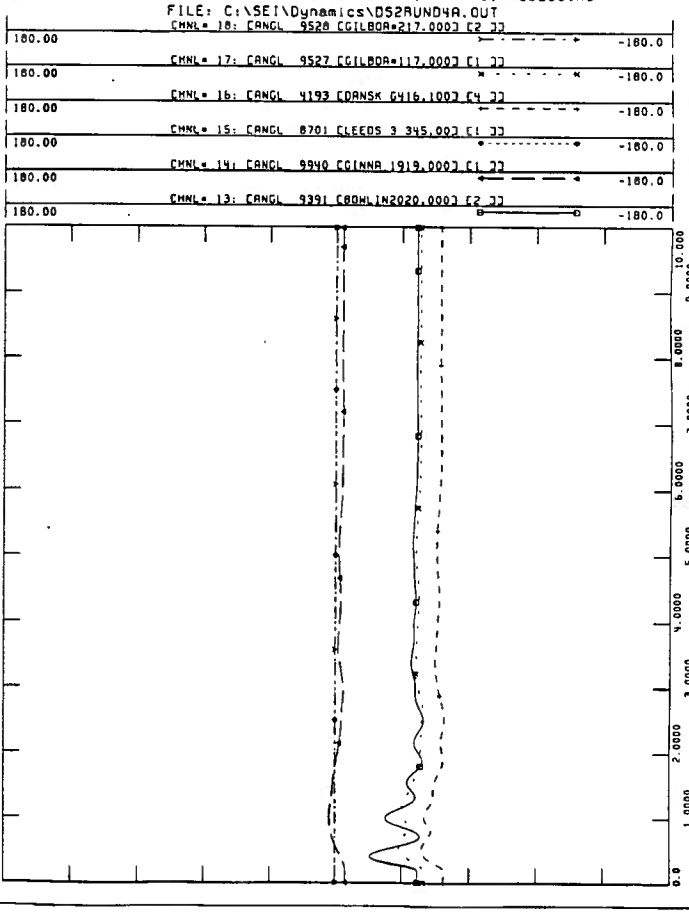
FRI, MAR 31 2000 13:31
RUN D4A PLOT 4

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT



FRI, MAR 31 2000 13:31
RUN D4A PLOT 1

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT



FRI, MAR 31 2000 13:31
RUN D4A PLOT 3

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

FRI, MAR 31 2000 13:31
RUN D4A PLOT 6

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 -180.0

FRI, MAR 31 2000 13:31
RUN D4A PLOT 8

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]

180.00 -180.0

FRI, MAR 31 2000 13:31
RUN D4A PLOT 5

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

180.00 -180.0

FRI, MAR 31 2000 13:31
RUN D4A PLOT 7

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

FRI, MAR 31 2000 13:31
RUN D4A PLOT 10

CHNL= 60: CANGL 23311 CMAIN CK424.0000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

FRI, MAR 31 2000 13:31
RUN D4A PLOT 12

CHNL= 70: CANGL 17472 CBLLONG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M I G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

FRI, MAR 31 2000 13:31
RUN D4A PLOT 9

CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GM22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNG1318.000] C1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

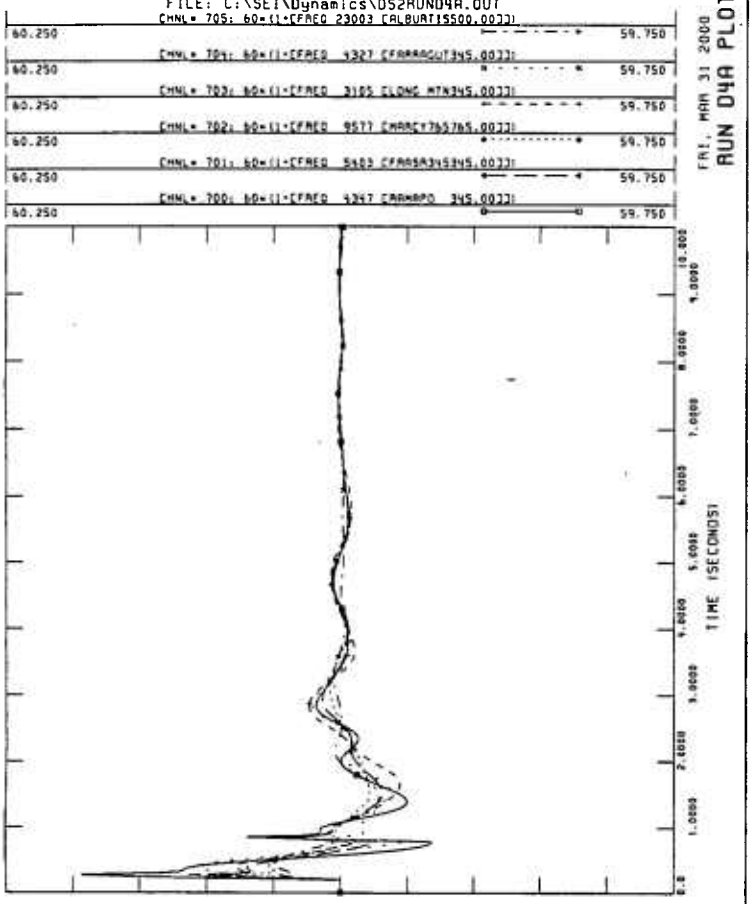
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

FRI, MAR 31 2000 13:31
RUN D4A PLOT 11

CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCAG1] C1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

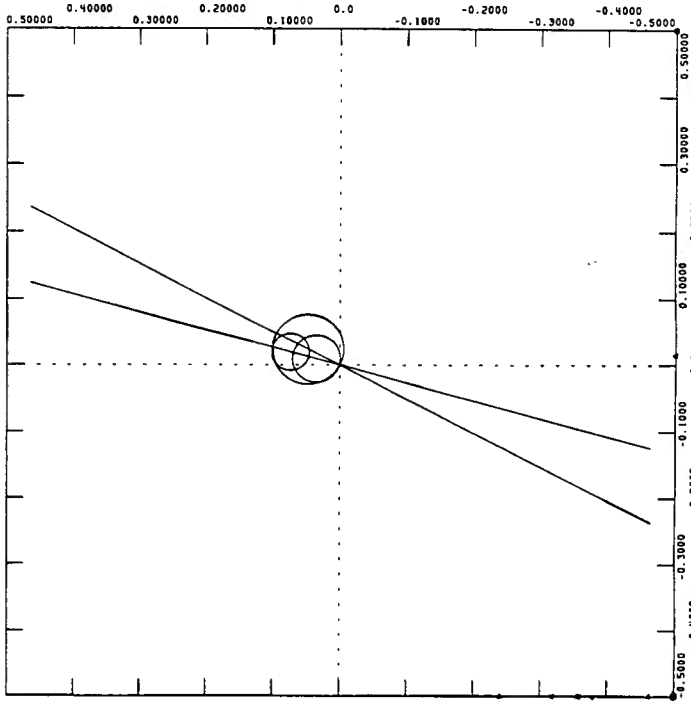
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT



FRI, MAR 31 2000 13:31
RUN D4A PLOT 14

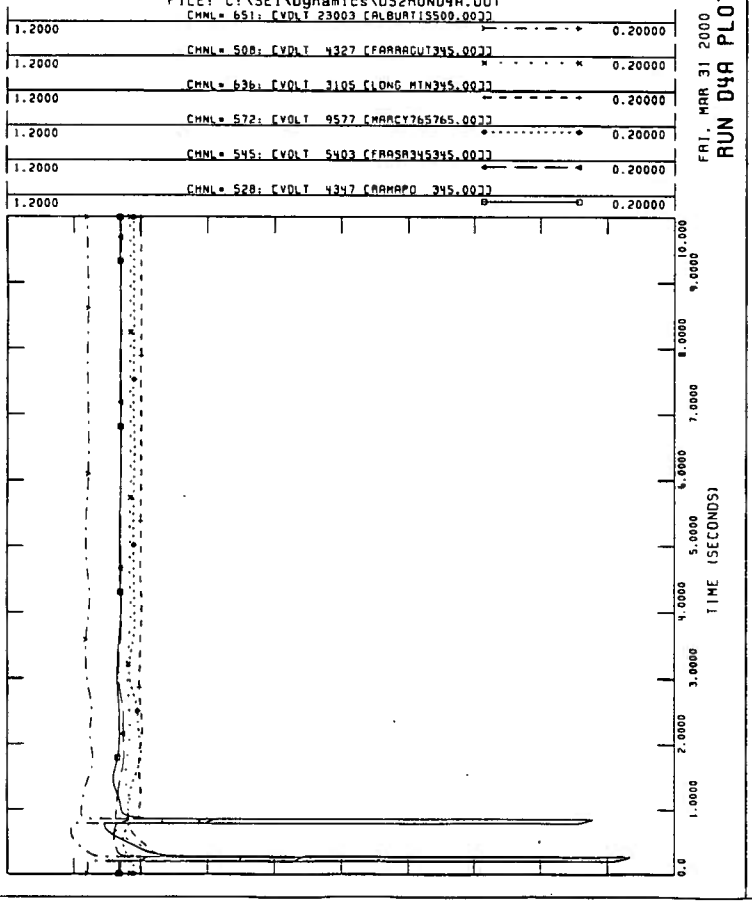
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DS2RUND4A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]



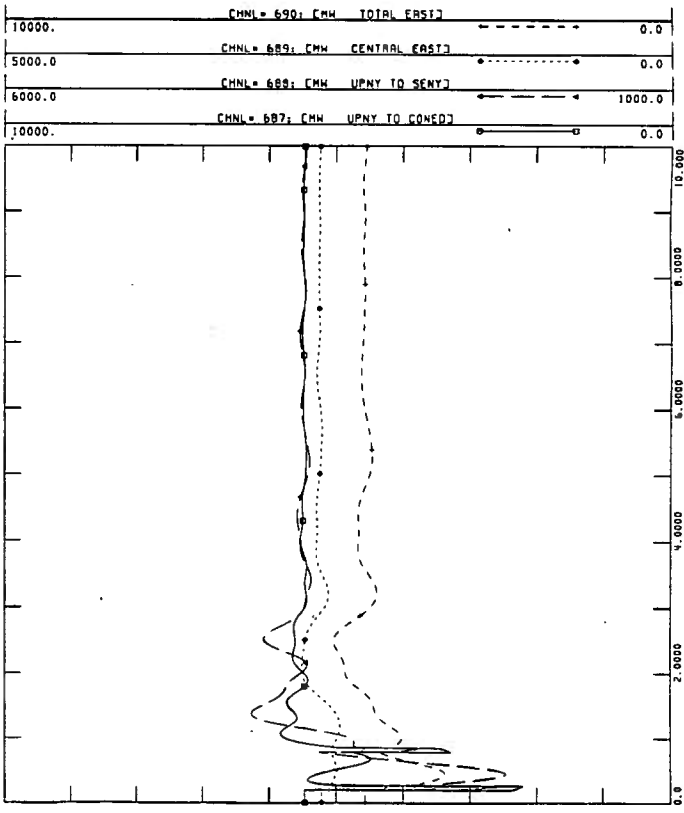
FRI, MAR 31 2000 13:31
RUN D4A PLOT 16

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT



FRI, MAR 31 2000 13:31
RUN D4A PLOT 13

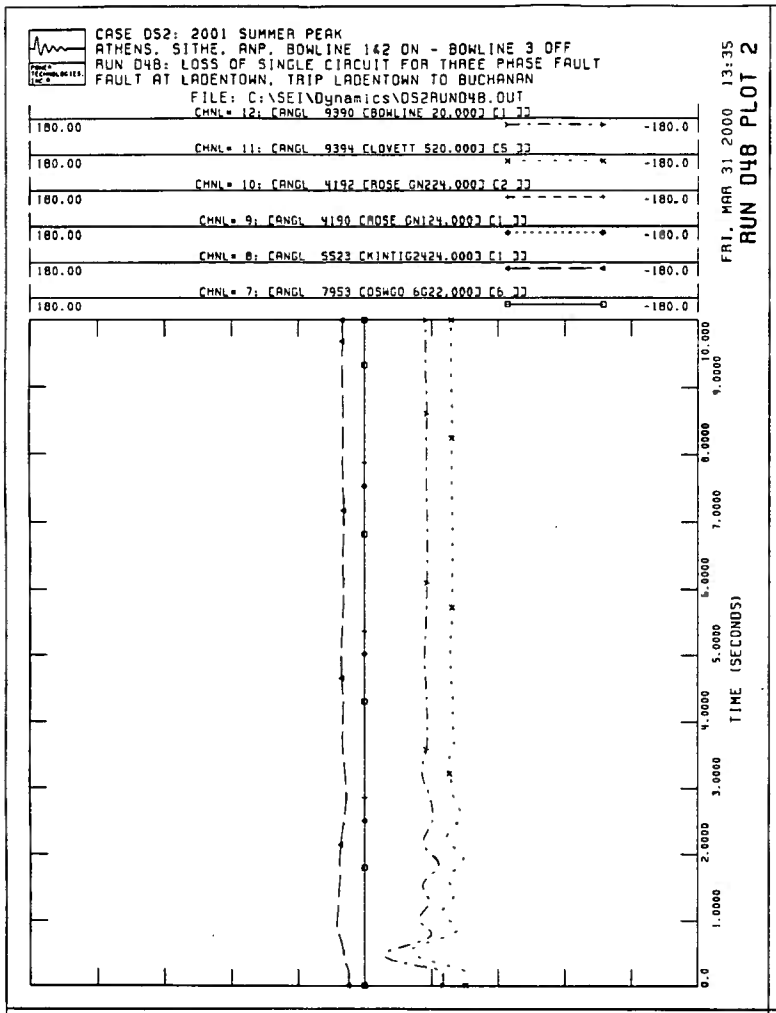
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS2RUND4A.OUT

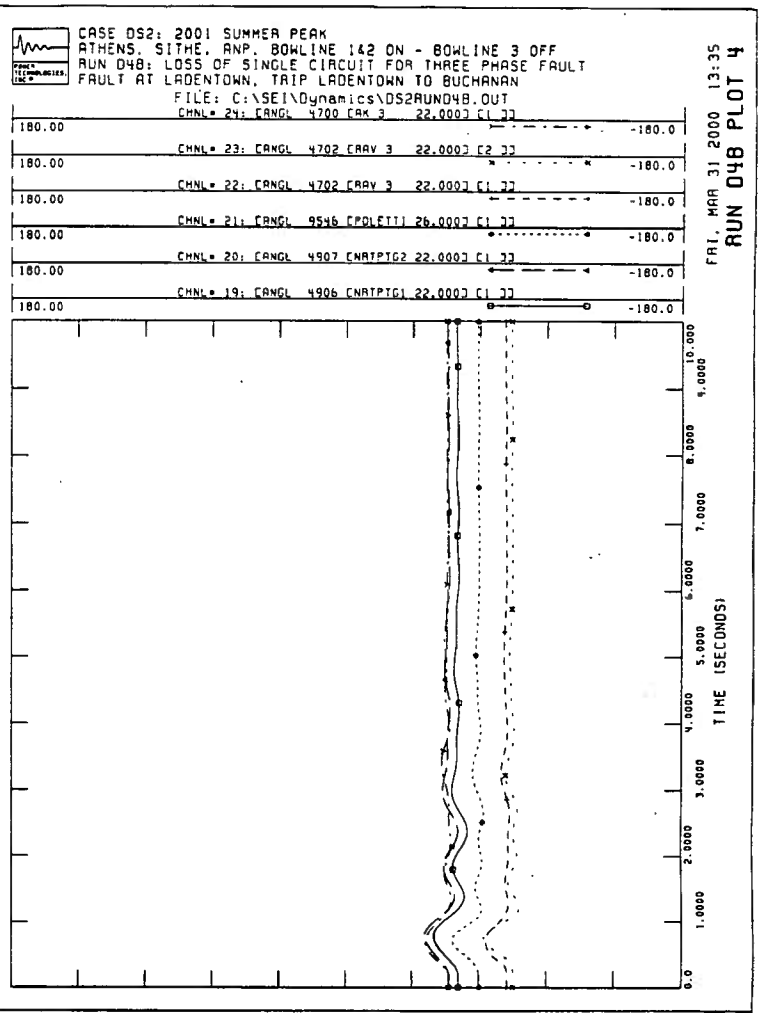


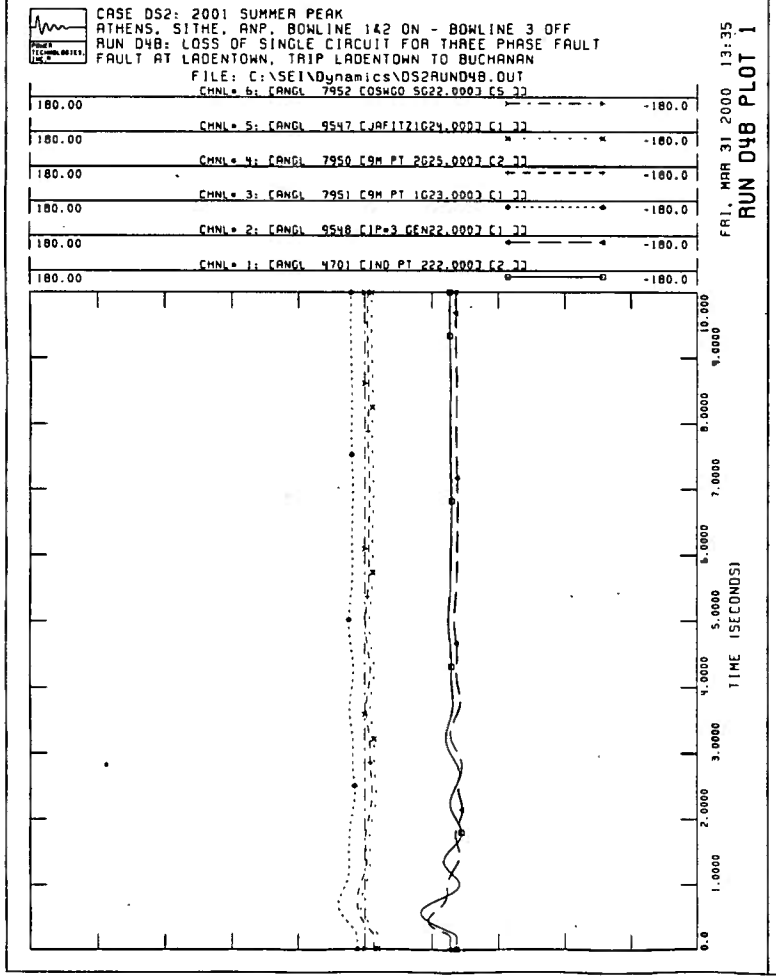
FRI, MAR 31 2000 13:31
RUN D4A PLOT 15

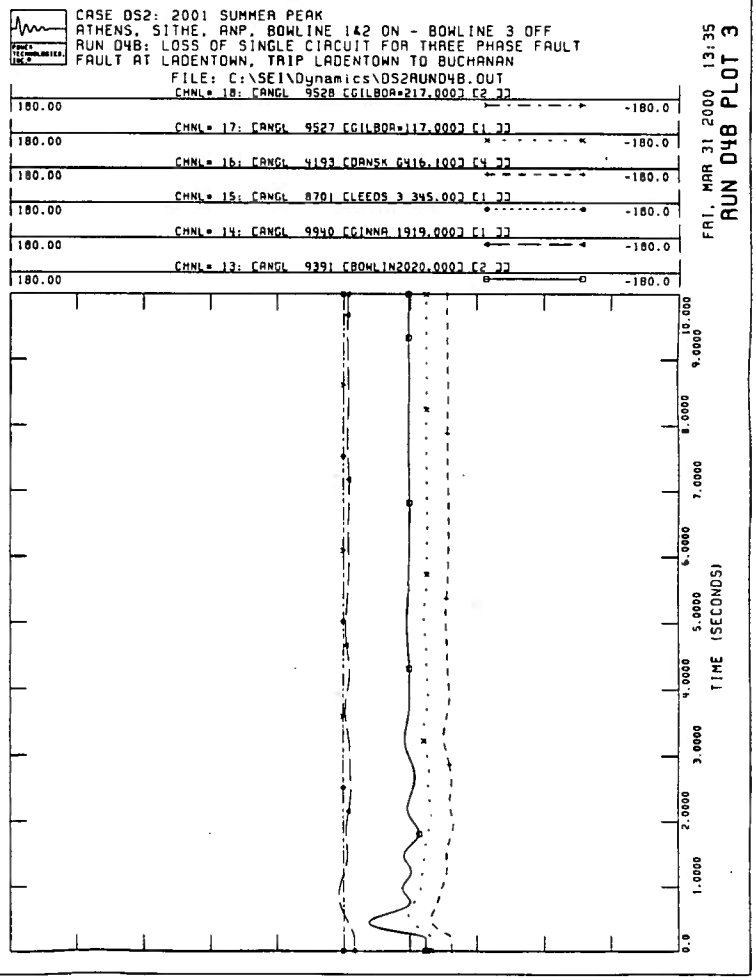
CONTINGENCY D4B

```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWEGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D48 PLOT 2
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNRTPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNRTPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D48 PLOT 4
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT
CHNL= 6: CANGL 7952 COSWEGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D48 PLOT 1
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D48 PLOT 3
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 6

CHNL= 36: CANGL 4357 CSITH_GT3[8.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT2[8.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT1[8.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM[6.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 / -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT[8.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT[8.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST[3.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT[6.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST[3.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT[6.000] C1]]

180.00 / -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CAAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CAAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CAAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CAAV 1 20.000] C1]]

180.00 / -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 7

CHNL= 42: CANGL 8707 CATHENSST[3.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT[6.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

180.00 / -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 10

CHNL= 60: [ANGL 23311 [MAIN CK324.000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC]22.000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SBRK G] 25.000] [1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 12

CHNL= 70: [ANGL 17472 [BLLONG2 19.000] [1]]
CHNL= 69: [ANGL 17456 [LEPRG] 26.000] [1]]
CHNL= 68: [ANGL 23194 [T M I G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

FRI, MAR 31 2000 13:35
RUN D48 PLOT 9

CHNL= 54: [ANGL 3648 [BPTMBR=322.000] [3]]
CHNL= 53: [ANGL 2371 [BP =4 GN22.000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNST 18.000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNCT318.000] [1]]
180.00 -180.0

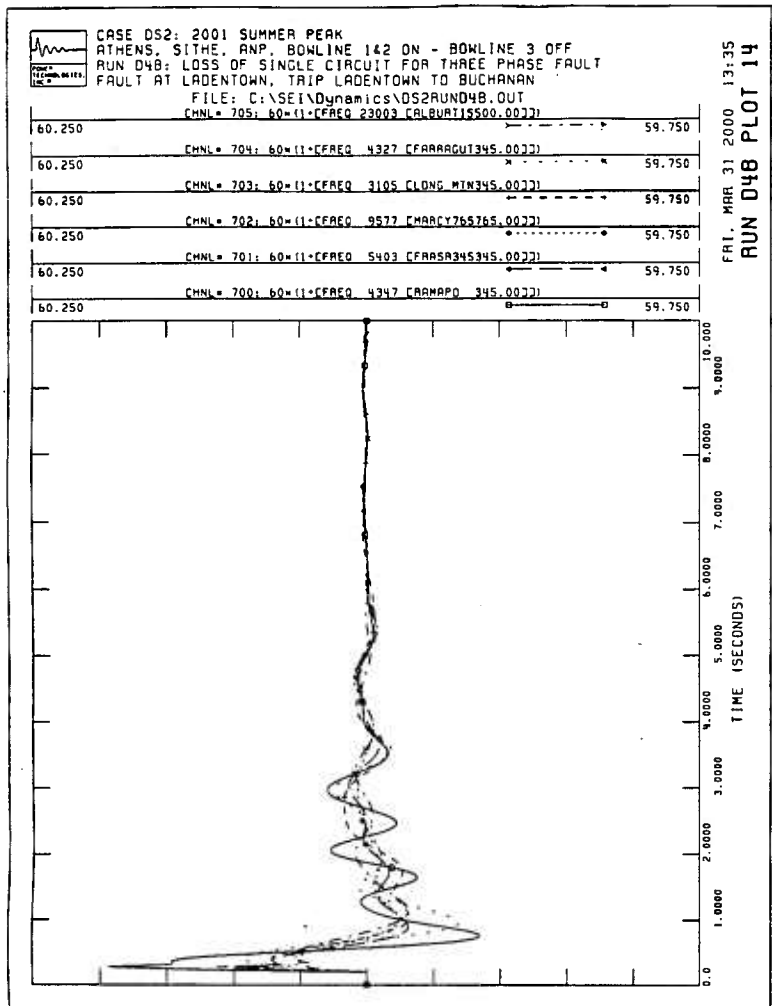
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

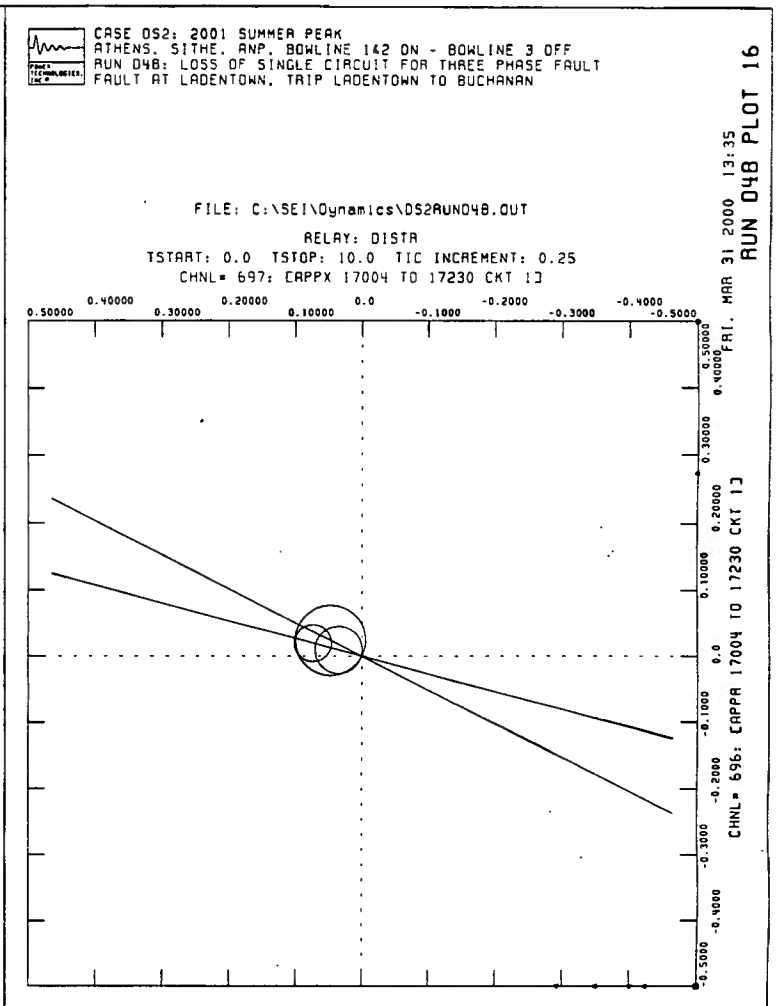
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND48.OUT

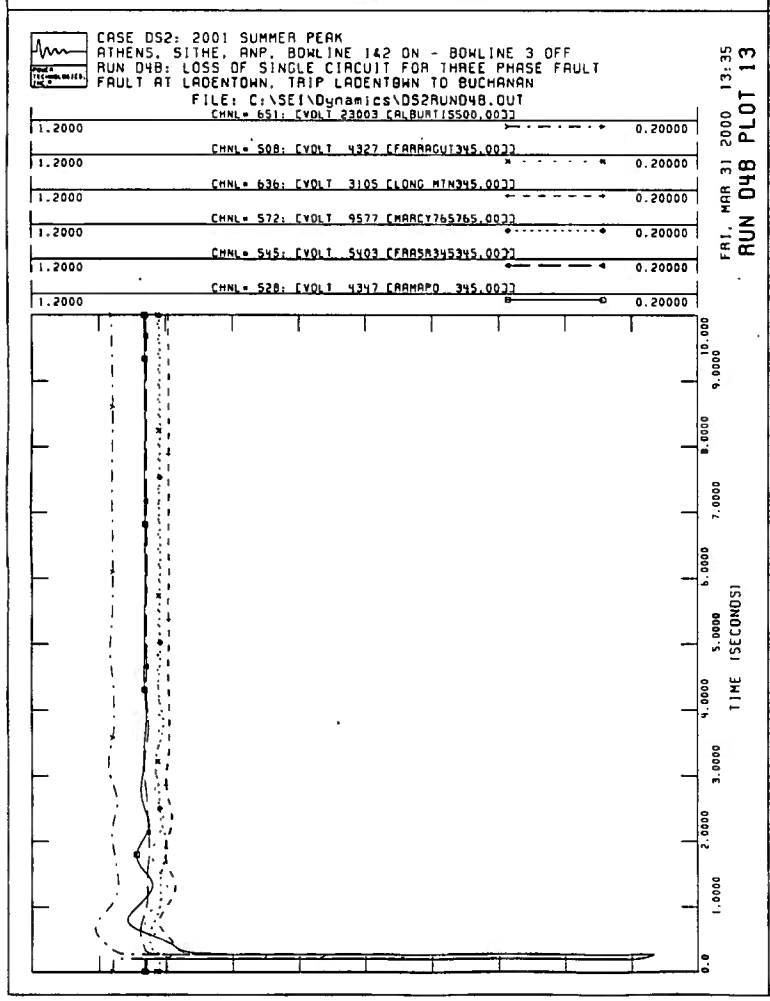
FRI, MAR 31 2000 13:35
RUN D48 PLOT 11

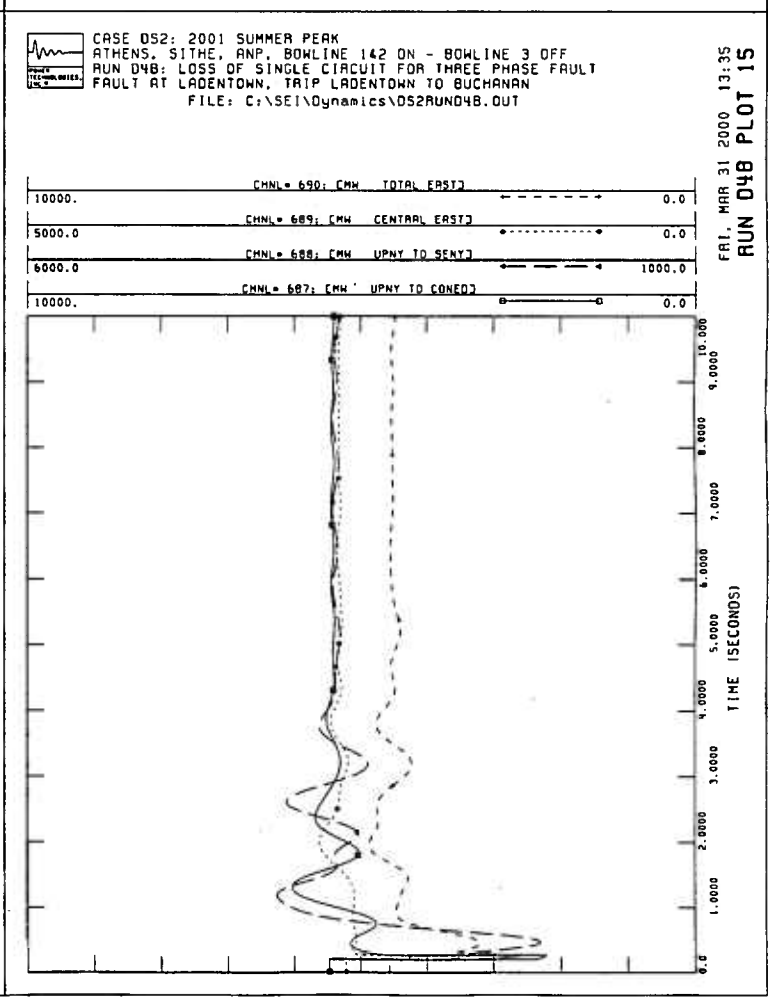
CHNL= 66: [ANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCMBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCMBTM=2] [1]]
CHNL= 61: [ANGL 23201 [CONSTEMG1] [1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND4B.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURT15500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 13:35
RUN D4B PLOT 14
TIME (SECONDS)

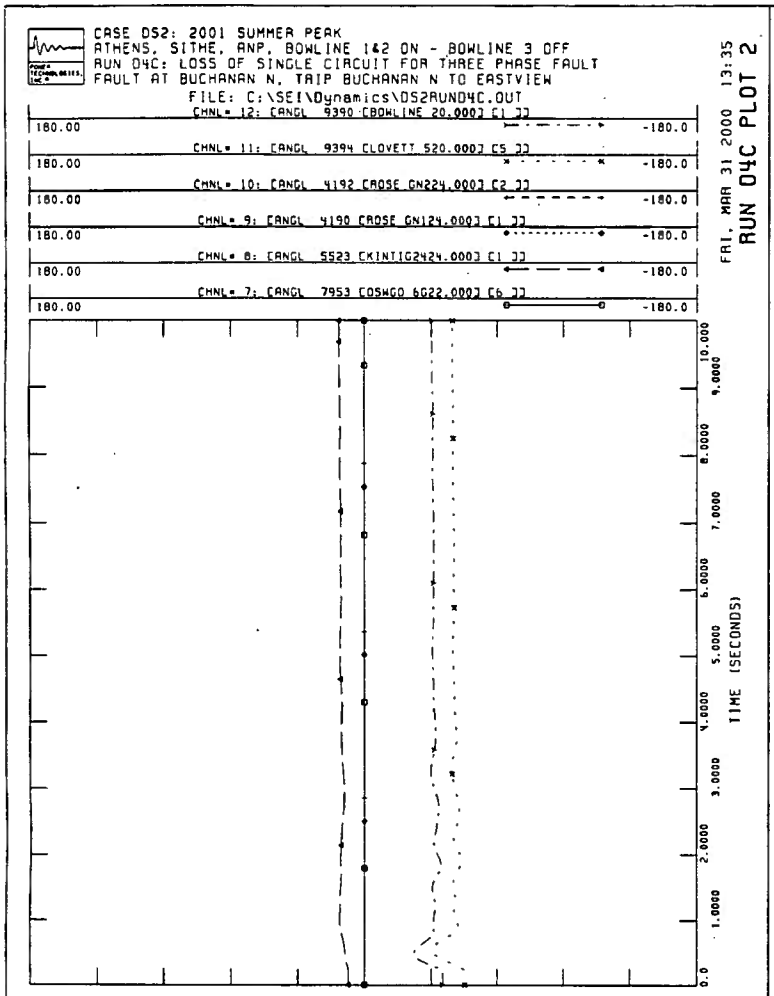

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND4B.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 13:35
RUN D4B PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

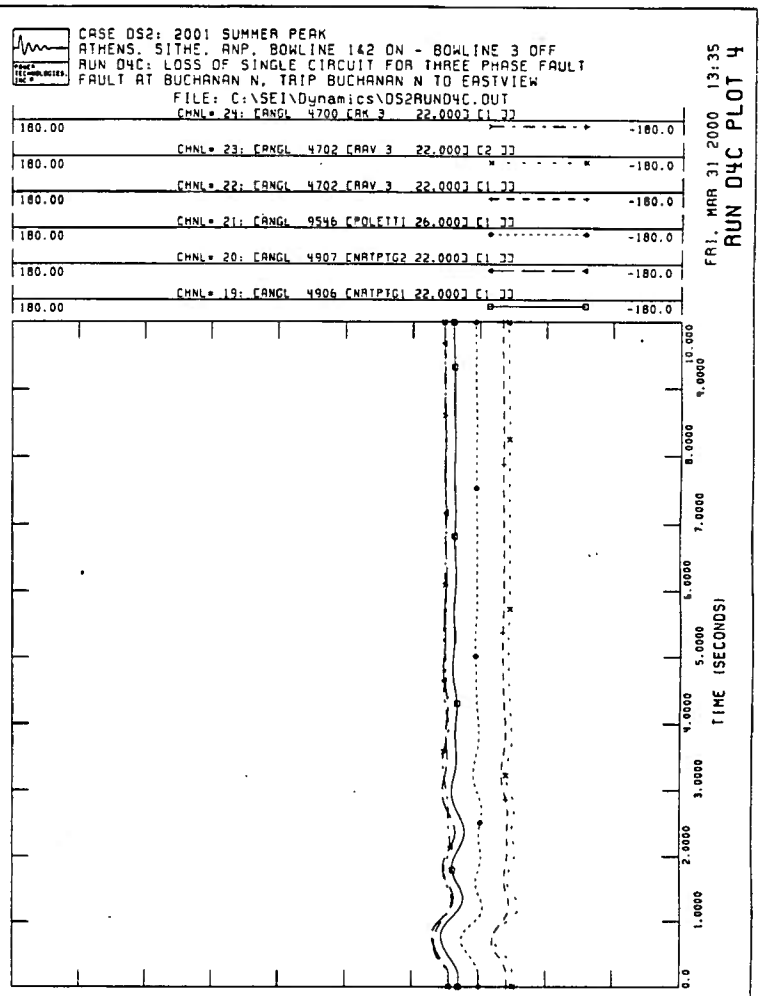

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND4B.OUT
CHNL= 651: [VOLT 23003 [ALBURT15500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 13:35
RUN D4B PLOT 13
TIME (SECONDS)

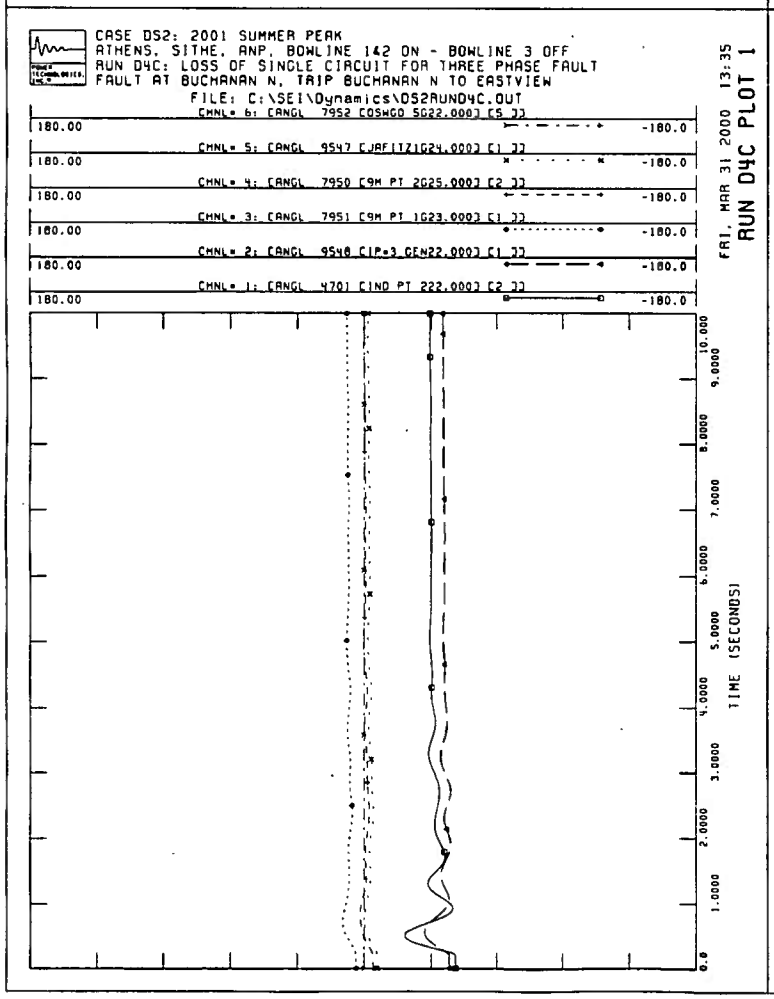

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS2RUND4B.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 13:35
RUN D4B PLOT 15
TIME (SECONDS)

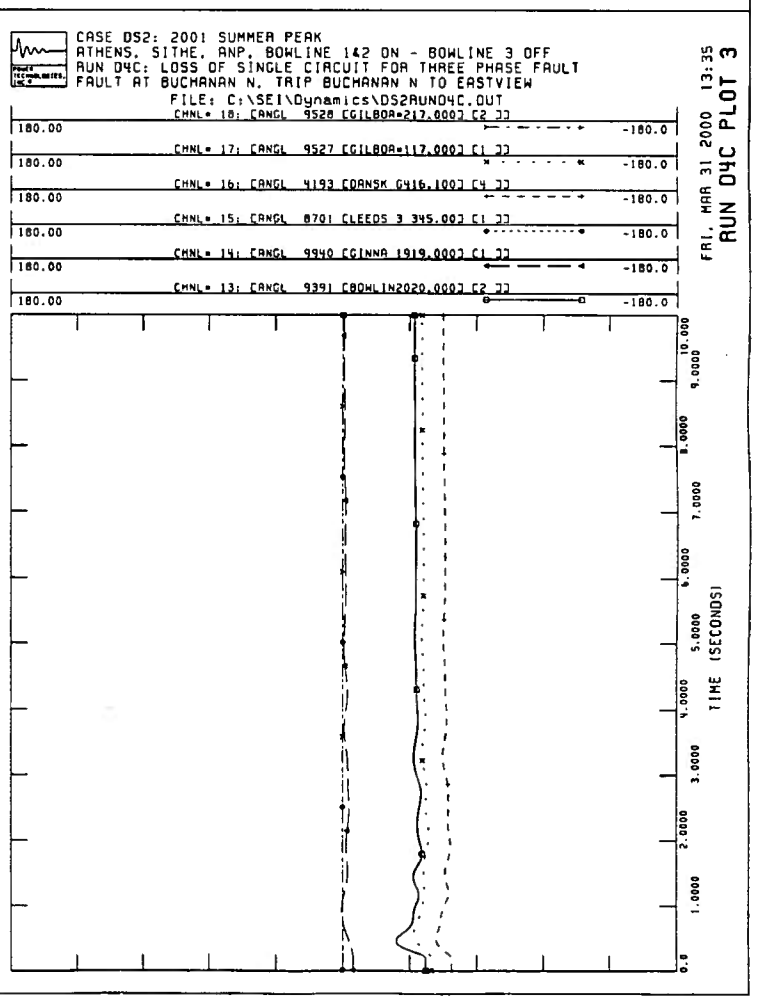
CONTINGENCY D4C

```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D4C PLOT 2
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 24: CANGL 4700 CBK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CBAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CBAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D4C PLOT 4
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D4C PLOT 1
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:35
RUN D4C PLOT 3
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT

FRI, MAR 31 2000 13:35
RUN D4C PLOT 6

CHNL= 36: CANGL 4357 CSITH_GT3[8.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT2[8.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT1[8.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM[6.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT

FRI, MAR 31 2000 13:35
RUN D4C PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT2[8.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT1[8.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST[3.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT[6.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST[3.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT[6.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT

FRI, MAR 31 2000 13:35
RUN D4C PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CAAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CAAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CAAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CAAV 1 20.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

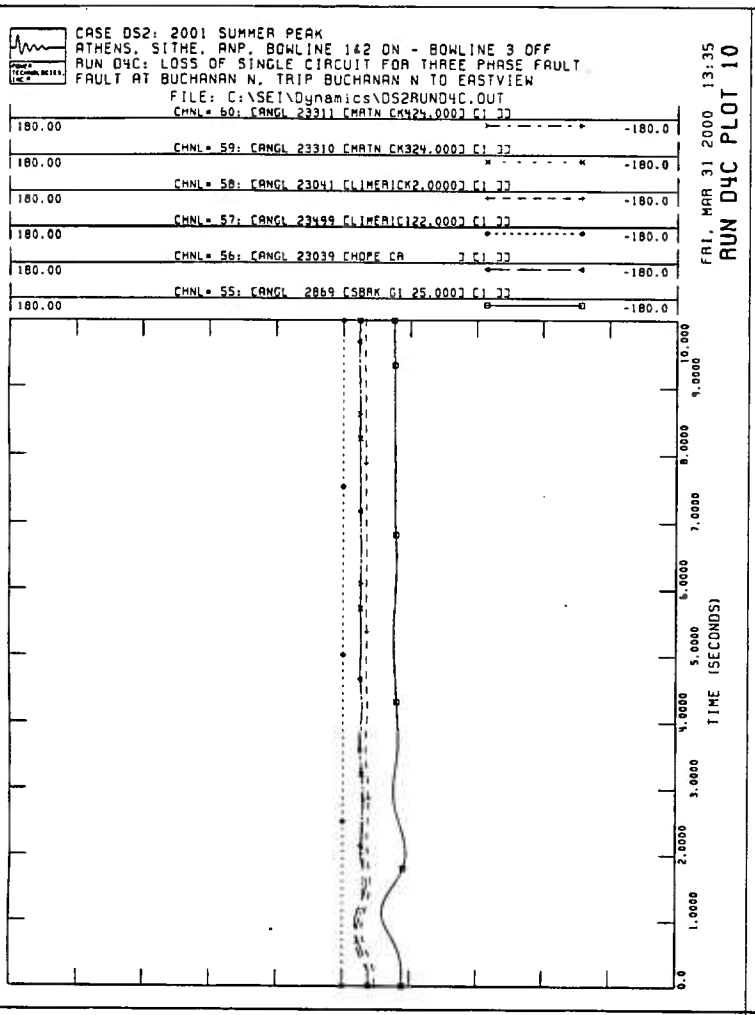
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT

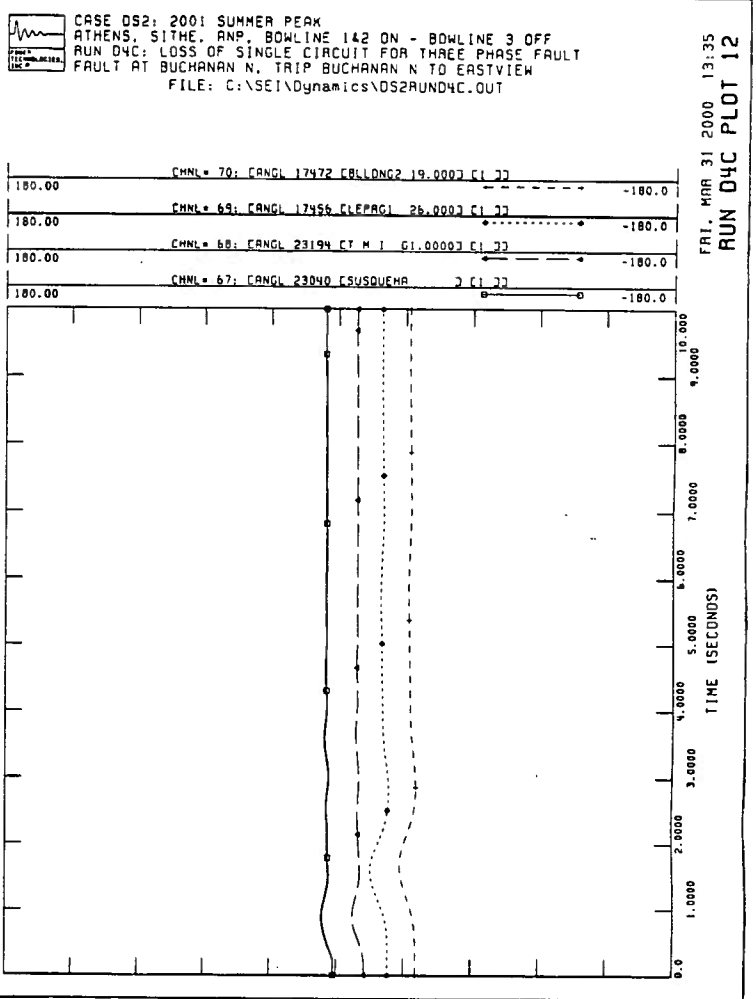
FRI, MAR 31 2000 13:35
RUN D4C PLOT 7

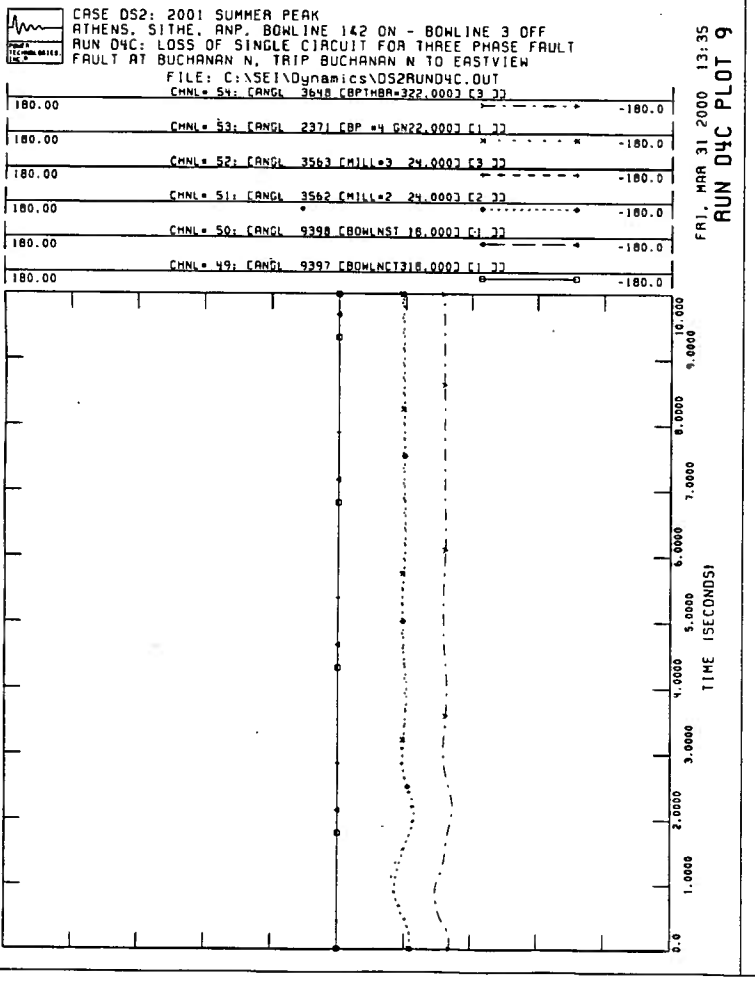
CHNL= 42: CANGL 8707 CATHENSST[3.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT[6.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

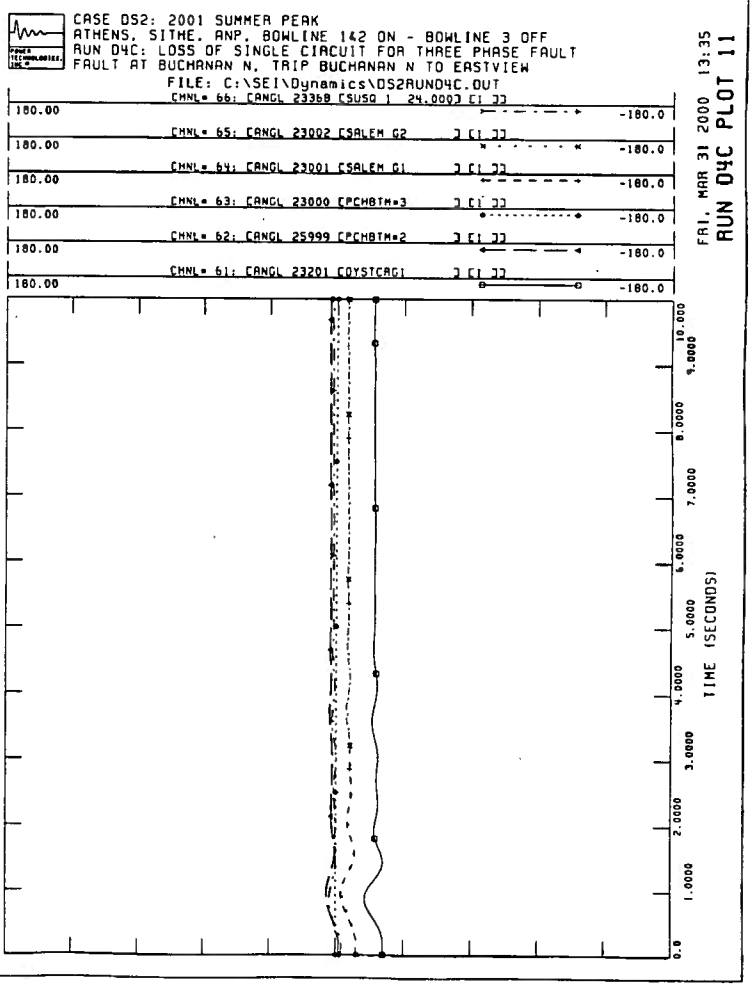
180.00 -180.0

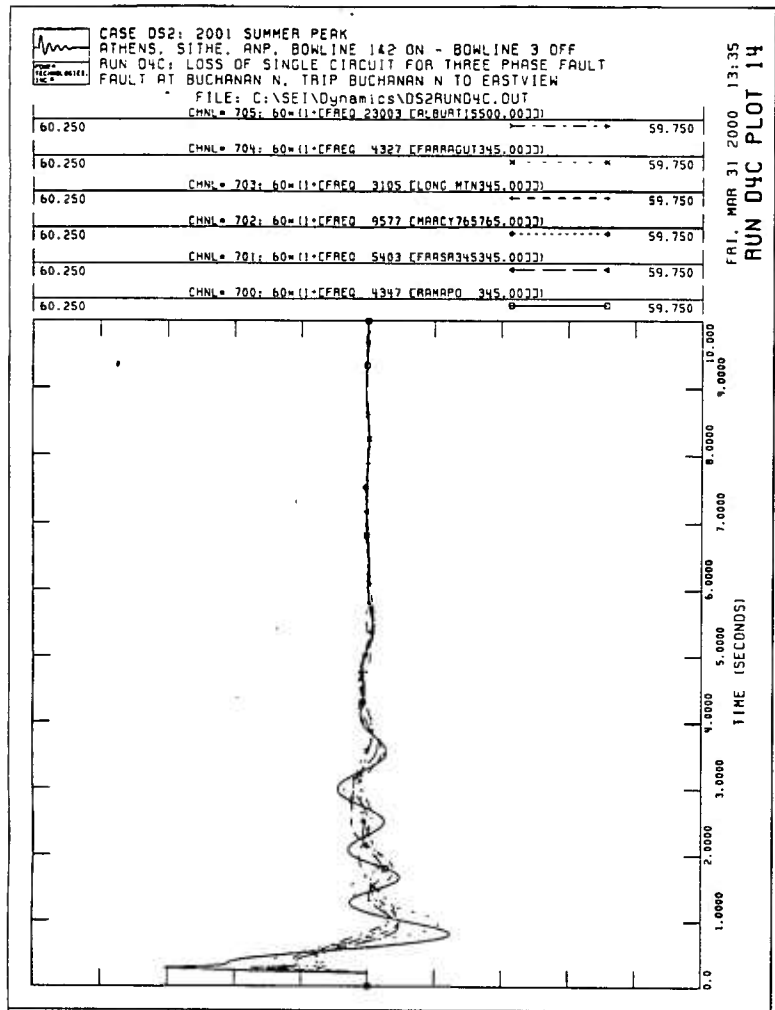
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

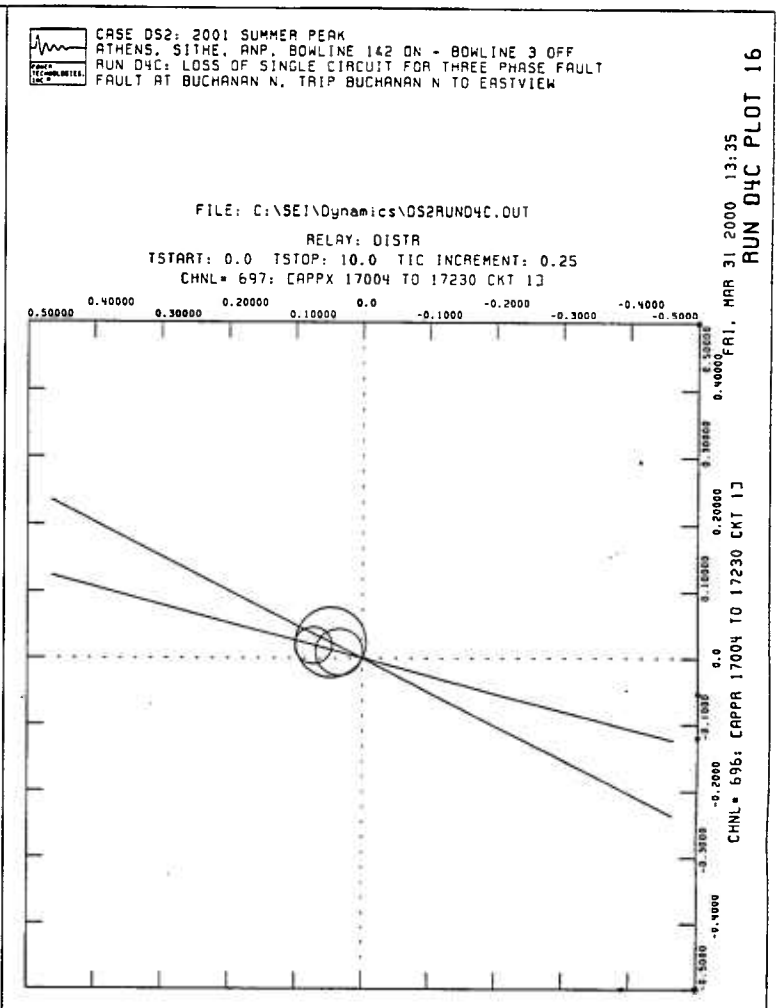

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 60: [ANGL 23311 [MAIN CK424.0000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.0000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.0000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SBRK G1 25.0000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:35
RUN D4C PLOT 10

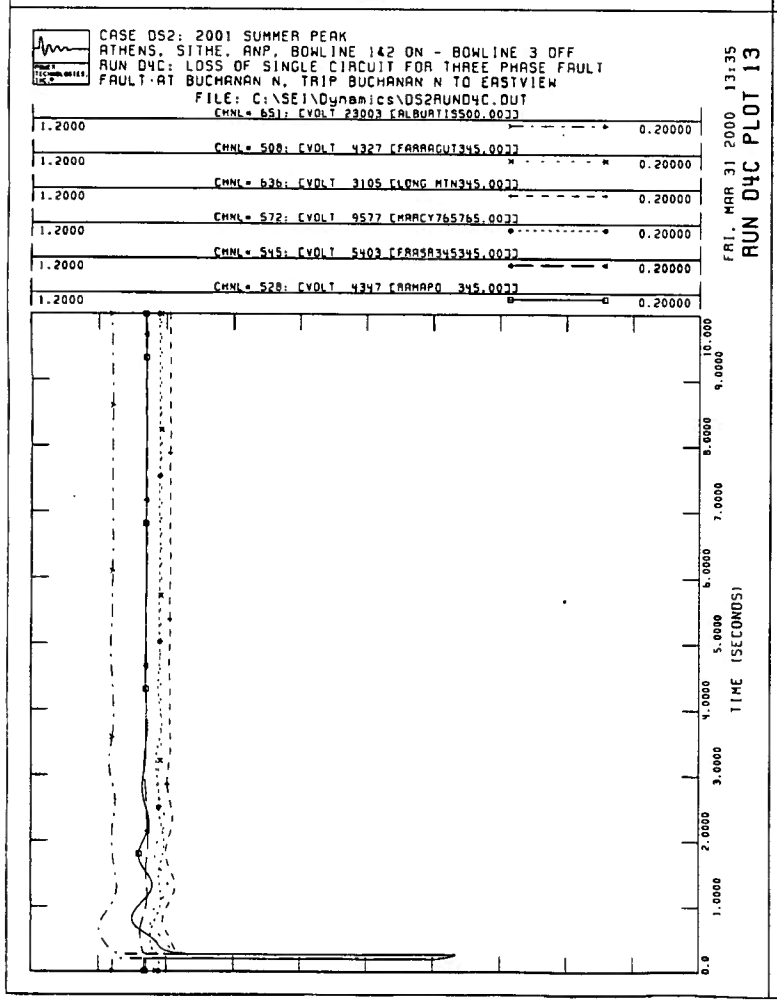

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 70: [ANGL 17472 [BLLDNG2 19.0000] [1]]
CHNL= 69: [ANGL 17456 [LEPAGE 26.0000] [1]]
CHNL= 68: [ANGL 23194 [T M I G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:35
RUN D4C PLOT 12

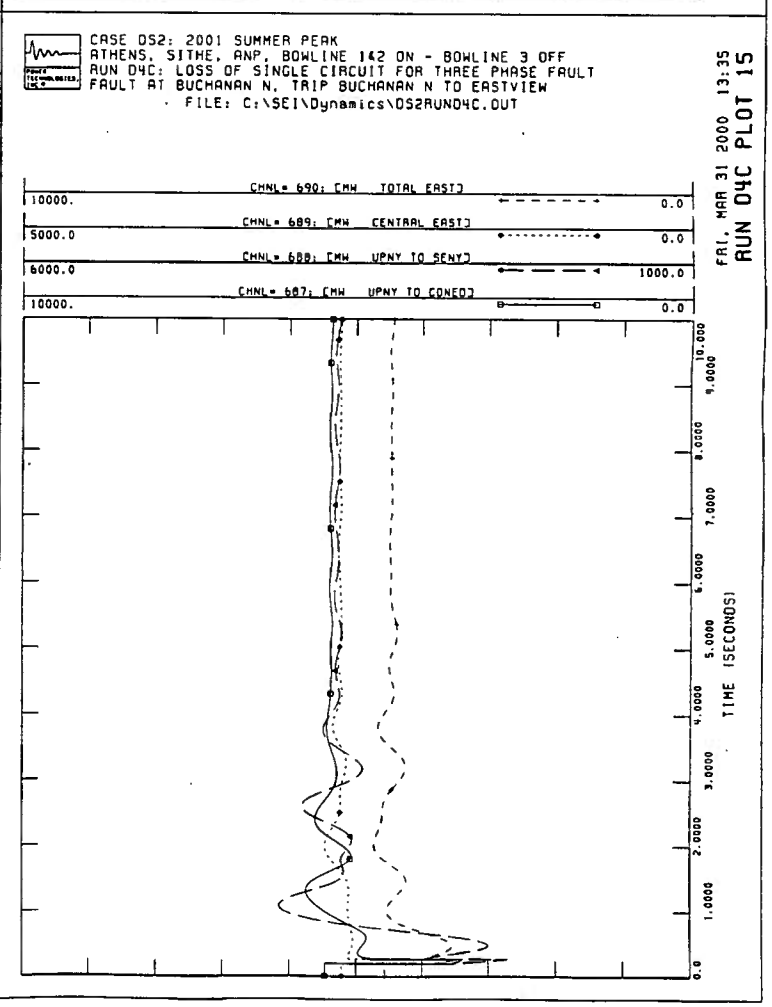

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 54: [ANGL 3648 [BPTHBA=322.0000] [3]]
CHNL= 53: [ANGL 2371 [BP #4 GN22.0000] [1]]
CHNL= 52: [ANGL 3563 [MILL#3 24.0000] [3]]
CHNL= 51: [ANGL 3562 [MILL#2 24.0000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNST 18.0000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNCT318.0000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:35
RUN D4C PLOT 9


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 66: [ANGL 23368 [SUSQ 1 24.0000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: [ANGL 23201 [COYSTCAG1] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:35
RUN D4C PLOT 11


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURTIS500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 13:35
RUN D4C PLOT 14
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 13:35
RUN D4C PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

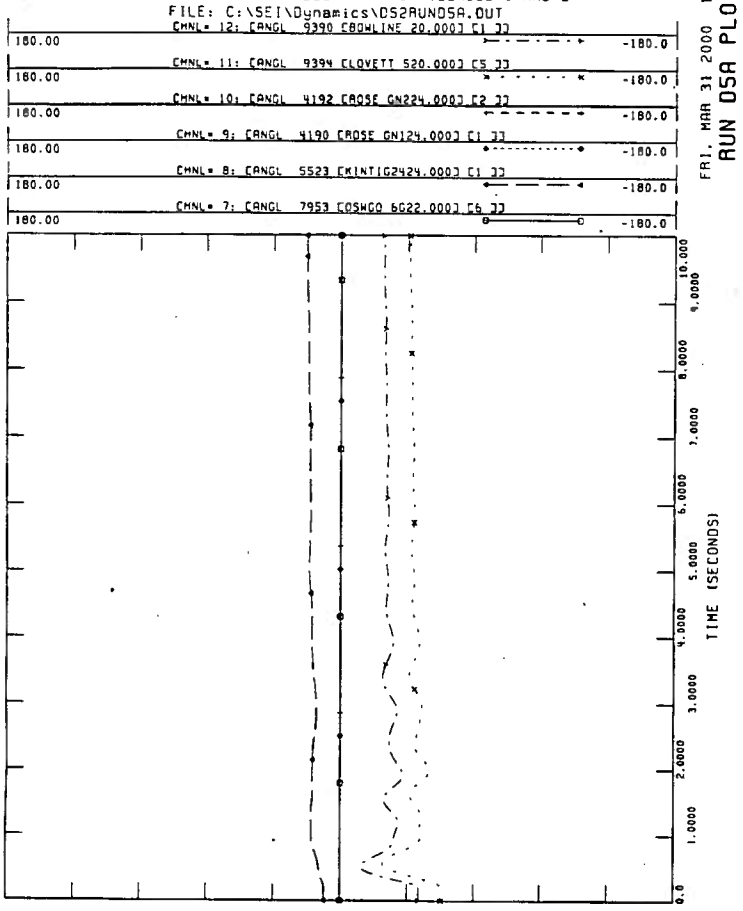

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 13:35
RUN D4C PLOT 13
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS2RUND4C.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 13:35
RUN D4C PLOT 15
TIME (SECONDS)

CONTINGENCY D5A

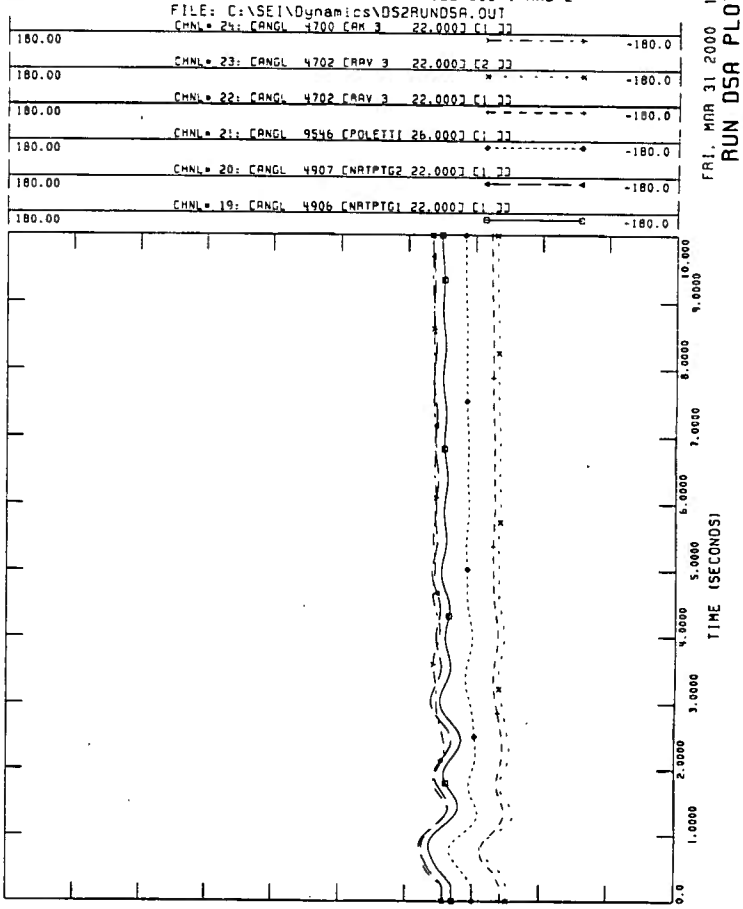
```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1              / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2              / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



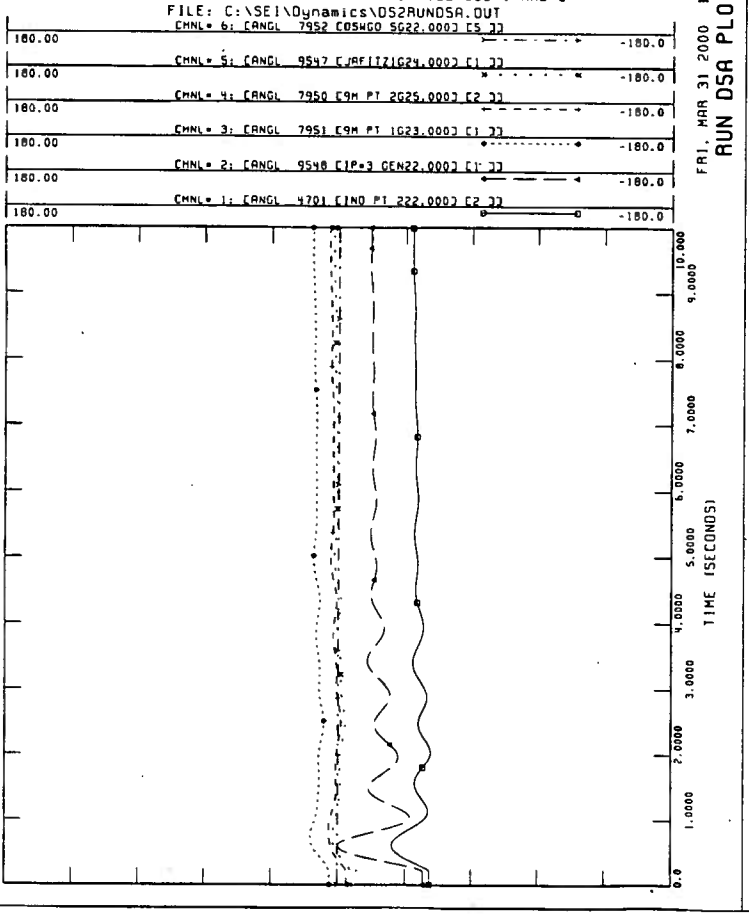
FRI, MAR 31 2000 13:35
RUN DSA PLOT 2

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



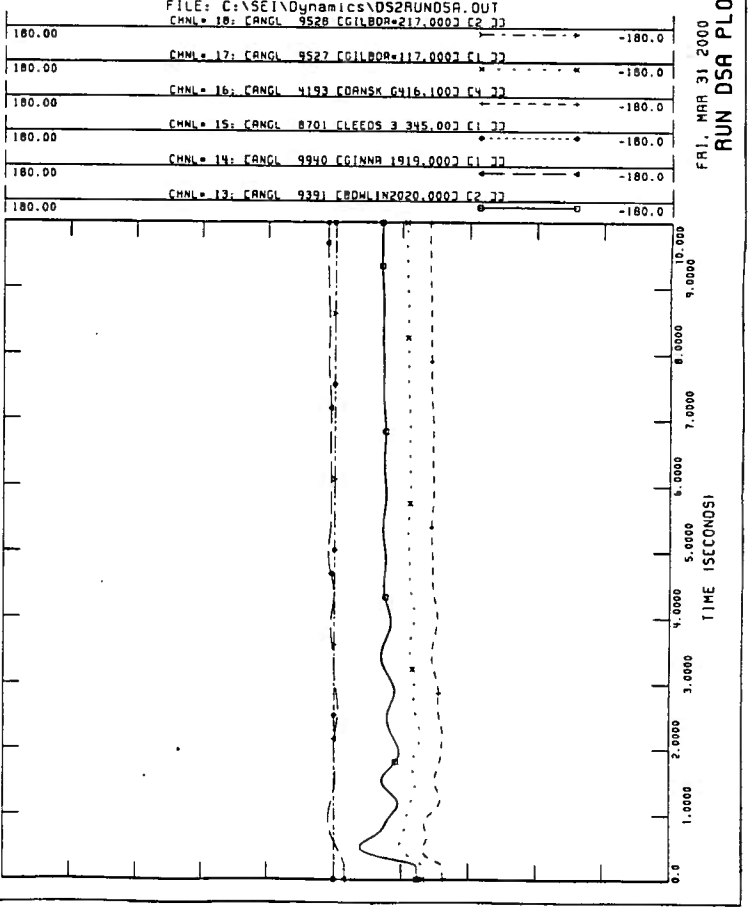
FRI, MAR 31 2000 13:35
RUN DSA PLOT 4

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



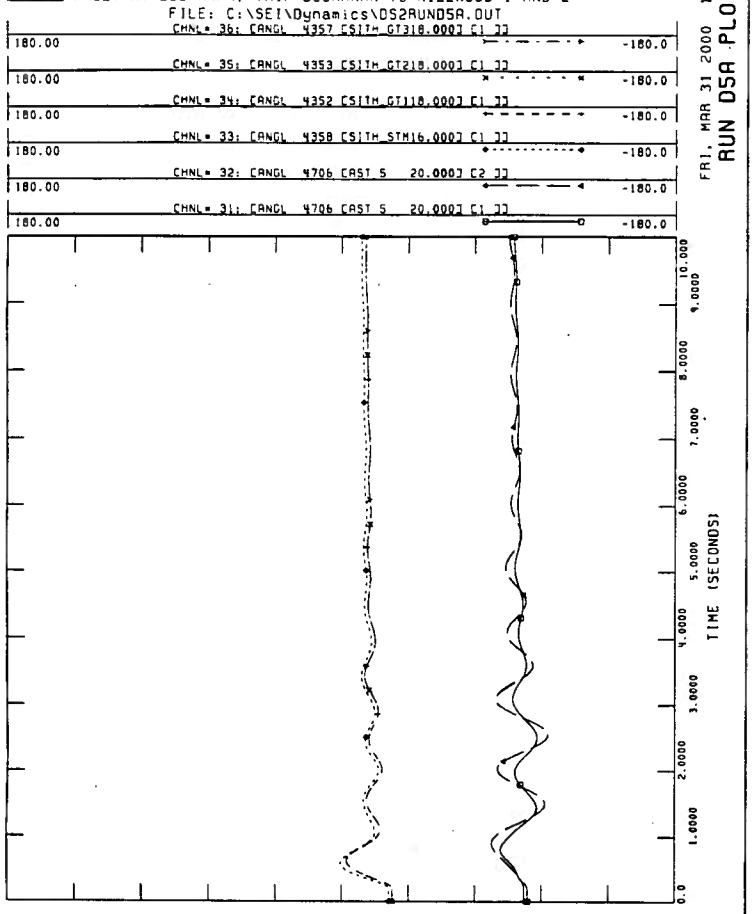
FRI, MAR 31 2000 13:35
RUN DSA PLOT 1

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



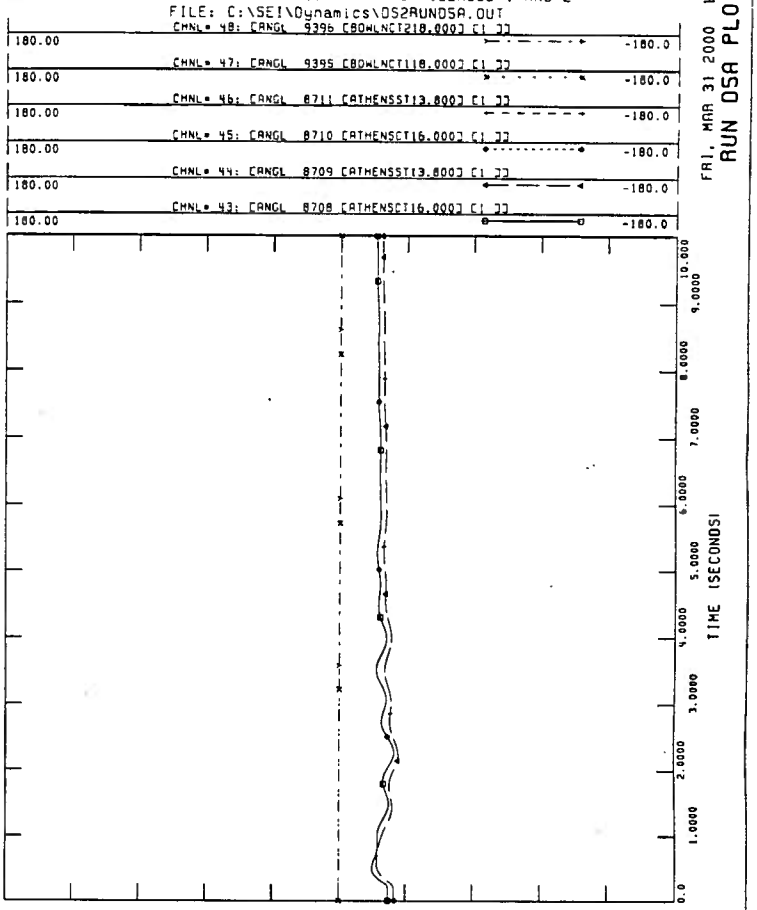
FRI, MAR 31 2000 13:35
RUN DSA PLOT 3

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



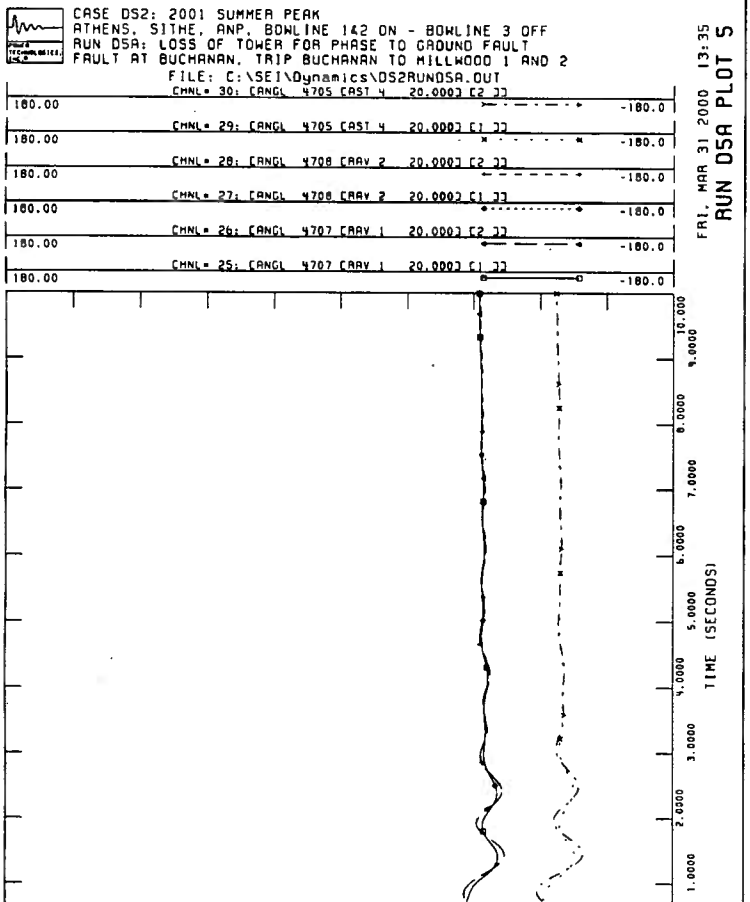
FRI, MAR 31 2000 13:35
RUN DSA PLOT 6

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



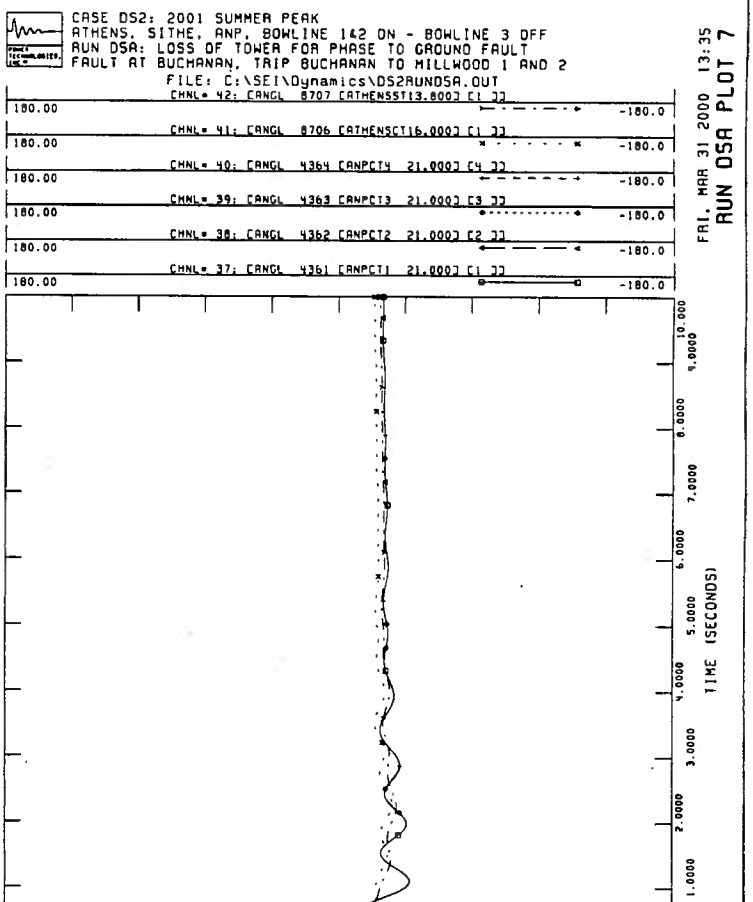
FRI, MAR 31 2000 13:35
RUN DSA PLOT 8

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



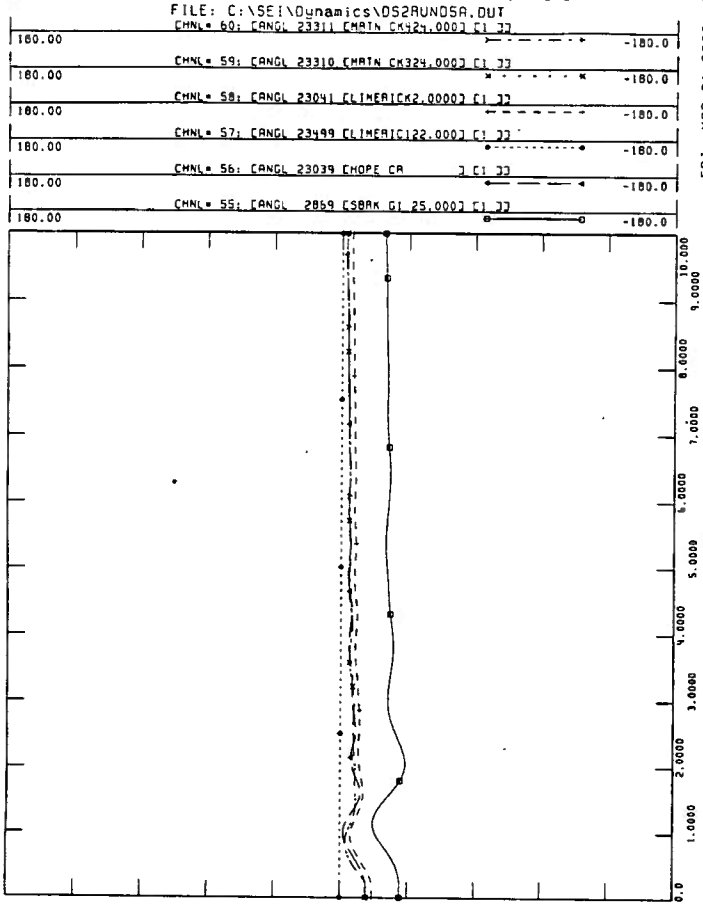
FRI, MAR 31 2000 13:35
RUN DSA PLOT 5

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



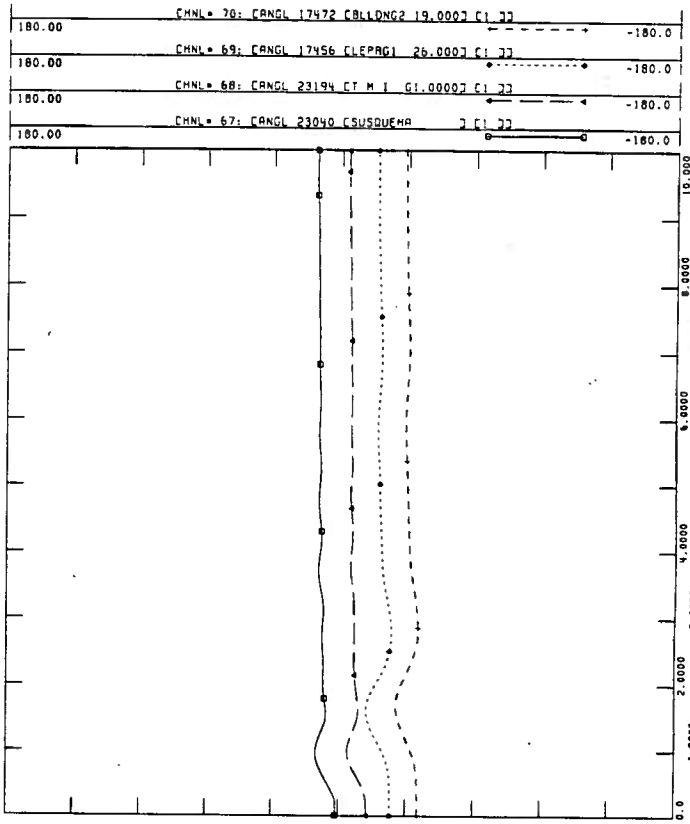
FRI, MAR 31 2000 13:35
RUN DSA PLOT 7

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



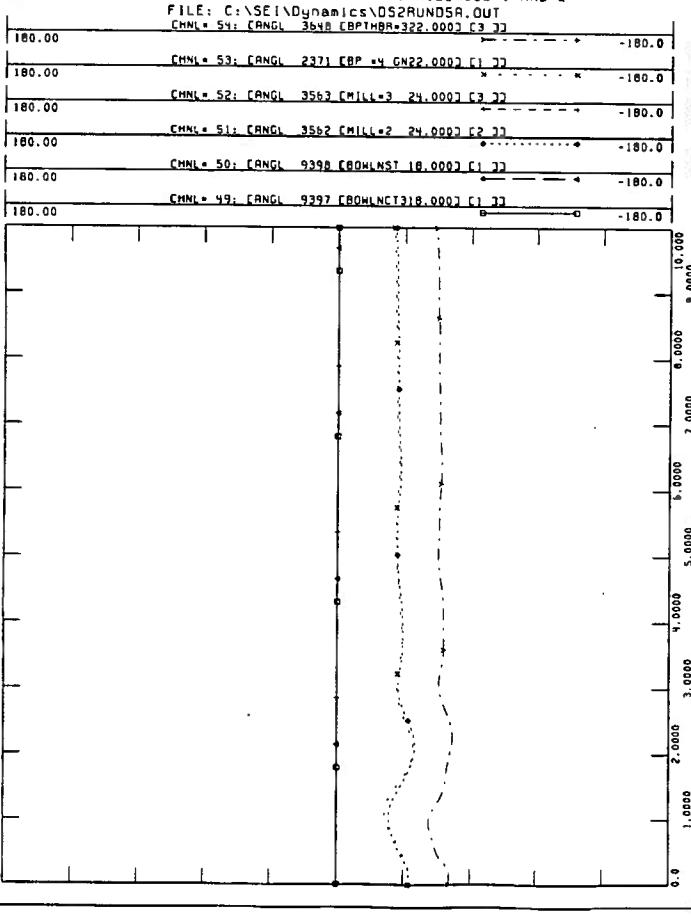
FRI, MAR 31 2000 13:35
RUN DSA PLOT 10

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



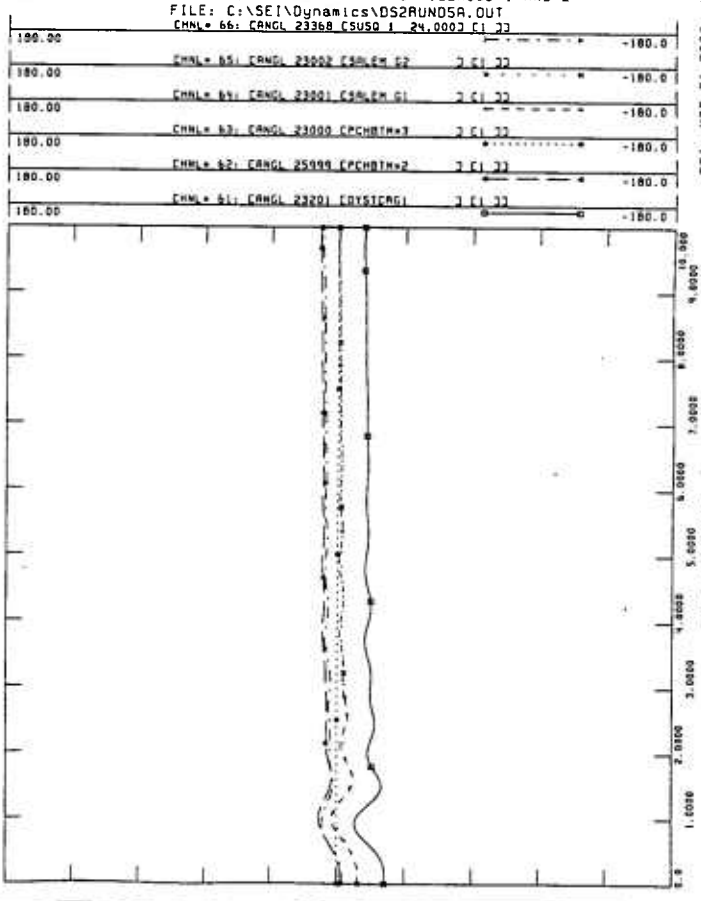
FRI, MAR 31 2000 13:35
RUN DSA PLOT 12

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



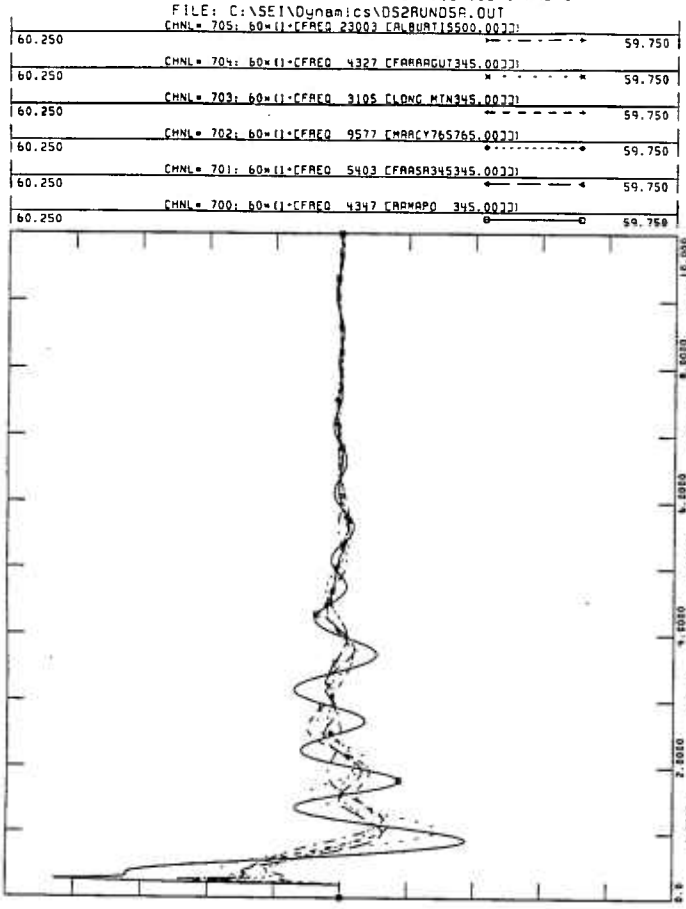
FRI, MAR 31 2000 13:35
RUN DSA PLOT 9

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



FRI, MAR 31 2000 13:35
RUN DSA PLOT 11

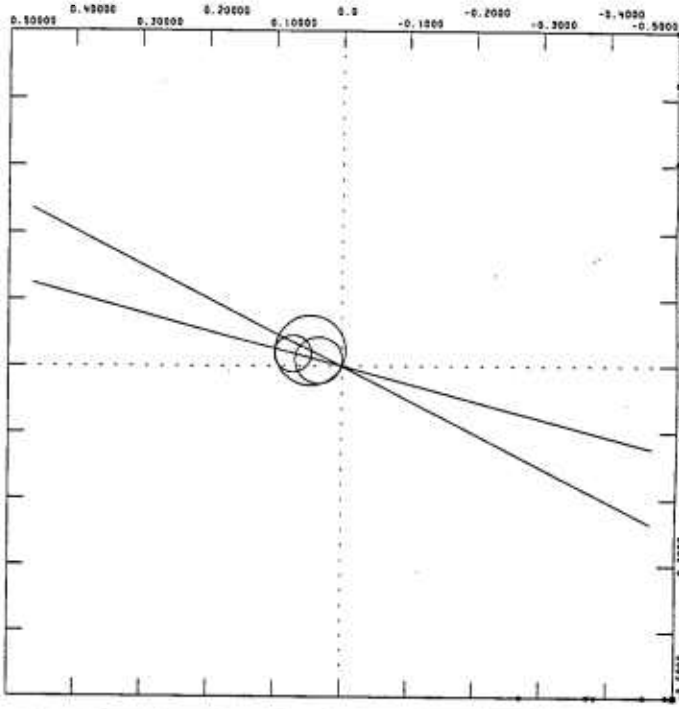
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



FRI, MAR 31 2000 13:35
RUN DSA PLOT 14

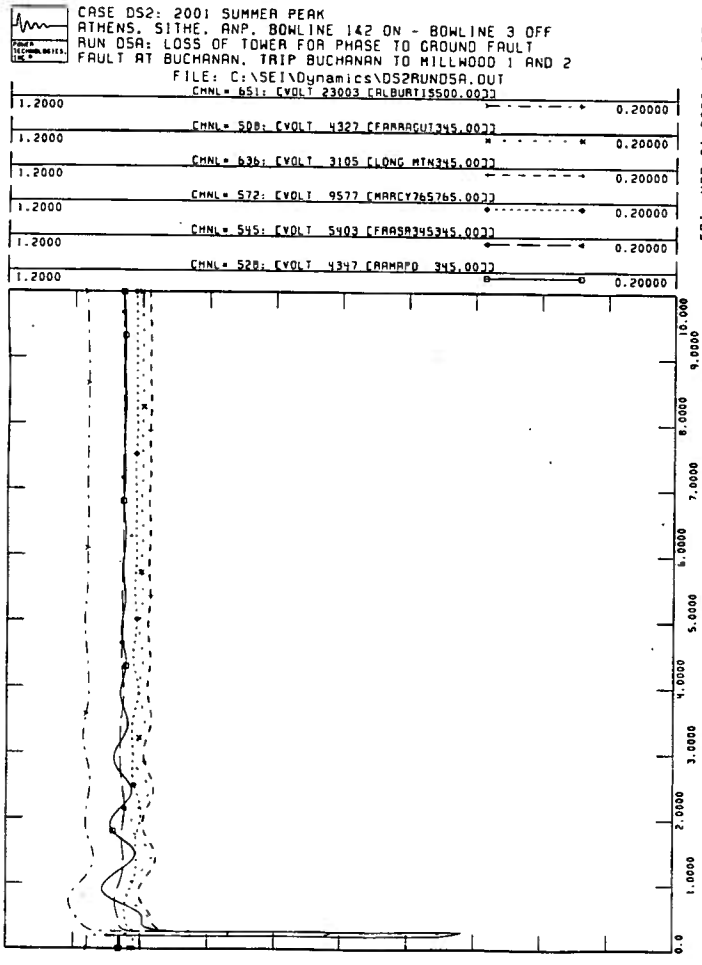
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2

FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



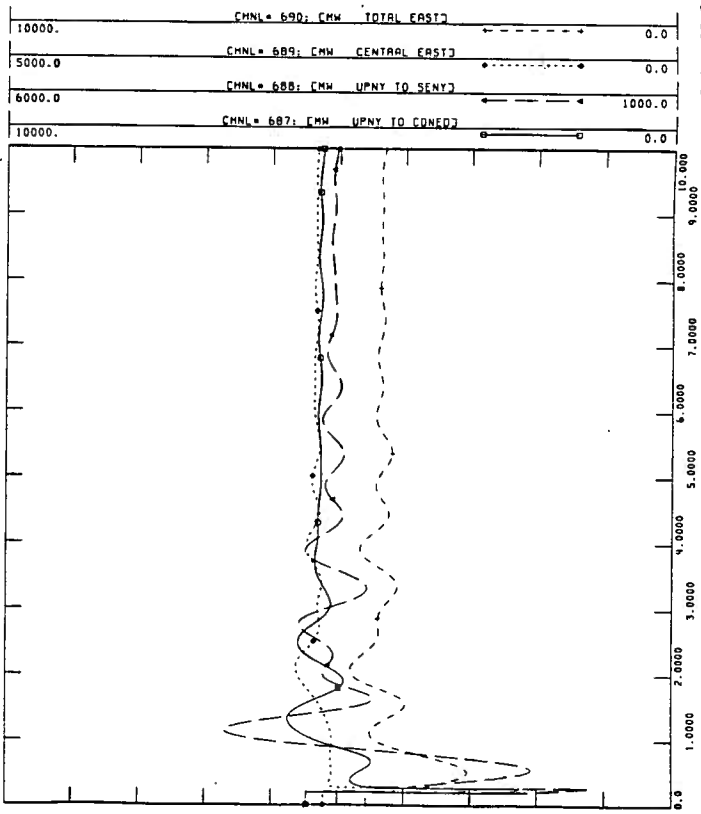
FRI, MAR 31 2000 13:35
RUN DSA PLOT 16

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT



FRI, MAR 31 2000 13:35
RUN DSA PLOT 13

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS2RUNDSA.OUT

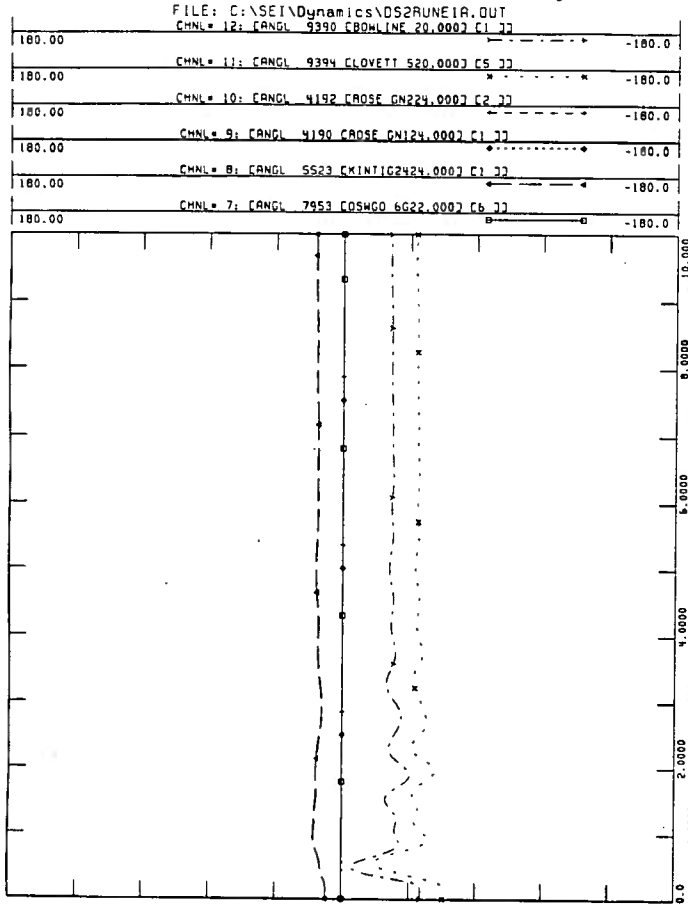


FRI, MAR 31 2000 13:35
RUN DSA PLOT 15

CONTINGENCY E1A

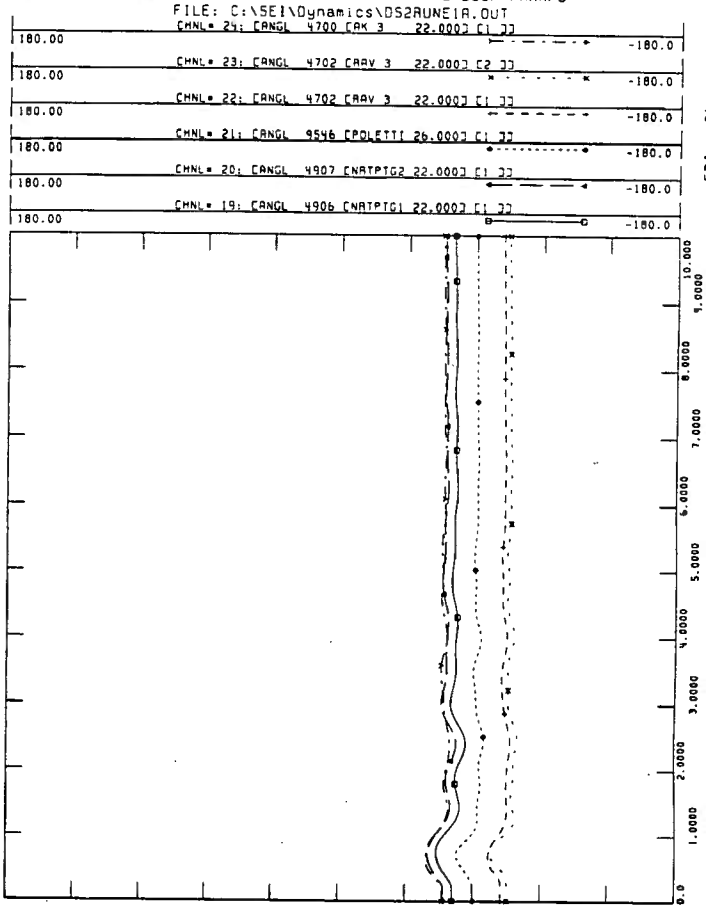
```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT



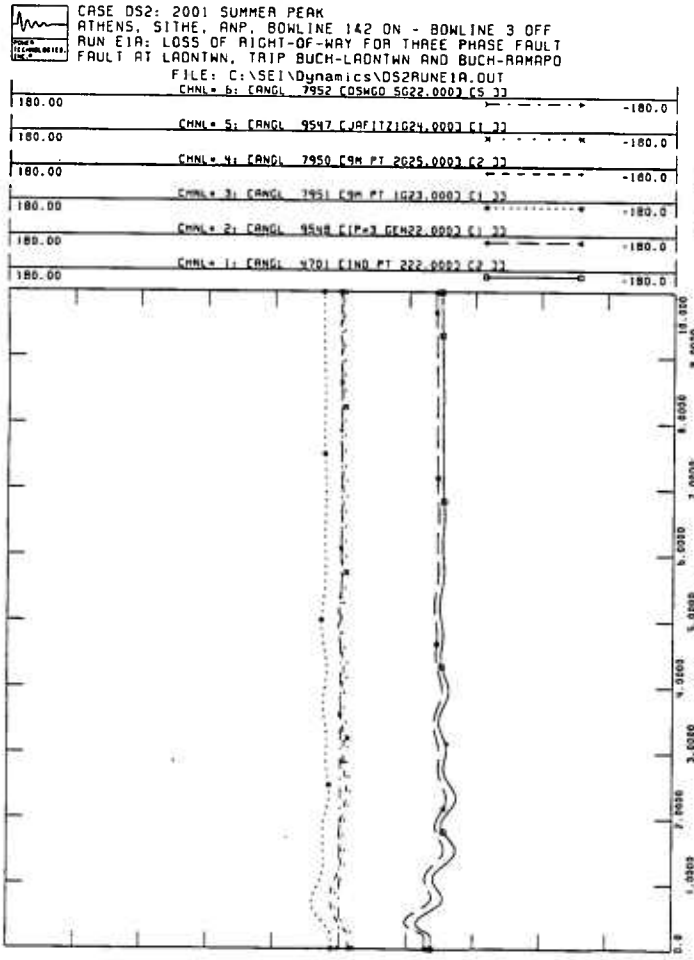
FRI, MAR 31 2000 13:37
RUN E1A PLOT 2

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT



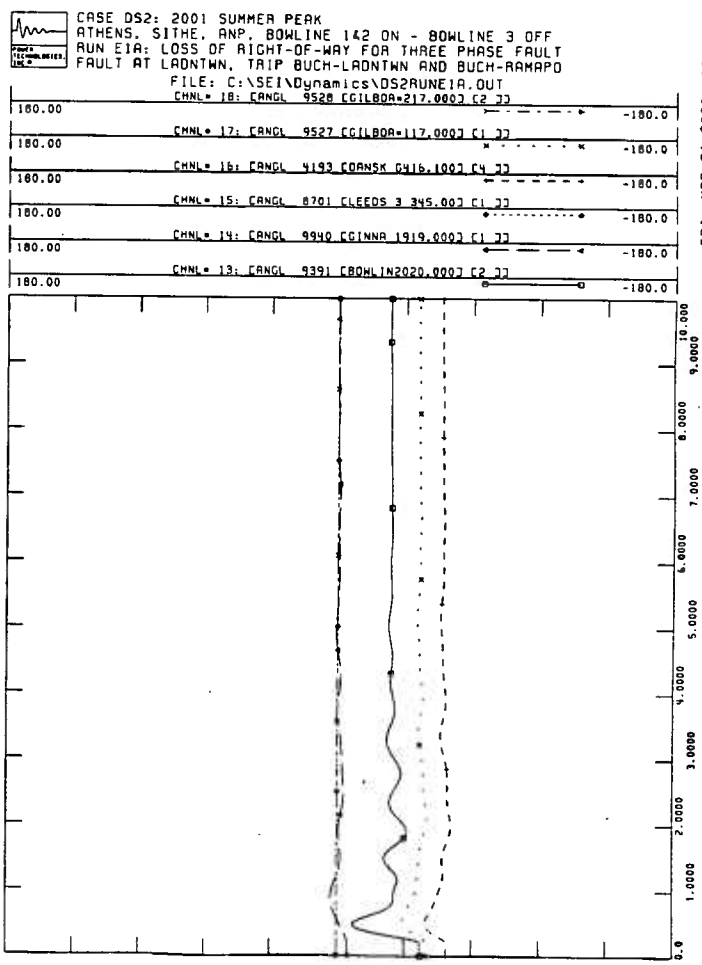
FRI, MAR 31 2000 13:37
RUN E1A PLOT 4

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT

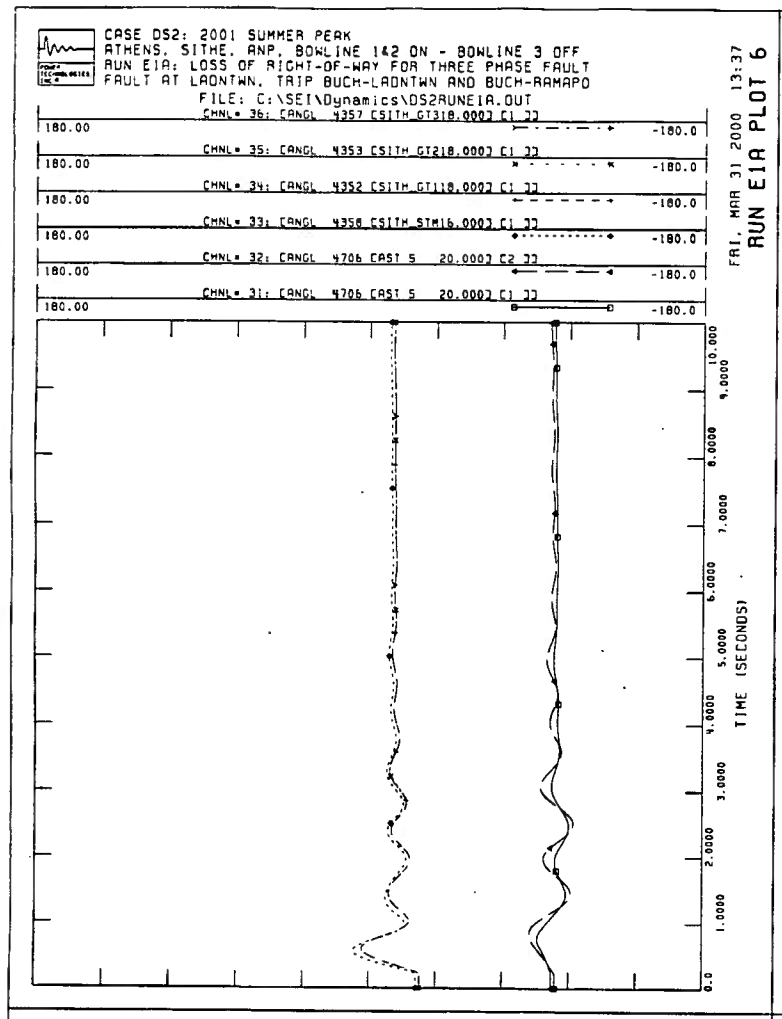


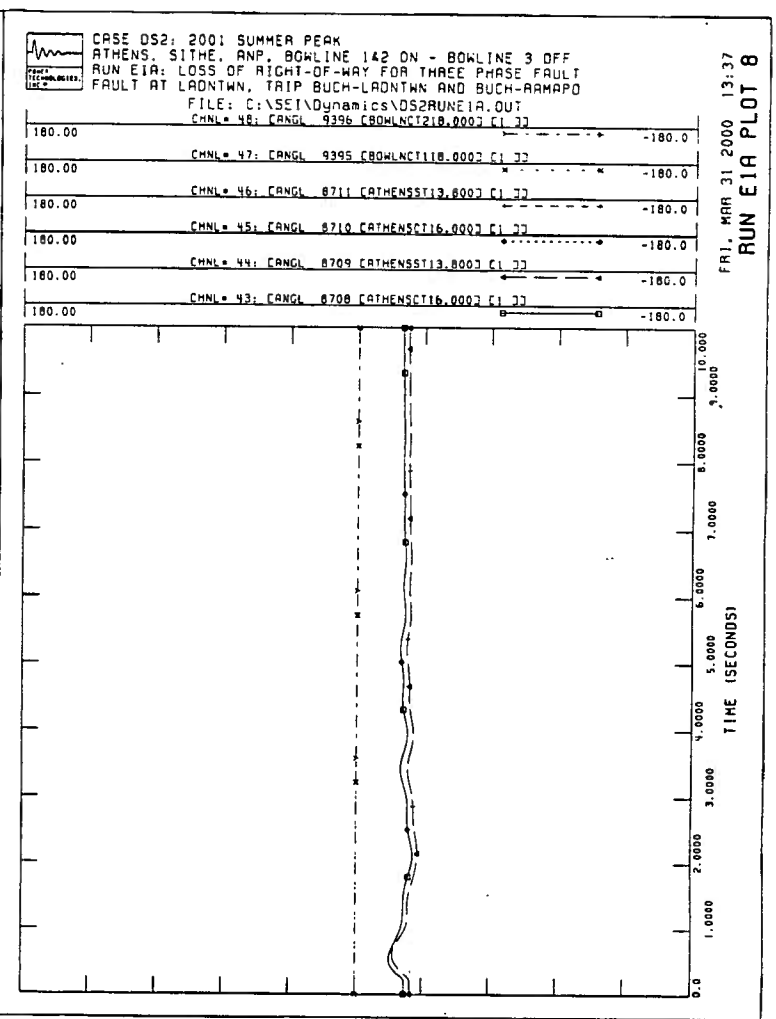
FRI, MAR 31 2000 13:37
RUN E1A PLOT 1

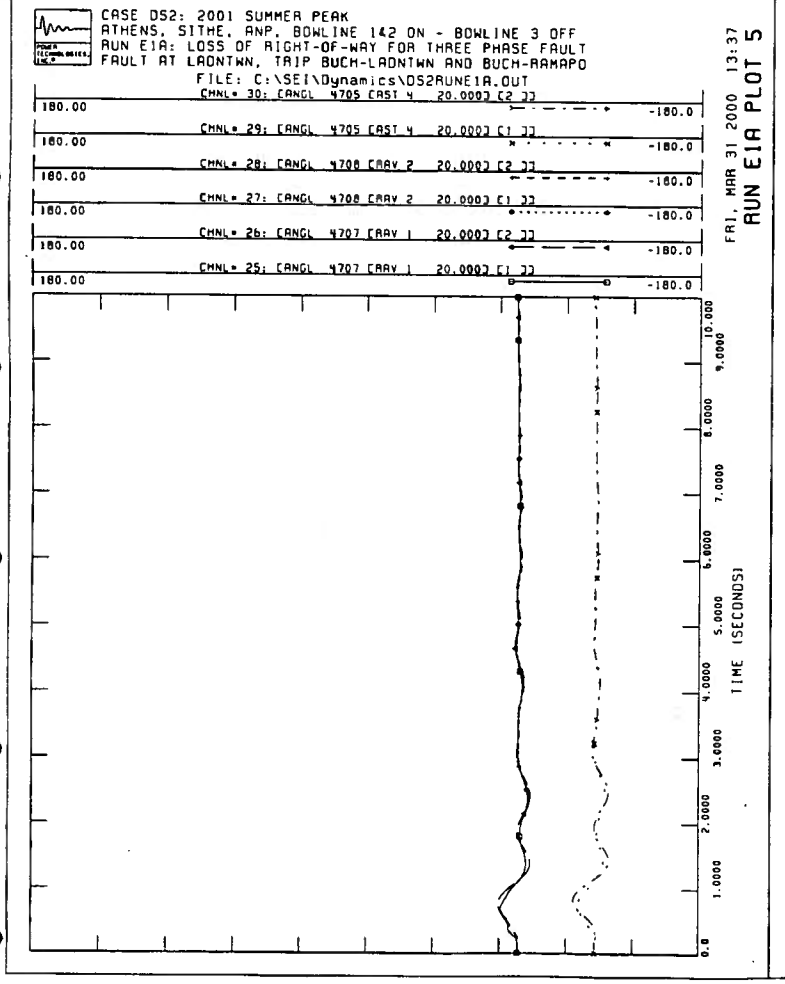
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT

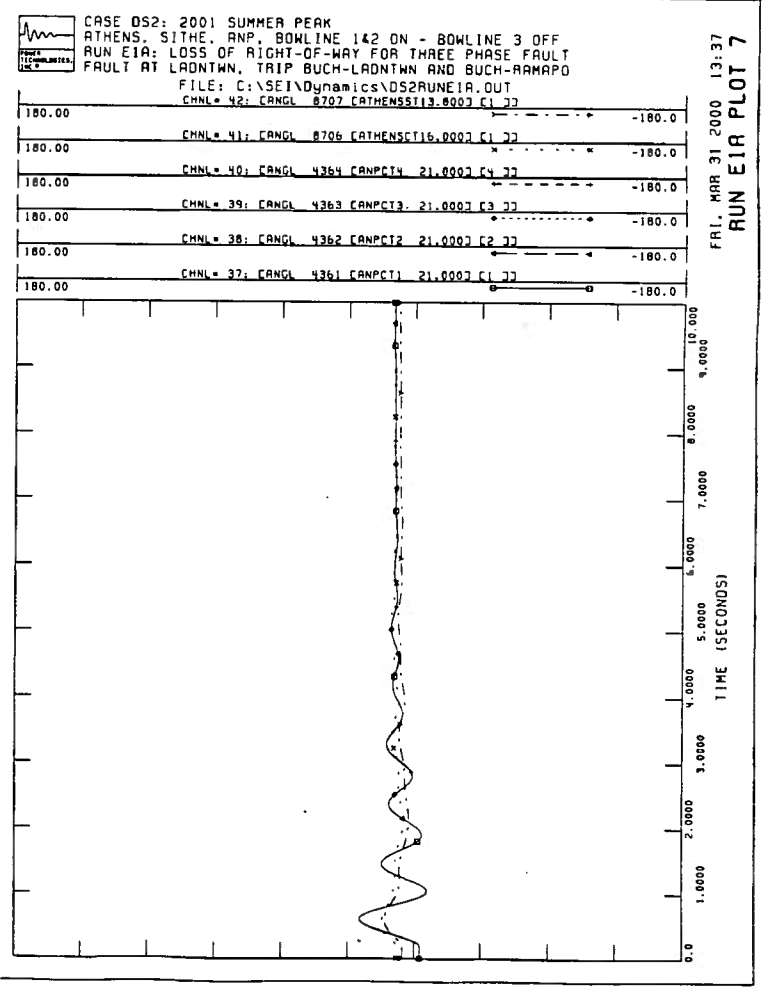


FRI, MAR 31 2000 13:37
RUN E1A PLOT 3

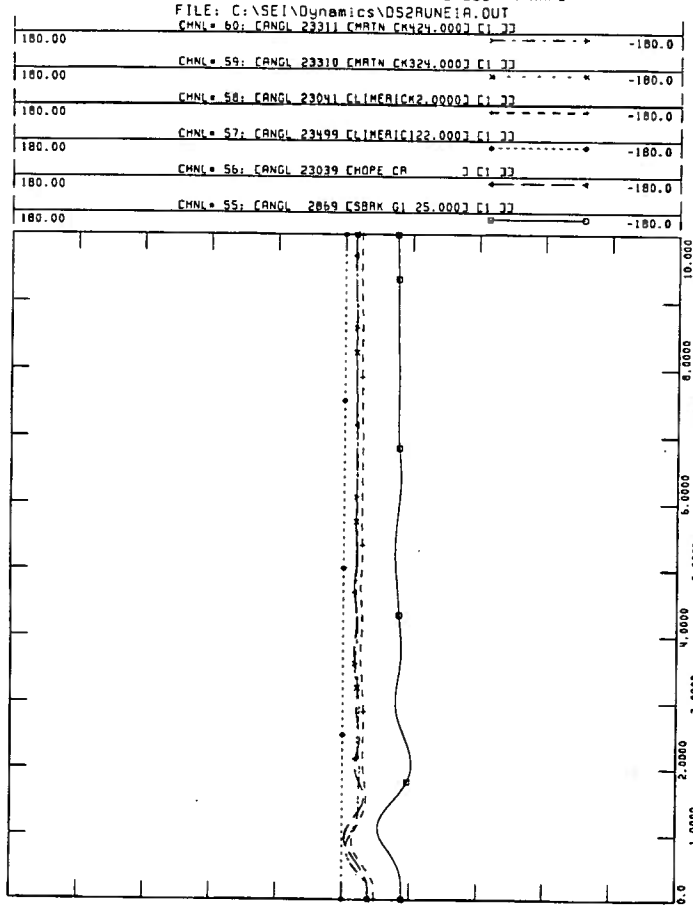

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
FRI, MAR 31 2000 13:37
RUN E1A PLOT 6
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
FRI, MAR 31 2000 13:37
RUN E1A PLOT 8
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
FRI, MAR 31 2000 13:37
RUN E1A PLOT 5
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

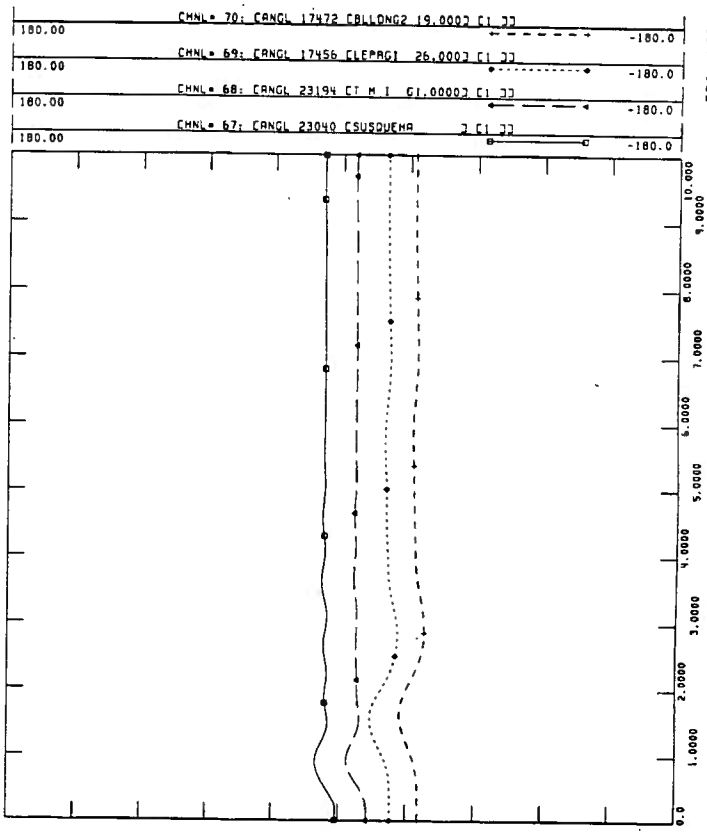

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
FRI, MAR 31 2000 13:37
RUN E1A PLOT 7
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT



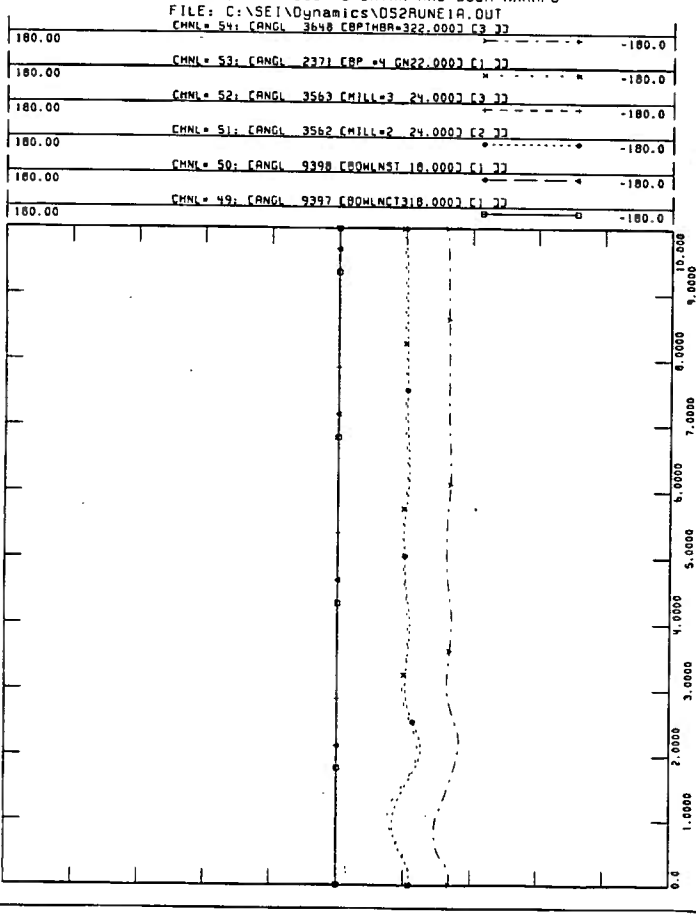
FRI, MAR 31 2000 13:37
RUN E1A PLOT 10

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT



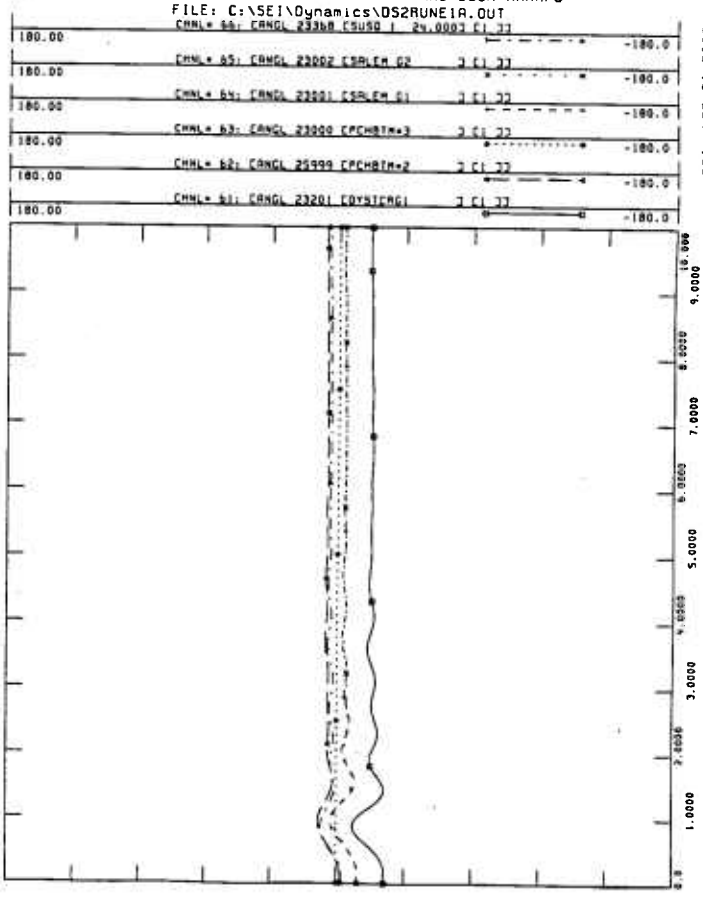
FRI, MAR 31 2000 13:37
RUN E1A PLOT 12

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT

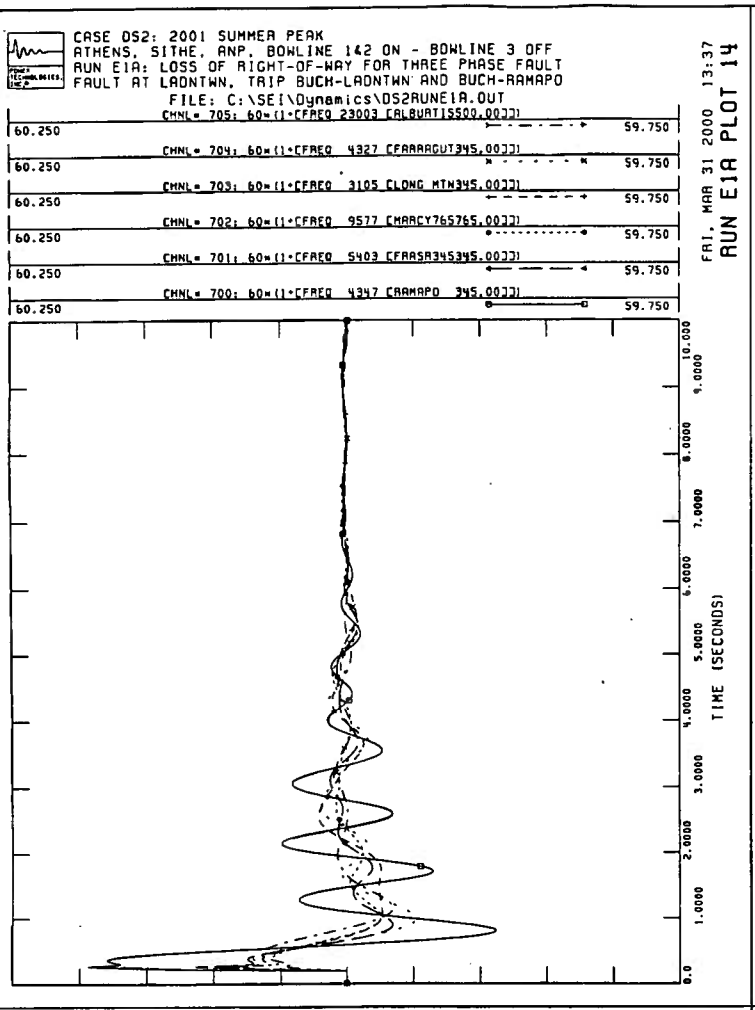


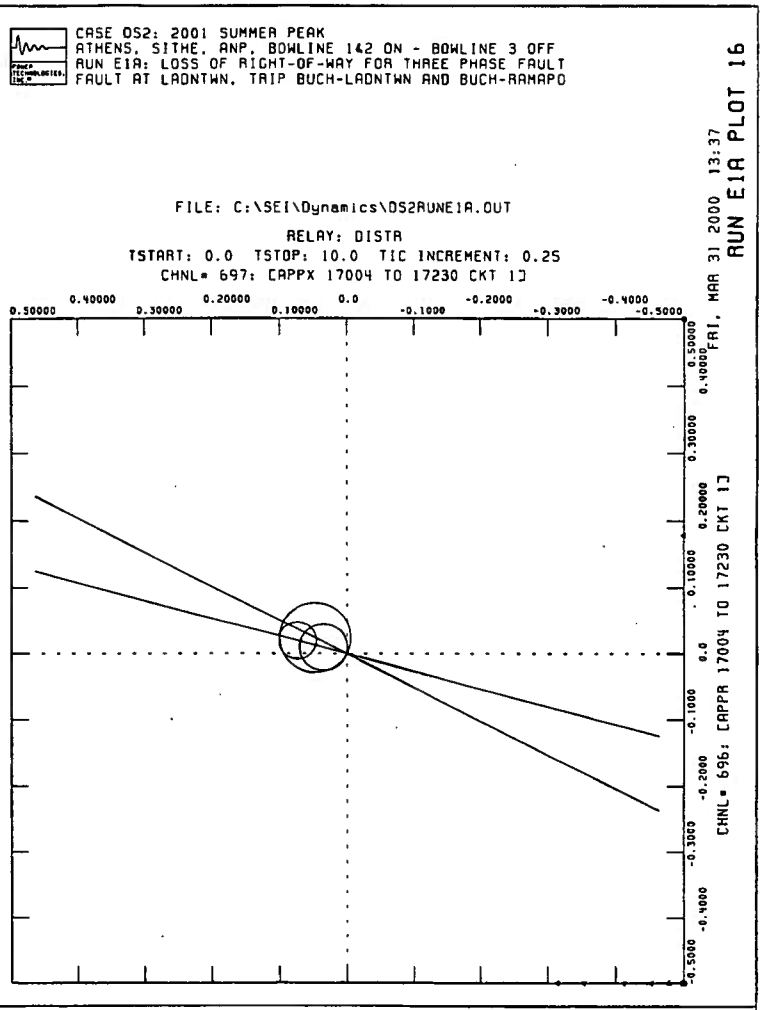
FRI, MAR 31 2000 13:37
RUN E1A PLOT 9

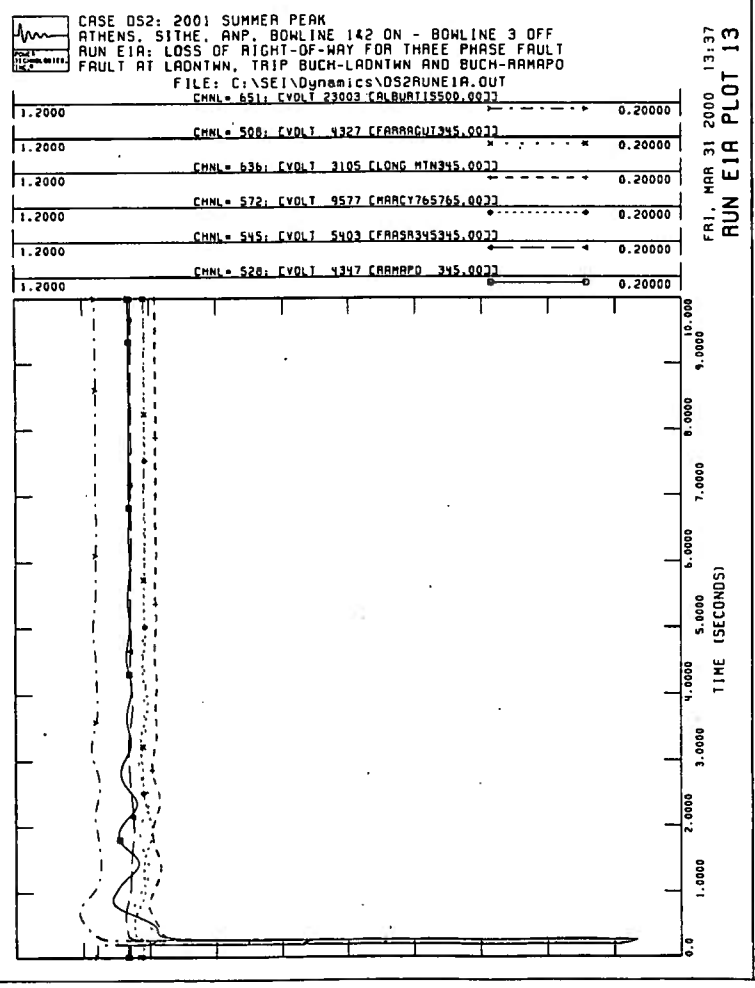
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT

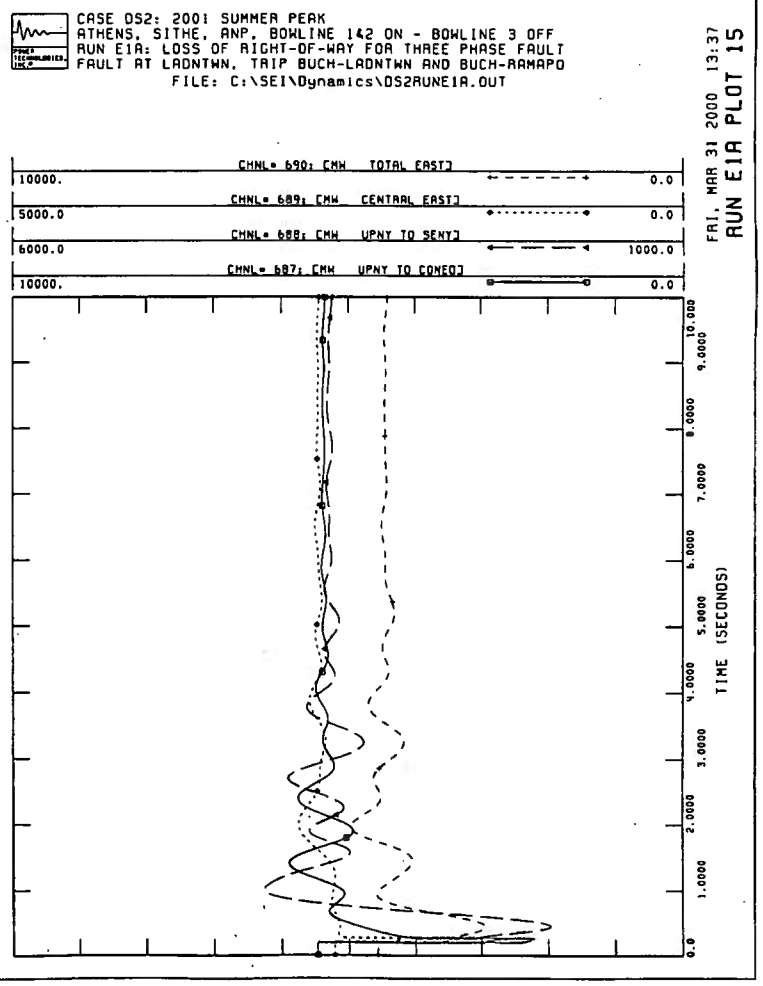


FRI, MAR 31 2000 13:37
RUN E1A PLOT 11


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURTIS500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E1A PLOT 14


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
CHNL= 696: [APPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 13:37
RUN E1A PLOT 16

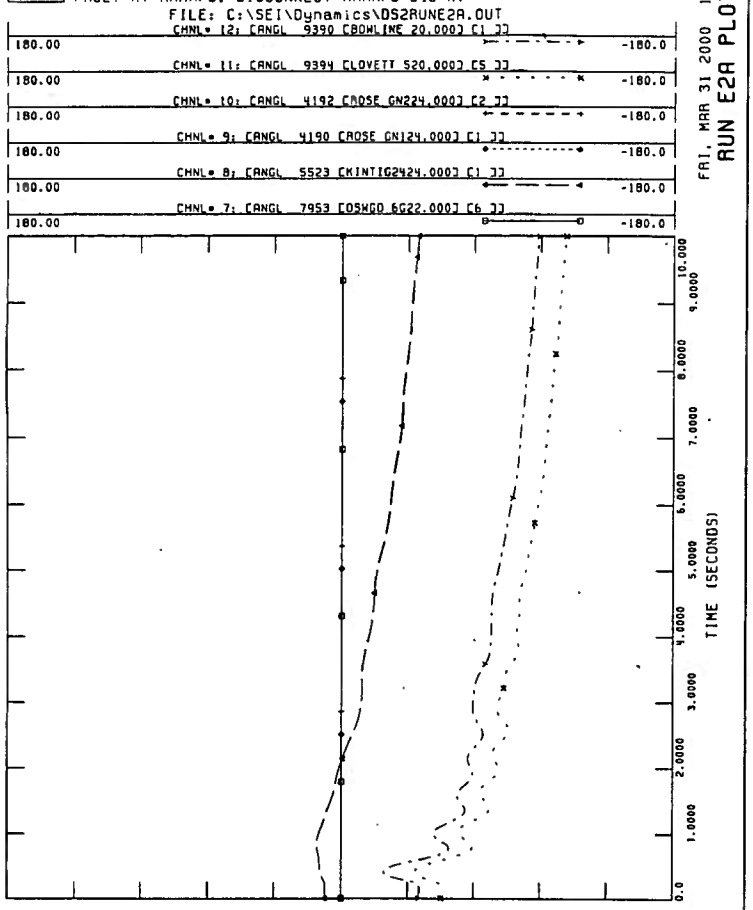

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E1A PLOT 13


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS2RUNE1A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONEO]
10000.
0.0
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E1A PLOT 15

CONTINGENCY E2A

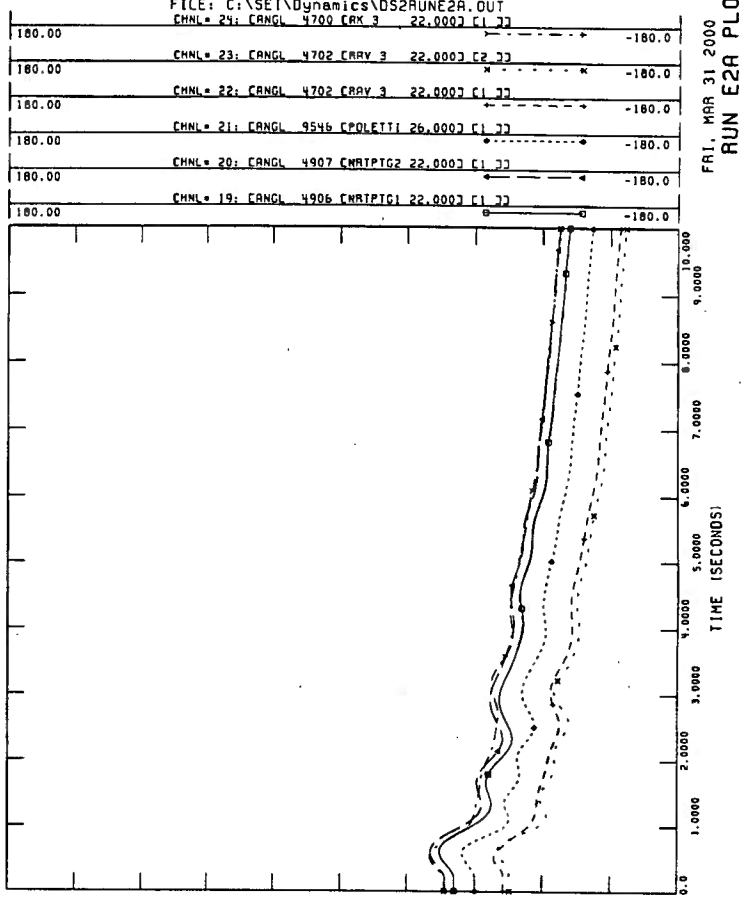
```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                              / DISCONNECT RAMAPO SUBSTATION
DROP GENERATOR 1 AT BUS 4352                            / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4353                            / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4357                            / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4358                            / TRIP SITHE ST
DROP GENERATOR 1 AT BUS 4361                            / TRIP ANP CT
DROP GENERATOR 2 AT BUS 4362                            / TRIP ANP CT
DROP GENERATOR 3 AT BUS 4363                            / TRIP ANP CT
DROP GENERATOR 4 AT BUS 4364                            / TRIP ANP ST
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT



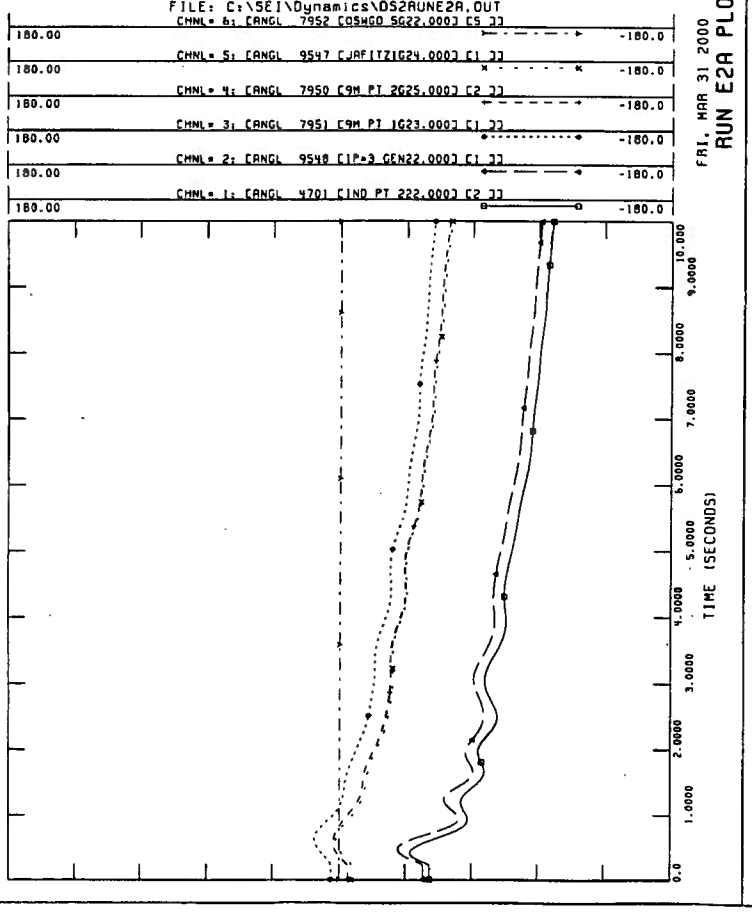
FRI, MAR 31 2000 13:37
RUN E2A PLOT 2

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT



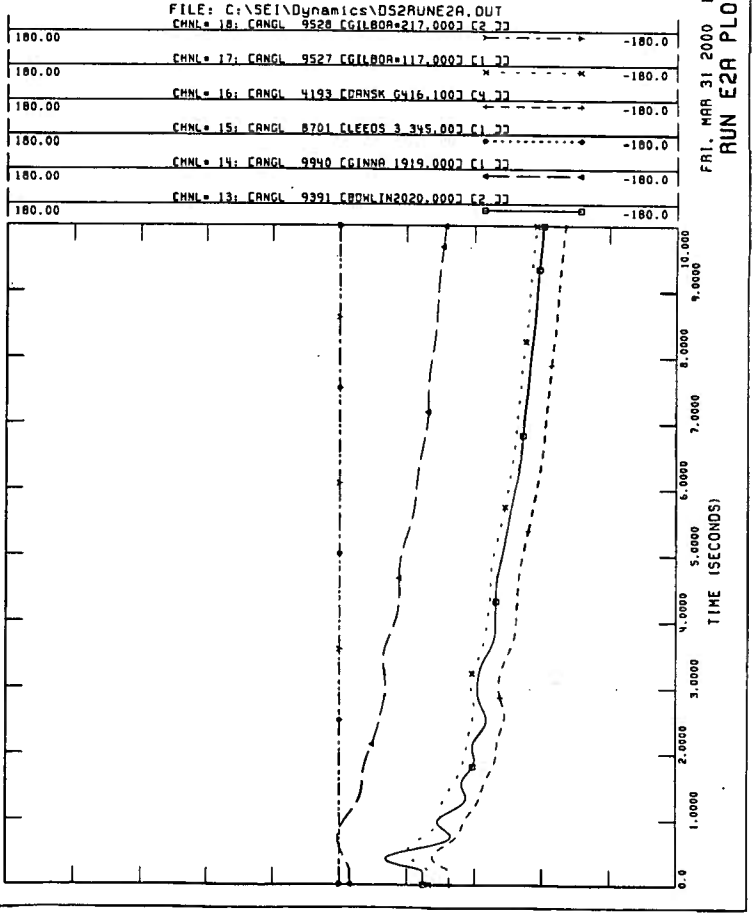
FRI, MAR 31 2000 13:37
RUN E2A PLOT 4

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT

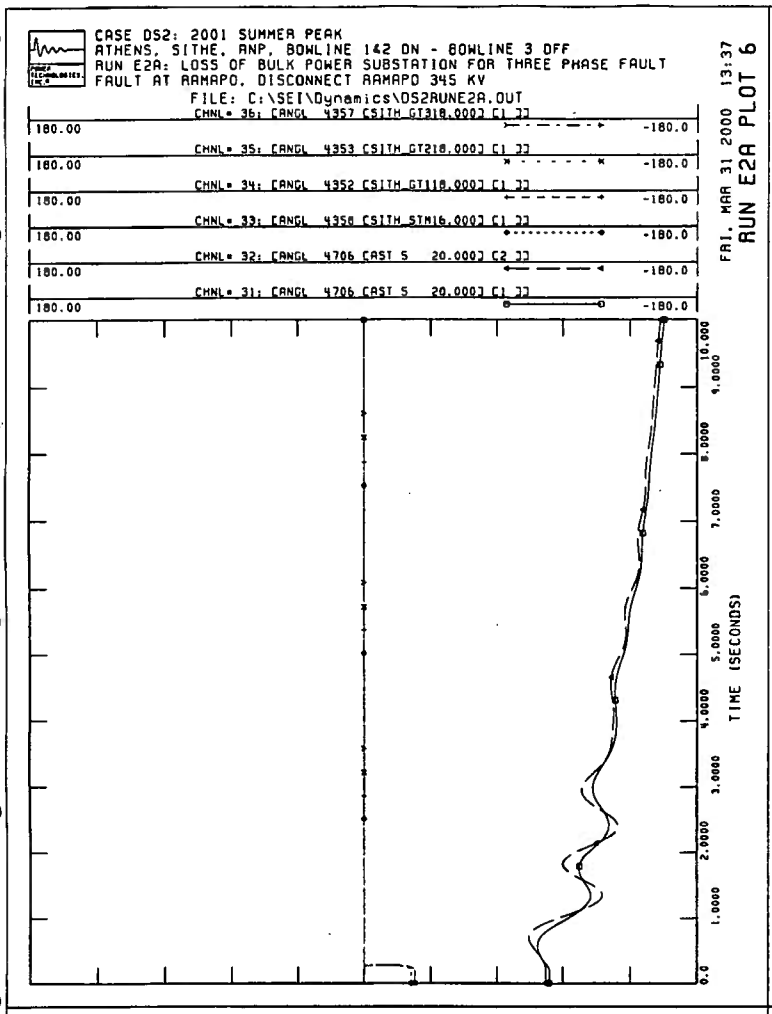


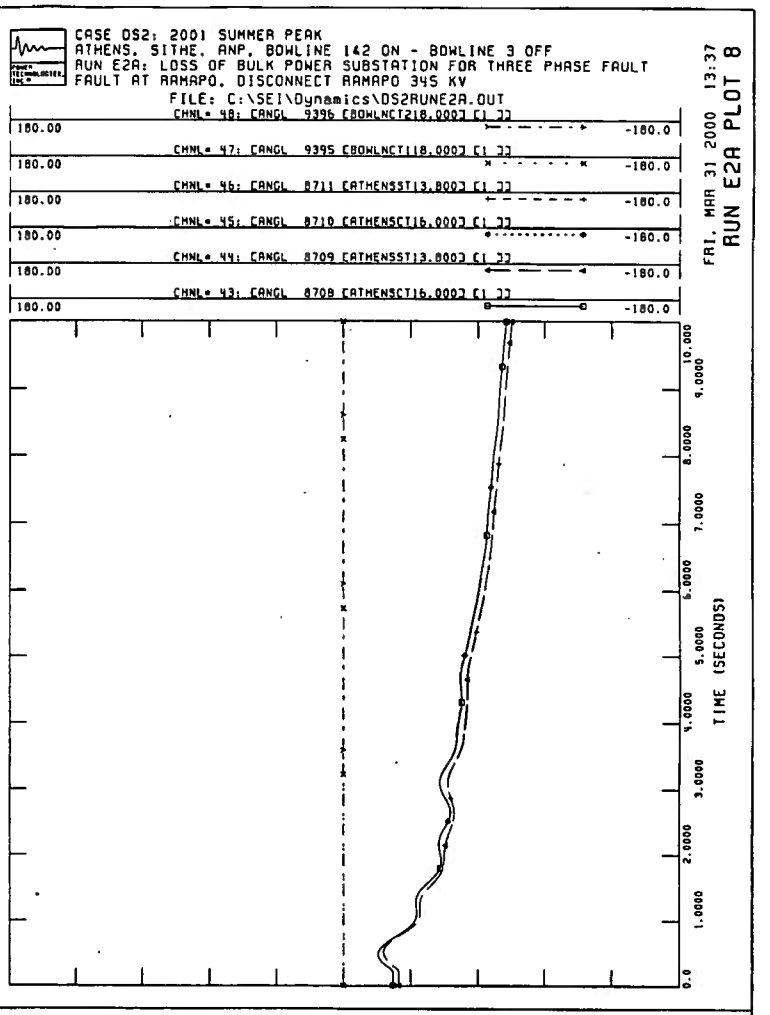
FRI, MAR 31 2000 13:37
RUN E2A PLOT 1

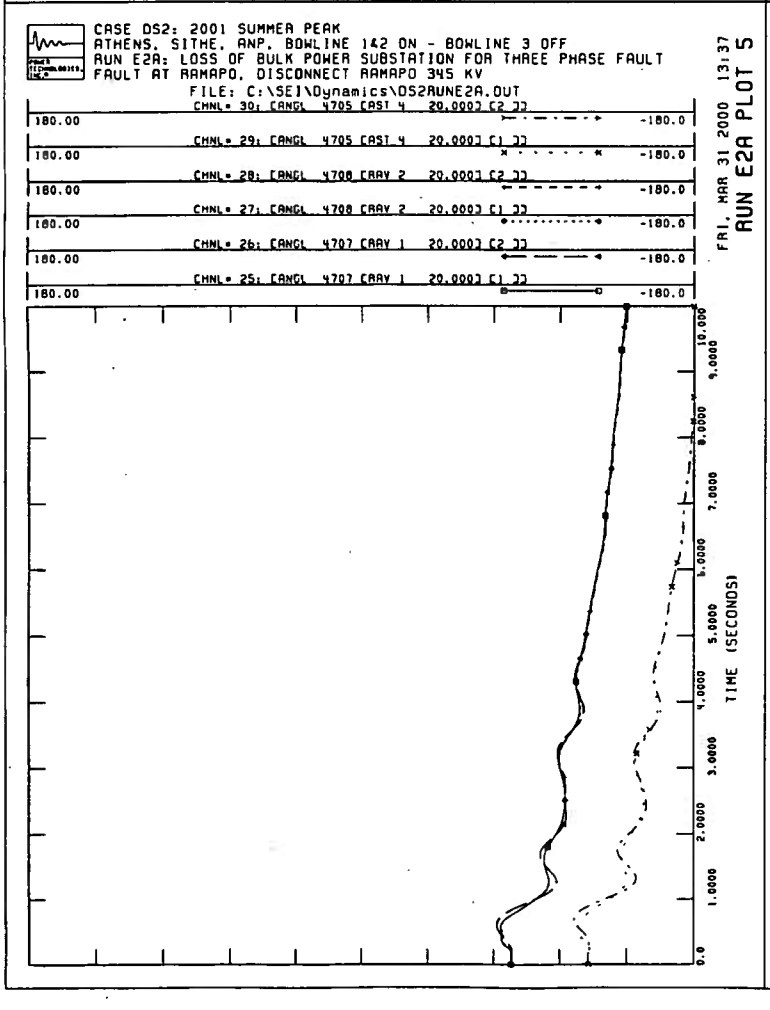
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT

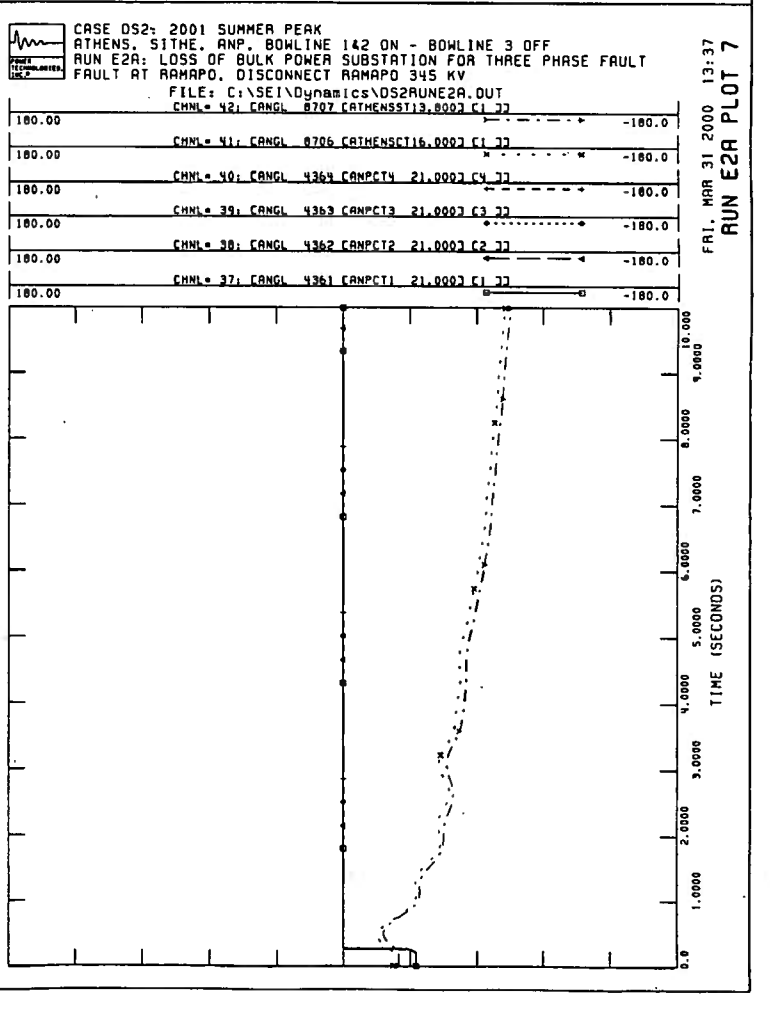


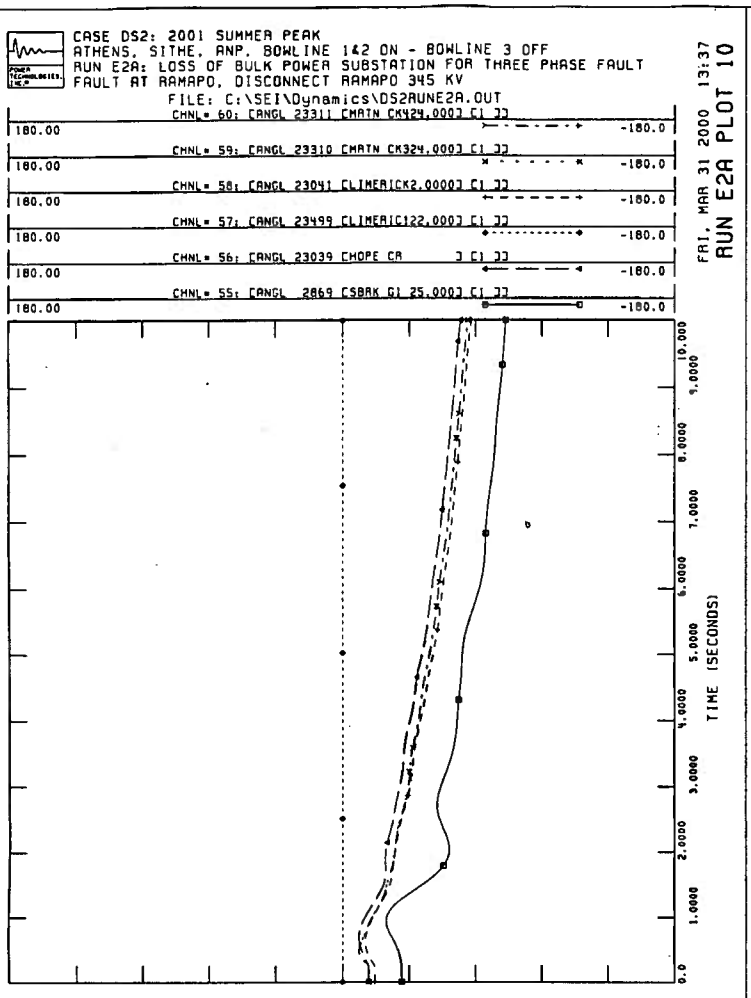
FRI, MAR 31 2000 13:37
RUN E2A PLOT 3

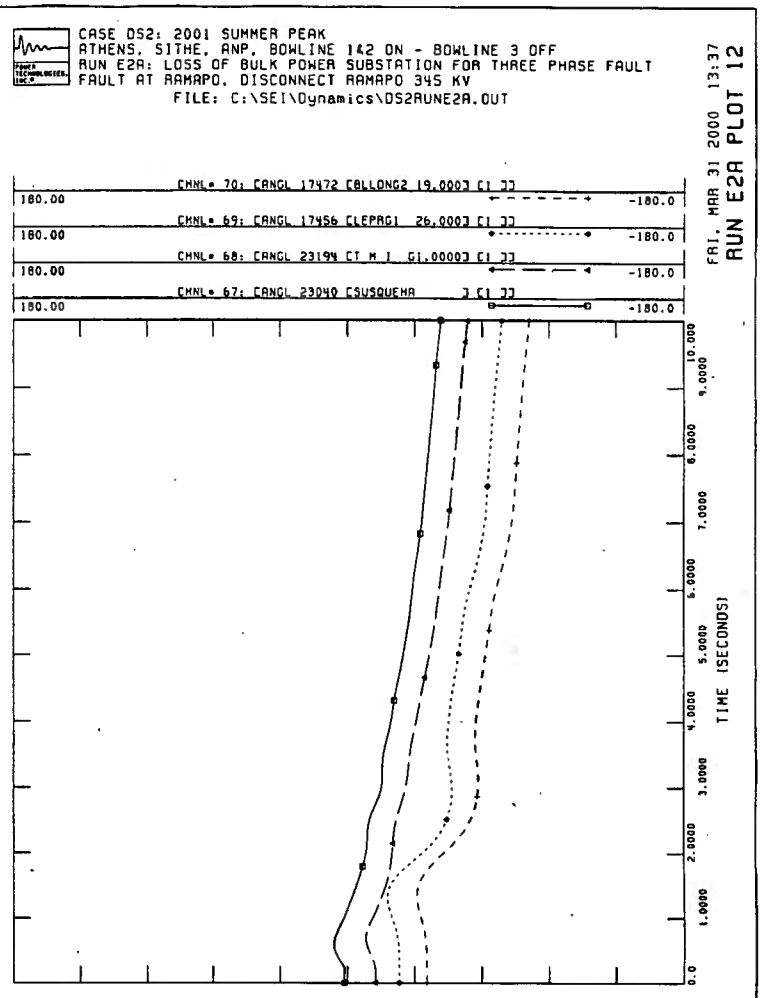

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
FRI, MAR 31 2000 13:37
RUN E2A PLOT 6
TIME (SECONDS)

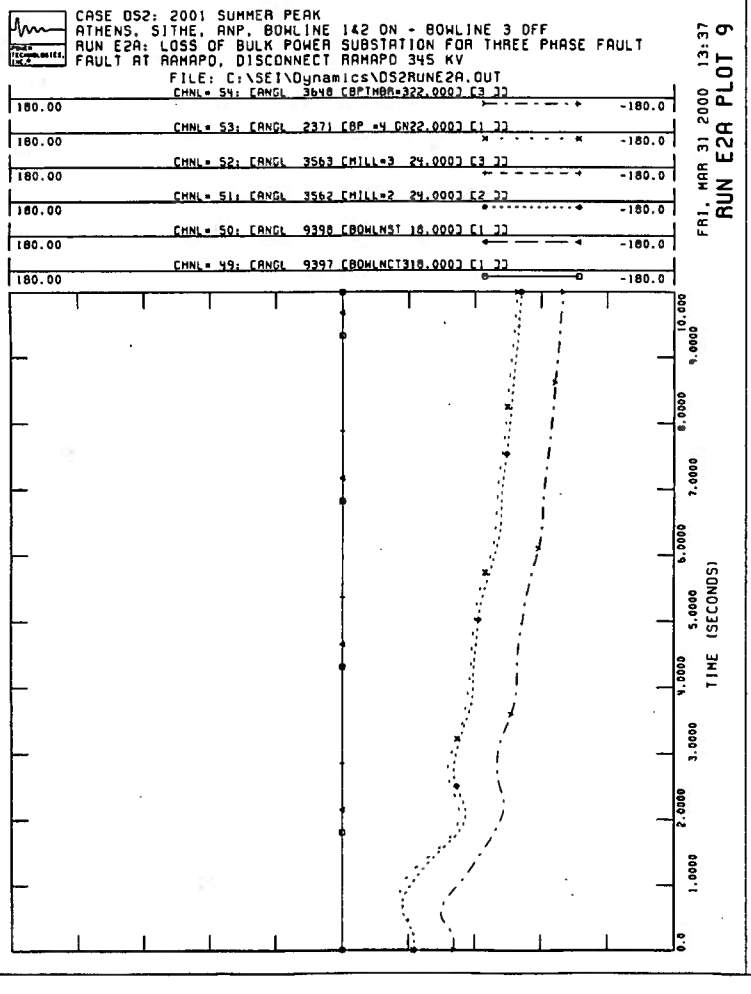

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
FRI, MAR 31 2000 13:37
RUN E2A PLOT 8
TIME (SECONDS)

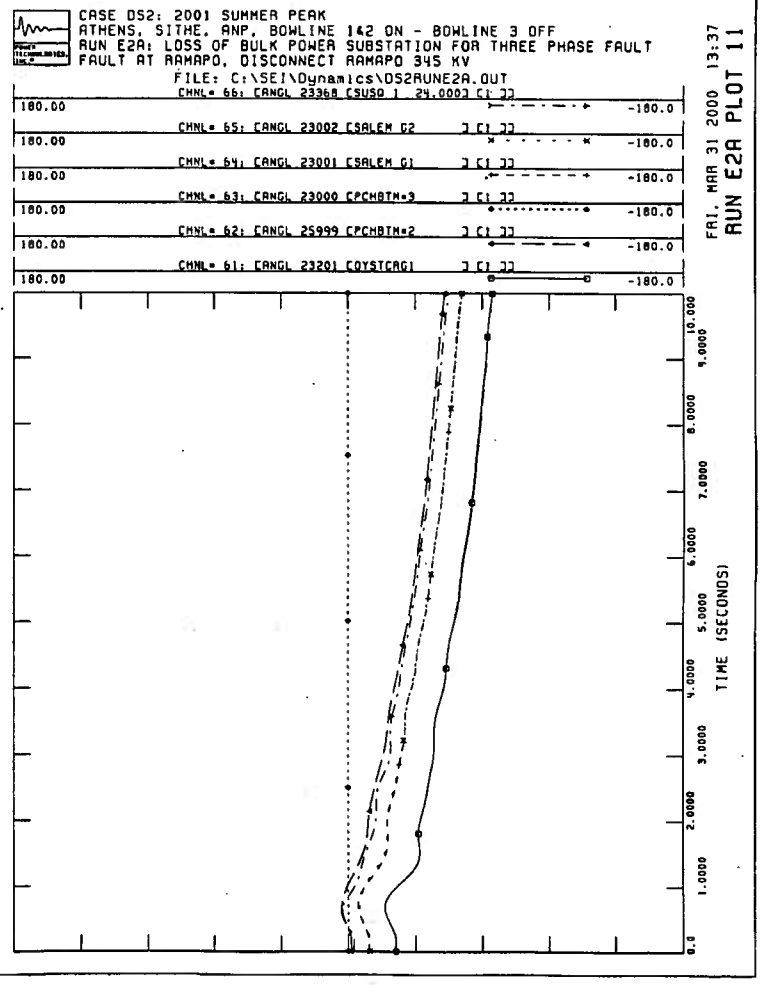

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
FRI, MAR 31 2000 13:37
RUN E2A PLOT 5
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
FRI, MAR 31 2000 13:37
RUN E2A PLOT 7
TIME (SECONDS)

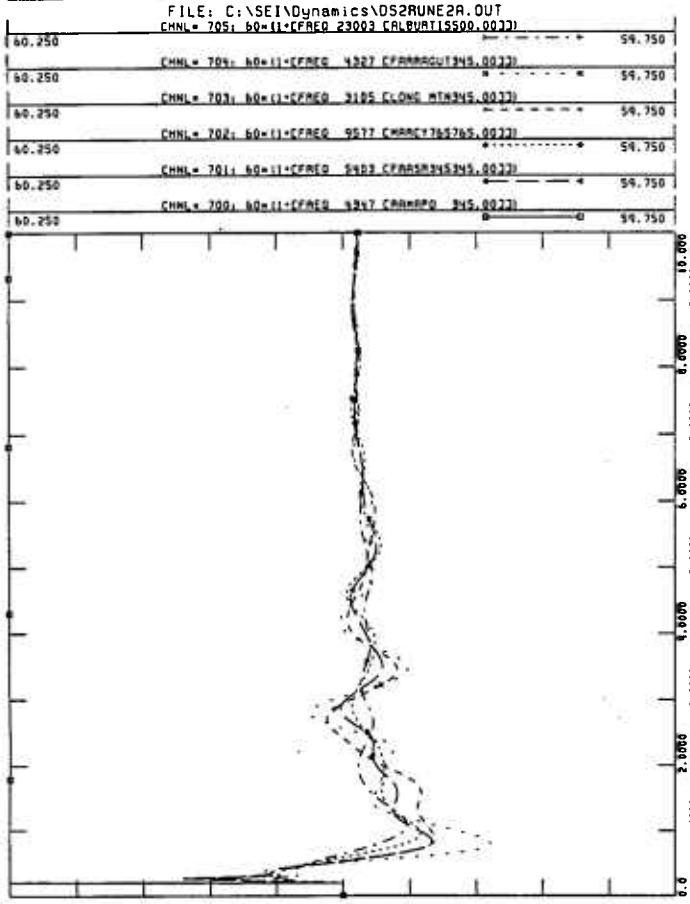

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
CHNL= 60; CANGL 23311 CMAIN CK424,0000] C1]]
CHNL= 59; CANGL 23310 CMAIN CK324,0000] C1]]
CHNL= 58; CANGL 23041 CLIMERICK2,0000] C1]]
CHNL= 57; CANGL 23499 CLIMERIC122,0000] C1]]
CHNL= 56; CANGL 23039 CHOPE CR] C1]]
CHNL= 55; CANGL 2869 CSBRK G1 25,0000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E2A PLOT 10


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
CHNL= 70; CANGL 17472 CBLLONG2 19,0000] C1]]
CHNL= 69; CANGL 17456 CLEPRG1 26,0000] C1]]
CHNL= 68; CANGL 23194 CT M 1 G1,0000] C1]]
CHNL= 67; CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E2A PLOT 12


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
CHNL= 54; CANGL 3648 CBPTMBR=322,0000] C3]]
CHNL= 53; CANGL 2371 CBP =4 GN22,0000] C1]]
CHNL= 52; CANGL 3563 CMILL=3 24,0000] C3]]
CHNL= 51; CANGL 3562 CMILL=2 24,0000] C2]]
CHNL= 50; CANGL 9398 CBOWLNS1 18,0000] C1]]
CHNL= 49; CANGL 9397 CBOWLNCT318,0000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E2A PLOT 9


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
CHNL= 66; CANGL 23368 CSUSQ 1 24,0000] C1]]
CHNL= 65; CANGL 23002 CSALEM G2] C1]]
CHNL= 64; CANGL 23001 CSALEM G1] C1]]
CHNL= 63; CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62; CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61; CANGL 23201 CQYSTCAG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:37
RUN E2A PLOT 11

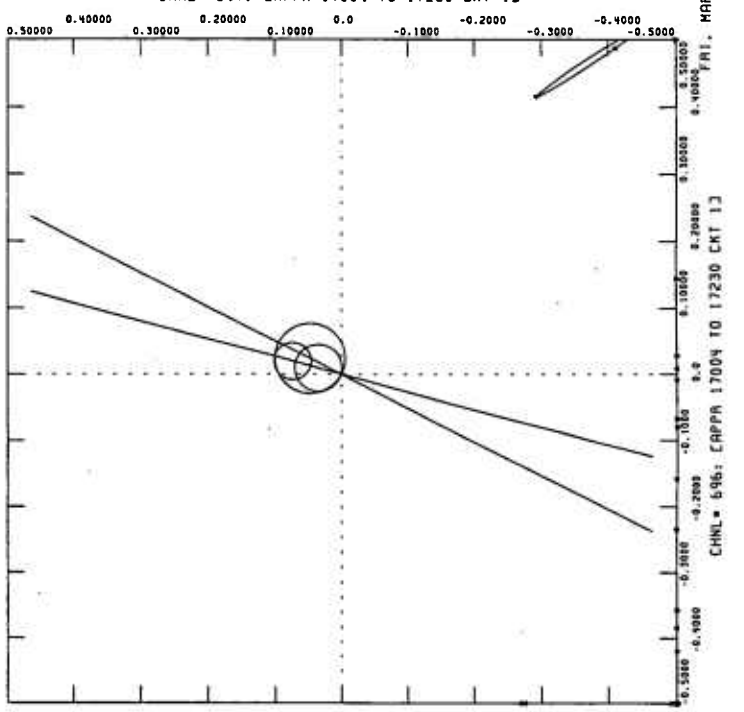
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT



FRI, MAR 31 2000 13:37
RUN E2A PLOT 14

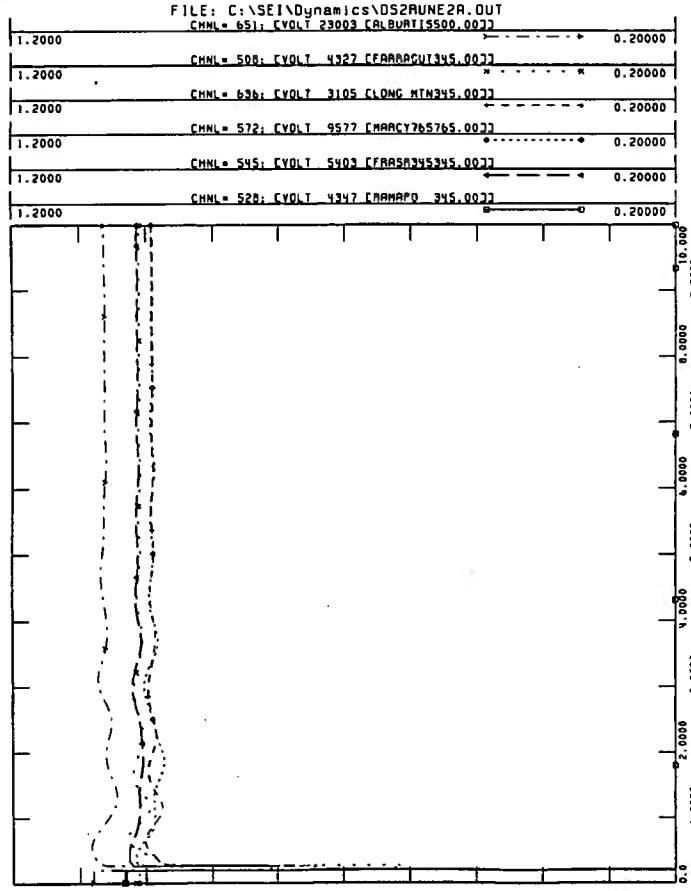
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1J



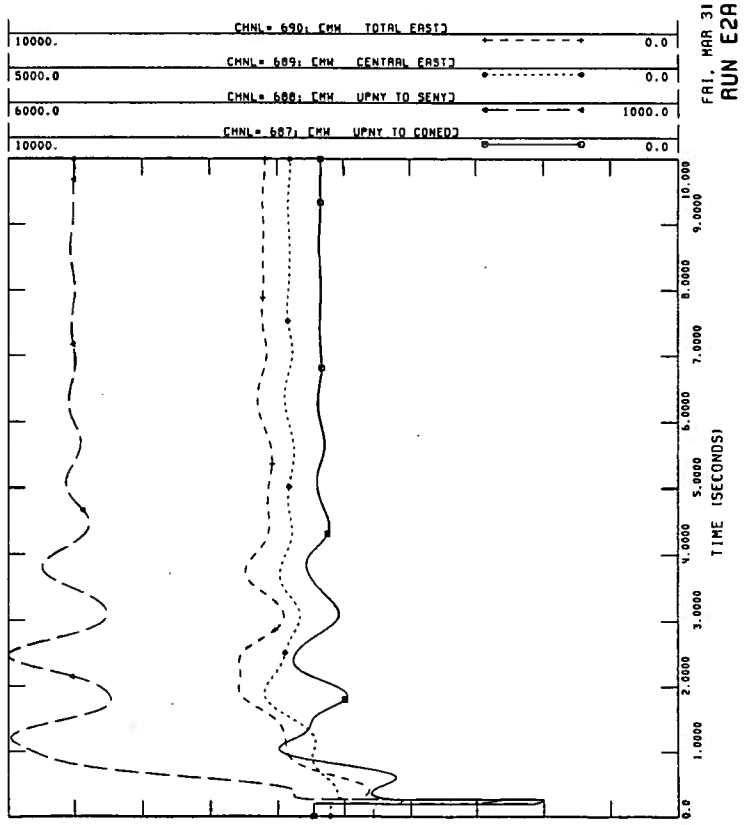
FRI, MAR 31 2000 13:37
RUN E2A PLOT 16

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT



FRI, MAR 31 2000 13:37
RUN E2A PLOT 13

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS2RUNE2A.OUT



FRI, MAR 31 2000 13:37
RUN E2A PLOT 15

CONTINGENCY E3A

```
RECOVER FROM D1.SNP AND DS2.CNV
START OUTPUT DS2RUNE3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
RUN FOR 5.75 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4360 CKT 1              / TRIP RAMAPO-ANP CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CMINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWEGO 6G22.000] C6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:38
RUN E3A PLOT 2

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

CHNL= 24: CANGL 4700 CRX 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNRTPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNRTPTG1 22.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:38
RUN E3A PLOT 4

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

CHNL= 6: CANGL 7952 COSWEGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJREITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 C1P=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:37
RUN E3A PLOT 1

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

180.00 -180.0

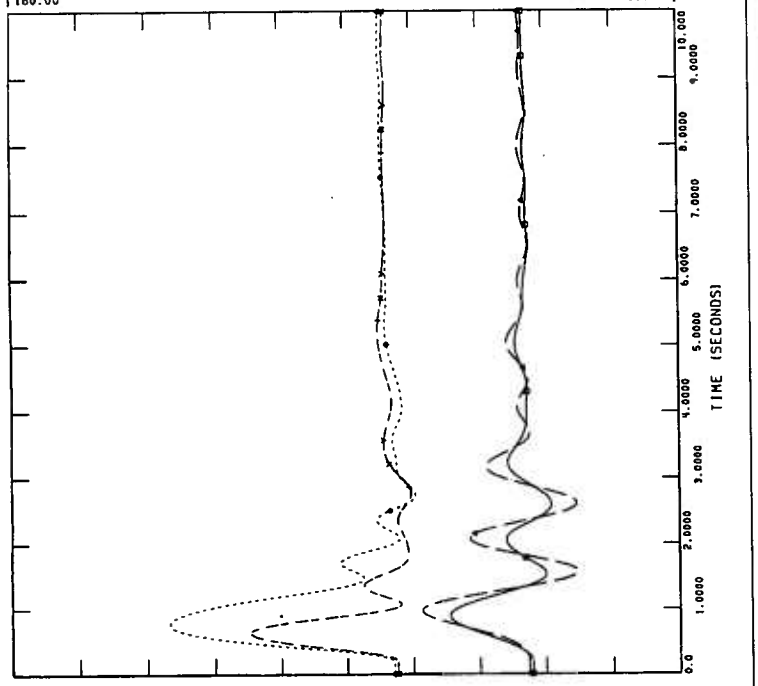
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:38
RUN E3A PLOT 3

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

FRI, MAR 31 2000 13:38
RUN E3A PLOT 6

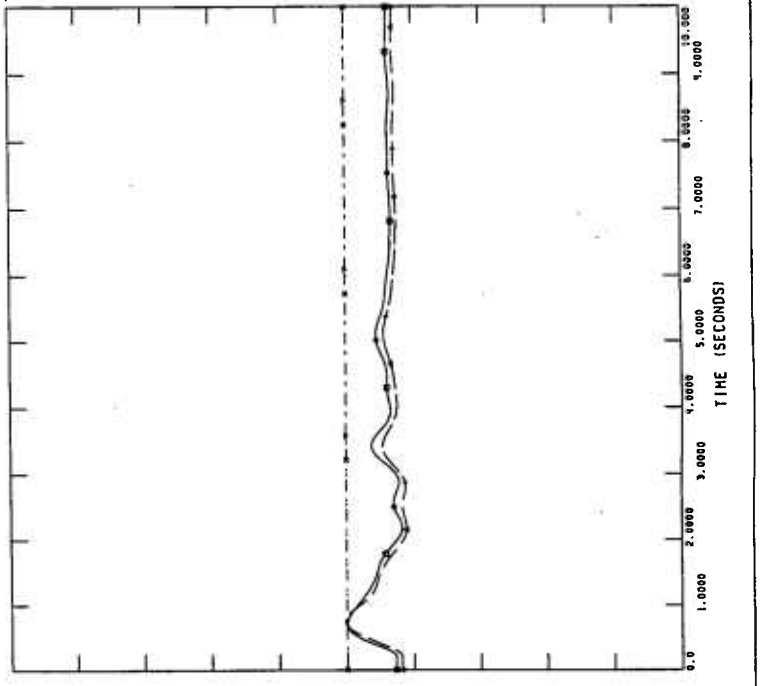
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4359 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]



CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

FRI, MAR 31 2000 13:38
RUN E3A PLOT 8

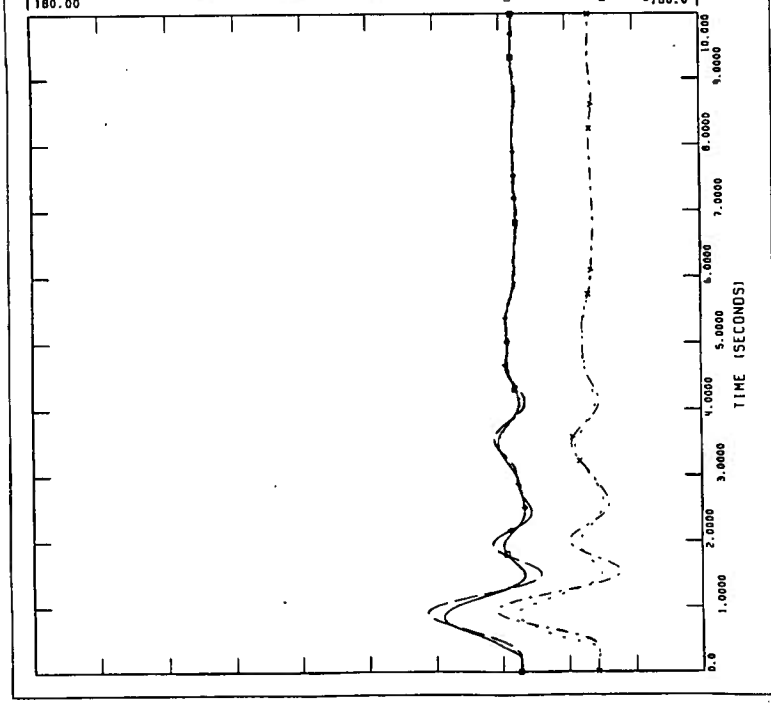
CHNL= 48: CANGL 9396 CBOWLNGT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNGT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSGT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSGT16.000] C1]]



CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

FRI, MAR 31 2000 13:38
RUN E3A PLOT 5

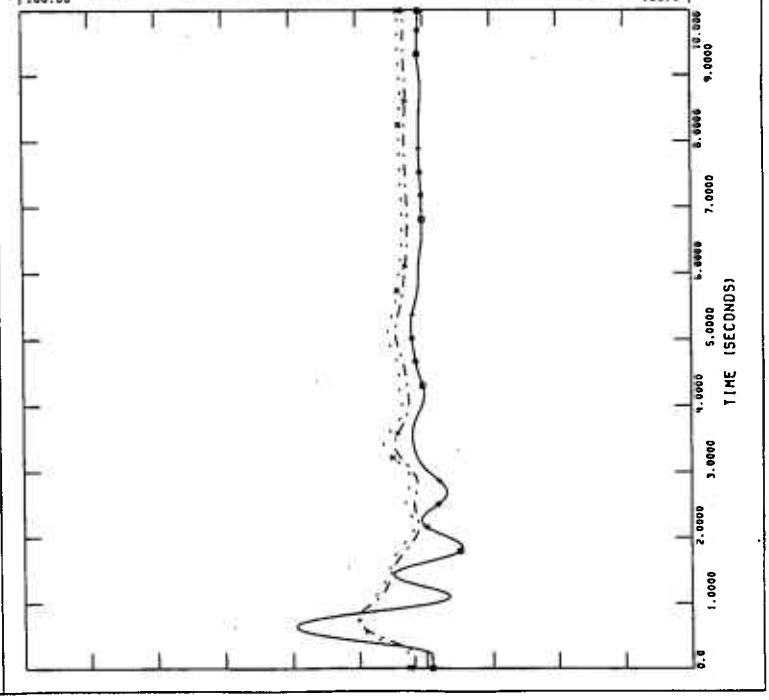
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]

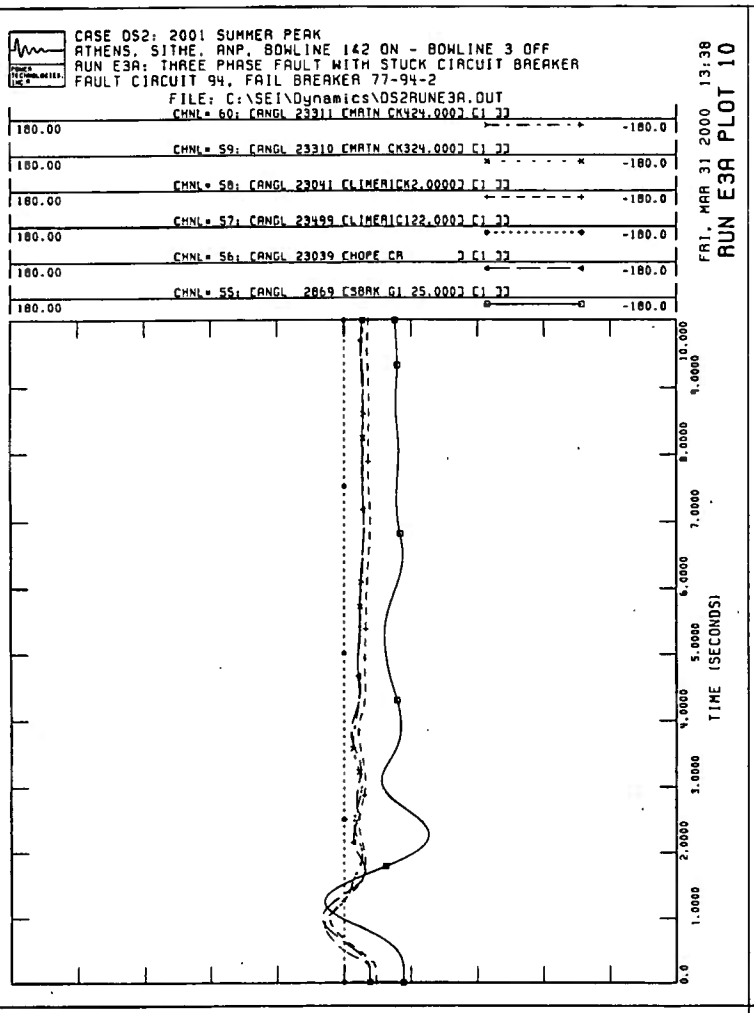


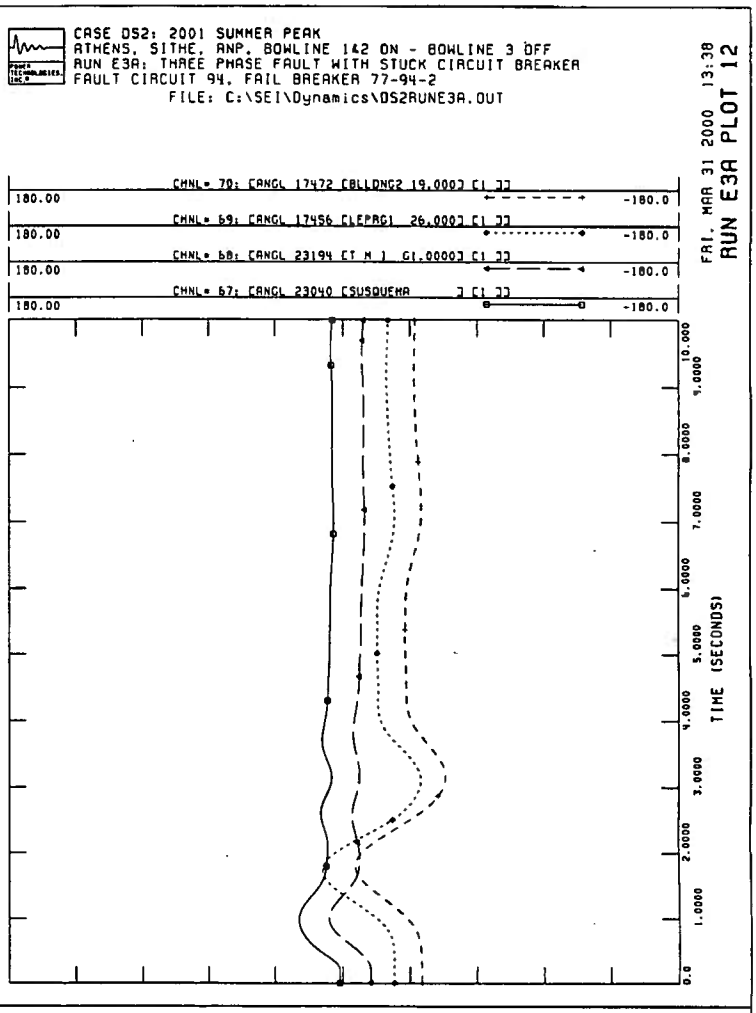
CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

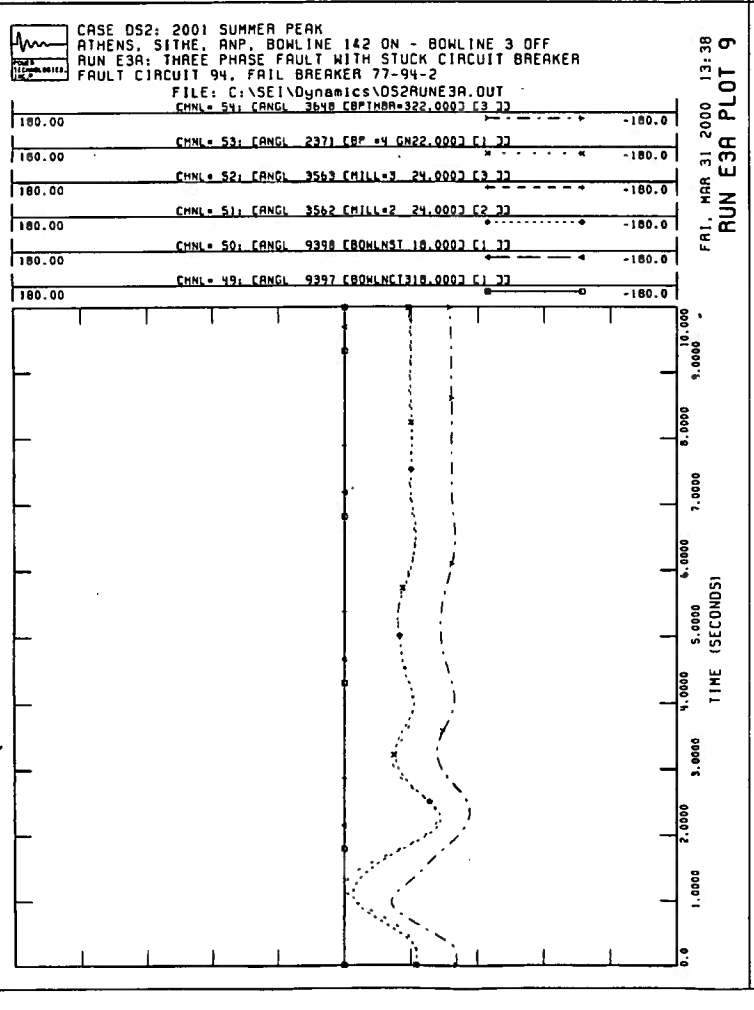
FRI, MAR 31 2000 13:38
RUN E3A PLOT 7

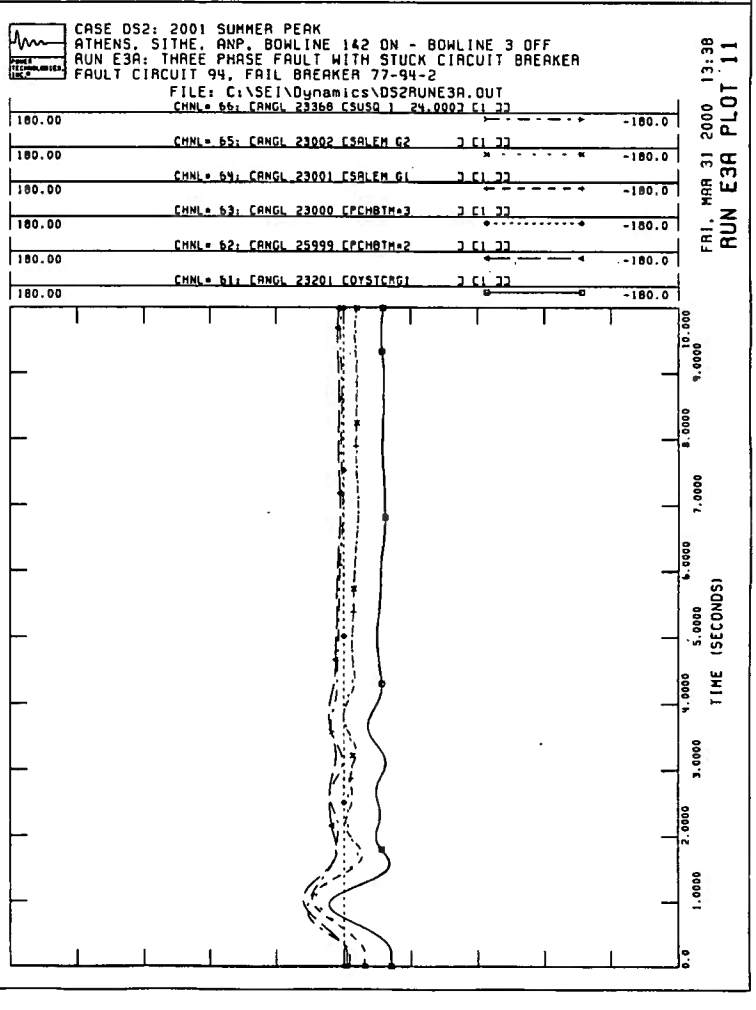
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSGT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]



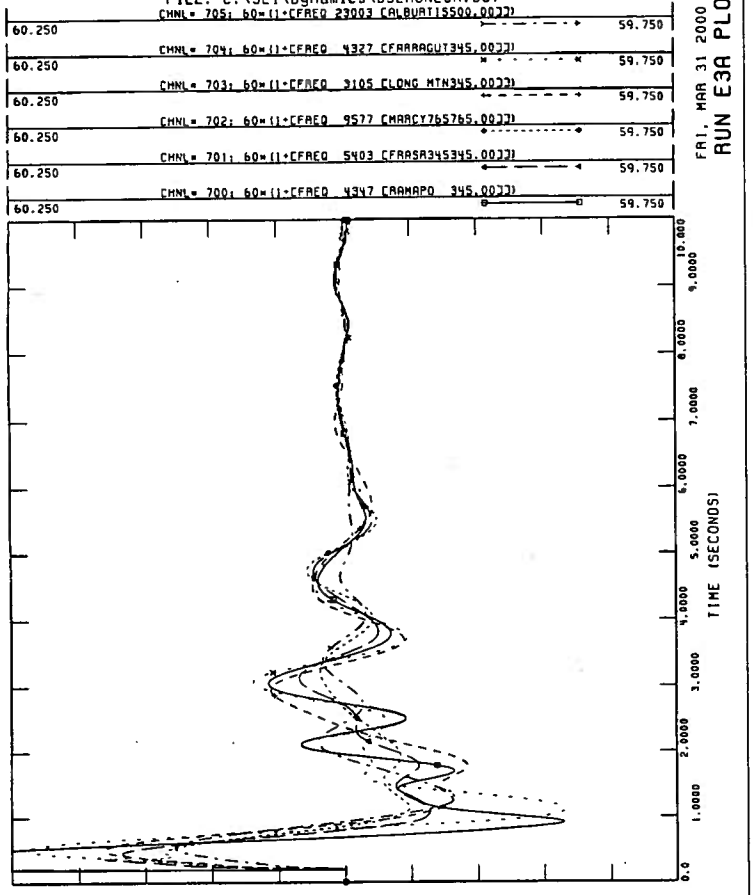

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT
FRI, MAR 31 2000 13:38
RUN E3A PLOT 10
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT
FRI, MAR 31 2000 13:38
RUN E3A PLOT 12
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT
FRI, MAR 31 2000 13:38
RUN E3A PLOT 9
TIME (SECONDS)


CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT
FRI, MAR 31 2000 13:38
RUN E3A PLOT 11
TIME (SECONDS)

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

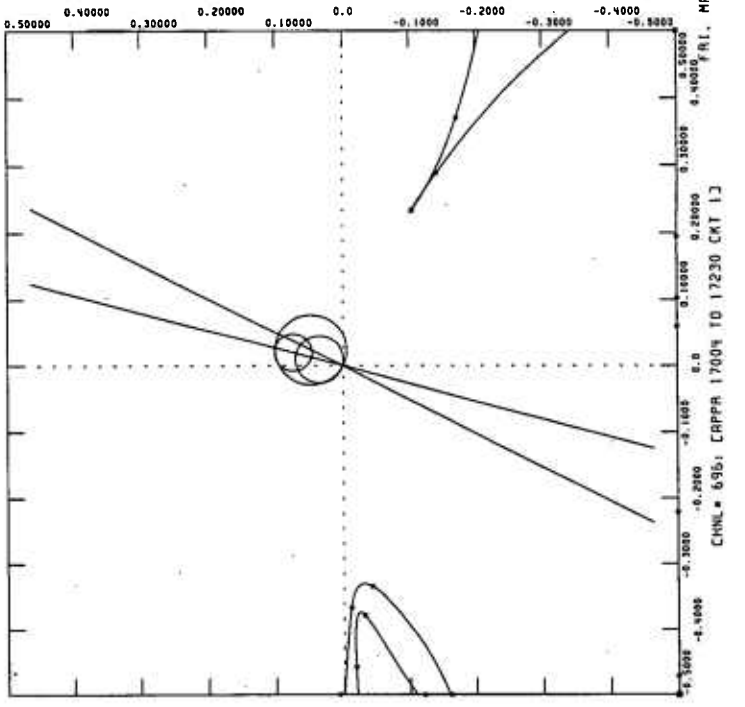


FRI, MAR 31 2000 13:38
RUN E3A PLOT 14

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2

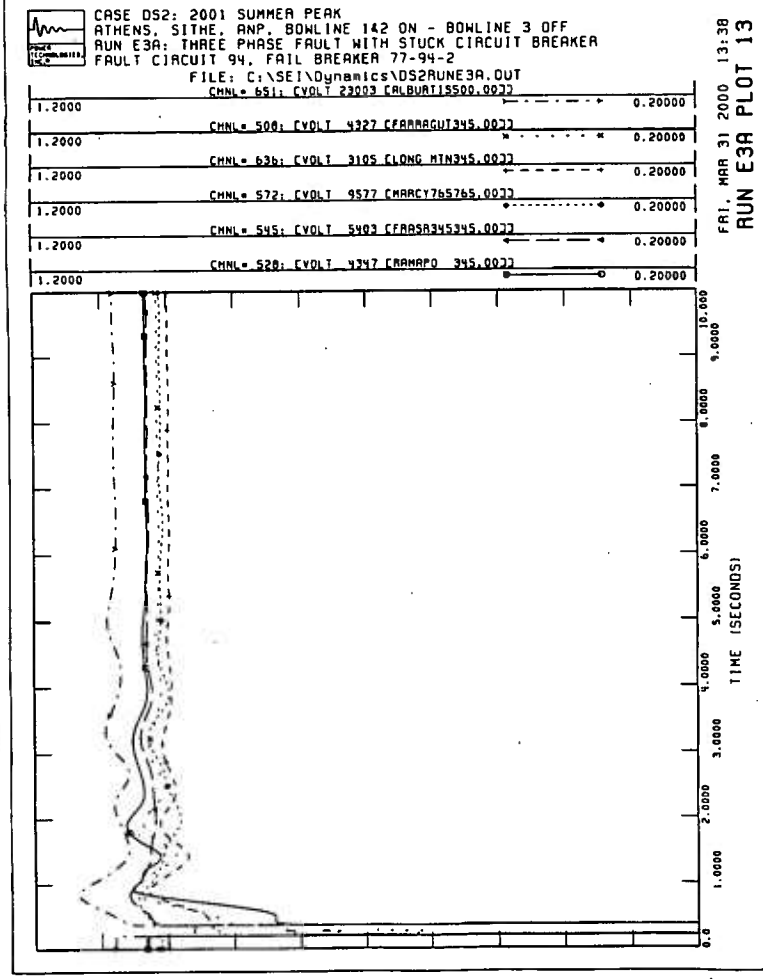
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT

RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



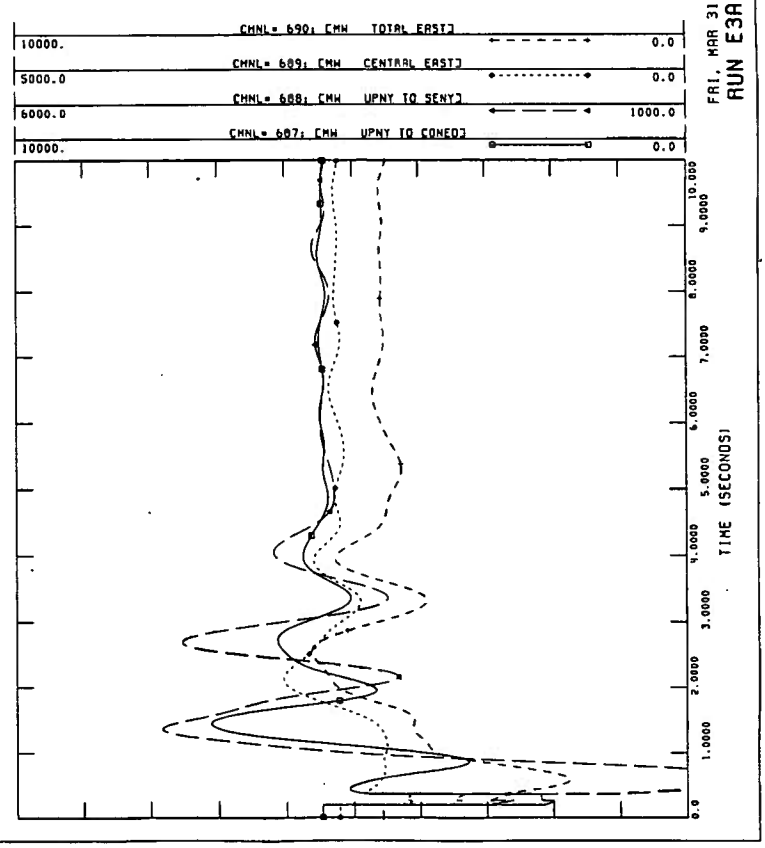
RUN E3A PLOT 16

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT



FRI, MAR 31 2000 13:38
RUN E3A PLOT 13

CASE DS2: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS2RUNE3A.OUT



FRI, MAR 31 2000 13:38
RUN E3A PLOT 15

APPENDIX F.3 - Summer Peak Case DS3

Bowline 1, 2 and 3 , Athens, ANP and Sithe On-Line

CONTINGENCY D1A

```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4310 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BOWLINE
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9398                           / TRIP BOWLINE 3 ST
TRIP BRANCH FROM BUS 9398 TO BUS 4311 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT

FRI, MAR 31 2000 15:58
RUN D1A PLOT 2

CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOYETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN24.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT

FRI, MAR 31 2000 15:58
RUN D1A PLOT 4

CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [RAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [RAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT

FRI, MAR 31 2000 15:58
RUN D1A PLOT 1

CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFLTZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP-3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

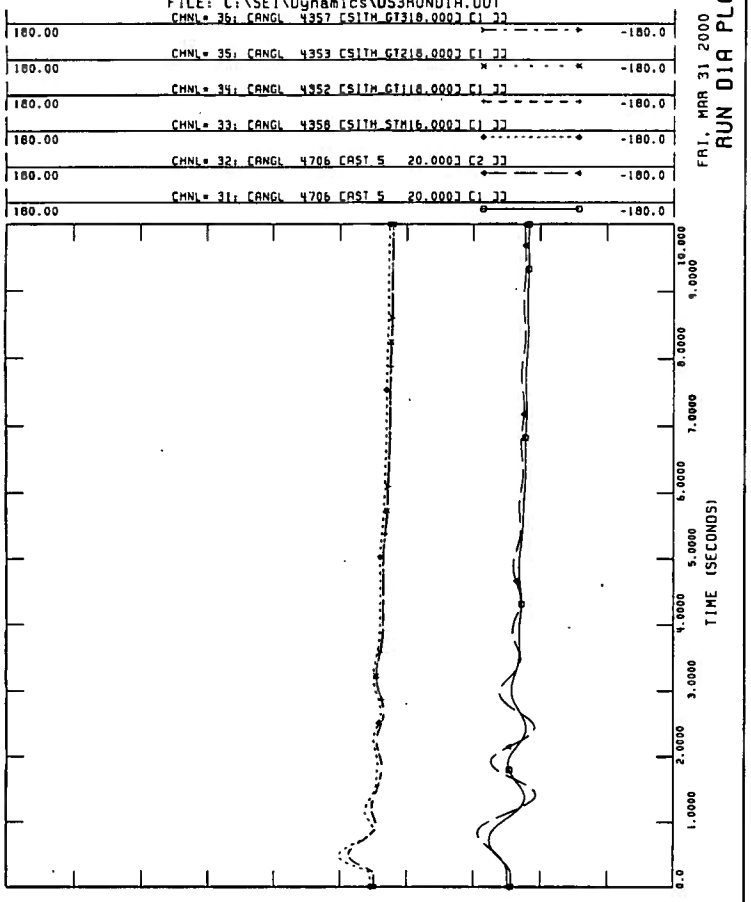
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT

FRI, MAR 31 2000 15:58
RUN D1A PLOT 3

CHNL= 18: CANGL 9528 [GILBOA-217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA-217.000] [1]]
CHNL= 16: CANGL 4193 [OANSK 6416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00 -180.0

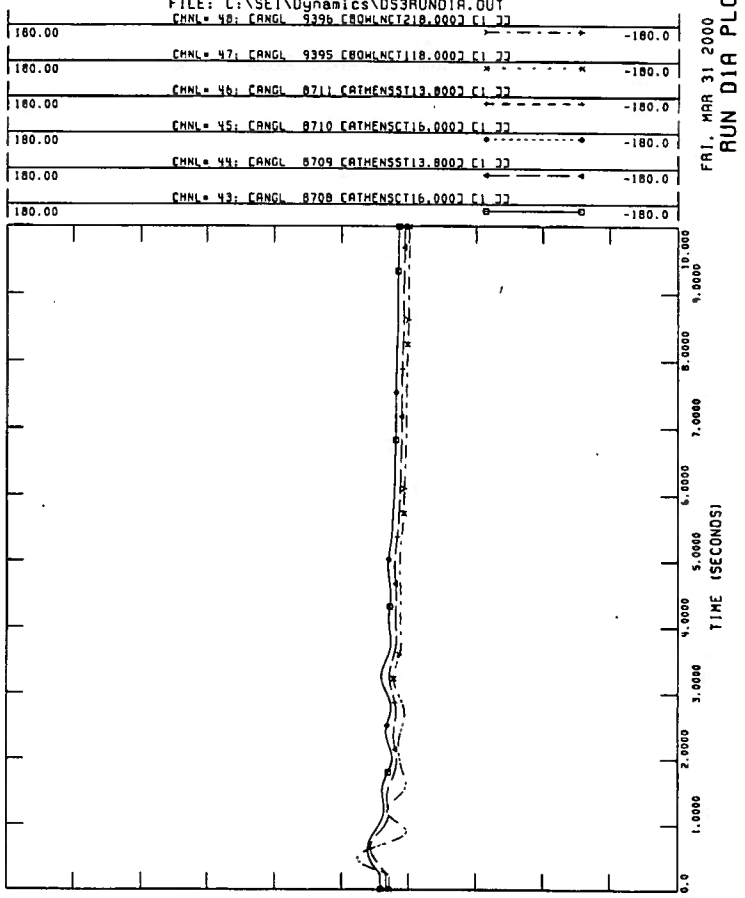
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT



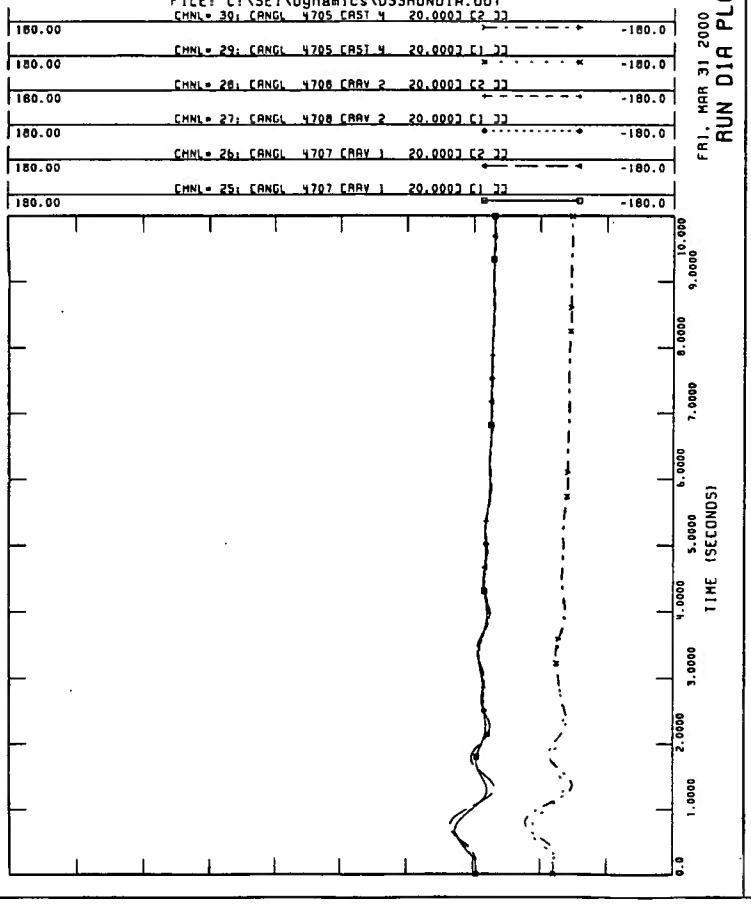
FRI, MAR 31 2000 15:58
RUN D1A PLOT 6

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT



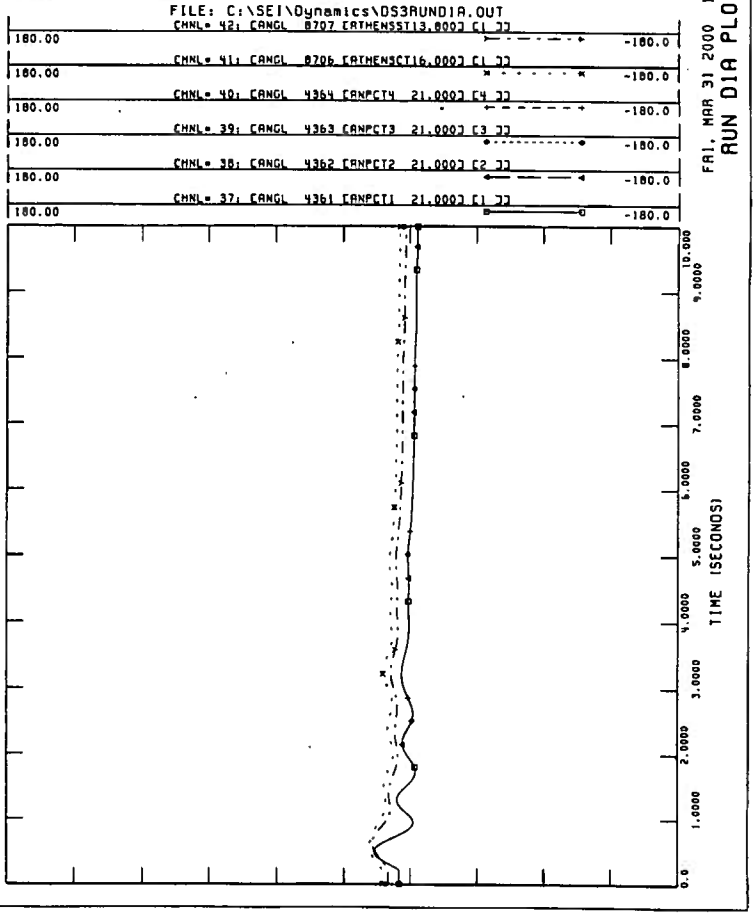
FRI, MAR 31 2000 15:58
RUN D1A PLOT 8

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT

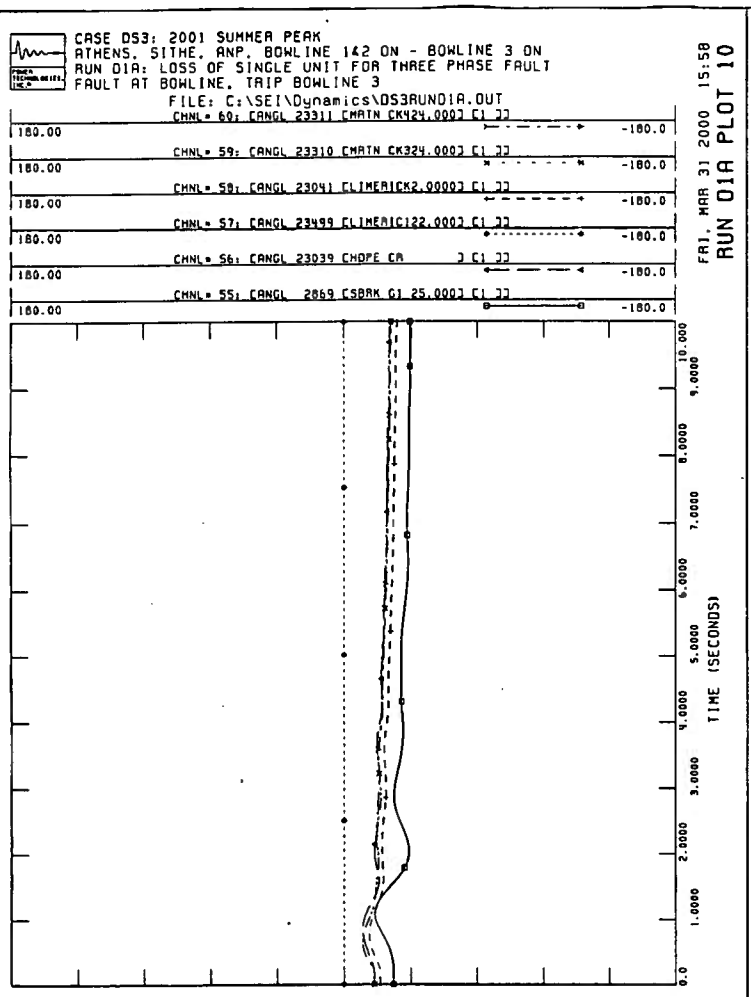


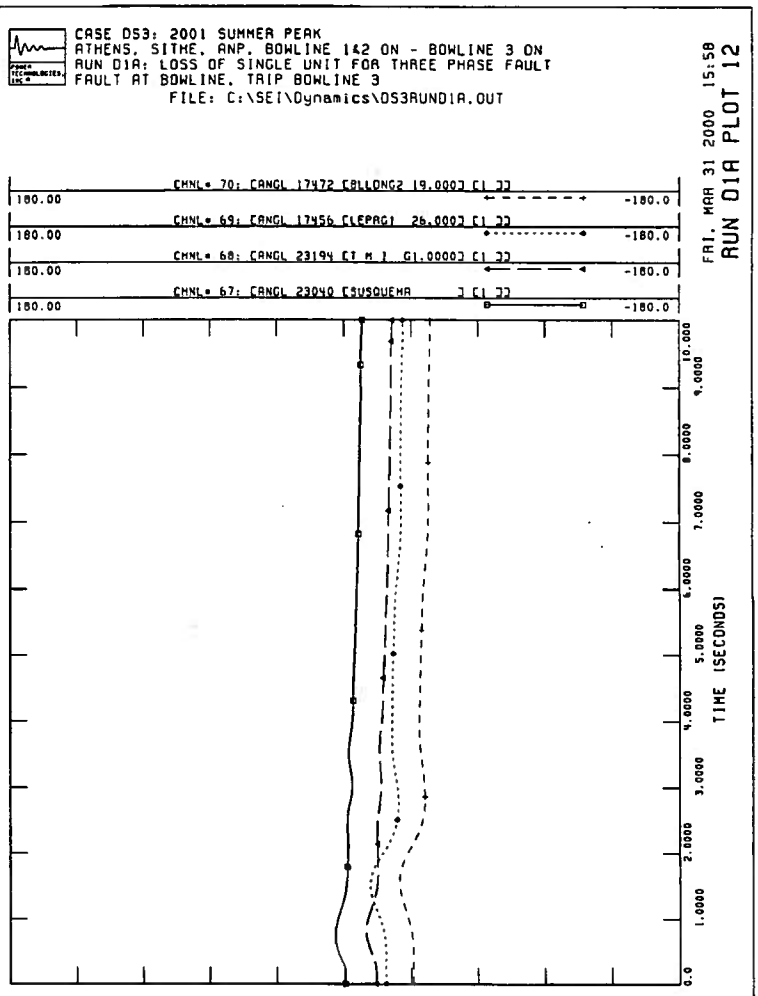
FRI, MAR 31 2000 15:58
RUN D1A PLOT 5

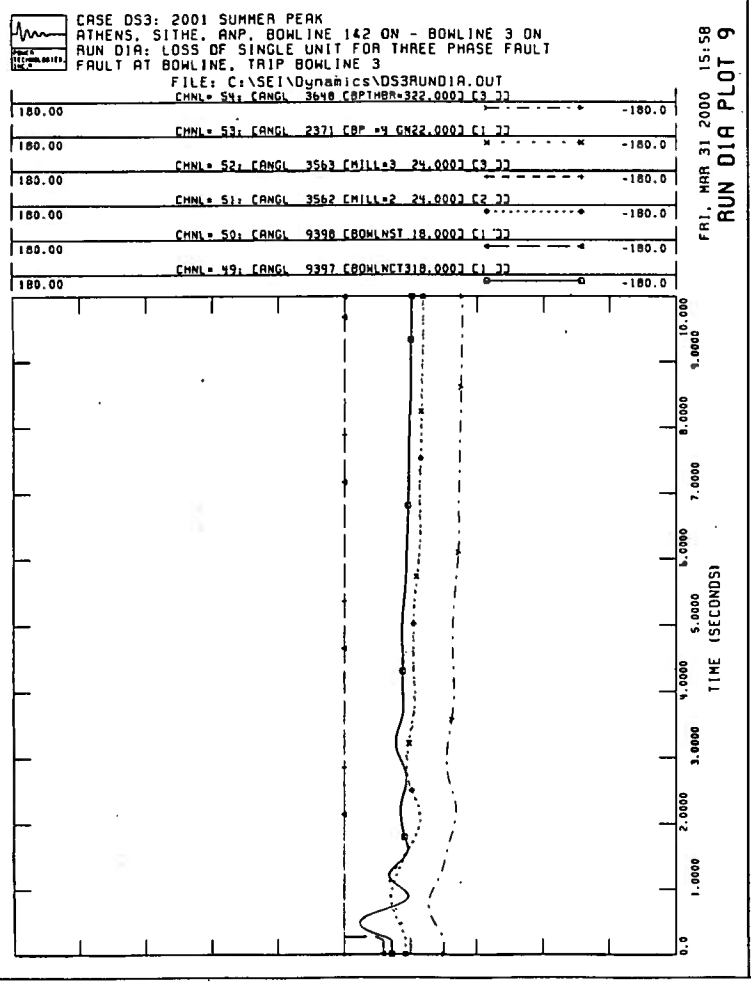
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT

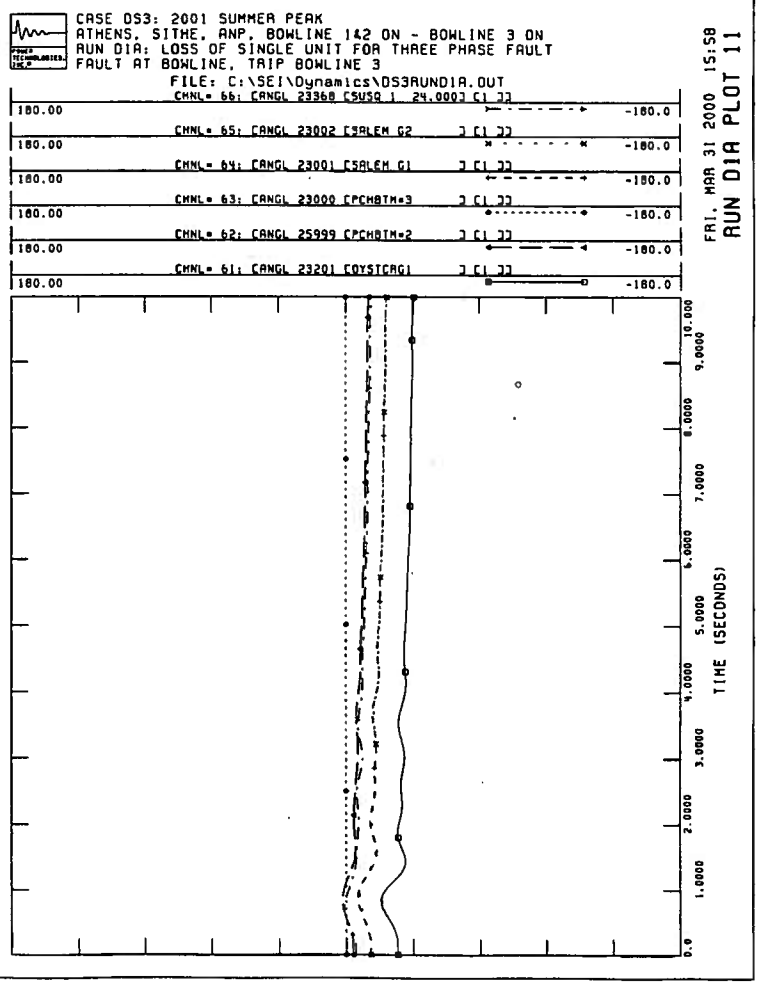


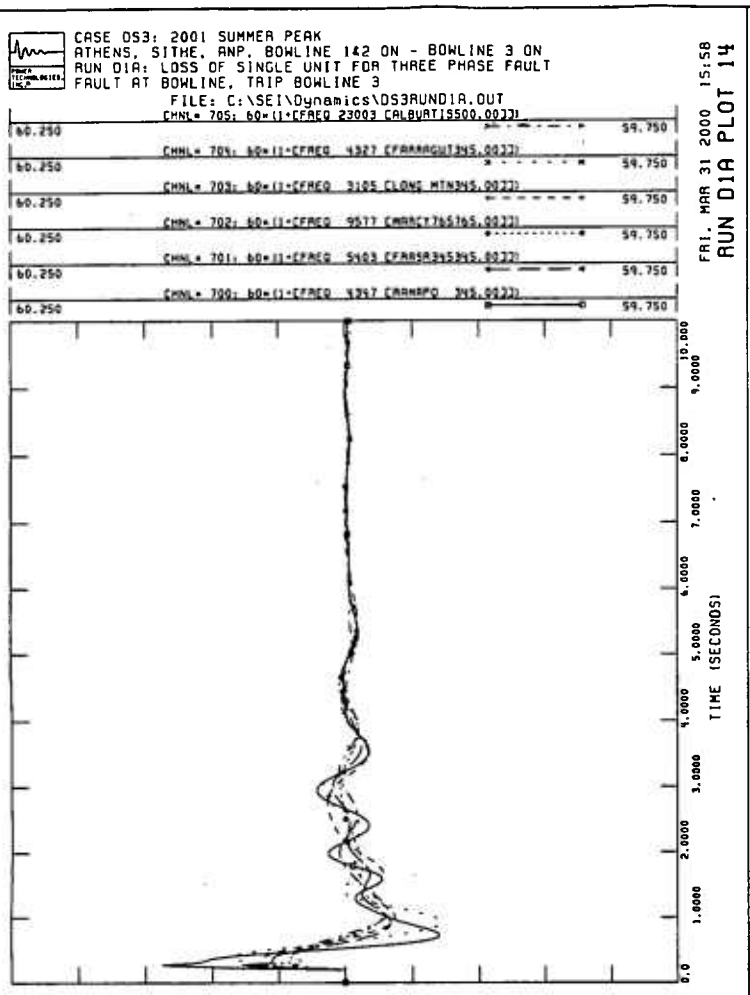
FRI, MAR 31 2000 15:58
RUN D1A PLOT 7

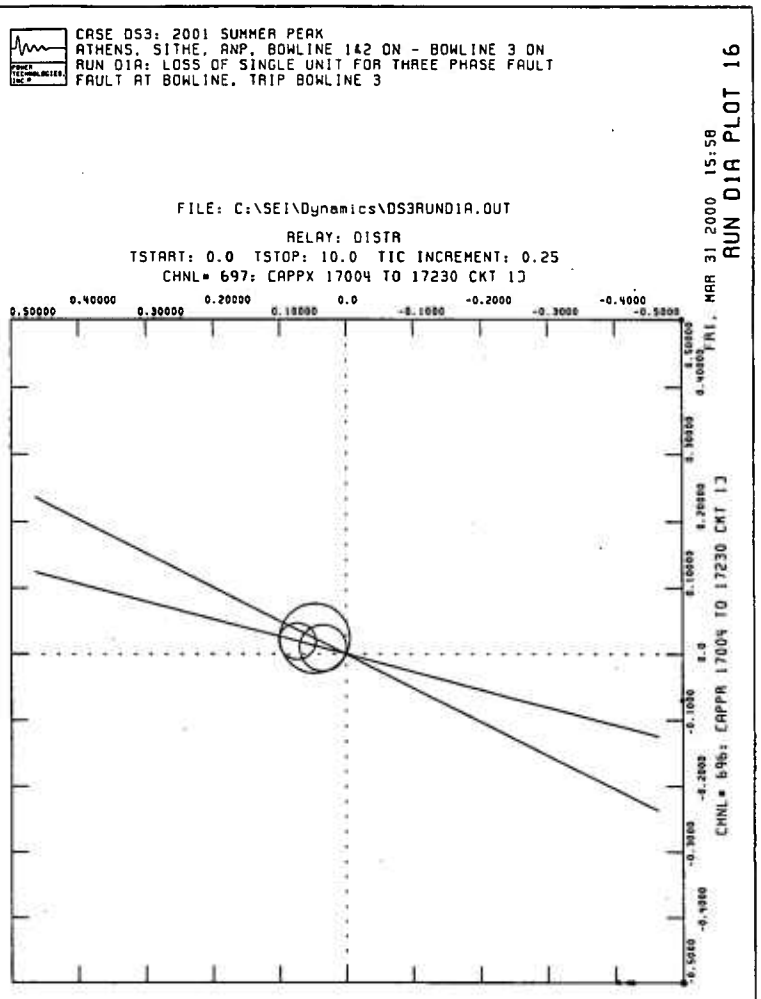

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.0000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.0000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.0000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D1A PLOT 10

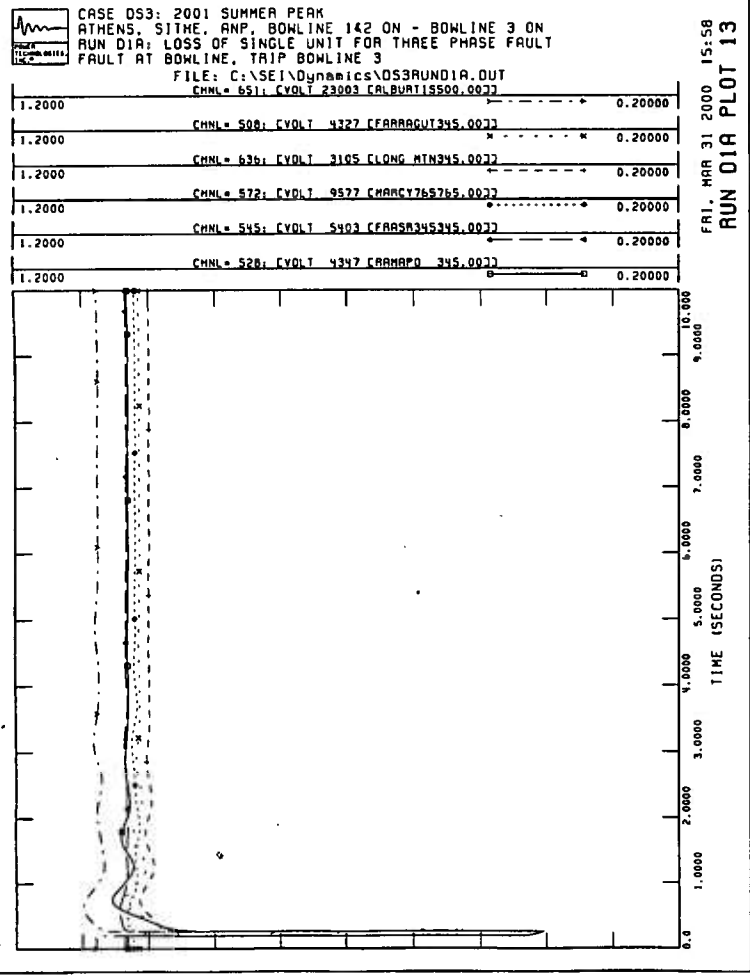

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
CHNL= 70: CANGL 17472 CBLLONG2 19.0000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.0000] C1]]
CHNL= 68: CANGL 23194 C[M] G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D1A PLOT 12

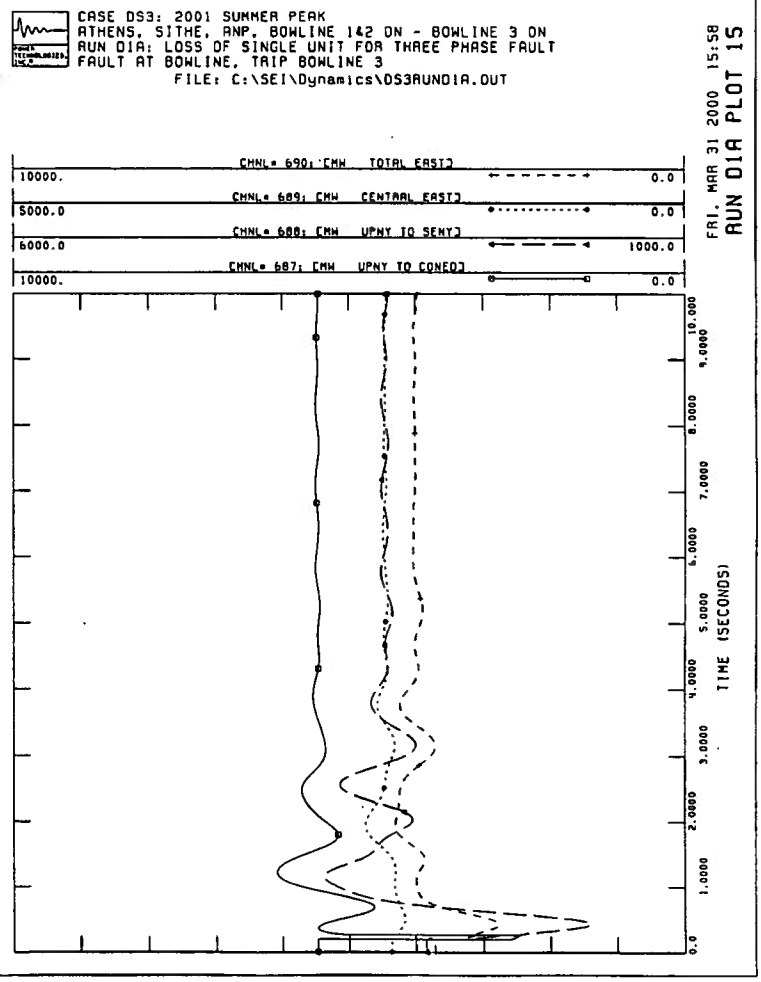

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
CHNL= 54: CANGL 3648 CBPTMBR=322.0000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.0000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.0000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.0000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.0000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.0000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D1A PLOT 9


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
CHNL= 66: CANGL 23368 C5US9 1 24.0000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCAG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D1A PLOT 11


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
FRI, MAR 31 2000 15:58
RUN D1A PLOT 14
TIME (SECONDS)

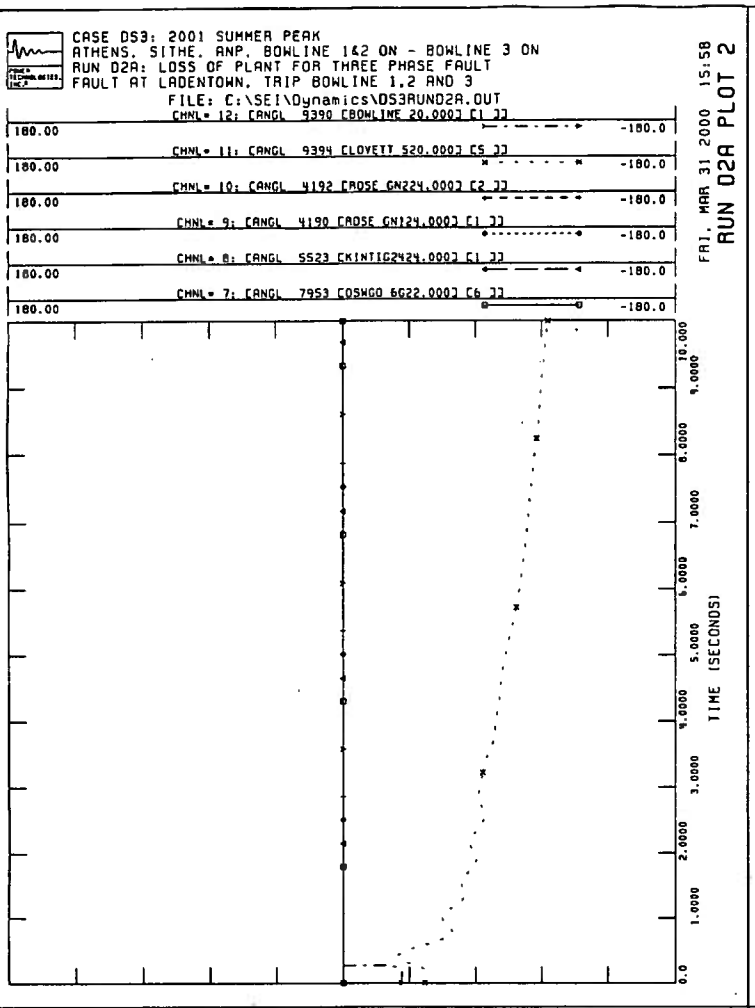

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 15:58
RUN D1A PLOT 16

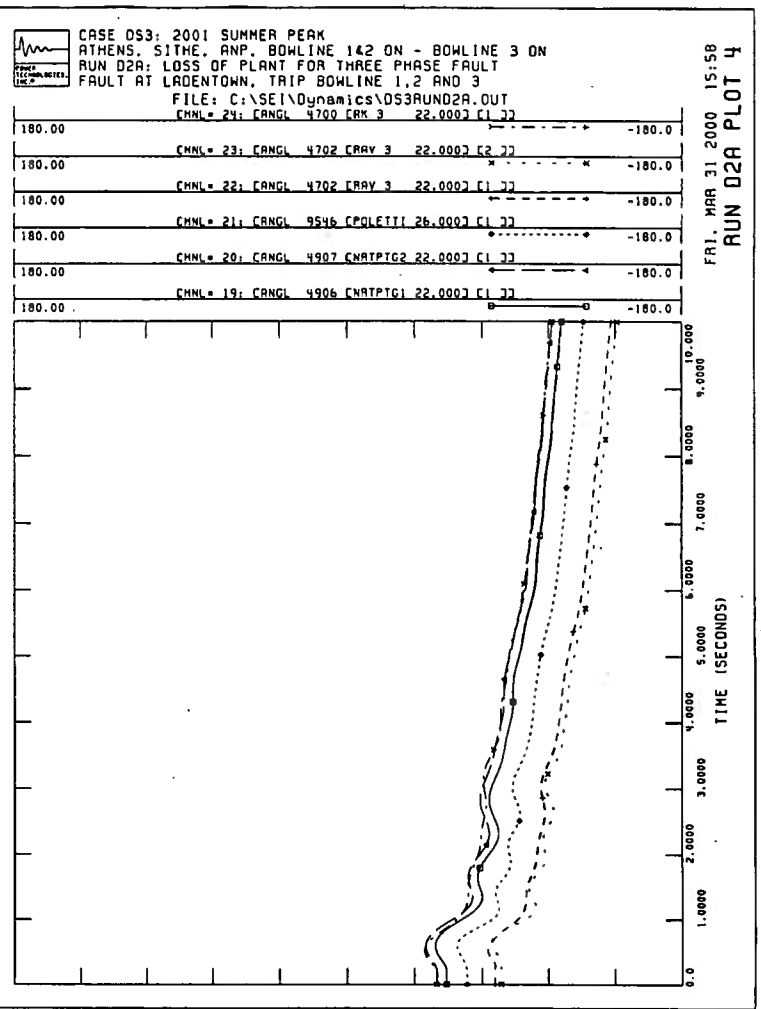

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
FRI, MAR 31 2000 15:58
RUN D1A PLOT 13
TIME (SECONDS)

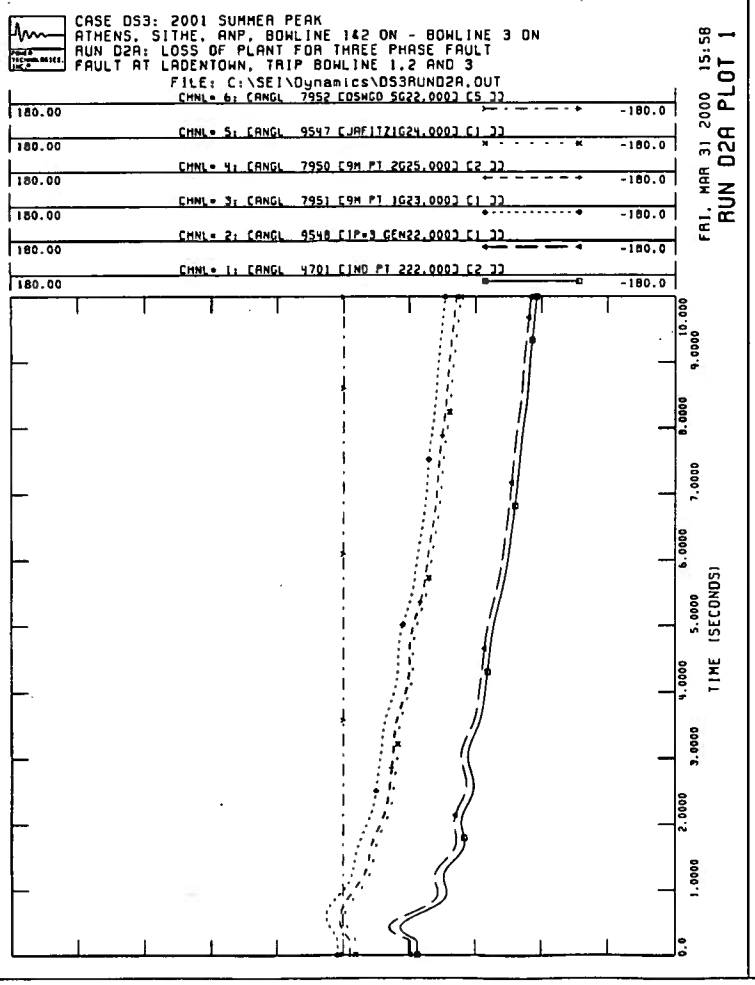

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS3RUND1A.OUT
FRI, MAR 31 2000 15:58
RUN D1A PLOT 15
TIME (SECONDS)

CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                          / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                          / TRIP BOWLINE 2
DROP GENERATOR 1 AT BUS 9395                          / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9396                          / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9397                          / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9398                          / TRIP BOWLINE 3 ST
DISCONNECT BUS 9300                             /
DISCONNECT BUS 9301                             /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 15:58
RUN D2A PLOT 2
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 24: CANGL 4700 CRK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 15:58
RUN D2A PLOT 4
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZIG24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 15:58
RUN D2A PLOT 1
0.0
1.0000
2.0000
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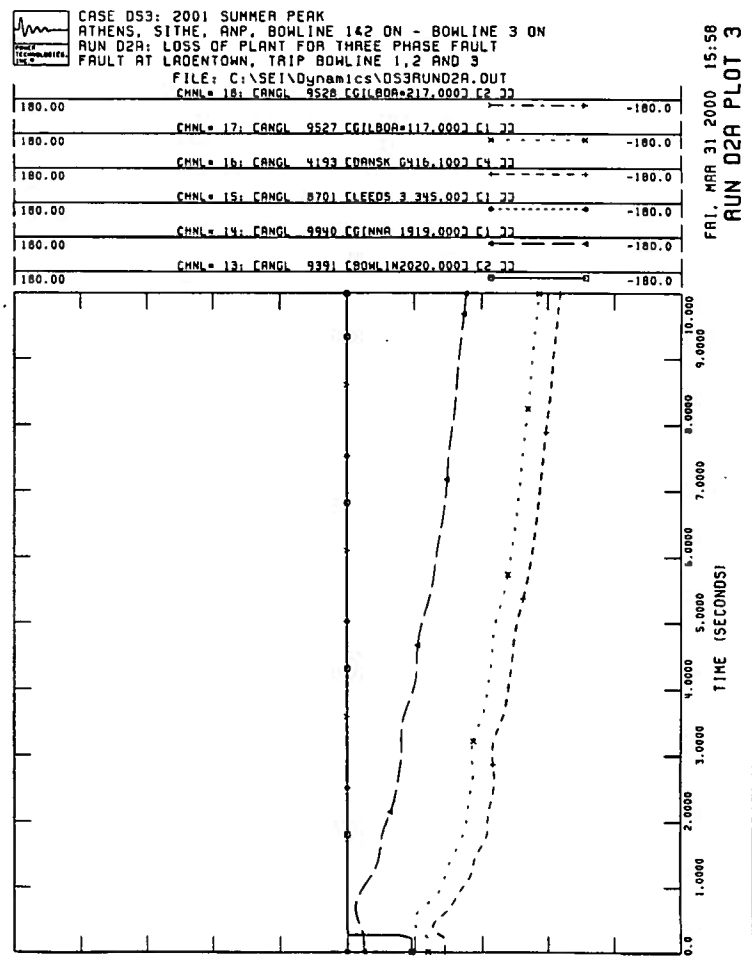
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 15:58
RUN D2A PLOT 3
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8.0000
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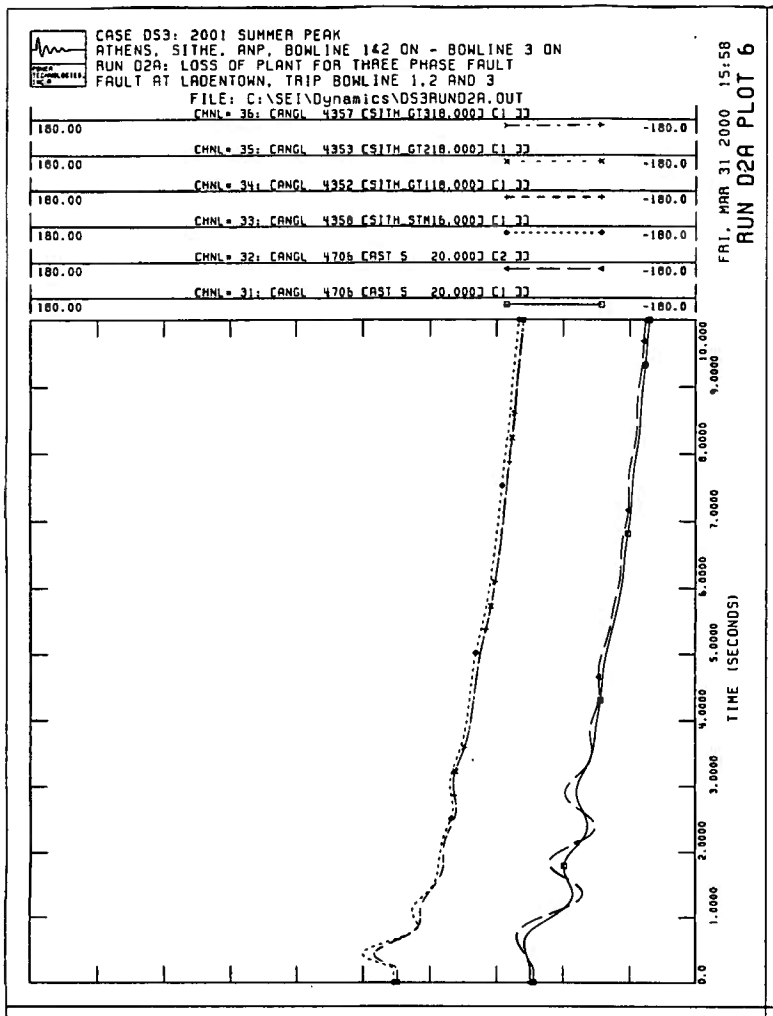
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 36: CANGL 4357 [SITH GT318.000] [1]]
CHNL= 35: CANGL 4353 [SITH GT218.000] [1]]
CHNL= 34: CANGL 4352 [SITH GT118.000] [1]]
CHNL= 33: CANGL 4350 [SITH STM16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4705 [AST 5 20.000] [1]]
180.00
-180.0
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RUN D2A PLOT 6
TIME (SECONDS)
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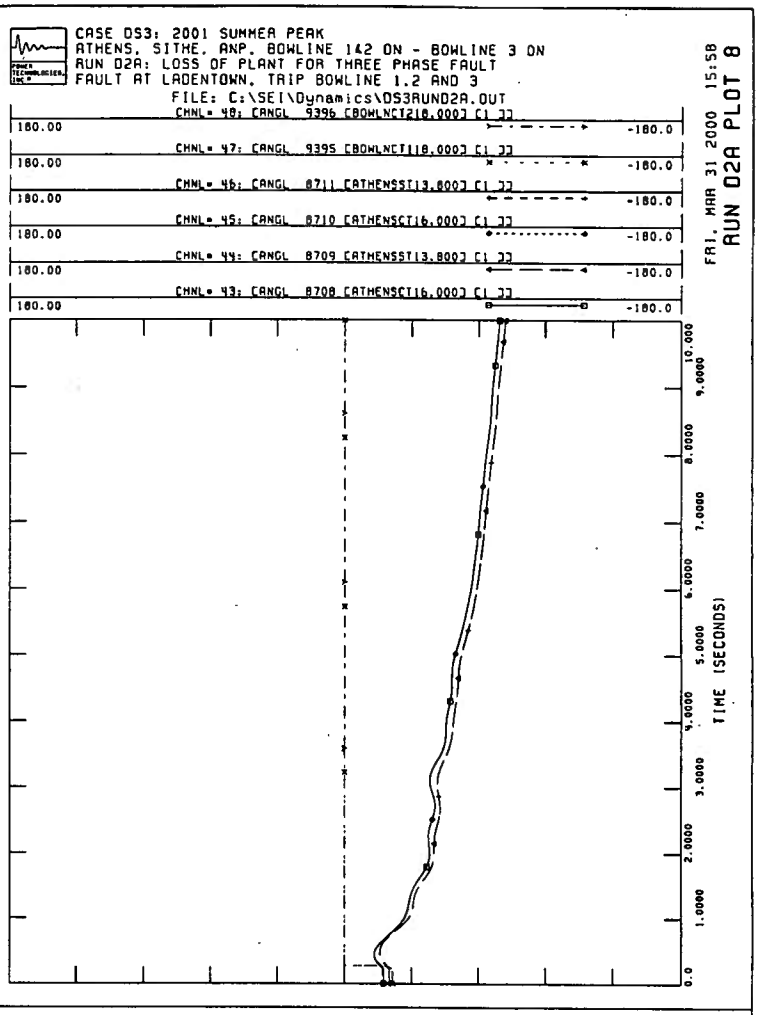
9.0000
10.000


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 48: CANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:58
RUN D2A PLOT 8
TIME (SECONDS)
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2.0000
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6.0000
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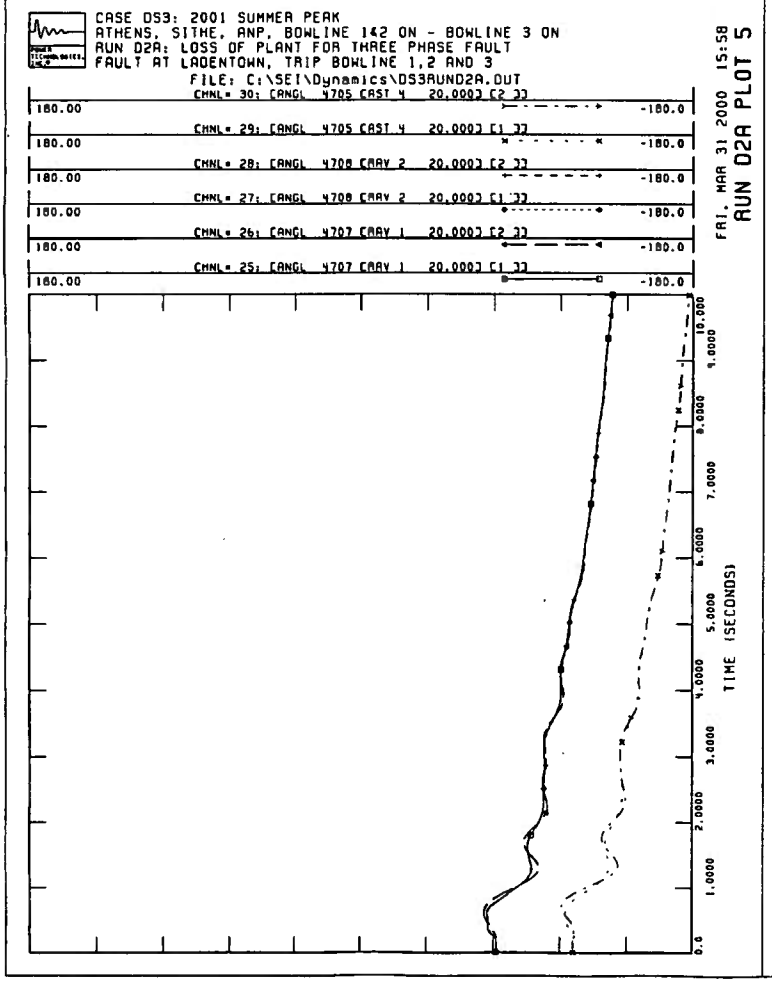
10.000


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARV 2 20.000] [2]]
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CHNL= 25: CANGL 4707 [ARV 1 20.000] [1]]
180.00
-180.0
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RUN D2A PLOT 5
TIME (SECONDS)
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2.0000
3.0000
4.0000
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6.0000
7.0000
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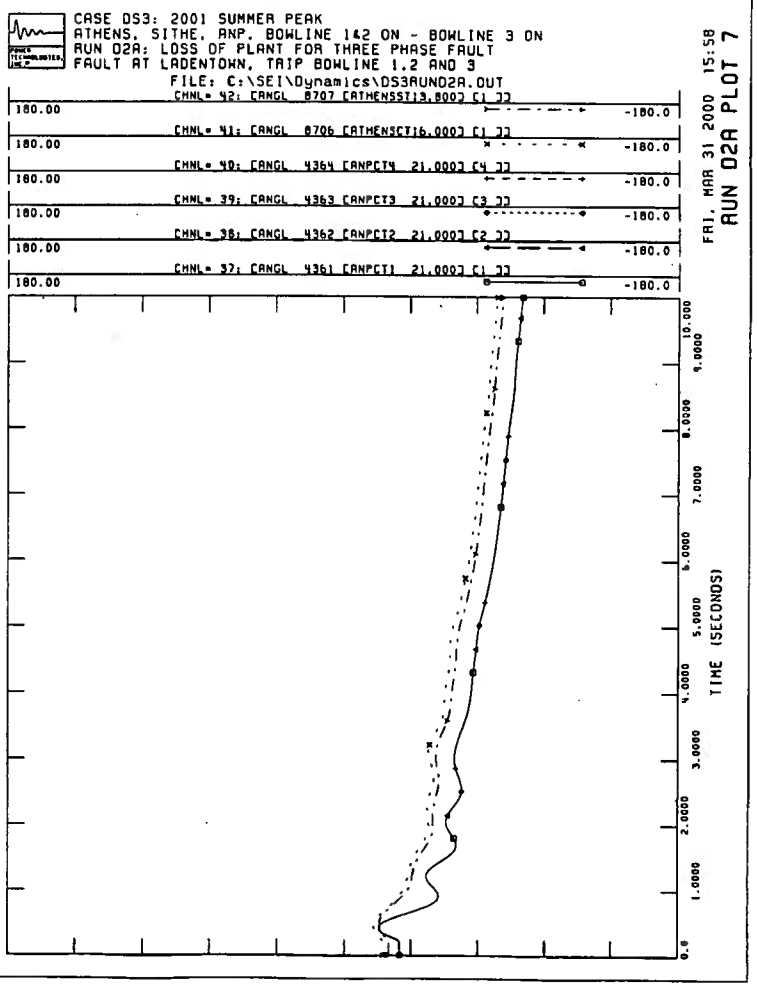
9.0000
10.000


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [ANPCT1 21.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:58
RUN D2A PLOT 7
TIME (SECONDS)
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4.0000
5.0000
6.0000
7.0000
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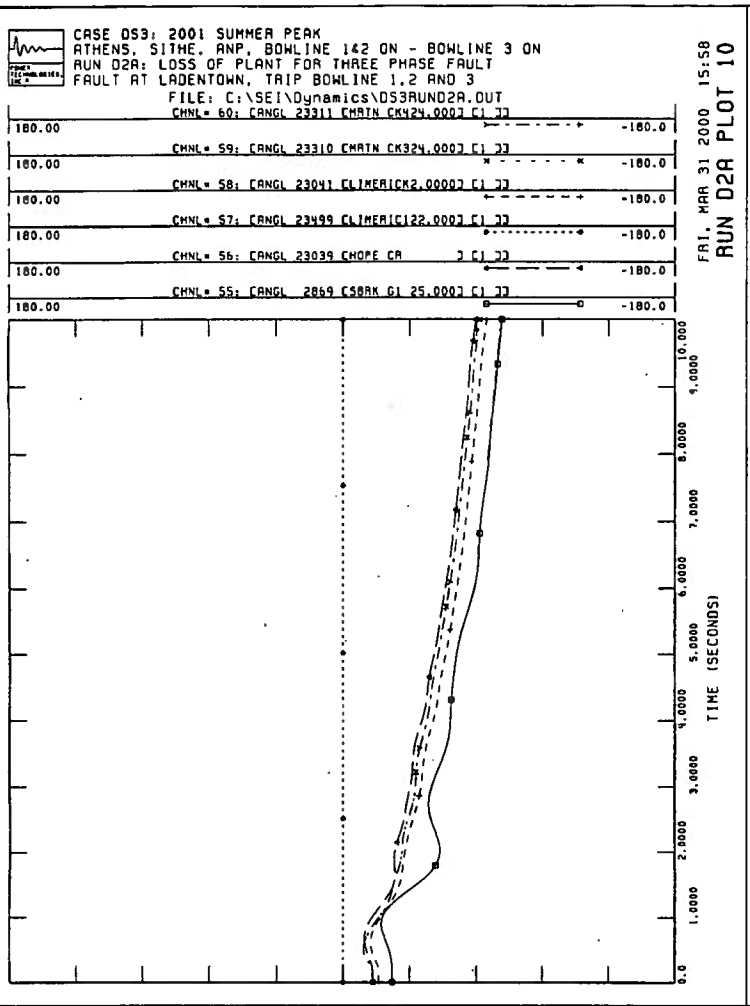
9.0000
10.000


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 60: CANGL 23311 CMAIN CK324.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
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2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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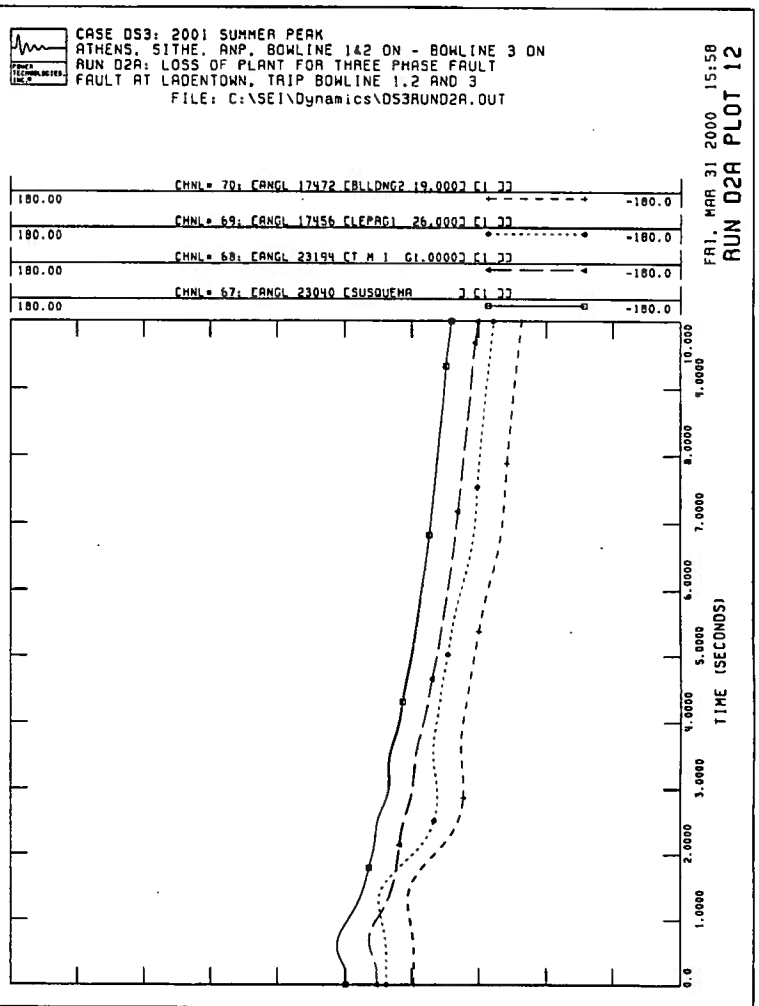
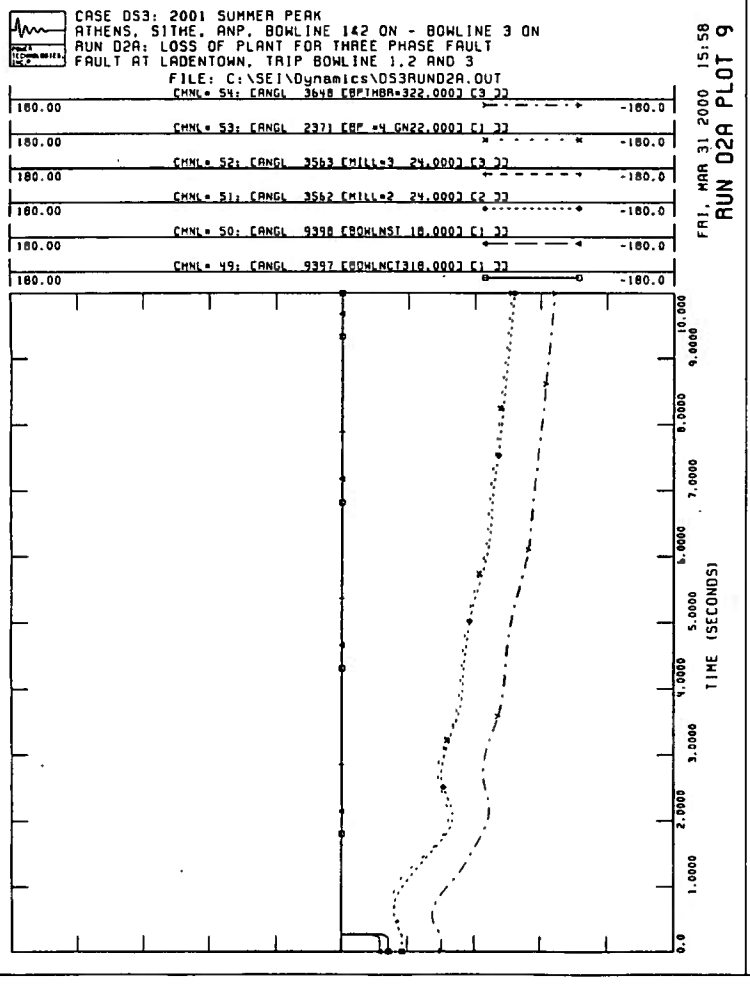
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D2A PLOT 10


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D2A PLOT 12


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 54: CANGL 3648 CBPTMBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNGT318.000] C1]]
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1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
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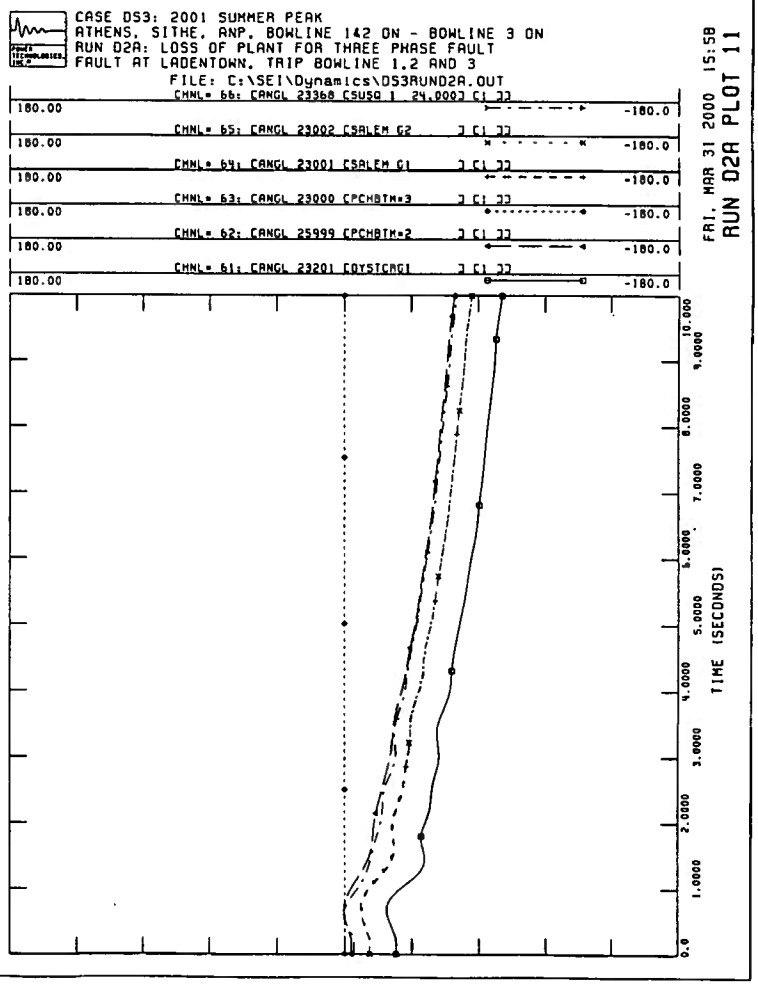
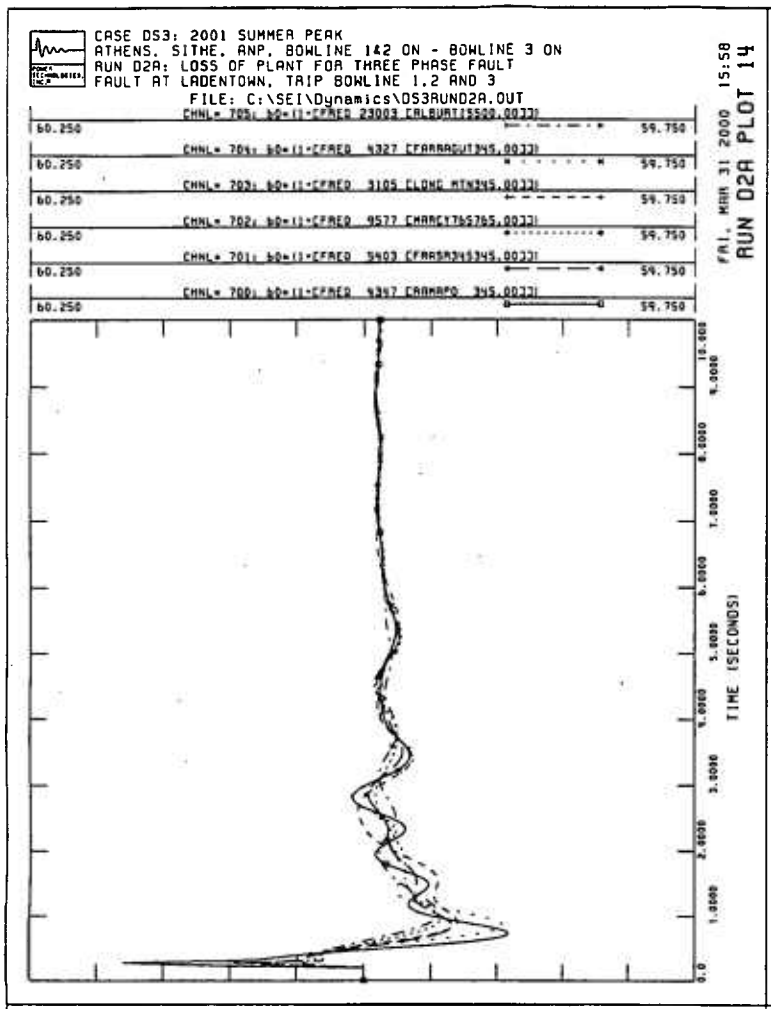
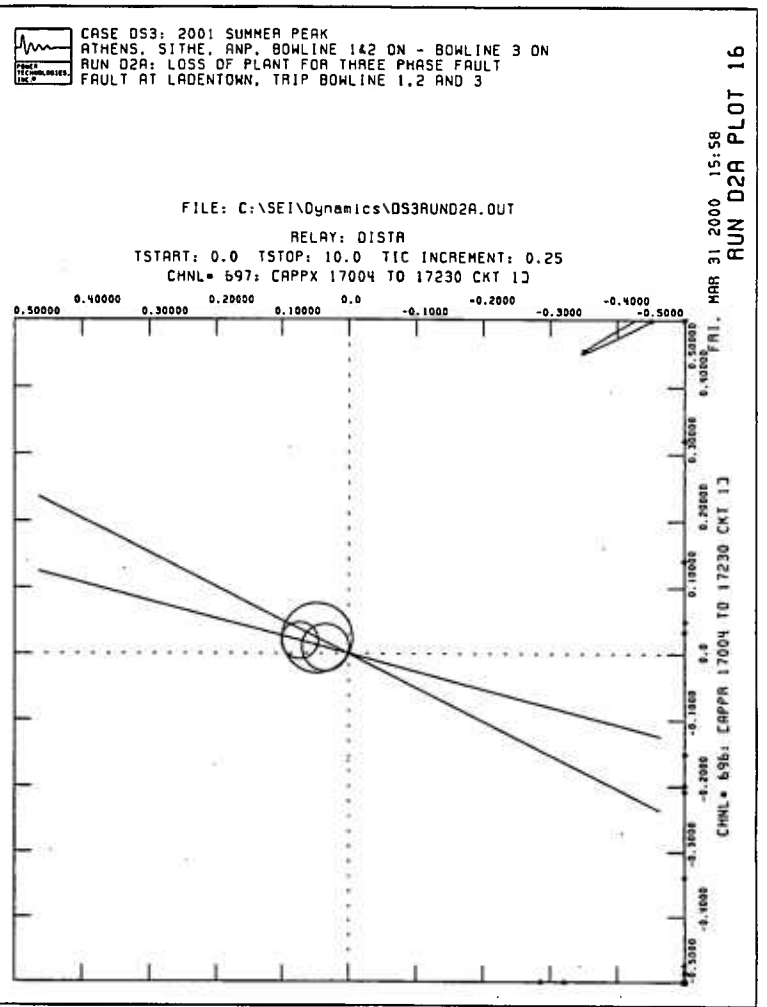
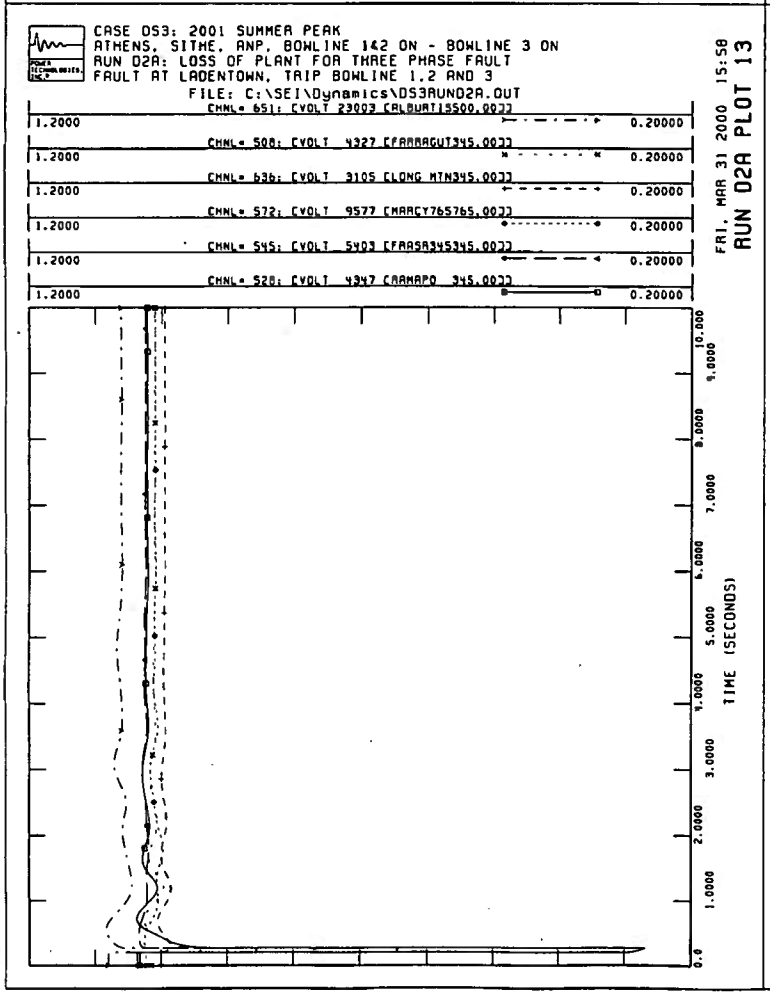
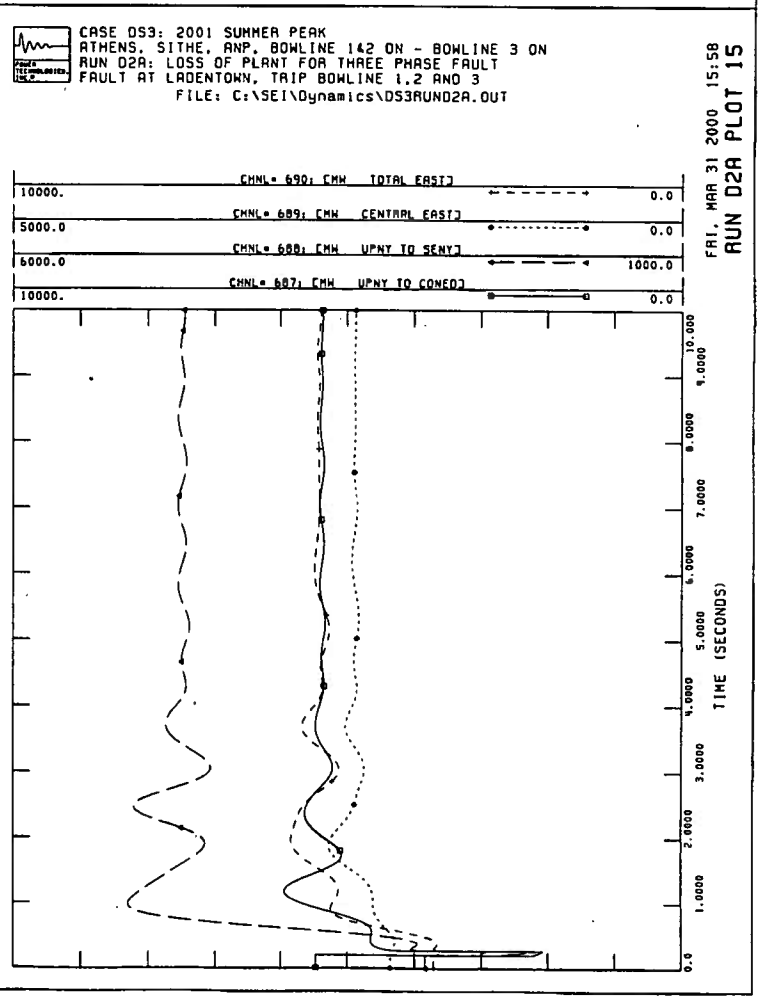
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D2A PLOT 9


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 CDYSTCAG1] C1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D2A PLOT 11


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
FRI, MAR 31 2000 15:58
RUN D2A PLOT 14
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 15:58
RUN D2A PLOT 16

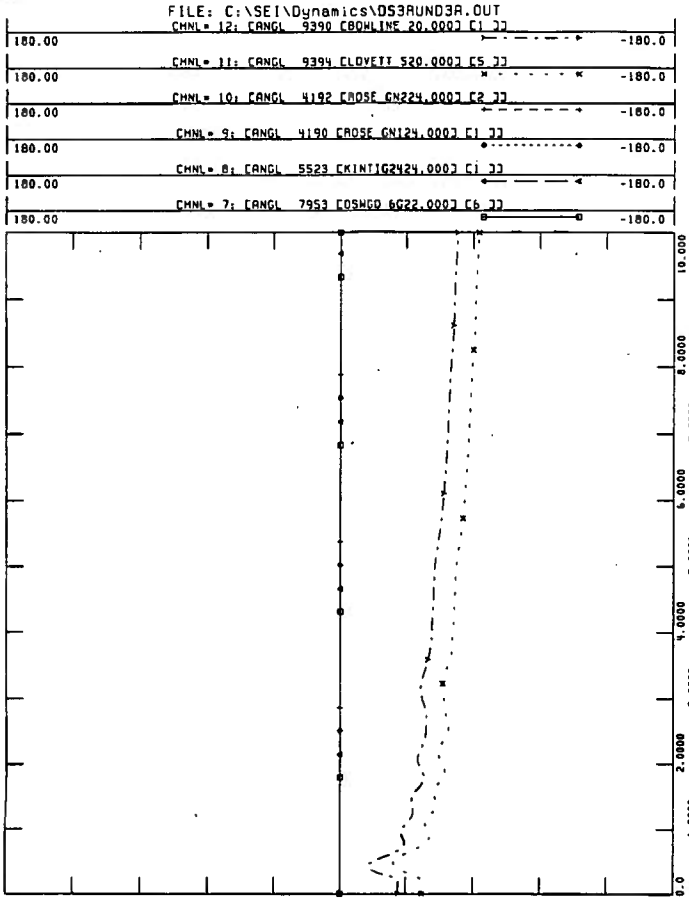

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
FRI, MAR 31 2000 15:58
RUN D2A PLOT 13
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS3RUND2A.OUT
FRI, MAR 31 2000 15:58
RUN D2A PLOT 15
TIME (SECONDS)

CONTINGENCY D3A

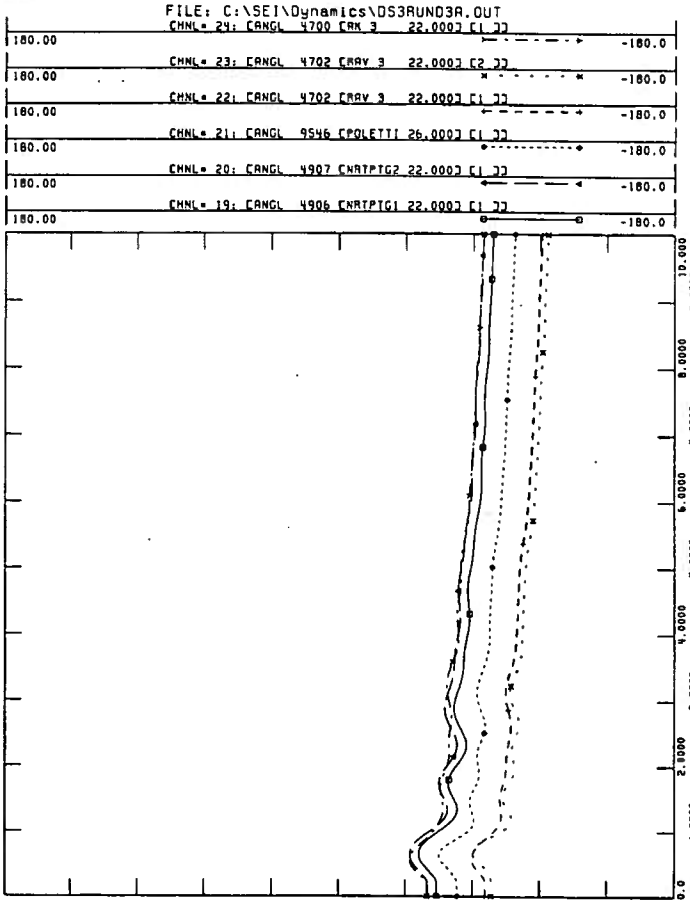
```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                          / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT



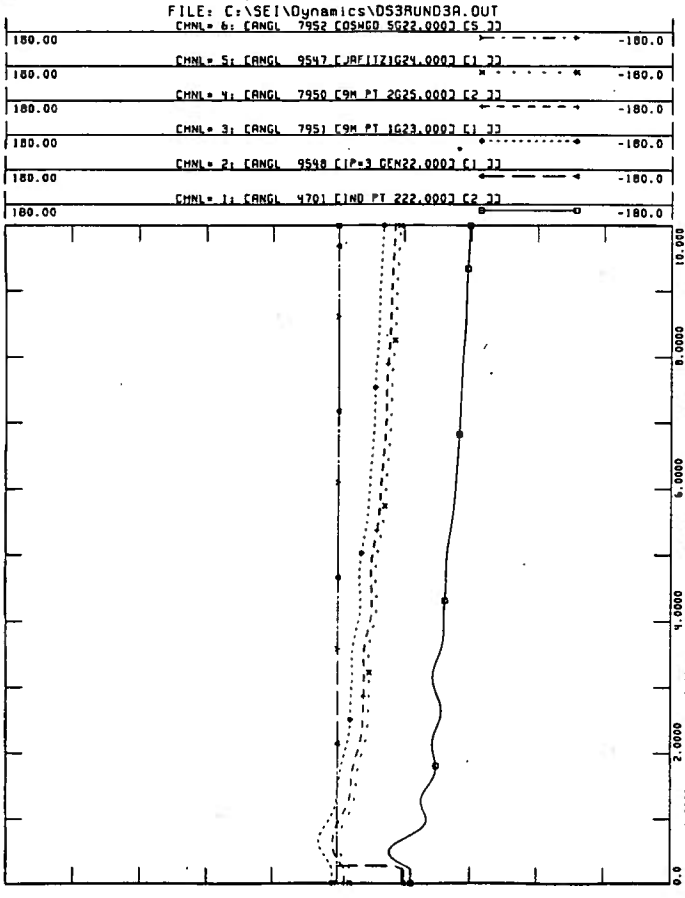
FRI, MAR 31 2000 15:58
RUN D3A PLOT 2

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT



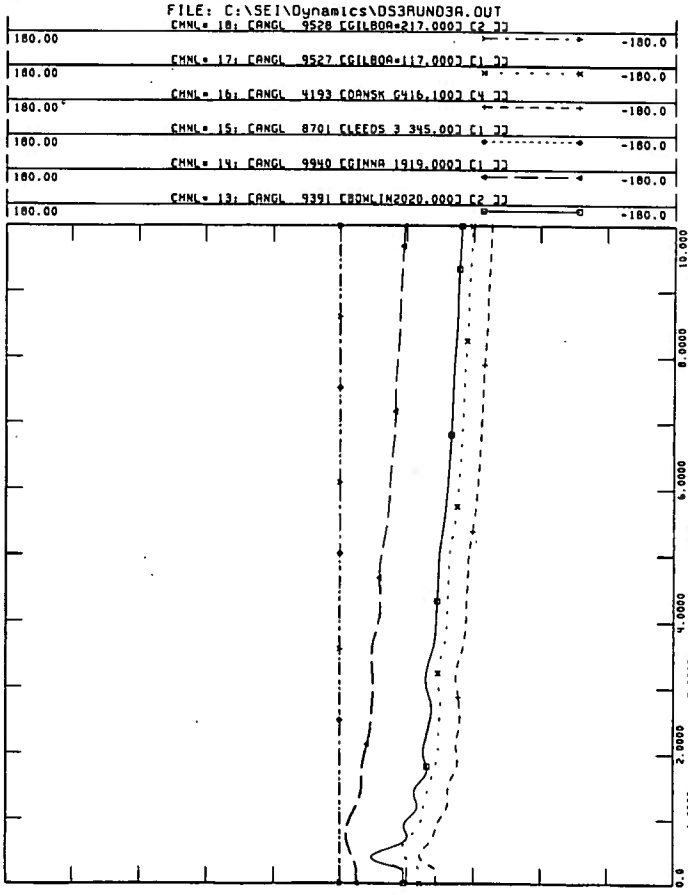
FRI, MAR 31 2000 15:58
RUN D3A PLOT 4

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT

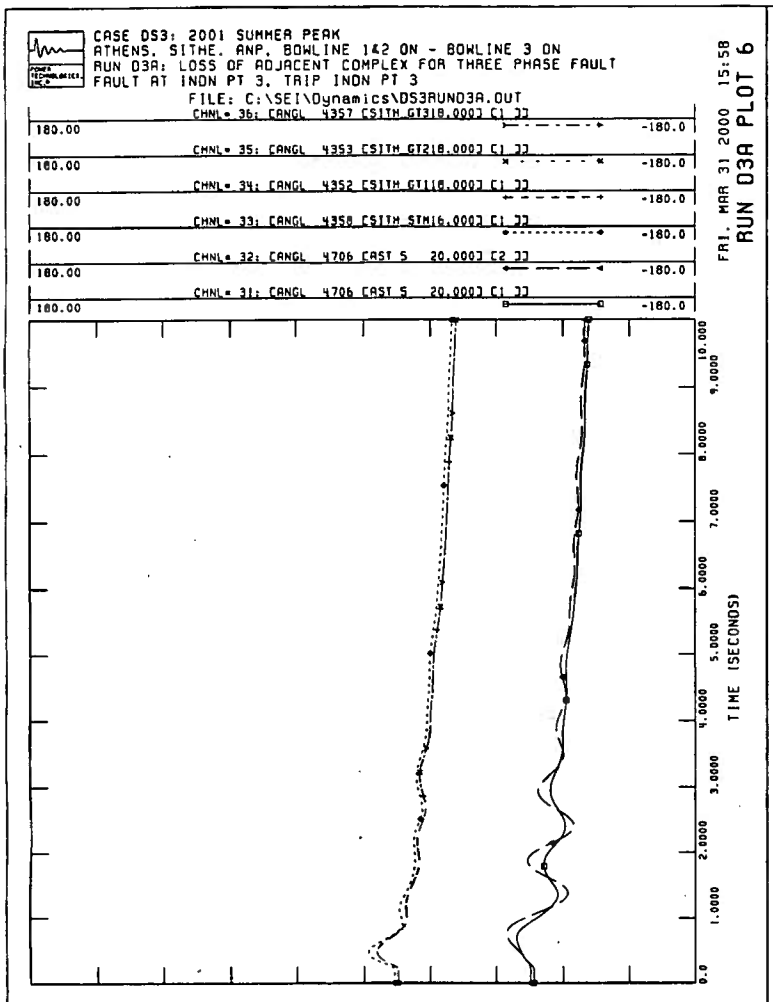


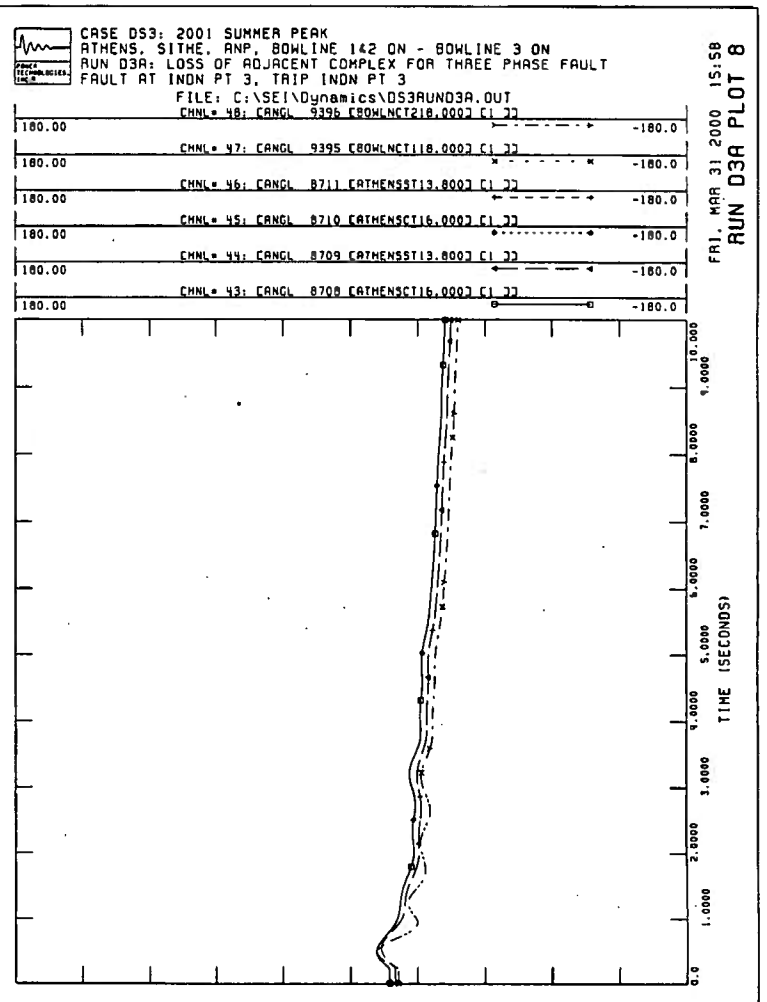
FRI, MAR 31 2000 15:58
RUN D3A PLOT 1

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT



FRI, MAR 31 2000 15:58
RUN D3A PLOT 3


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
CHNL= 36: CANGL 4357 CSITH GT3 18.000] C1]]
CHNL= 35: CANGL 4353 CSITH GT2 18.000] C1]]
CHNL= 34: CANGL 4352 CSITH GT1 18.000] C1]]
CHNL= 33: CANGL 4358 CSITH STM1 6.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 6


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
CHNL= 48: CANGL 9396 CBOWLNCT2 18.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT1 18.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST3 13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT1 6.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST3 13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT1 6.000] C1]]
180.00
-180.0
0.0
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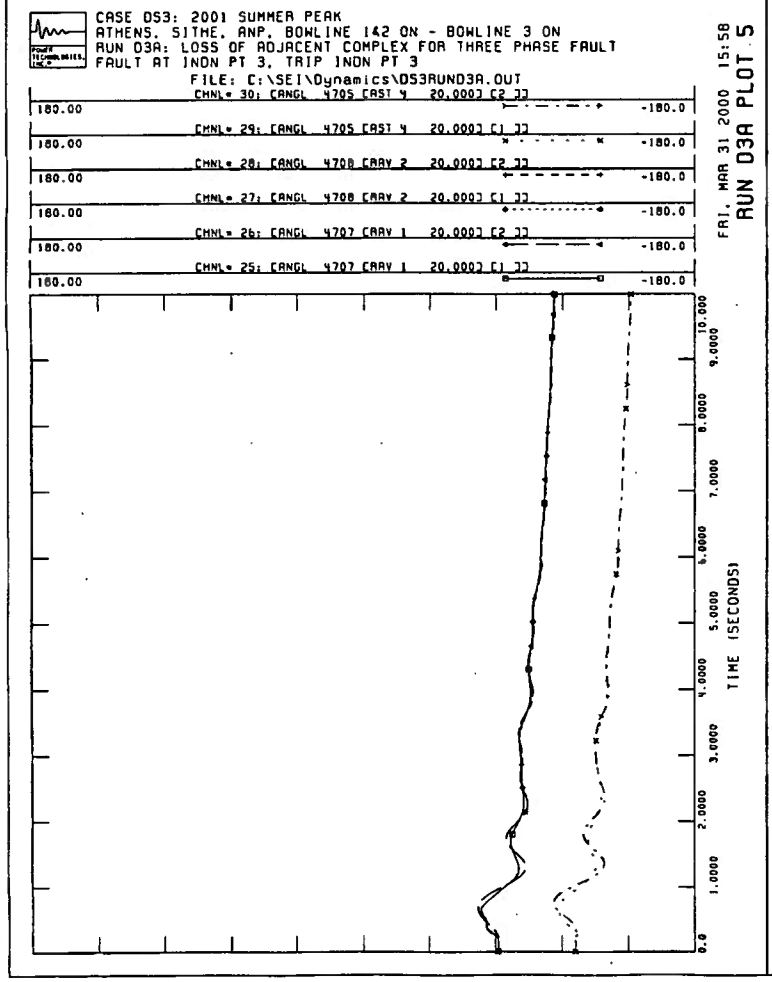
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 8


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAY 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAY 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAY 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAY 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
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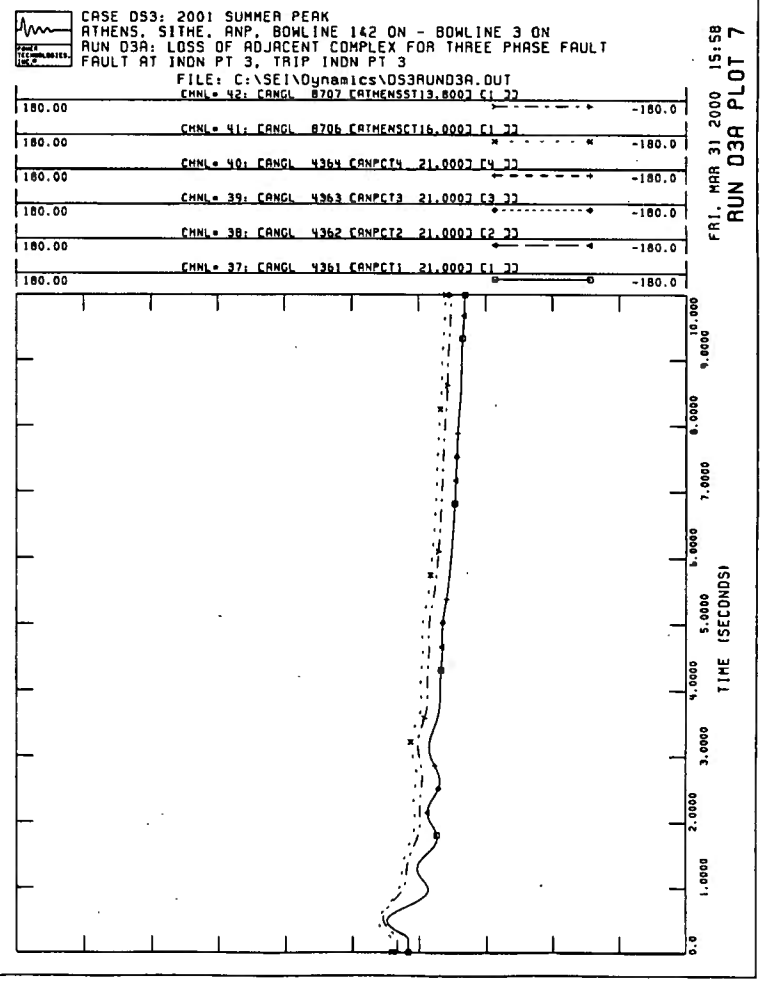
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 5


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
CHNL= 42: CANGL 8707 CATHENSST3 13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT1 6.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
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7.0000
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9.0000
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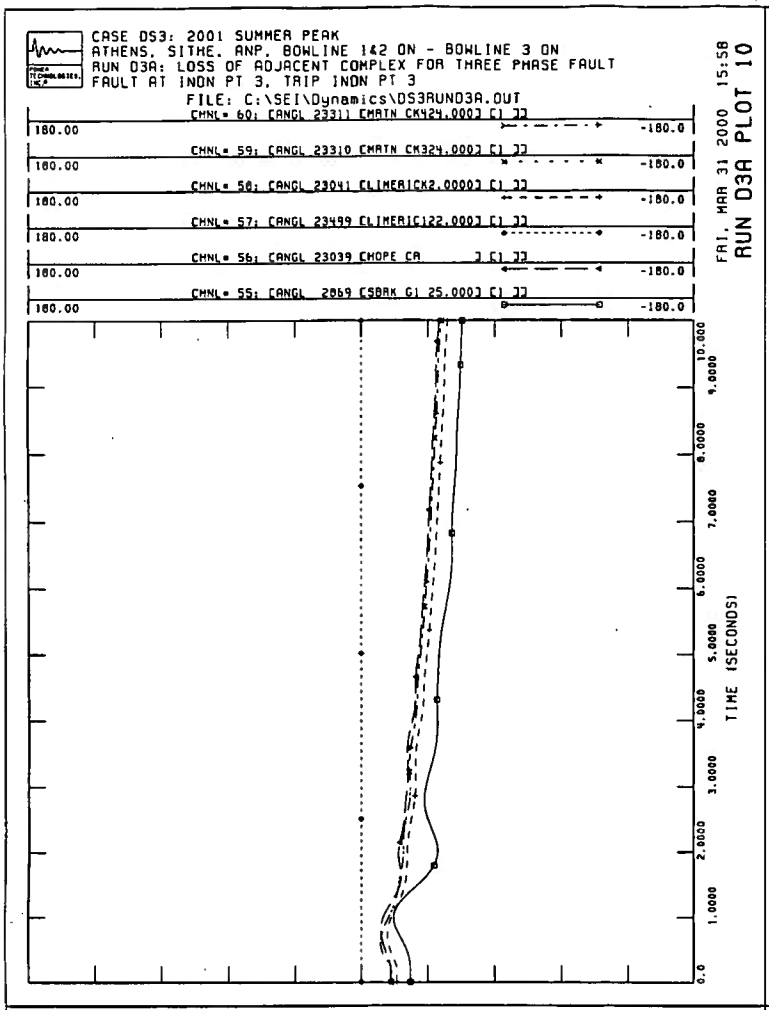
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 7


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
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CHNL= 57; CANGL 23499 CLIMERIC122.0000] C1]]
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CHNL= 55; CANGL 2869 CSBRK G1 25.0000] C1]]
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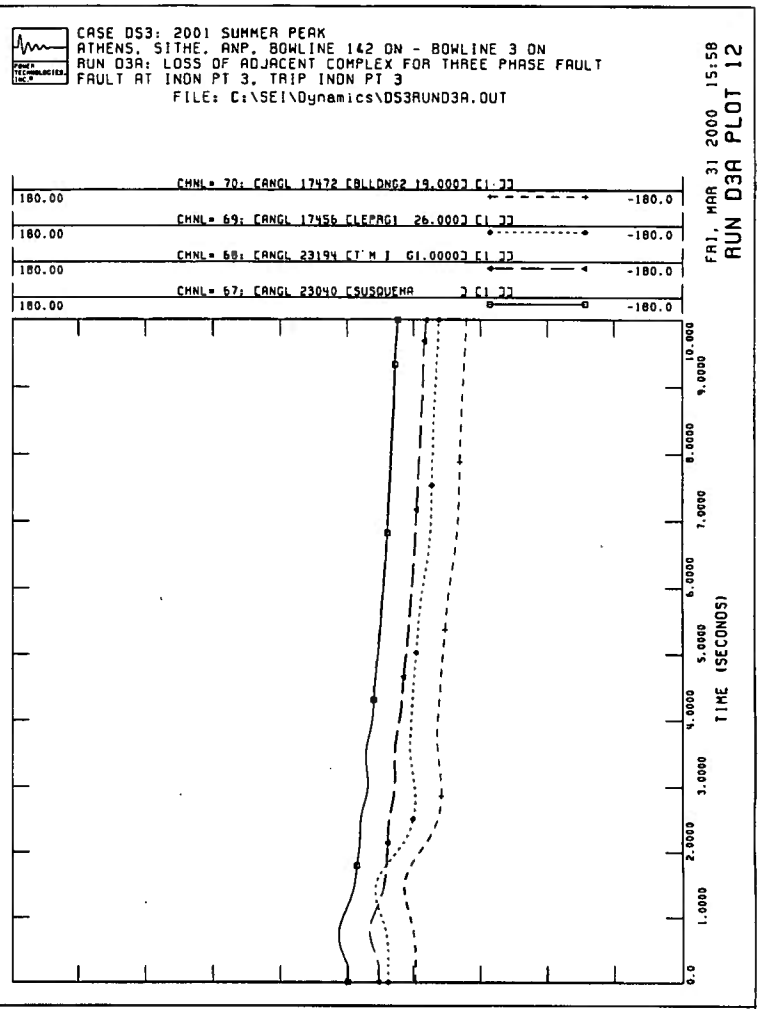
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 10


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
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CHNL= 69; CANGL 17456 CLEPAG1 26.0000] C1]]
CHNL= 68; CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67; CANGL 23040 CSUSQUEHA] C1]]
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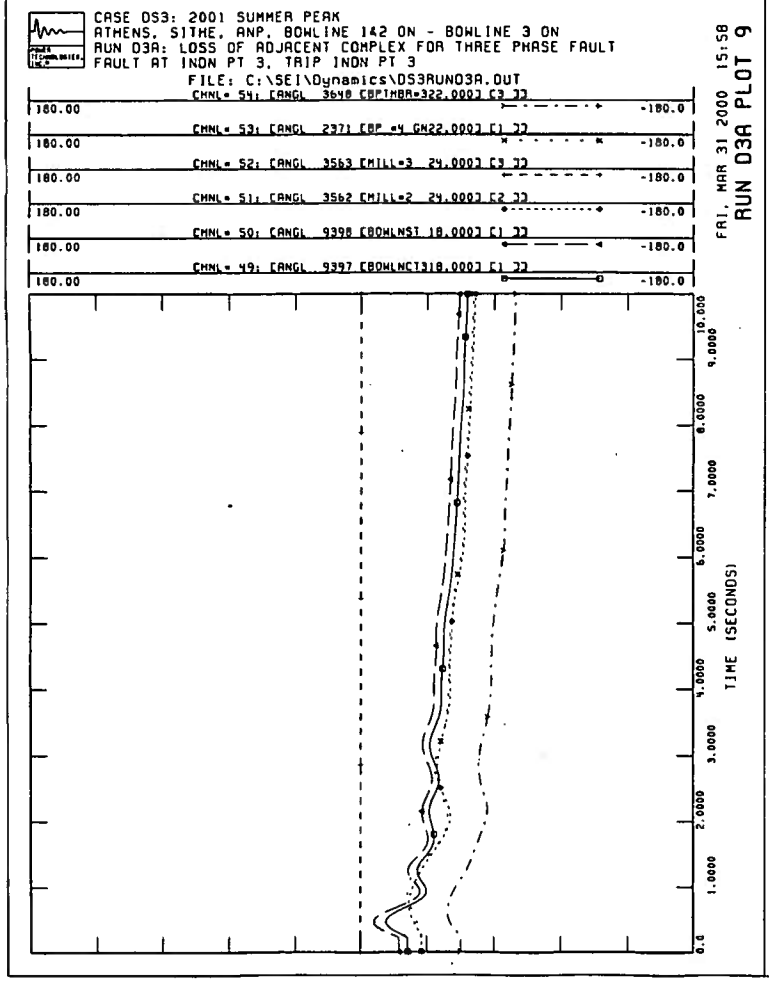
RUN D3A PLOT 12


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
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CHNL= 53; CANGL 2371 CBP =4 GM22.0000] C1]]
CHNL= 52; CANGL 3563 CMILL=3 24.0000] C3]]
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CHNL= 50; CANGL 9398 CBOWLNS1 18.0000] C1]]
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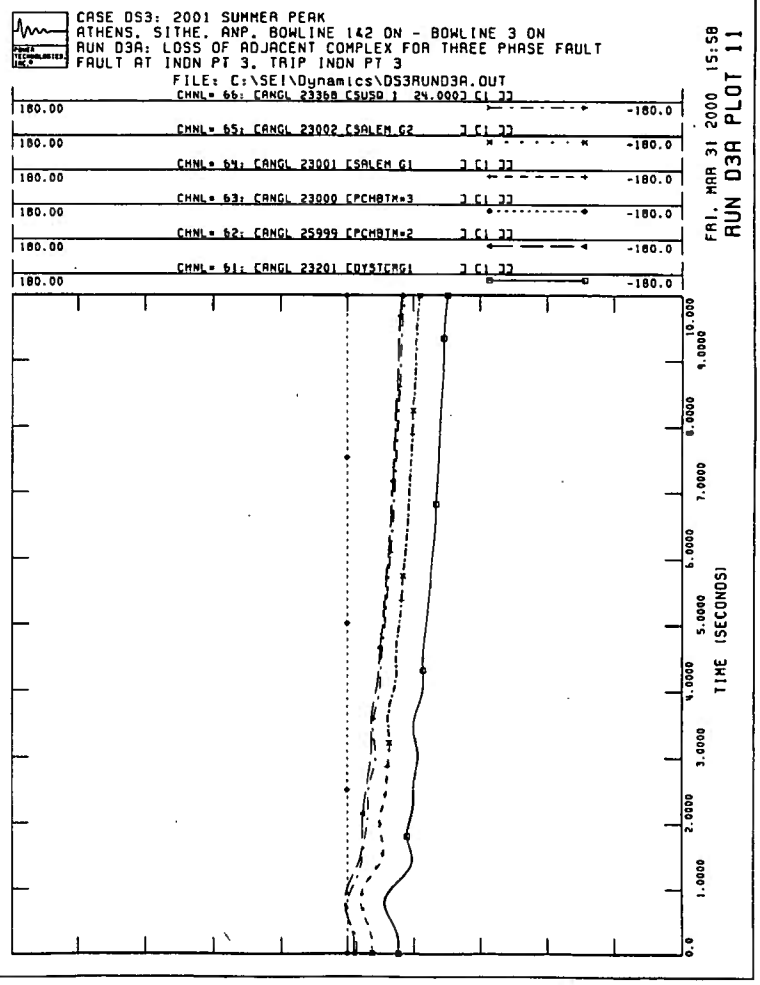
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 9


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
CHNL= 66; CANGL 23368 CSUSQ 1 24.0000] C1]]
CHNL= 65; CANGL 23002 CSALEM G2] C1]]
CHNL= 64; CANGL 23001 CSALEM G1] C1]]
CHNL= 63; CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62; CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61; CANGL 23201 CDYSTCRG1] C1]]
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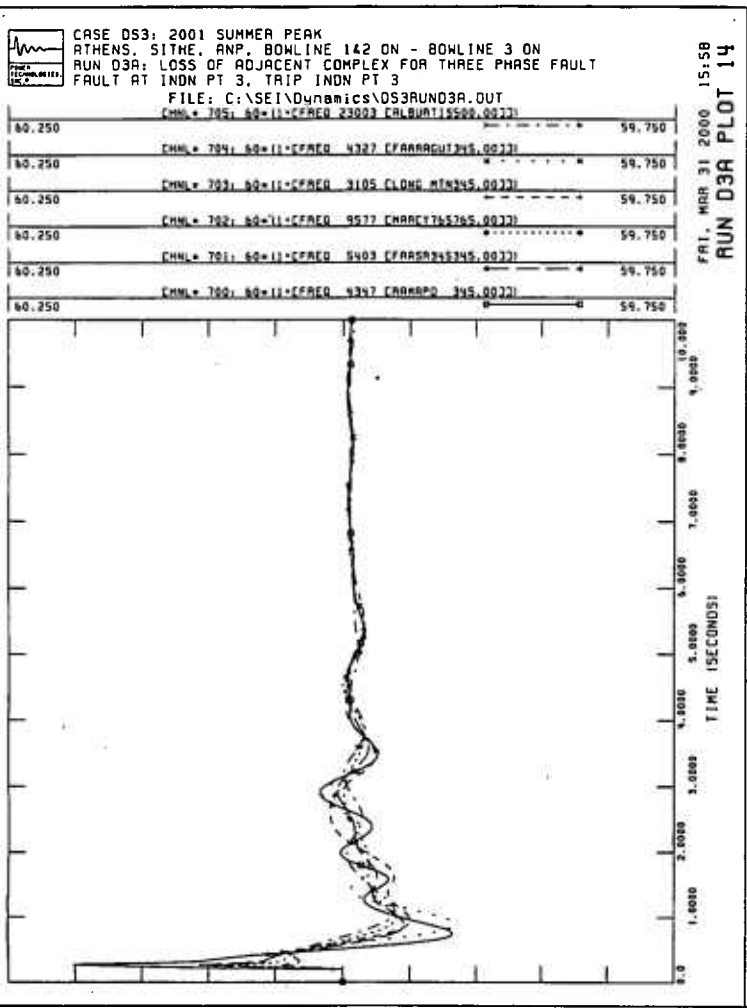
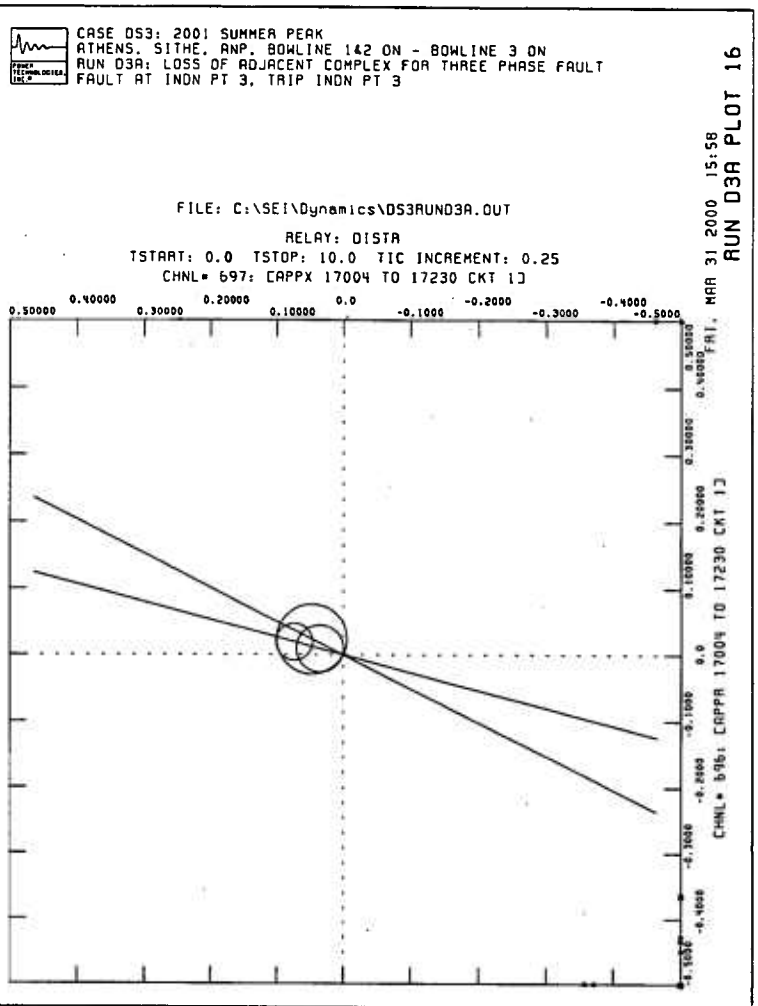
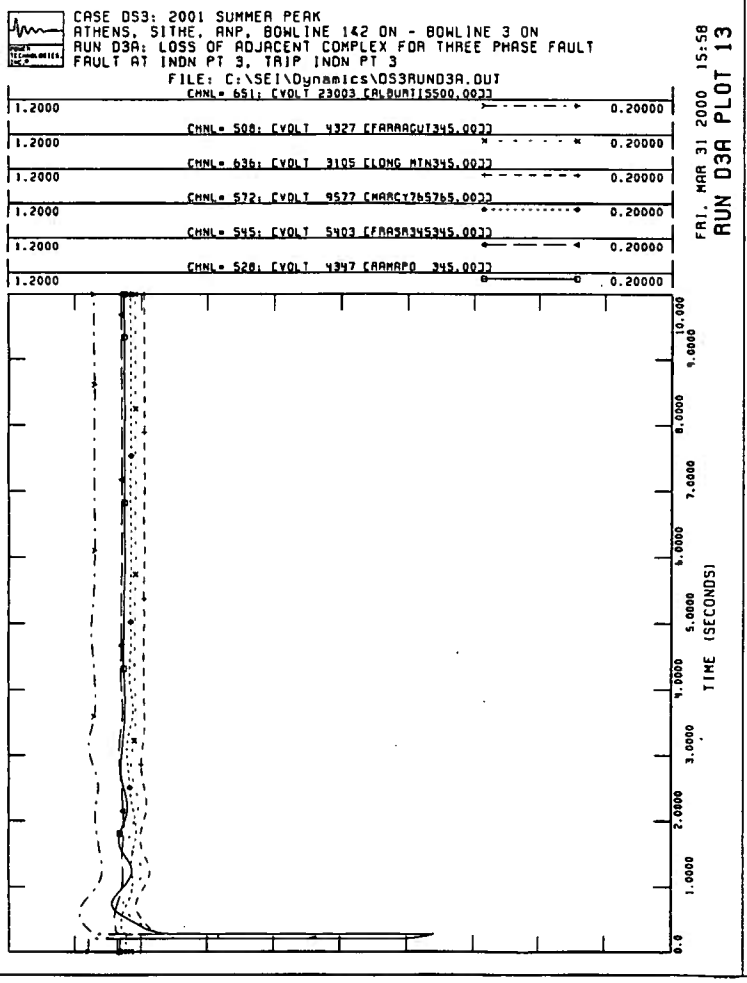
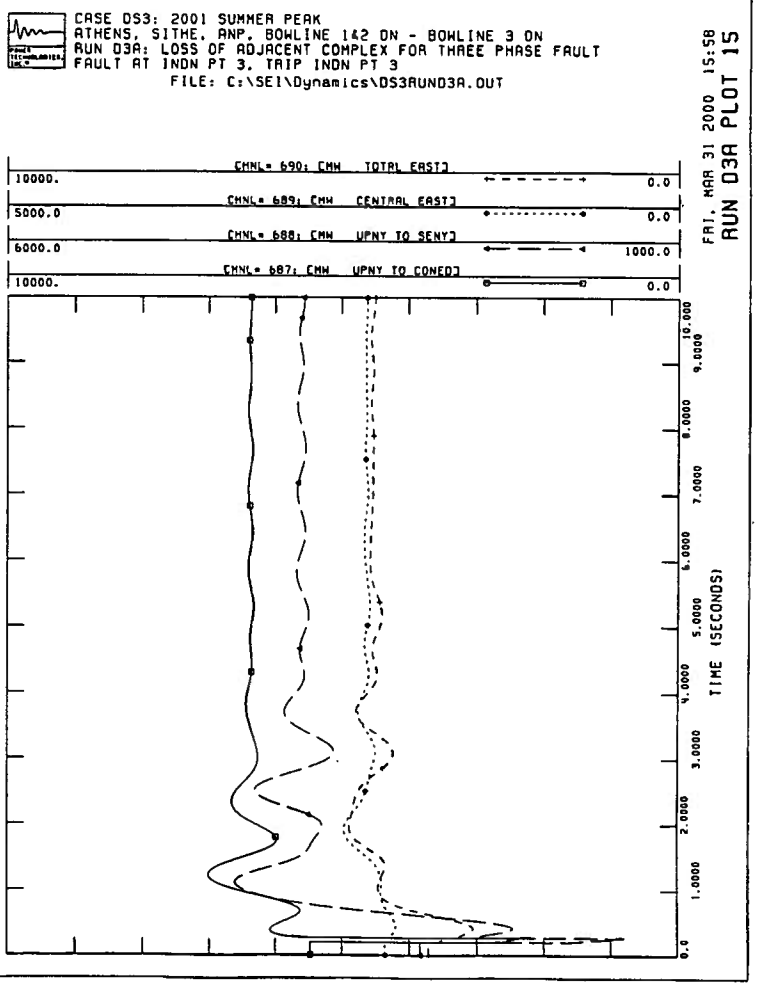
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D3A PLOT 11


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
FRI, MAR 31 2000 15:58
RUN D3A PLOT 14
TIME (SECONDS)

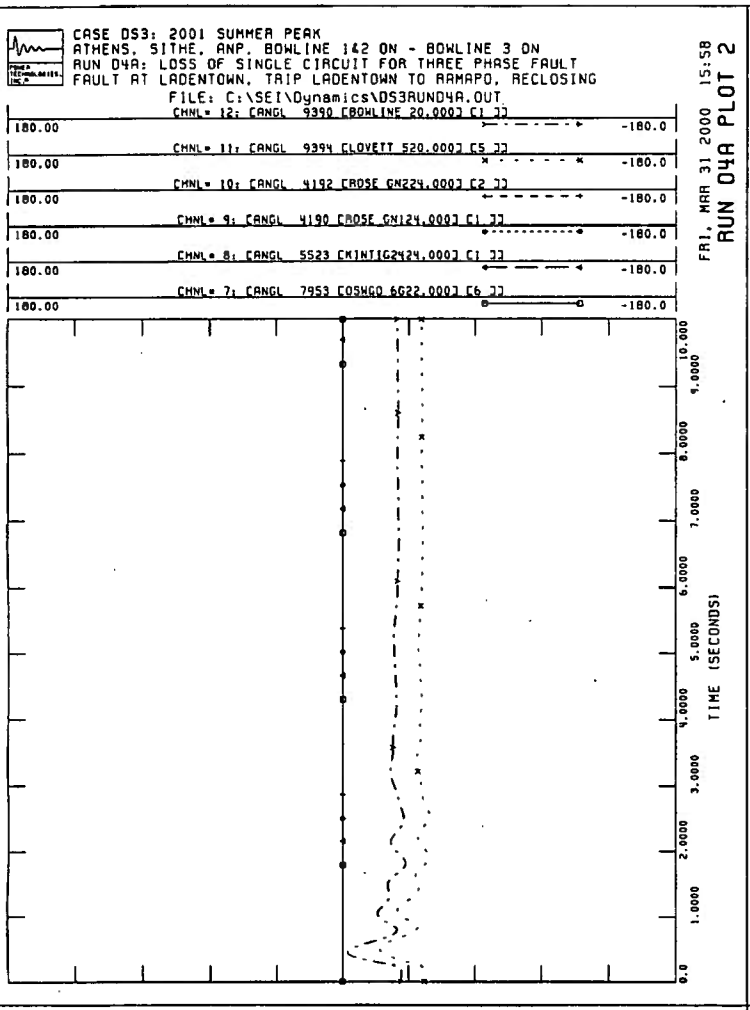

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 15:58
RUN D3A PLOT 16


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
FRI, MAR 31 2000 15:58
RUN D3A PLOT 13
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS3RUND3A.OUT
FRI, MAR 31 2000 15:58
RUN D3A PLOT 15
TIME (SECONDS)

CONTINGENCY D4A

```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA      / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1              / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345   / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN 04A PLOT 2
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [MINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
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-180.0
0.0
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3.0000
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8.0000
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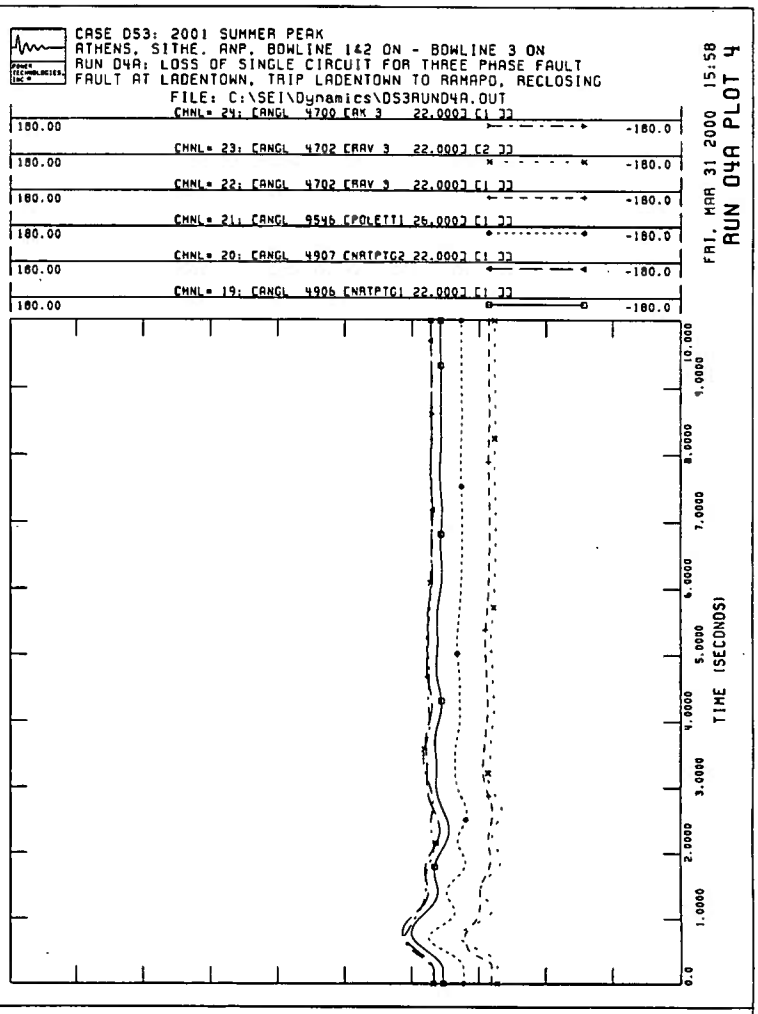
10.000
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN 04A PLOT 4
CHNL= 24: CANGL 4700 [RAV 3 22.000] [1]]
CHNL= 23: CANGL 4702 [RAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [RAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETT] 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
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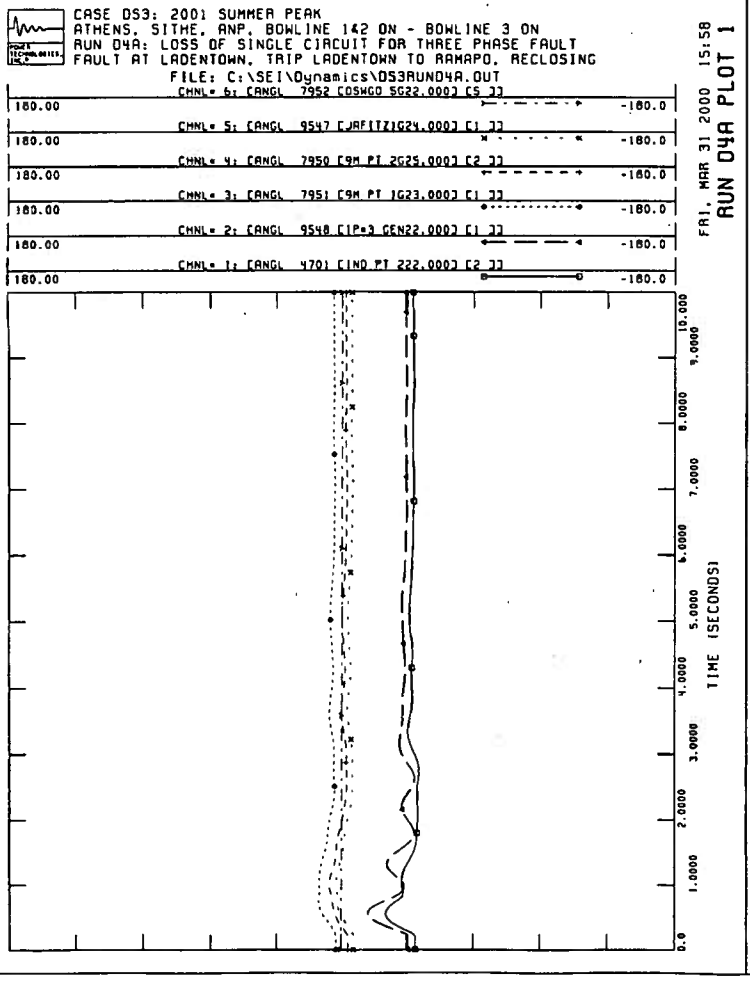
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN 04A PLOT 1
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
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8.0000
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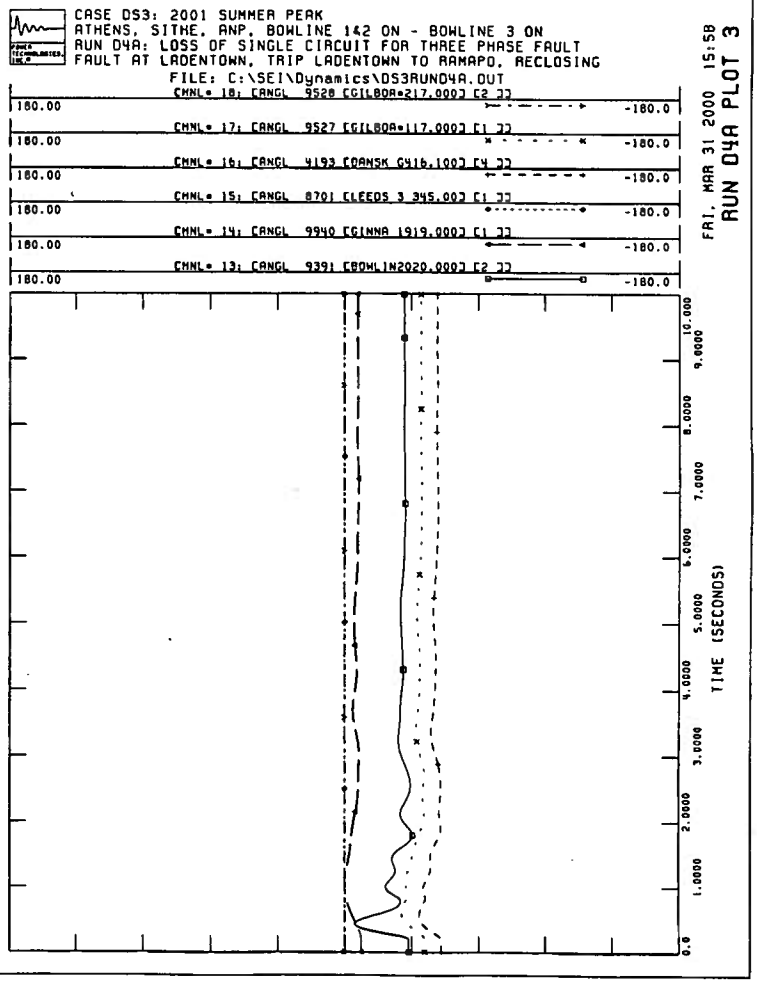
10.000
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN 04A PLOT 3
CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
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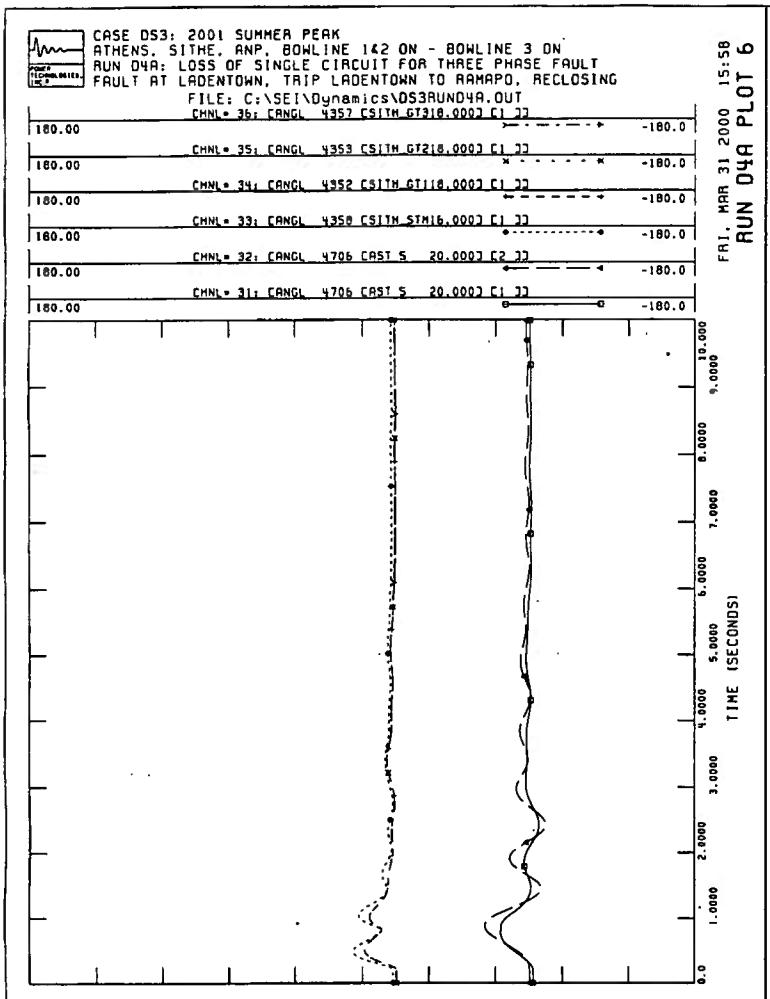
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
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CHNL= 34; CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33; CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32; CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31; CANGL 4706 CAST 5 20.000] C1]]
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0.0
1.0000
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TIME (SECONDS)
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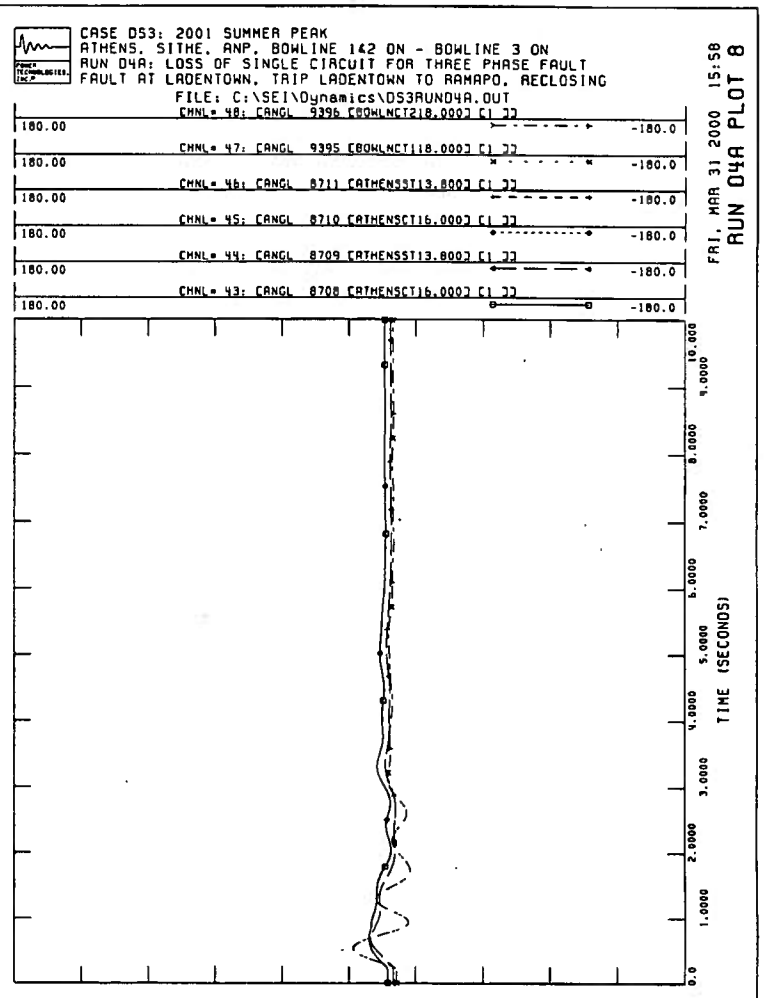
RUN D4A PLOT 6


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
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CHNL= 48; CANGL 9396 CBOWLNCT218.000] C1]]
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CHNL= 46; CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45; CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44; CANGL 8709 CATHENSST13.800] C1]]
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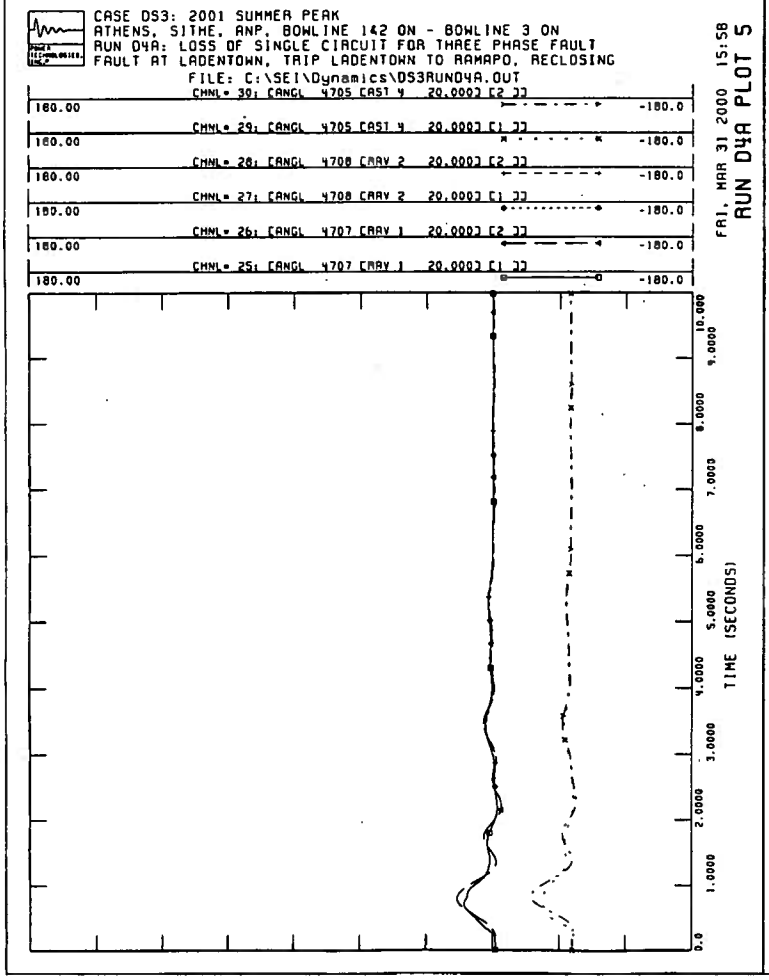
FRI, MAR 31 2000 15:58
RUN D4A PLOT 8


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
CHNL= 39; CANGL 4705 CAST 4 20.000] C2]]
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CHNL= 28; CANGL 4708 CRAY 2 20.000] C2]]
CHNL= 27; CANGL 4708 CRAY 2 20.000] C1]]
CHNL= 26; CANGL 4707 CRAY 1 20.000] C2]]
CHNL= 25; CANGL 4707 CRAY 1 20.000] C1]]
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1.0000
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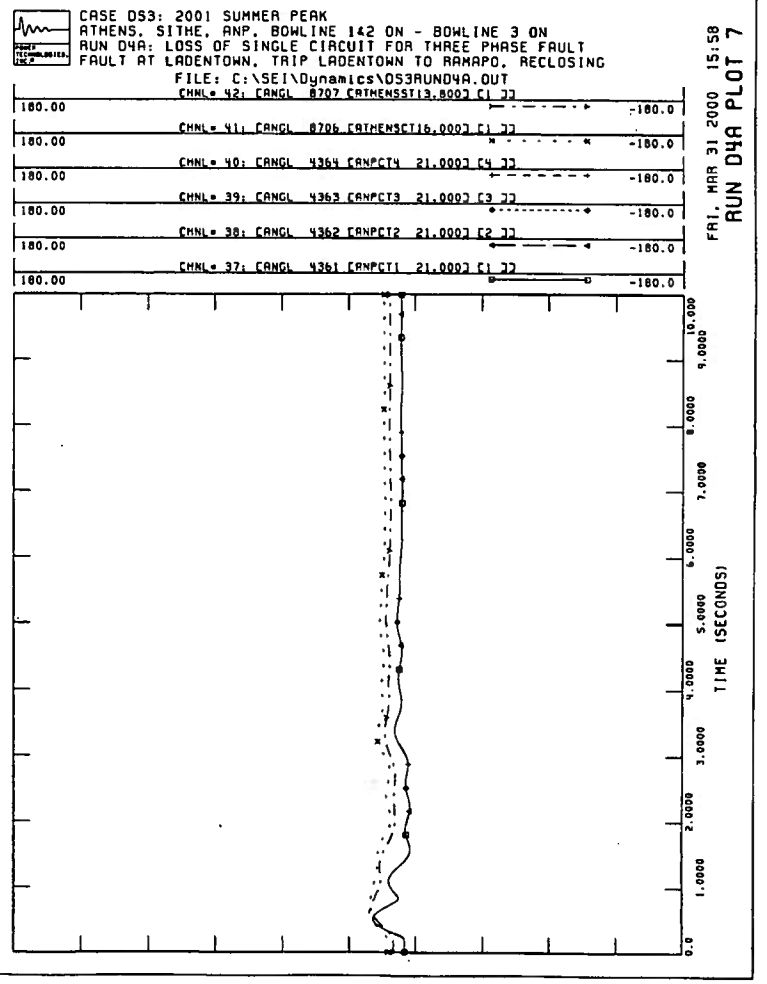
FRI, MAR 31 2000 15:58
RUN D4A PLOT 5


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
CHNL= 42; CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41; CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40; CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39; CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38; CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37; CANGL 4361 CANPCT1 21.000] C1]]
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1.0000
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3.0000
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7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:58
RUN D4A PLOT 7

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT

FRI, MAR 31 2000 15:58
RUN D4A PLOT 10

CHNL= 60: CANGL 23311 CMAIN CK324.0000 C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000 C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000 C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.0000 C1]]
CHNL= 56: CANGL 23039 CHOPE CR 3 C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.0000 C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT

FRI, MAR 31 2000 15:58
RUN D4A PLOT 12

CHNL= 70: CANGL 17472 CBLLONG2 19.0000 C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.0000 C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000 C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA 3 C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT

FRI, MAR 31 2000 15:58
RUN D4A PLOT 9

CHNL= 54: CANGL 3648 CBPTHBA=322.0000 C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.0000 C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.0000 C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.0000 C2]]
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180.00 -180.0

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TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT

FRI, MAR 31 2000 15:58
RUN D4A PLOT 11

CHNL= 66: CANGL 23368 CSUSQ 1 24.0000 C1]]
CHNL= 65: CANGL 23002 CSALEM G2 3 C1]]
CHNL= 64: CANGL 23001 CSALEM G1 3 C1]]
CHNL= 63: CANGL 23000 CPCMBTM=3 3 C1]]
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180.00 -180.0

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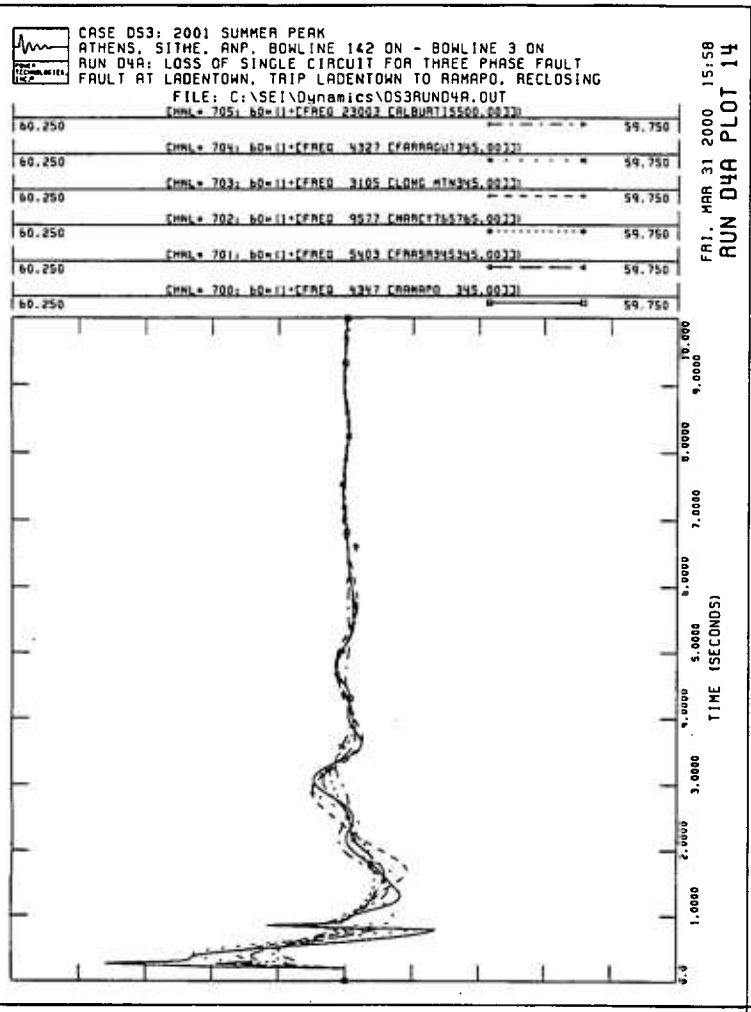
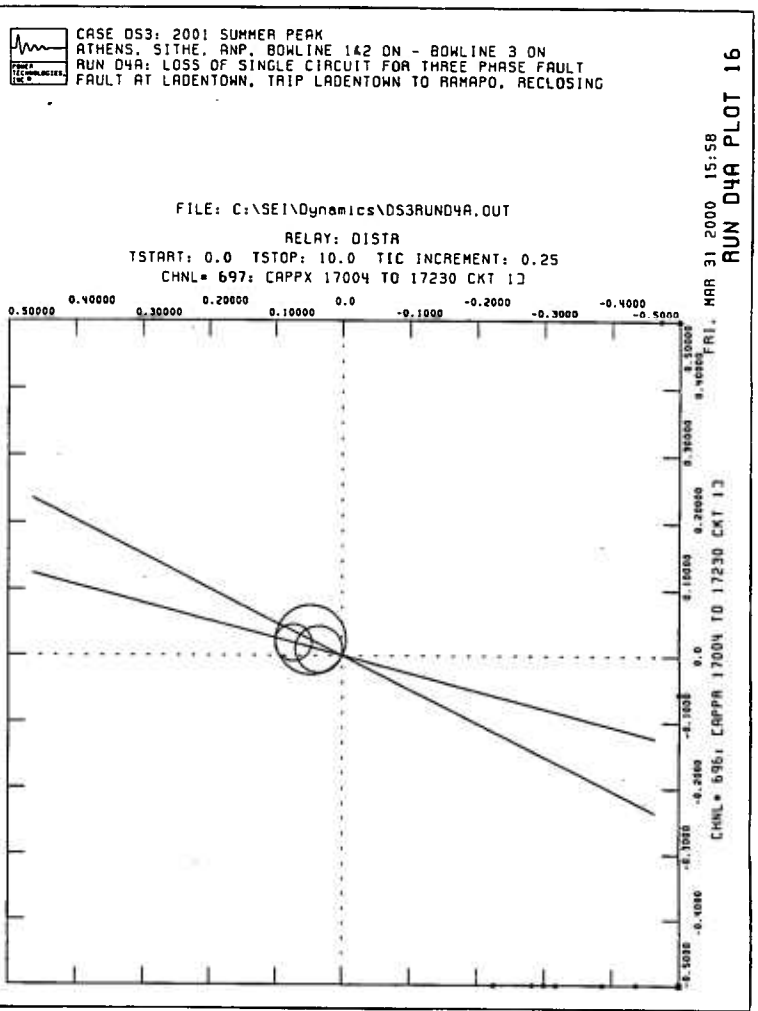
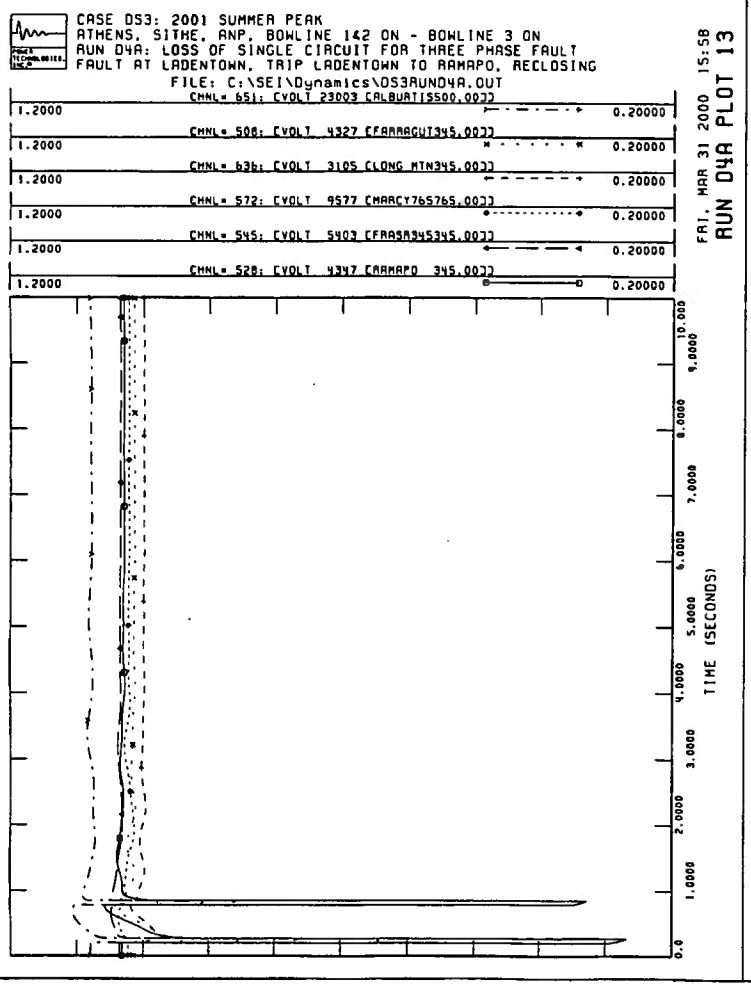
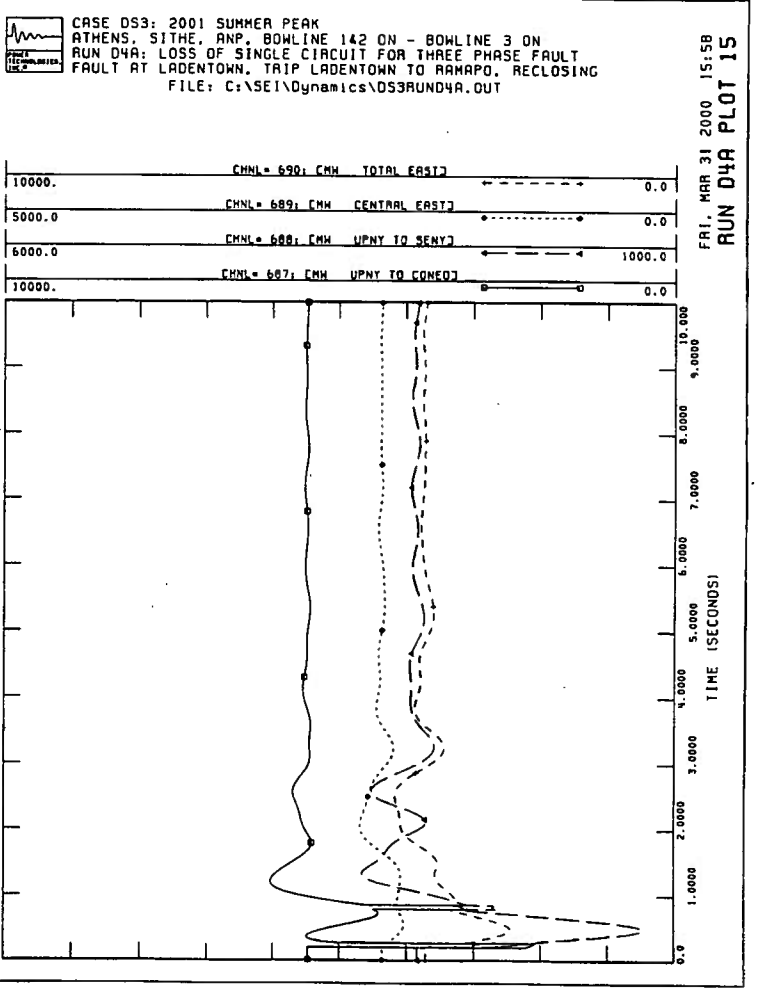
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN D4A PLOT 14
TIME (SECONDS)

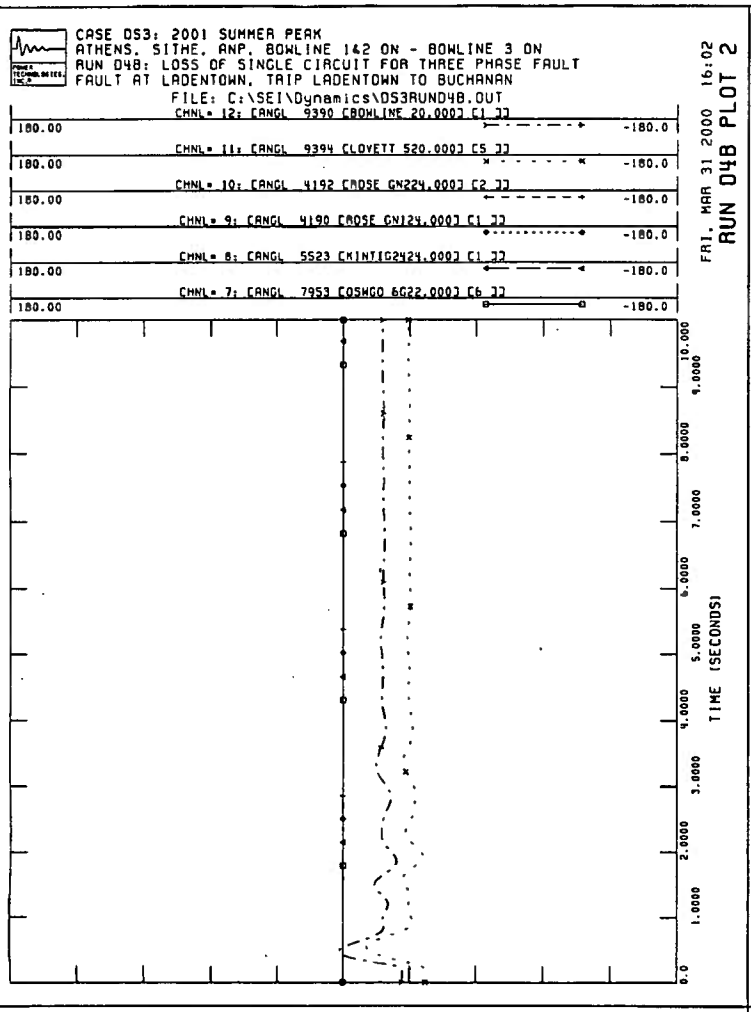

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1
FRI, MAR 31 2000 15:58
RUN D4A PLOT 16

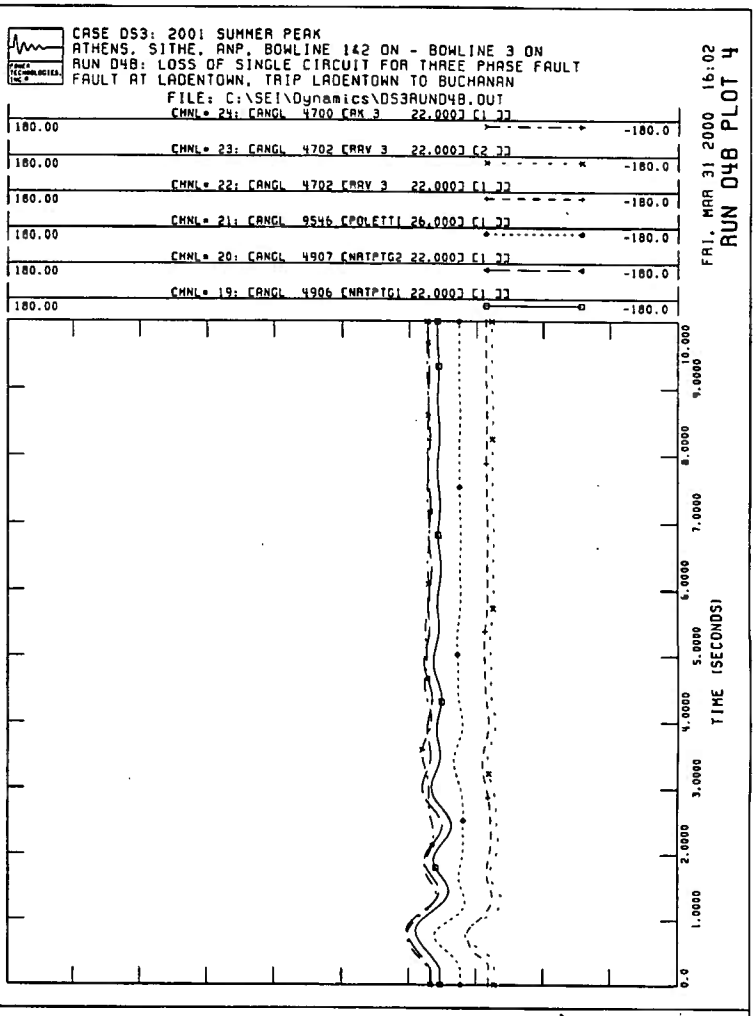

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN D4A PLOT 13
TIME (SECONDS)

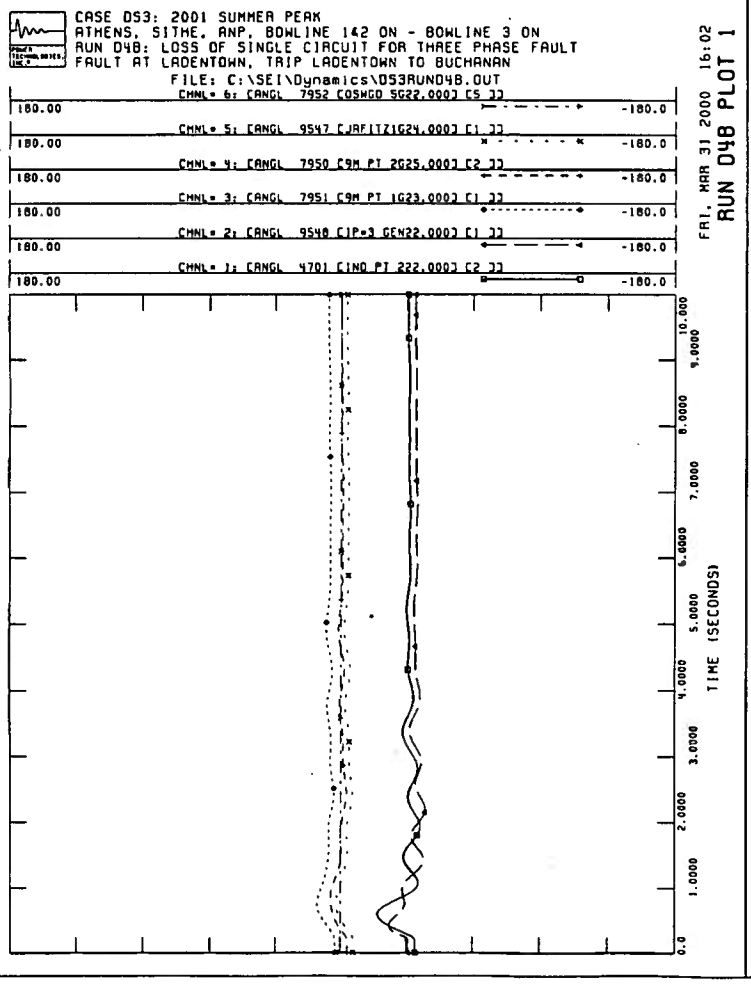

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS3RUND4A.OUT
FRI, MAR 31 2000 15:58
RUN D4A PLOT 15
TIME (SECONDS)

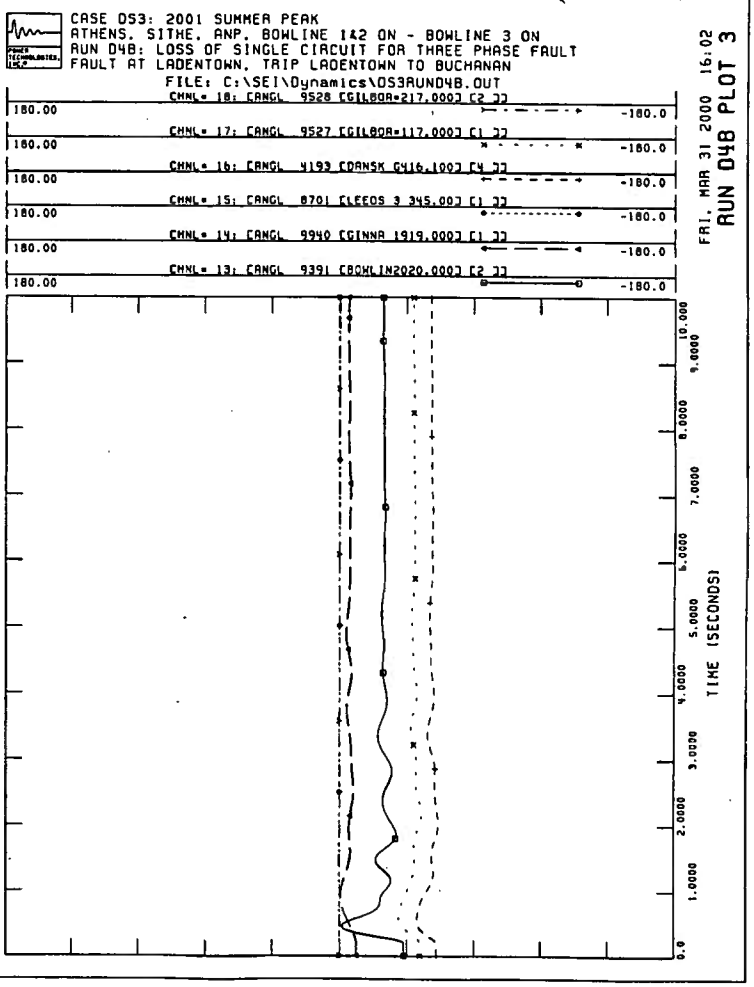
CONTINGENCY D4B

```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

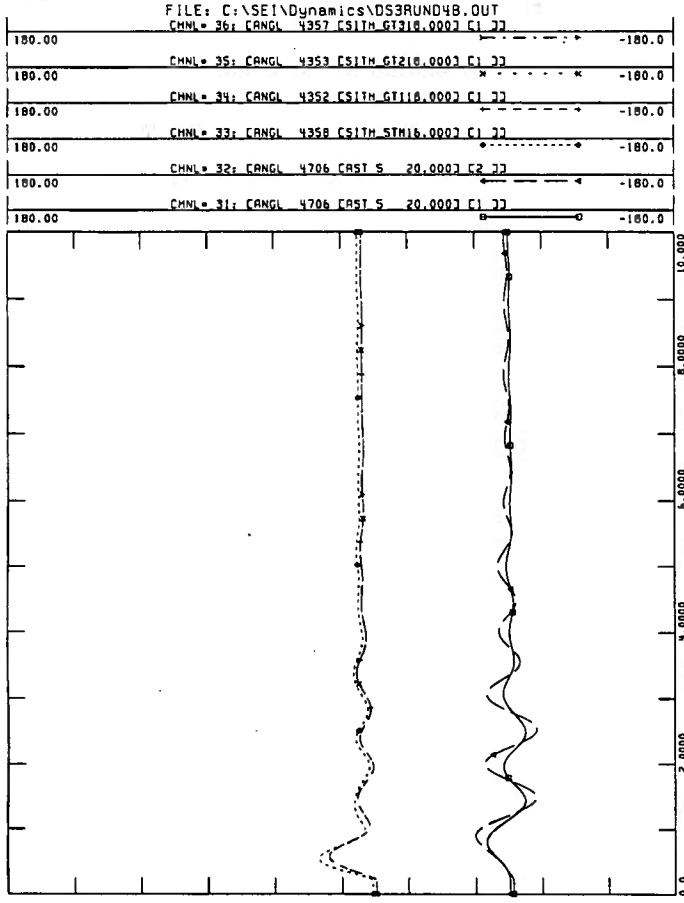

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D48 PLOT 2


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT
CHNL= 24: CANGL 4700 CRX 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRRV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRRV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT[26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D48 PLOT 4


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CJP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D48 PLOT 1

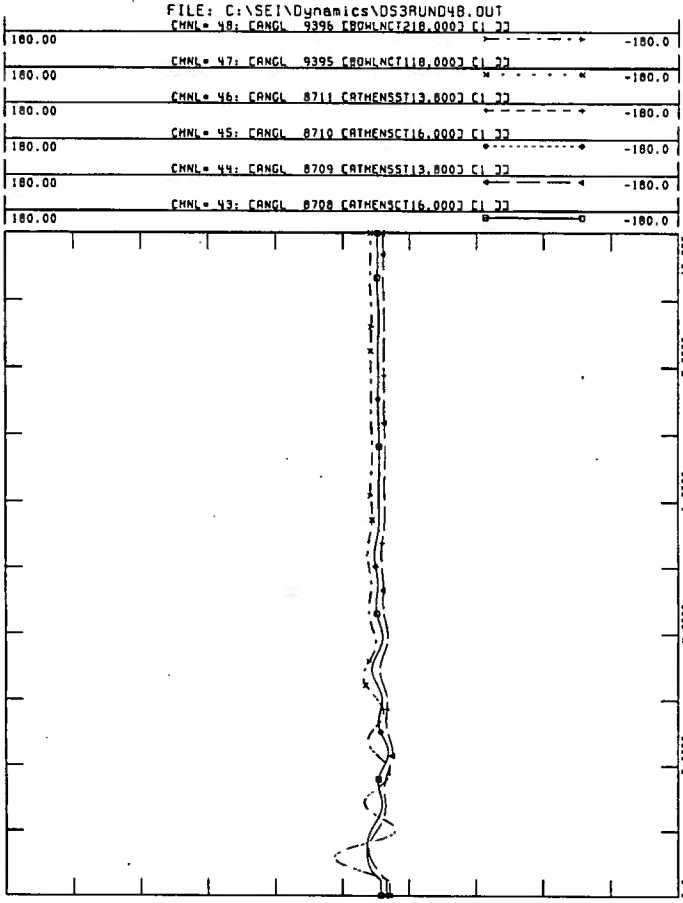

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D48 PLOT 3

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND4B.OUT



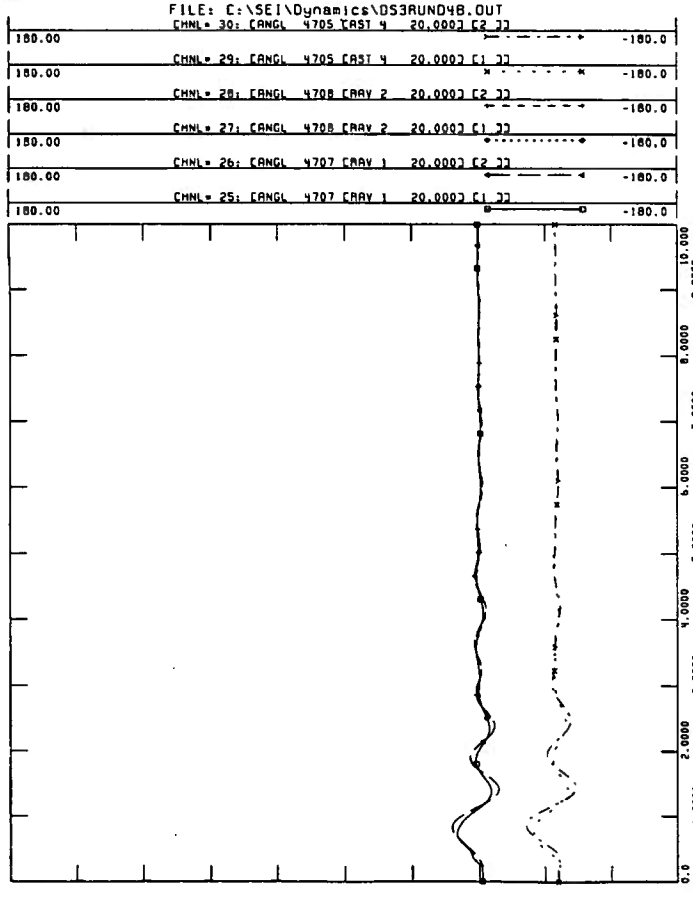
FRI, MAR 31 2000 16:02
RUN D4B PLOT 6

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND4B.OUT



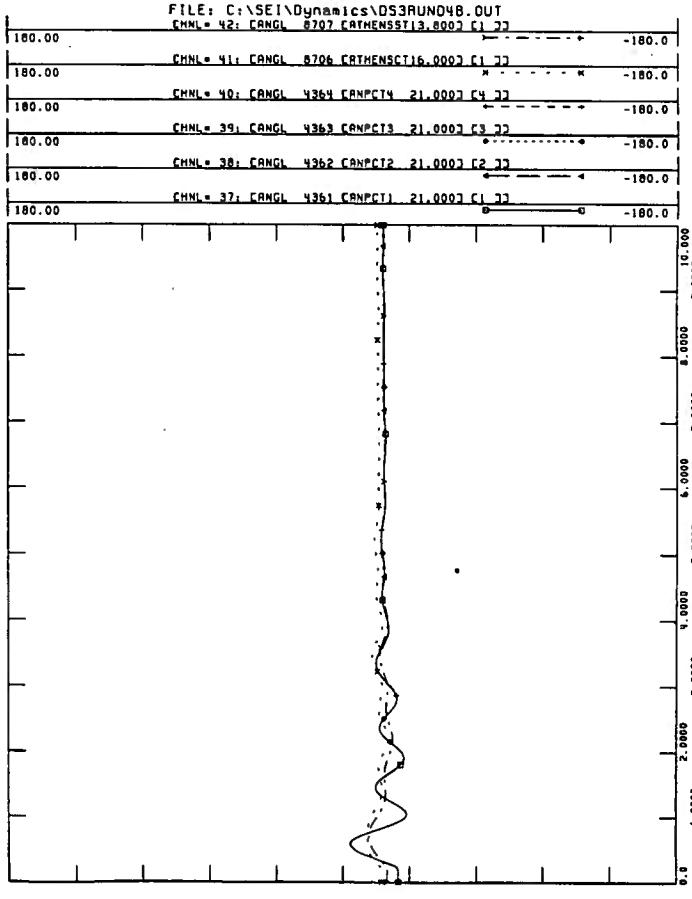
FRI, MAR 31 2000 16:02
RUN D4B PLOT 8

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND4B.OUT



FRI, MAR 31 2000 16:02
RUN D4B PLOT 5

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND4B.OUT



FRI, MAR 31 2000 16:02
RUN D4B PLOT 7

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

FRI, MAR 31 2000 16:02
RUN D48 PLOT 10

CHNL= 60: CANGL 23311 CMAIN CK424.0000 [1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000 [1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000 [1]]
CHNL= 57: CANGL 23499 CLIMERIC122.0000 [1]]
CHNL= 56: CANGL 23039 CHOPE CR] [1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.0000 [1]]

180.00 -180.0

1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
0.0
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

FRI, MAR 31 2000 16:02
RUN D48 PLOT 12

CHNL= 70: CANGL 17472 CBLLONG2 19.0000 [1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.0000 [1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000 [1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] [1]]

180.00 -180.0

1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
0.0
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

FRI, MAR 31 2000 16:02
RUN D48 PLOT 9

CHNL= 54: CANGL 3648 CBPTHBR=322.0000 [3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.0000 [1]]
CHNL= 52: CANGL 3563 CMILL=3 24.0000 [3]]
CHNL= 51: CANGL 3562 CMILL=2 24.0000 [2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.0000 [1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.0000 [1]]

180.00 -180.0

1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
0.0
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

FRI, MAR 31 2000 16:02
RUN D48 PLOT 11

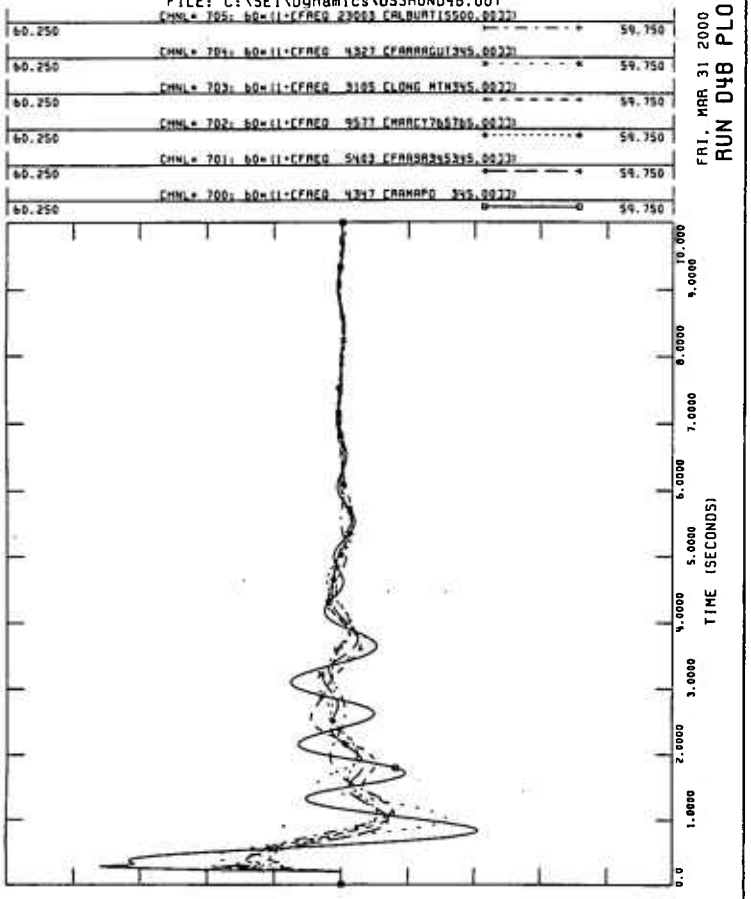
CHNL= 66: CANGL 23368 CSUSQ 1 24.0000 [1]]
CHNL= 65: CANGL 23002 CSALEM G2] [1]]
CHNL= 64: CANGL 23001 CSALEM G1] [1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] [1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] [1]]
CHNL= 61: CANGL 23201 CQYSTCAG1] [1]]

180.00 -180.0

1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
0.0
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

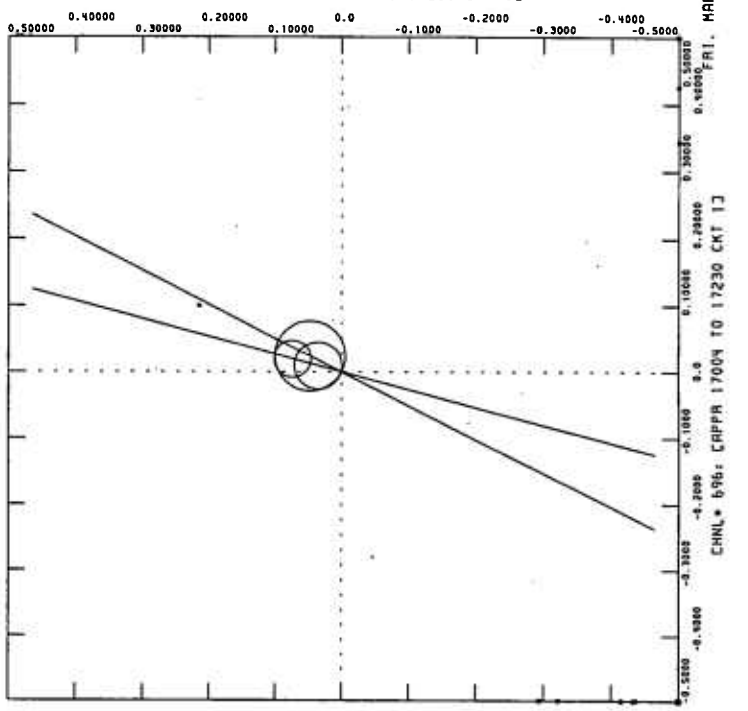
FRI, MAR 31 2000 16:02
RUN D48 PLOT 14



CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN

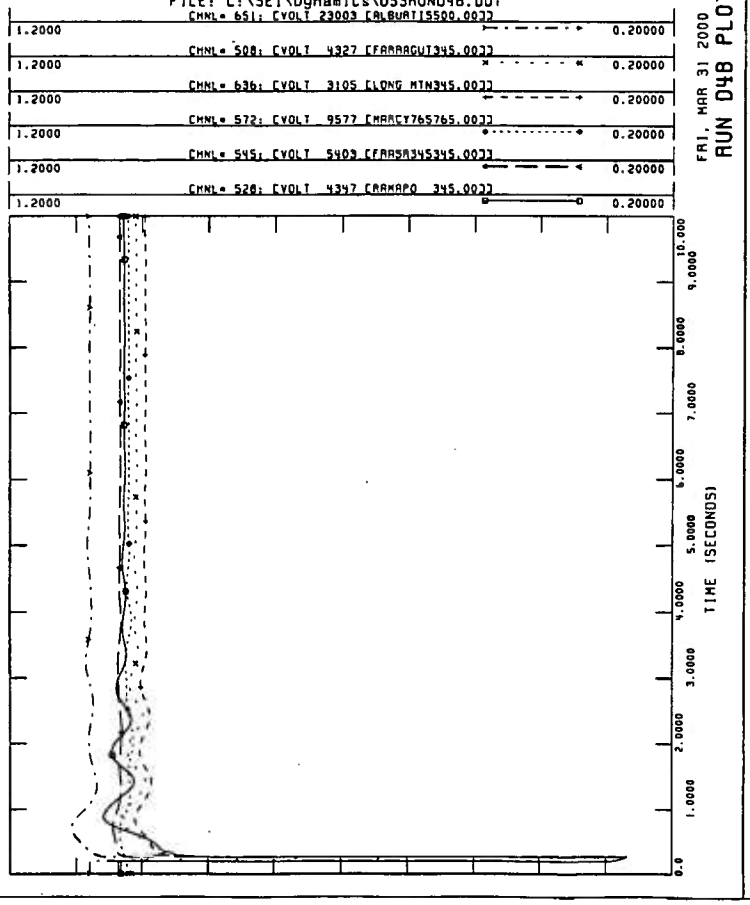
FRI, MAR 31 2000 16:02
RUN D48 PLOT 16

FILE: C:\SEI\Dynamics\DS3RUND48.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1J



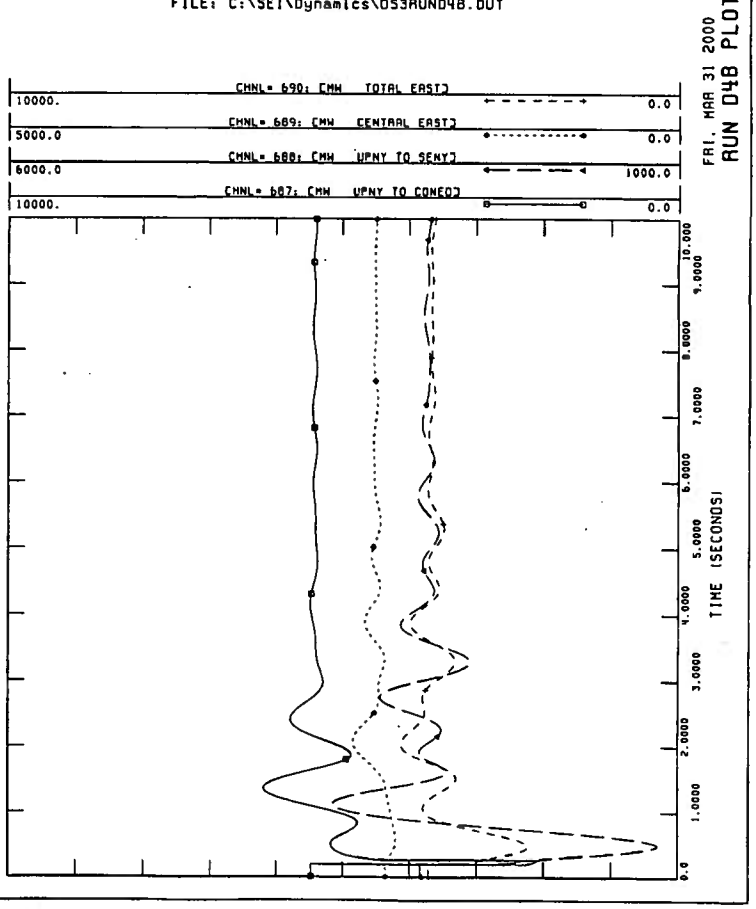
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

FRI, MAR 31 2000 16:02
RUN D48 PLOT 13



CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS3RUND48.OUT

FRI, MAR 31 2000 16:02
RUN D48 PLOT 15



CONTINGENCY D4C

```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 2

CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 4

CHNL= 24: CANGL 4700 [AX 3 22.000] [1]]
CHNL= 23: CANGL 4702 [AAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [AAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 1

CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAF1T21G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 3

CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 6

CHNL= 36: CANGL 4357 [SITH_GT318.000] [1]
CHNL= 35: CANGL 4353 [SITH_GT218.000] [1]
CHNL= 34: CANGL 4352 [SITH_GT118.000] [1]
CHNL= 33: CANGL 4358 [SITH_STM16.000] [1]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 8

CHNL= 48: CANGL 9396 [BOWLNGT218.000] [1]
CHNL= 47: CANGL 9395 [BOWLNGT118.000] [1]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]
CHNL= 45: CANGL 8710 [ATHENSGT16.000] [1]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]
CHNL= 43: CANGL 8708 [ATHENSGT16.000] [1]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

FRI, MAR 31 2000 16:02
RUN D4C PLOT 5

CHNL= 30: CANGL 4705 [AST 4 20.000] [2]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]
CHNL= 28: CANGL 4708 [ARAV 2 20.000] [2]
CHNL= 27: CANGL 4708 [ARAV 2 20.000] [1]
CHNL= 26: CANGL 4707 [ARAV 1 20.000] [2]
CHNL= 25: CANGL 4707 [ARAV 1 20.000] [1]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

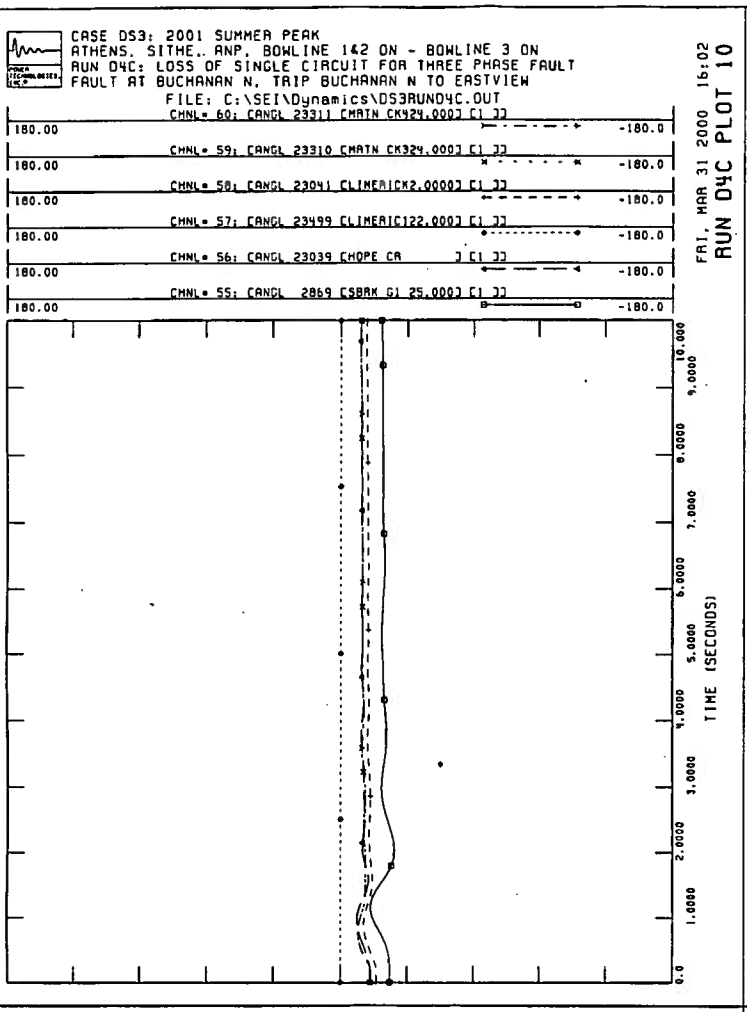
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT

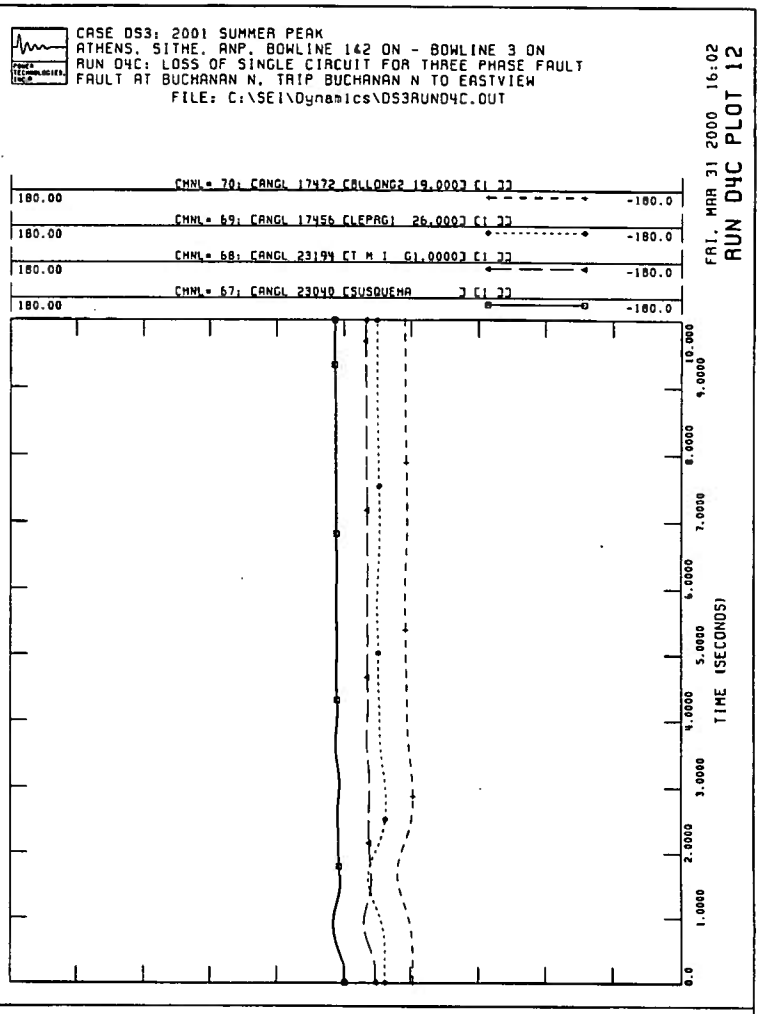
FRI, MAR 31 2000 16:02
RUN D4C PLOT 7

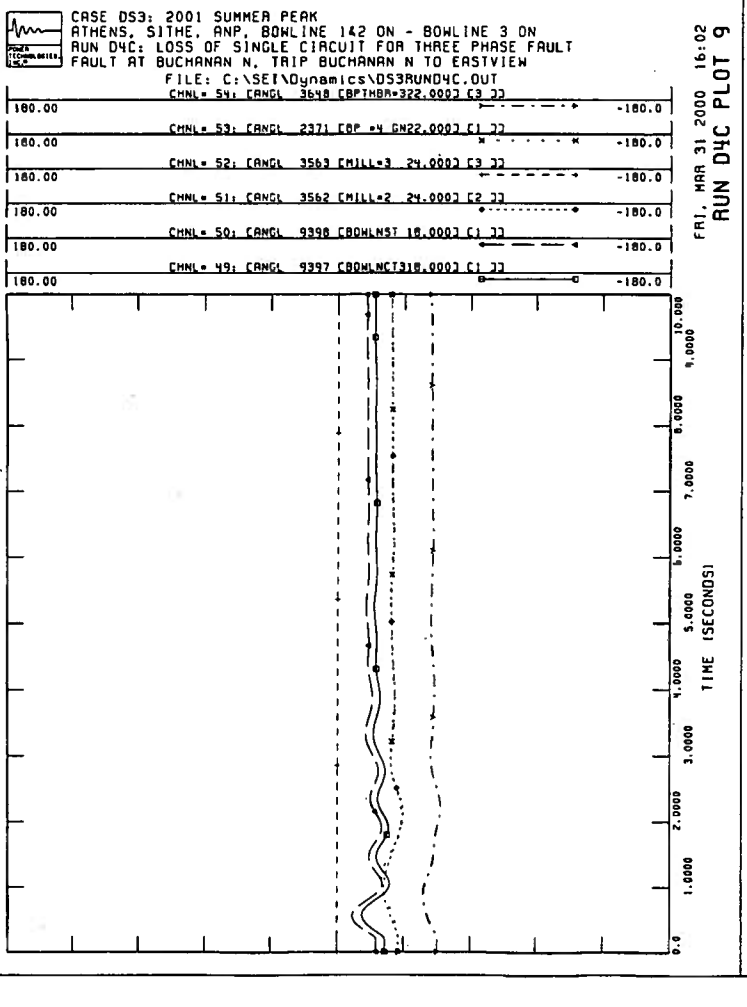
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]
CHNL= 41: CANGL 8706 [ATHENSGT16.000] [1]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]

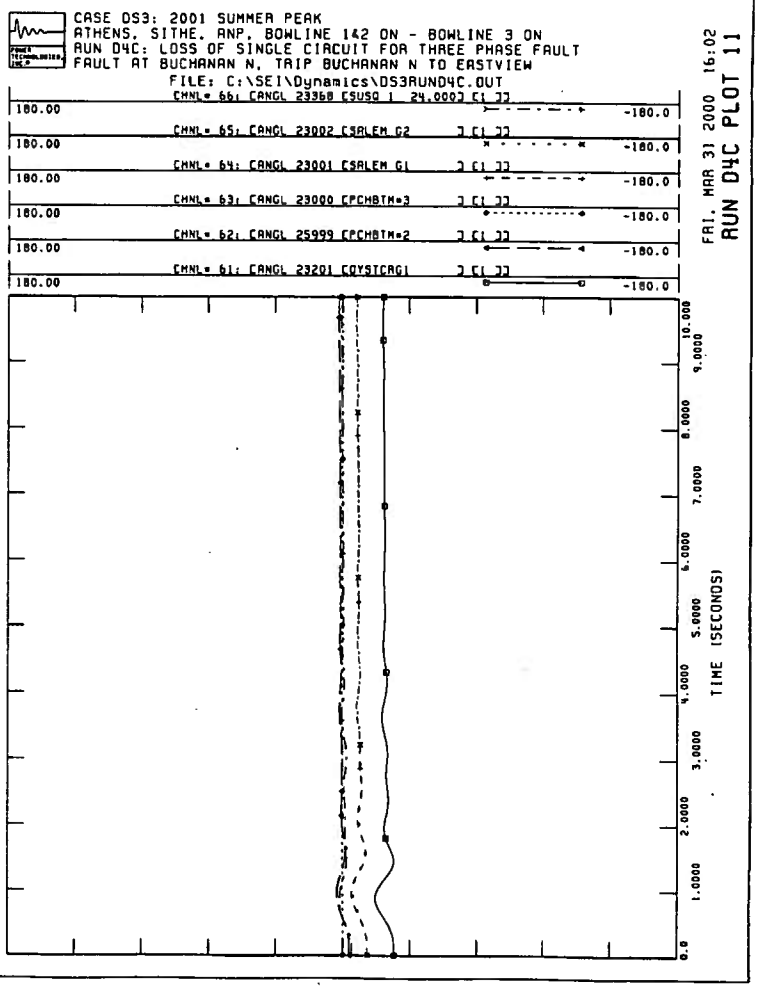
180.00 -180.0

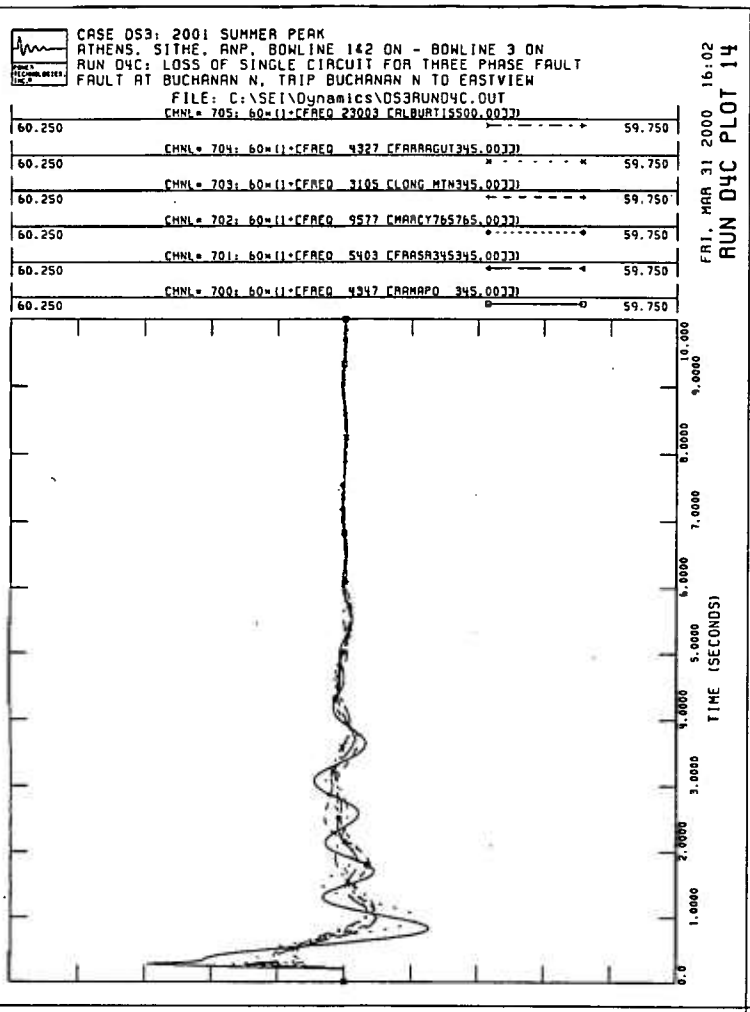
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

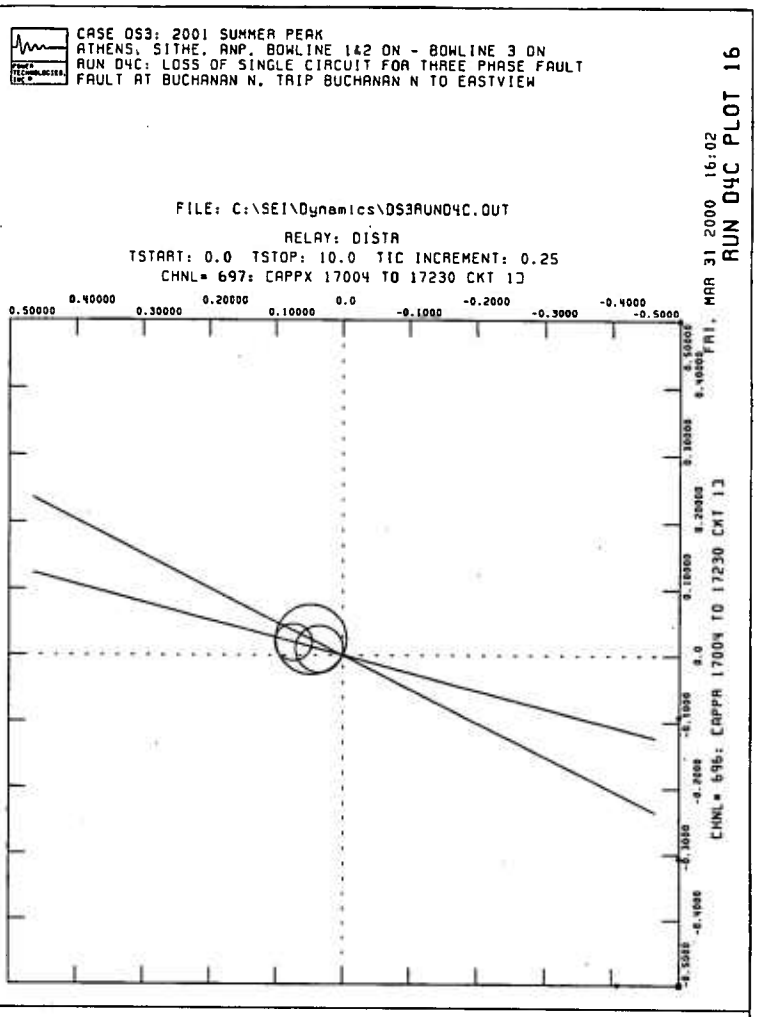

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE., ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
FRI, MAR 31 2000 16:02
RUN D4C PLOT 10
TIME (SECONDS)

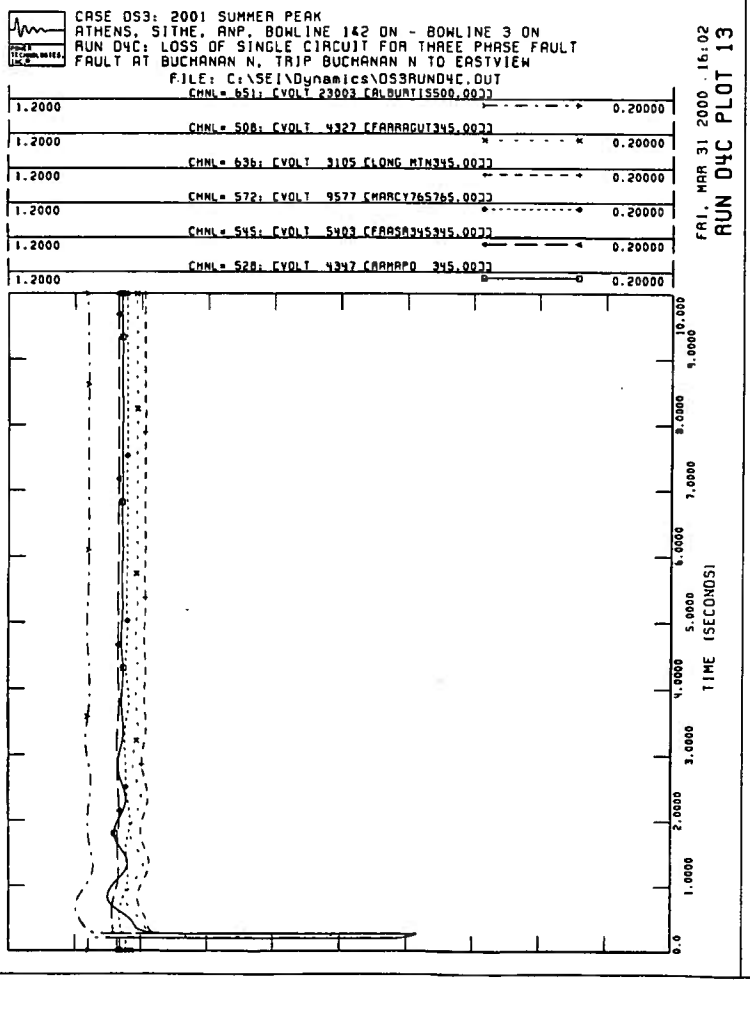

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
FRI, MAR 31 2000 16:02
RUN D4C PLOT 12
TIME (SECONDS)

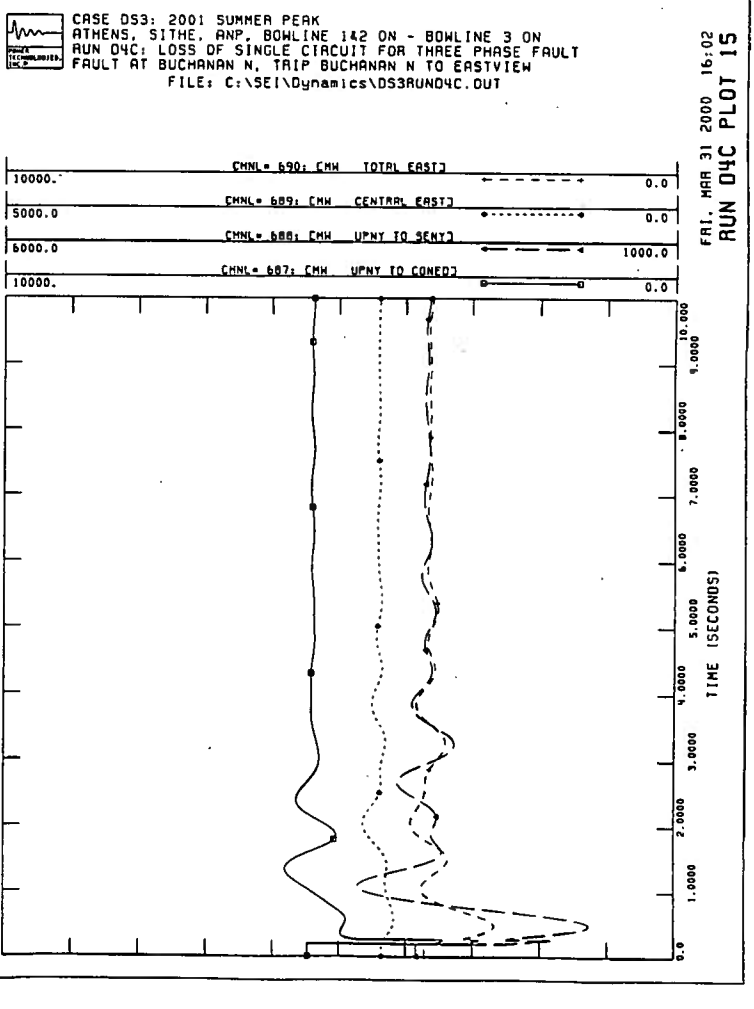

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
FRI, MAR 31 2000 16:02
RUN D4C PLOT 9
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
FRI, MAR 31 2000 16:02
RUN D4C PLOT 11
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
CHNL= 705: 60*(1-CFREQ 23003 [ALBURTIS500,00])
CHNL= 704: 60*(1-CFREQ 4327 [FARRAGUT345,00])
CHNL= 703: 60*(1-CFREQ 3105 [LONG MTN345,00])
CHNL= 702: 60*(1-CFREQ 9577 [MARCY765765,00])
CHNL= 701: 60*(1-CFREQ 5403 [FRASR345345,00])
CHNL= 700: 60*(1-CFREQ 4347 [RAMAPO 345,00])
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D4C PLOT 14

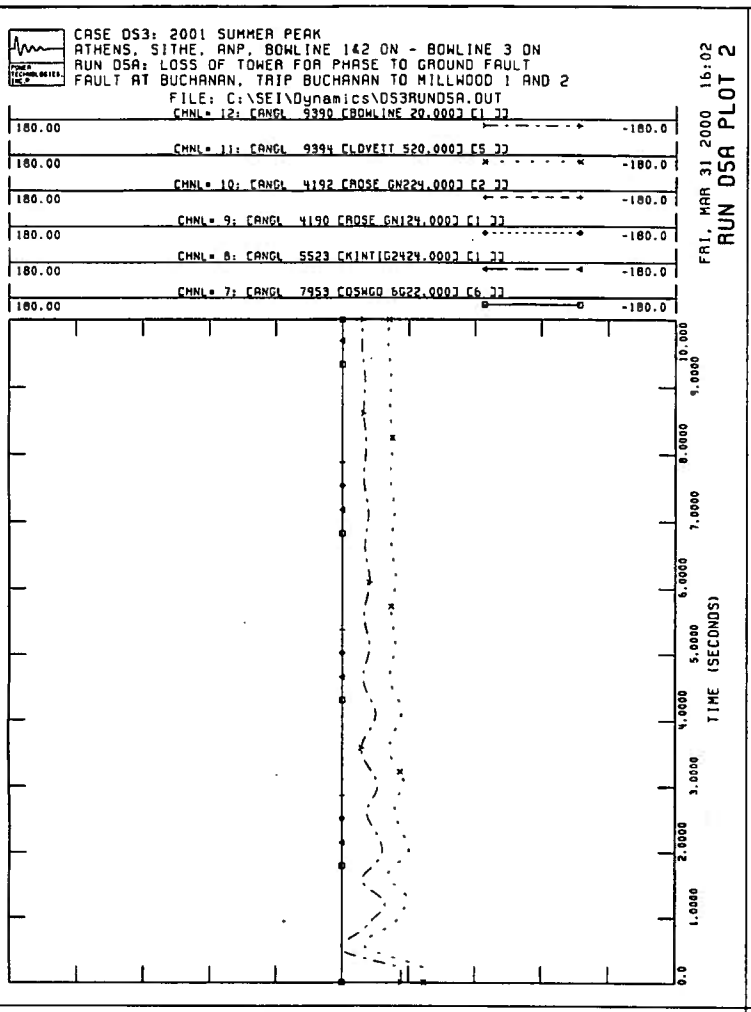

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1
CHNL= 696: CAPPA 17004 TO 17230 CKT 1
FRI, MAR 31 2000 16:02
RUN D4C PLOT 16

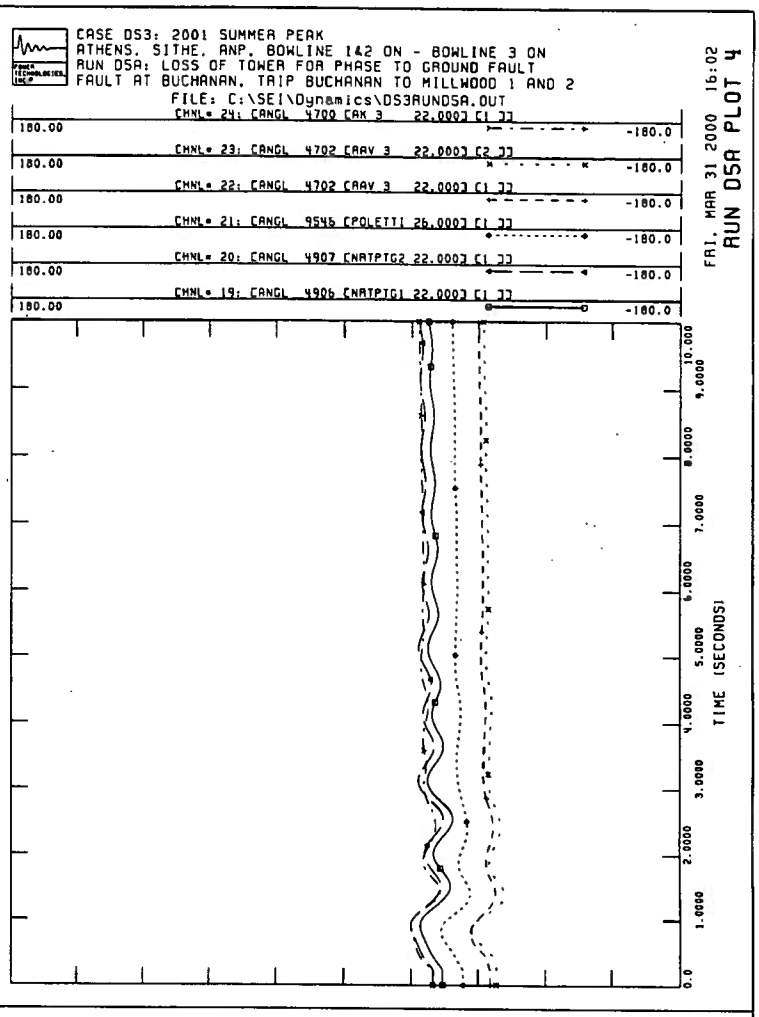

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
CHNL= 651: CVOLT 23003 [ALBURTIS500,00]
CHNL= 508: CVOLT 4327 [FARRAGUT345,00]
CHNL= 636: CVOLT 3105 [LONG MTN345,00]
CHNL= 572: CVOLT 9577 [MARCY765765,00]
CHNL= 545: CVOLT 5403 [FRASR345345,00]
CHNL= 528: CVOLT 4347 [RAMAPO 345,00]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D4C PLOT 13

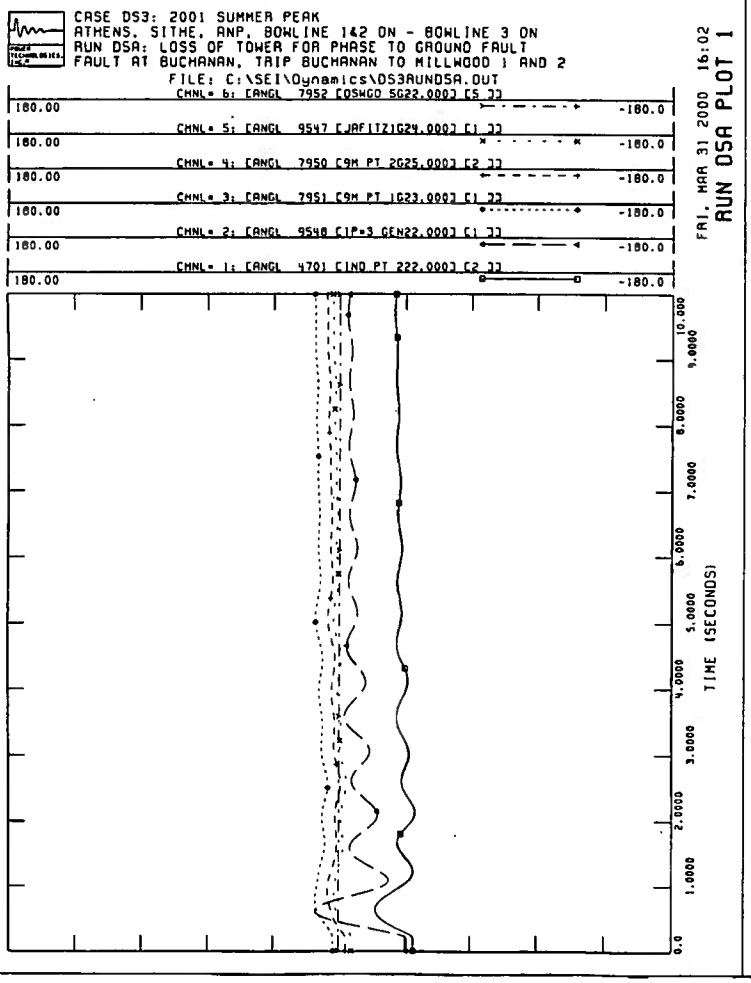

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS3RUND4C.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN D4C PLOT 15

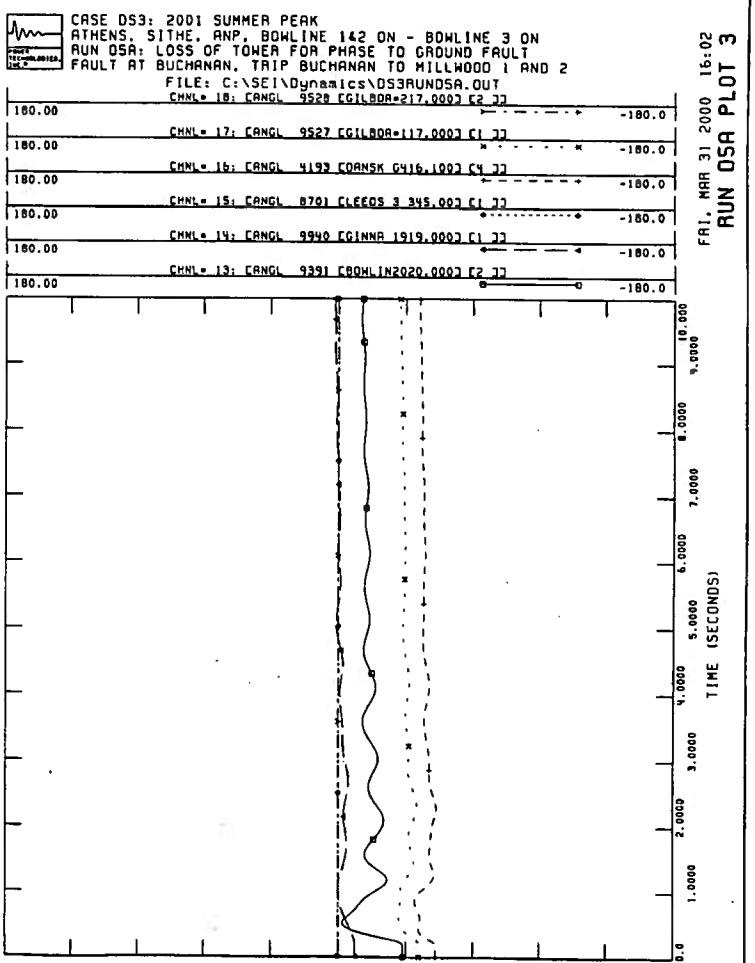
CONTINGENCY D5A

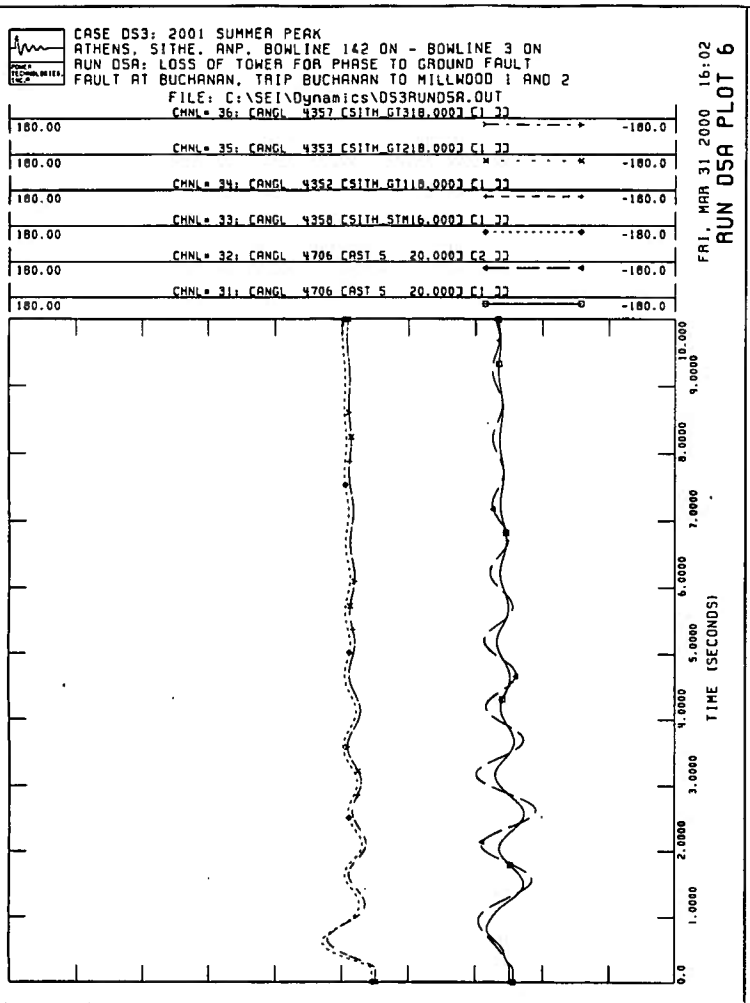
```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1              / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2              / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

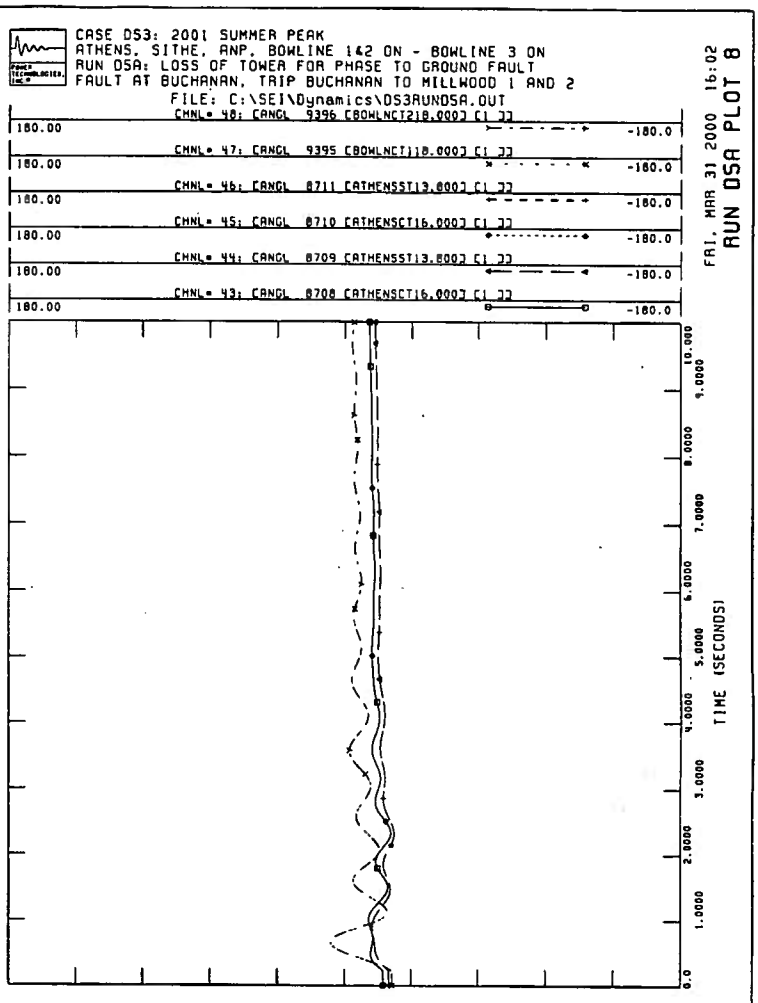

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1 JJ
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5 JJ
CHNL= 10: CANGL 4192 CROSE GN224.000] C2 JJ
CHNL= 9: CANGL 4190 CROSE GN124.000] C1 JJ
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1 JJ
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6 JJ
180.00
-180.0
10.000
9.0000
8.0000
7.0000
6.0000
5.0000
4.0000
3.0000
2.0000
1.0000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN DSA PLOT 2

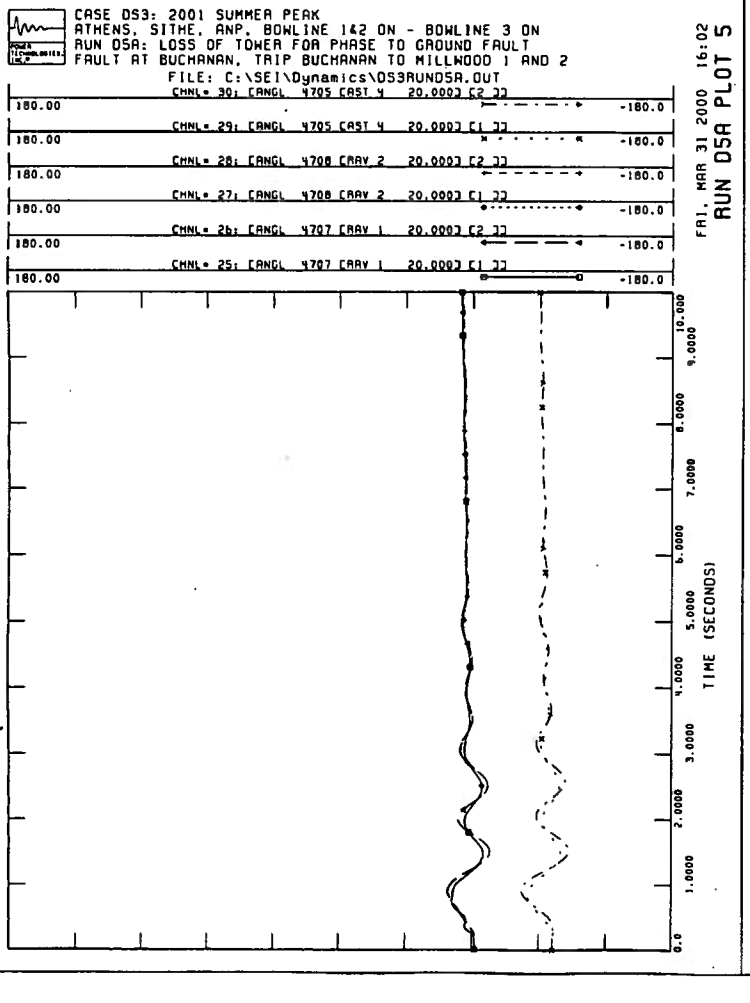

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1 JJ
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2 JJ
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1 JJ
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1 JJ
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1 JJ
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1 JJ
180.00
-180.0
10.000
9.0000
8.0000
7.0000
6.0000
5.0000
4.0000
3.0000
2.0000
1.0000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN DSA PLOT 4


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5 JJ
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1 JJ
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2 JJ
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1 JJ
CHNL= 2: CANGL 9548 C1P=3 GEN22.000] C1 JJ
CHNL= 1: CANGL 4701 CIND PT 222.000] C2 JJ
180.00
-180.0
10.000
9.0000
8.0000
7.0000
6.0000
5.0000
4.0000
3.0000
2.0000
1.0000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN DSA PLOT 1


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2 JJ
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1 JJ
CHNL= 16: CANGL 4193 CDANSK G416.100] C4 JJ
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1 JJ
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1 JJ
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2 JJ
180.00
-180.0
10.000
9.0000
8.0000
7.0000
6.0000
5.0000
4.0000
3.0000
2.0000
1.0000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:02
RUN DSA PLOT 3


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 6
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 8
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
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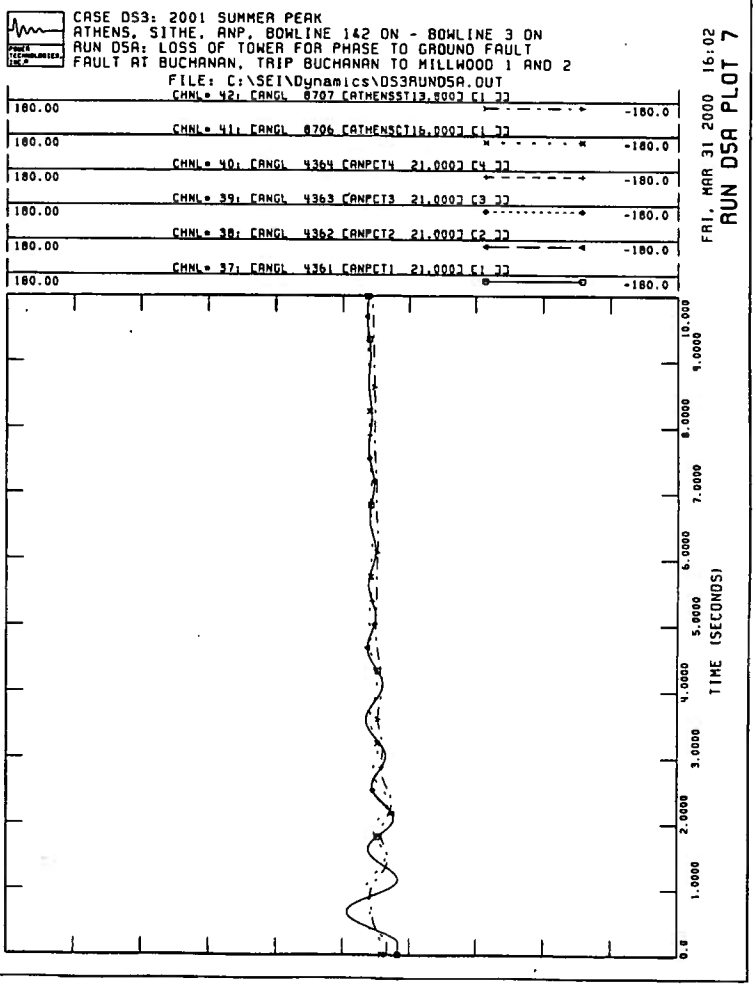
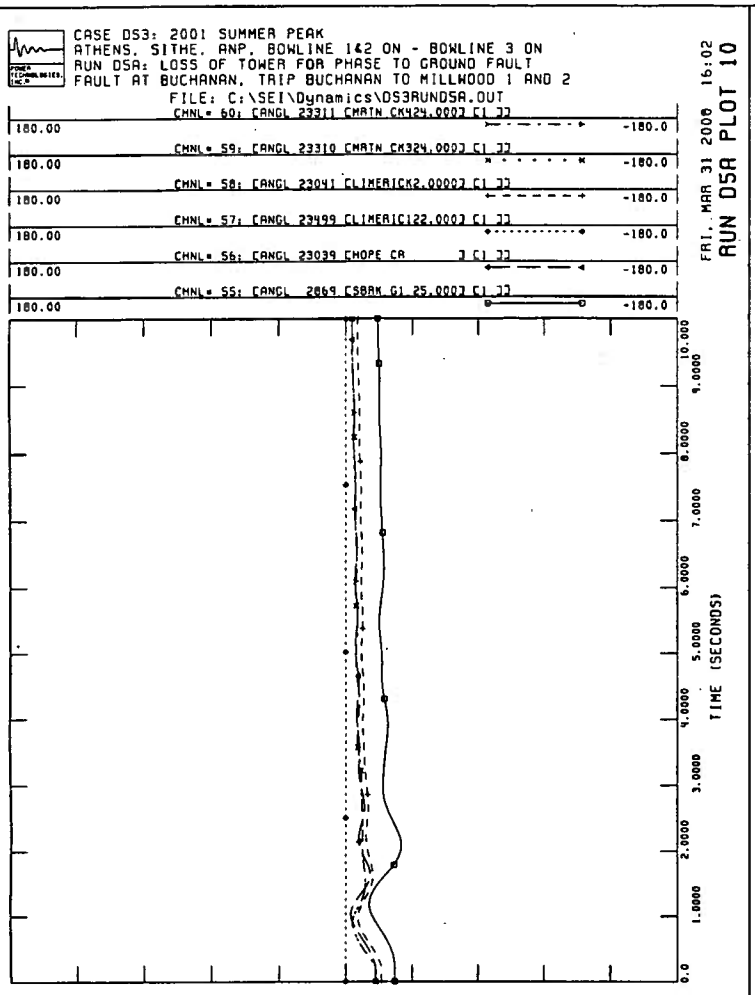
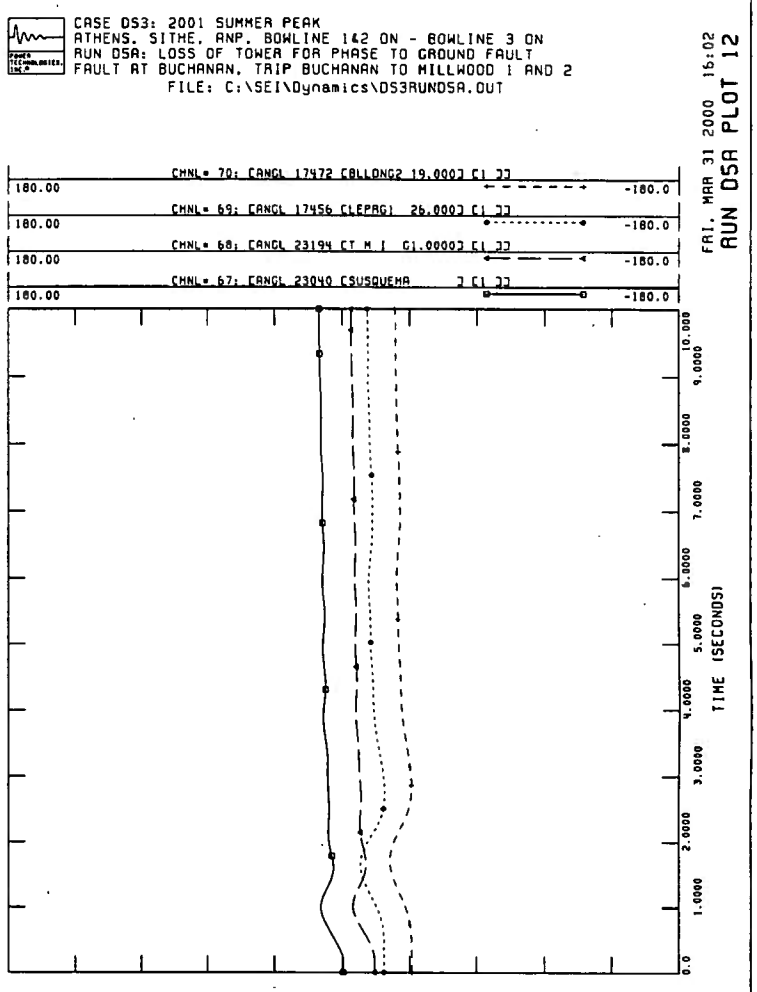
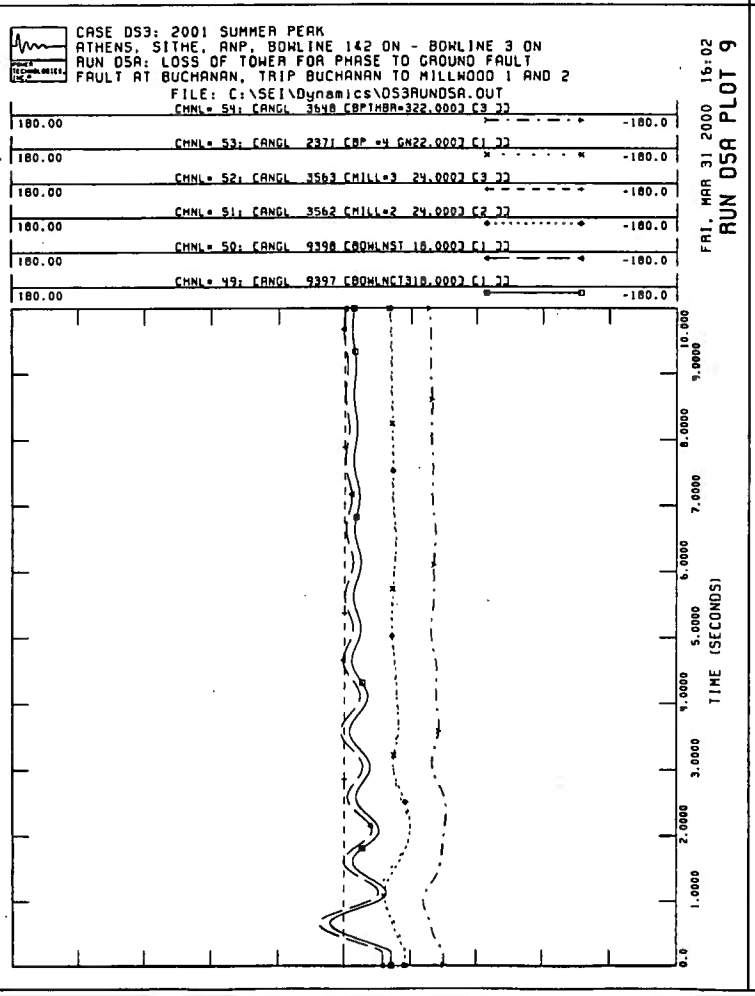
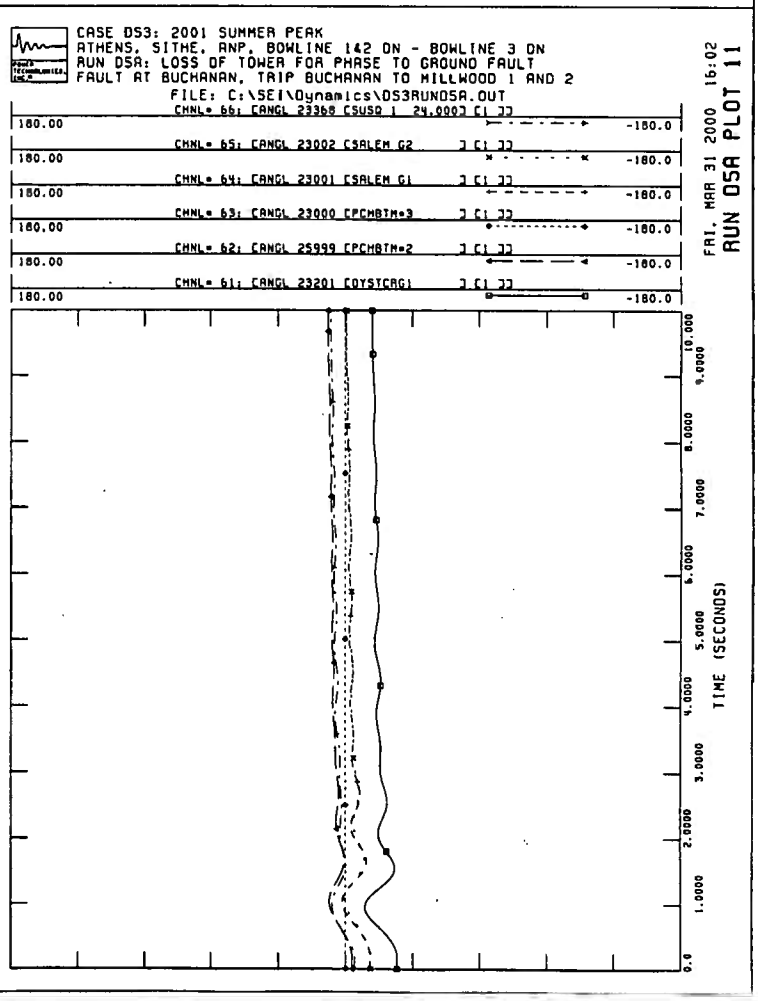
RUN DSA PLOT 5
TIME (SECONDS)

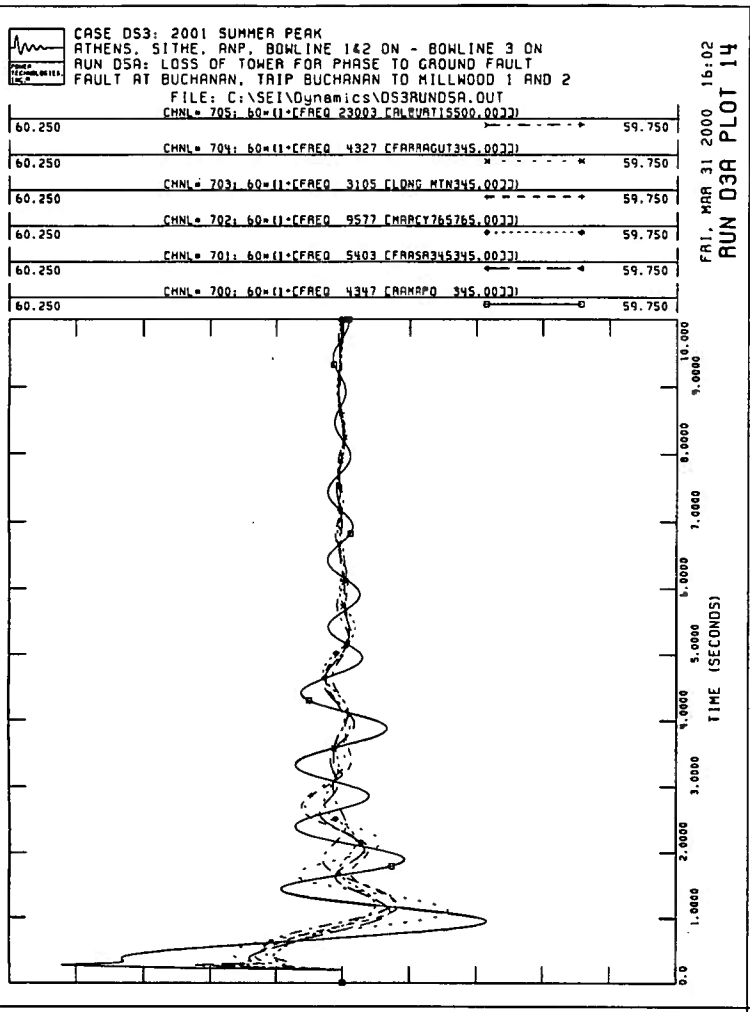

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 7
TIME (SECONDS)

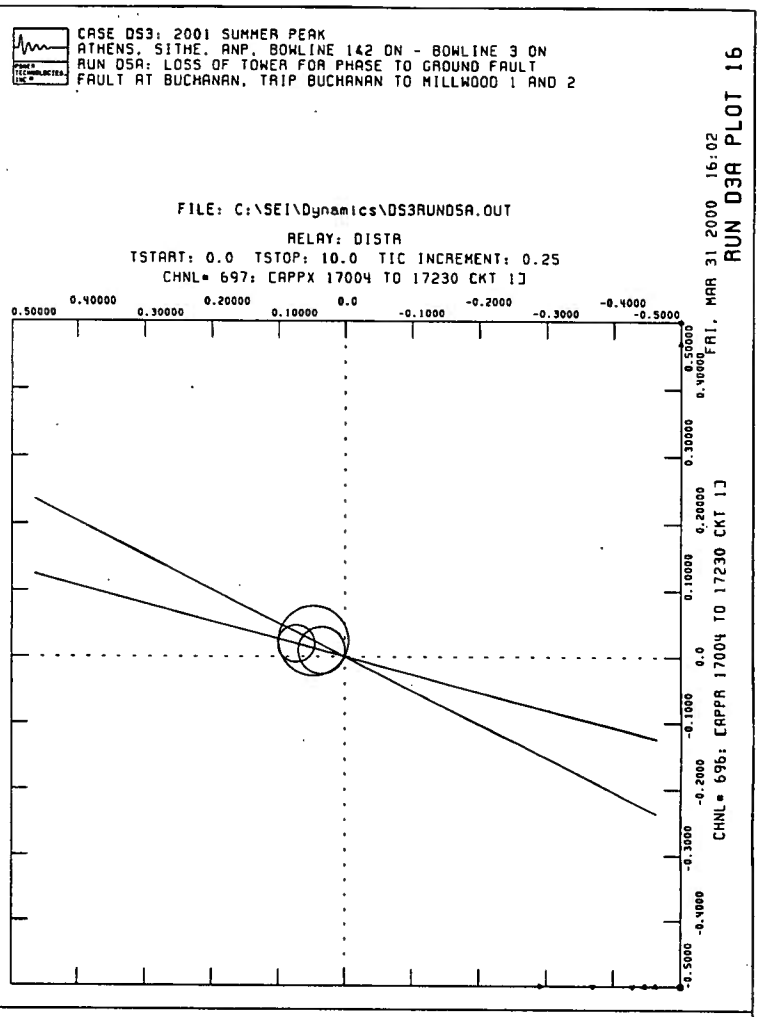

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 10
TIME (SECONDS)

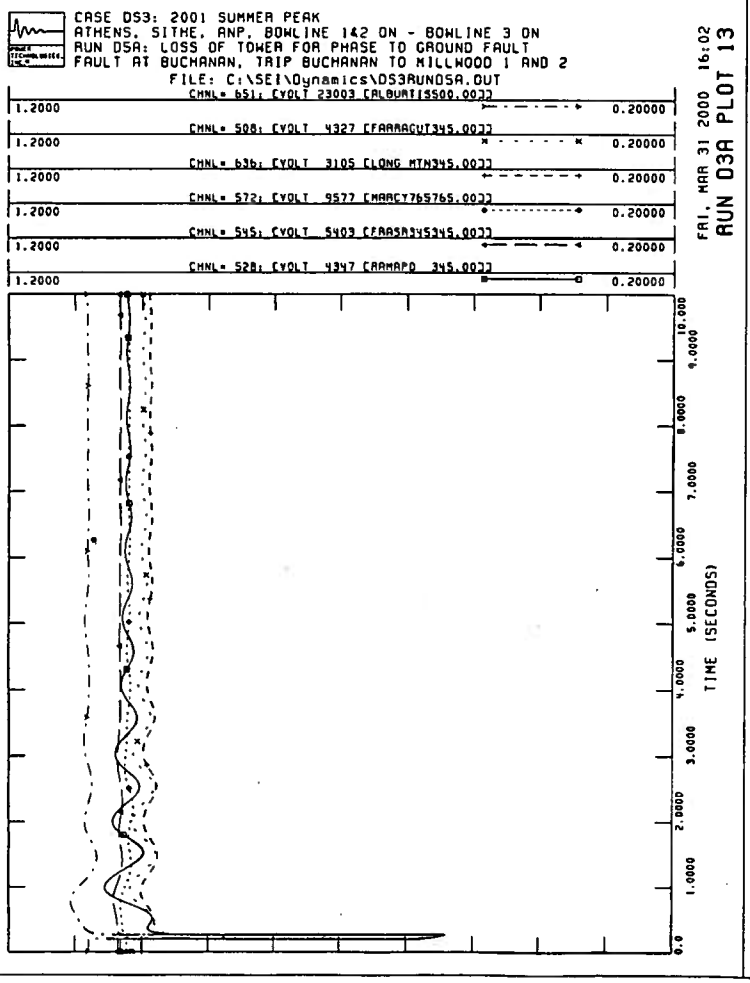

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 12
TIME (SECONDS)

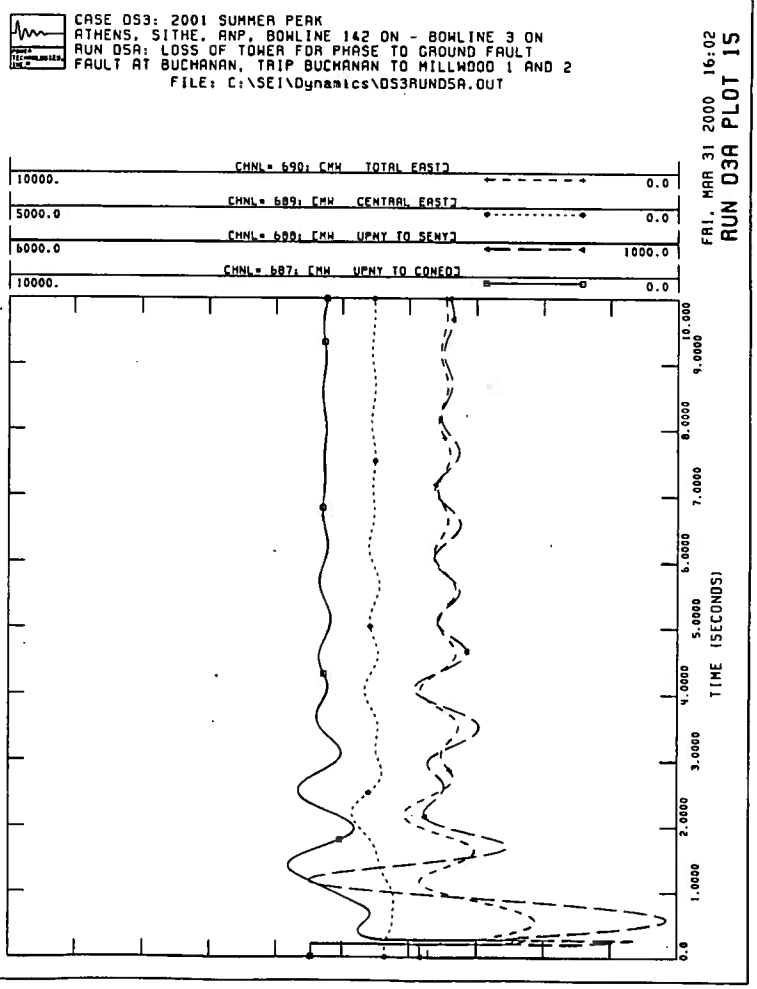

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 9
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN DSA PLOT 11
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN D3A PLOT 14
TIME (SECONDS)

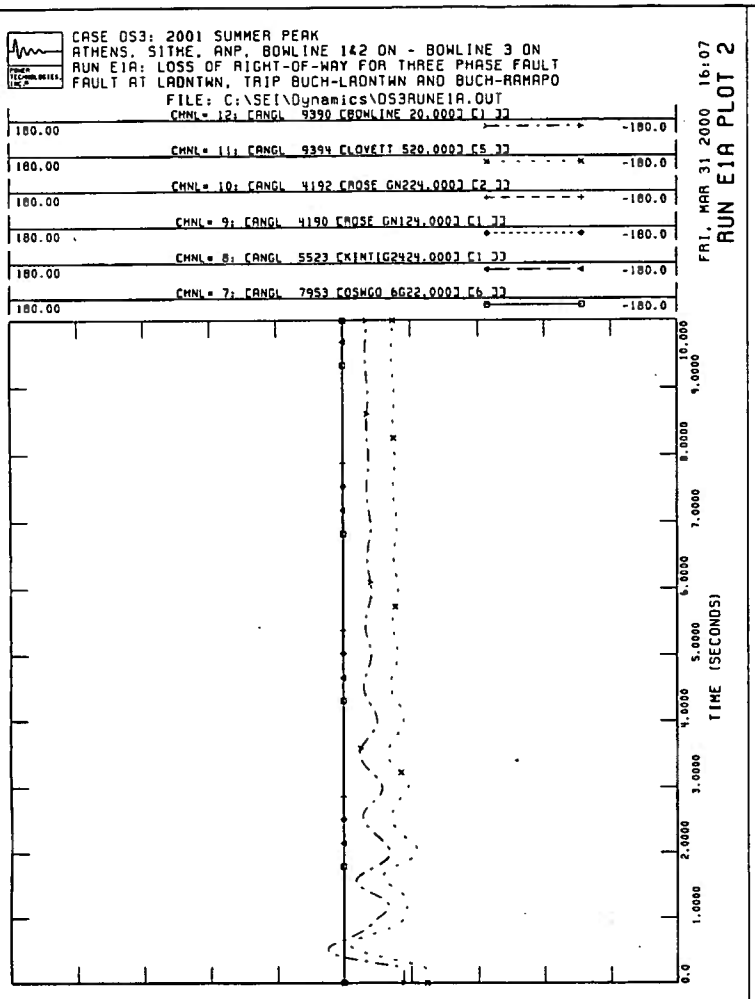

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 16:02
RUN D3A PLOT 16

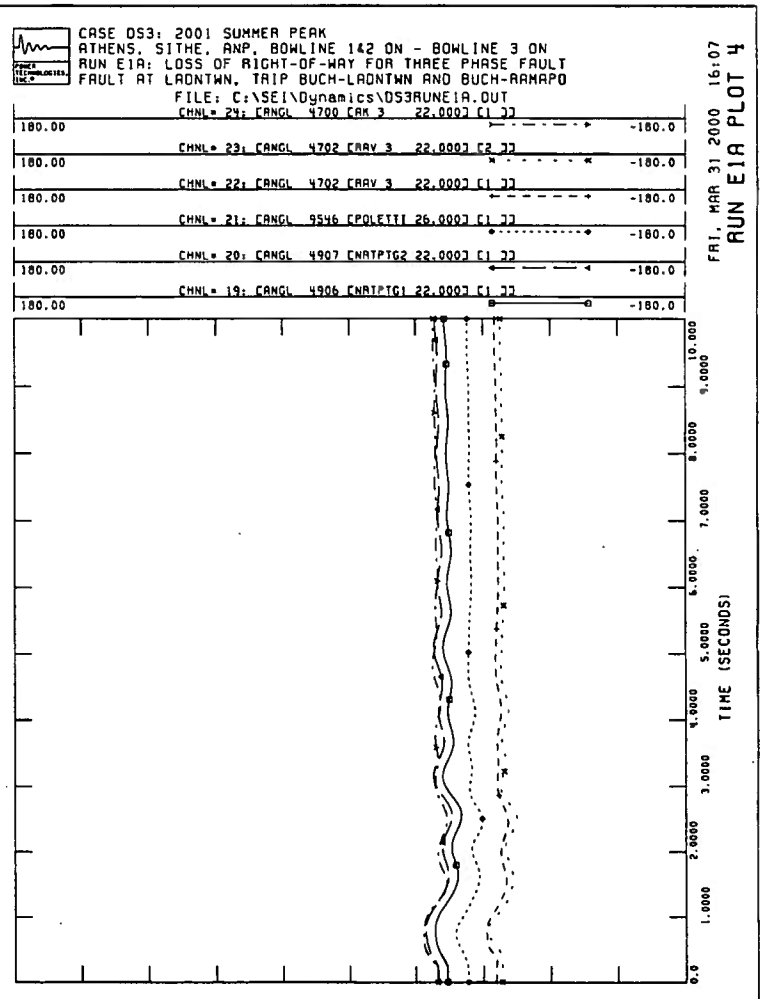

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN D3A PLOT 13
TIME (SECONDS)

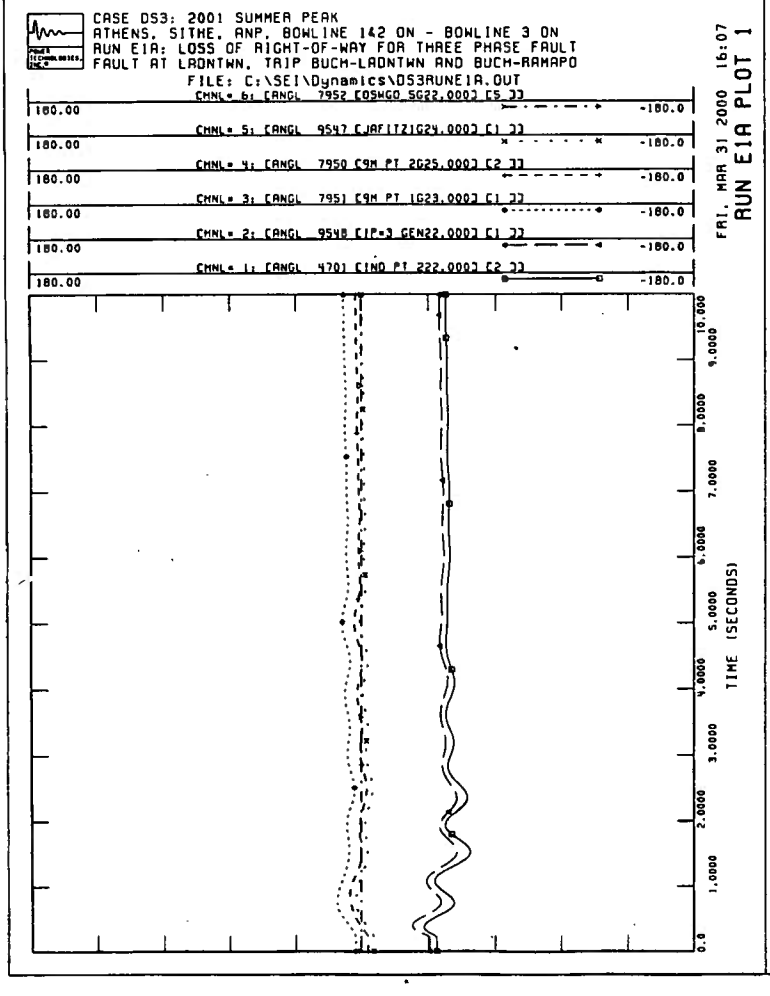

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS3RUNDSA.OUT
FRI, MAR 31 2000 16:02
RUN D3A PLOT 15
TIME (SECONDS)

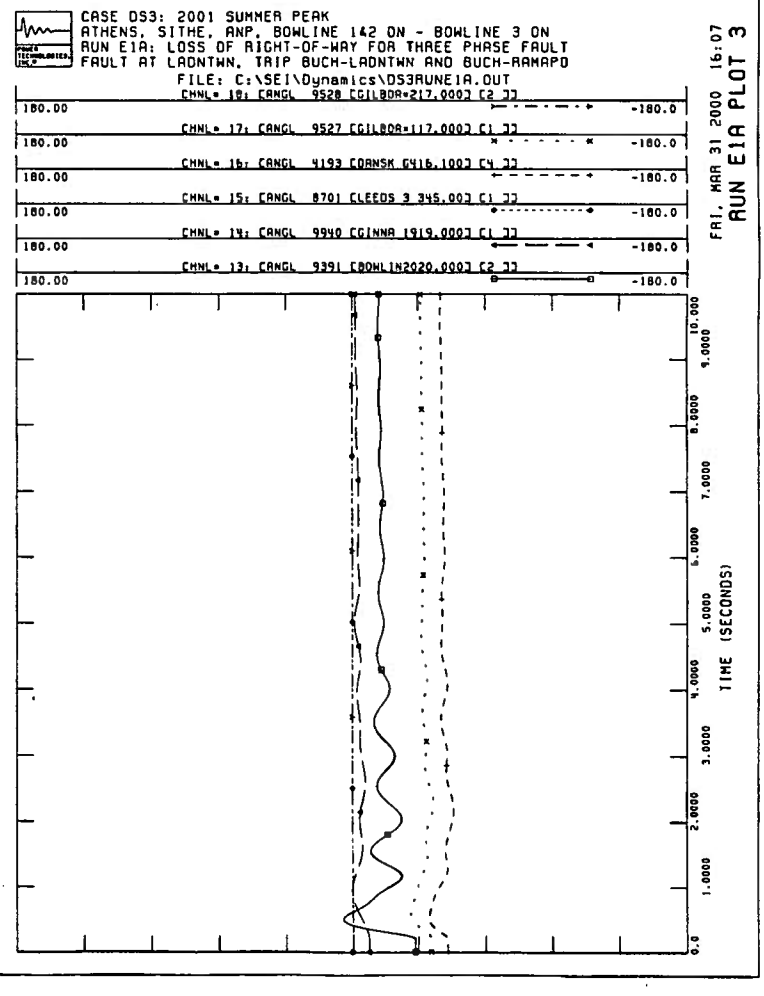
CONTINGENCY E1A

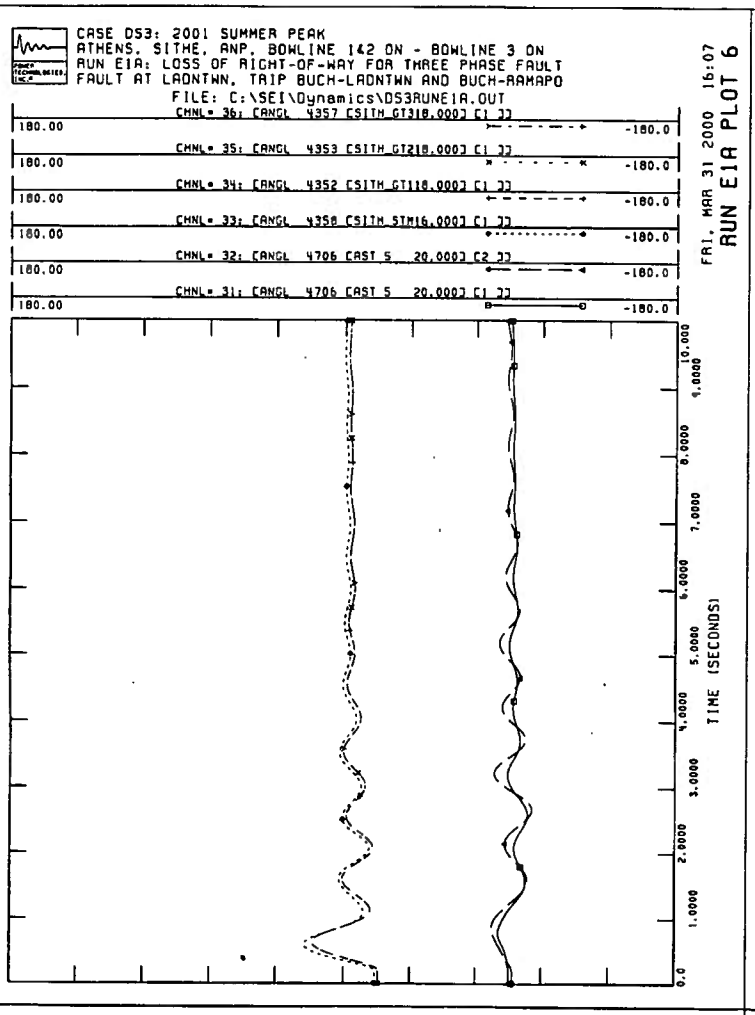
```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1             / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1             / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

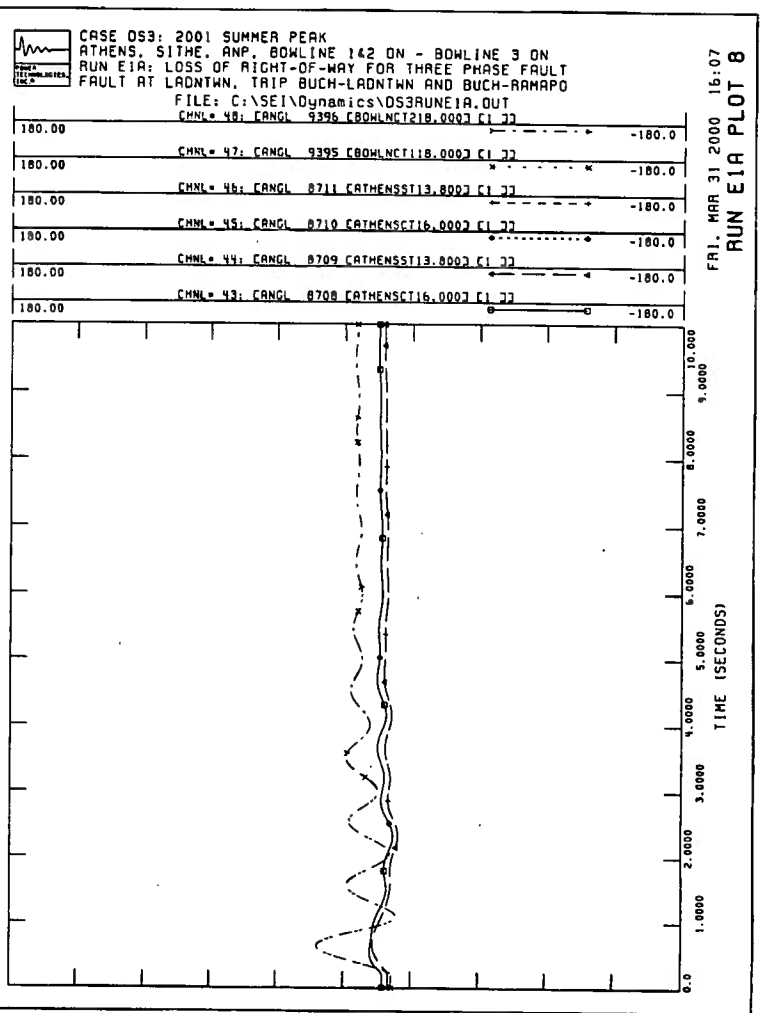

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 12; CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11; CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10; CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9; CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8; CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7; CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 2

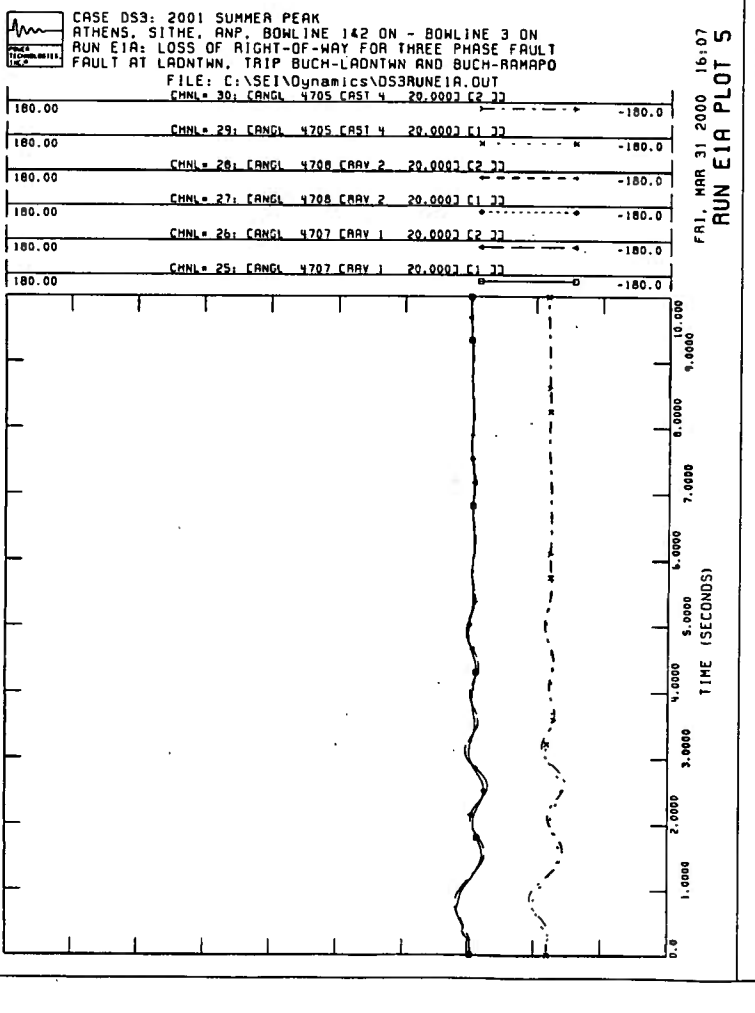

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 24; CANGL 4700 [RR 3 22.000] [1]]
CHNL= 23; CANGL 4702 [RRV 3 22.000] [2]]
CHNL= 22; CANGL 4702 [RRV 3 22.000] [1]]
CHNL= 21; CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20; CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19; CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 4

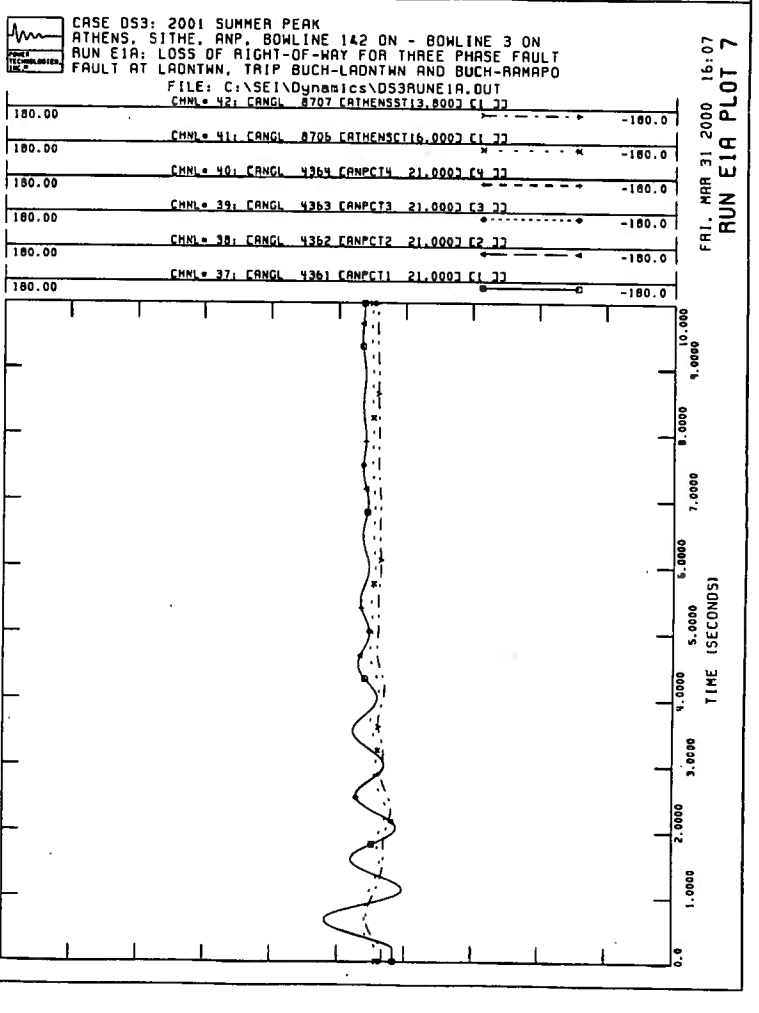

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 6; CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5; CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4; CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3; CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2; CANGL 9548 [IP-3 GEN22.000] [1]]
CHNL= 1; CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 1

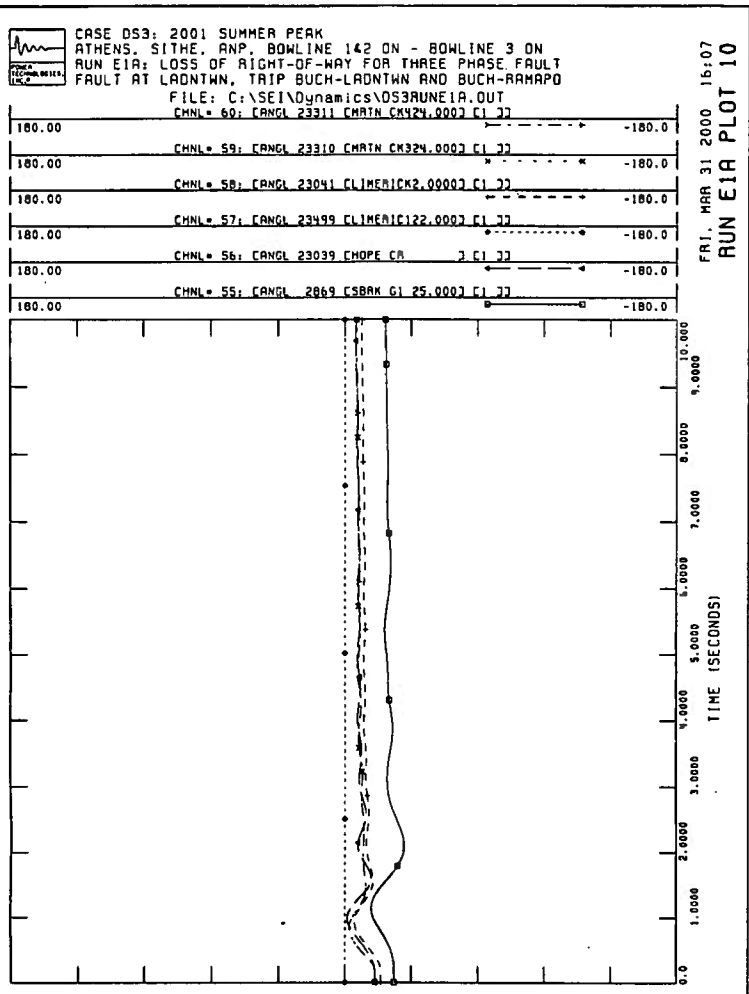

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 18; CANGL 9528 [GILBOA-217.000] [2]]
CHNL= 17; CANGL 9527 [GILBOA-117.000] [1]]
CHNL= 16; CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15; CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14; CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13; CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 3

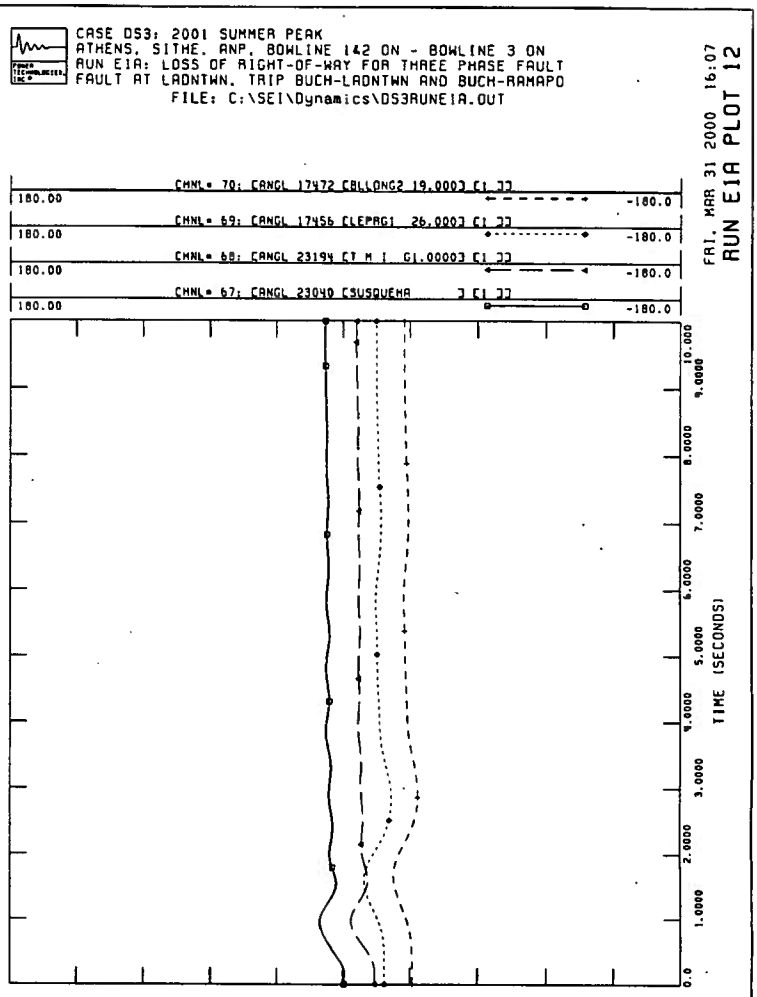

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 36: CANGL 4357 [SITH_GT2 18.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT2 18.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT1 18.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM 16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 6

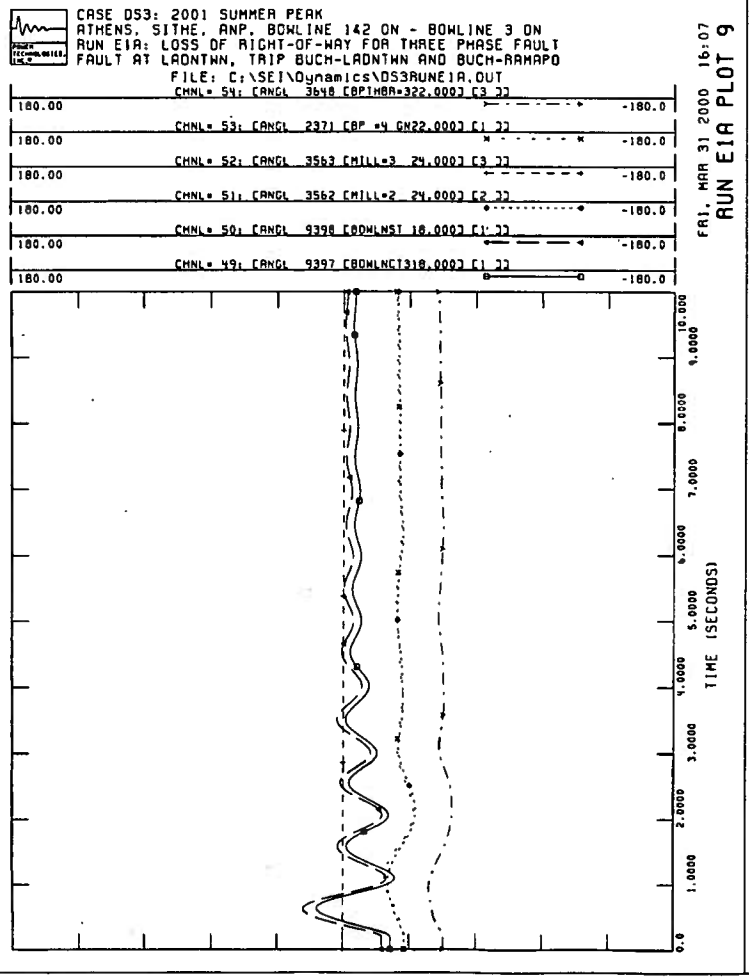

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 48: CANGL 9396 [BOWLNCT2 18.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT1 18.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST3 13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT6 16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST3 13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT6 16.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 8

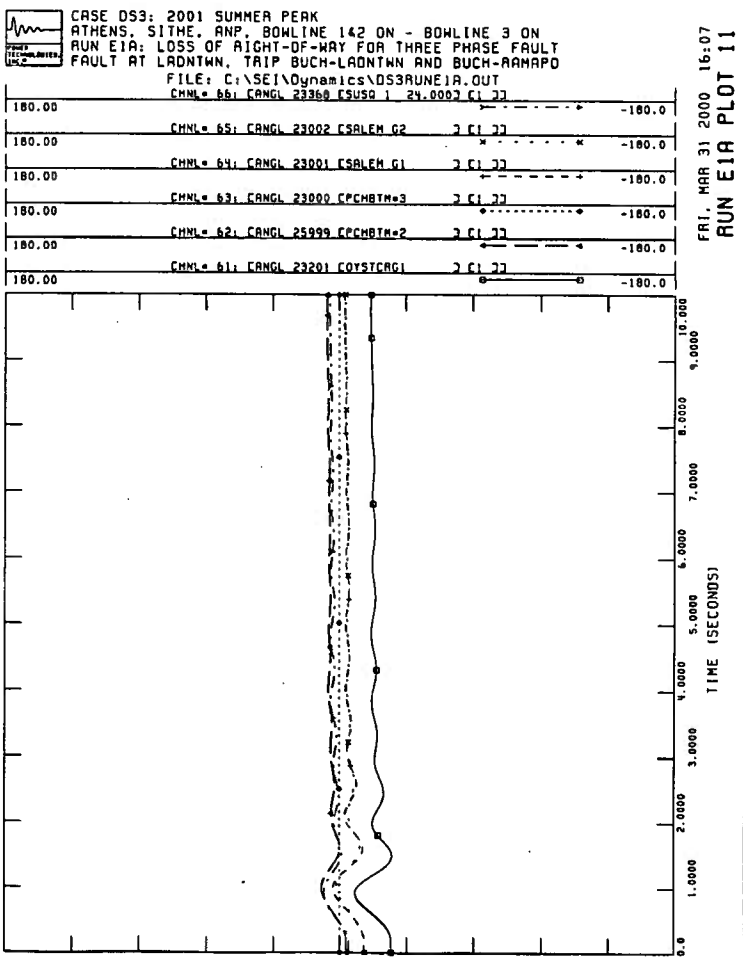

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARV 1 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 5

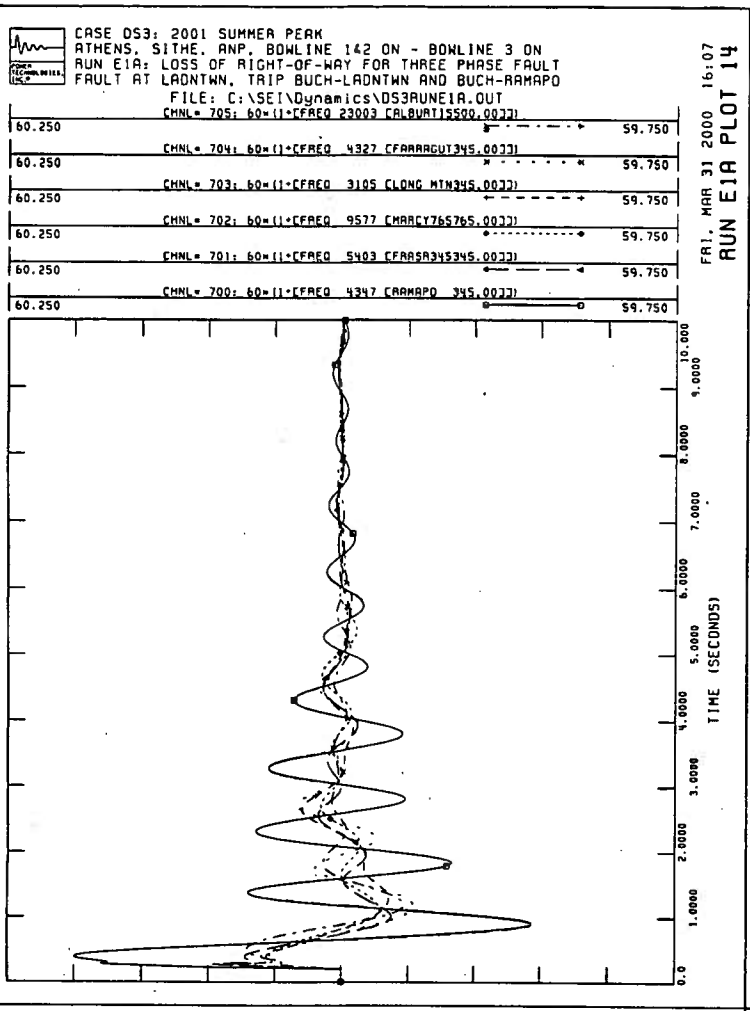

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 42: CANGL 8707 [ATHENSST3 13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT6 16.000] [1]]
CHNL= 40: CANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [ANPCT1 21.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 7

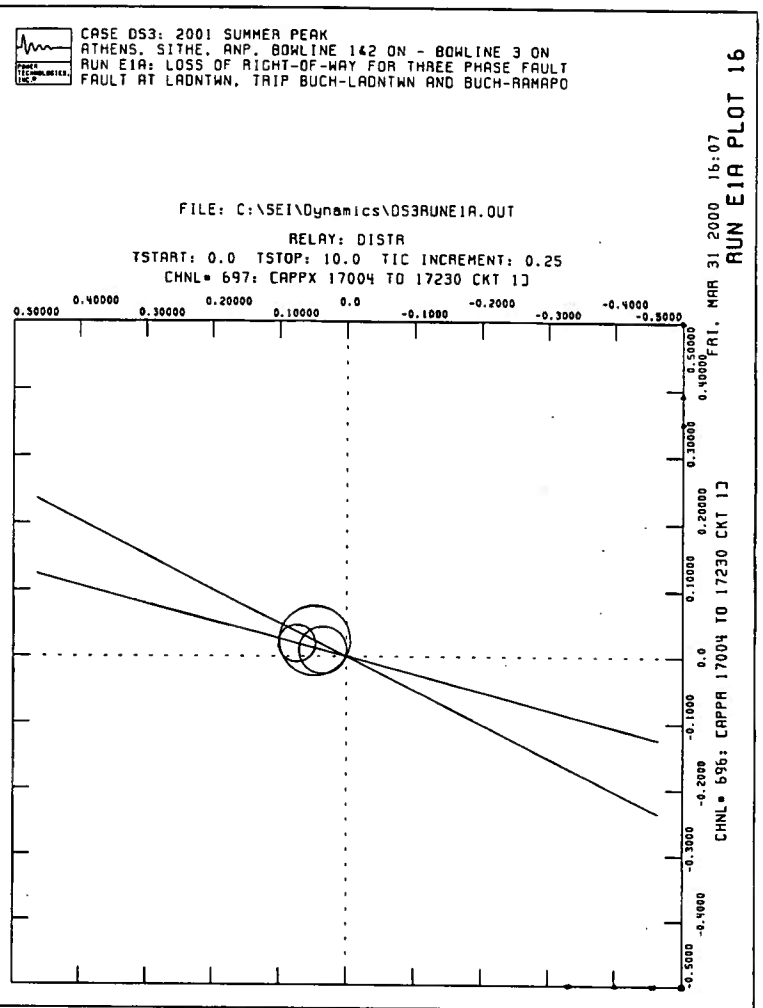

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR 3 C1]]
CHNL= 55: CANGL 2869 CSBAK G1 25.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 10

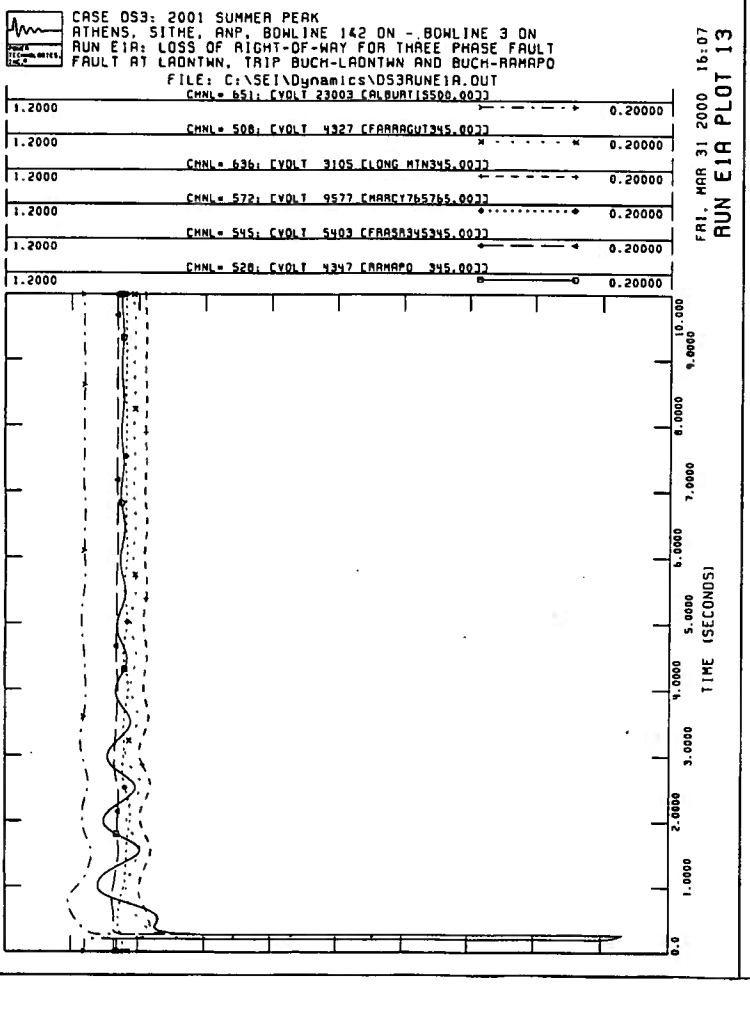

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 70: CANGL 17472 CBLLONG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.00000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA 3 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 12

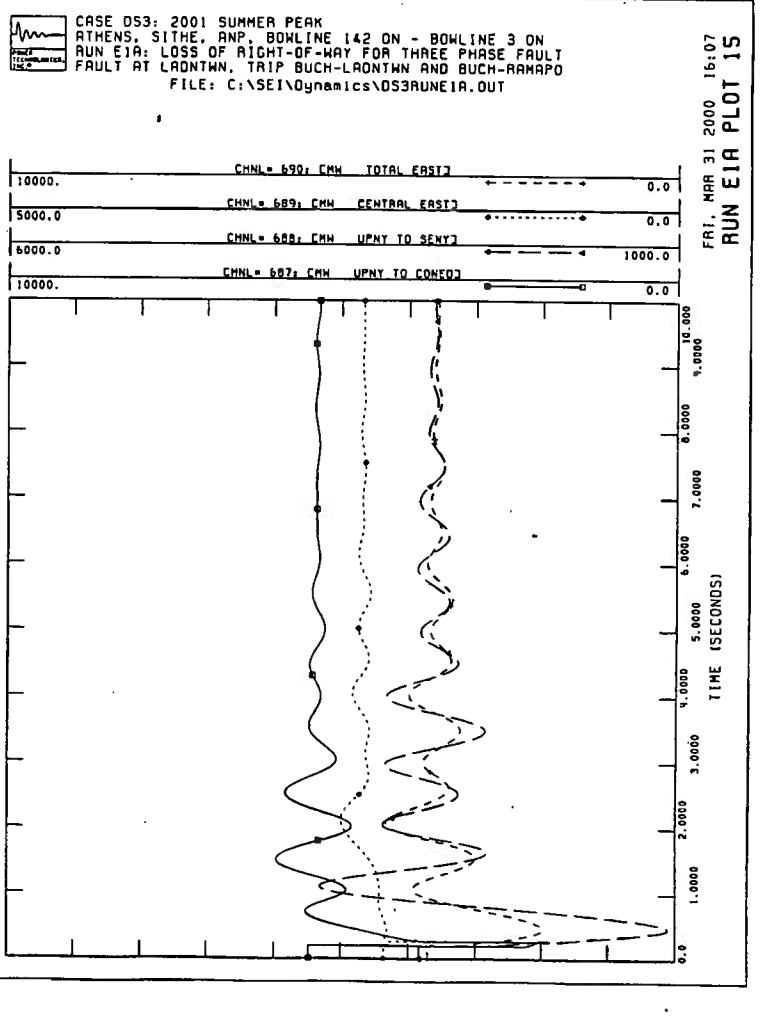

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 9


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 66: CANGL 23360 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2 3 C1]]
CHNL= 64: CANGL 23001 CSALEM G1 3 C1]]
CHNL= 63: CANGL 23000 CPCMBTM=3 3 C1]]
CHNL= 62: CANGL 25999 CPCMBTM=2 3 C1]]
CHNL= 61: CANGL 23201 COYSTCRG1 3 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 11


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 705: 60*(1+CFREQ 23003 CALBURTI5500,00]])
CHNL= 704: 60*(1+CFREQ 4327 CFARRAGUT345,00]])
CHNL= 703: 60*(1+CFREQ 3105 CLONG MTN345,00]])
CHNL= 702: 60*(1+CFREQ 9577 CMARCY765765,00]])
CHNL= 701: 60*(1+CFREQ 5403 CFARSA345345,00]])
CHNL= 700: 60*(1+CFREQ 4347 CRAMAPO 345,00]])
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 14

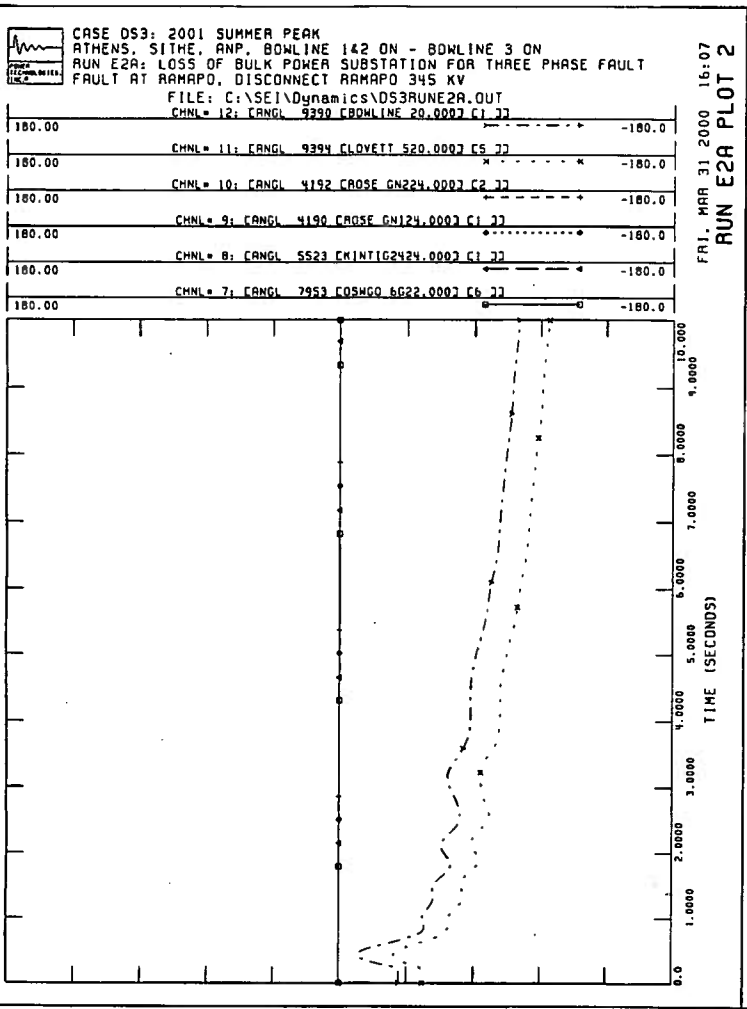

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:07
RUN E1A PLOT 16

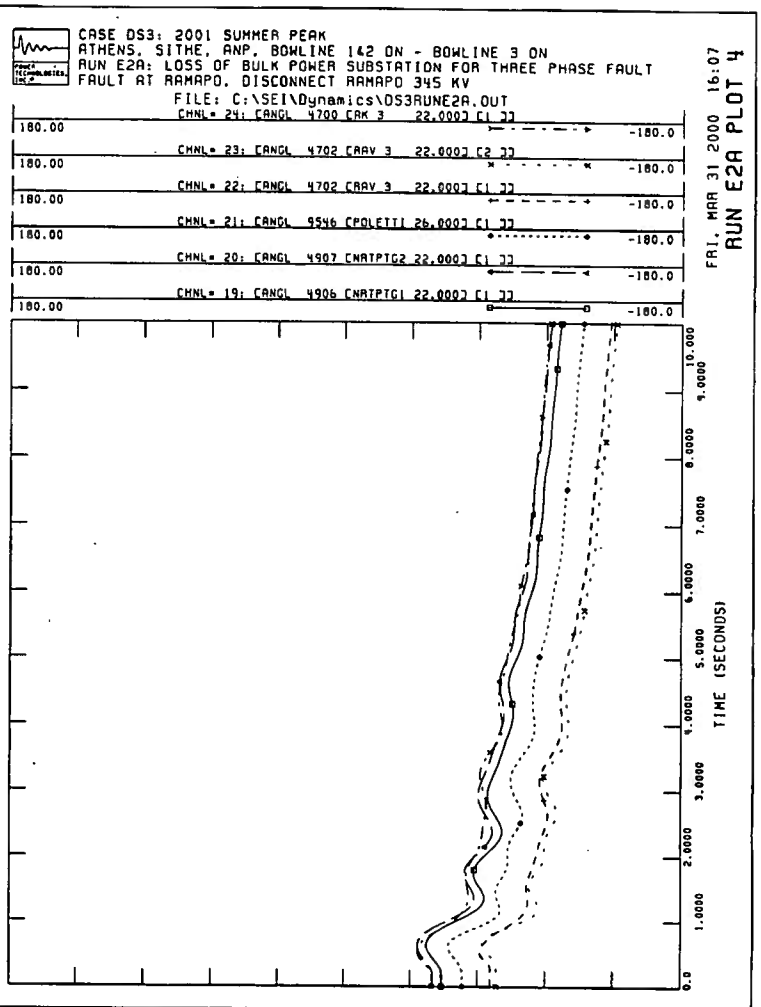

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 651: CVOLT 23003 CALBURTI5500,00]]
CHNL= 506: CVOLT 4327 CFARRAGUT345,00]]
CHNL= 636: CVOLT 3105 CLONG MTN345,00]]
CHNL= 572: CVOLT 9577 CMARCY765765,00]]
CHNL= 545: CVOLT 5403 CFARSA345345,00]]
CHNL= 528: CVOLT 4347 CRAMAPO 345,00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 13

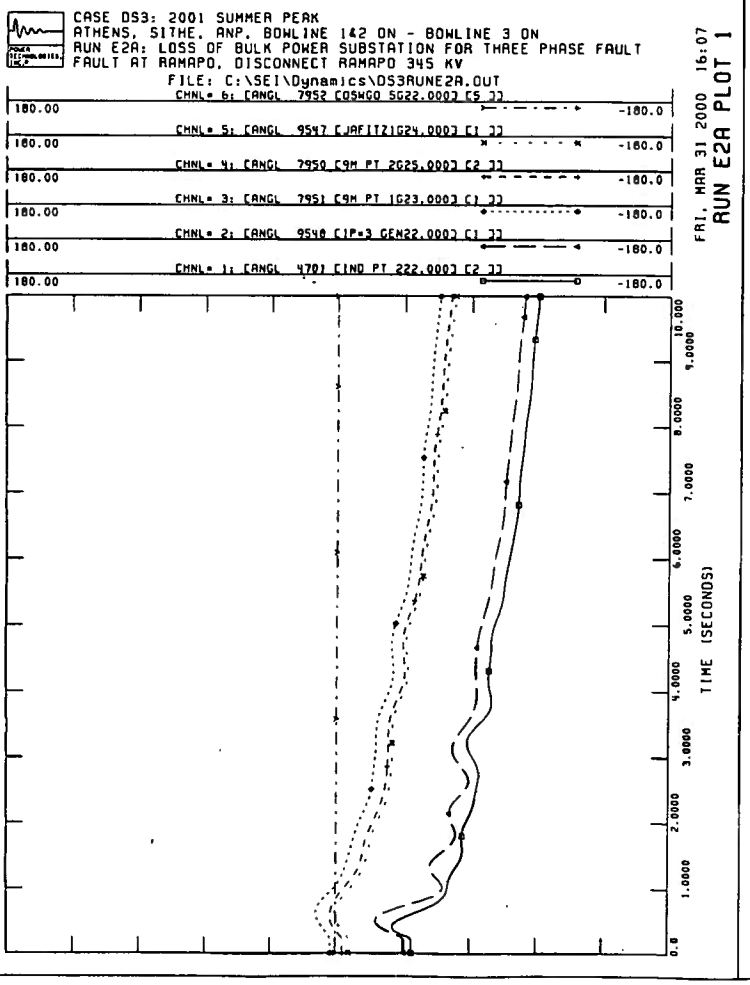

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS3RUNE1A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E1A PLOT 15

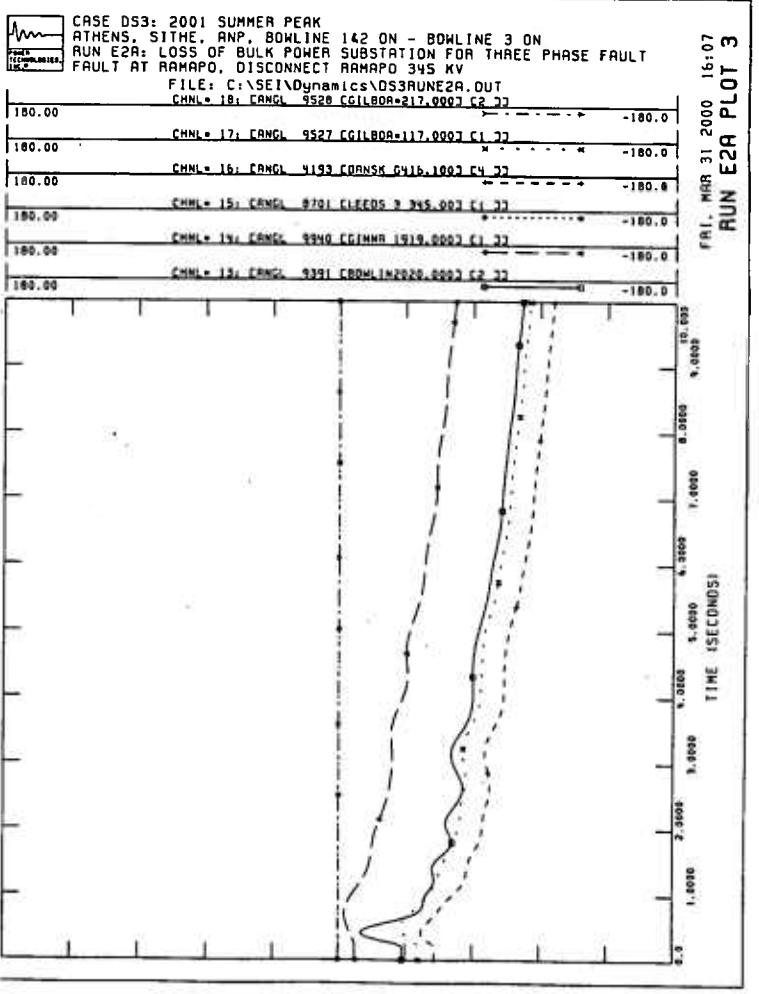
CONTINGENCY E2A

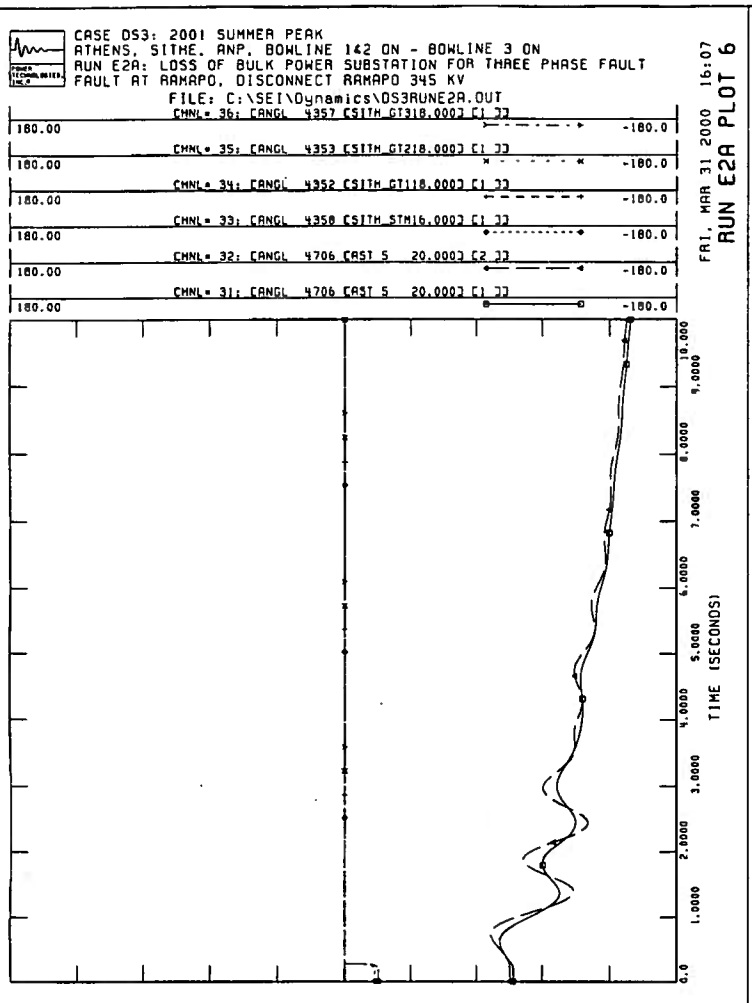
```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                                 / DISCONNECT RAMAPO SUBSTATION
DROP GENERATOR 1 AT BUS 4352                              / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4353                              / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4357                              / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4358                              / TRIP SITHE ST
DROP GENERATOR 1 AT BUS 4361                              / TRIP ANP CT
DROP GENERATOR 2 AT BUS 4362                              / TRIP ANP CT
DROP GENERATOR 3 AT BUS 4363                              / TRIP ANP CT
DROP GENERATOR 4 AT BUS 4364                              / TRIP ANP ST
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

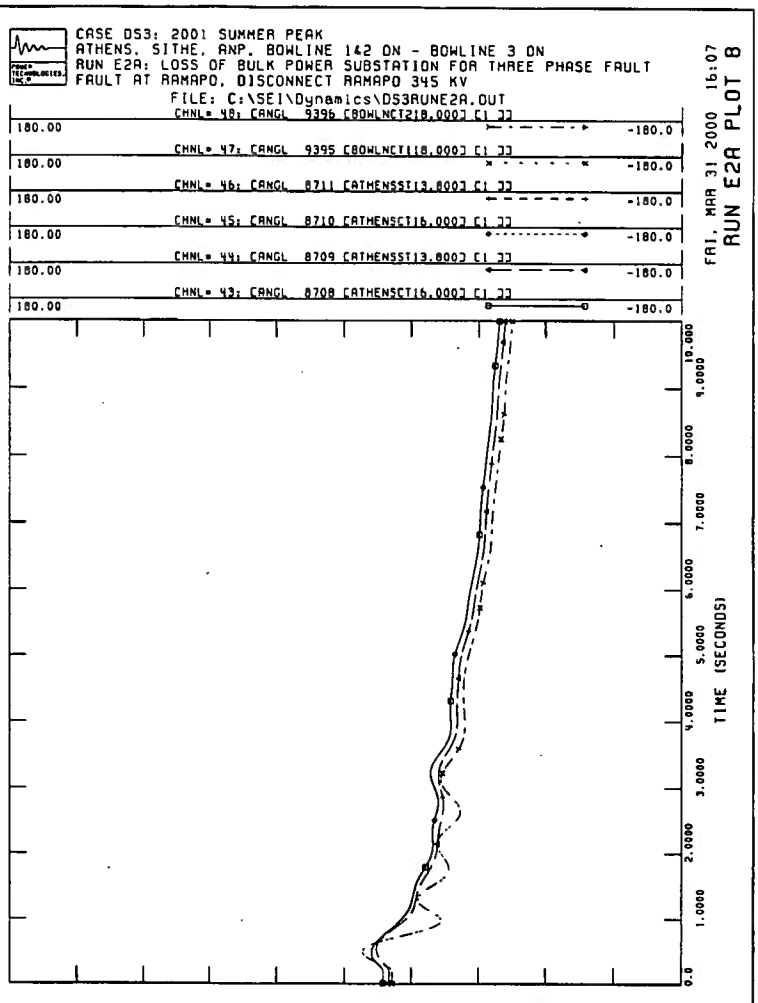

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 2
TIME (SECONDS)

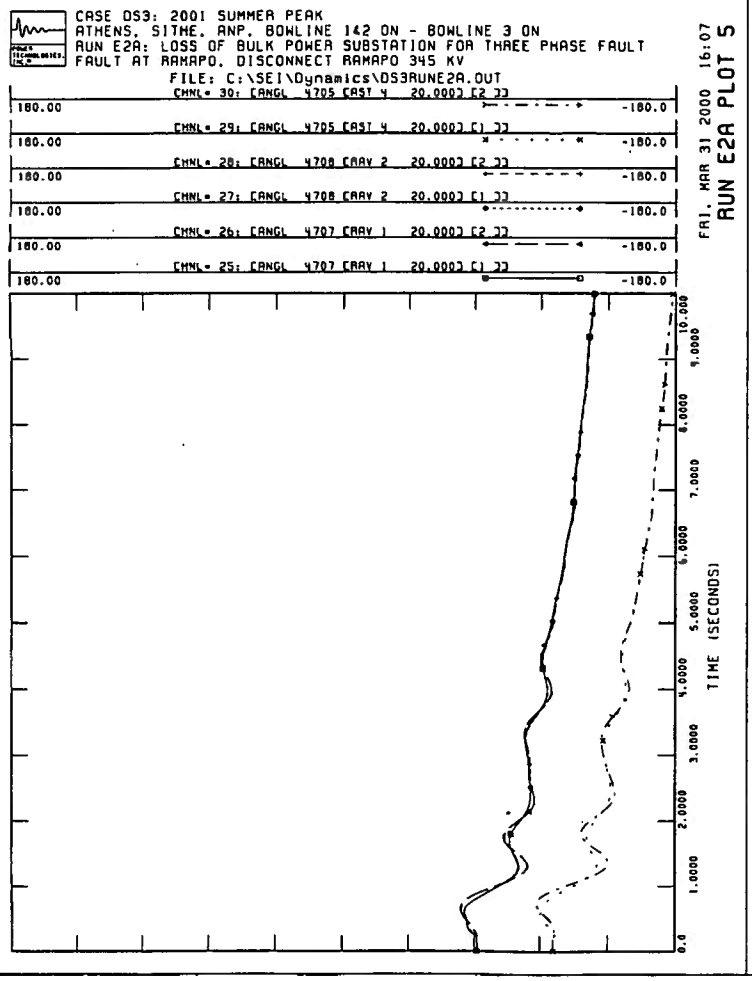

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 4
TIME (SECONDS)

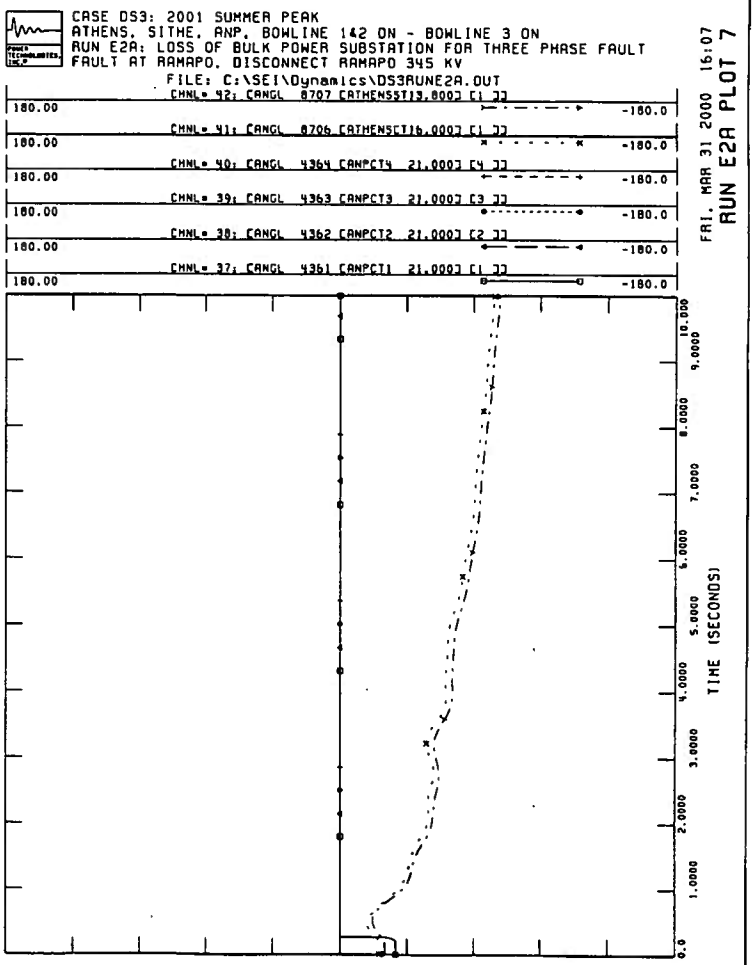

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 1
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 3
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 6
TIME (SECONDS)

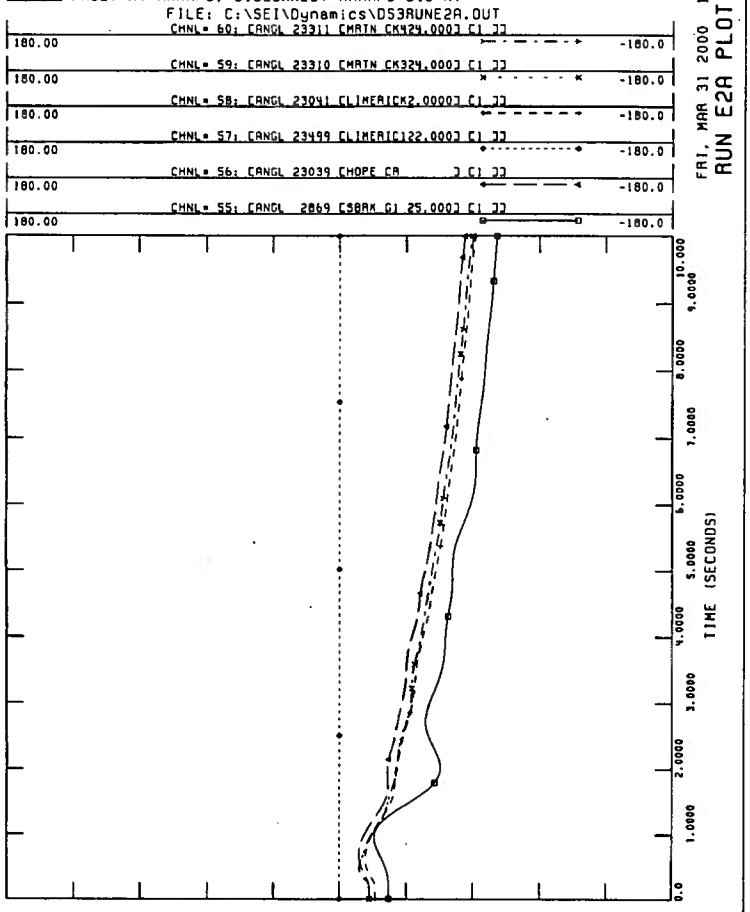

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 8
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 5
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
FRI, MAR 31 2000 16:07
RUN E2A PLOT 7
TIME (SECONDS)

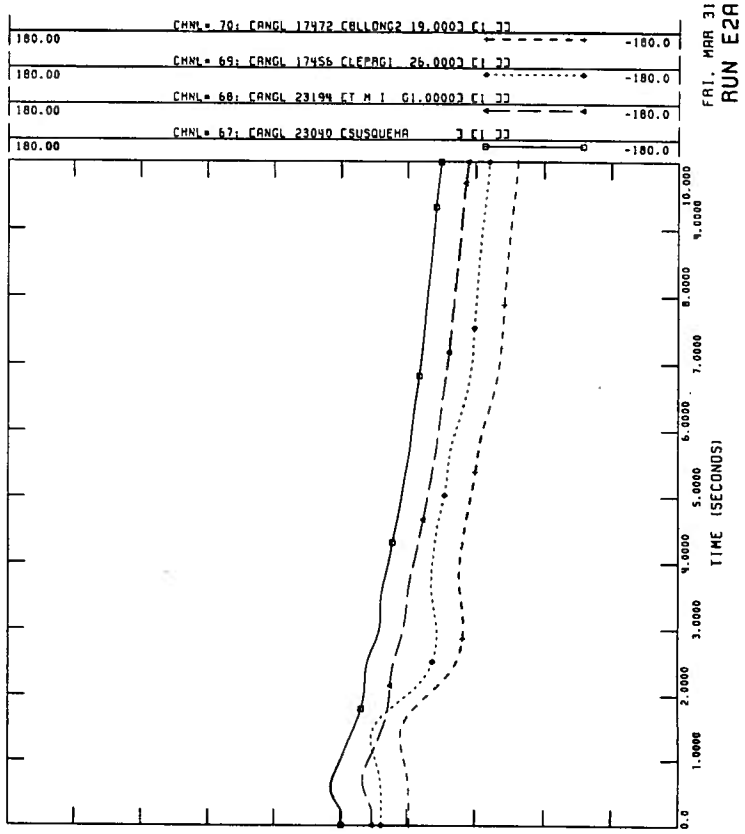
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT

FRI, MAR 31 2000 16:07
RUN E2A PLOT 10



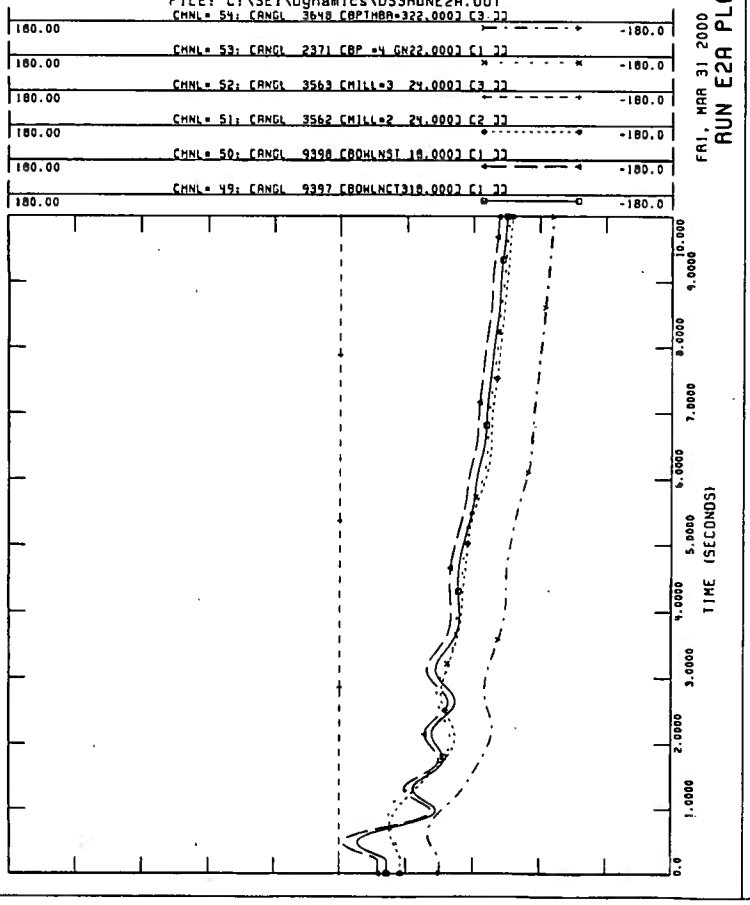
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT

FRI, MAR 31 2000 16:07
RUN E2A PLOT 12



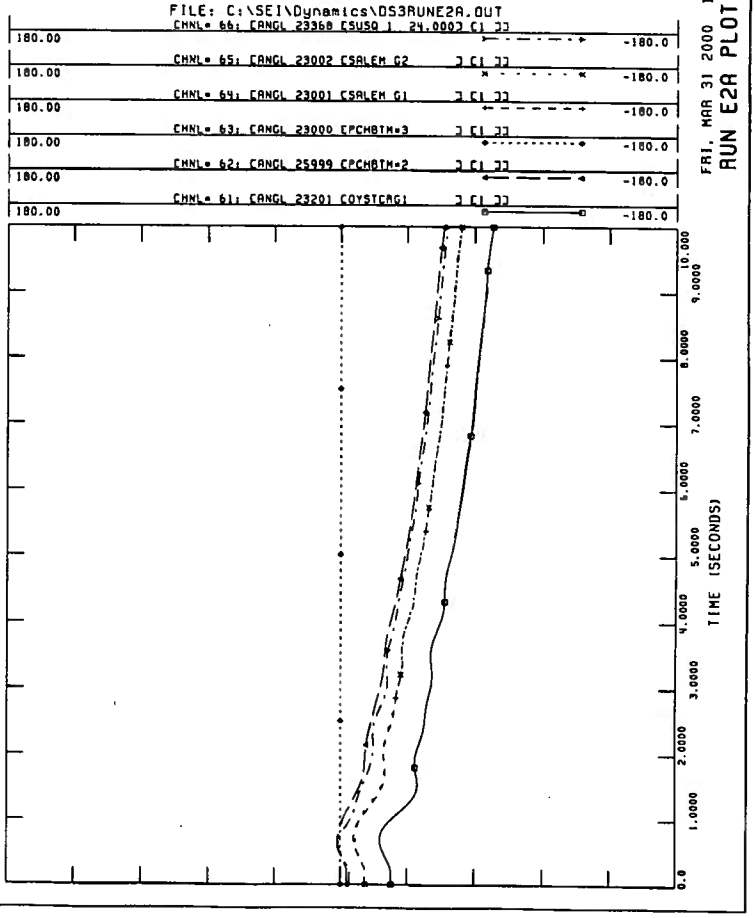
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT

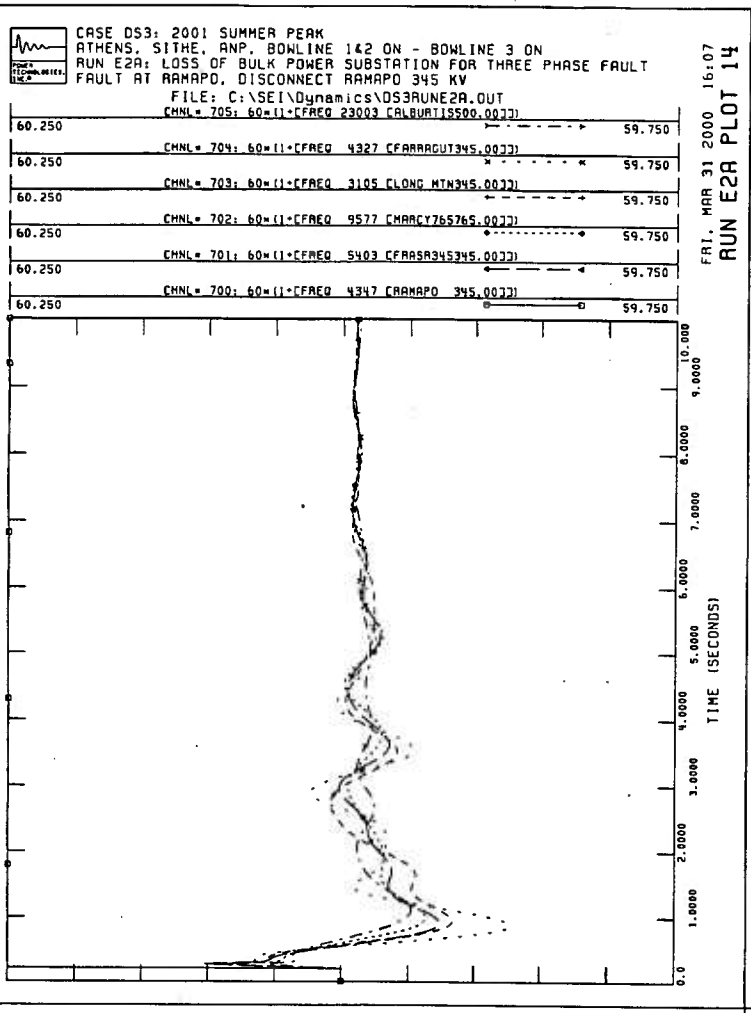
FRI, MAR 31 2000 16:07
RUN E2A PLOT 9

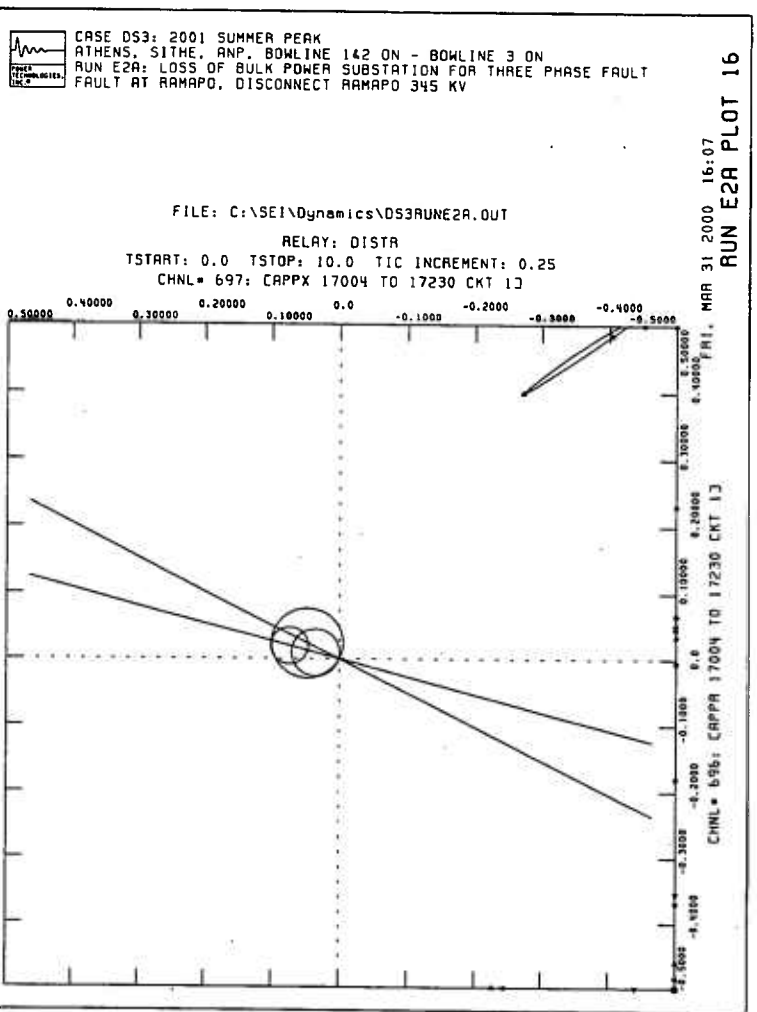


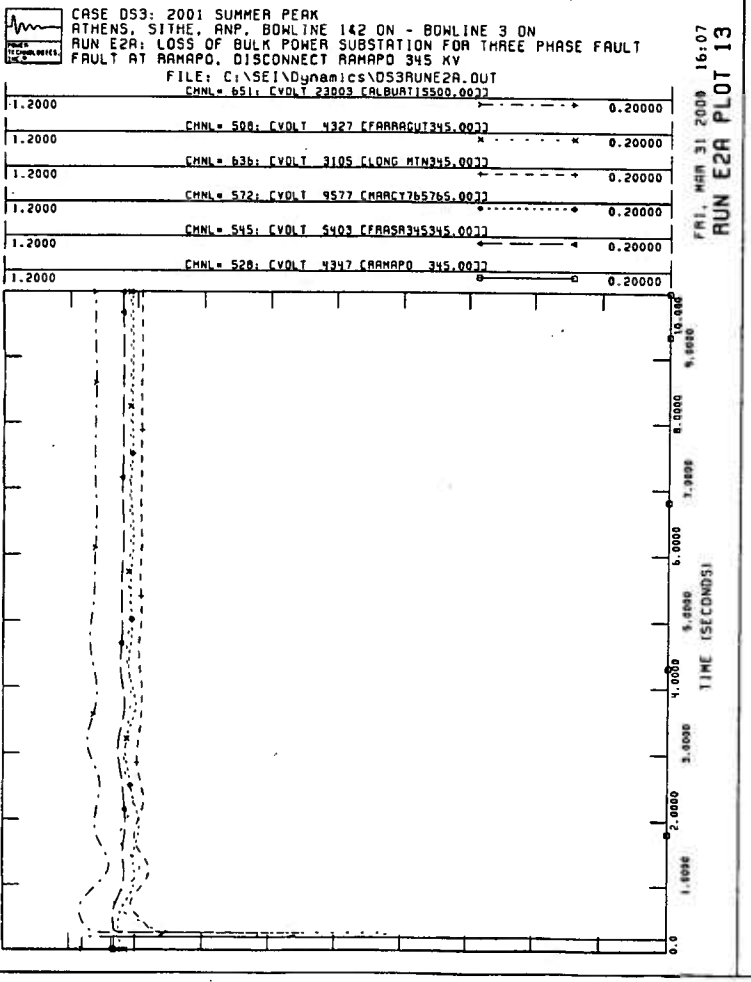
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT

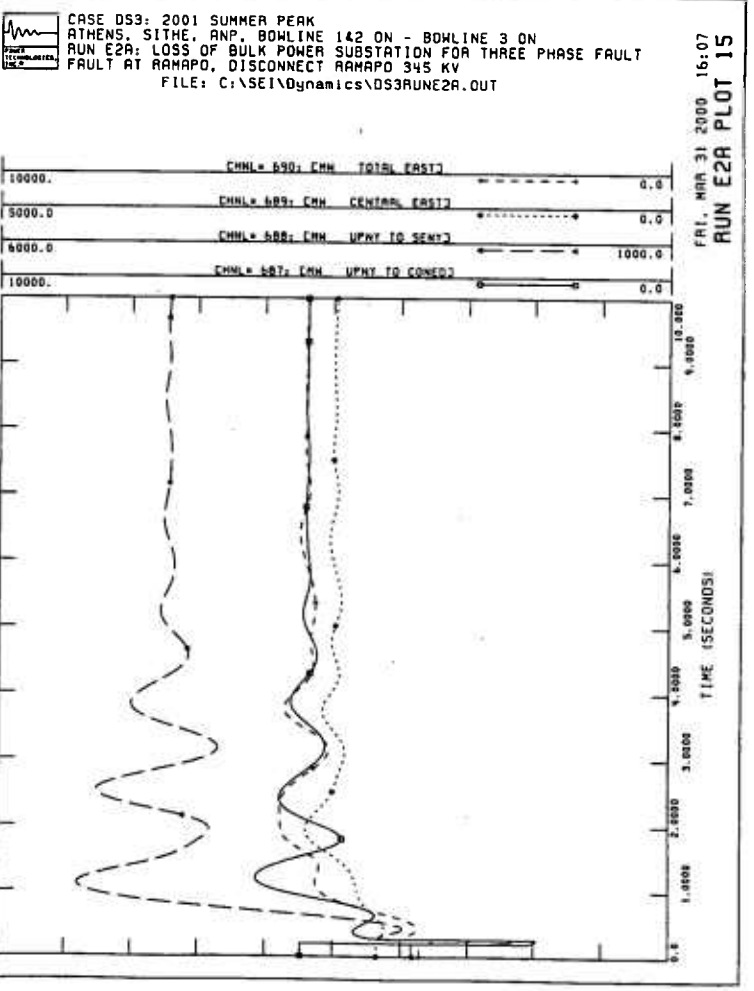
FRI, MAR 31 2000 16:07
RUN E2A PLOT 11




CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
CHNL= 705: 60=(1)*CFREQ 23003 CALBUAT15500.00]]
CHNL= 704: 60=(1)*CFREQ 4327 CFARRAGUT345.00]]
CHNL= 703: 60=(1)*CFREQ 3105 CLONG MTN345.00]]
CHNL= 702: 60=(1)*CFREQ 9577 CMARCY765765.00]]
CHNL= 701: 60=(1)*CFREQ 5403 CFRASR345345.00]]
CHNL= 700: 60=(1)*CFREQ 4347 CRAMAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E2A PLOT 14

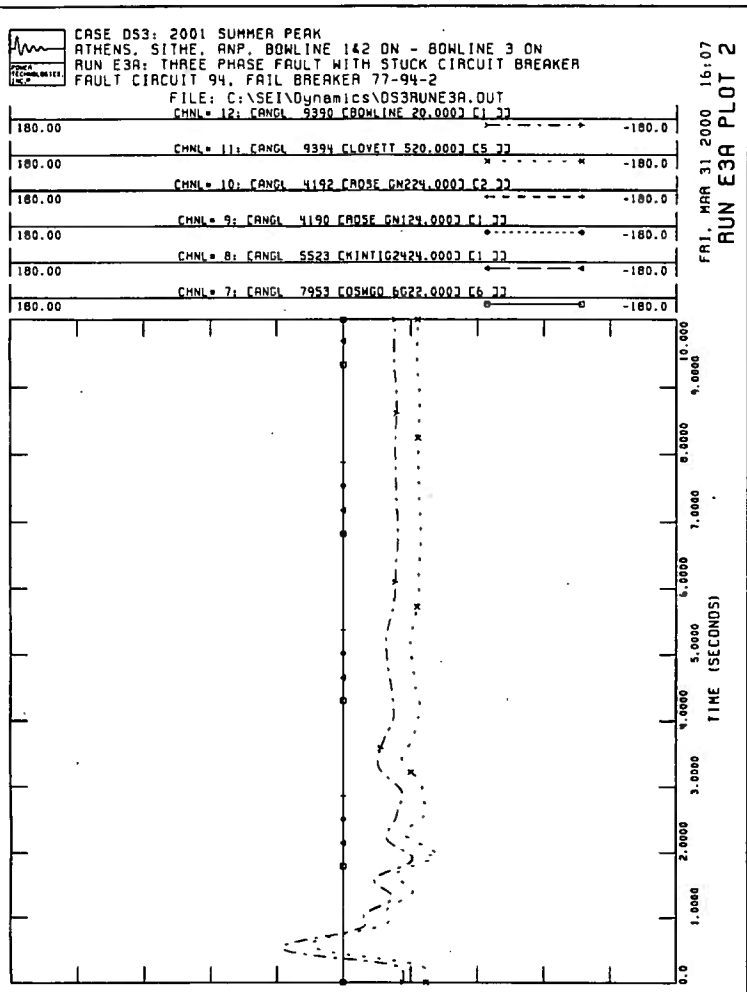

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPA 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:07
RUN E2A PLOT 16

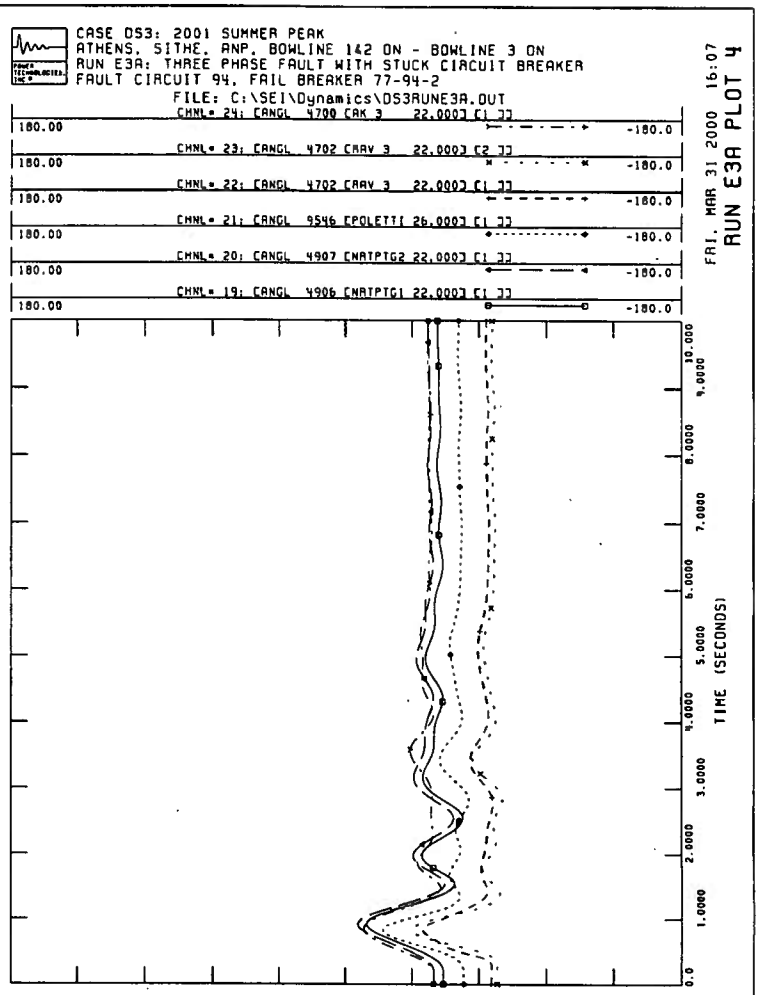

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
CHNL= 651: CVOLT 23003 CALBUAT15500.00]]
CHNL= 508: CVOLT 4327 CFARRAGUT345.00]]
CHNL= 636: CVOLT 3105 CLONG MTN345.00]]
CHNL= 572: CVOLT 9577 CMARCY765765.00]]
CHNL= 545: CVOLT 5403 CFRASR345345.00]]
CHNL= 528: CVOLT 4347 CRAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E2A PLOT 13

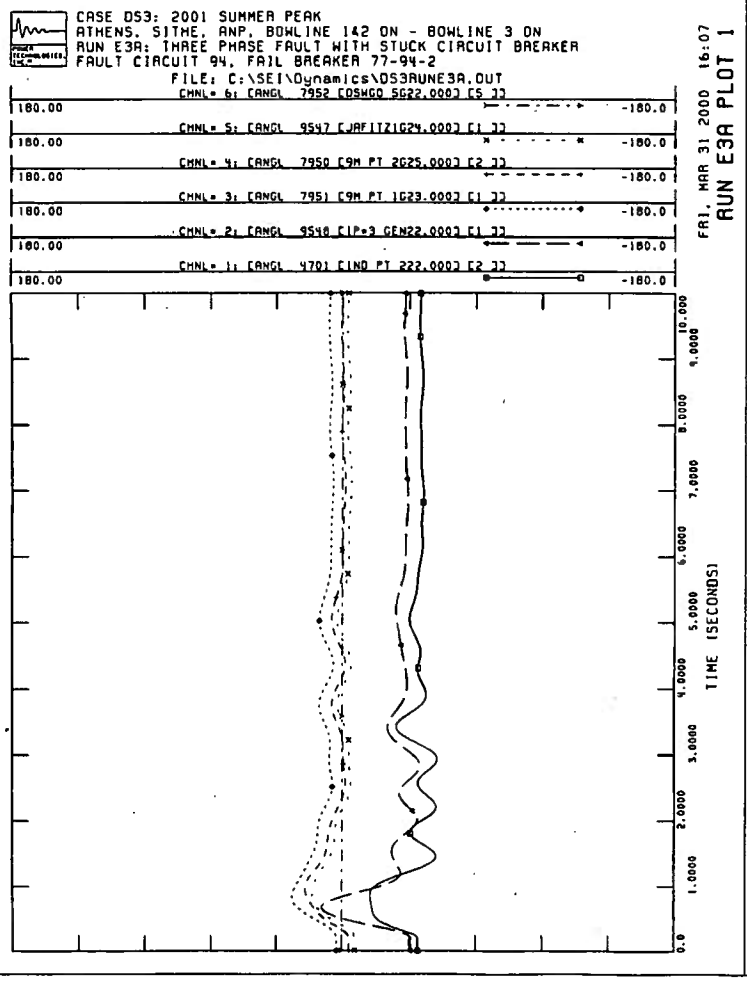

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS3RUNE2A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E2A PLOT 15

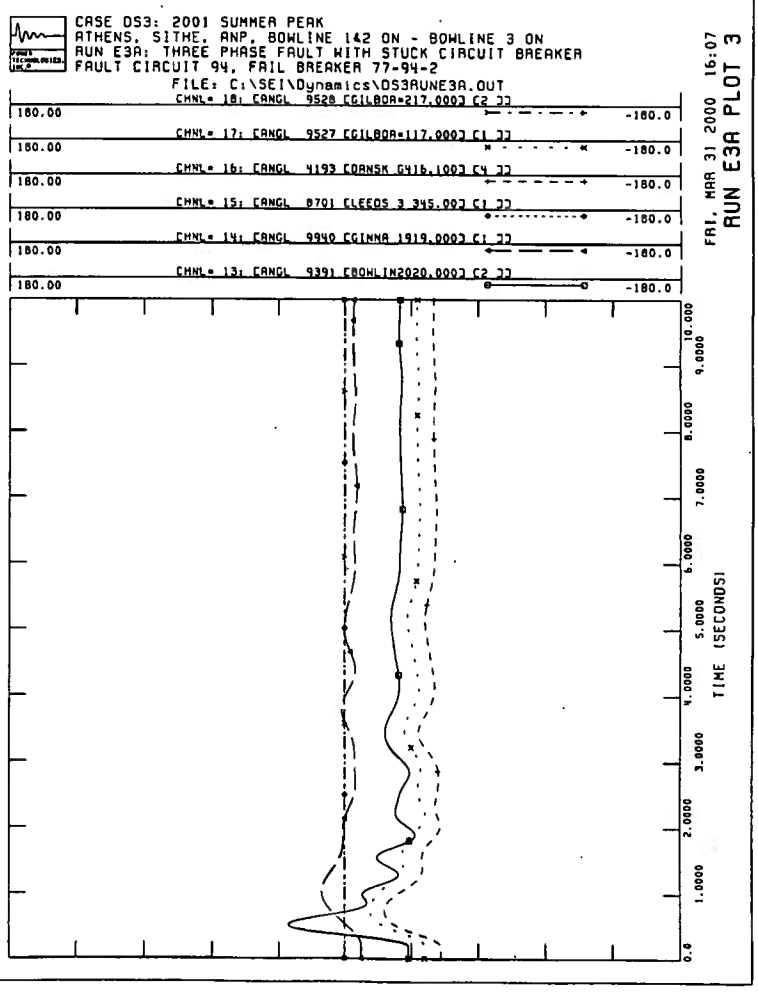
CONTINGENCY E3A

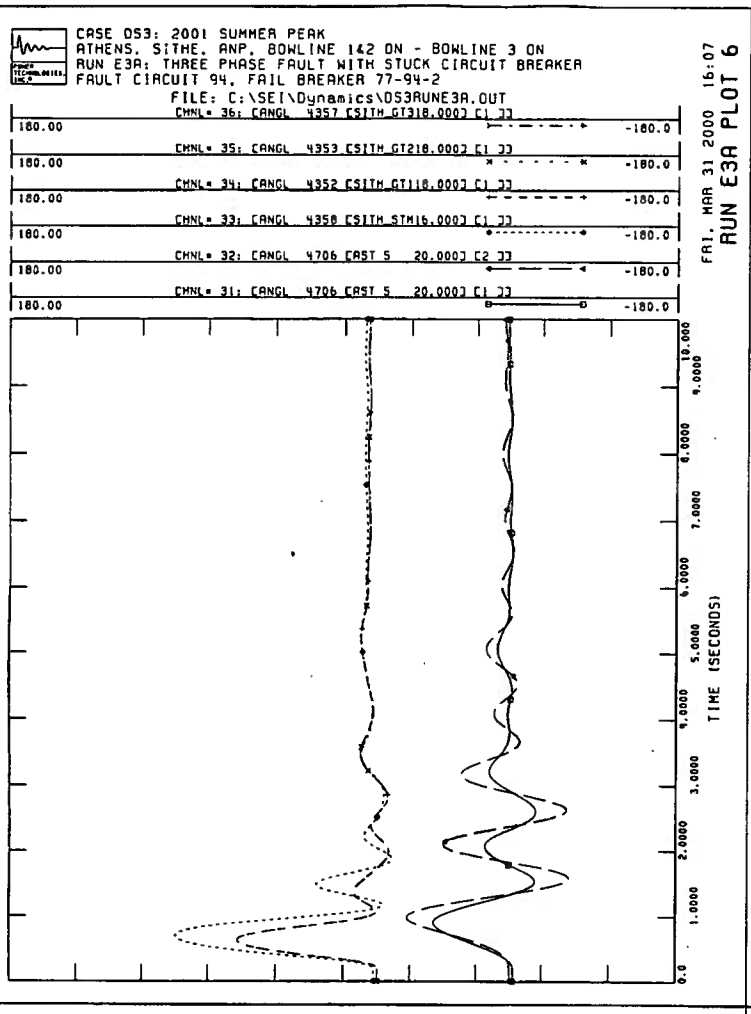
```
RECOVER FROM D1.SNP AND DS3.CNV
START OUTPUT DS3RUNE3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
RUN FOR 5.50 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4360 CKT 1              / TRIP RAMAPO-ANP CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

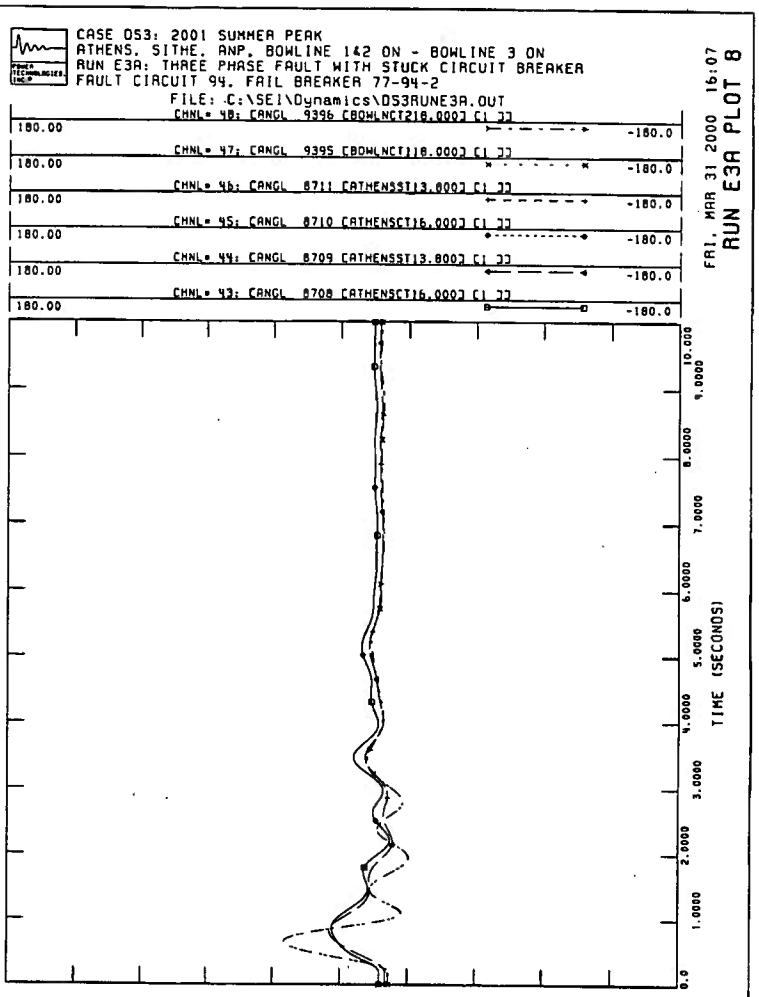

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
FRI, MAR 31 2000 16:07
RUN E3A PLOT 2
TIME (SECONDS)

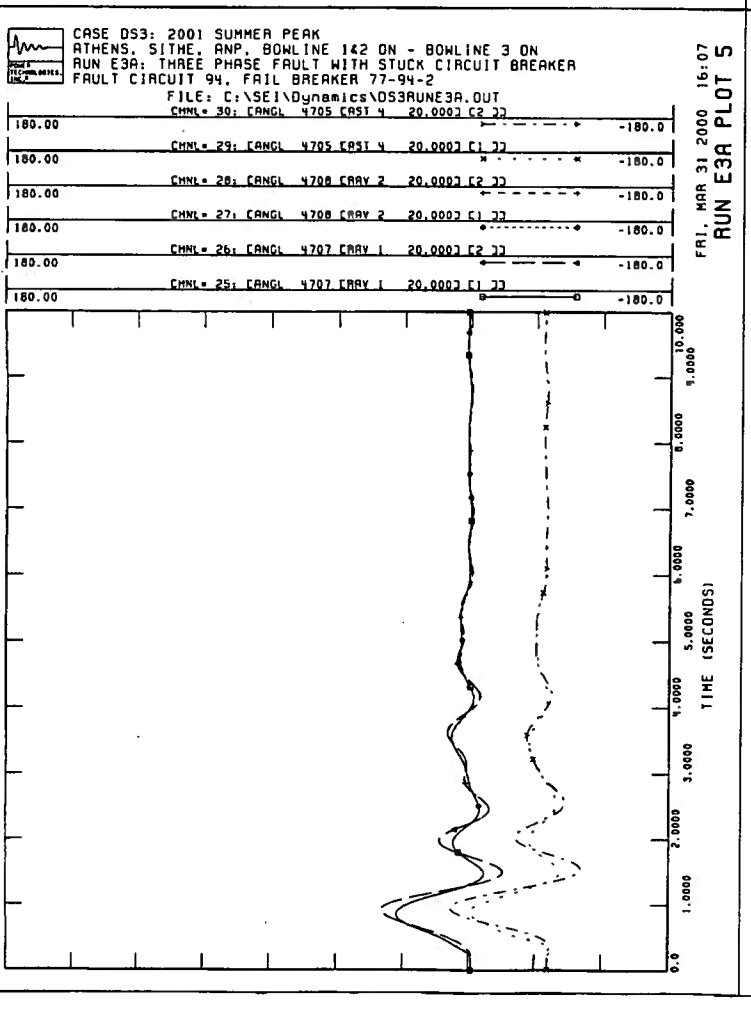

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
FRI, MAR 31 2000 16:07
RUN E3A PLOT 4
TIME (SECONDS)

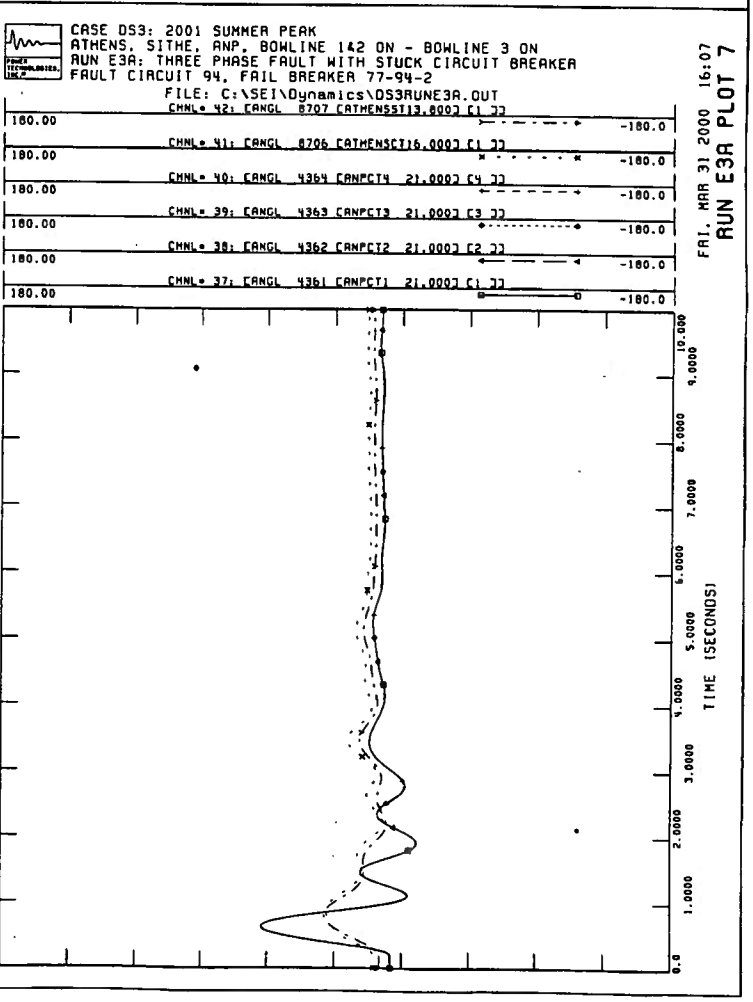

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
FRI, MAR 31 2000 16:07
RUN E3A PLOT 1
TIME (SECONDS)


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 142 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
FRI, MAR 31 2000 16:07
RUN E3A PLOT 3
TIME (SECONDS)

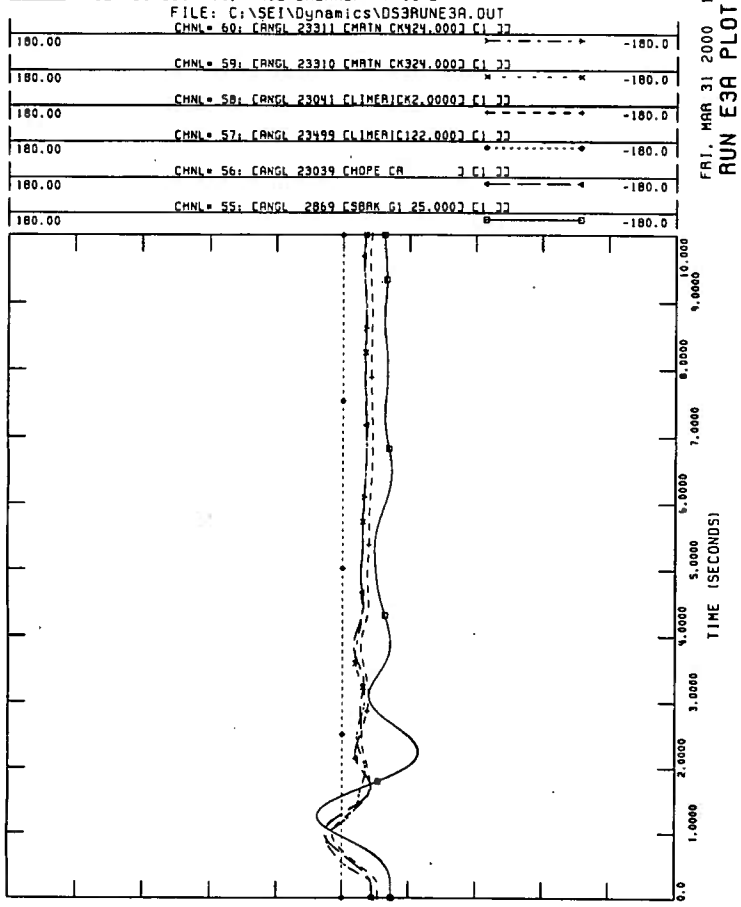

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
CHNL= 36: CANGL 4357 [SITH_GT3]8.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT2]8.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT1]8.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM]6.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E3A PLOT 6


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
CHNL= 48: CANGL 9396 [BOWLNCT]8.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT]8.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST]3.000] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT]6.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST]3.000] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT]6.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E3A PLOT 8


CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARAY 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARAY 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARAY 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARAY 1 20.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E3A PLOT 5

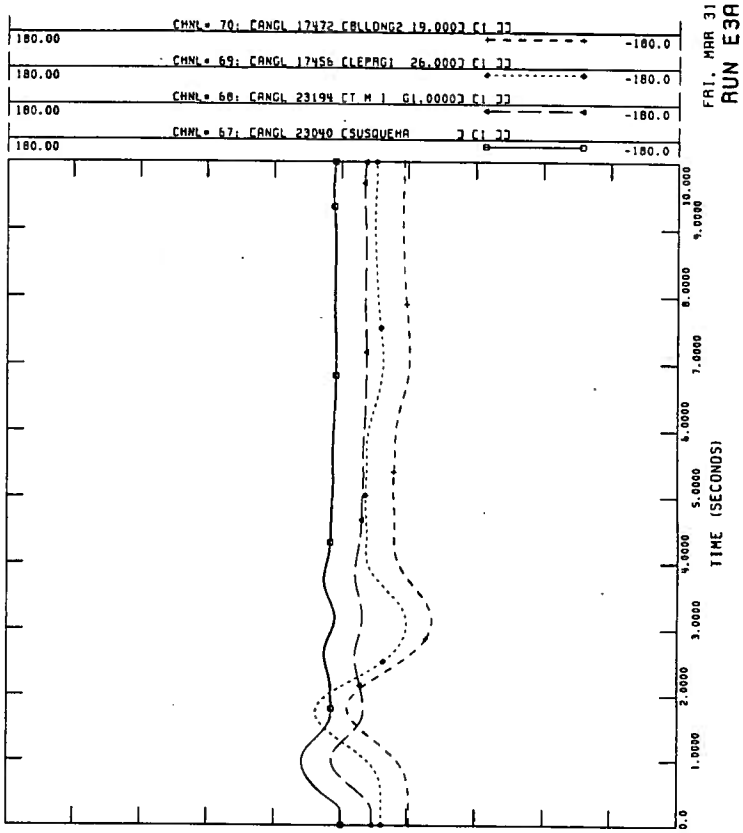

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
CHNL= 42: CANGL 8707 [ATHENSST]3.000] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT]6.000] [1]]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:07
RUN E3A PLOT 7

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



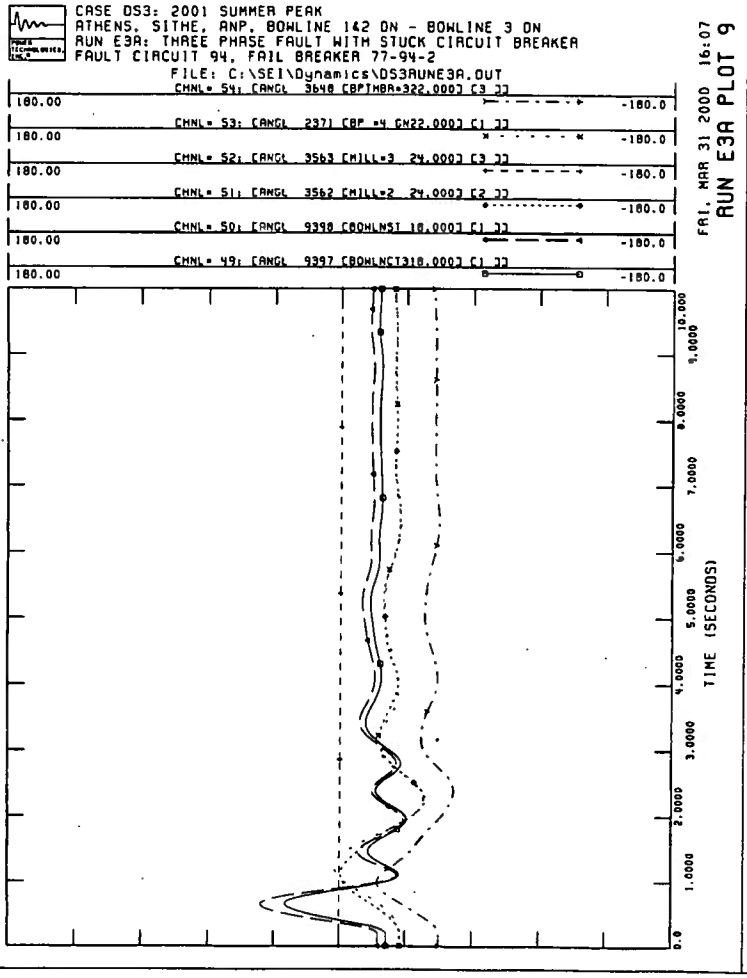
FRI, MAR 31 2000 16:07
RUN E3A PLOT 10

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



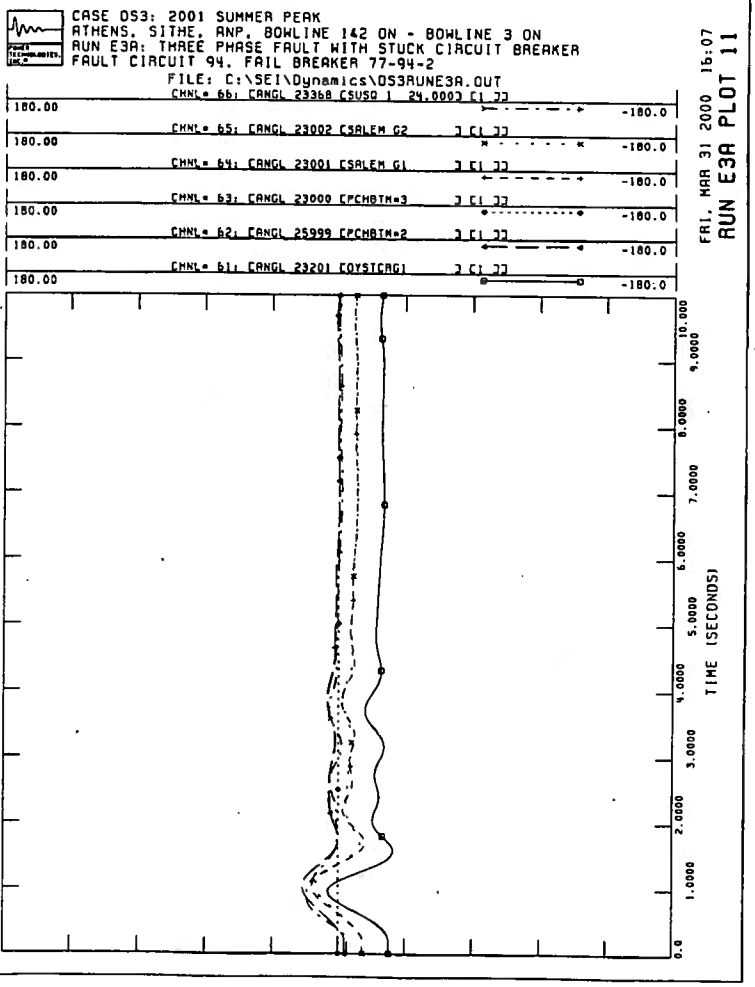
FRI, MAR 31 2000 16:07
RUN E3A PLOT 12

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



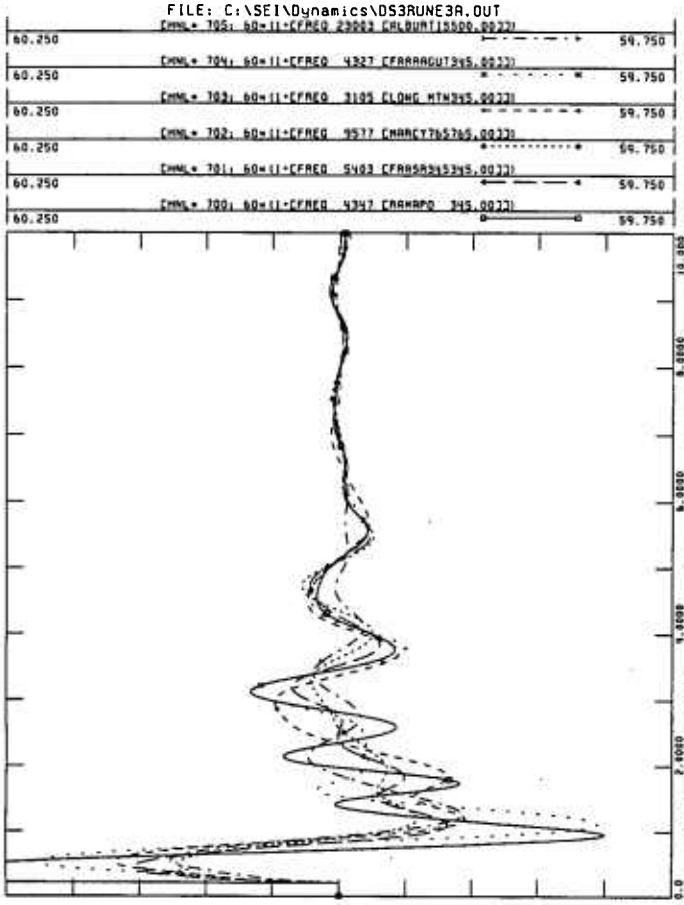
FRI, MAR 31 2000 16:07
RUN E3A PLOT 9

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



FRI, MAR 31 2000 16:07
RUN E3A PLOT 11

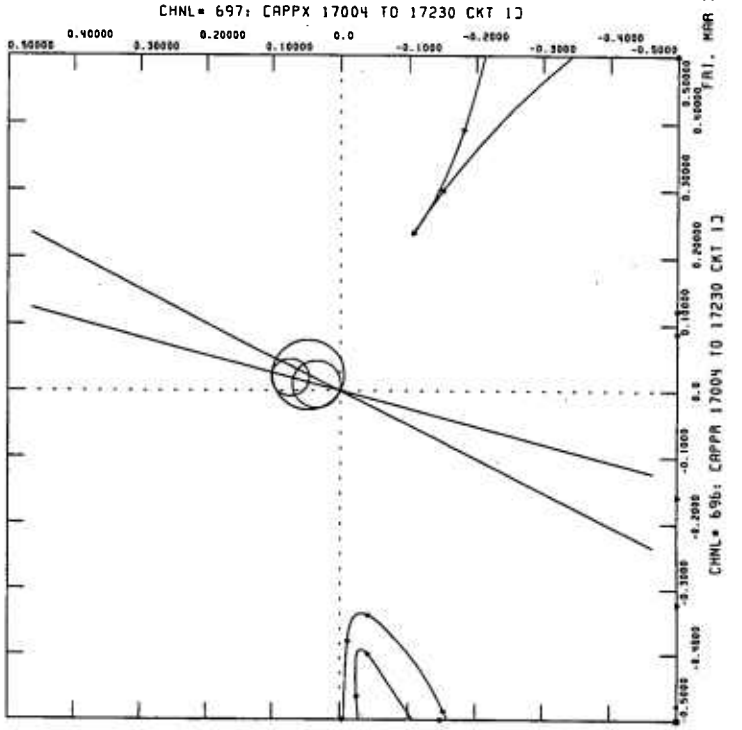
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



FRI, MAR 31 2000 16:07
RUN E3A PLOT 14

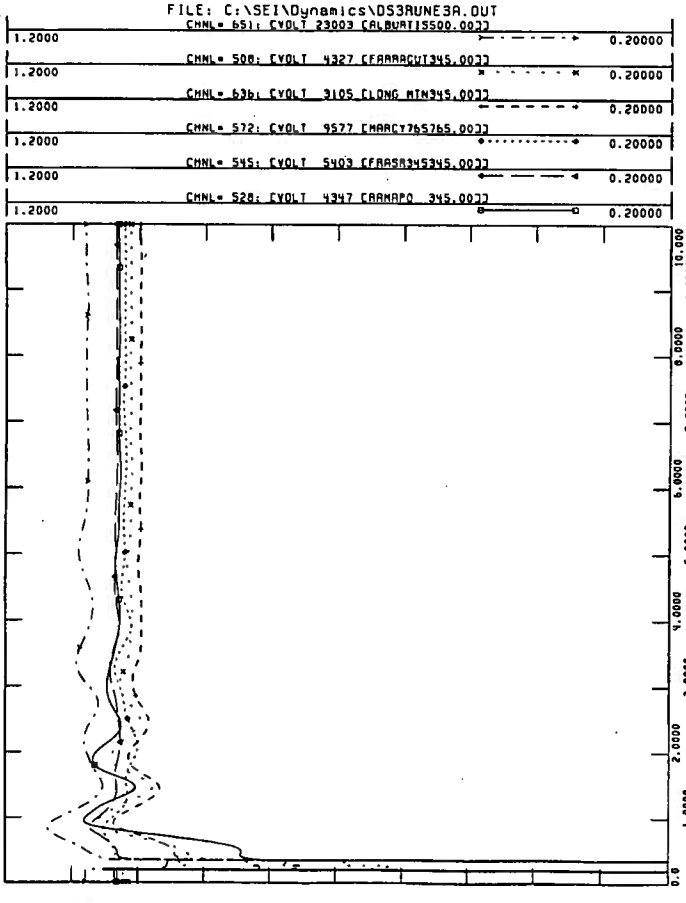
CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2

FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



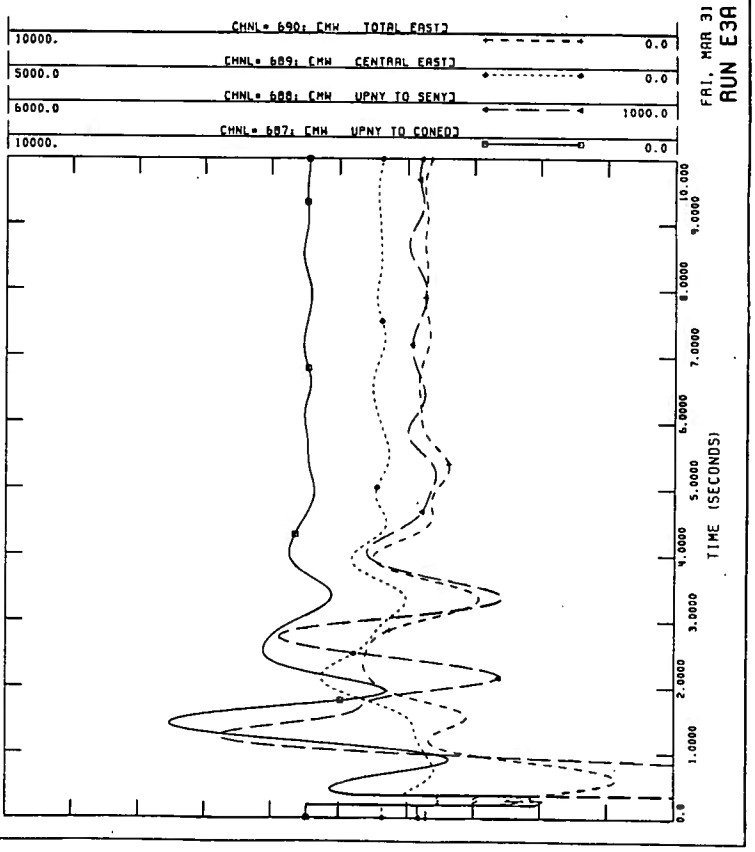
FRI, MAR 31 2000 16:07
RUN E3A PLOT 16

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



FRI, MAR 31 2000 16:07
RUN E3A PLOT 13

CASE DS3: 2001 SUMMER PEAK
ATHENS, SITHE, ANP, BOWLINE 1&2 ON - BOWLINE 3 ON
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS3RUNE3A.OUT



FRI, MAR 31 2000 16:07
RUN E3A PLOT 15

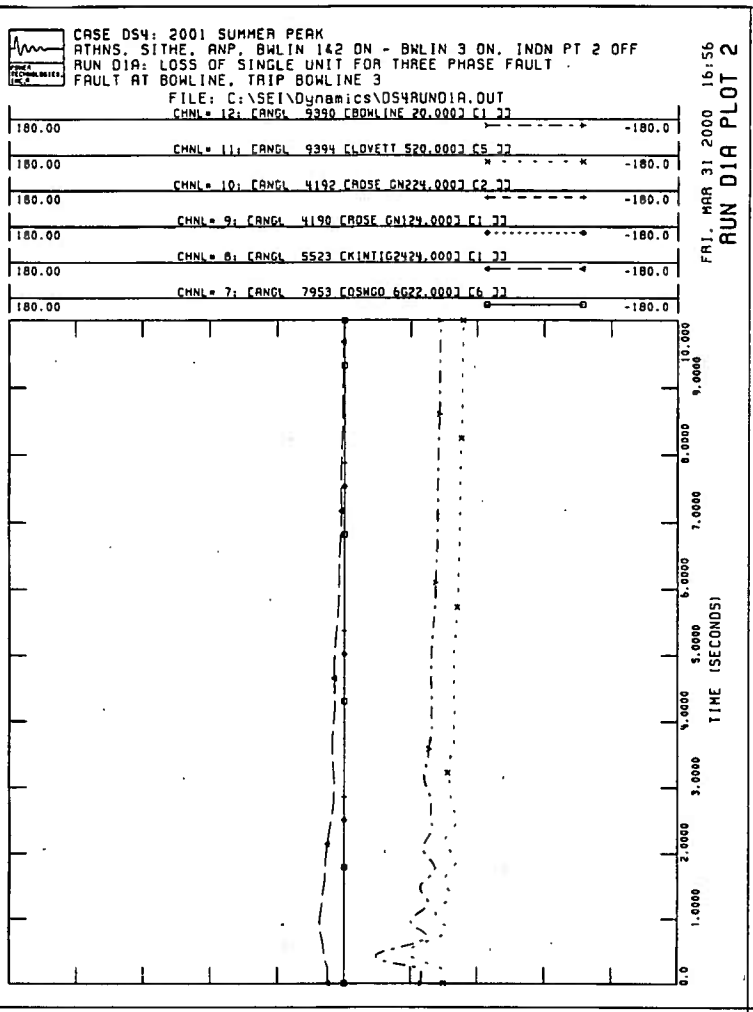
APPENDIX F.4 - Summer Peak Case DS4

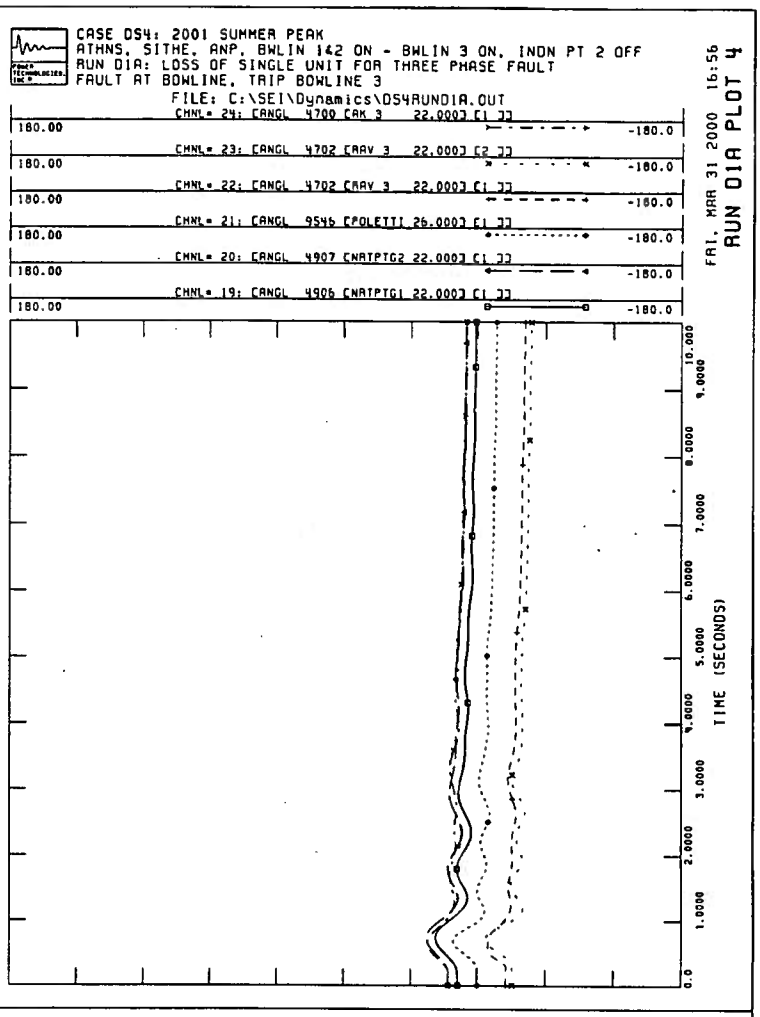
Bowline 1, 2 and 3, Athens, ANP and Sithe On-Line

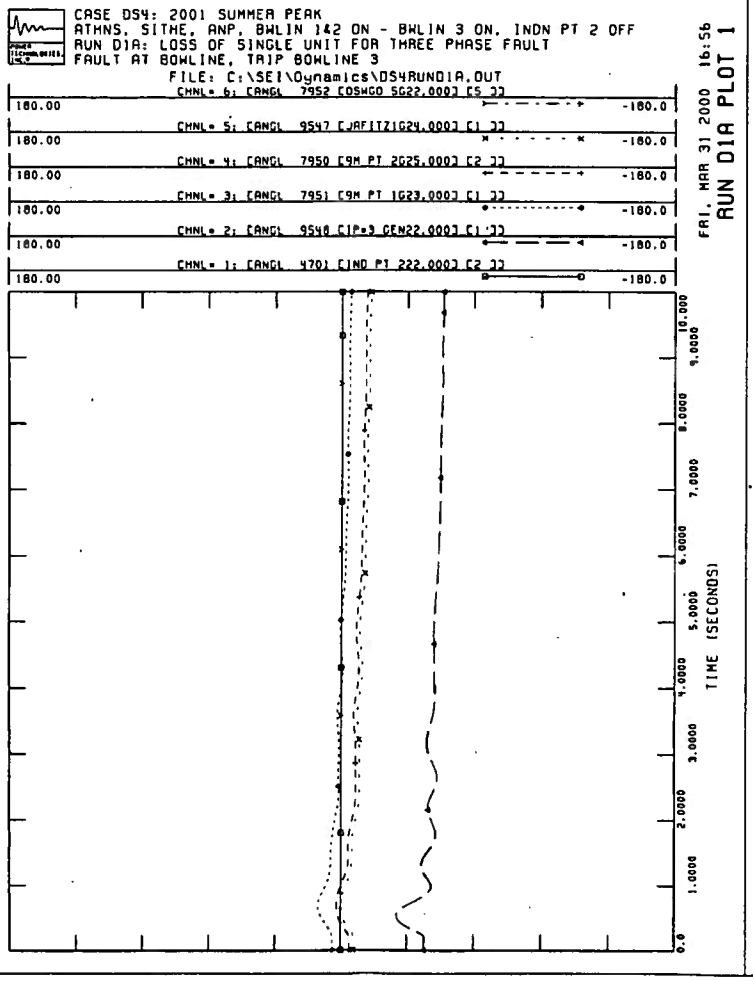
Bowline 3 Displacing Indian Point 2

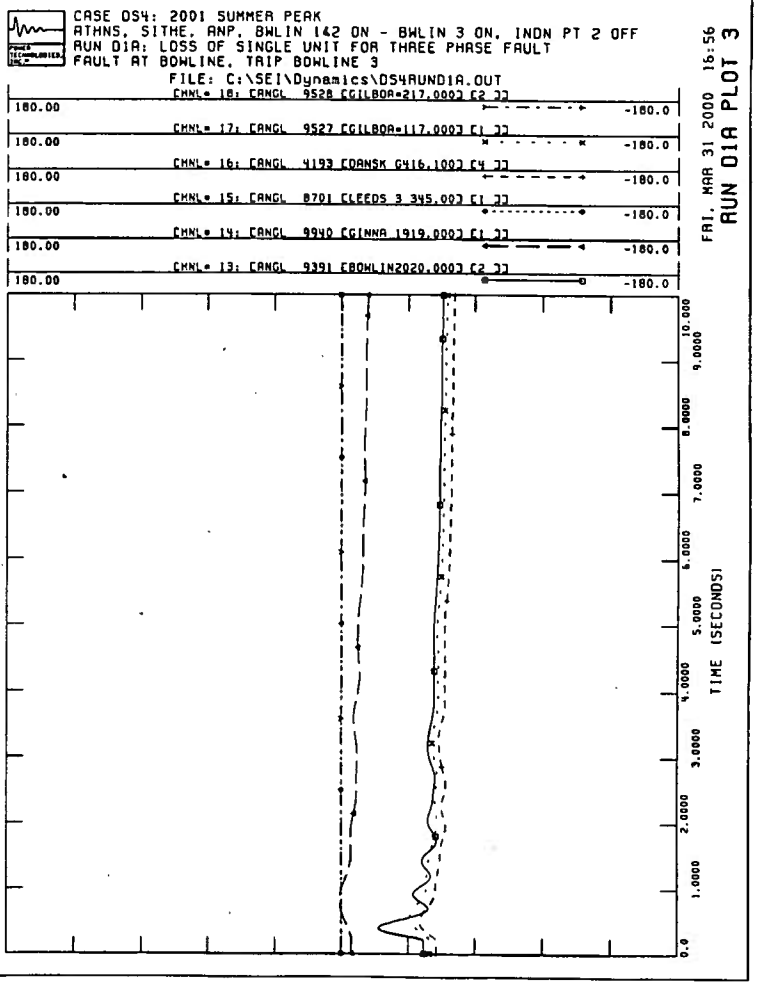
CONTINGENCY D1A

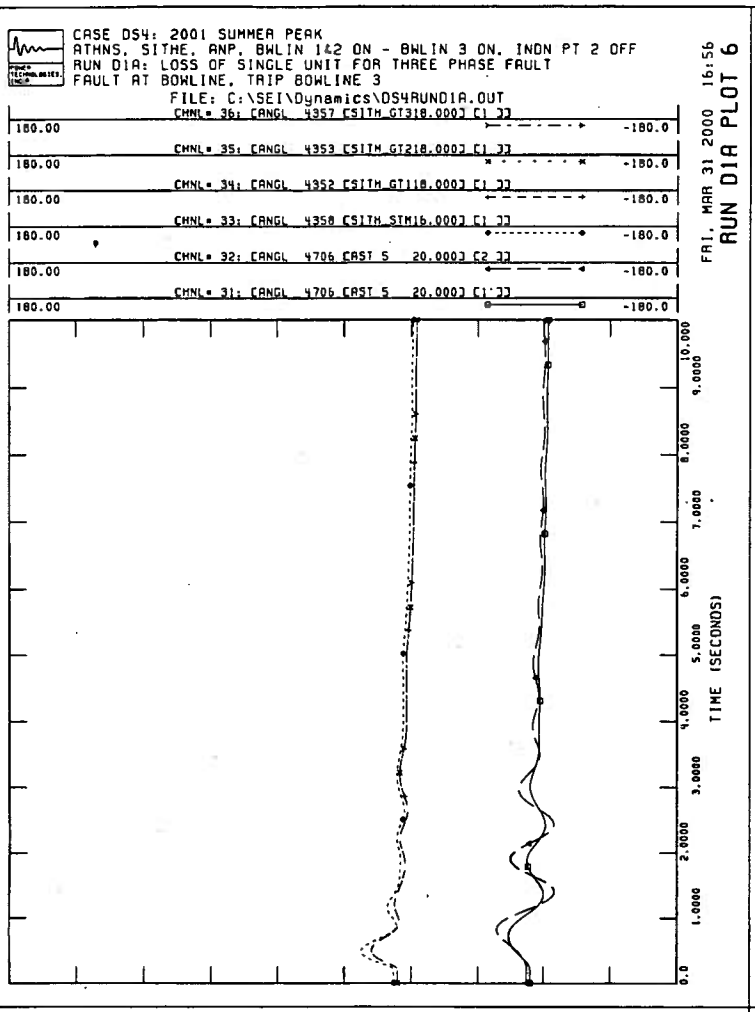
```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4310 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BOWLINE
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9398                           / TRIP BOWLINE 3 ST
TRIP BRANCH FROM BUS 9398 TO BUS 4311 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

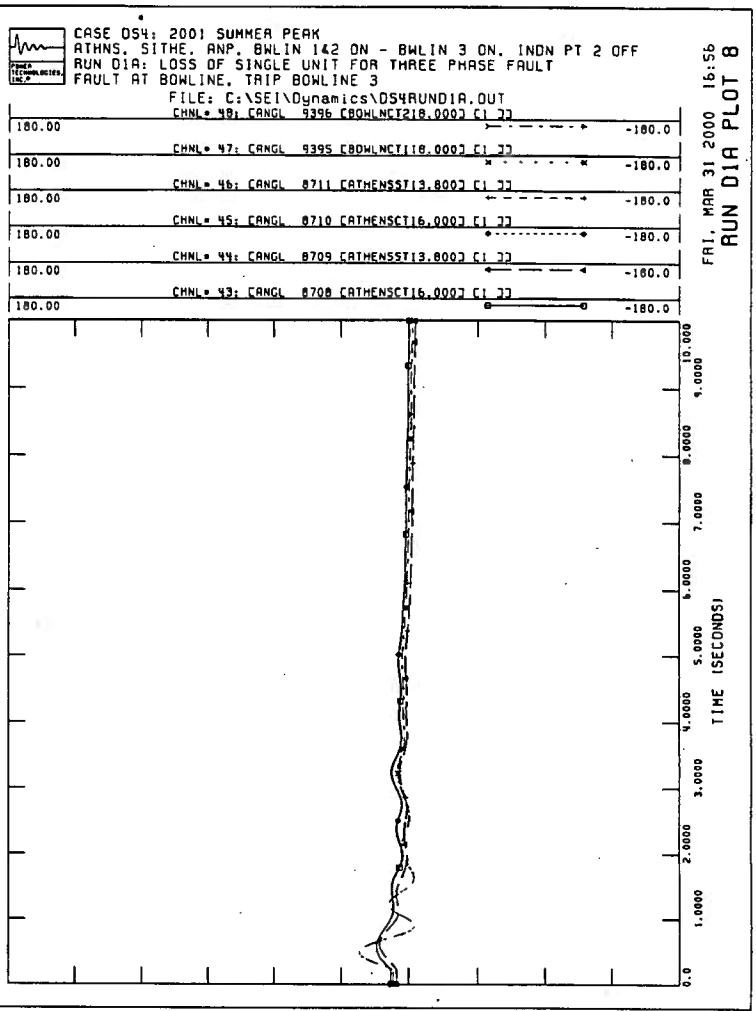

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
FRI, MAR 31 2000 16:56
RUN D1A PLOT 2
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

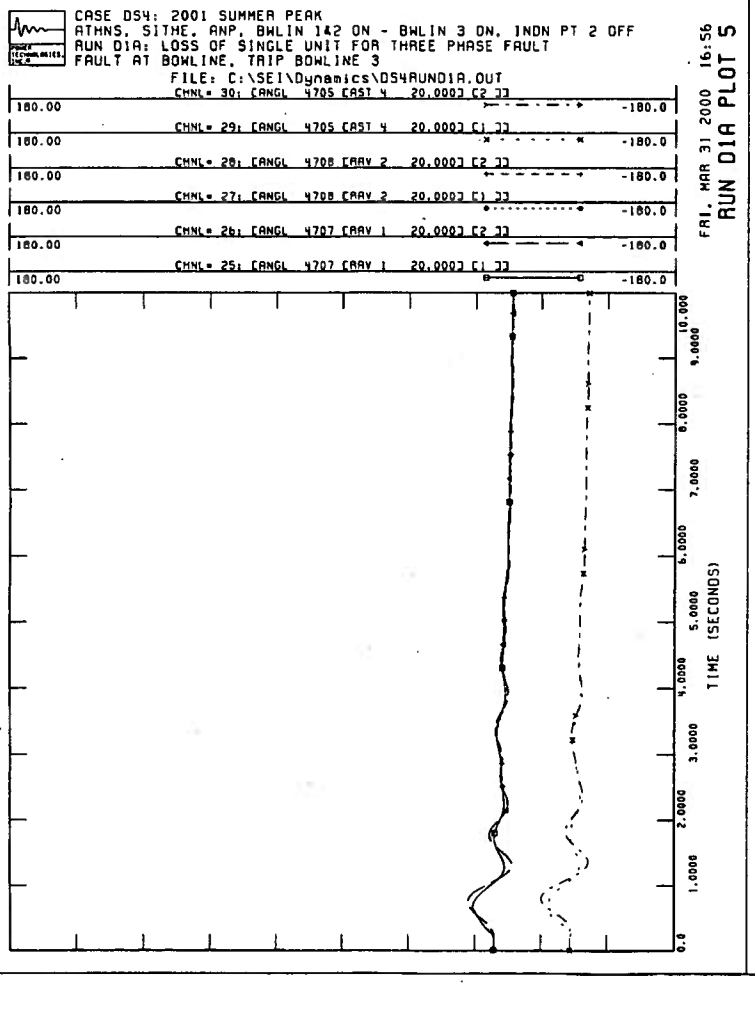

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
FRI, MAR 31 2000 16:56
RUN D1A PLOT 4
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

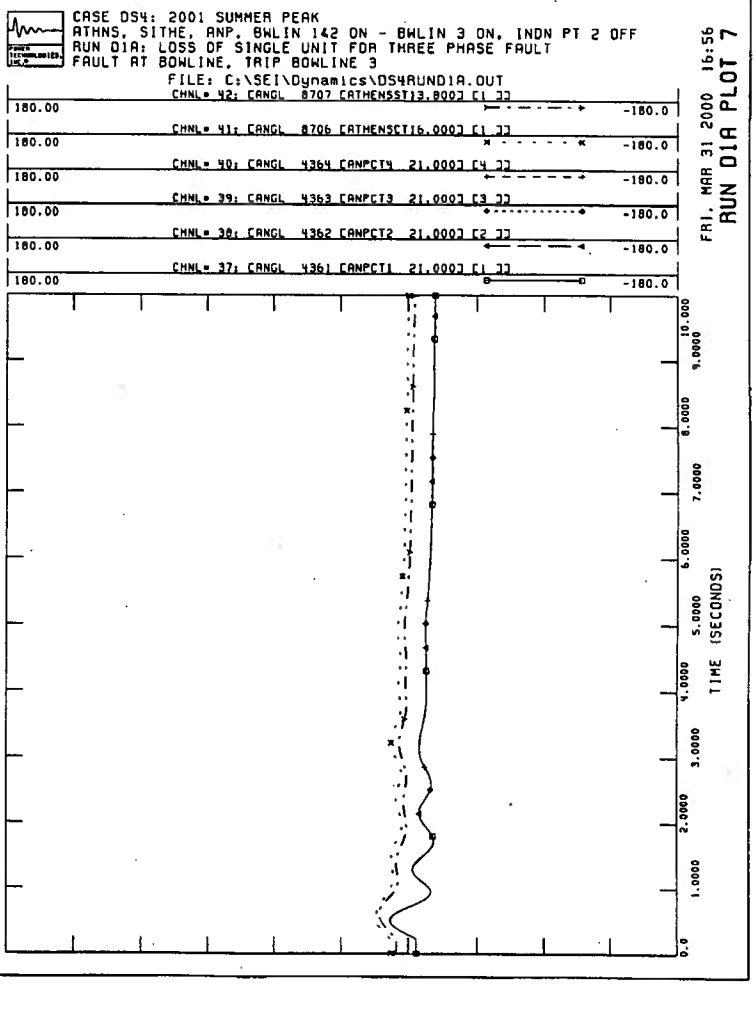

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
FRI, MAR 31 2000 16:56
RUN D1A PLOT 1
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJEFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

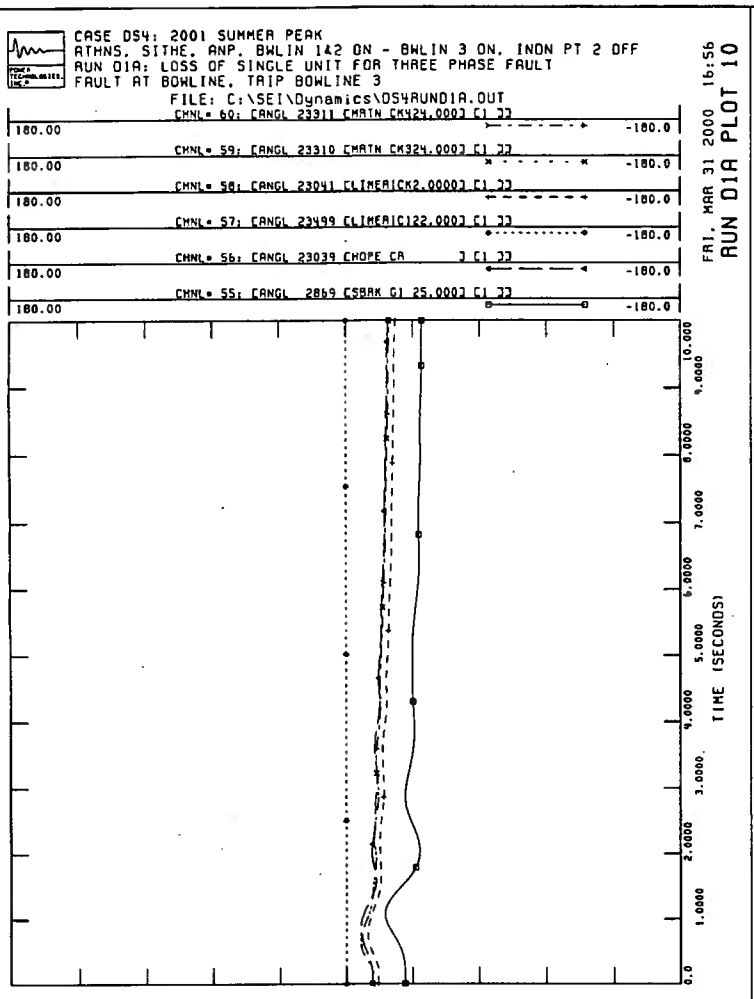

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
FRI, MAR 31 2000 16:56
RUN D1A PLOT 3
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

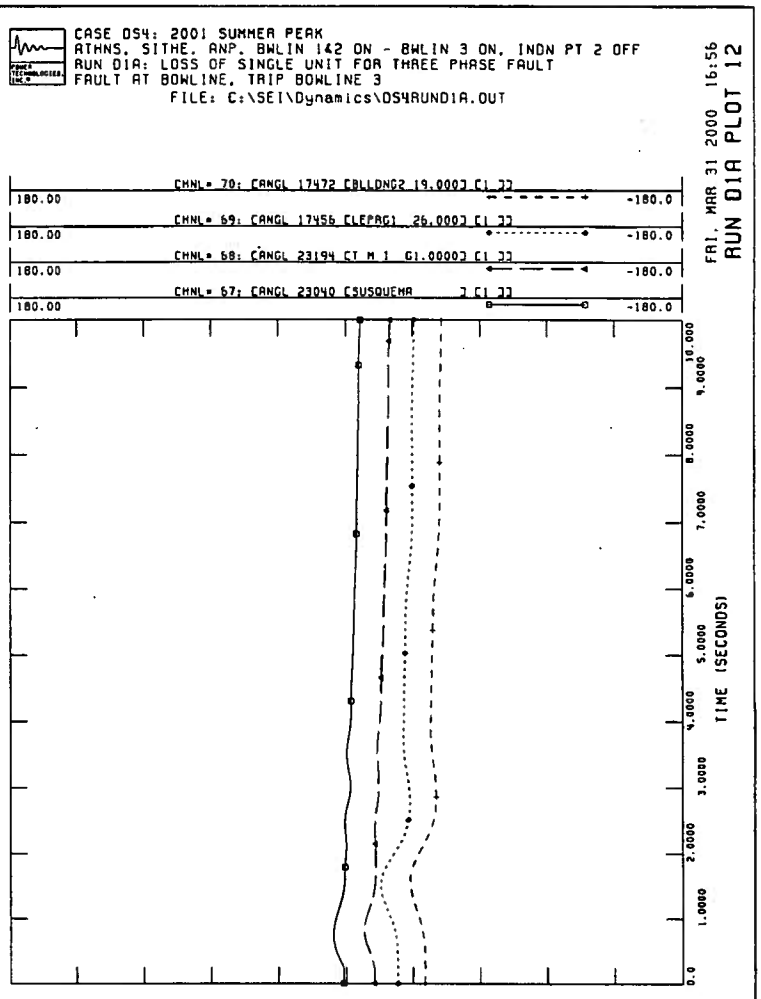

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 6

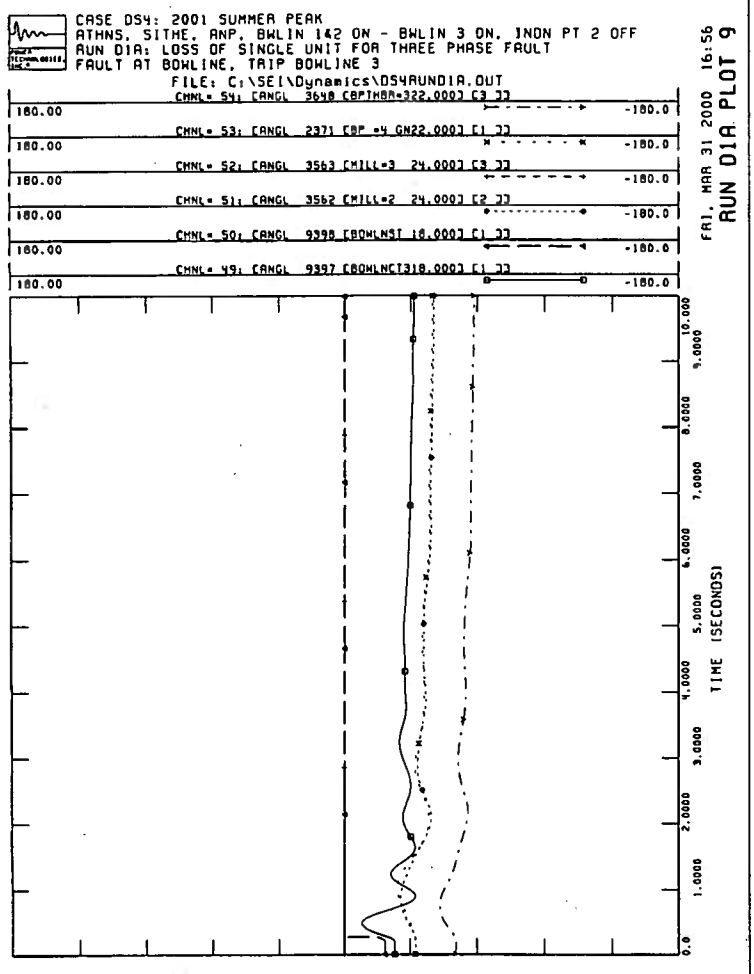

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 48: CANGL 9396 CBOWLNGT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNGT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSGT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSGT16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 8

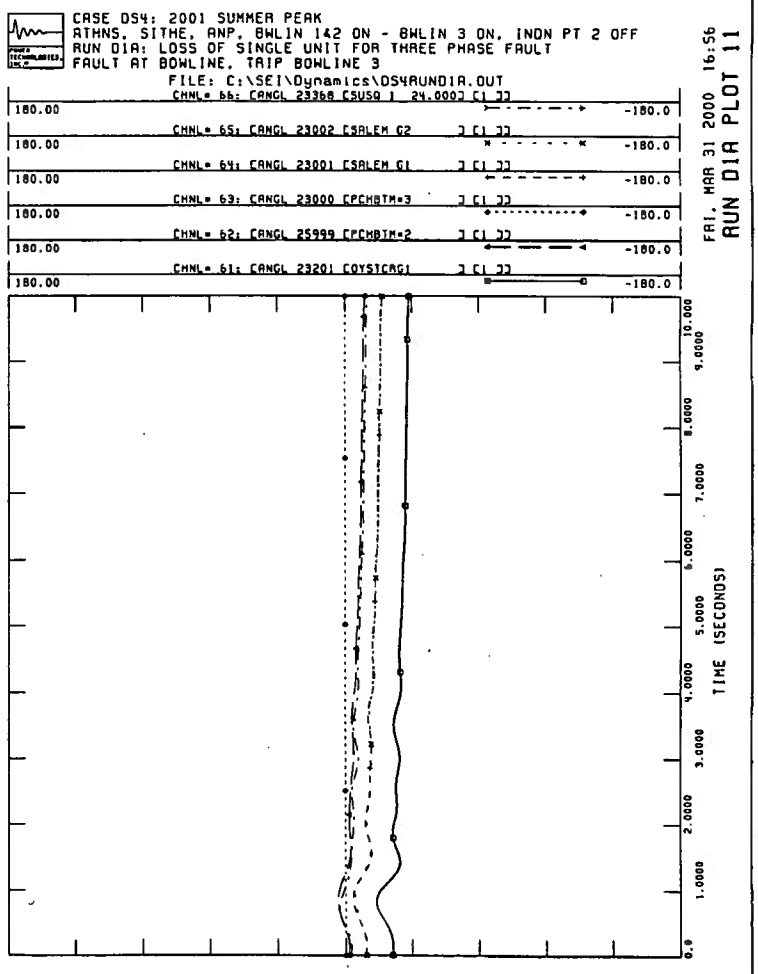

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 5

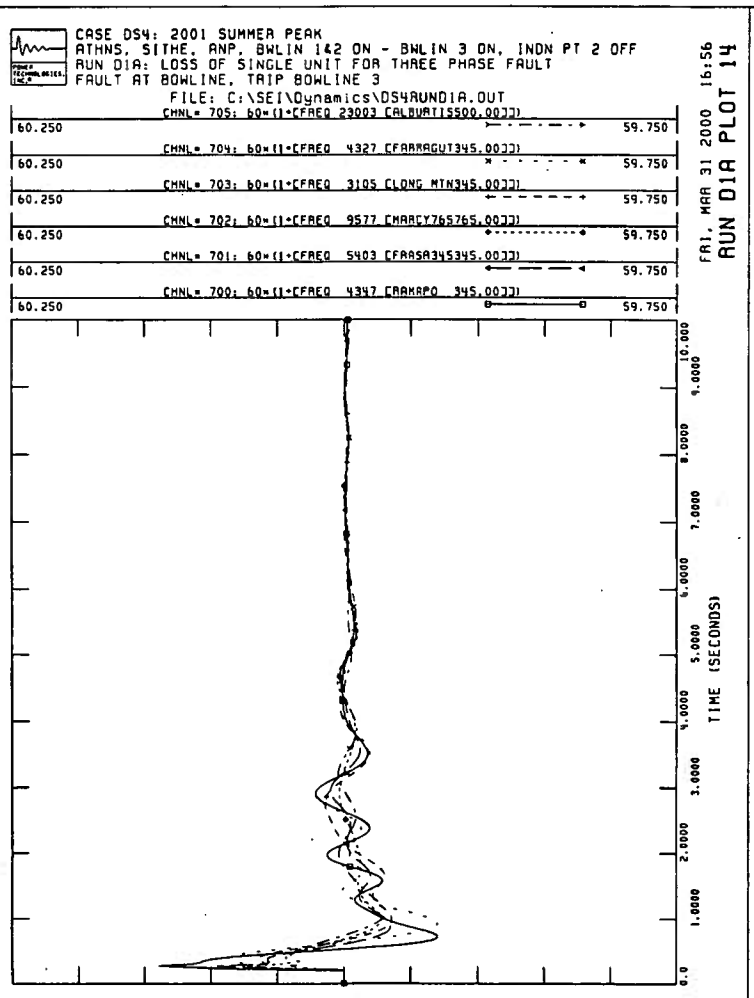

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSGT16.000] C1]]
CHNL= 40: CANGL 4364 CANPGT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPGT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPGT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPGT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 7

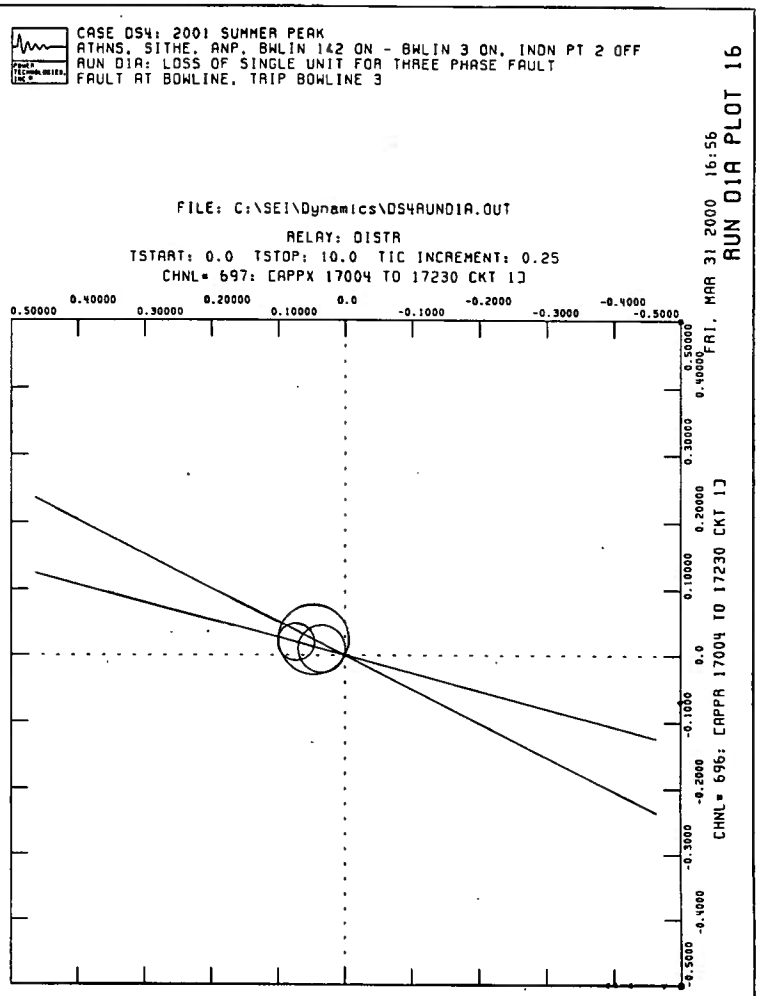

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 60: CANGL 23911 CMAIN CK424.0000 C1 J1
CHNL= 59: CANGL 23310 CMAIN CK324.0000 C1 J1
CHNL= 58: CANGL 23041 CLIMERICK2.0000 C1 J1
CHNL= 57: CANGL 23499 CLIMERIC122.0000 C1 J1
CHNL= 56: CANGL 23039 CHOPE CR J C1 J1
CHNL= 55: CANGL 2869 CSBRK G1 25.0000 C1 J1
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 16:56
RUN D1A PLOT 10

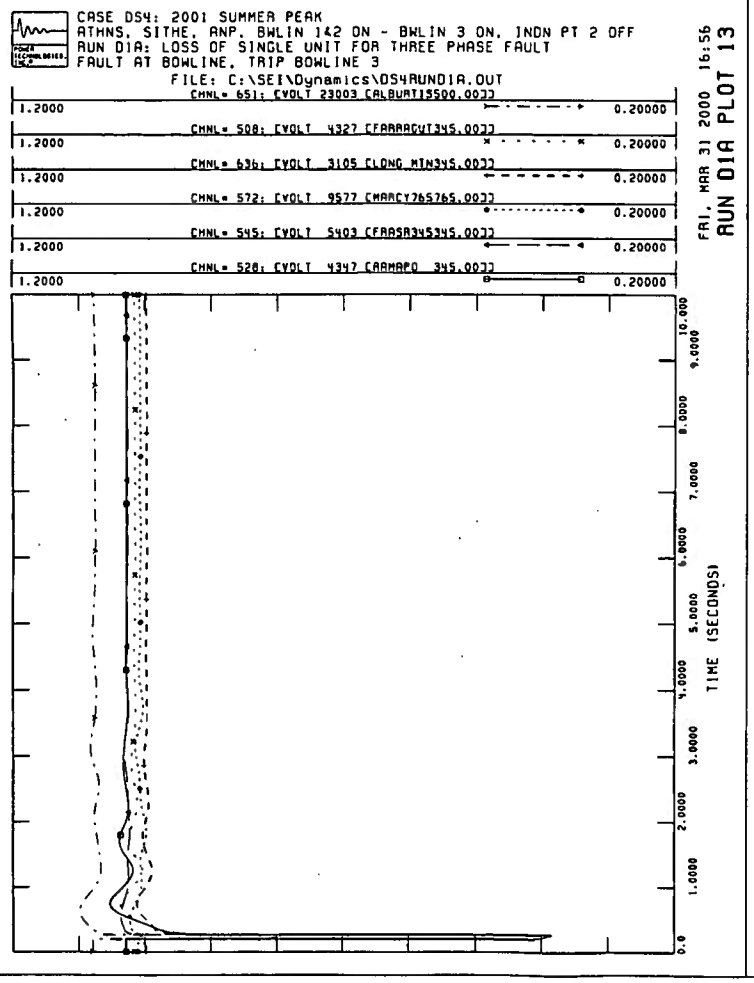

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.0000 C1 J1
CHNL= 69: CANGL 17456 CLEPAG1 26.0000 C1 J1
CHNL= 68: CANGL 23194 CT M 1 G1.0000 C1 J1
CHNL= 67: CANGL 23040 CSUSQUEHA J C1 J1
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 16:56
RUN D1A PLOT 12

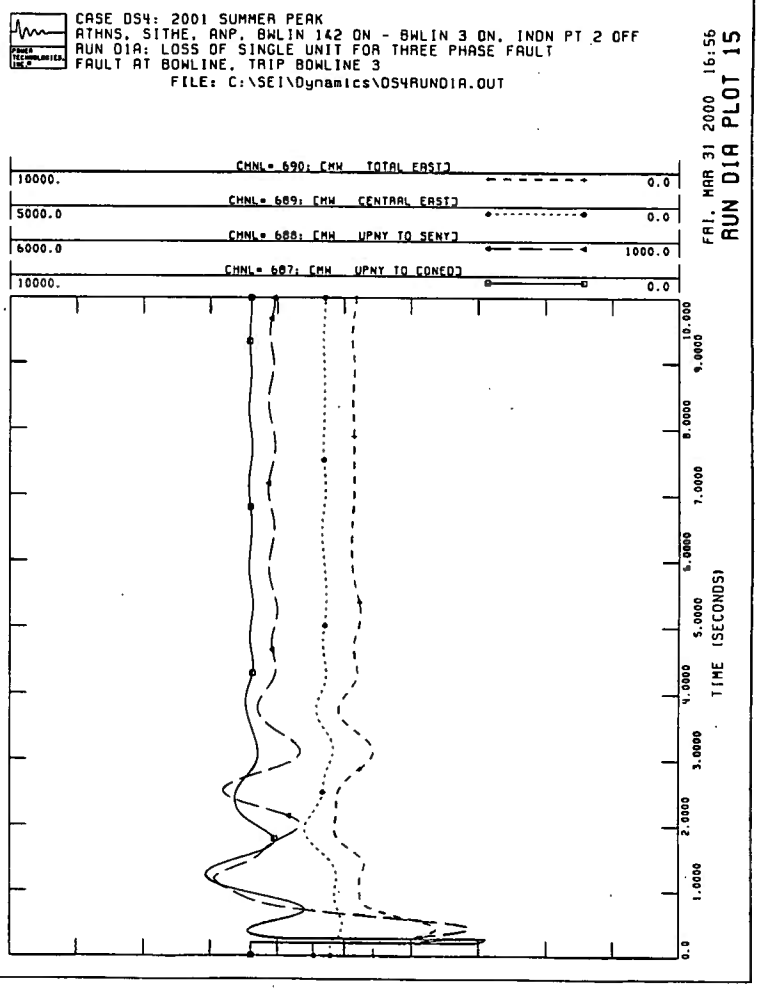

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 54: CANGL 3648 CBPTHBR=322.0000 C3 J1
CHNL= 53: CANGL 2371 CBP =4 GN22.0000 C1 J1
CHNL= 52: CANGL 3563 CMILL=3 24.0000 C3 J1
CHNL= 51: CANGL 3562 CMILL=2 24.0000 C2 J1
CHNL= 50: CANGL 9398 CBOWLNSI 18.0000 C1 J1
CHNL= 49: CANGL 9397 CBOWLNCT318.0000 C1 J1
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 16:56
RUN D1A PLOT 9


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.0000 C1 J1
CHNL= 65: CANGL 23002 CSALEM G2 J C1 J1
CHNL= 64: CANGL 23001 CSALEM G1 J C1 J1
CHNL= 63: CANGL 23000 CPCMBTM=3 J C1 J1
CHNL= 62: CANGL 25999 CPCMBTM=2 J C1 J1
CHNL= 61: CANGL 23201 COYSTCAG1 J C1 J1
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 16:56
RUN D1A PLOT 11


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 705: 60*(1+CFREQ 23003 CALBUAT1S500.00]]
CHNL= 704: 60*(1+CFREQ 4327 CFARRAGUT345.00]]
CHNL= 703: 60*(1+CFREQ 3105 CLONG MTN345.00]]
CHNL= 702: 60*(1+CFREQ 9577 CMARCY765765.00]]
CHNL= 701: 60*(1+CFREQ 5403 CFARSA345345.00]]
CHNL= 700: 60*(1+CFREQ 4347 CFARAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 14

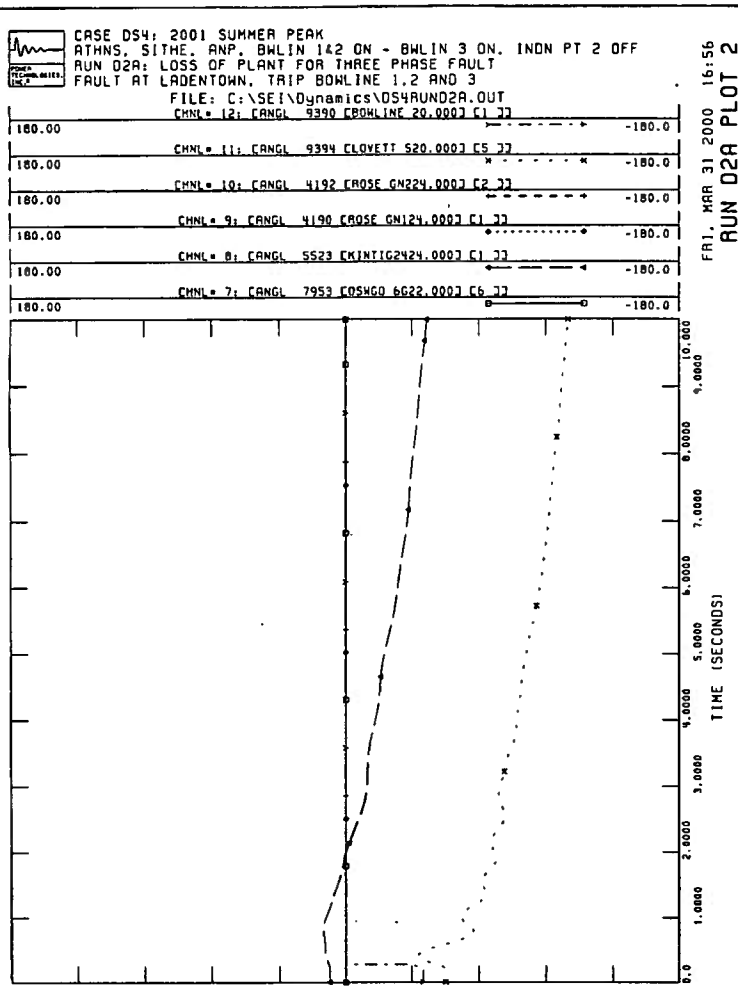

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:56
RUN D1A PLOT 16


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 651: CVOLT 23003 CALBUAT1S500.00]]
CHNL= 508: CVOLT 4327 CFARRAGUT345.00]]
CHNL= 636: CVOLT 3105 CLONG MTN345.00]]
CHNL= 572: CVOLT 9577 CMARCY765765.00]]
CHNL= 545: CVOLT 5403 CFARSA345345.00]]
CHNL= 528: CVOLT 4347 CFARAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 13


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DS4RUND1A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
0.0
5000.0
6000.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D1A PLOT 15

CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                           / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                           / TRIP BOWLINE 2
DROP GENERATOR 1 AT BUS 9395                           / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9396                           / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9397                           / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9398                           / TRIP BOWLINE 3 ST
DISCONNECT BUS 9300                              /
DISCONNECT BUS 9301                              /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
FRI, MAR 31 2000 16:56
RUN D2A PLOT 2
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 CDSWGO 6G22.000] C6]]
180.00
-180.0
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1.0000
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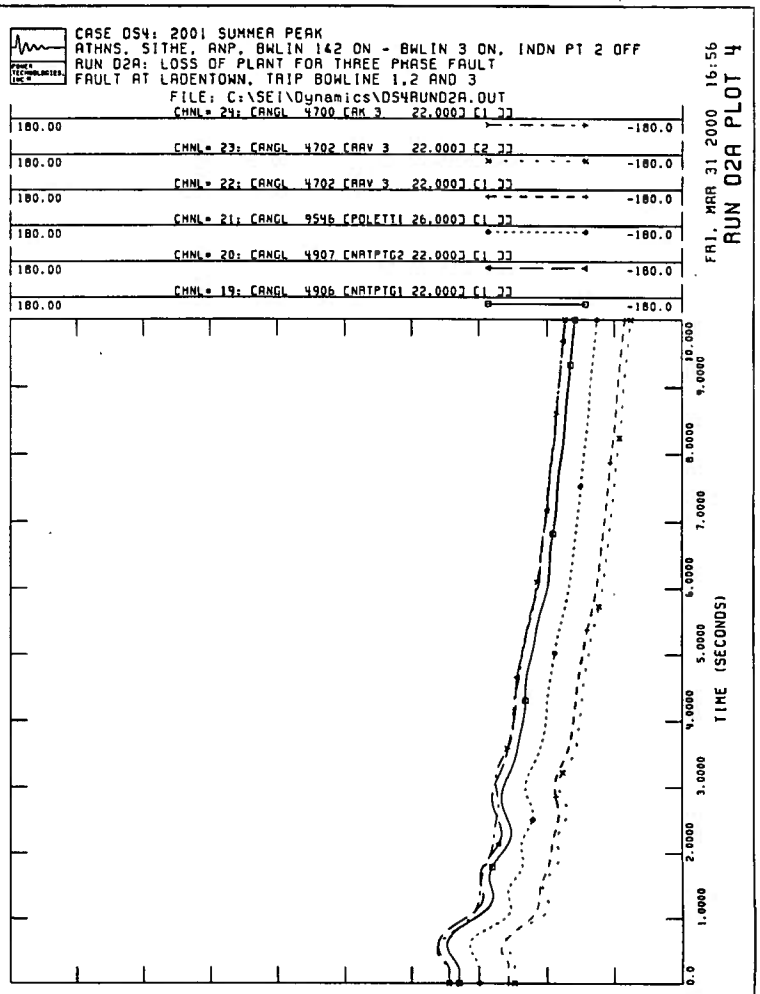
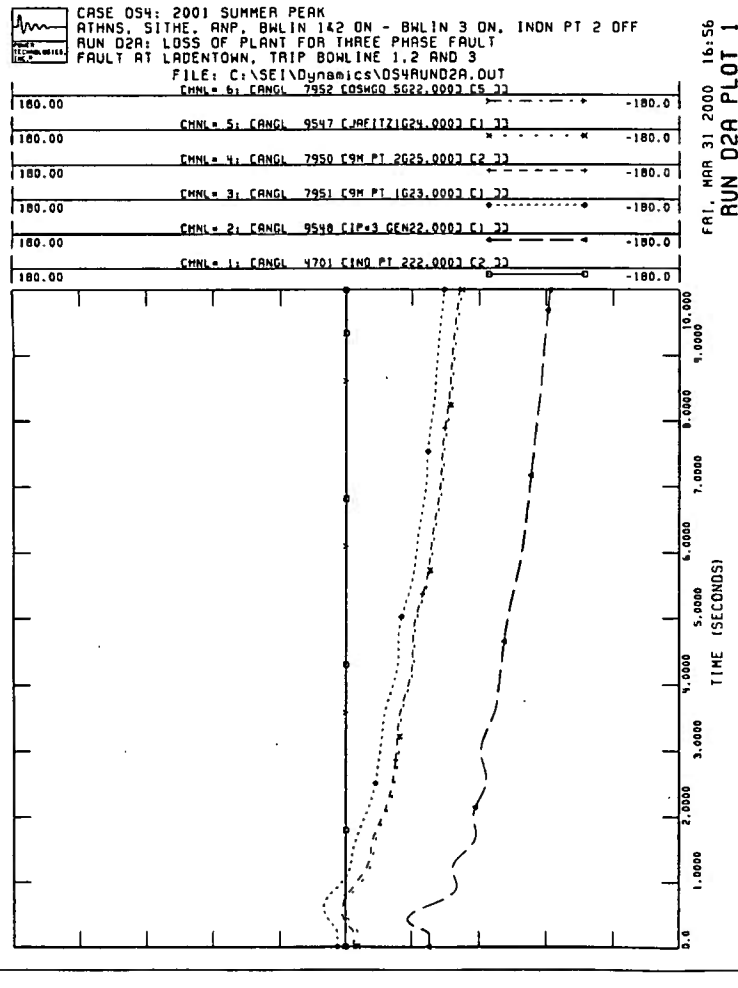
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
FRI, MAR 31 2000 16:56
RUN D2A PLOT 4
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT1 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
FRI, MAR 31 2000 16:56
RUN D2A PLOT 1
CHNL= 6: CANGL 7952 CDSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP#3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CINO PT 222.000] C2]]
180.00
-180.0
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4.0000
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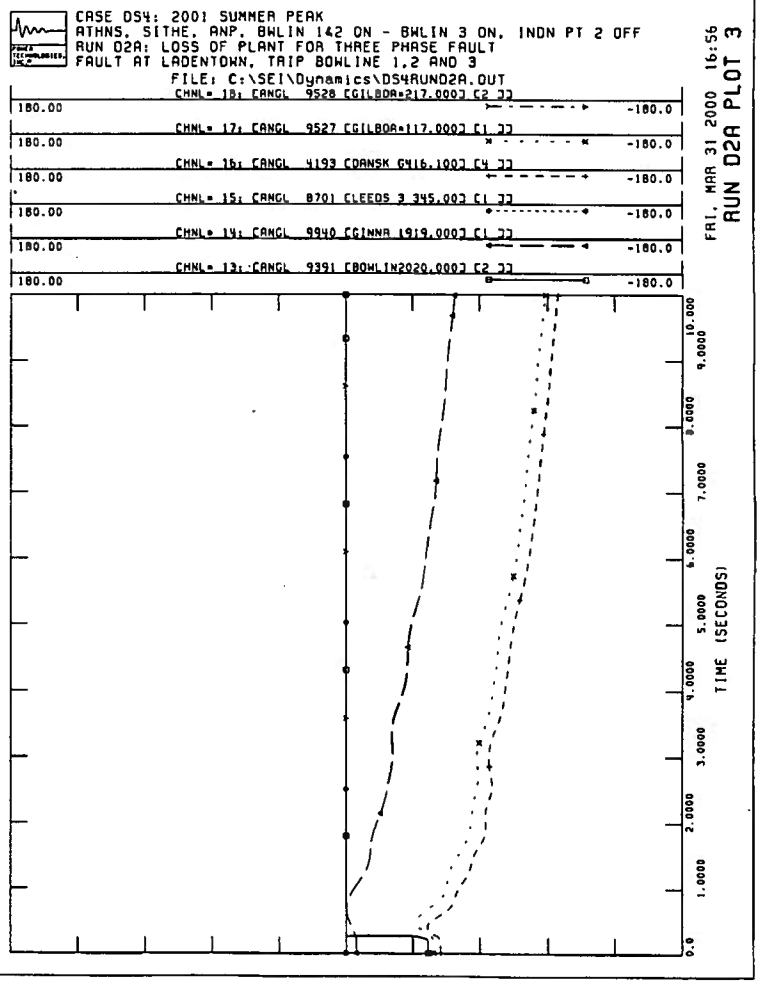
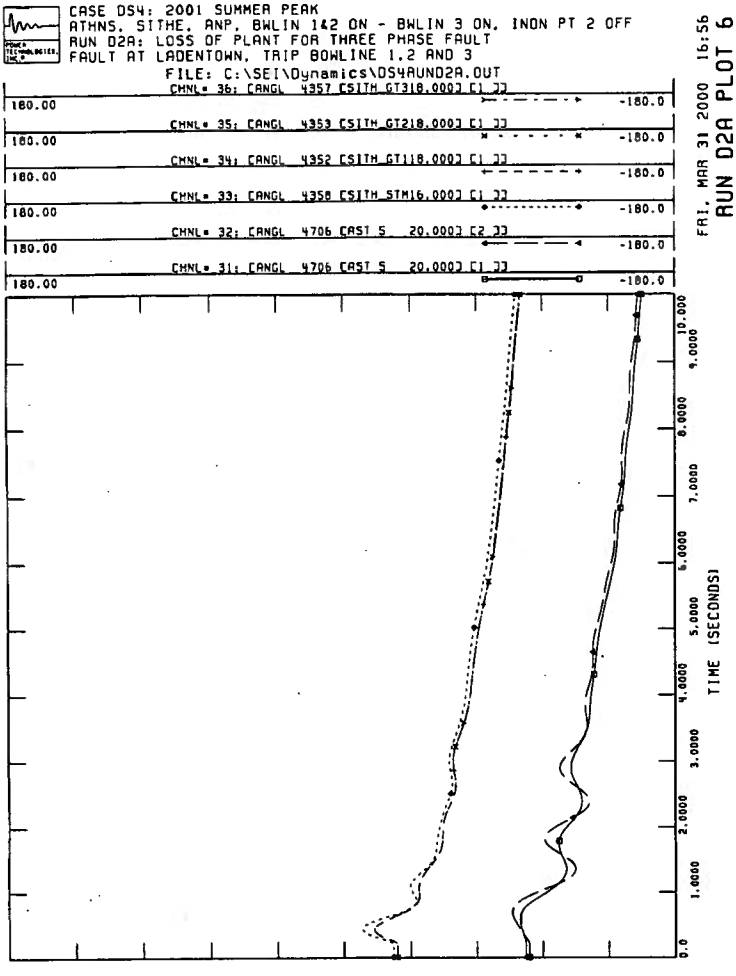
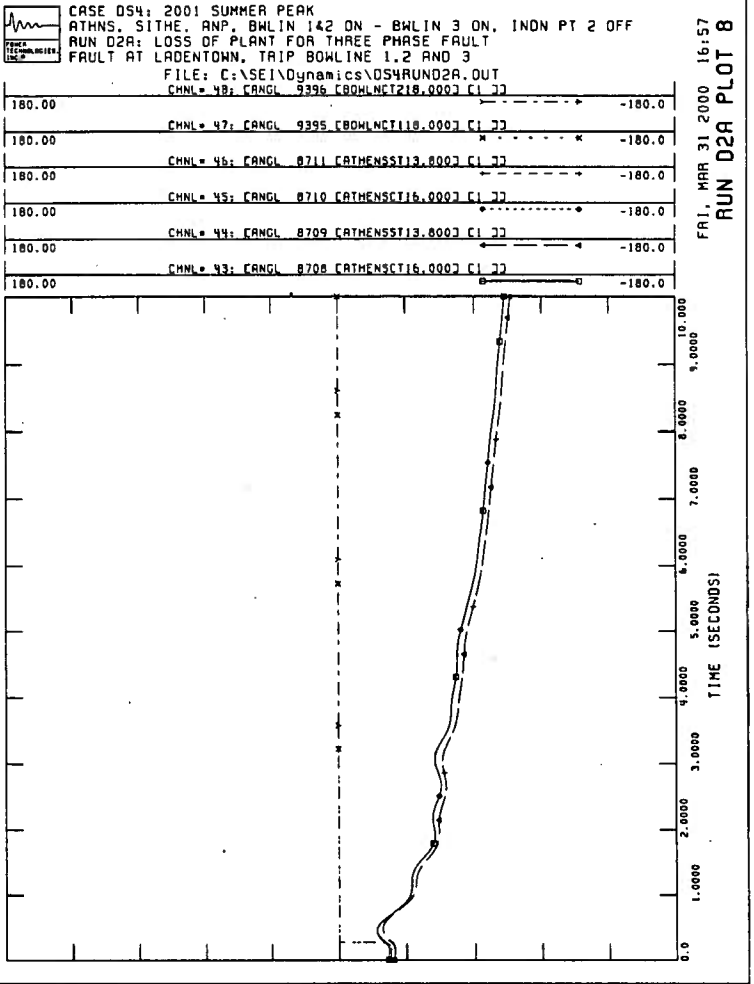
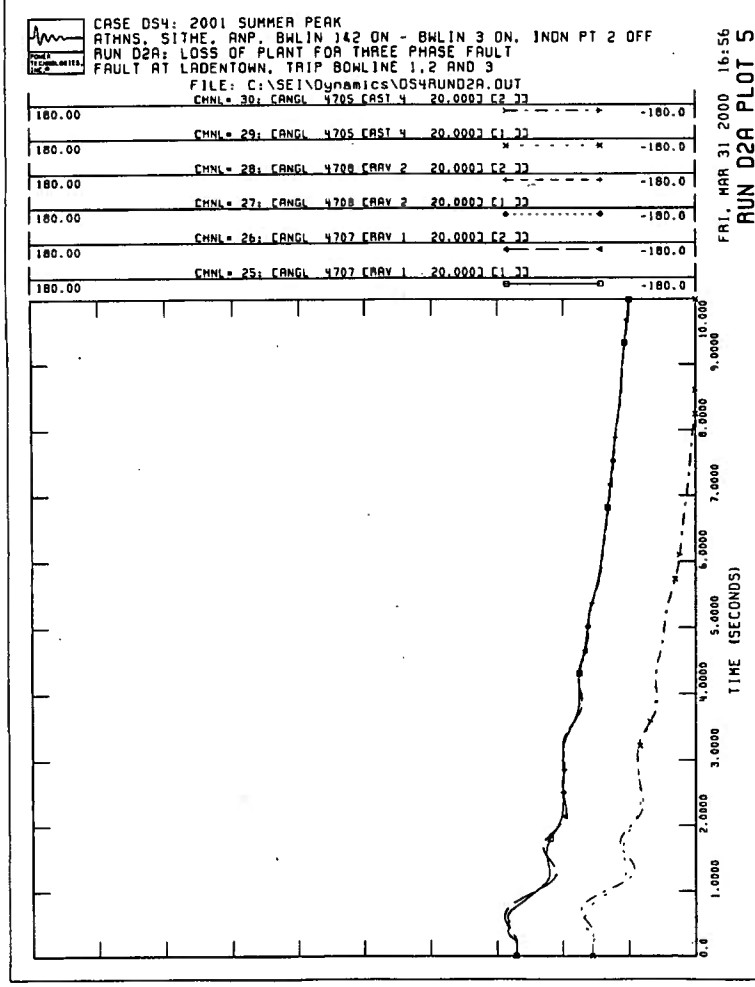
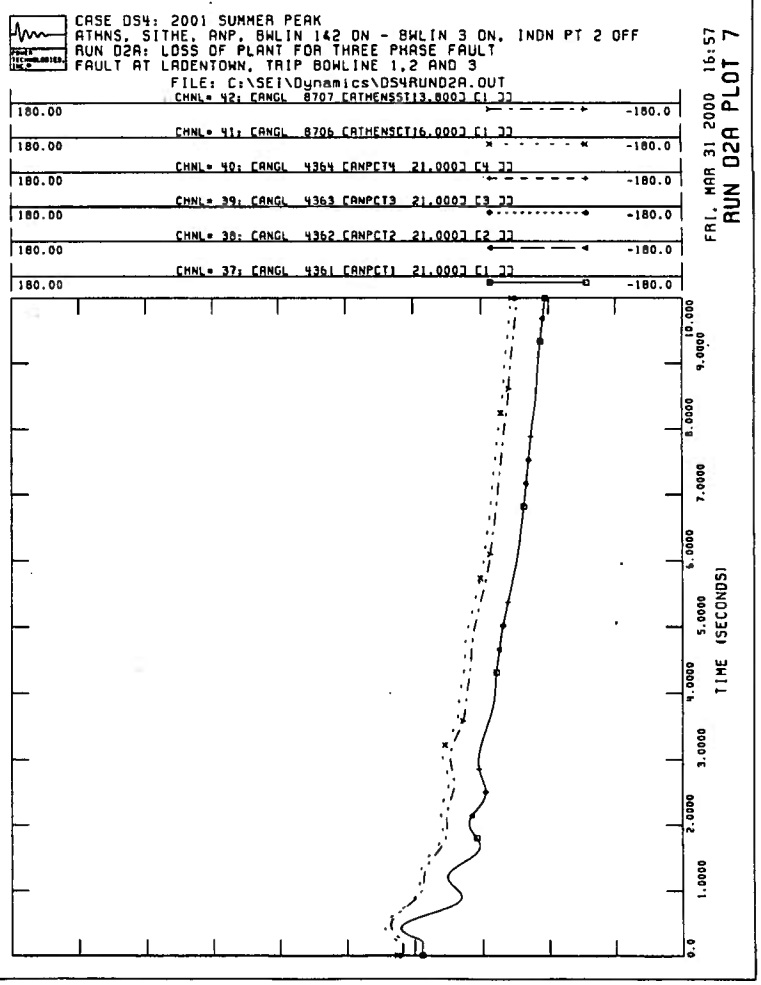
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

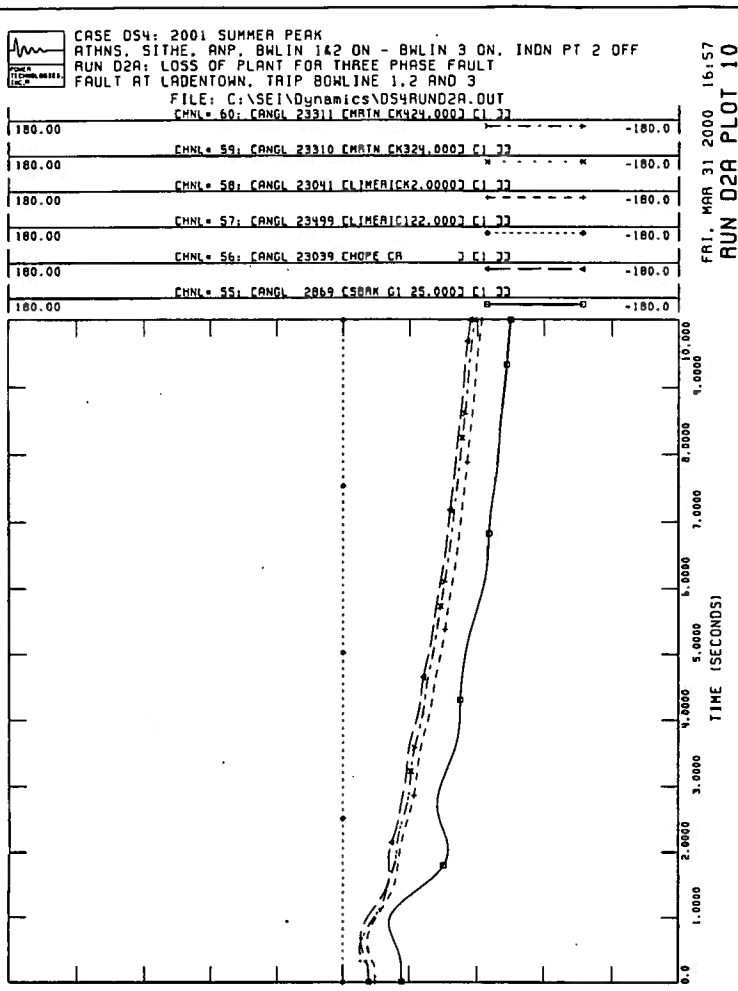

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
FRI, MAR 31 2000 16:56
RUN D2A PLOT 3
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

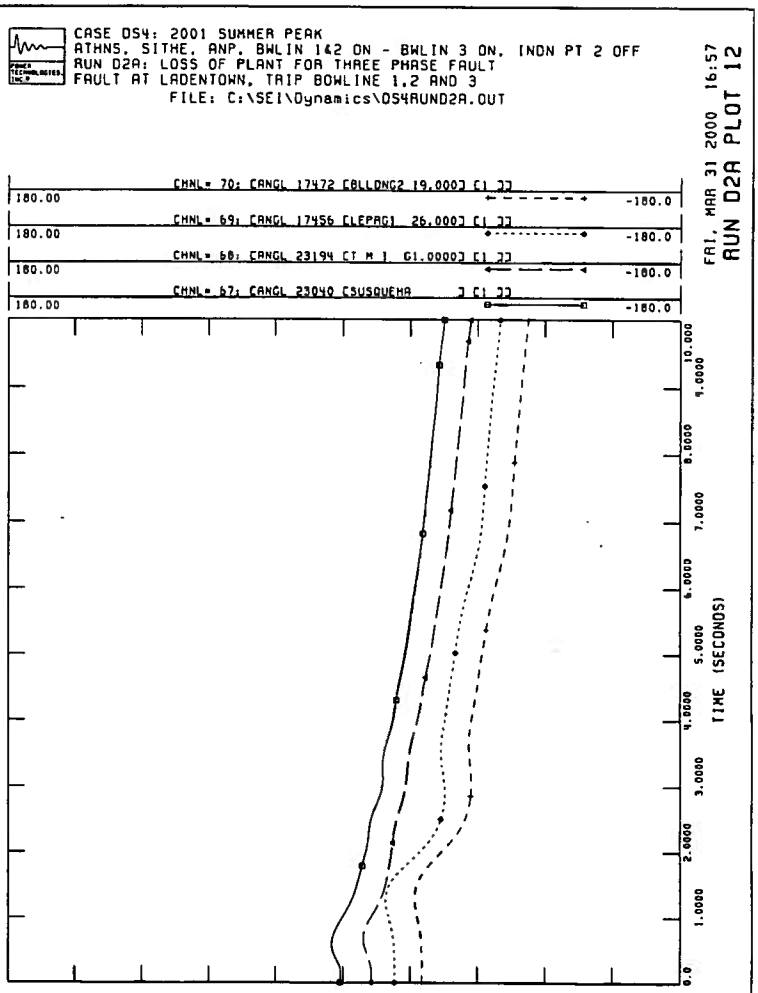

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 36; CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35; CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34; CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33; CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32; CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31; CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D2A PLOT 6


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 48; CANGL 9396 CBOWLNGT218.000] C1]]
CHNL= 47; CANGL 9395 CBOWLNGT118.000] C1]]
CHNL= 46; CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45; CANGL 8710 CATHENSGT16.000] C1]]
CHNL= 44; CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43; CANGL 8708 CATHENSGT16.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D2A PLOT 8


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 30; CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29; CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28; CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27; CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26; CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25; CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:56
RUN D2A PLOT 5


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 42; CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41; CANGL 8706 CATHENSGT16.000] C1]]
CHNL= 40; CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39; CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38; CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37; CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D2A PLOT 7


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 60; CANGL 23311 [MRTN CK324.000] [1]]
CHNL= 59; CANGL 23310 [MRTN CK324.000] [1]]
CHNL= 58; CANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57; CANGL 23499 [LIMERIC122.000] [1]]
CHNL= 56; CANGL 23039 [MOPE CR] [1]]
CHNL= 55; CANGL 2869 [SOAK G1 25.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:57
RUN D2A PLOT 10
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 70; CANGL 17472 [BLLONG2 19.000] [1]]
CHNL= 69; CANGL 17456 [LEPAG1 26.000] [1]]
CHNL= 68; CANGL 23194 [T M 1 G1.0000] [1]]
CHNL= 67; CANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:57
RUN D2A PLOT 12
TIME (SECONDS)
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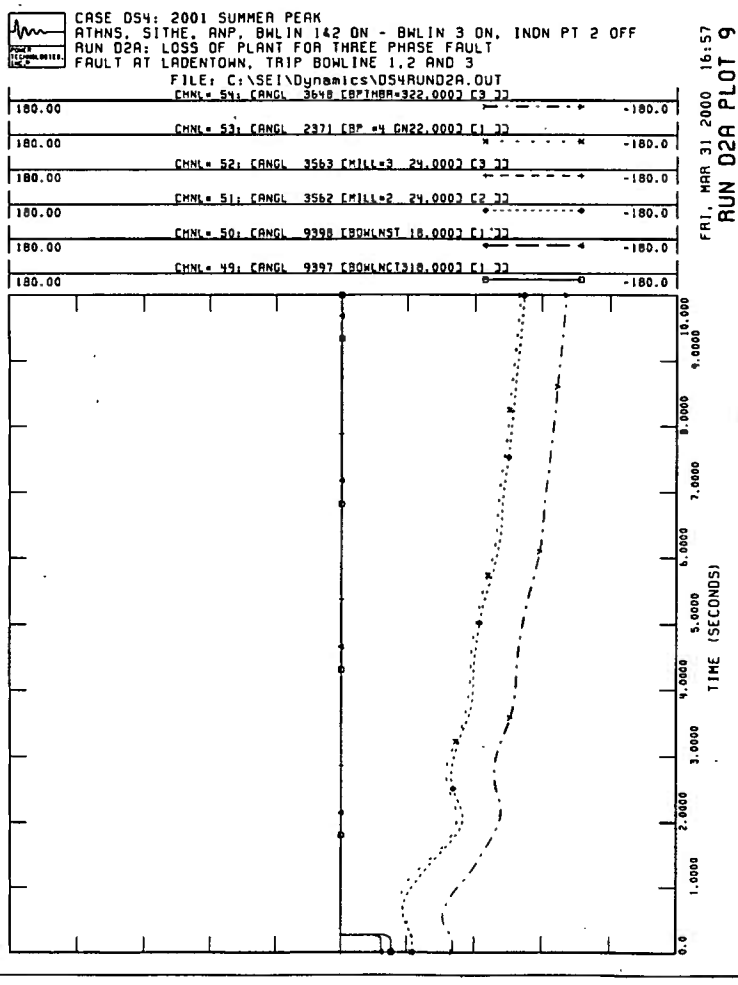
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 54; CANGL 3648 [BPTMBR=322.000] [3]]
CHNL= 53; CANGL 2371 [BP #4 GN22.000] [1]]
CHNL= 52; CANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51; CANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50; CANGL 9398 [BOWLNST 18.000] [1]]
CHNL= 49; CANGL 9397 [BOWLNGT318.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:57
RUN D2A PLOT 9
TIME (SECONDS)
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2.0000
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4.0000
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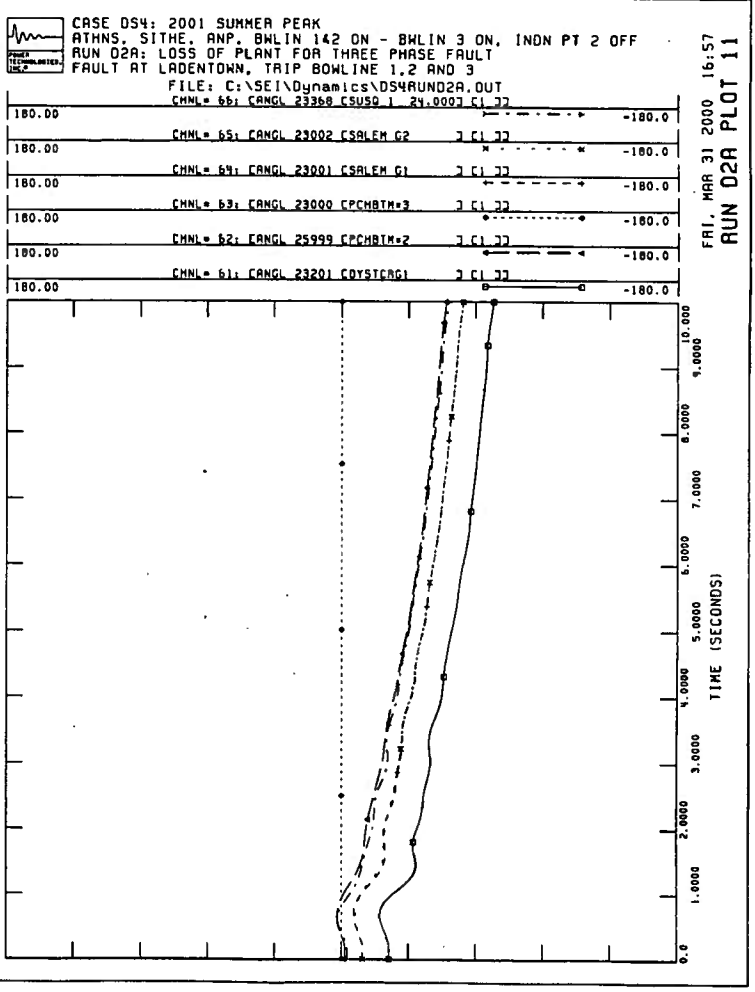
6.0000
7.0000
8.0000
9.0000
10.000


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 66; CANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65; CANGL 23002 [SALEM G2] [1]]
CHNL= 64; CANGL 23001 [SALEM G1] [1]]
CHNL= 63; CANGL 23000 [PCHBTM=3] [1]]
CHNL= 62; CANGL 25999 [PCHBTM=2] [1]]
CHNL= 61; CANGL 23201 [DYSTRG1] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:57
RUN D2A PLOT 11
TIME (SECONDS)
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2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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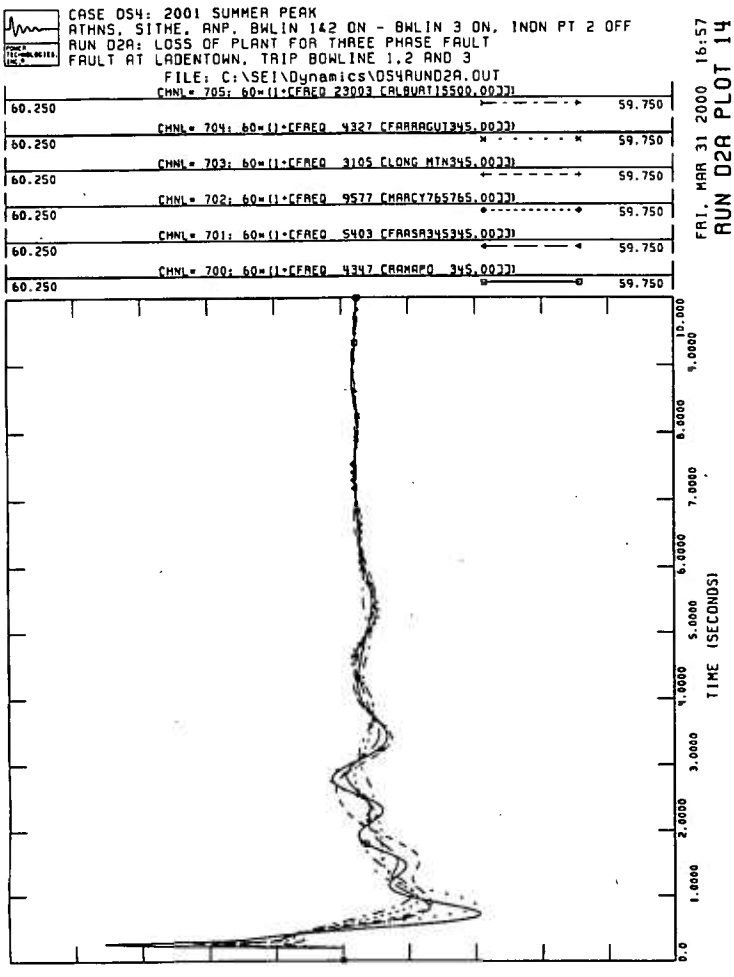
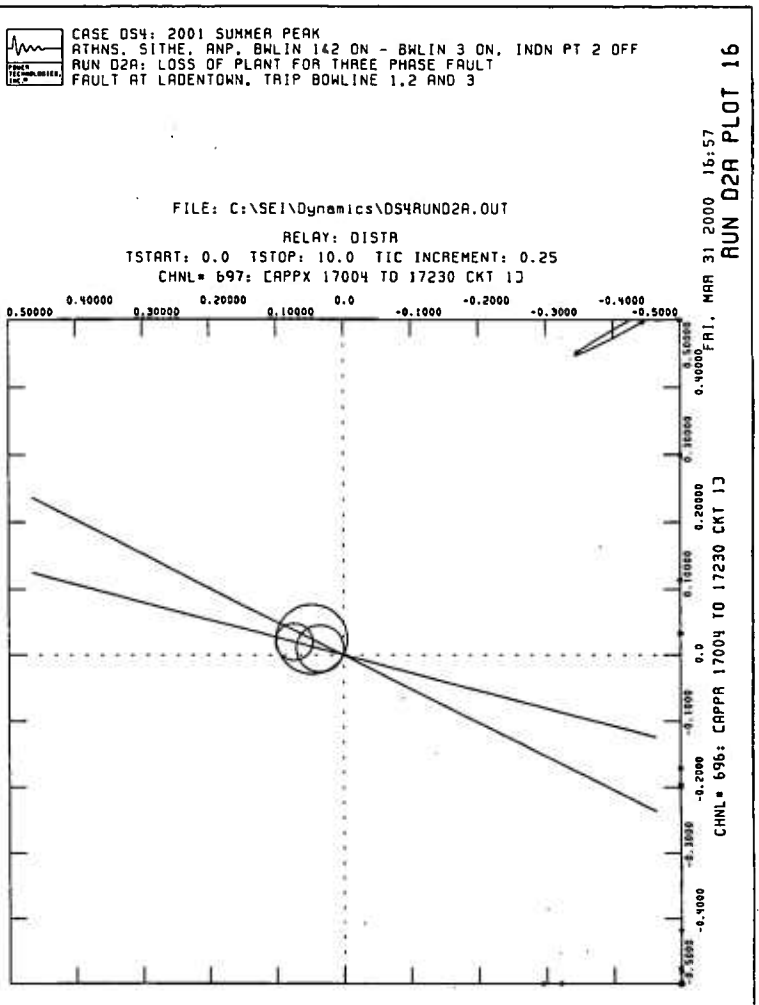
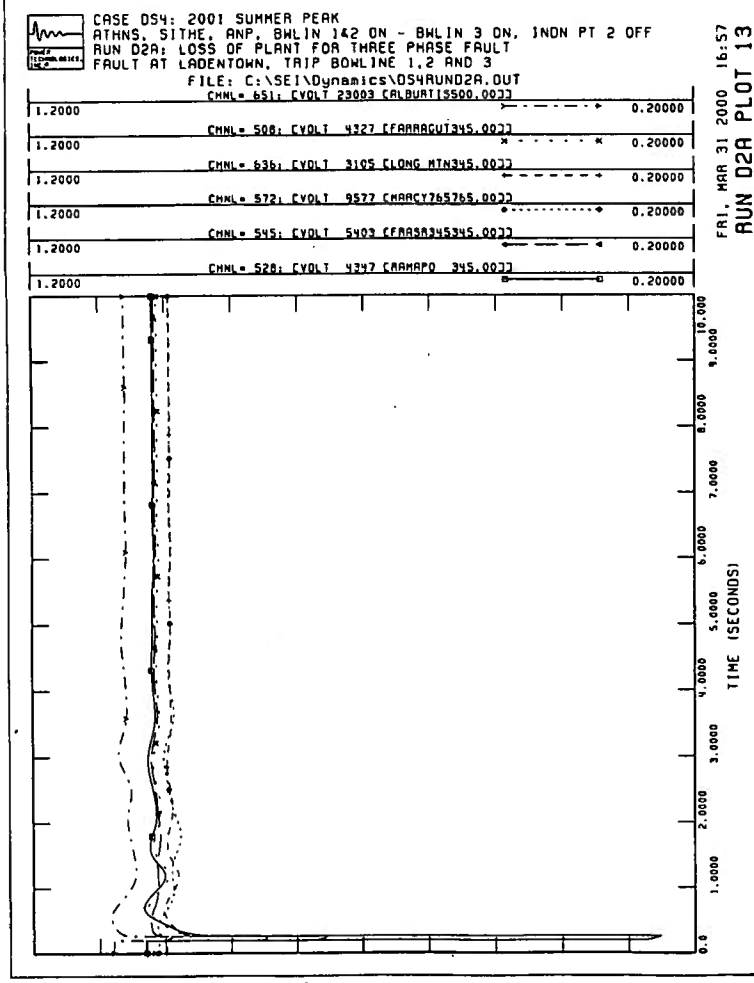
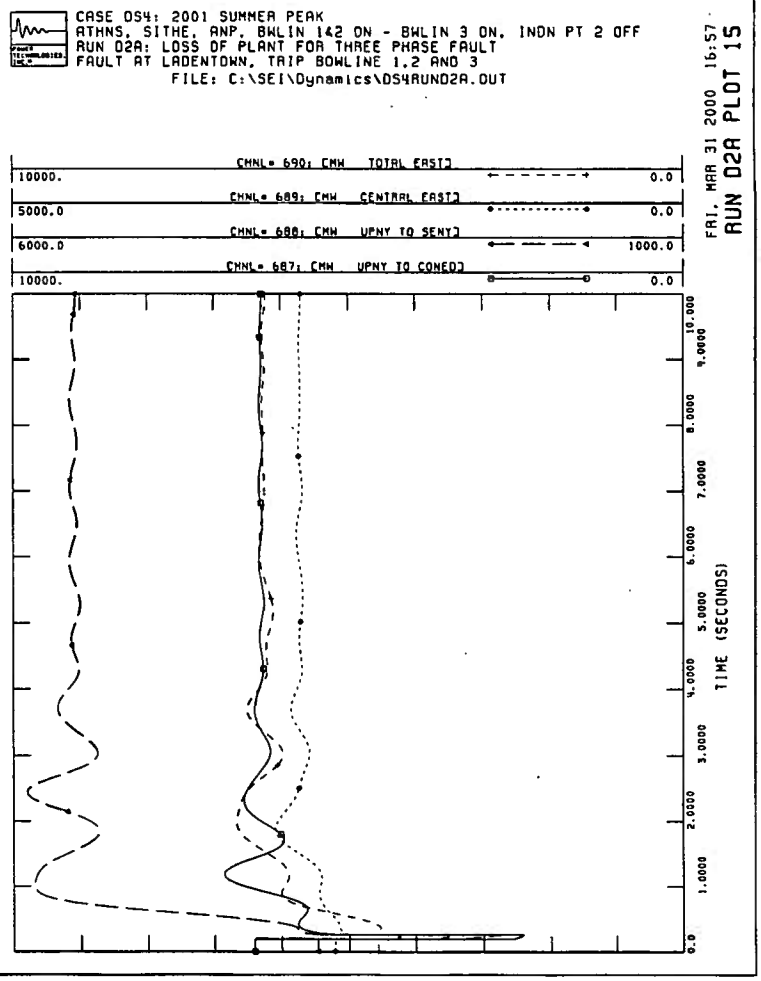
9.0000
10.000


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURTIS500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 16:57
RUN D2A PLOT 14
TIME (SECONDS)

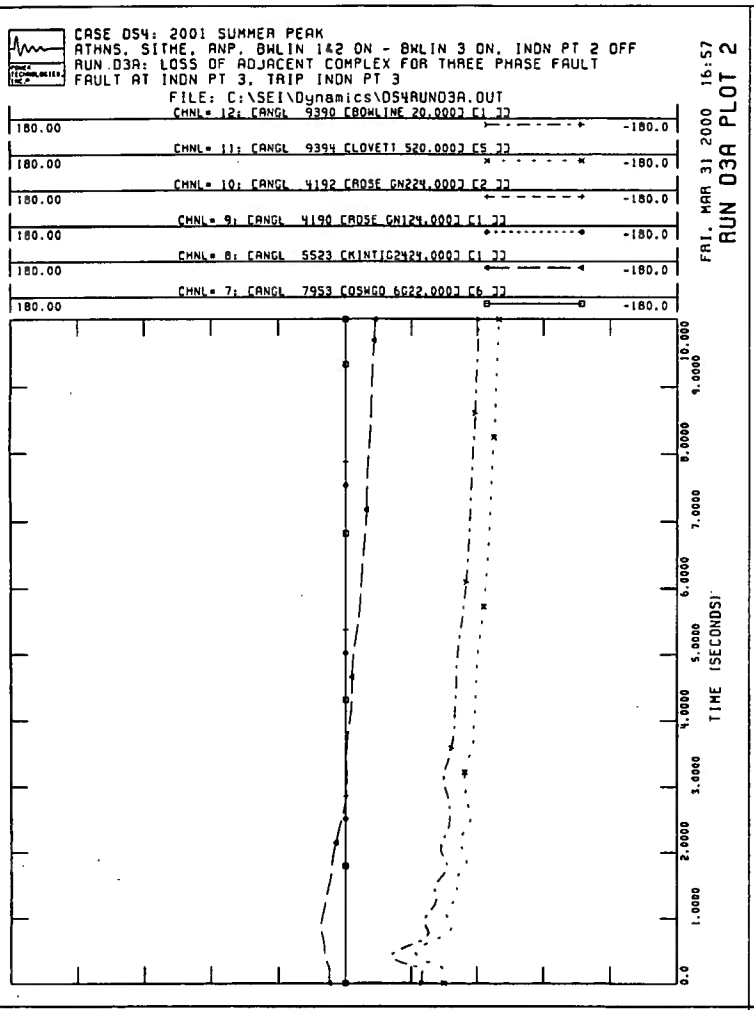

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:57
RUN D2A PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

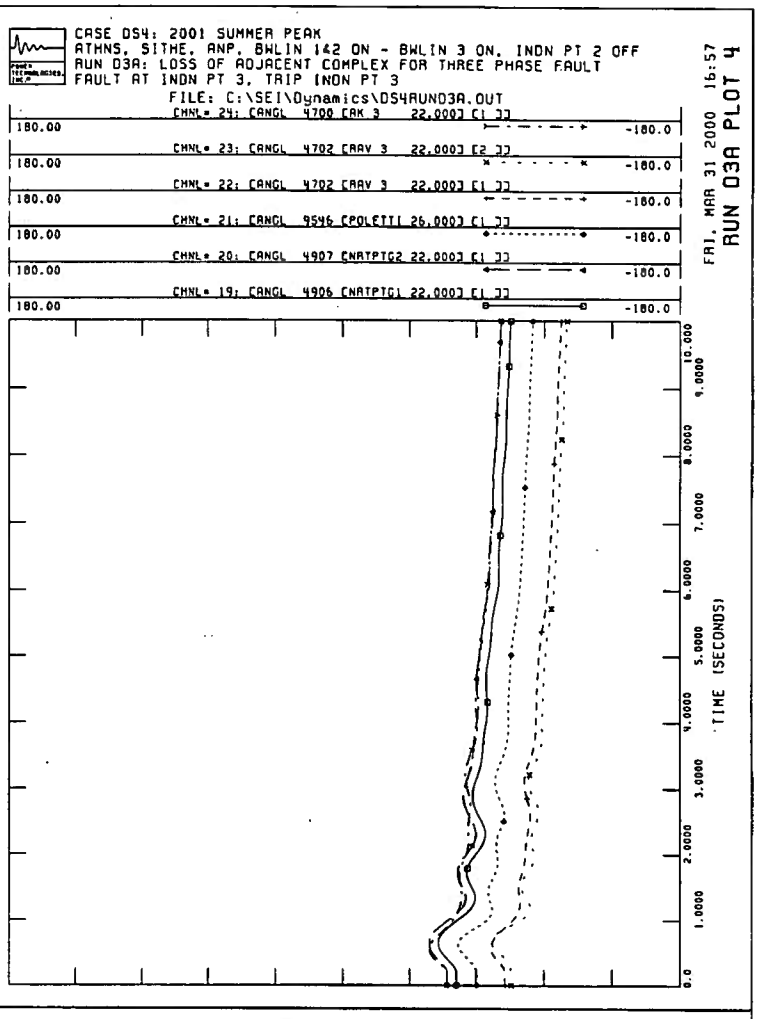

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 16:57
RUN D2A PLOT 13
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DS4RUND2A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 16:57
RUN D2A PLOT 15
TIME (SECONDS)

CONTINGENCY D3A

```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                          / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D3A PLOT 2


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
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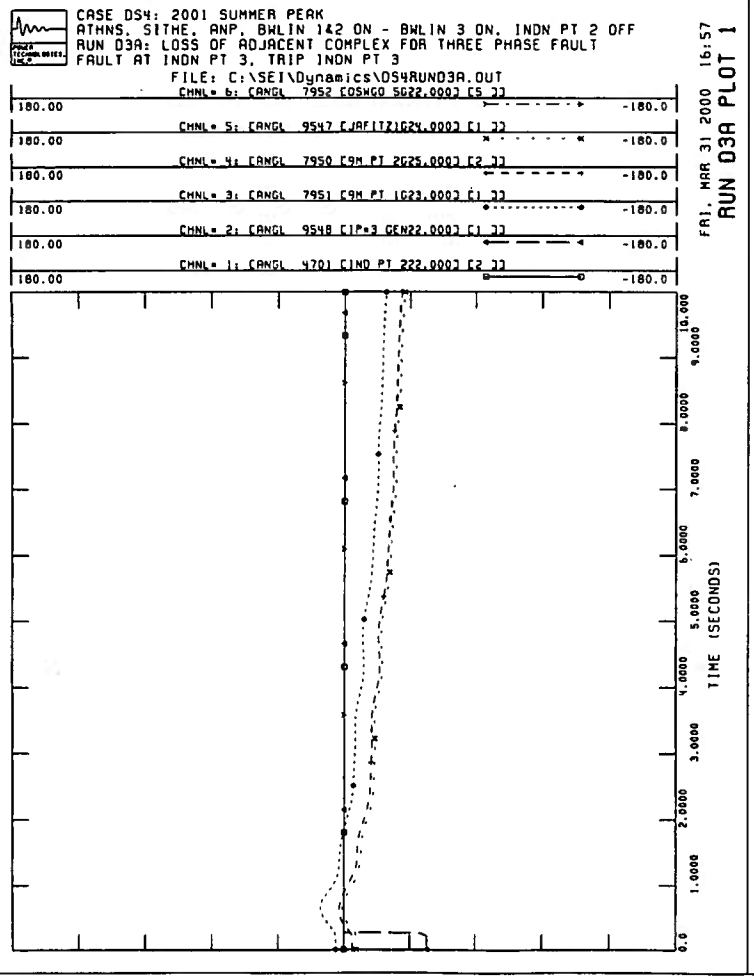
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D3A PLOT 4


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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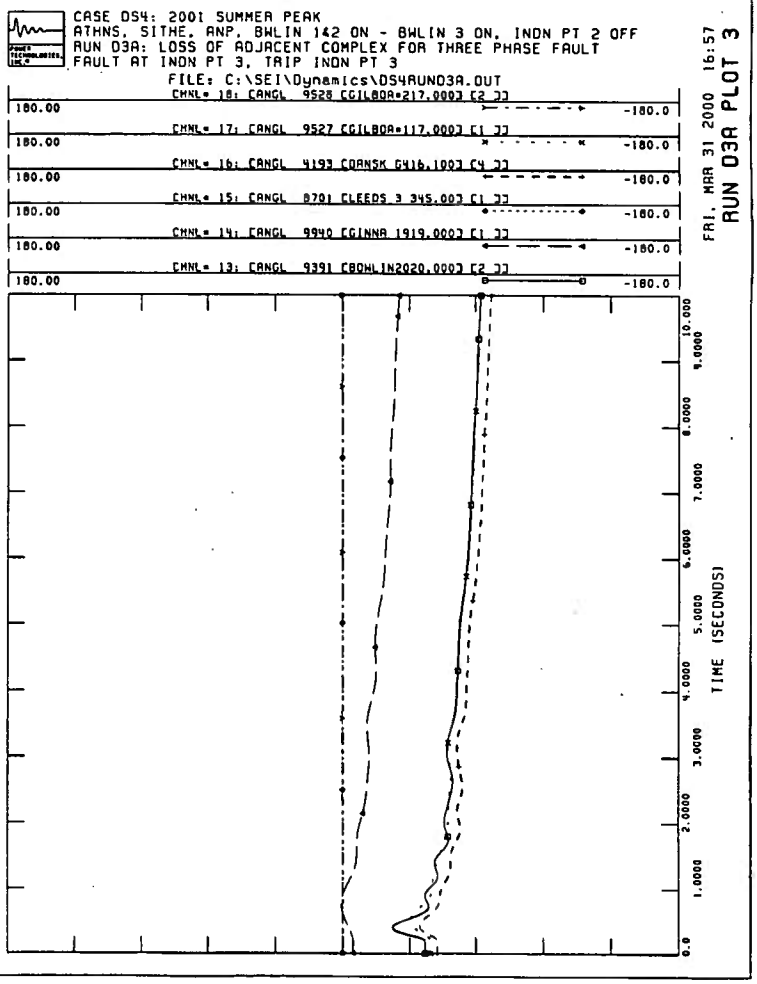
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D3A PLOT 1


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D3A PLOT 3

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 6

CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 7

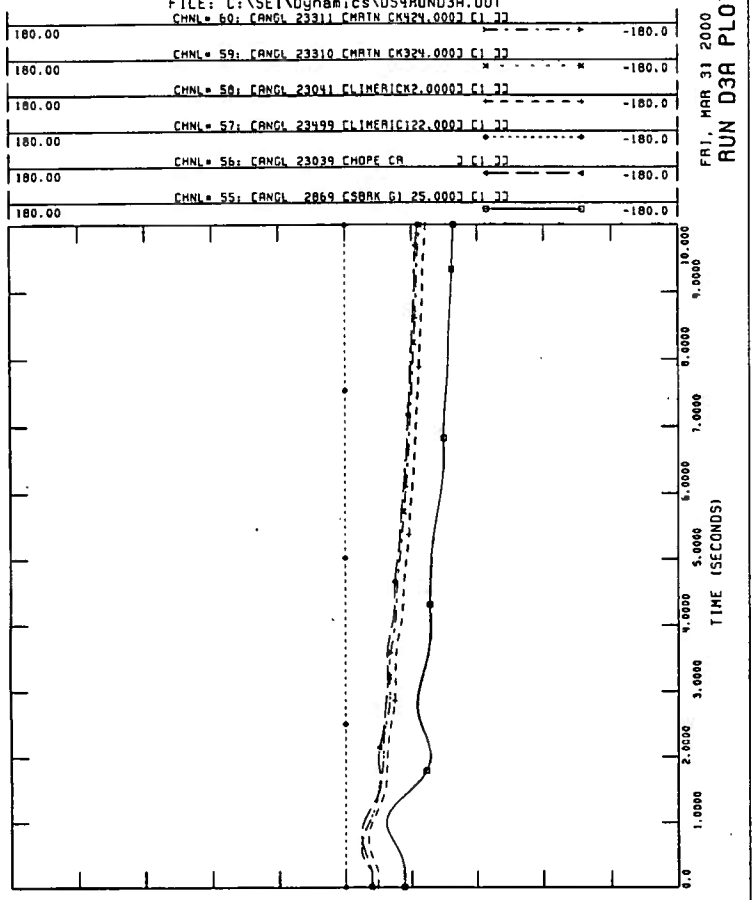
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

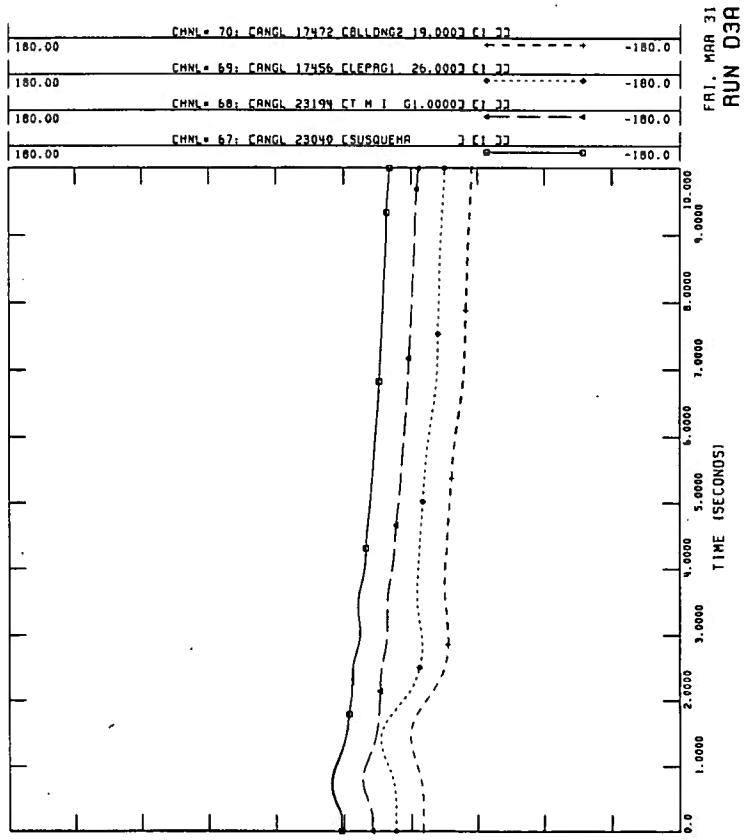
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 10



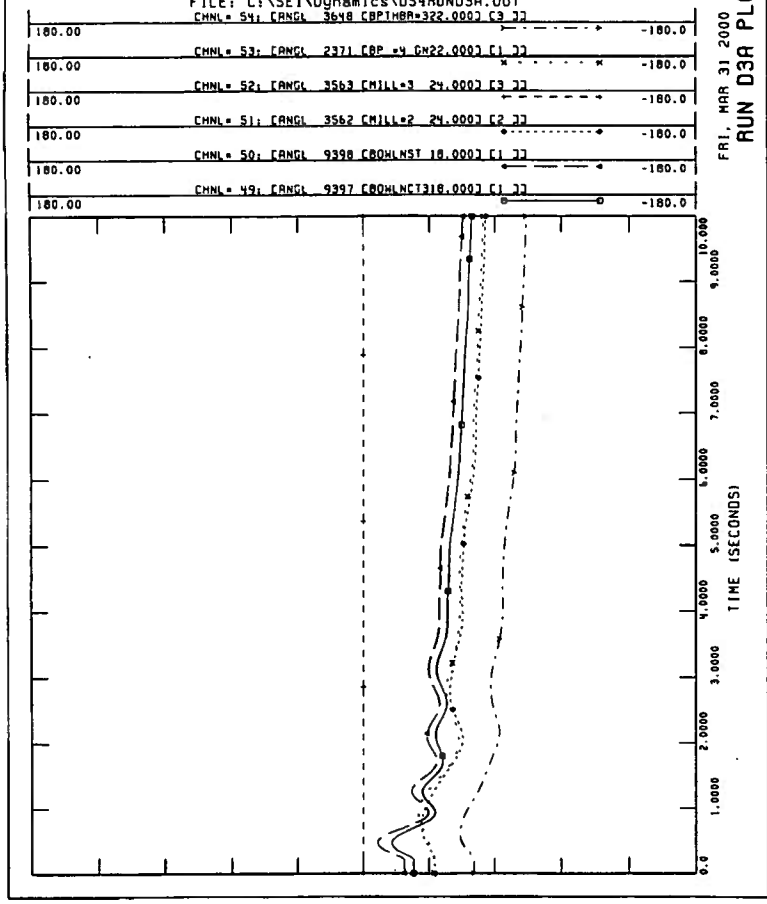
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 12



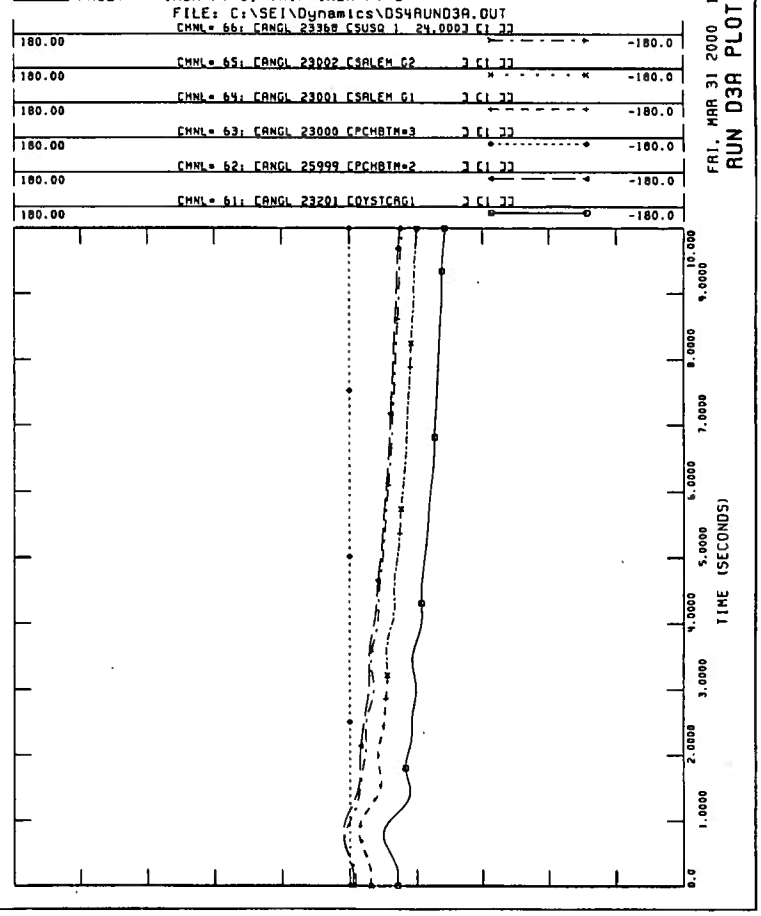
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 9

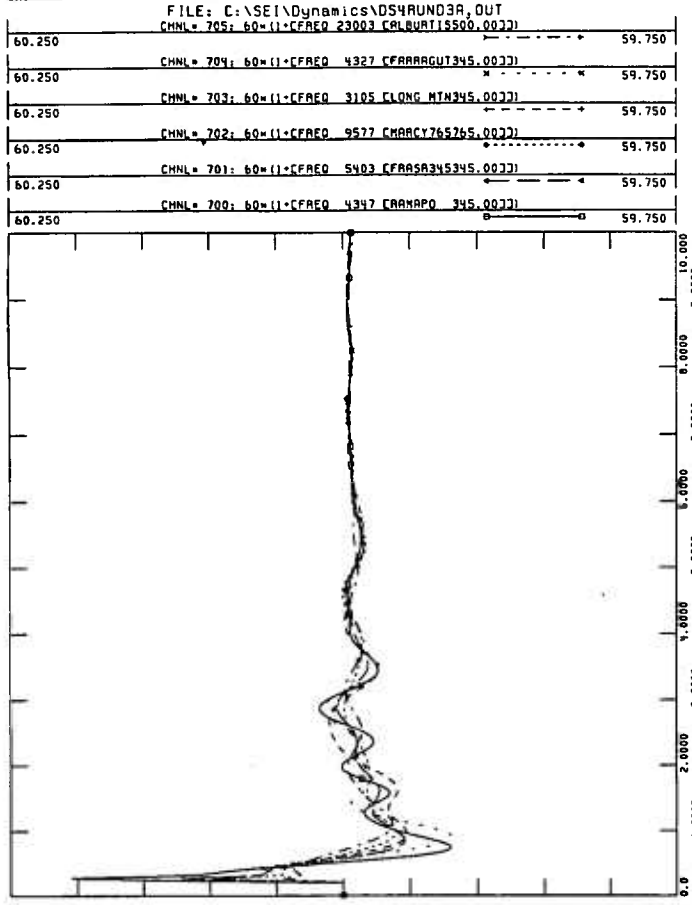


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

FRI, MAR 31 2000 16:57
RUN D3A PLOT 11



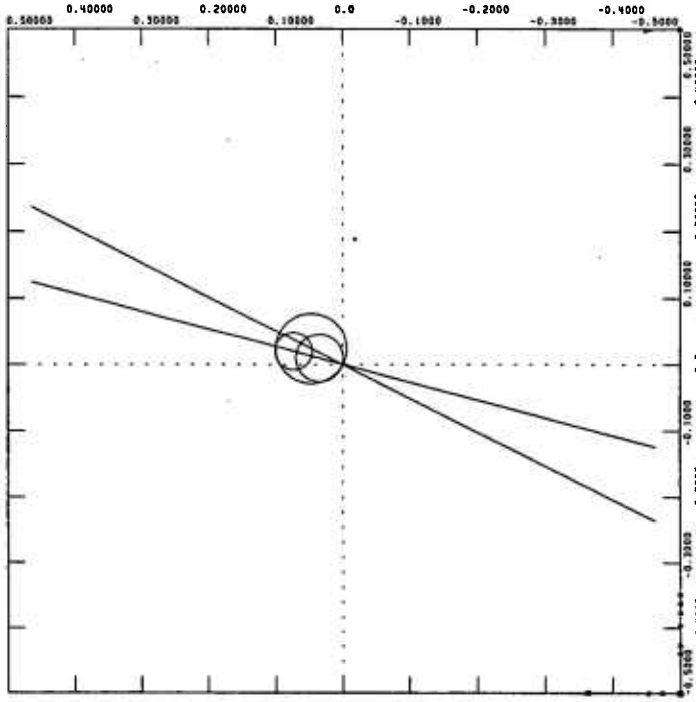
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT



FRI, MAR 31 2000 16:57
RUN D3A PLOT 14

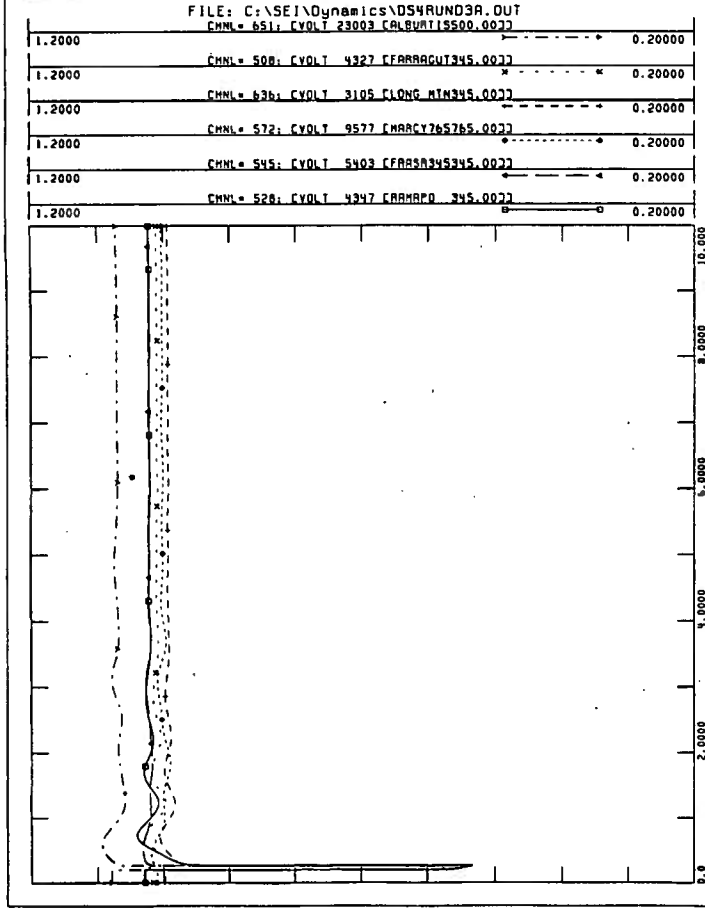
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DS4RUND3A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



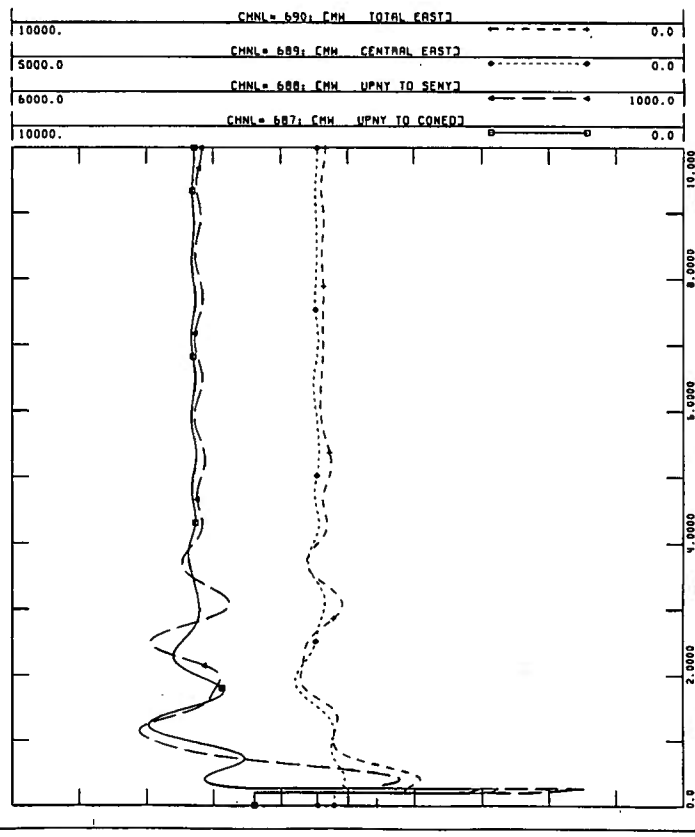
FRI, MAR 31 2000 16:57
RUN D3A PLOT 16

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT



FRI, MAR 31 2000 16:57
RUN D3A PLOT 13

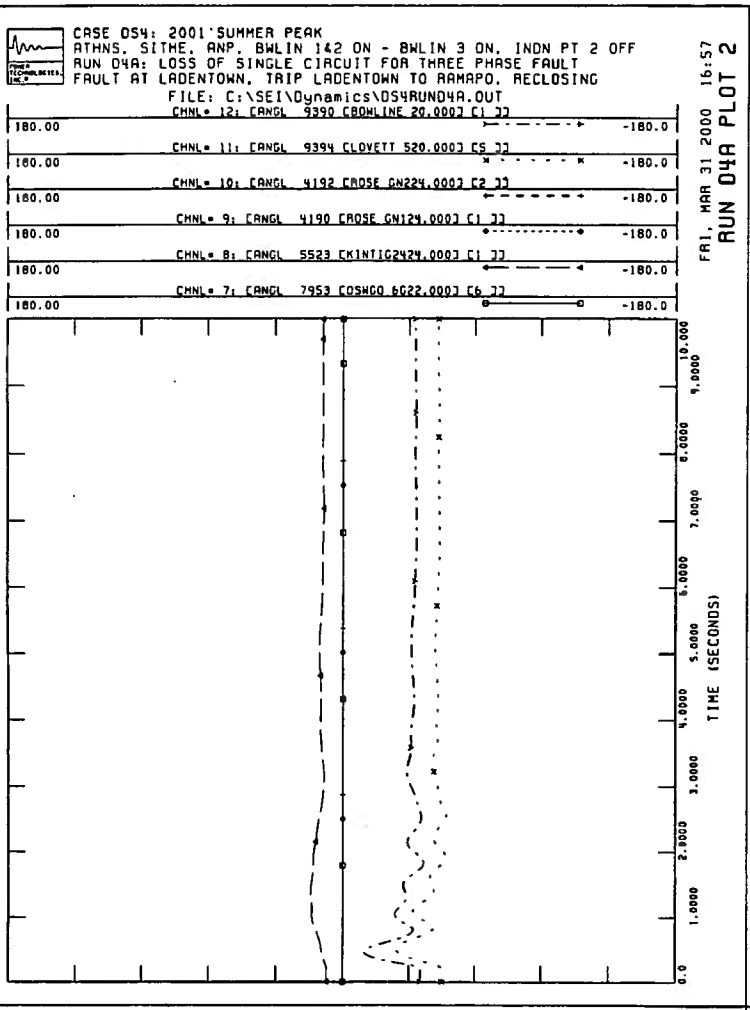
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DS4RUND3A.OUT

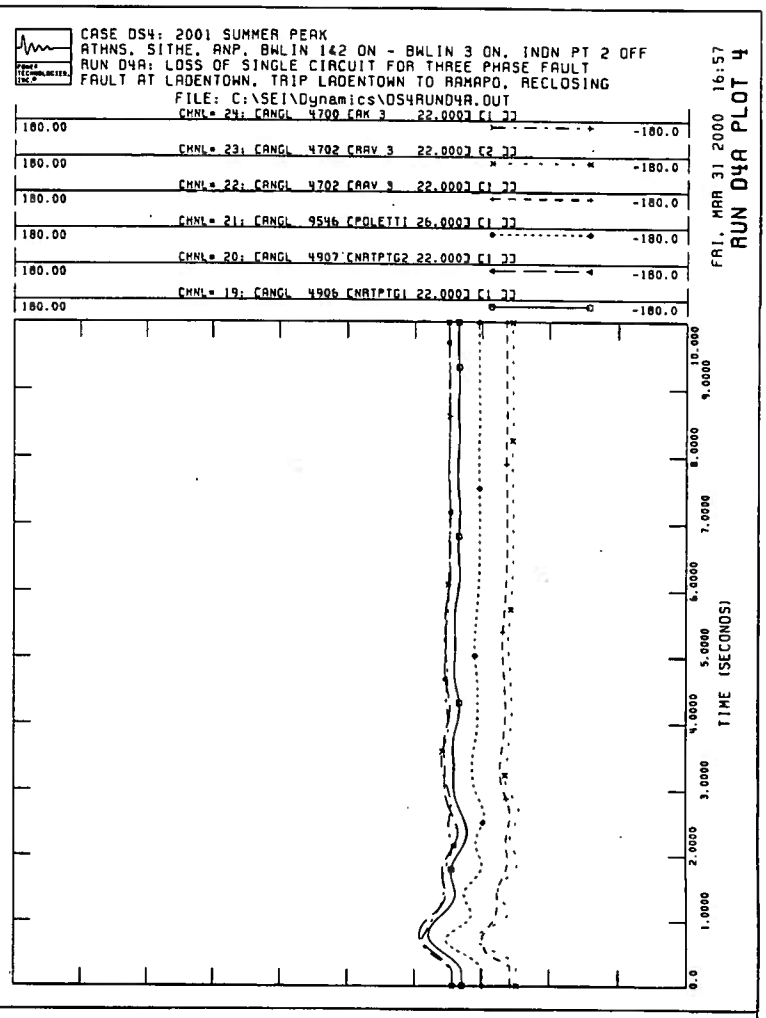


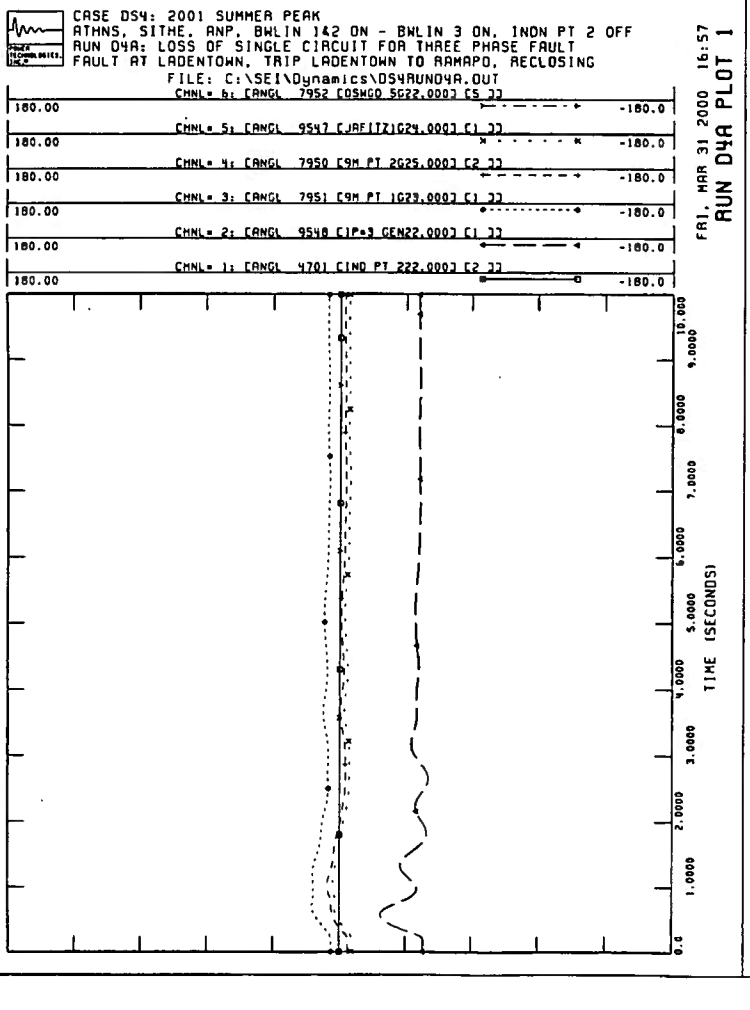
FRI, MAR 31 2000 16:57
RUN D3A PLOT 15

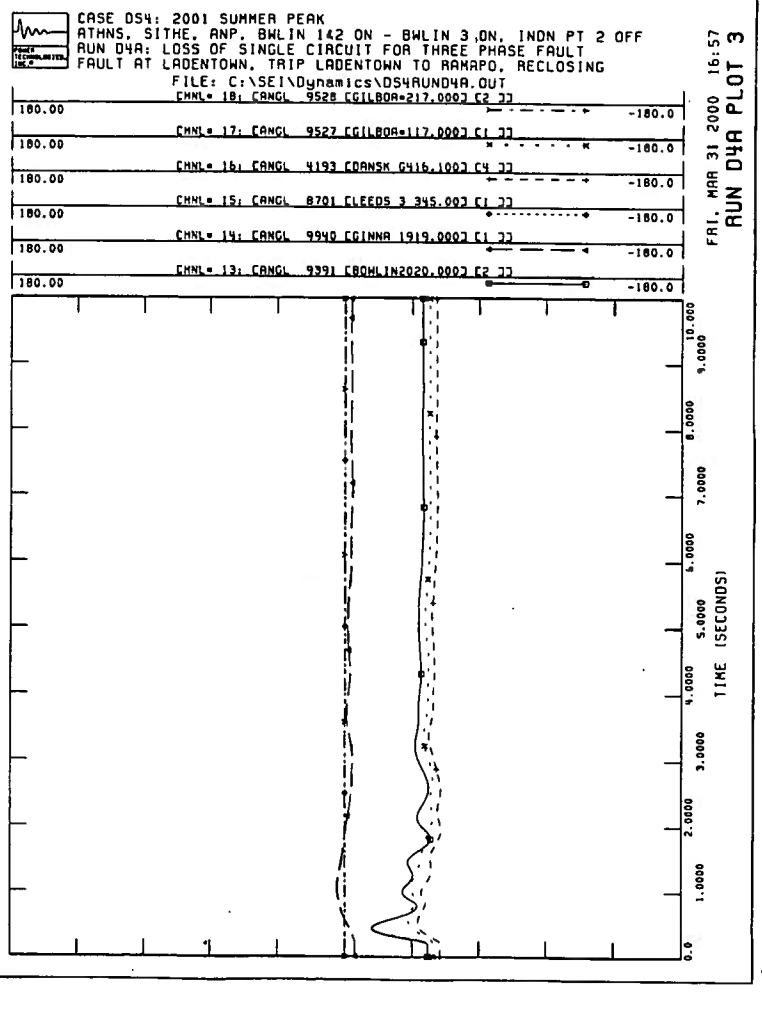
CONTINGENCY D4A

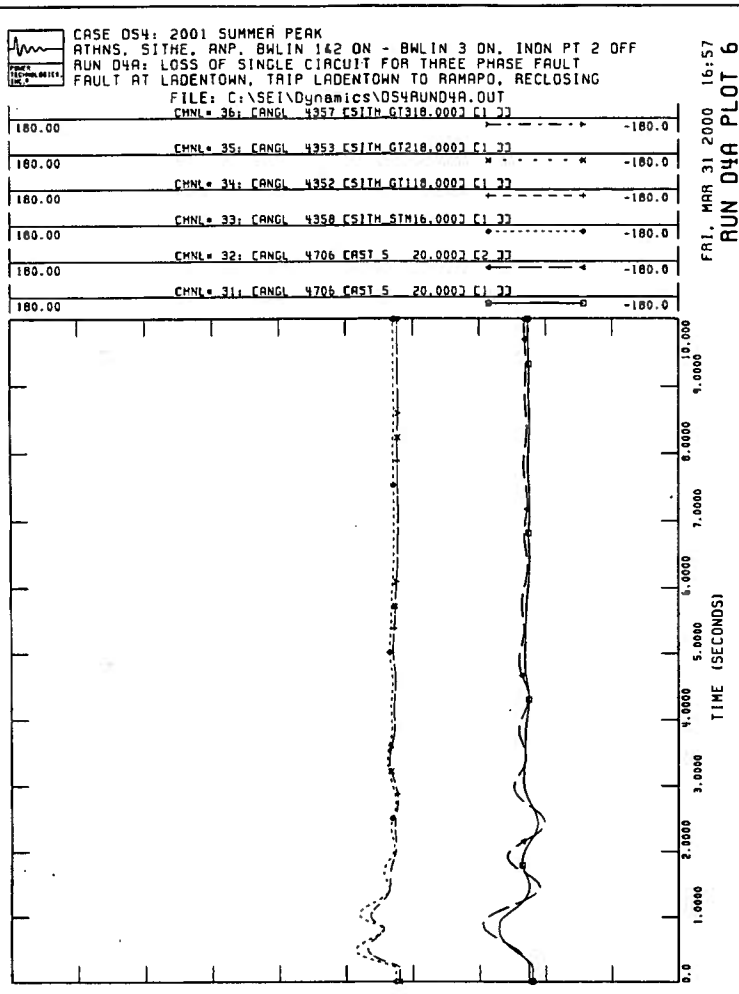
```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1              / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345   / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

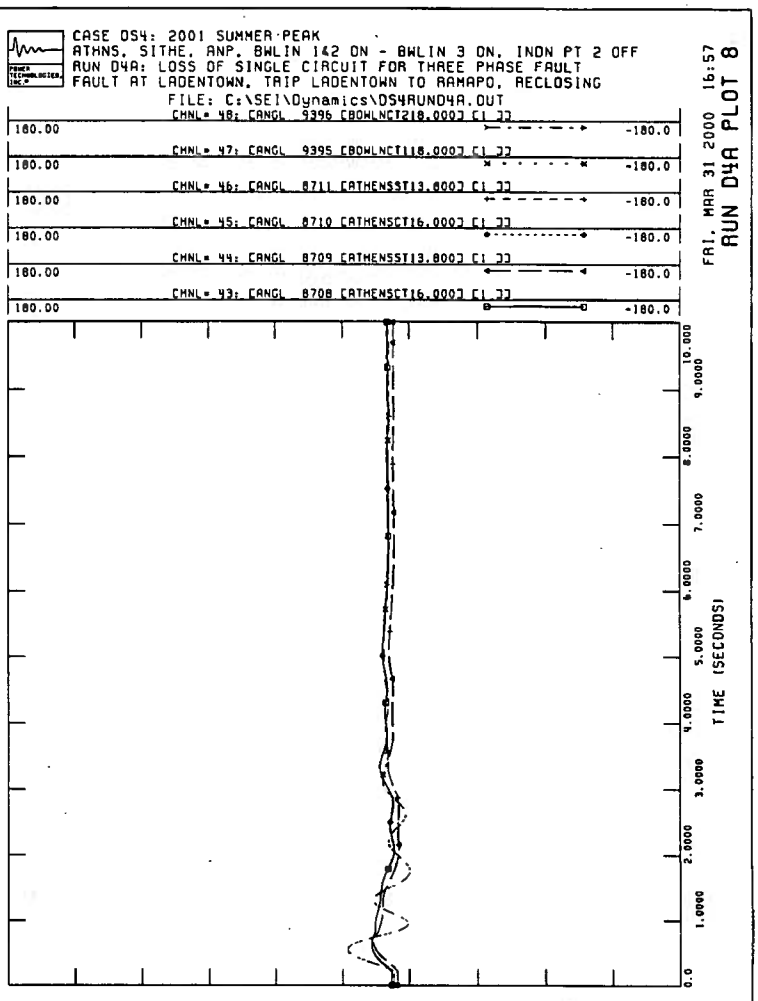

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSHGQ 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 2

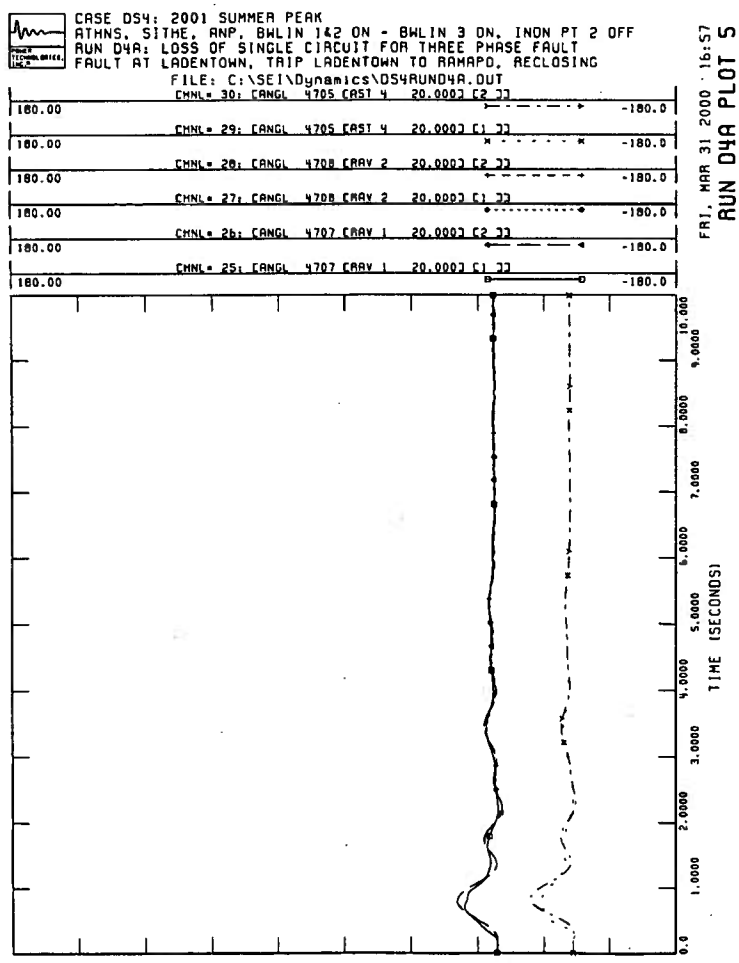

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 4

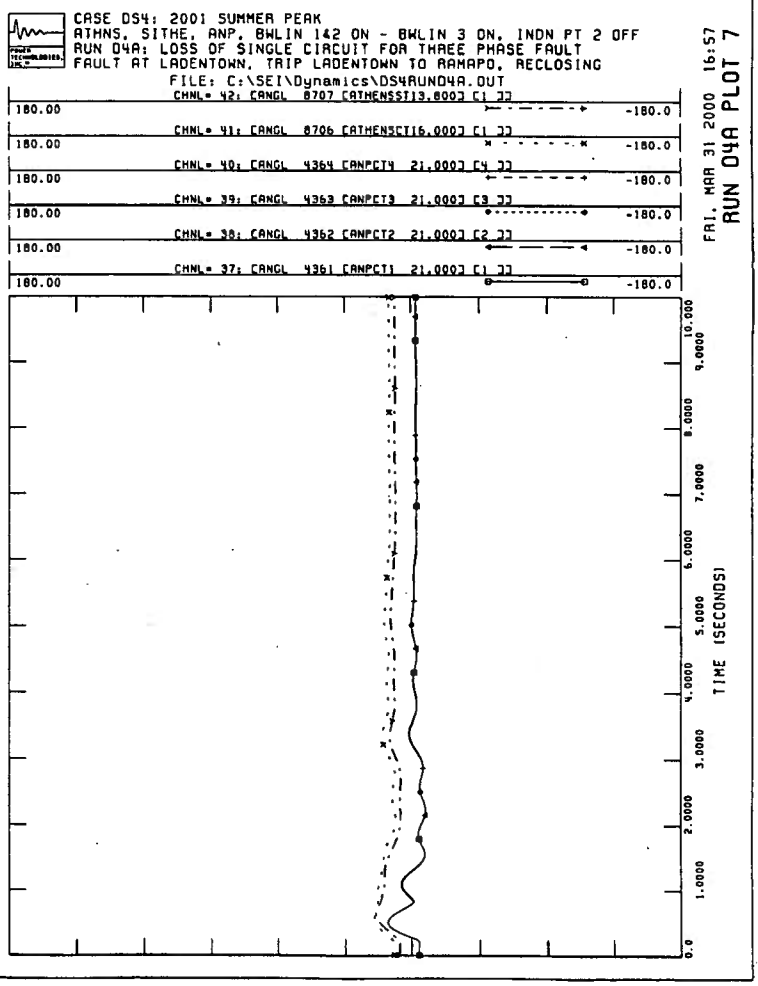

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 6: CANGL 7952 COSHGQ 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJREITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 C1P=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 1

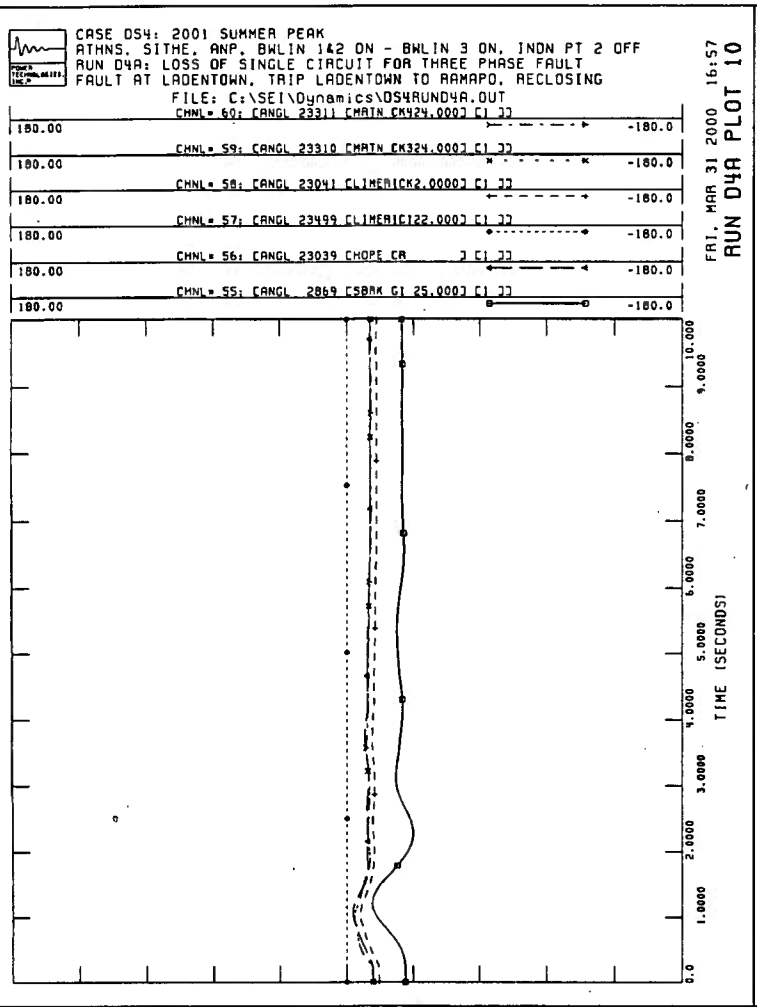

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 3

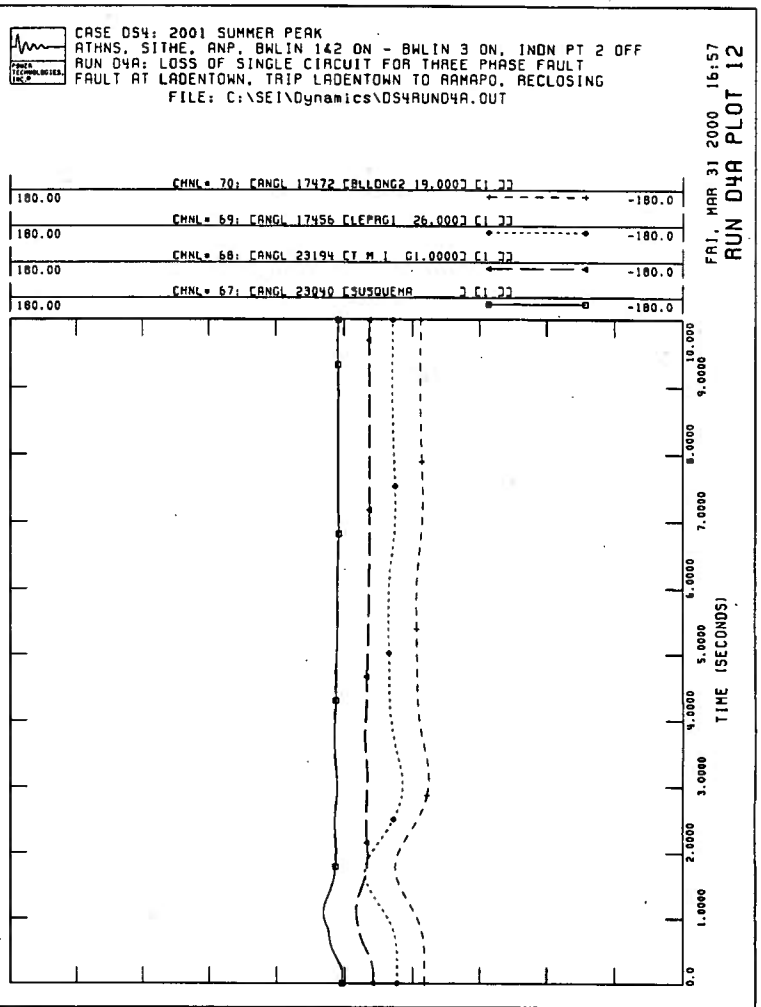

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
FRI, MAR 31 2000 16:57
RUN D4A PLOT 6
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1 JJ
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1 JJ
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1 JJ
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1 JJ
CHNL= 32: CANGL 4706 CAST 5 20.000] C2 JJ
CHNL= 31: CANGL 4706 CAST 5 20.000] C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

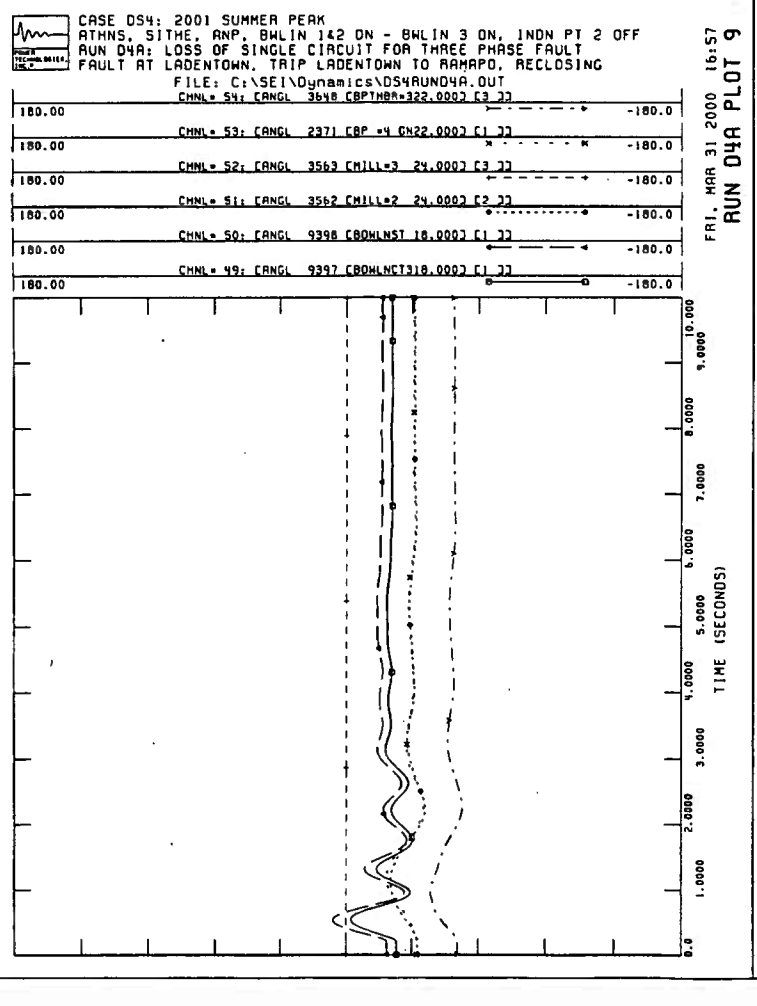

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
FRI, MAR 31 2000 16:57
RUN D4A PLOT 8
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1 JJ
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1 JJ
CHNL= 46: CANGL 8711 CATHENSST13.800] C1 JJ
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1 JJ
CHNL= 44: CANGL 8709 CATHENSST13.800] C1 JJ
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

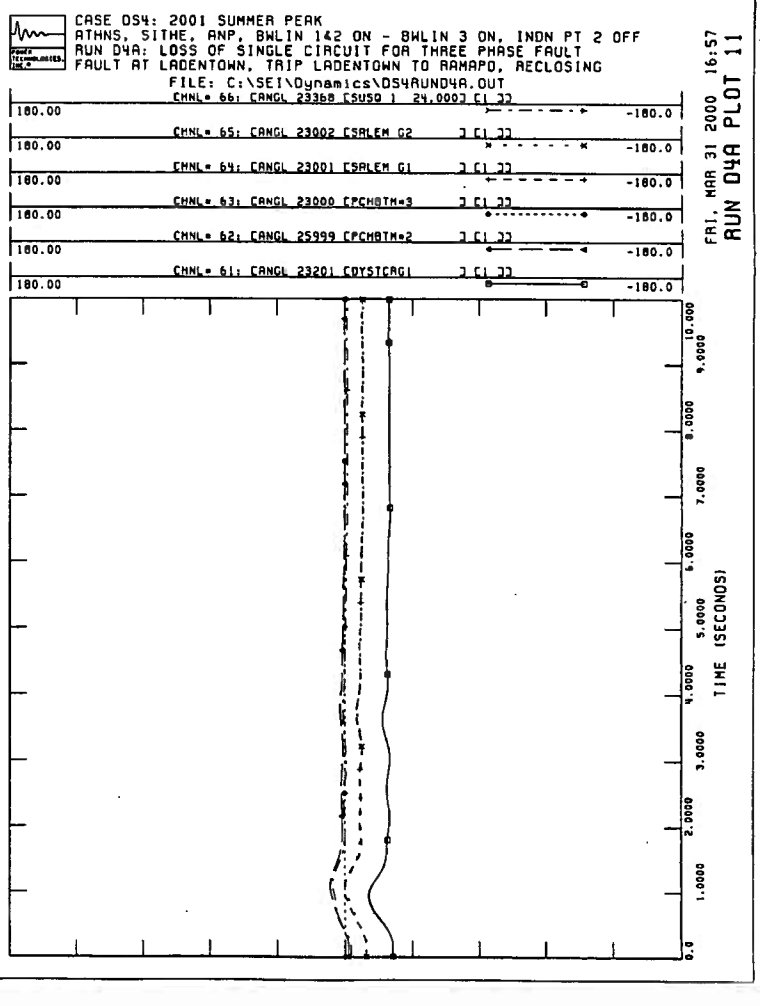

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
FRI, MAR 31 2000 16:57
RUN D4A PLOT 5
CHNL= 30: CANGL 4705 CAST 4 20.000] C2 JJ
CHNL= 29: CANGL 4705 CAST 4 20.000] C1 JJ
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2 JJ
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1 JJ
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2 JJ
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
FRI, MAR 31 2000 16:57
RUN D4A PLOT 7
CHNL= 42: CANGL 8707 CATHENSST13.800] C1 JJ
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1 JJ
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4 JJ
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3 JJ
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2 JJ
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

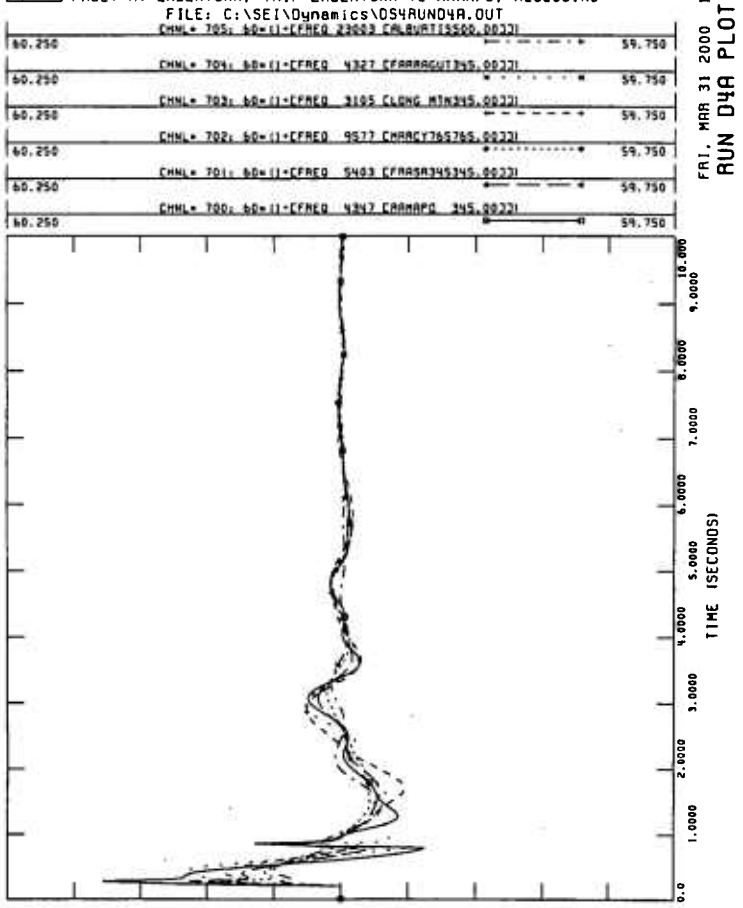

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.0000 C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000 C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000 C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000 C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 10


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 70: CANGL 17472 CBLLONG2 19.000 C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000 C1]]
CHNL= 68: CANGL 23194 CT M I G1.0000 C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 12


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 54: CANGL 3648 CBPTMBR=322.000 C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.000 C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000 C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000 C3]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000 C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 9


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO AAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000 C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 2320I CDYSTCAG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:57
RUN D4A PLOT 11

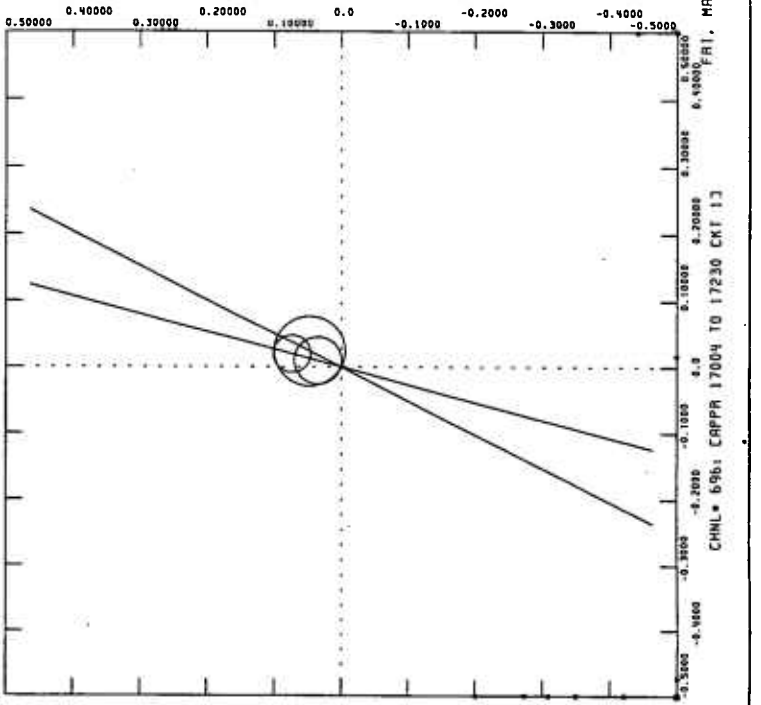
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT



FRI, MAR 31 2000 16:57
RUN D4A PLOT 14

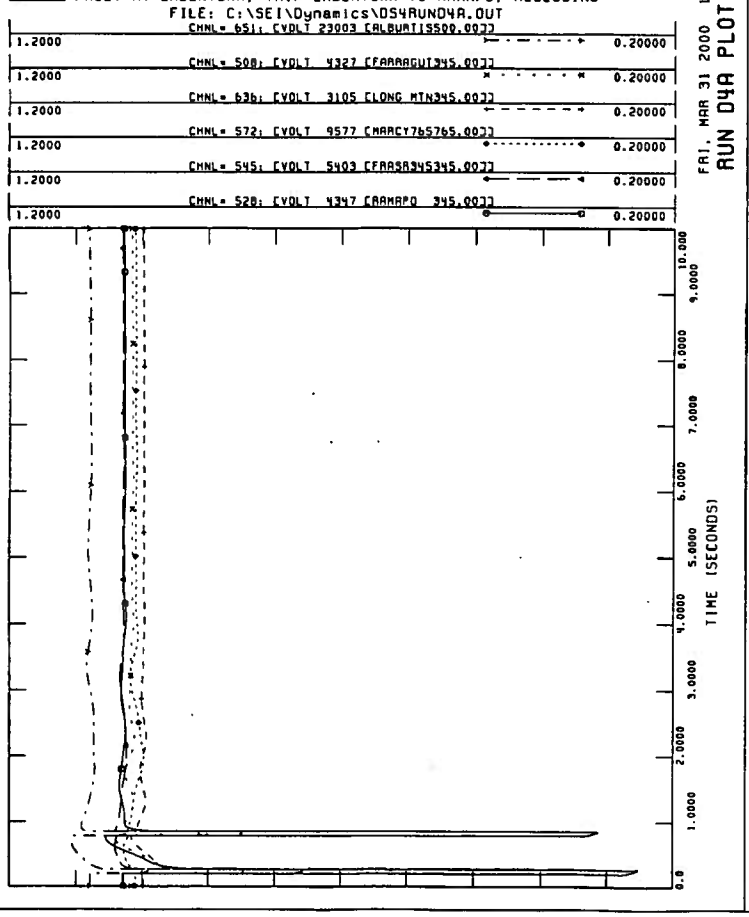
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DS4RUND4A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



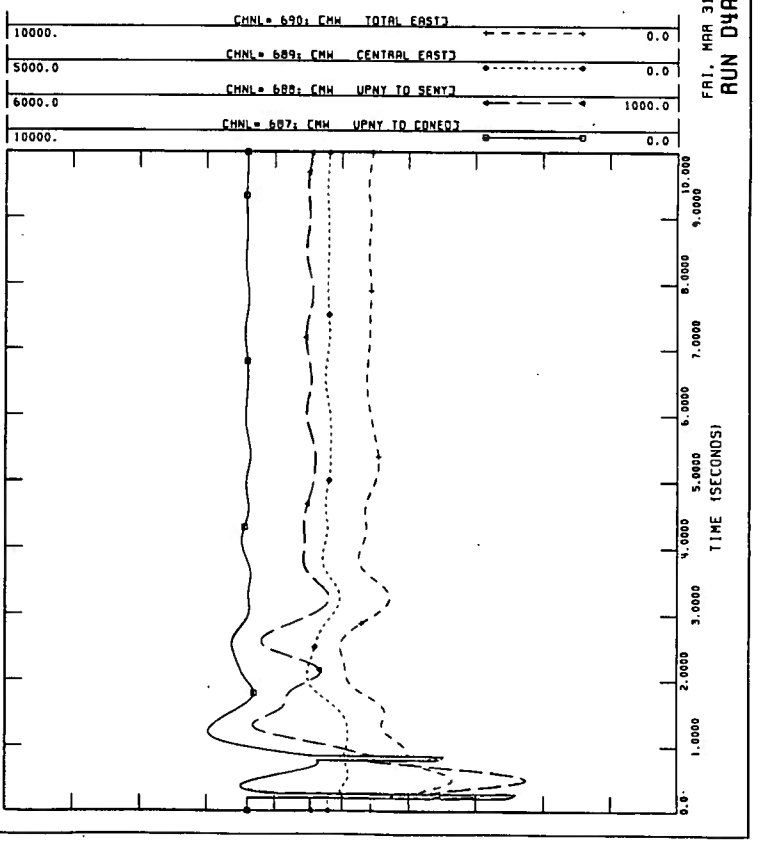
FRI, MAR 31 2000 16:57
RUN D4A PLOT 16

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT



FRI, MAR 31 2000 16:57
RUN D4A PLOT 13

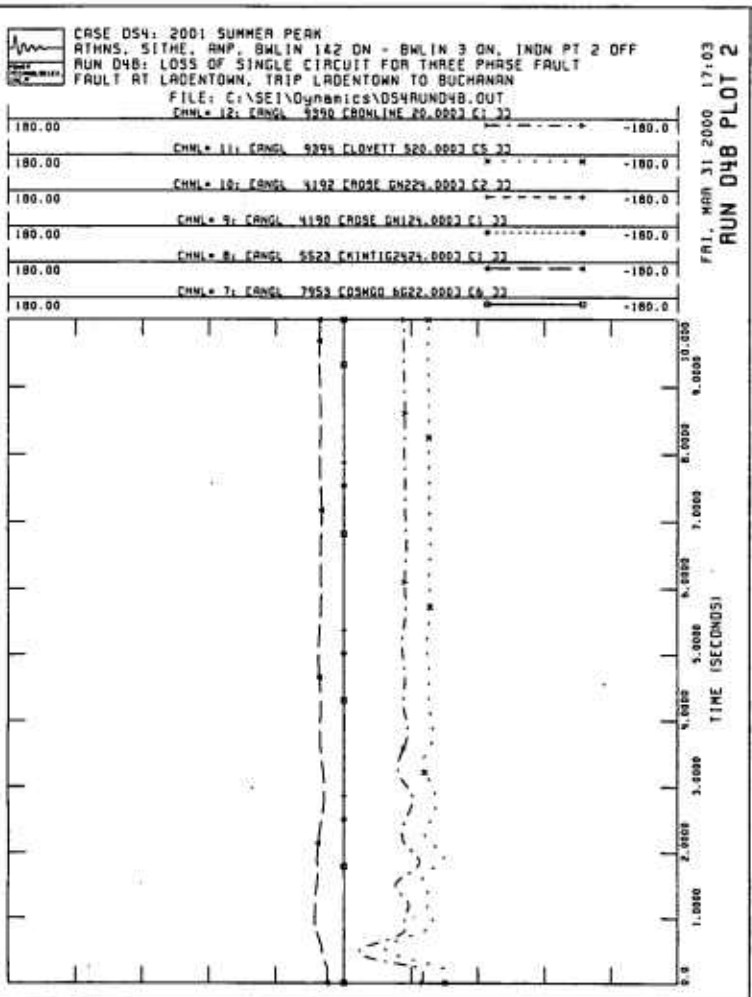
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DS4RUND4A.OUT

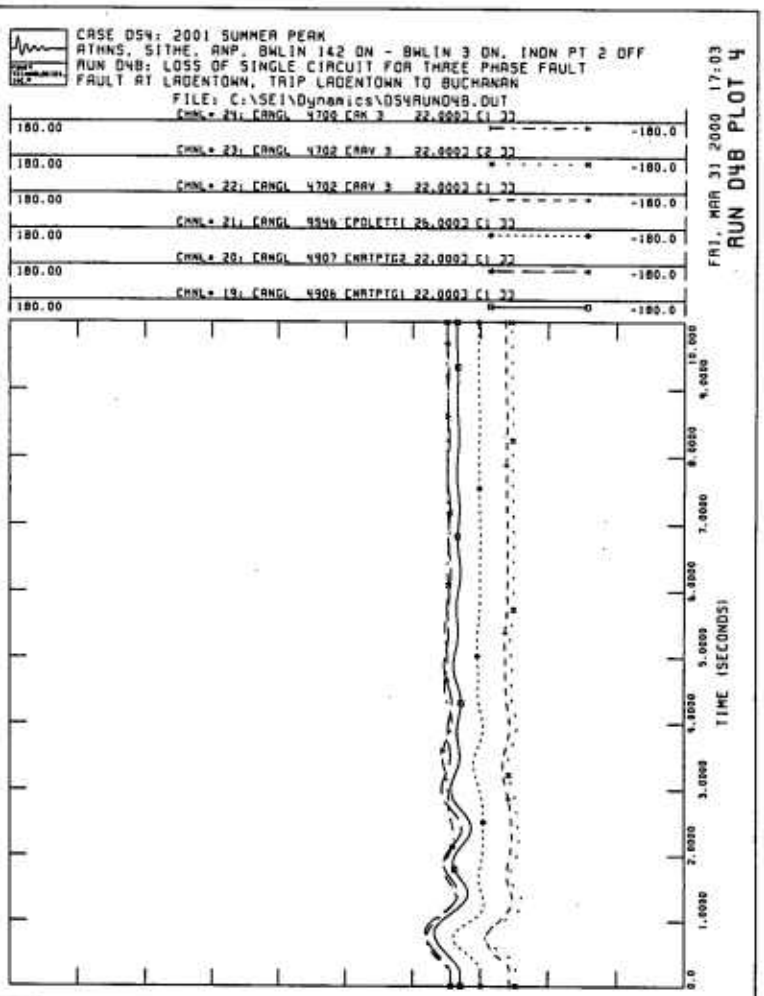


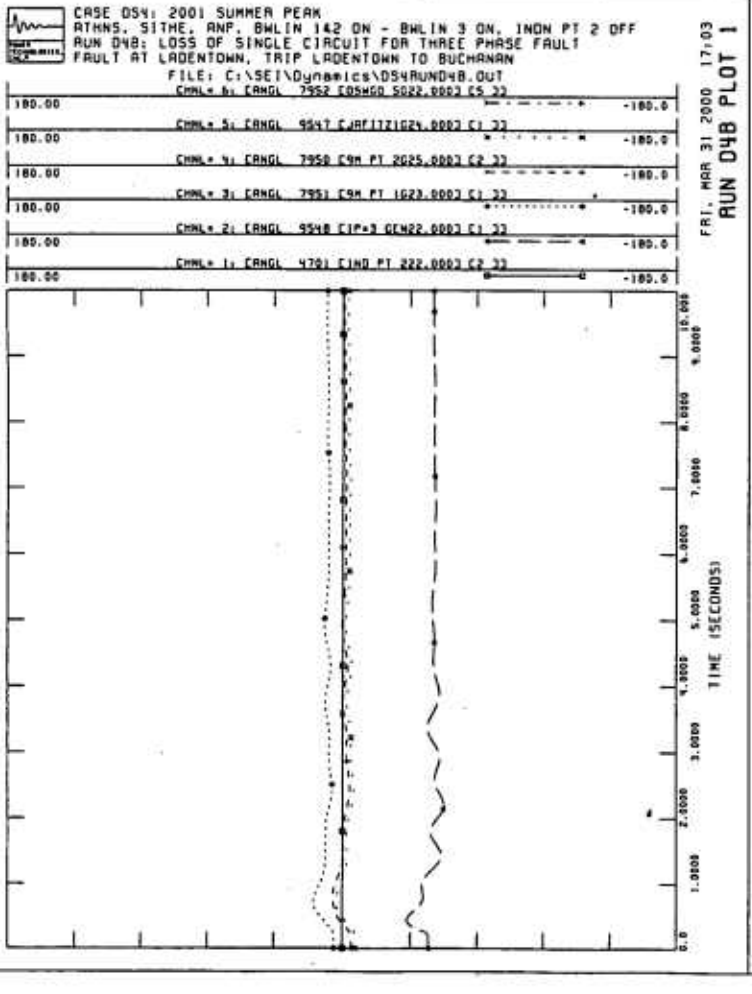
FRI, MAR 31 2000 16:57
RUN D4A PLOT 15

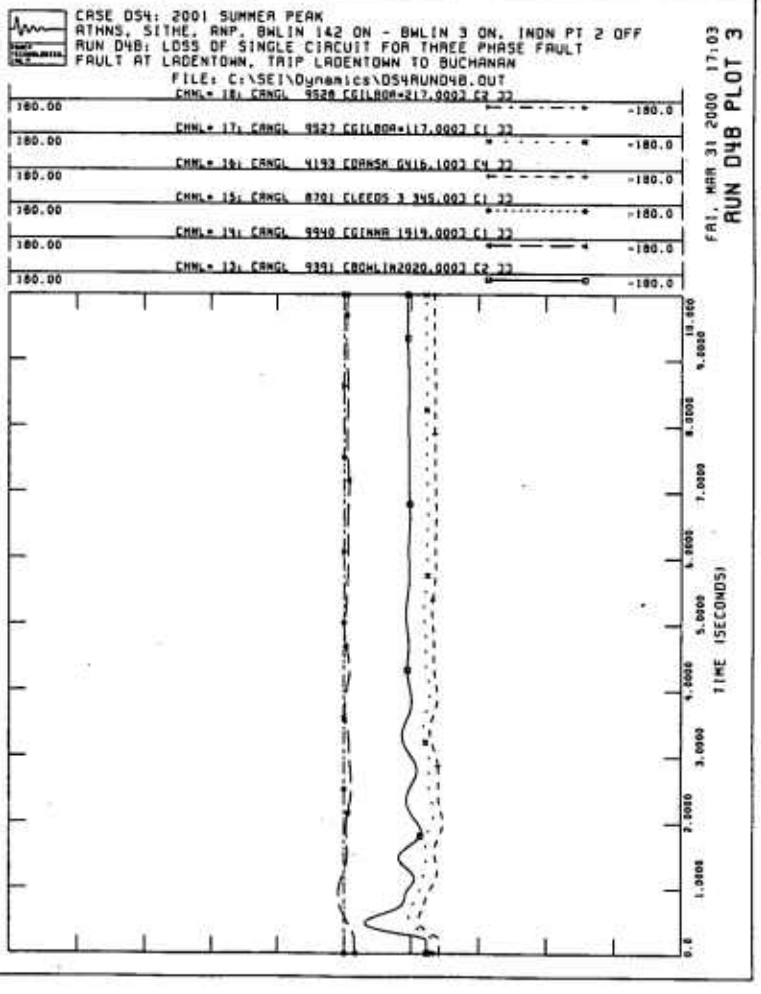
CONTINGENCY D4B

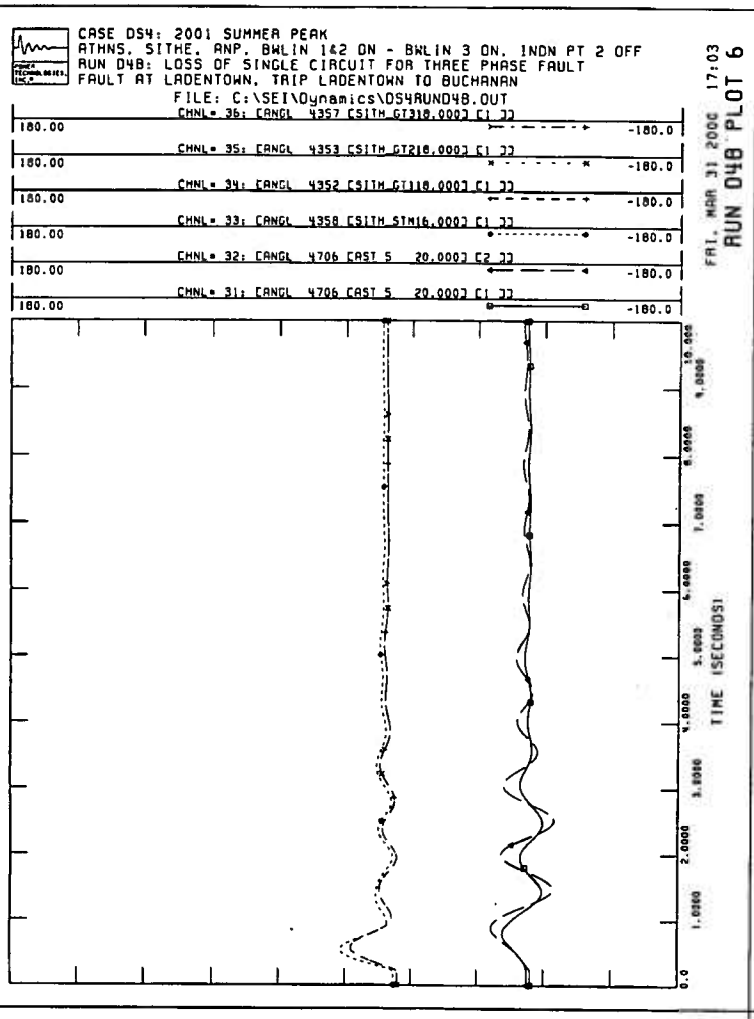
```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

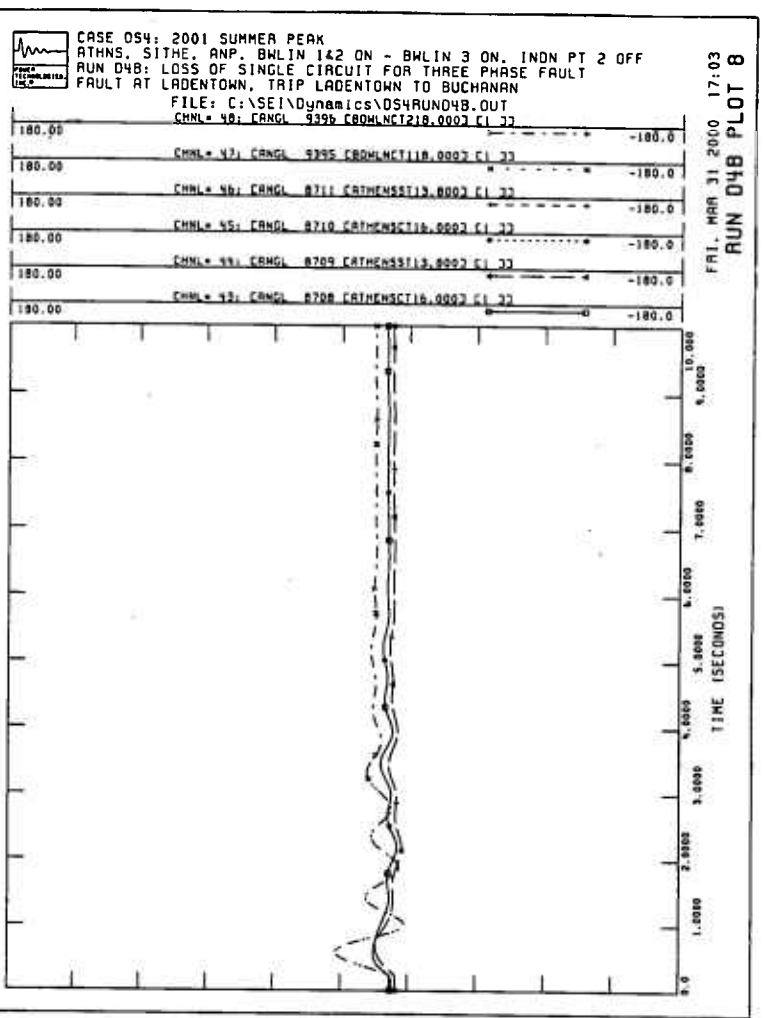

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND48.OUT
FRI, MAR 31 2000 17:03
RUN D48 PLOT 2
TIME (SECONDS)

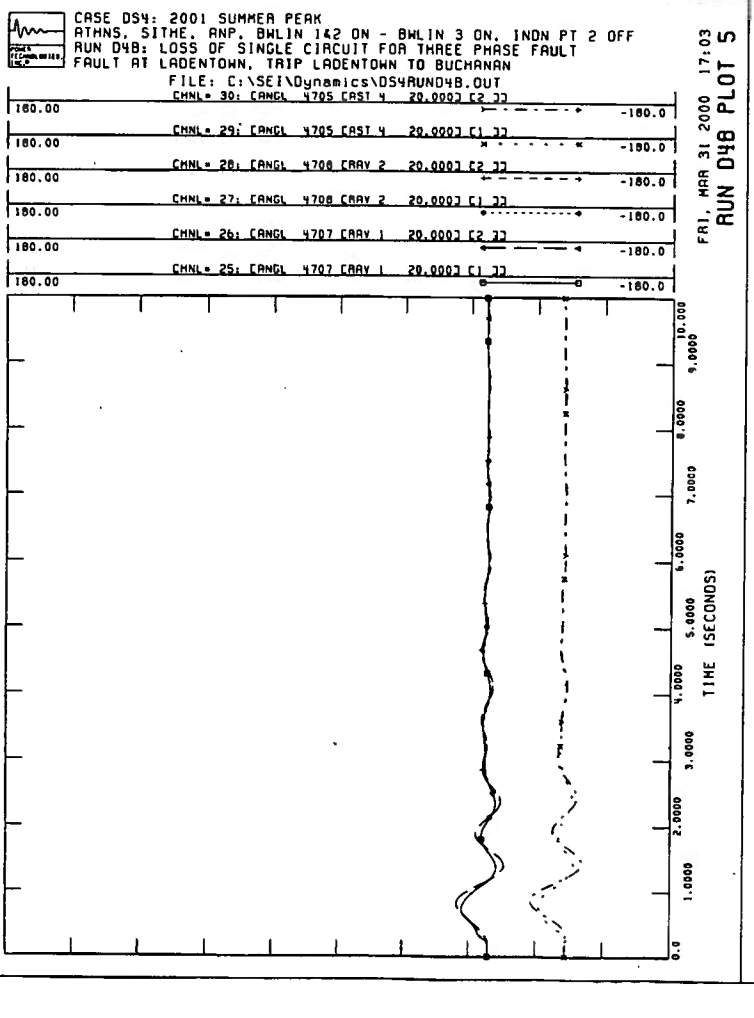

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND48.OUT
FRI, MAR 31 2000 17:03
RUN D48 PLOT 4
TIME (SECONDS)

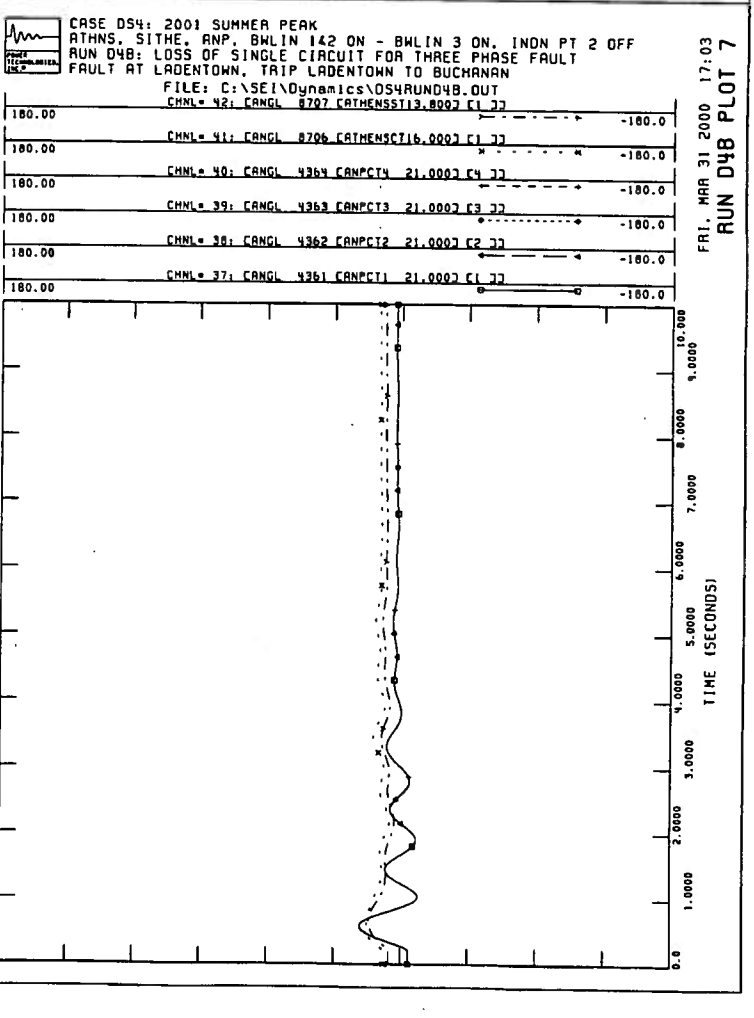

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND48.OUT
FRI, MAR 31 2000 17:03
RUN D48 PLOT 1
TIME (SECONDS)

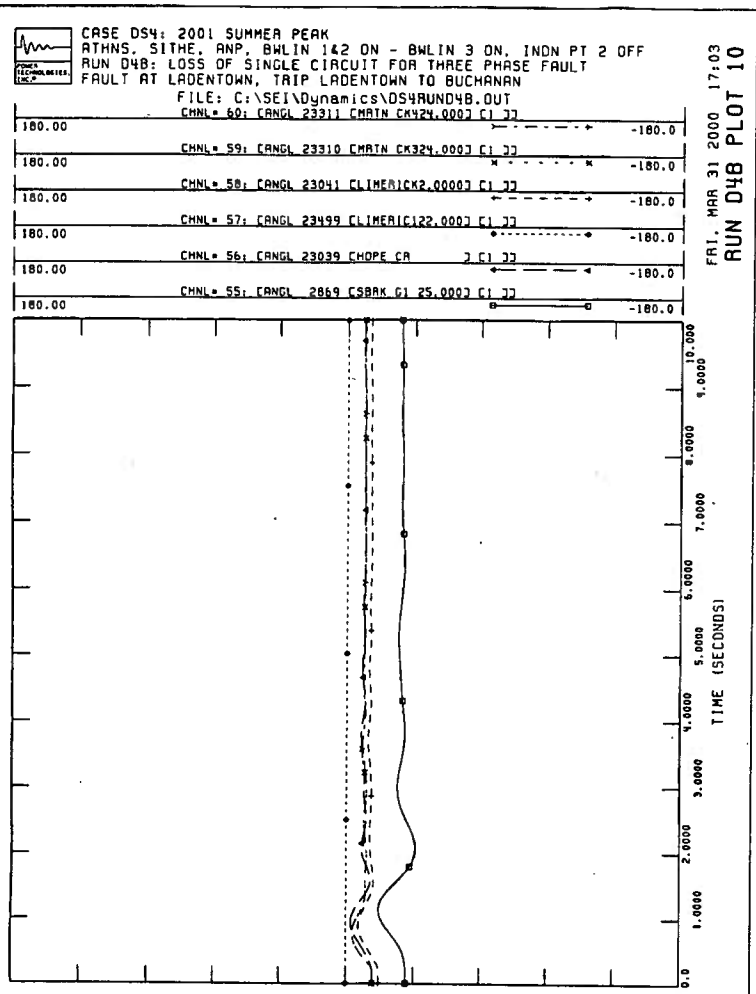

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND48.OUT
FRI, MAR 31 2000 17:03
RUN D48 PLOT 3
TIME (SECONDS)

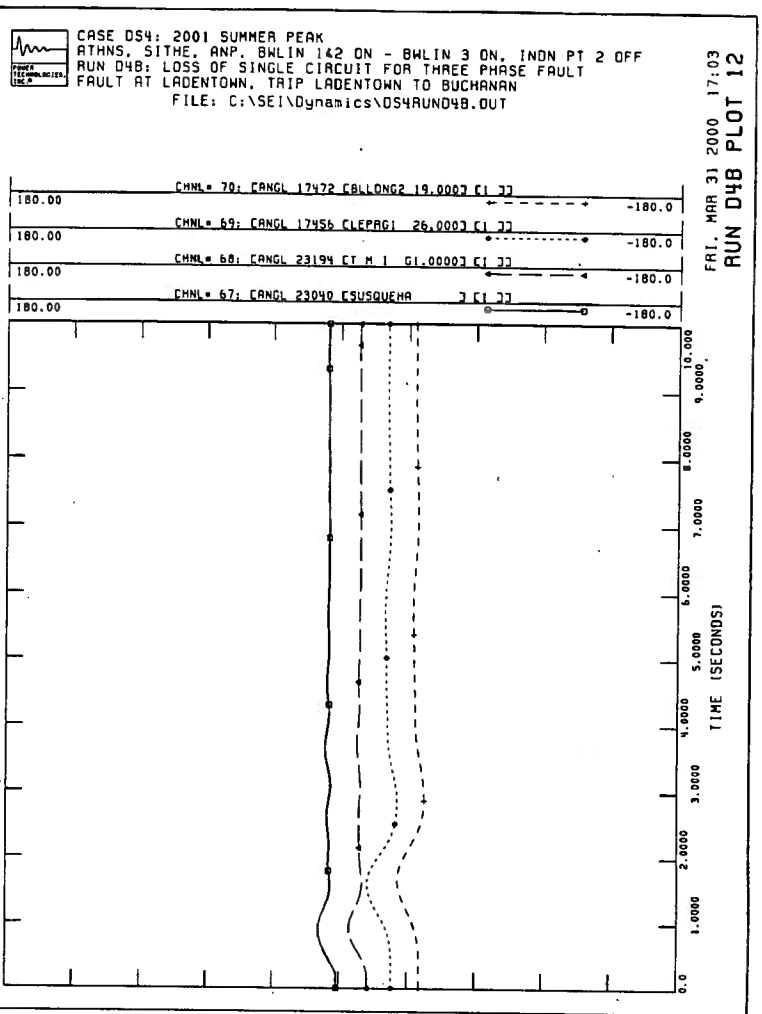

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
CHNL= 36: CANGL 4357 CSITH GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH STN16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4B PLOT 6

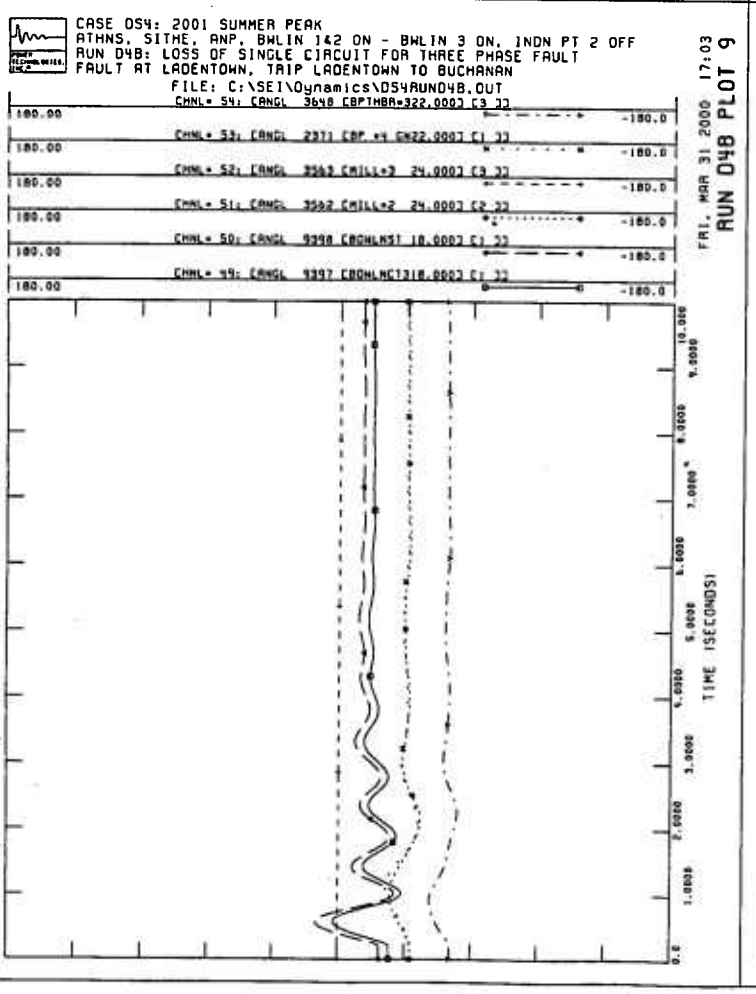

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4B PLOT 8

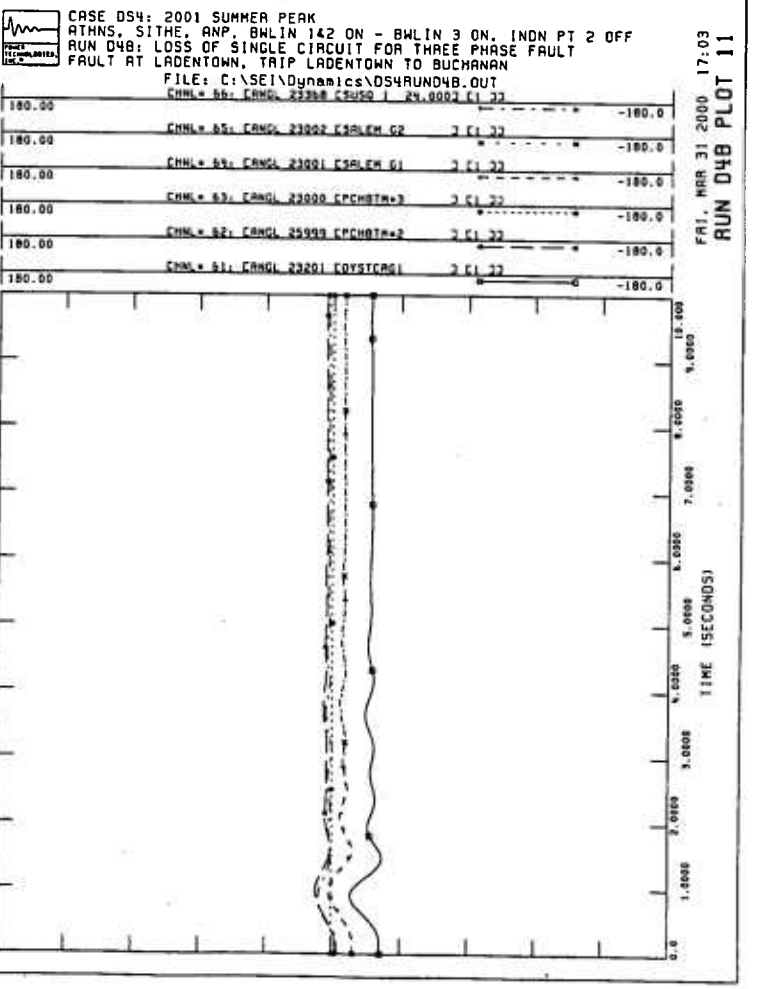

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4706 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4706 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4B PLOT 5


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4B PLOT 7

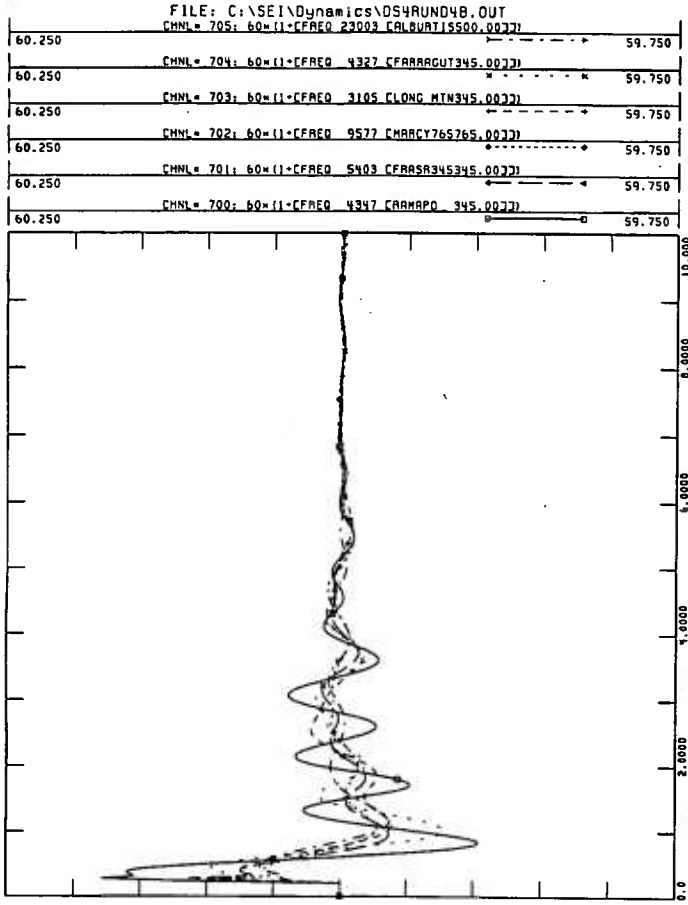

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
FRI, MAR 31 2000 17:03
RUN D4B PLOT 10
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
FRI, MAR 31 2000 17:03
RUN D4B PLOT 12
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
FRI, MAR 31 2000 17:03
RUN D4B PLOT 9
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
FRI, MAR 31 2000 17:03
RUN D4B PLOT 11
TIME (SECONDS)

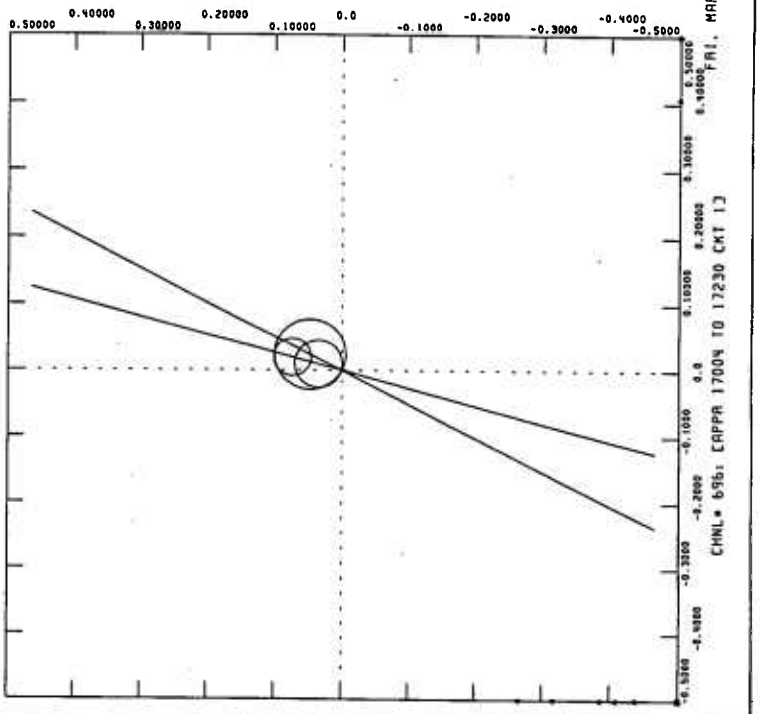
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT



FRI, MAR 31 2000 17:03
RUN D4B PLOT 14

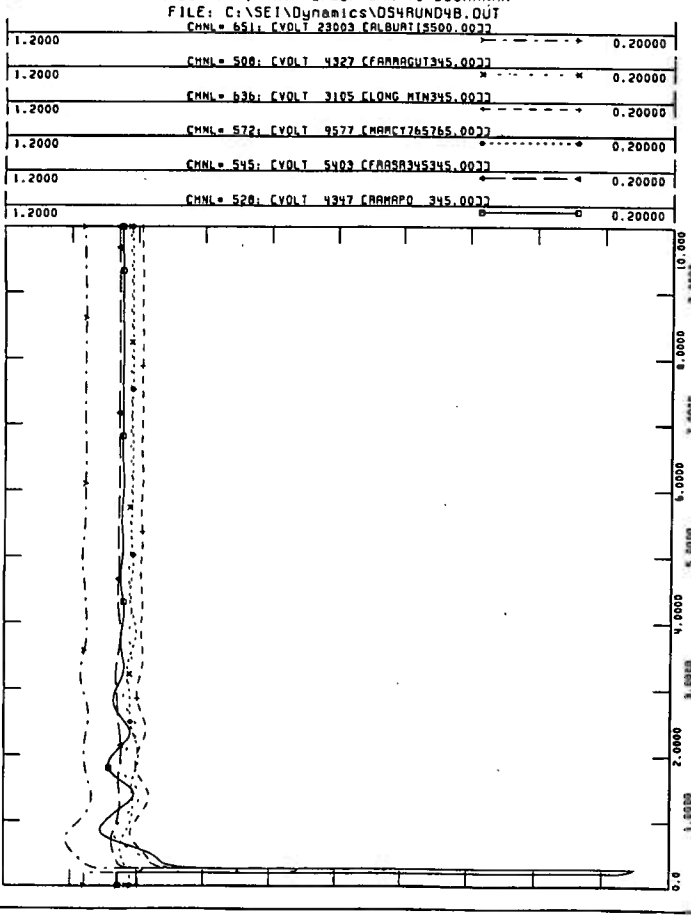
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN

FILE: C:\SEI\Dynamics\DS4RUND4B.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1J



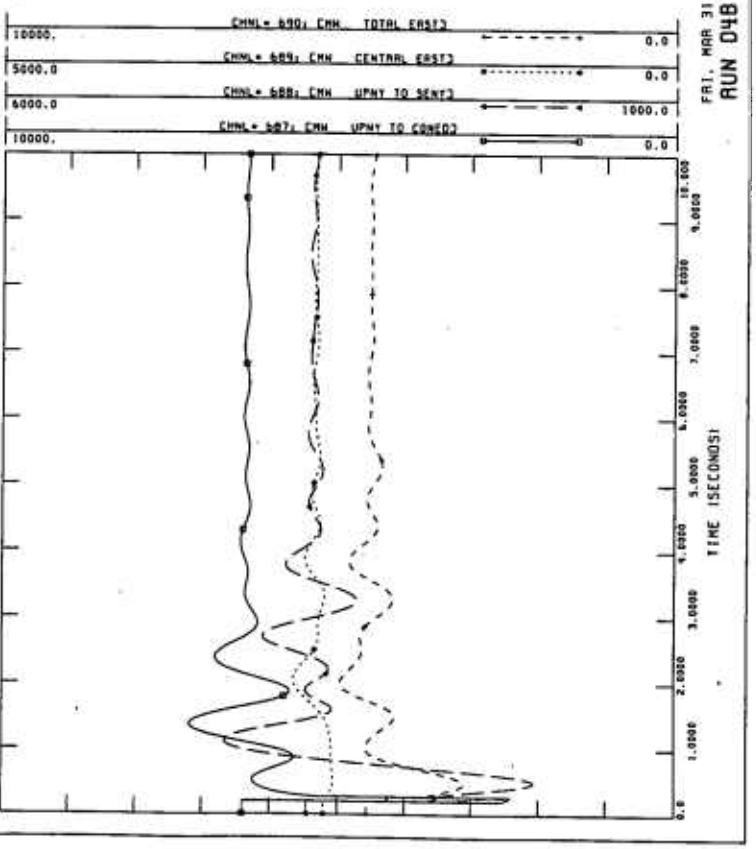
FRI, MAR 31 2000 17:03
RUN D4B PLOT 16

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT



FRI, MAR 31 2000 17:03
RUN D4B PLOT 13

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DS4RUND4B.OUT



FRI, MAR 31 2000 17:03
RUN D4B PLOT 15

CONTINGENCY D4C

```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1             / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1           / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

FRI, MAR 31 2000 17:03
RUN D4C PLOT 2

CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

FRI, MAR 31 2000 17:03
RUN D4C PLOT 4

CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [AAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [AAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [COLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

FRI, MAR 31 2000 17:03
RUN D4C PLOT 1

CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP-3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

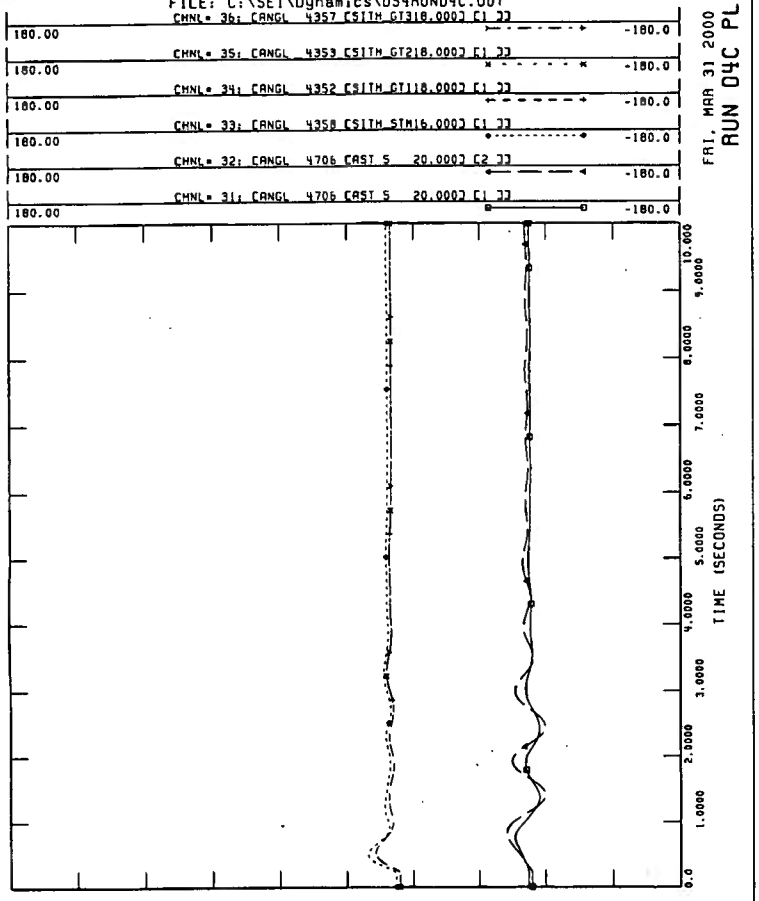
FRI, MAR 31 2000 17:03
RUN D4C PLOT 3

CHNL= 18: CANGL 9528 [GILBOA-217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA-117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9540 [GINNA 1919.000] [2]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

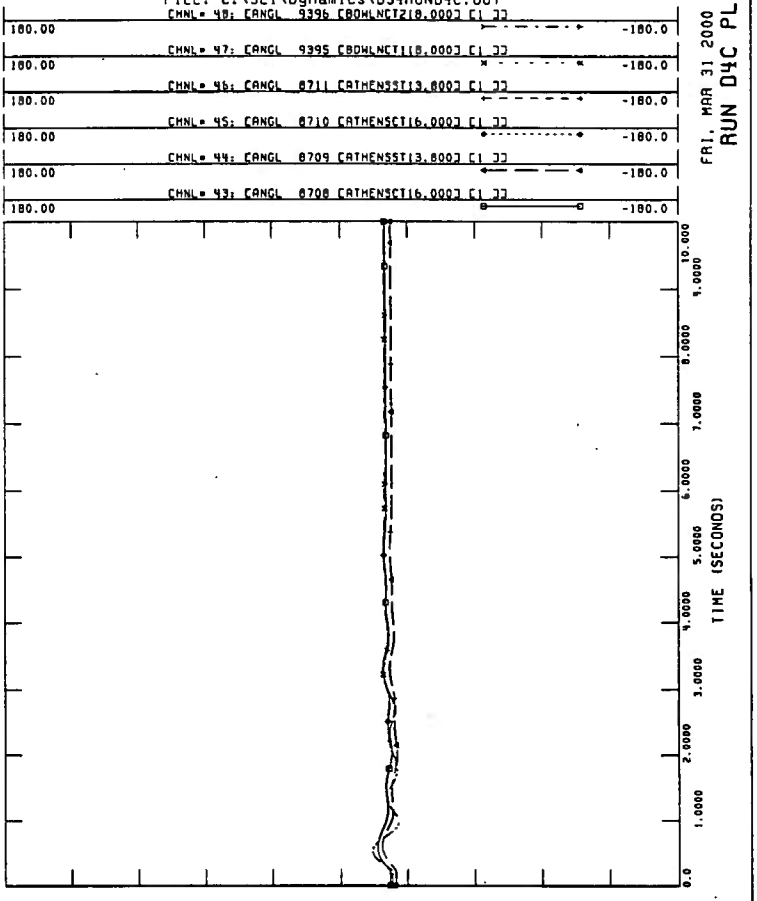
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

FRI, MAR 31 2000 17:03
RUN D4C PLOT 6



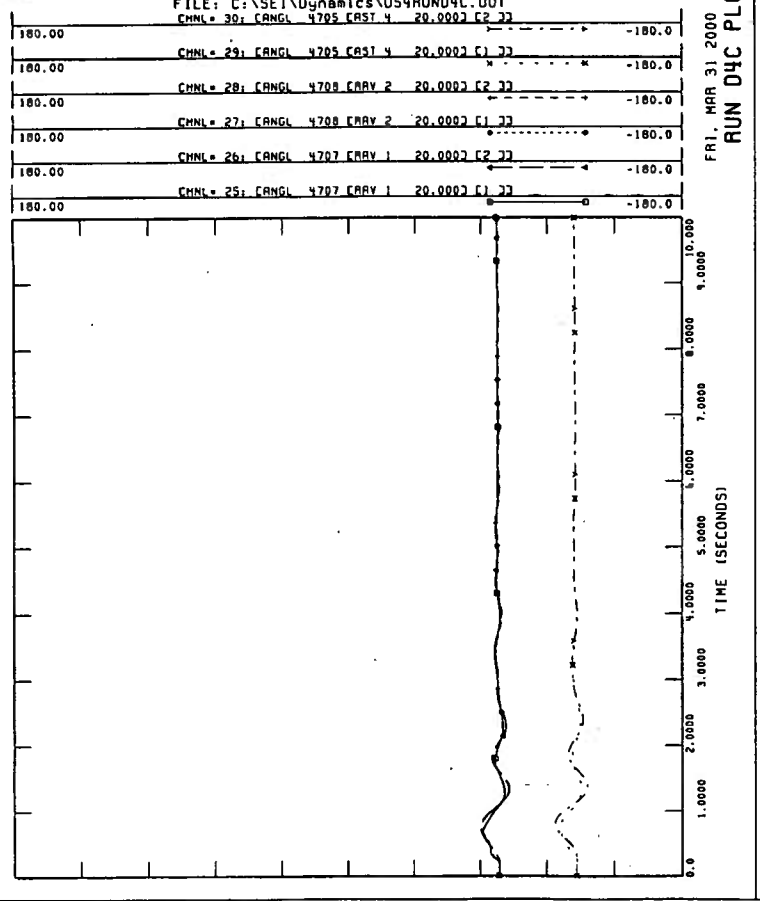
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

FRI, MAR 31 2000 17:03
RUN D4C PLOT 8



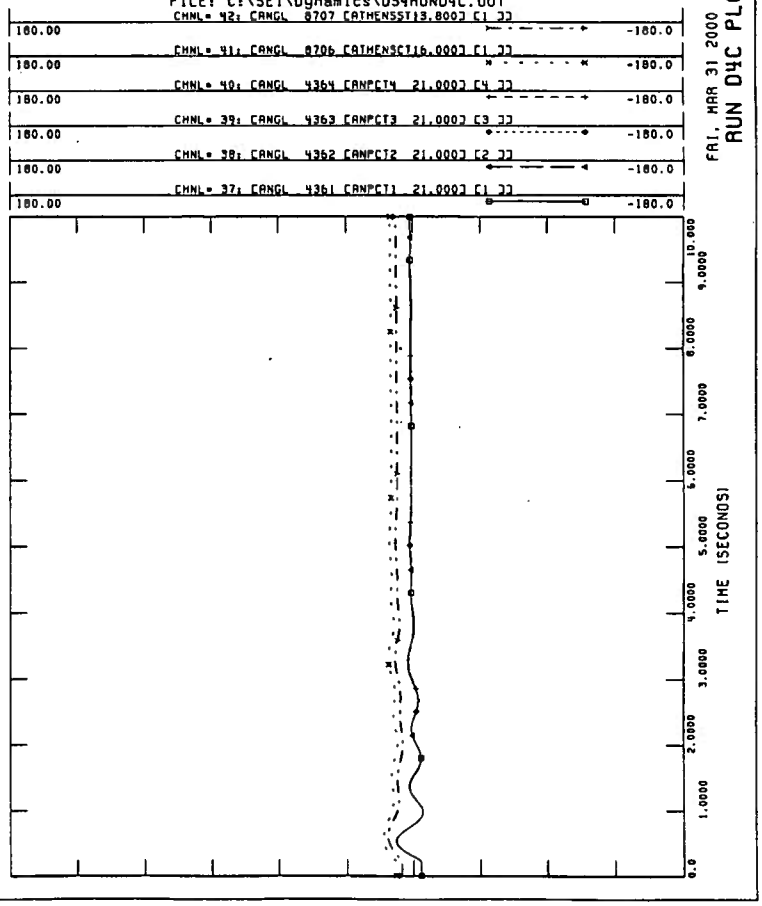
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

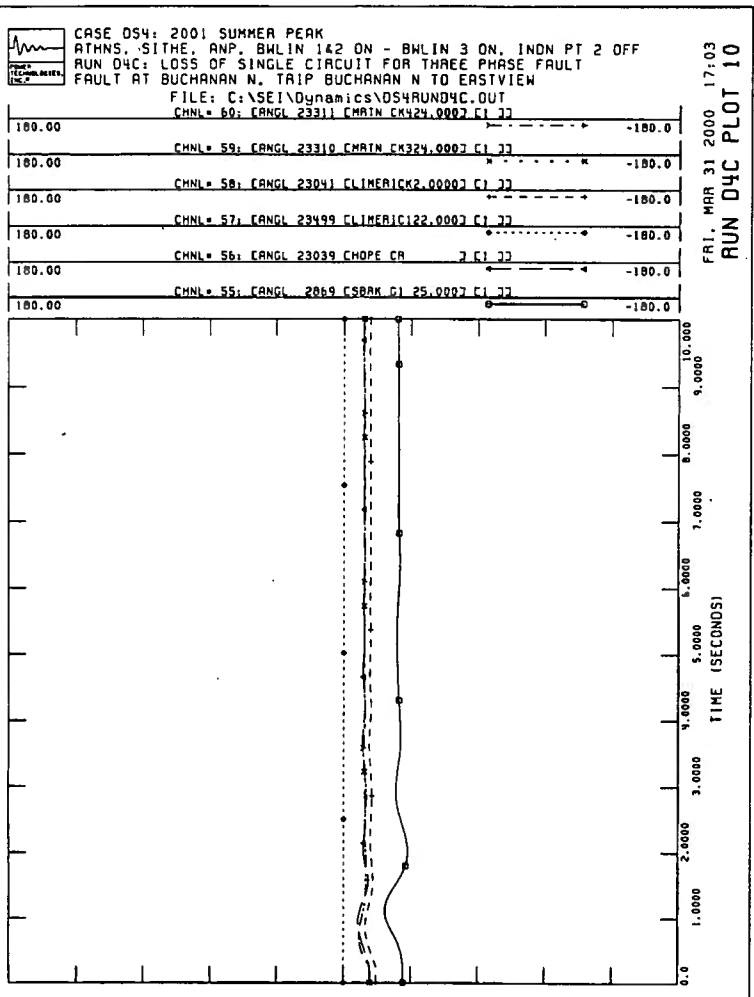
FRI, MAR 31 2000 17:03
RUN D4C PLOT 5

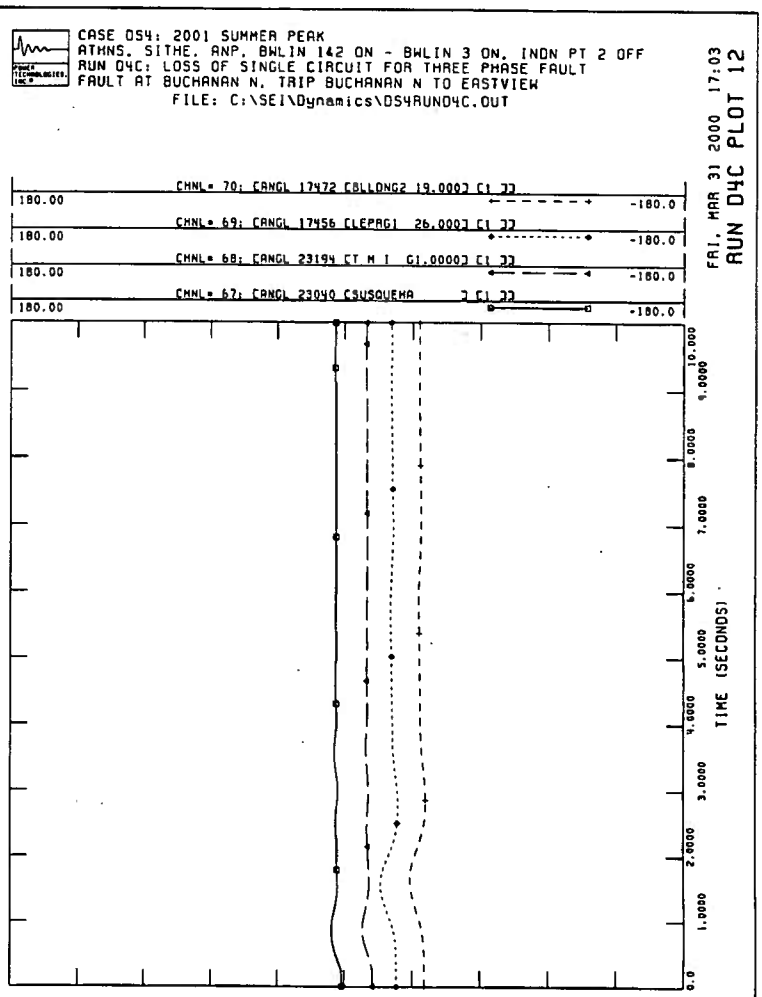


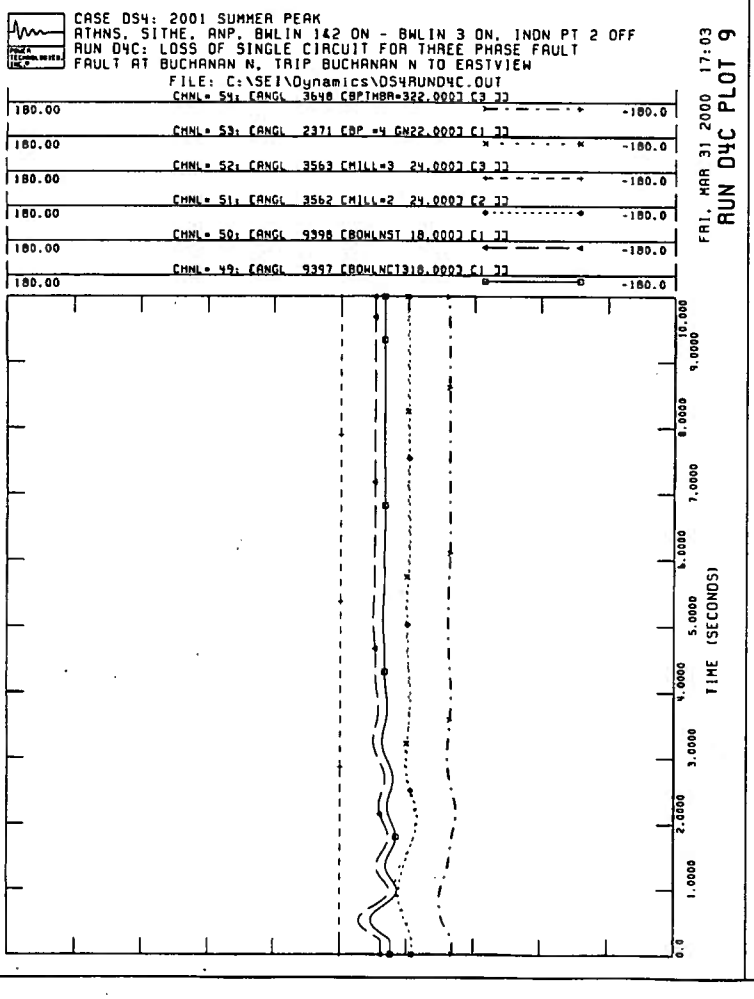
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT

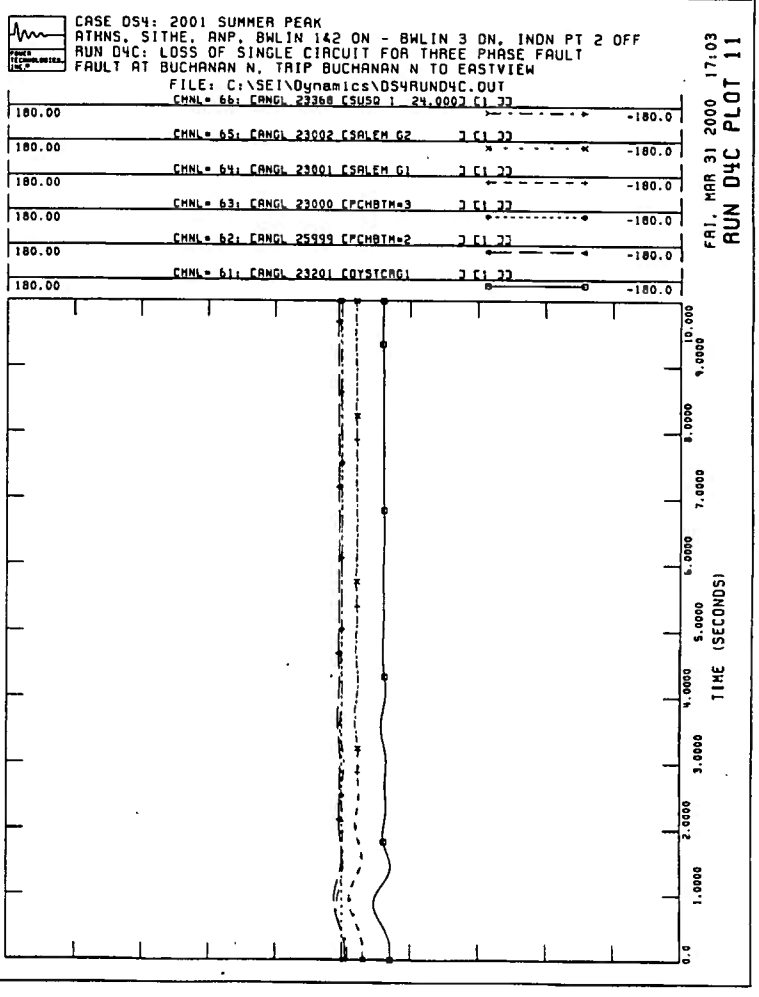
FRI, MAR 31 2000 17:03
RUN D4C PLOT 7

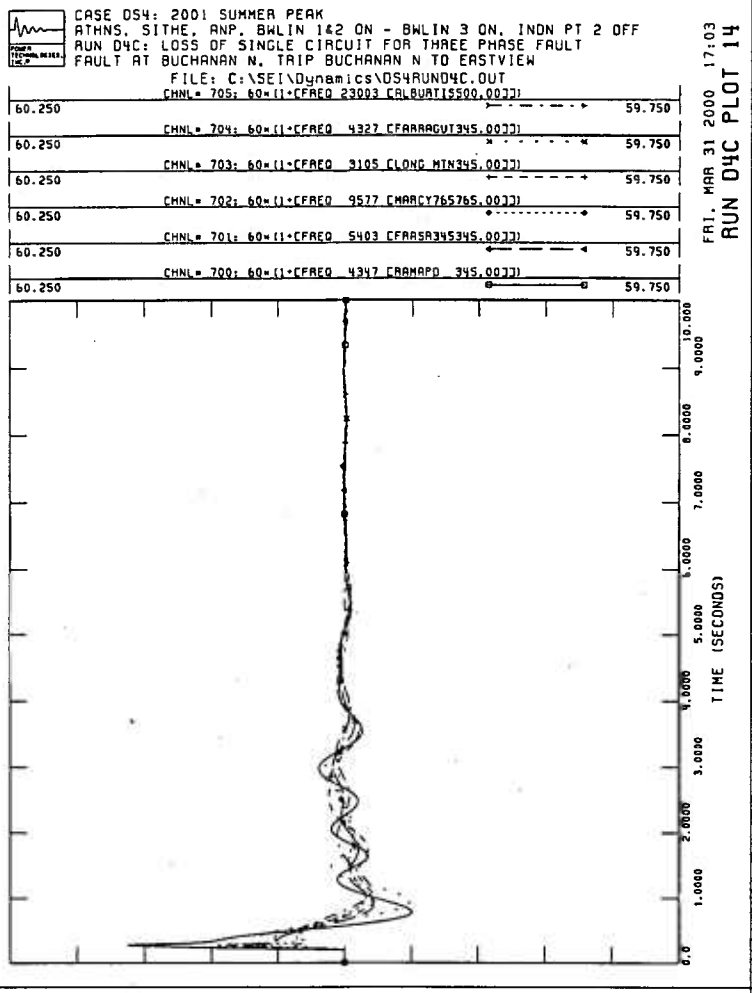


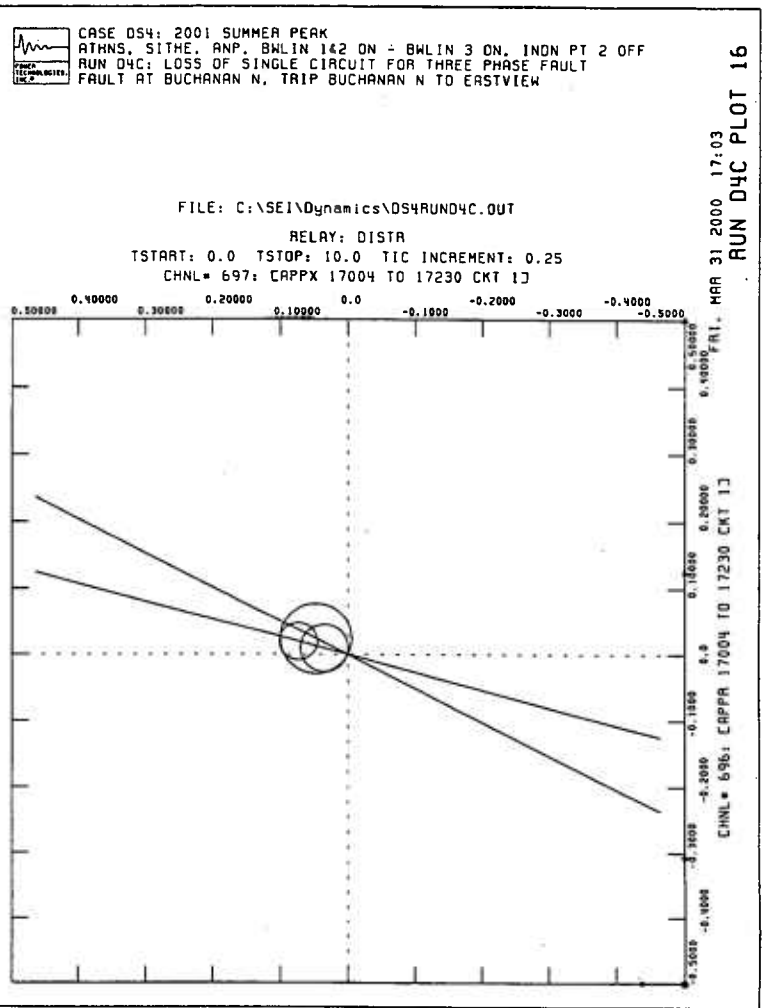

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 60; CANGL 23311 CMAIN CK424.0000 C1]]
CHNL= 59; CANGL 23310 CMAIN CK324.0000 C1]]
CHNL= 58; CANGL 23041 CLIMERICK2.0000 C1]]
CHNL= 57; CANGL 23499 CLIMERIC122.000 C1]]
CHNL= 56; CANGL 23039 CHOPE CR] C1]]
CHNL= 55; CANGL 2869 CSBAK G1 25.0000 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4C PLOT 10

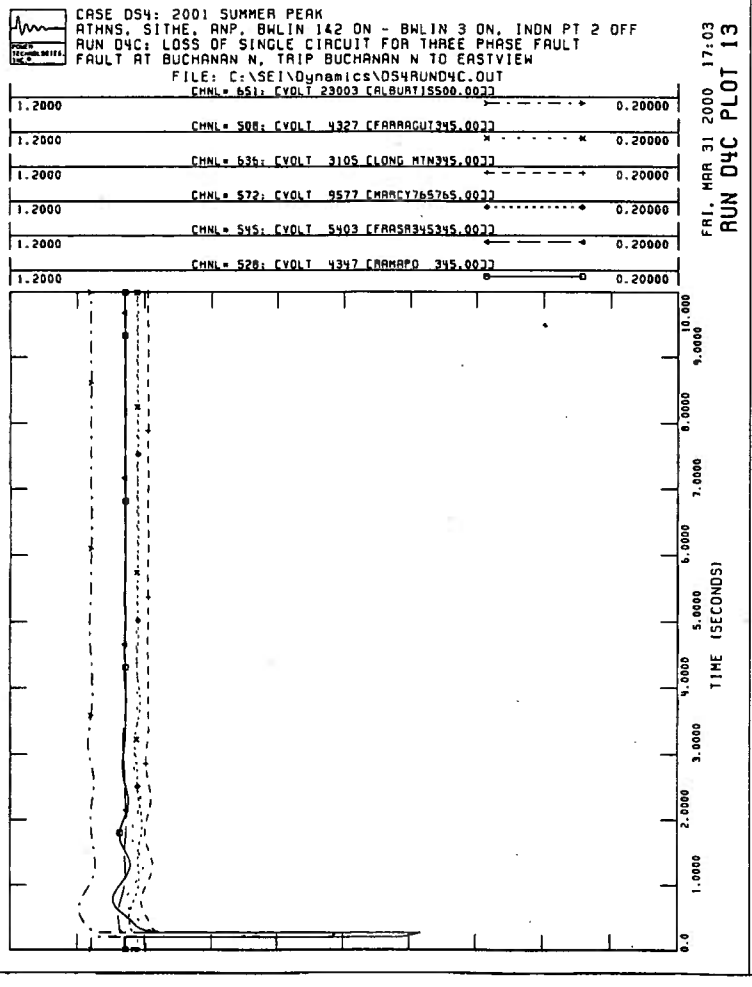

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 70; CANGL 17472 CBLLONG2 19.0000 C1]]
CHNL= 69; CANGL 17456 CLEPAG1 26.0000 C1]]
CHNL= 68; CANGL 23194 CT M I G1.0000 C1]]
CHNL= 67; CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4C PLOT 12

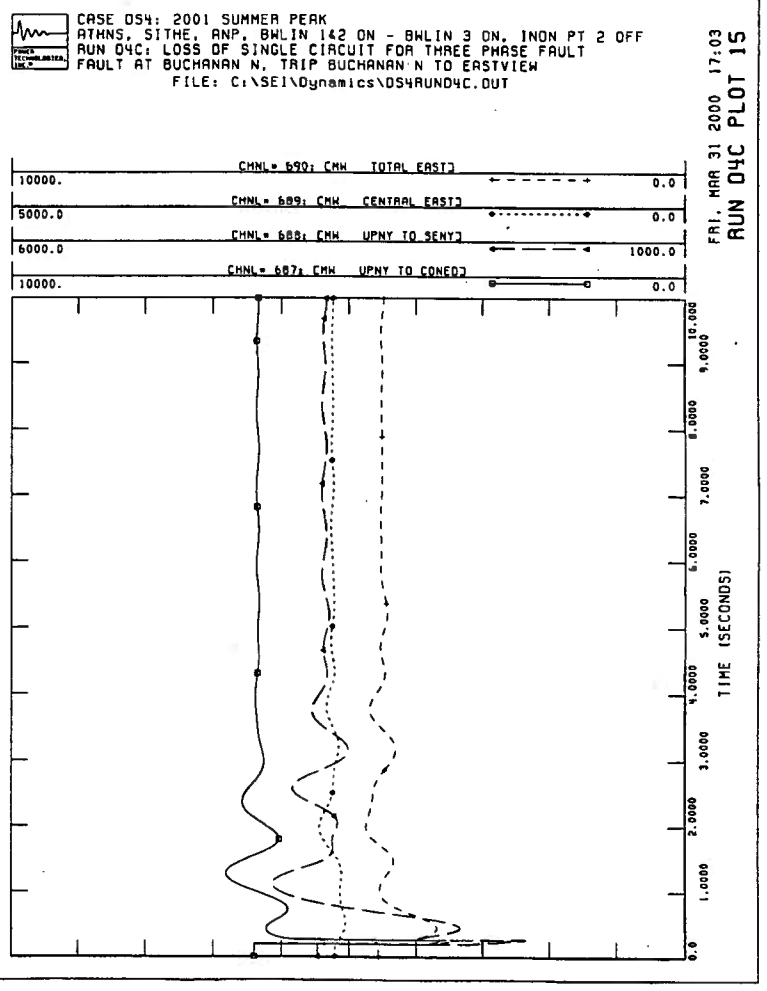

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 54; CANGL 3648 CBPTMBA=322.000 C3]]
CHNL= 53; CANGL 2371 CBP =4 GN22.0000 C1]]
CHNL= 52; CANGL 3563 CMILL=3 24.0000 C3]]
CHNL= 51; CANGL 3562 CMILL=2 24.0000 C2]]
CHNL= 50; CANGL 9398 CBOWLNST 18.0000 C1]]
CHNL= 49; CANGL 9397 CBOWLNC1318.0000 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4C PLOT 9


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 66; CANGL 23368 CSUSQ 1 24.0000 C1]]
CHNL= 65; CANGL 23002 CSALEM G2] C1]]
CHNL= 64; CANGL 23001 CSALEM G1] C1]]
CHNL= 63; CANGL 23000 CPCMBTM=3] C1]]
CHNL= 62; CANGL 25999 CPCMBTM=2] C1]]
CHNL= 61; CANGL 23201 CDYSTGRG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:03
RUN D4C PLOT 11


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURTIS500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 17:03
RUN D4C PLOT 14
TIME (SECONDS)

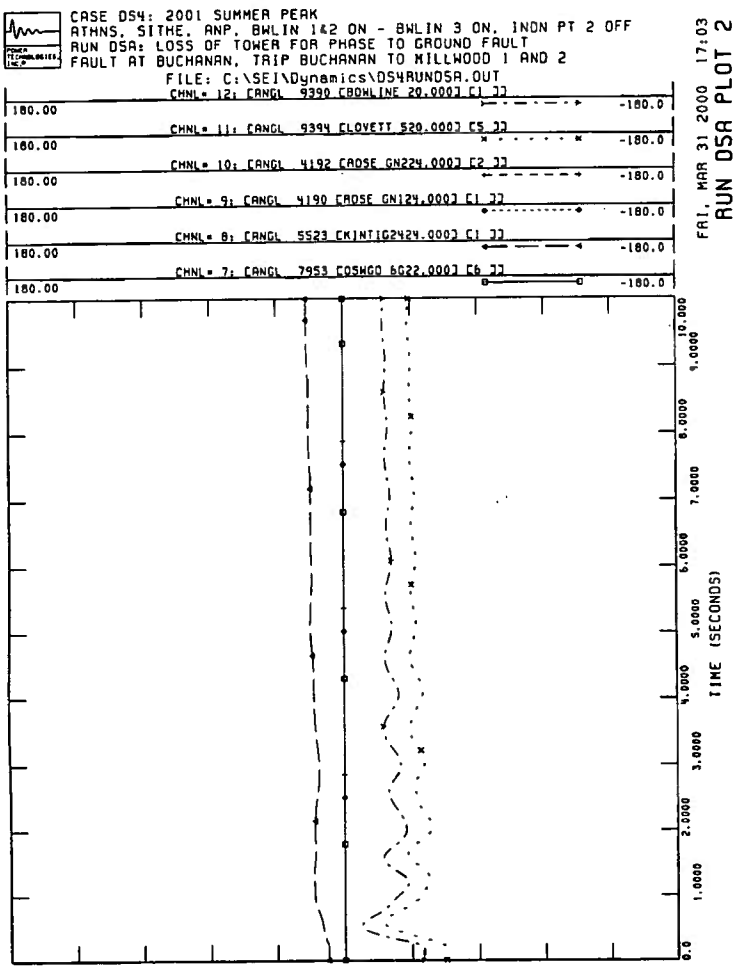

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 17:03
RUN D4C PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

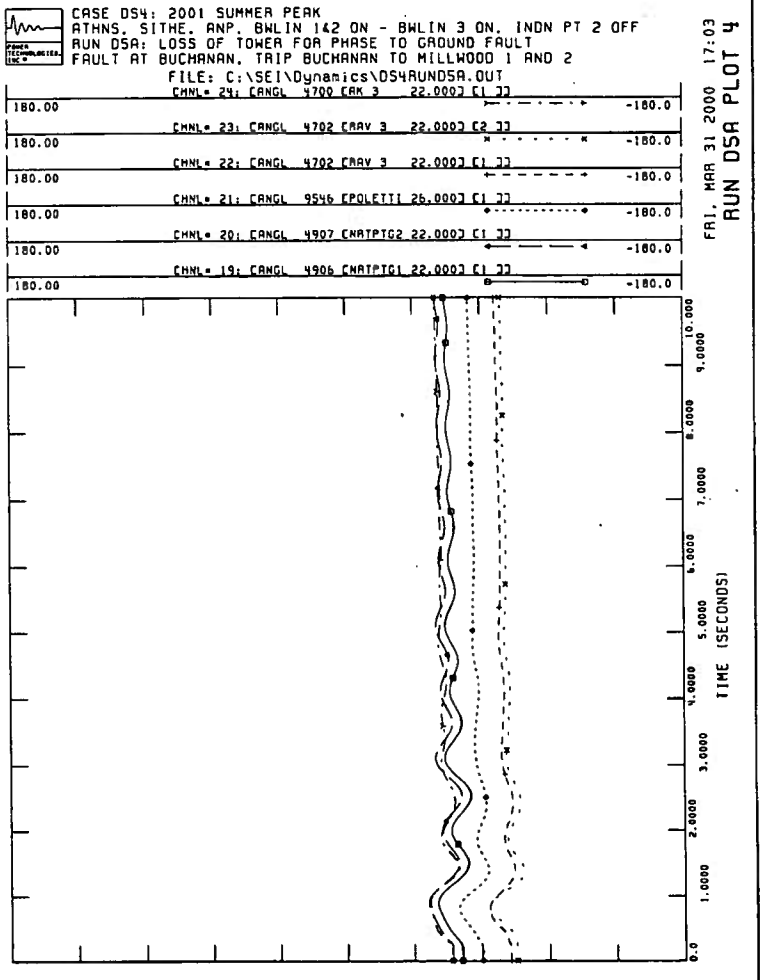

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 17:03
RUN D4C PLOT 13
TIME (SECONDS)

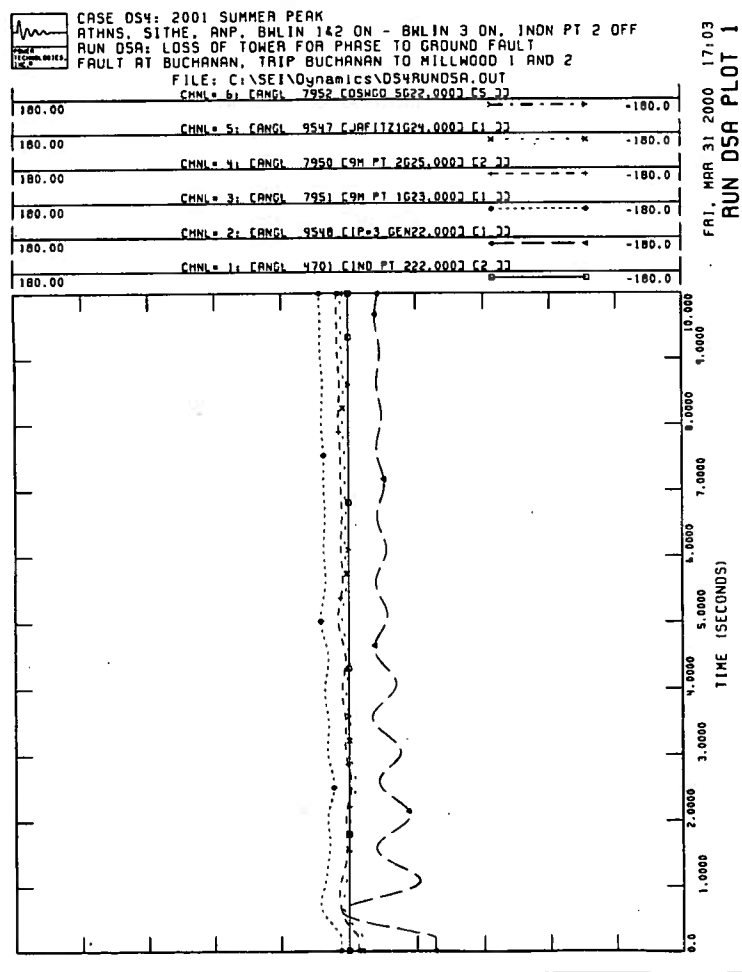

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DS4RUND4C.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 17:03
RUN D4C PLOT 15
TIME (SECONDS)

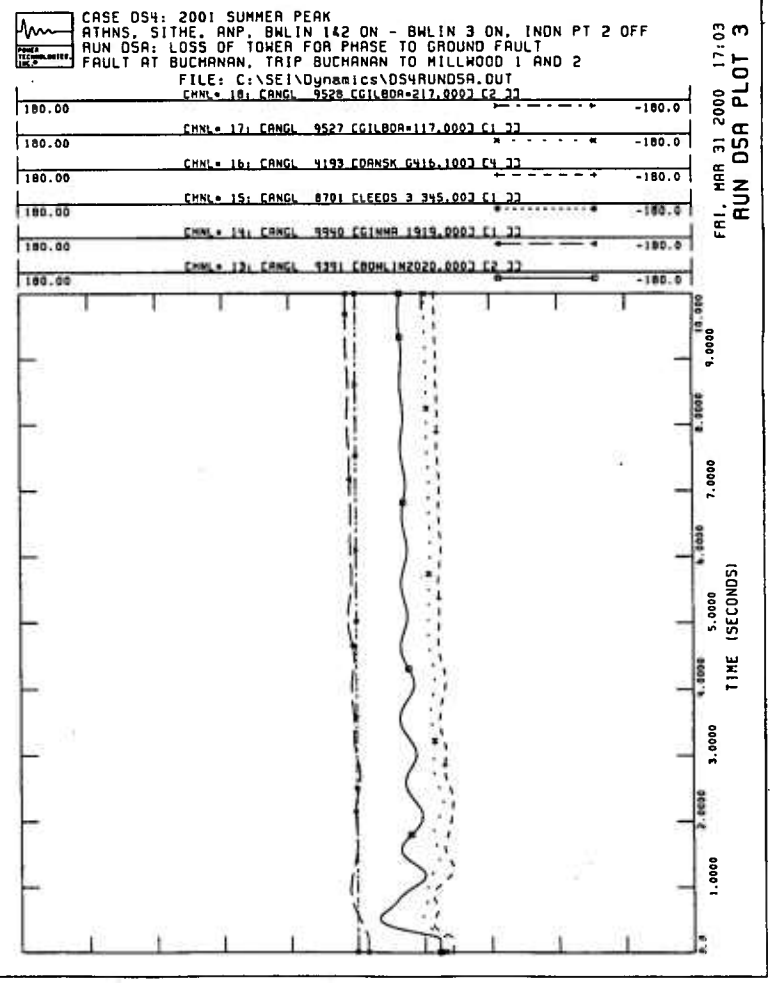
CONTINGENCY D5A

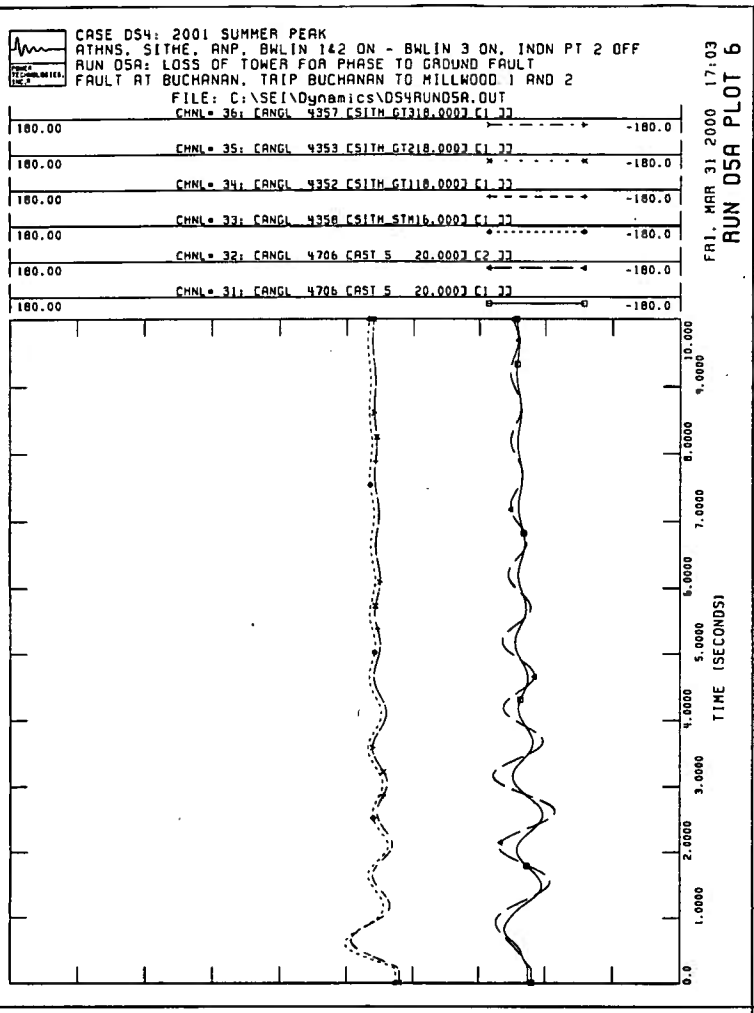
```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1             / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2             / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

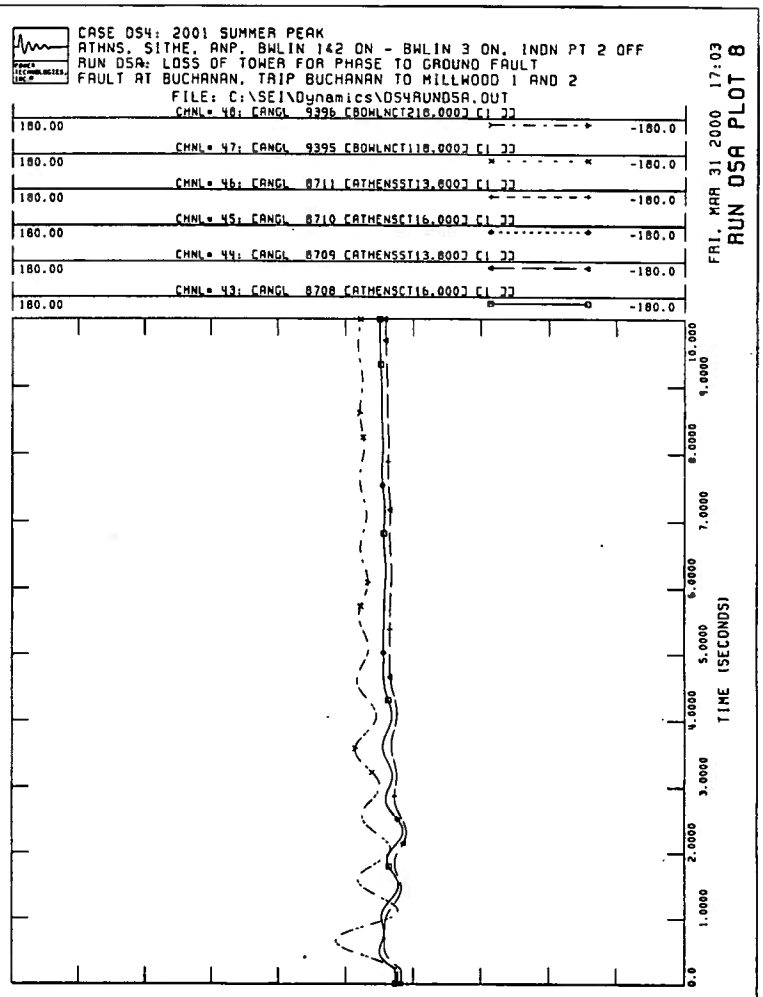

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 2
TIME (SECONDS)

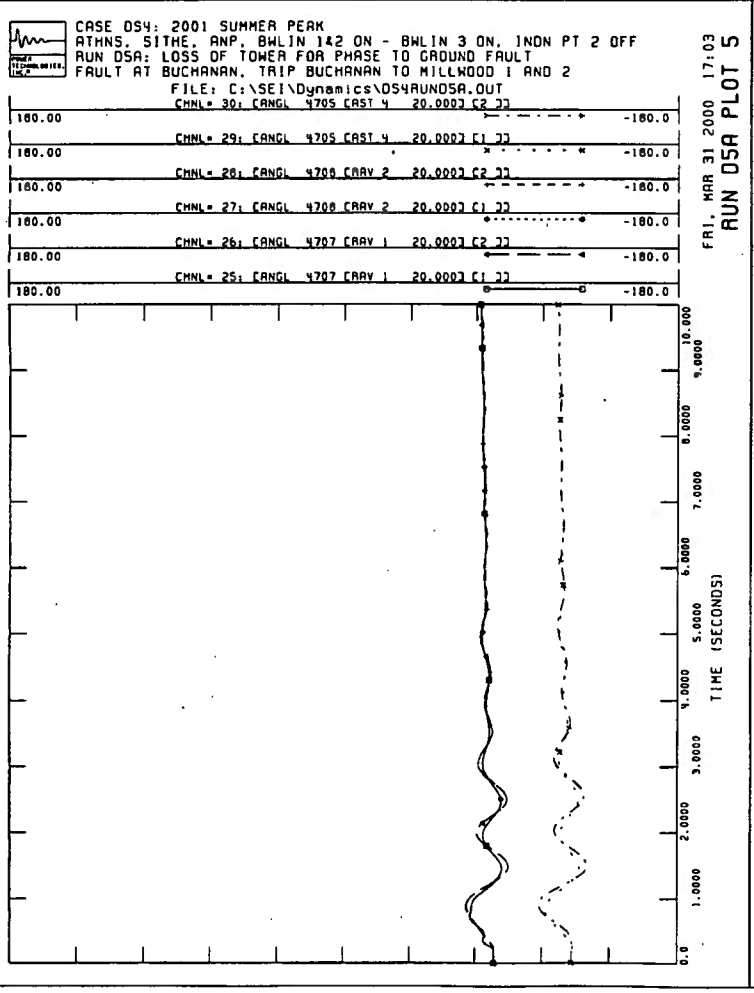

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 4
TIME (SECONDS)

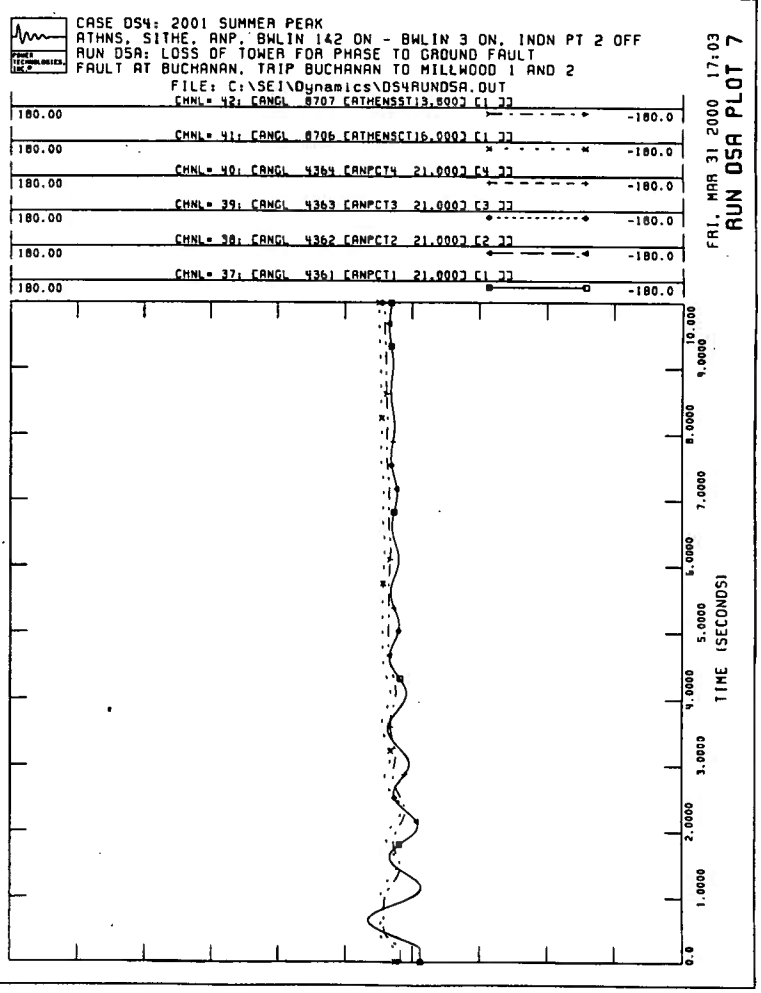

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 1
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 3
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 6
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 8
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 5
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
FRI, MAR 31 2000 17:03
RUN DSA PLOT 7
TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT

FRI, MAR 31 2000 17:03
RUN DSA PLOT 10

CHNL= 60: CANGL 23311 CMRTN CK424.0000 [1]]
CHNL= 59: CANGL 23310 CMRTN CK324.0000 [1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000 [1]]
CHNL= 57: CANGL 23499 CLIMERIC122.0000 [1]]
CHNL= 56: CANGL 23039 CMOPE CR] [1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT

FRI, MAR 31 2000 17:03
RUN DSA PLOT 12

CHNL= 70: CANGL 17472 CBLLDNG2 19.000] [1]]
CHNL= 69: CANGL 17456 CLEPRG1 26.000] [1]]
CHNL= 68: CANGL 23194 CT M I G1.0000] [1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT

FRI, MAR 31 2000 17:03
RUN DSA PLOT 9

CHNL= 54: CANGL 3648 CBPTMBR=322.000] [3]]
CHNL= 53: CANGL 2371 CBP =4 GN22.000] [1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] [3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] [2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] [1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT

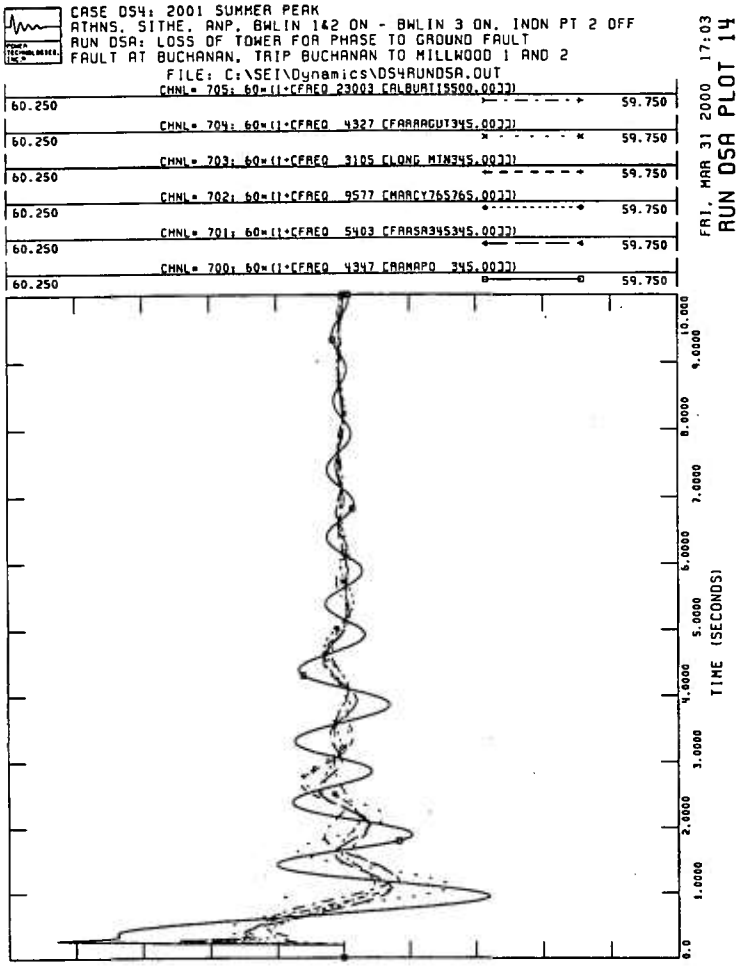
FRI, MAR 31 2000 17:03
RUN DSA PLOT 11

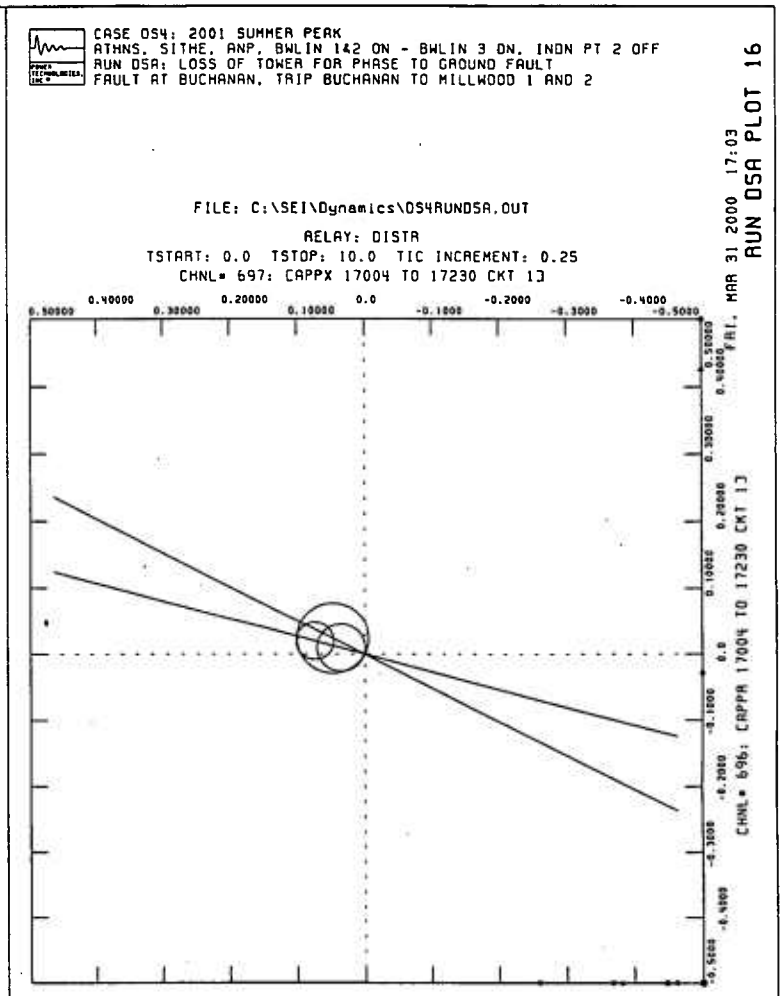
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] [1]]
CHNL= 65: CANGL 23002 CSALEM G2] [1]]
CHNL= 64: CANGL 23001 CSALEM G1] [1]]
CHNL= 63: CANGL 23000 CPCMBTM=3] [1]]
CHNL= 62: CANGL 25999 CPCMBTM=2] [1]]
CHNL= 61: CANGL 2320] CDYSTCAG1] [1]]

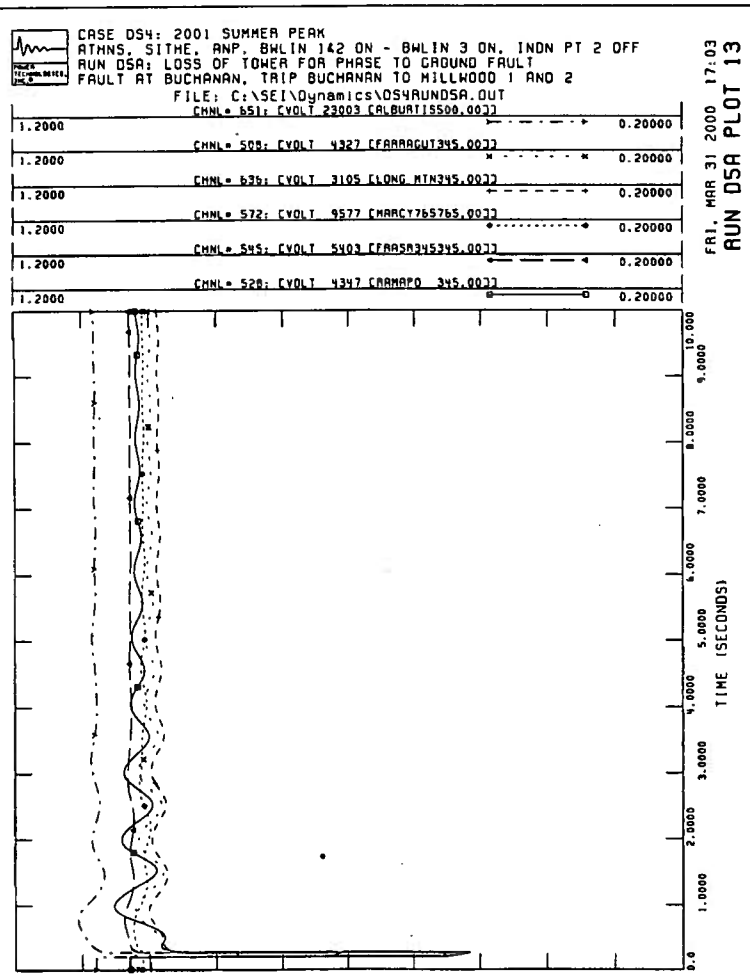
180.00 -180.0

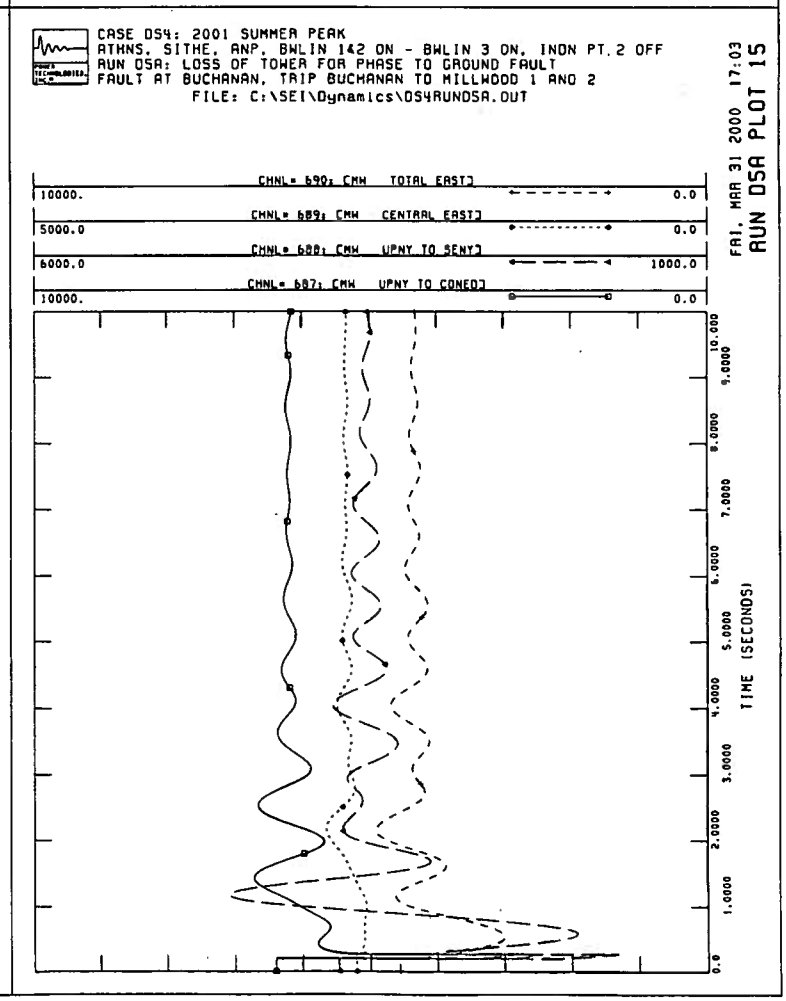
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
CHNL= 705: 60*(1+CFREQ 23003 [ALBURTIS500.00])
60.250
59.750
CHNL= 704: 60*(1+CFREQ 4327 [FARRAGUT345.00])
60.250
59.750
CHNL= 703: 60*(1+CFREQ 3105 [LONG MTN345.00])
60.250
59.750
CHNL= 702: 60*(1+CFREQ 9577 [MARCY765765.00])
60.250
59.750
CHNL= 701: 60*(1+CFREQ 5403 [FRASR345345.00])
60.250
59.750
CHNL= 700: 60*(1+CFREQ 4347 [RAMAPO 345.00])
60.250
59.750
FRI, MAR 31 2000 17:03
RUN DSA PLOT 14
TIME (SECONDS)

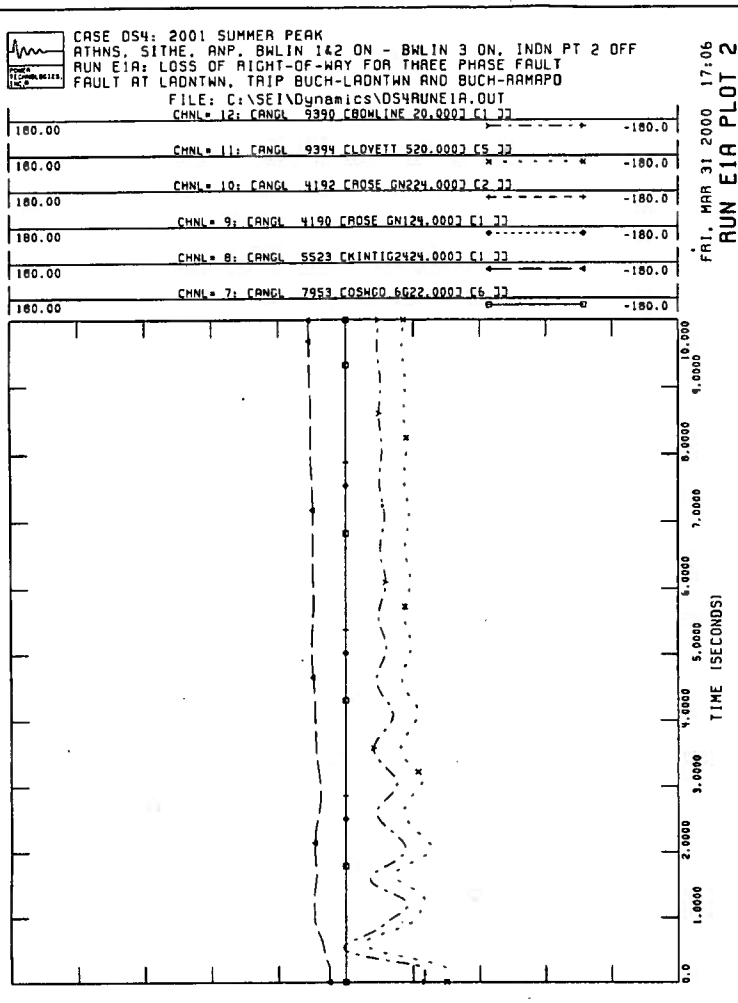

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 17:03
RUN DSA PLOT 16
CHNL= 696: [APPX 17004 TO 17230 CKT 1]

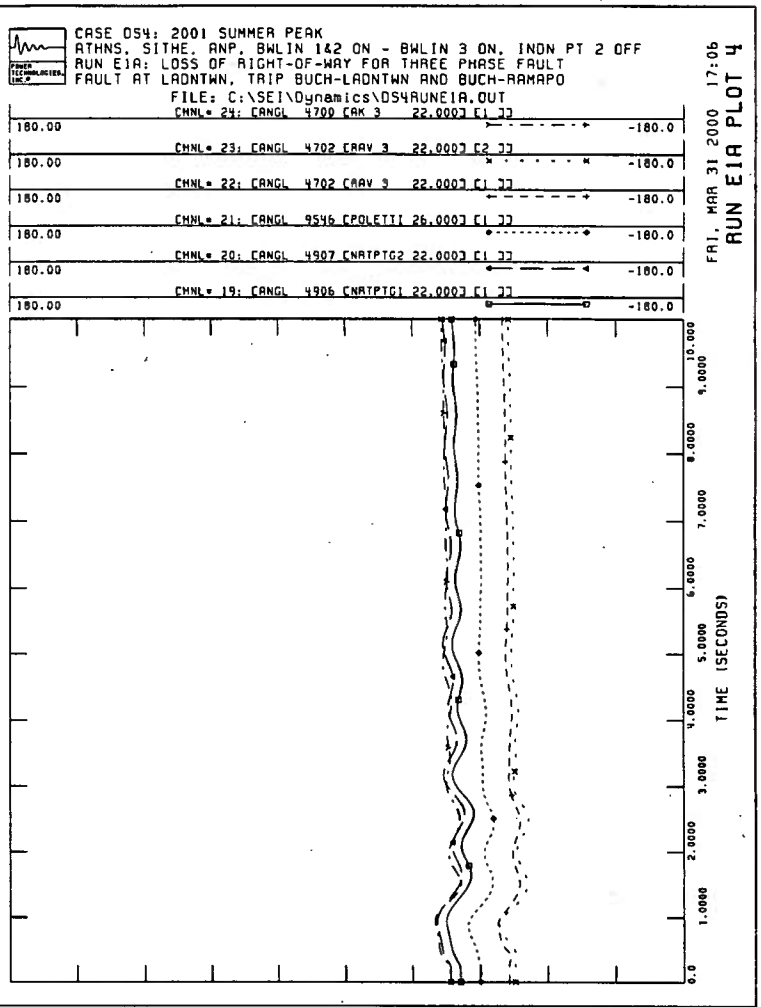

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 17:03
RUN DSA PLOT 13
TIME (SECONDS)

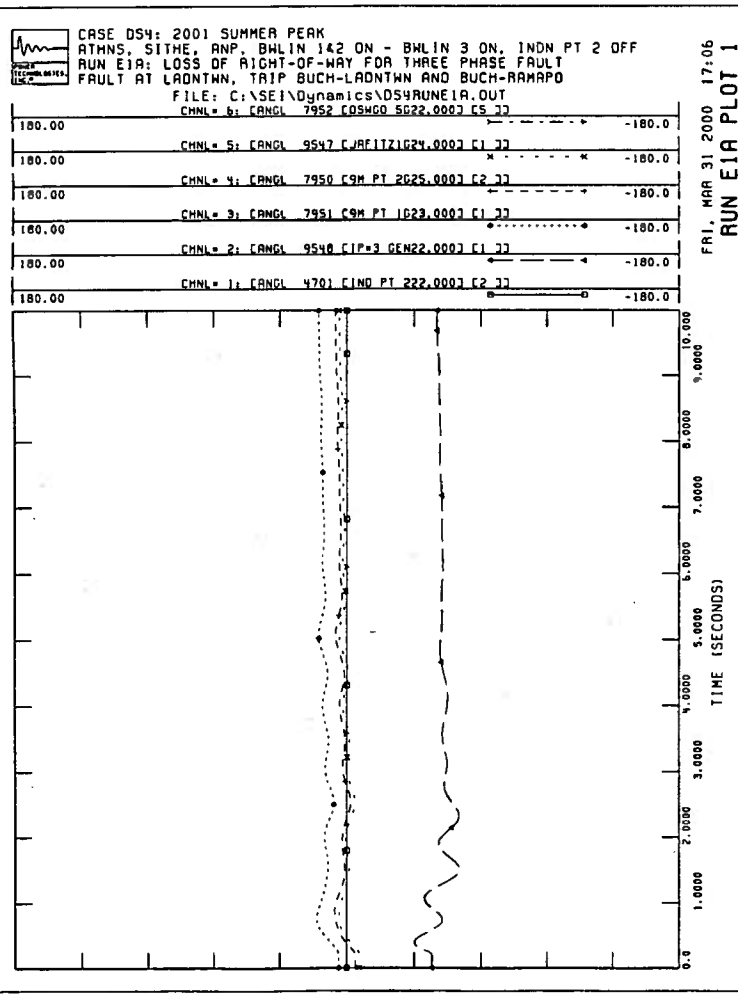

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DS4RUNDSA.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 17:03
RUN DSA PLOT 15
TIME (SECONDS)

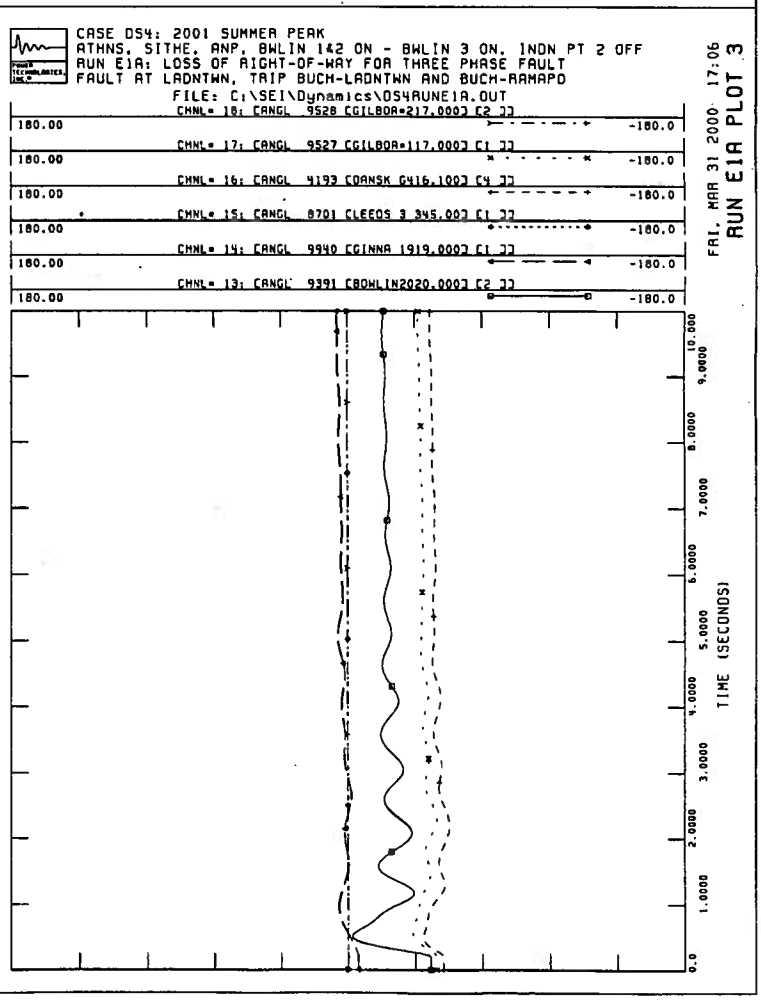
CONTINGENCY E1A

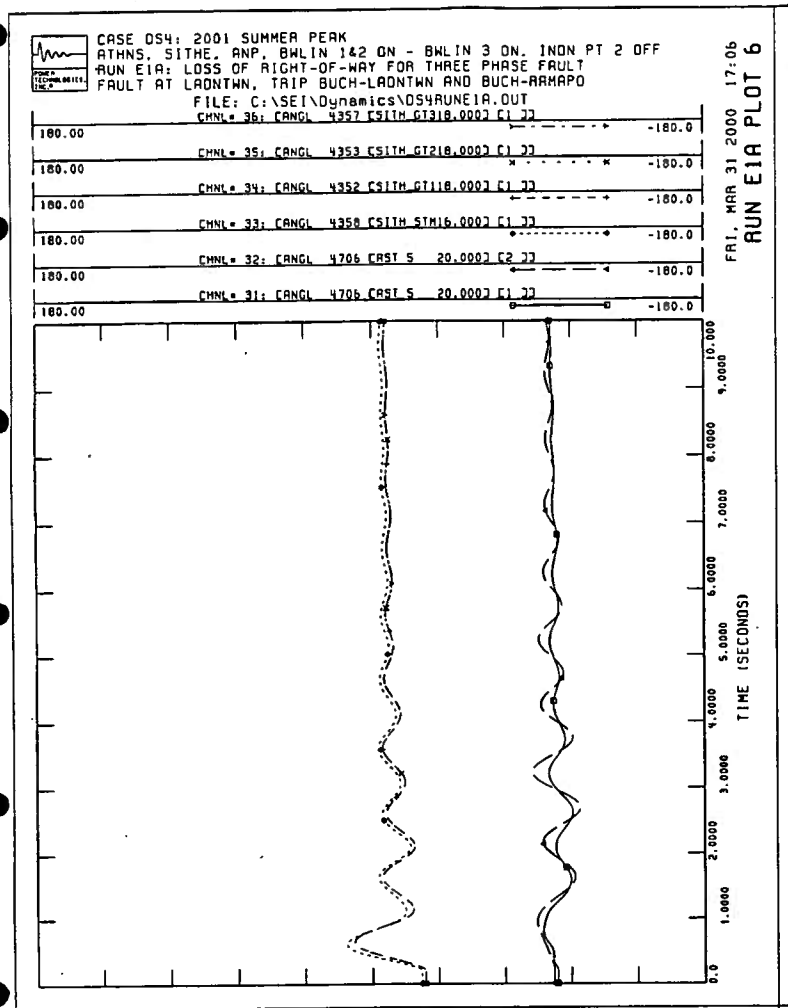
```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

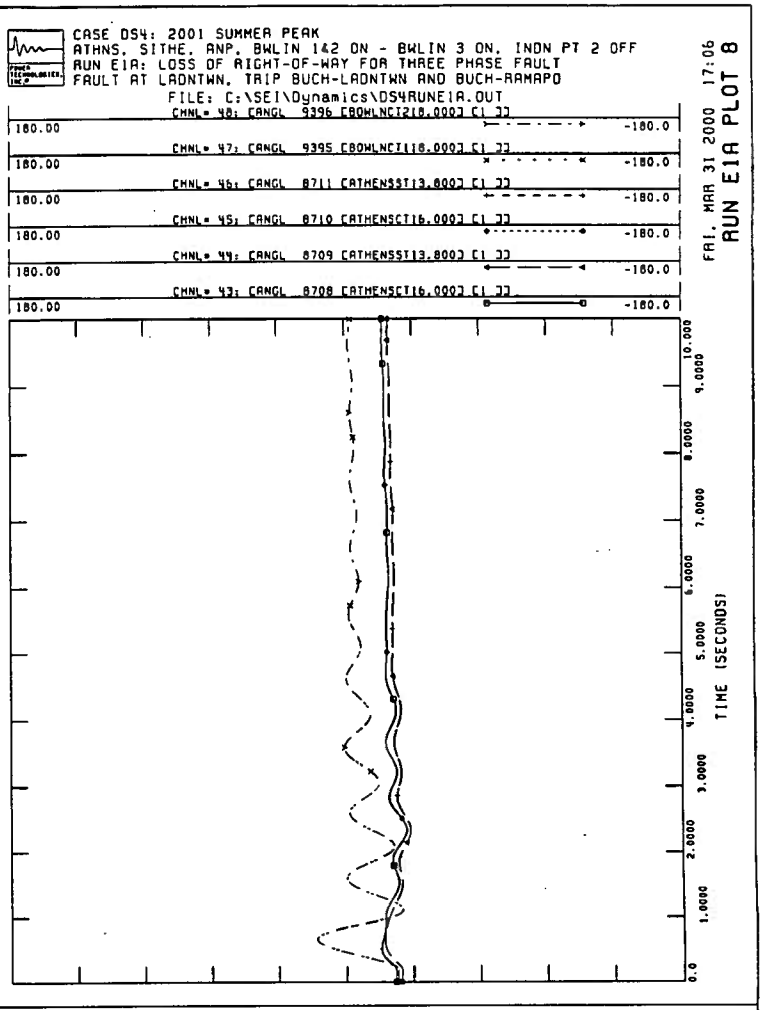

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 17:06
RUN E1A PLOT 2
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

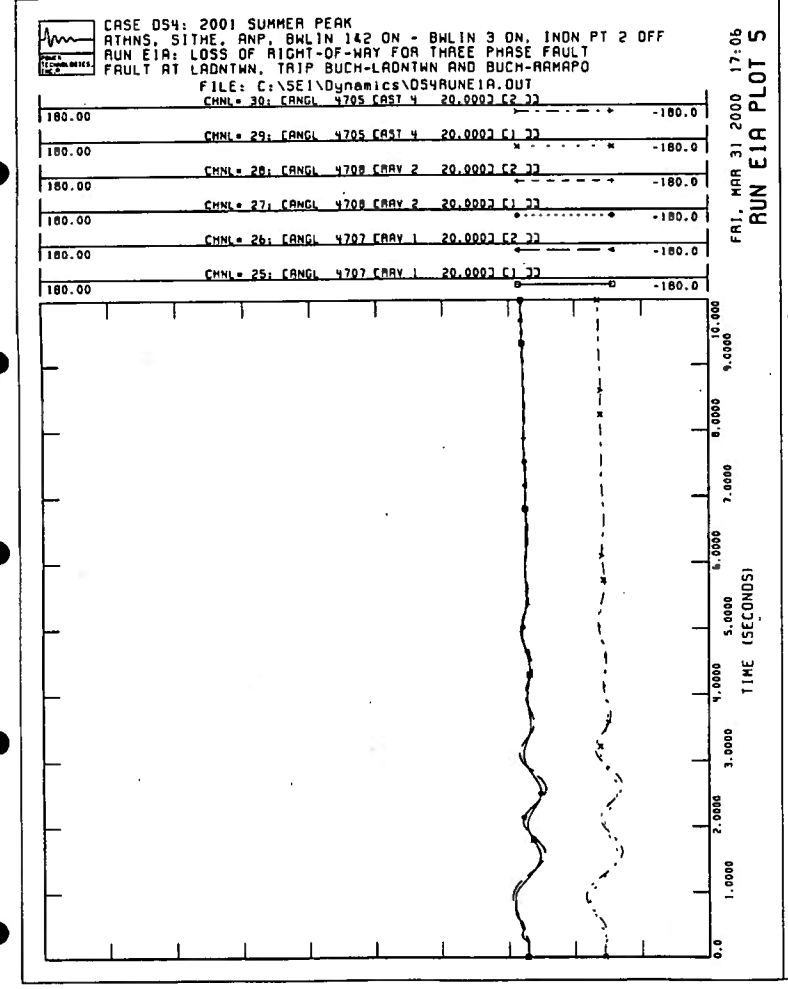

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT1 26.000] C1]]
CHNL= 20: CANGL 4907 CNRTPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNRTPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 17:06
RUN E1A PLOT 4
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

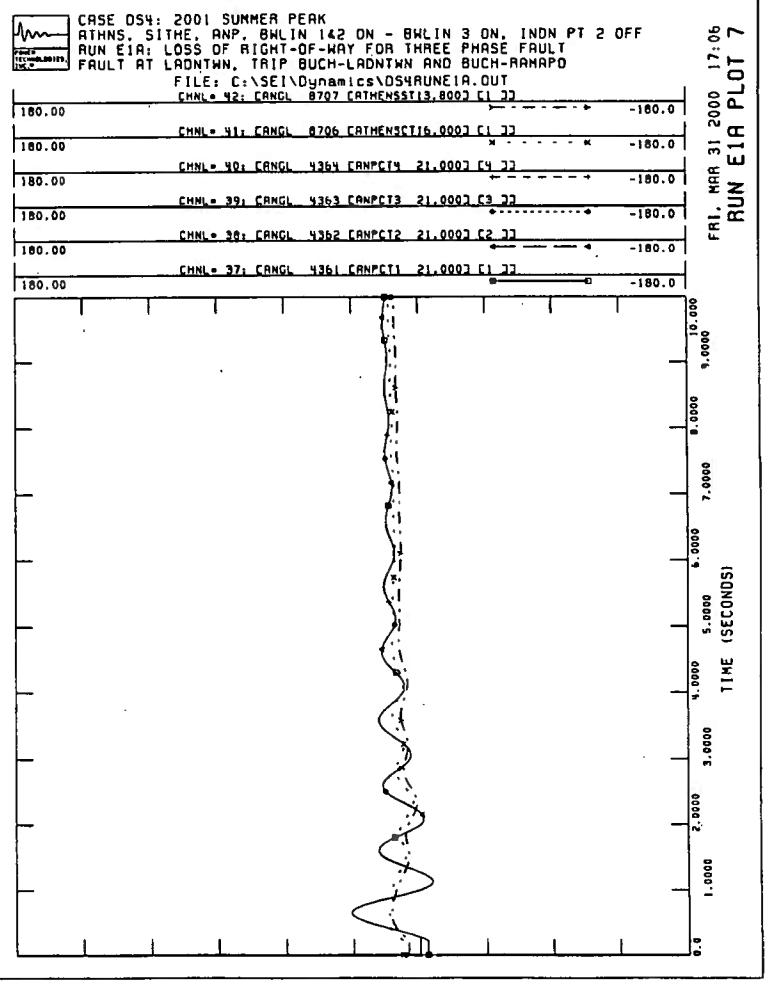

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 17:06
RUN E1A PLOT 1
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

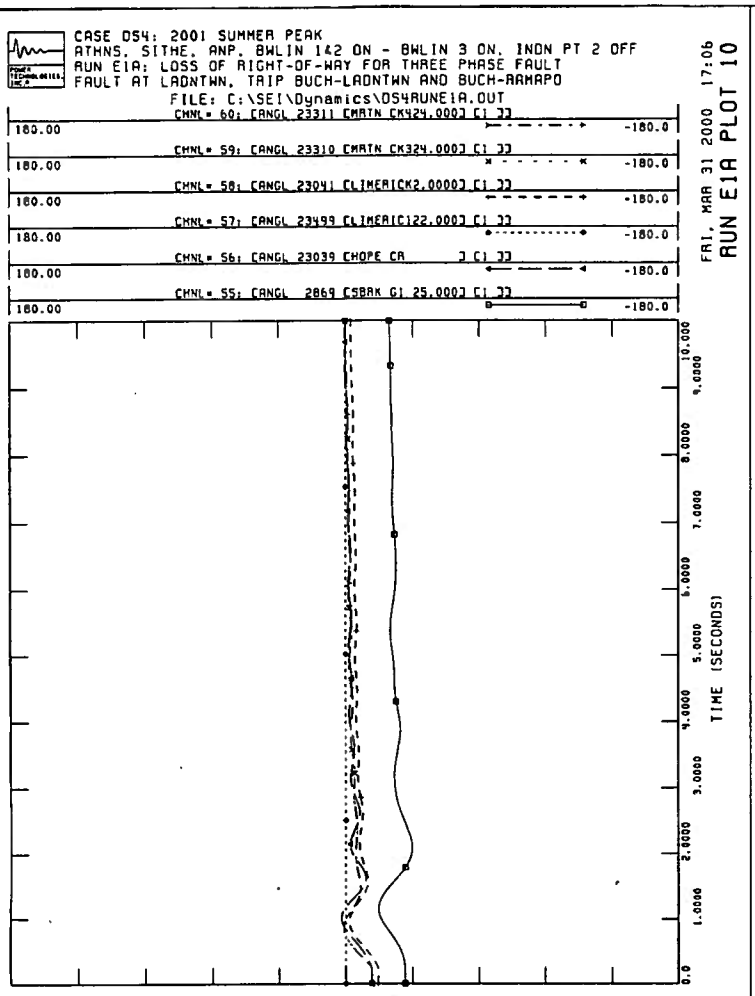

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEGS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 17:06
RUN E1A PLOT 3
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

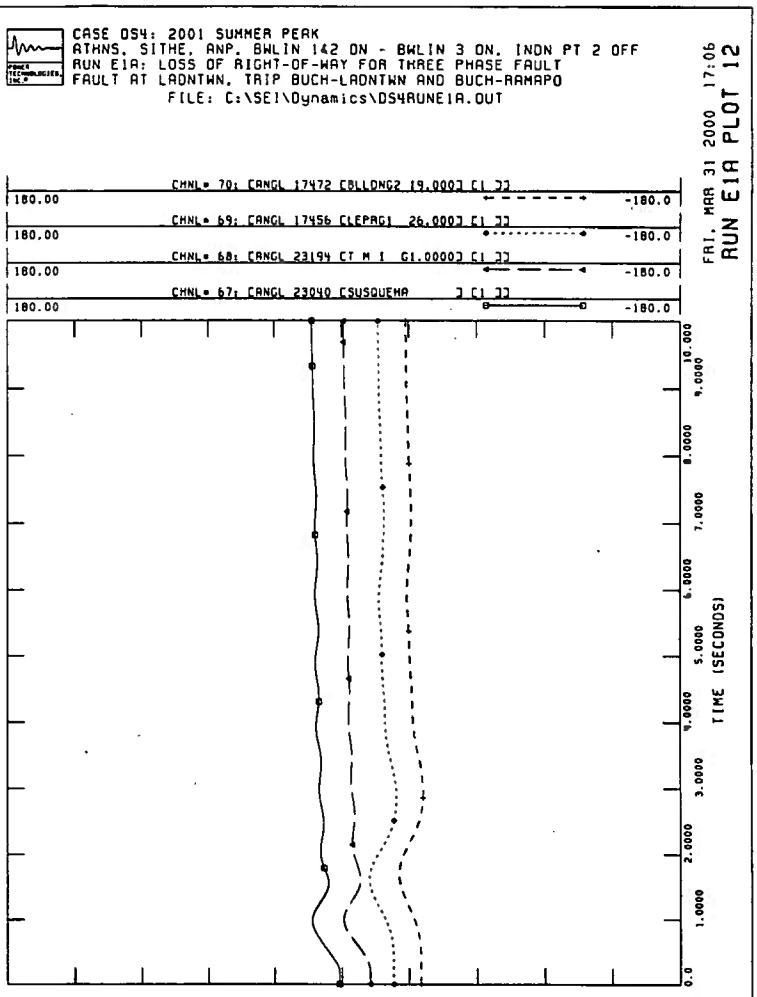

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 36: CANGL 4357 CSITH_GT2 18.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT2 18.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT1 18.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM 16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E1A PLOT 6

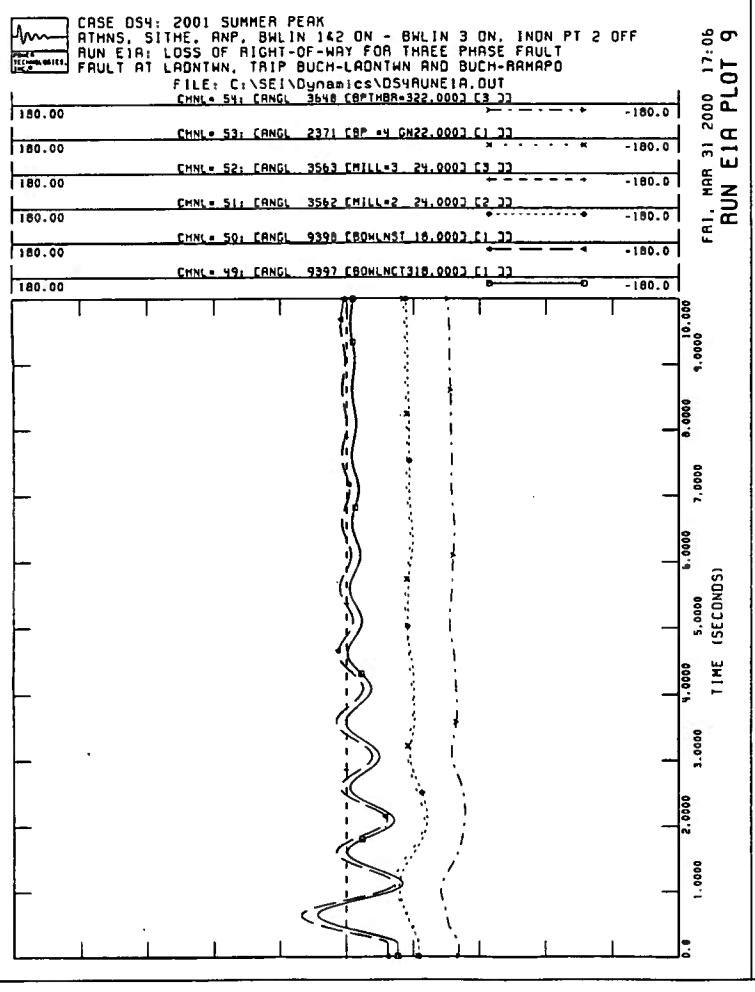

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 48: CANGL 9396 CBOWLNC1 18.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNC1 18.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST1 3.8000] C1]]
CHNL= 45: CANGL 8710 CATHENSCT1 6.0000] C1]]
CHNL= 44: CANGL 8709 CATHENSST1 3.8000] C1]]
CHNL= 43: CANGL 8708 CATHENSCT1 6.0000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E1A PLOT 8

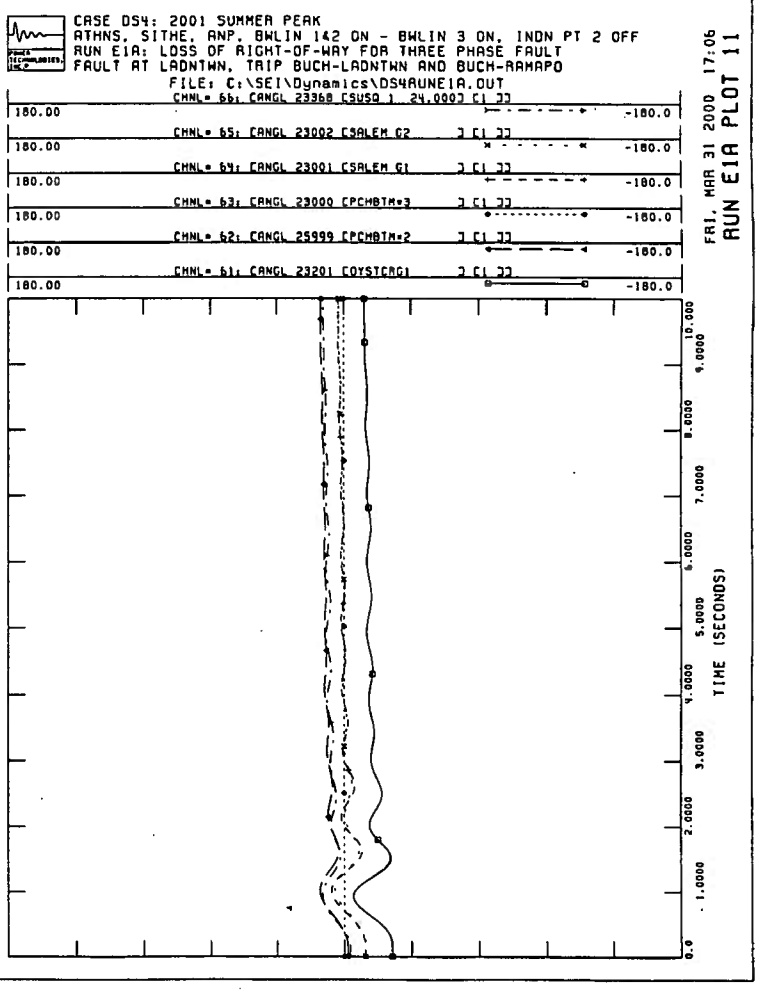

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAY 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAY 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAY 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAY 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E1A PLOT 5


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
CHNL= 42: CANGL 8707 CATHENSST1 3.8000] C1]]
CHNL= 41: CANGL 8706 CATHENSCT1 6.0000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E1A PLOT 7


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
FRI, MAR 31 2000 17:06
RUN E1A PLOT 10
TIME (SECONDS)

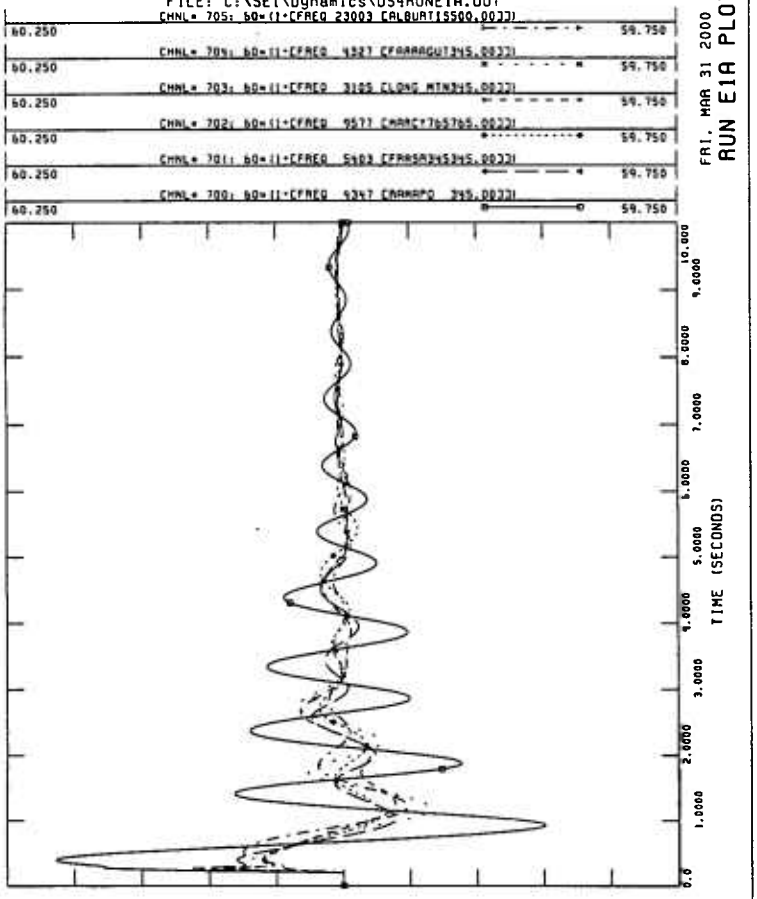

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
FRI, MAR 31 2000 17:06
RUN E1A PLOT 12
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
FRI, MAR 31 2000 17:06
RUN E1A PLOT 9
TIME (SECONDS)


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DS4RUNE1A.OUT
FRI, MAR 31 2000 17:06
RUN E1A PLOT 11
TIME (SECONDS)

CASE OS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\OS4RUNE1A.OUT

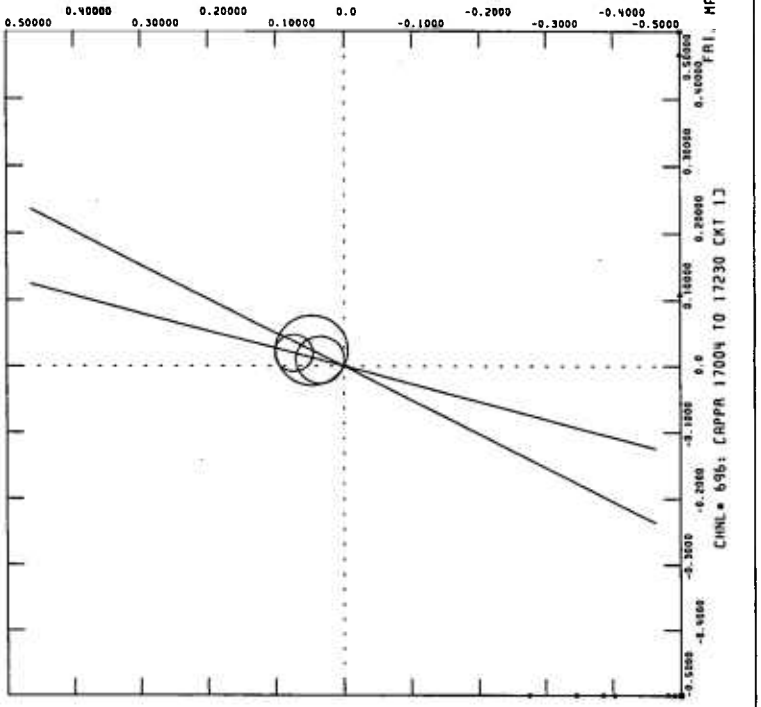
FRI, MAR 31 2000 17:06
RUN E1A PLOT 14



CASE OS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO

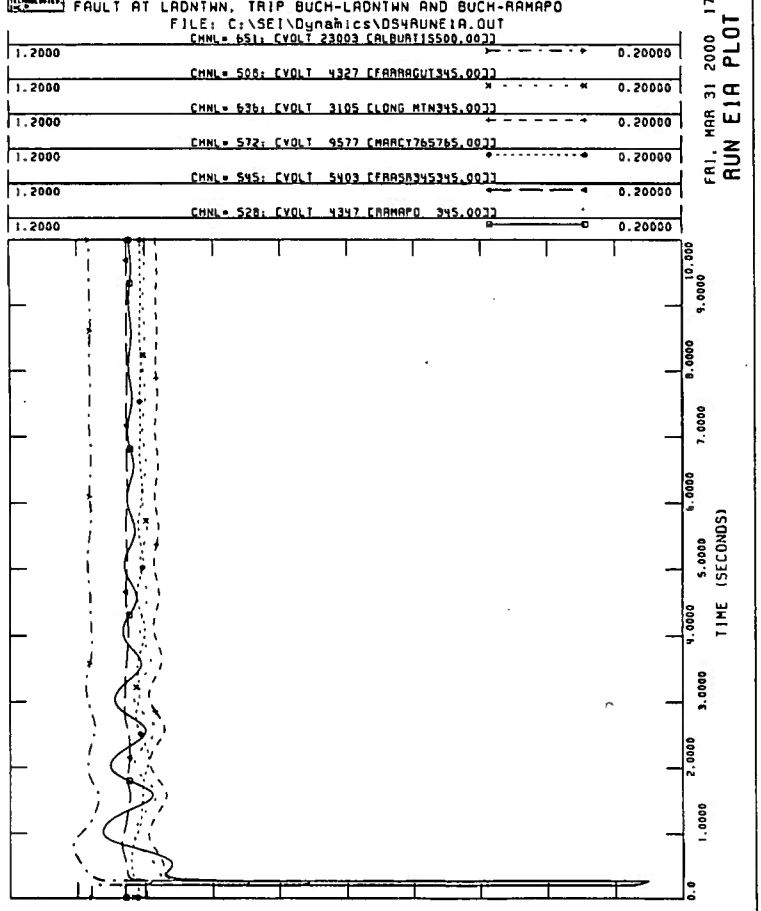
FRI, MAR 31 2000 17:06
RUN E1A PLOT 16

FILE: C:\SEI\Dynamics\OS4RUNE1A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



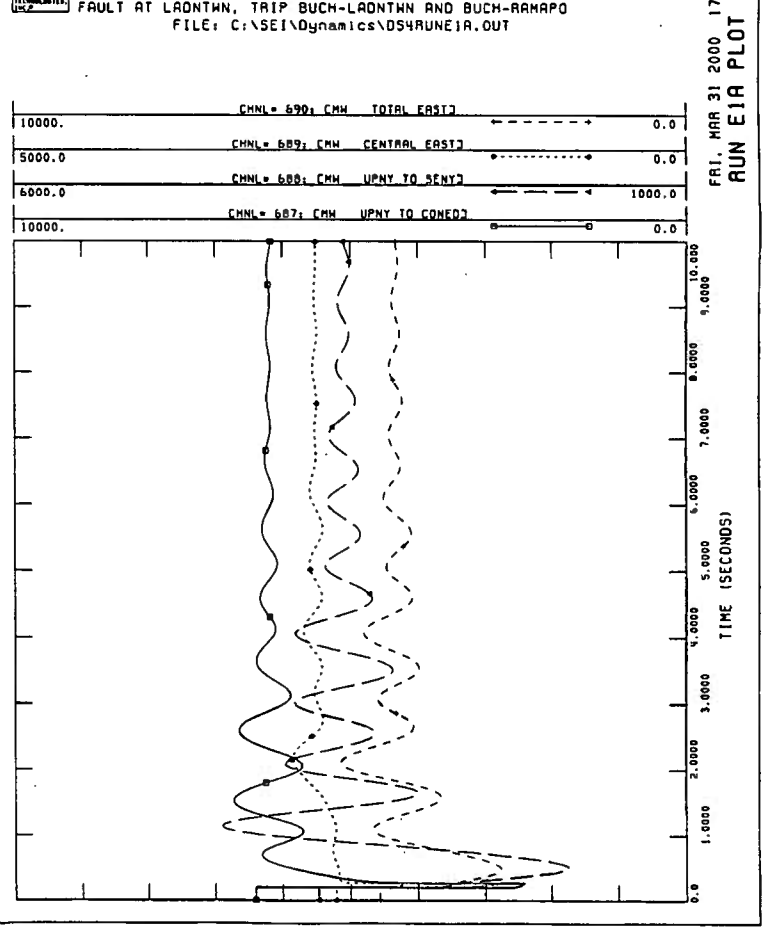
CASE OS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\OS4RUNE1A.OUT

FRI, MAR 31 2000 17:06
RUN E1A PLOT 13



CASE OS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\OS4RUNE1A.OUT

FRI, MAR 31 2000 17:06
RUN E1A PLOT 15



CONTINGENCY E2A

```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                              / DISCONNECT RAMAPO SUBSTATION
DROP GENERATOR 1 AT BUS 4352                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4353                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4357                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4358                           / TRIP SITHE ST
DROP GENERATOR 1 AT BUS 4361                           / TRIP ANP CT
DROP GENERATOR 2 AT BUS 4362                           / TRIP ANP CT
DROP GENERATOR 3 AT BUS 4363                           / TRIP ANP CT
DROP GENERATOR 4 AT BUS 4364                           / TRIP ANP ST
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT

FRI, MAR 31 2000 17:06
RUN E2A PLOT 2

CHNL= 12: CANGL 9390 CBOHLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSHGO 6G22.000] C6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT

FRI, MAR 31 2000 17:06
RUN E2A PLOT 4

CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CWATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CWATPTG1 22.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT

FRI, MAR 31 2000 17:06
RUN E2A PLOT 1

CHNL= 6: CANGL 7952 COSHGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CJP#3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

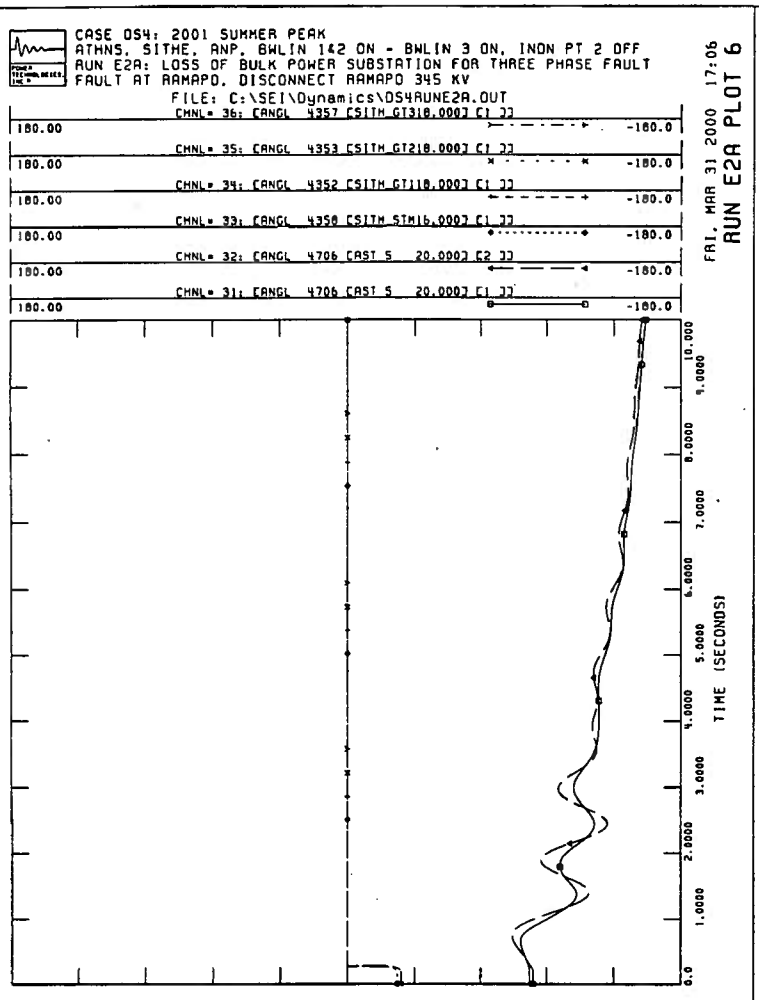
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT

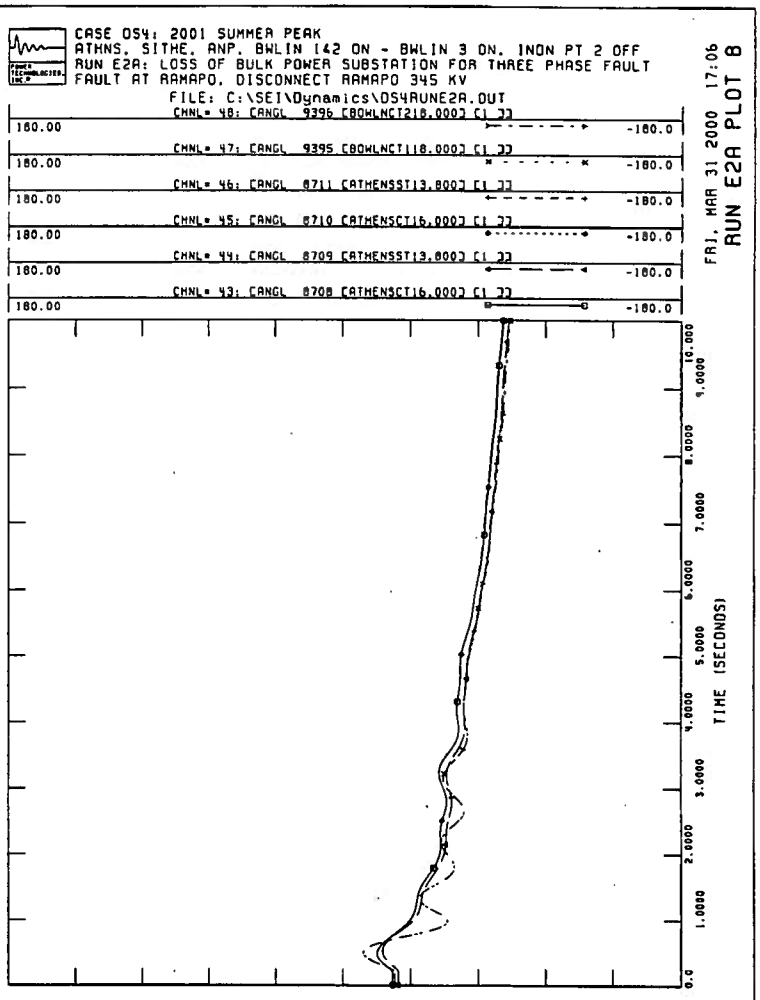
FRI, MAR 31 2000 17:06
RUN E2A PLOT 3

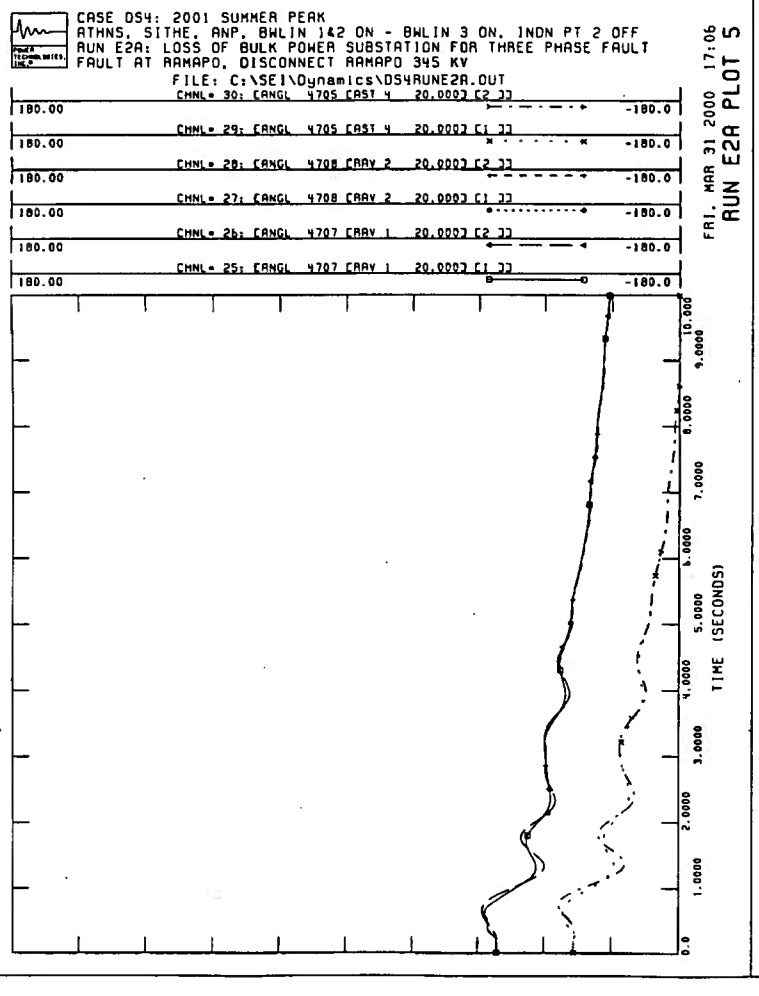
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOHLIN2020.000] C2]]

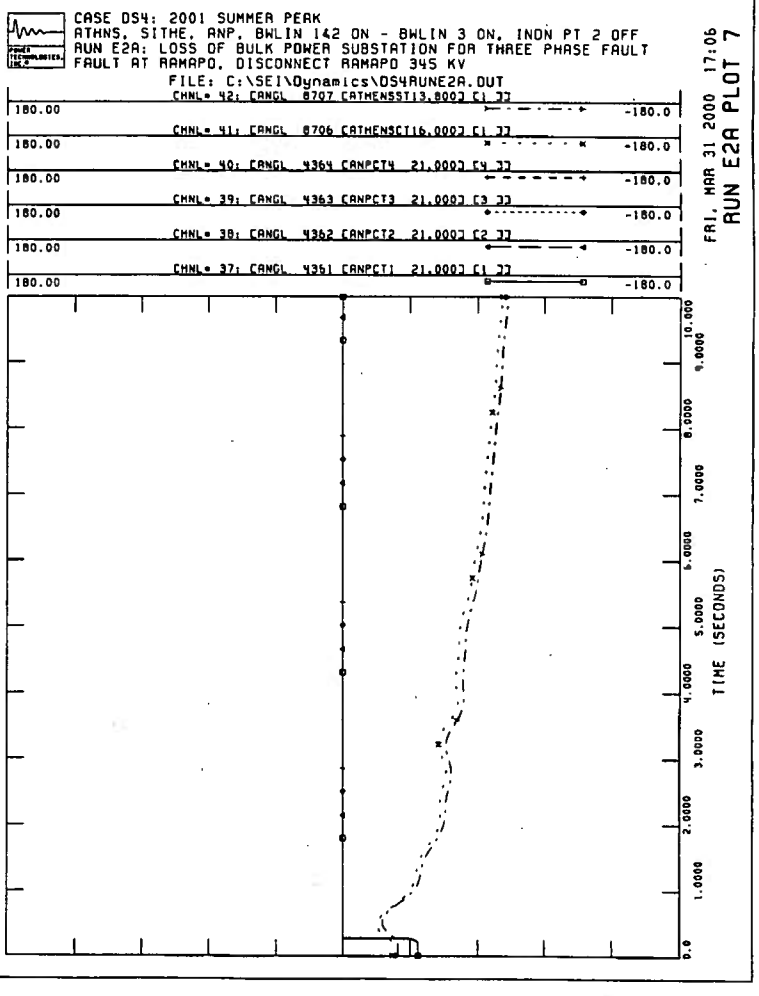
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

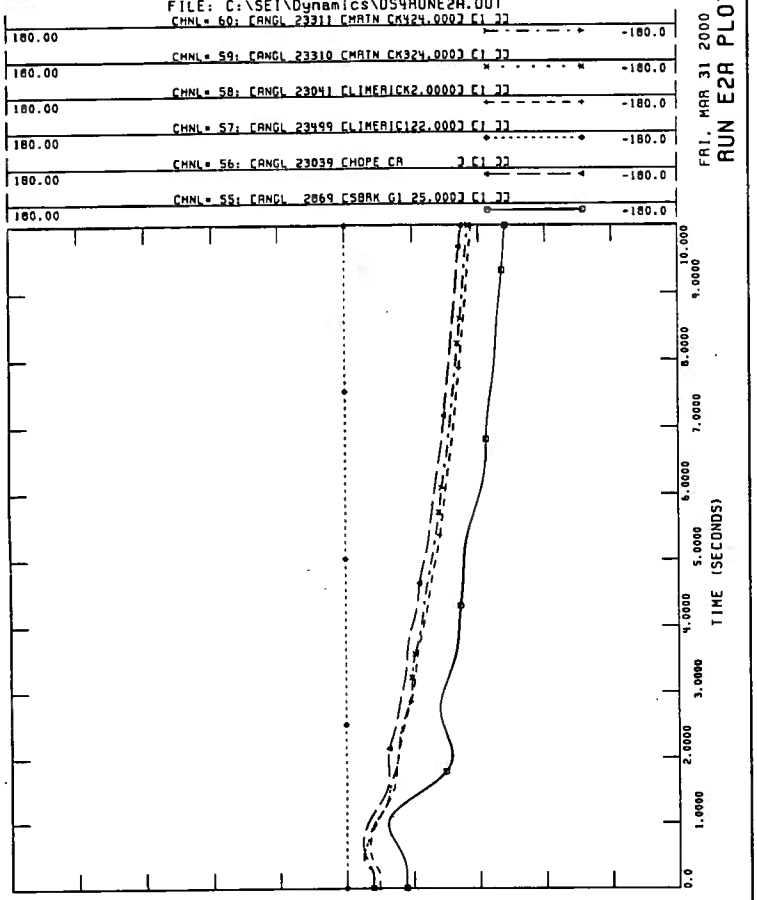

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
CHNL= 36: [ANGL 4357 [SITH_GT318.000] [1]]
CHNL= 35: [ANGL 4353 [SITH_GT218.000] [1]]
CHNL= 34: [ANGL 4352 [SITH_GT118.000] [1]]
CHNL= 33: [ANGL 4358 [SITH_STM16.000] [1]]
CHNL= 32: [ANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: [ANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E2A PLOT 6


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
CHNL= 48: [ANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: [ANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: [ANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: [ANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: [ANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: [ANGL 8708 [ATHENSCT16.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E2A PLOT 8


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
CHNL= 30: [ANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: [ANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: [ANGL 4708 [RAV 2 20.000] [2]]
CHNL= 27: [ANGL 4708 [RAV 2 20.000] [1]]
CHNL= 26: [ANGL 4707 [RAV 1 20.000] [2]]
CHNL= 25: [ANGL 4707 [RAV 1 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E2A PLOT 5

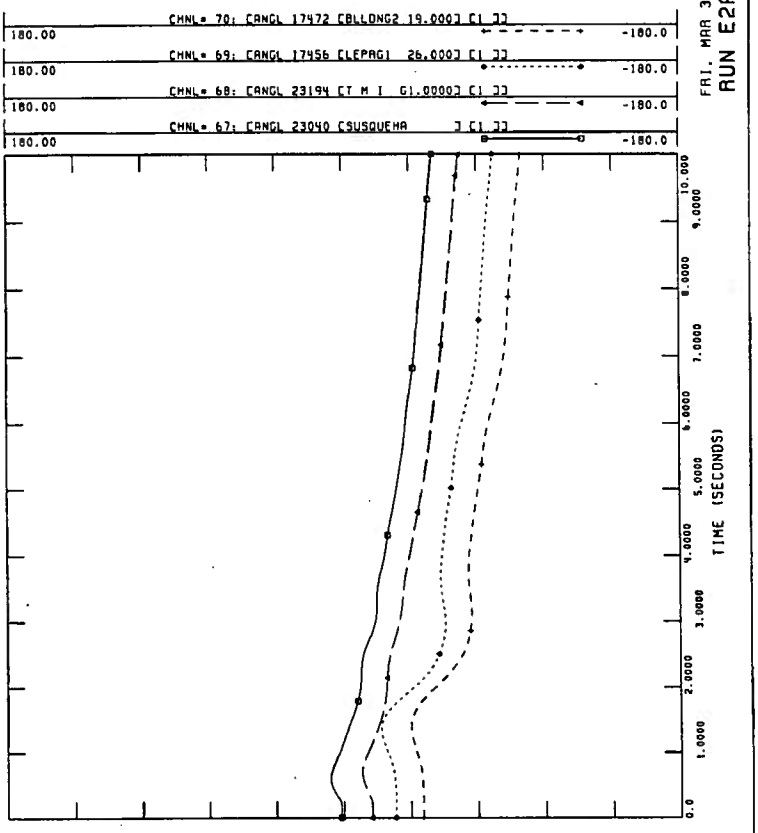

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
CHNL= 42: [ANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: [ANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: [ANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: [ANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: [ANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: [ANGL 4361 [ANPCT1 21.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:06
RUN E2A PLOT 7

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT



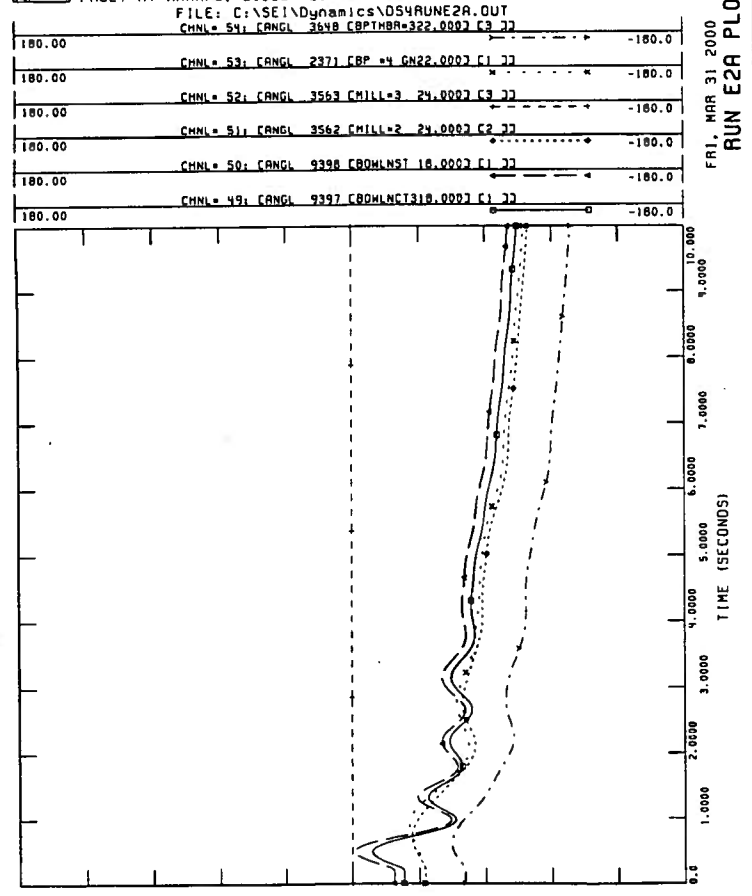
FRI, MAR 31 2000 17:06
RUN E2A PLOT 10

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT



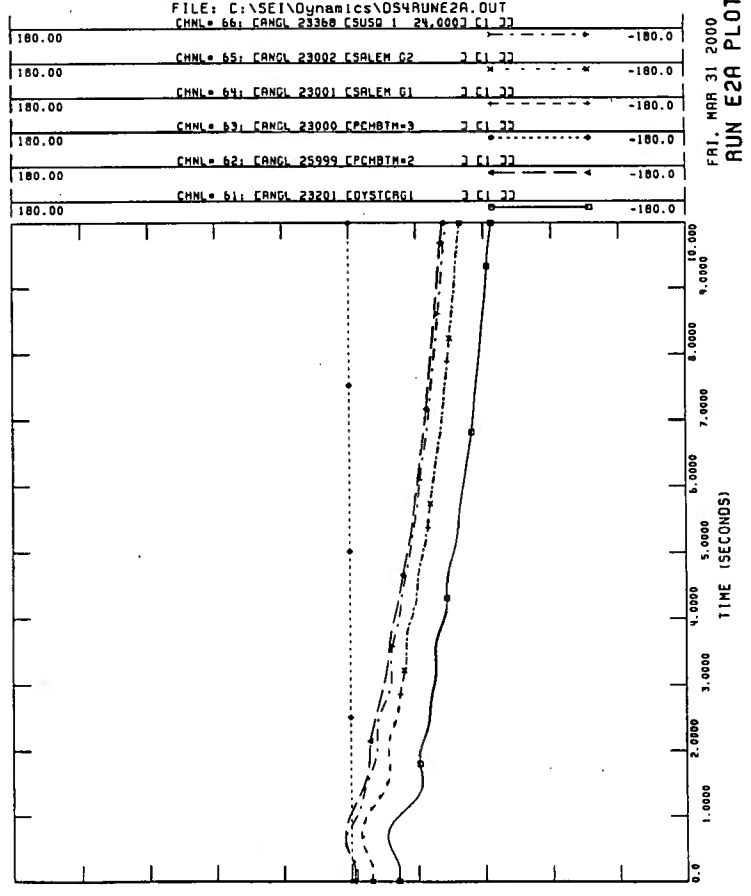
FRI, MAR 31 2000 17:06
RUN E2A PLOT 12

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT

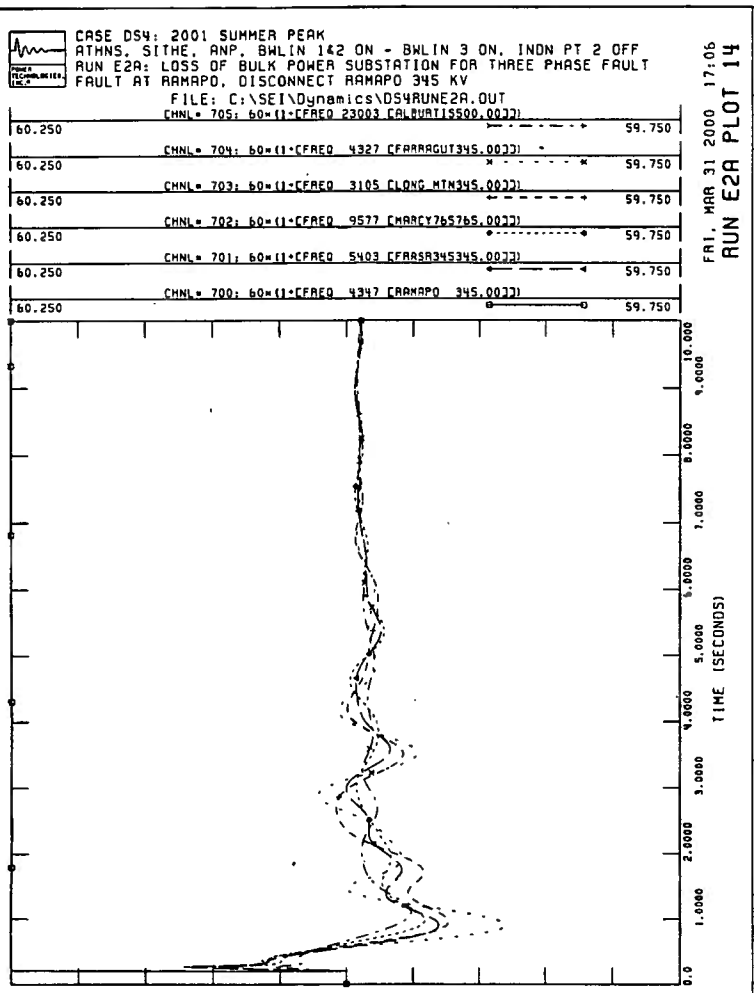


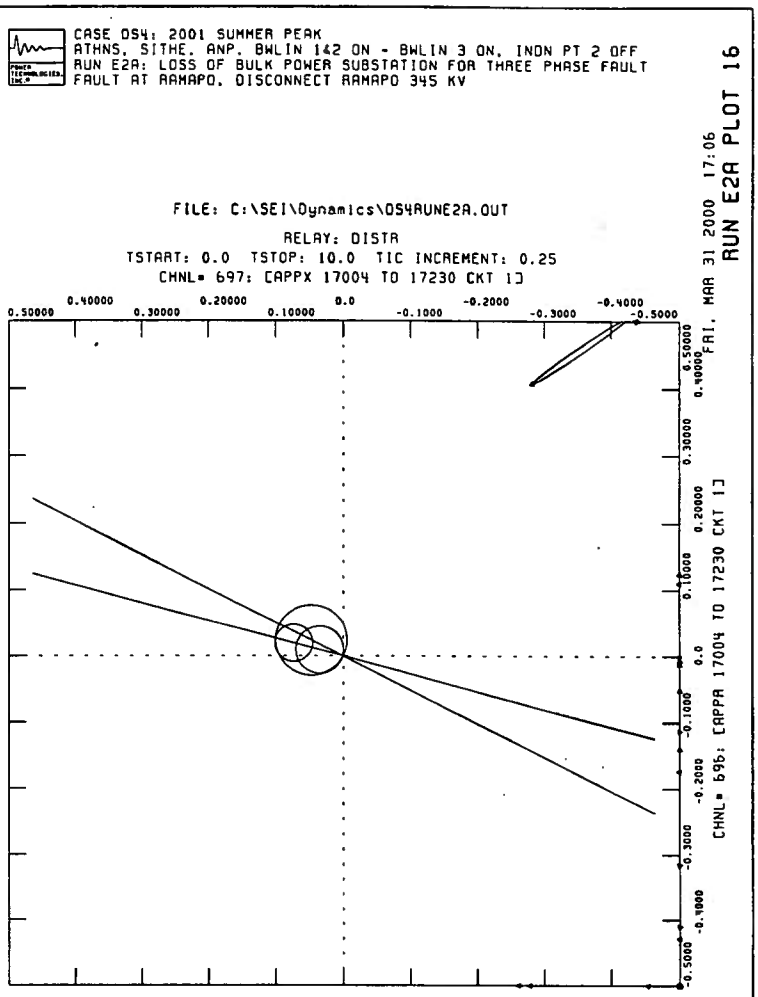
FRI, MAR 31 2000 17:06
RUN E2A PLOT 9

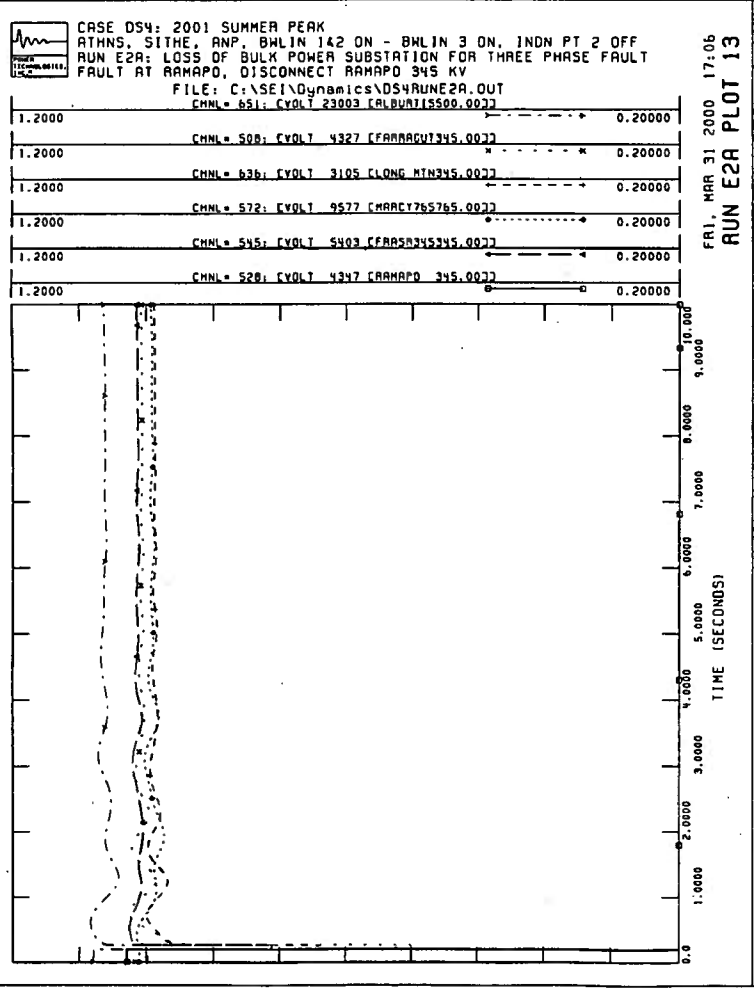
CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT

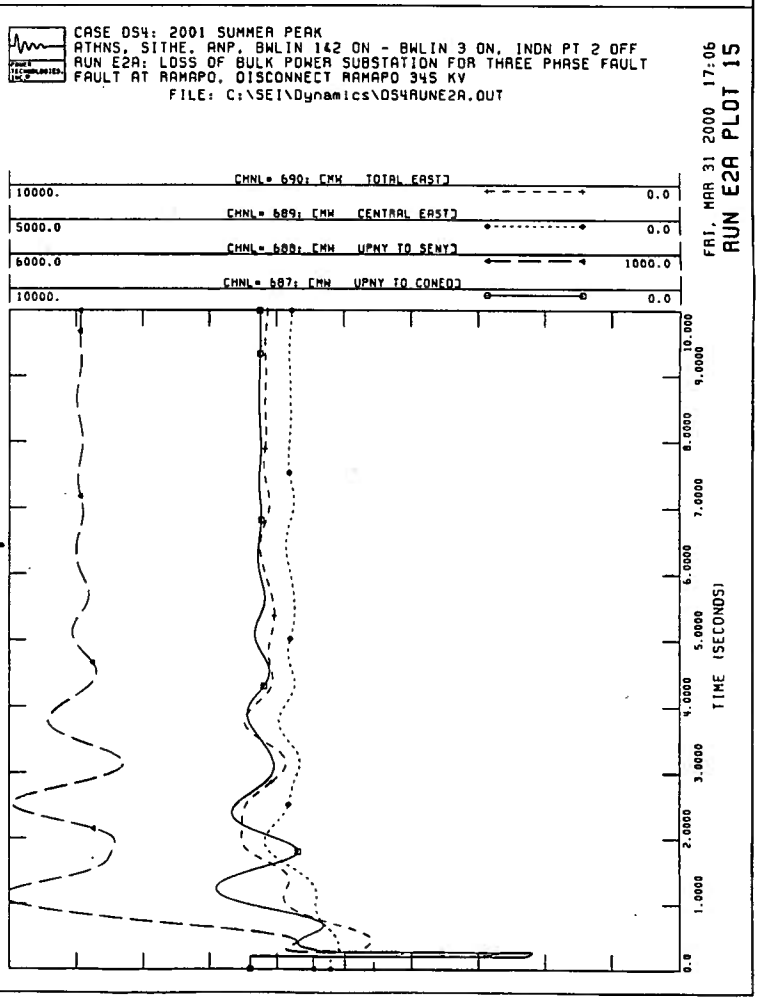


FRI, MAR 31 2000 17:06
RUN E2A PLOT 11


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
FRI, MAR 31 2000 17:06
RUN E2A PLOT 14
TIME (SECONDS)

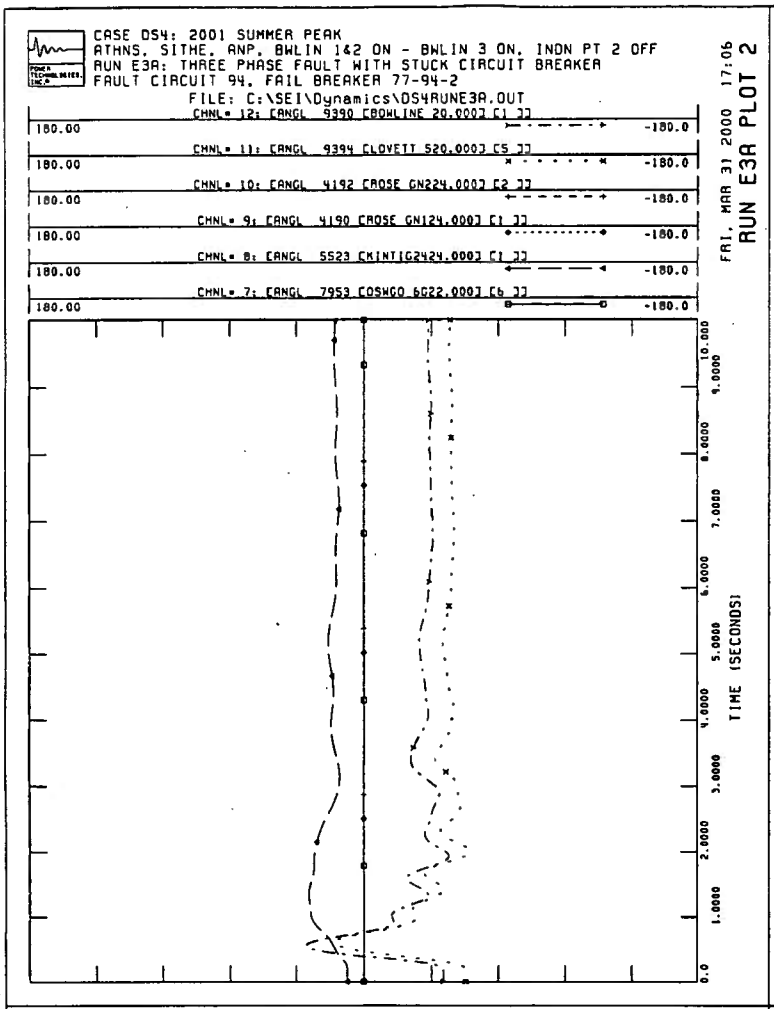

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 17:06
RUN E2A PLOT 16

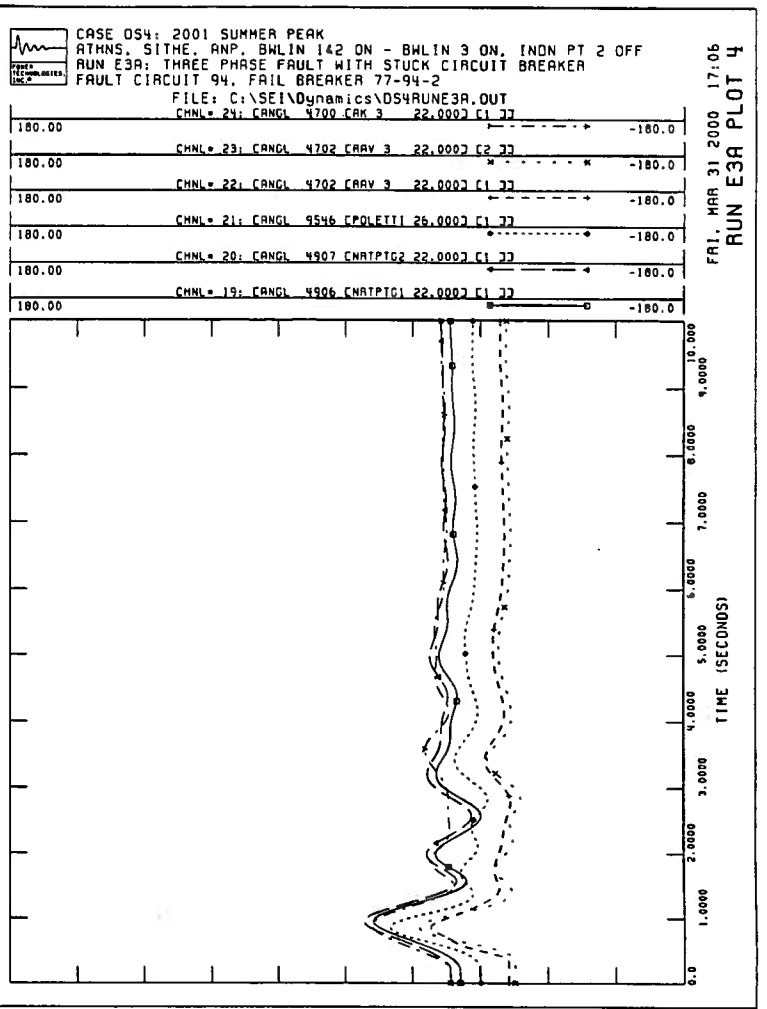

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
FRI, MAR 31 2000 17:06
RUN E2A PLOT 13
TIME (SECONDS)

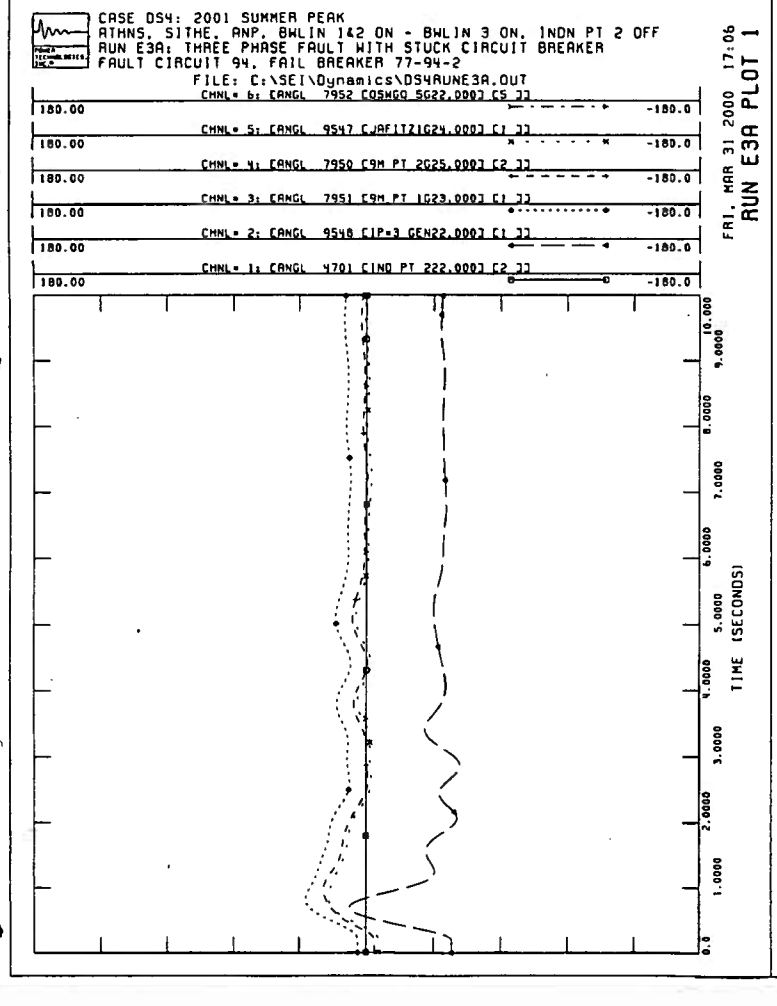

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DS4RUNE2A.OUT
FRI, MAR 31 2000 17:06
RUN E2A PLOT 15
TIME (SECONDS)

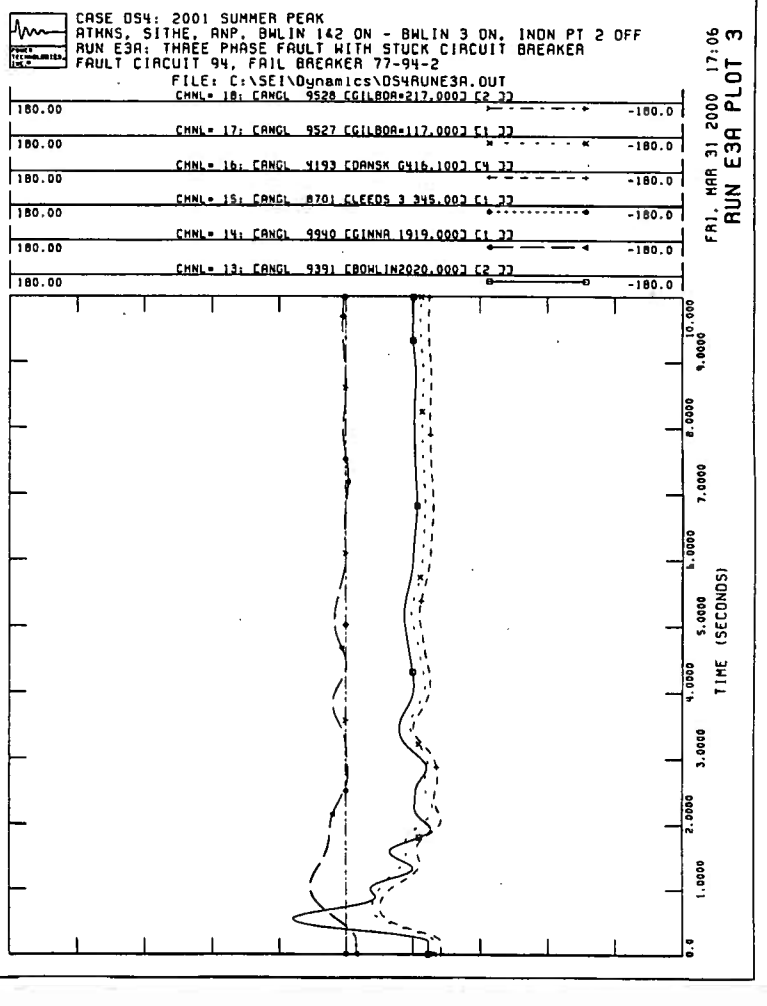
CONTINGENCY E3A

```
RECOVER FROM D1.SNP AND DS4.CNV
START OUTPUT DS4RUNE3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA      / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1               / TRIP RAMAPO-BUCHANAN N
RUN FOR 5.75 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4360 CKT 1               / TRIP RAMAPO-ANP CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

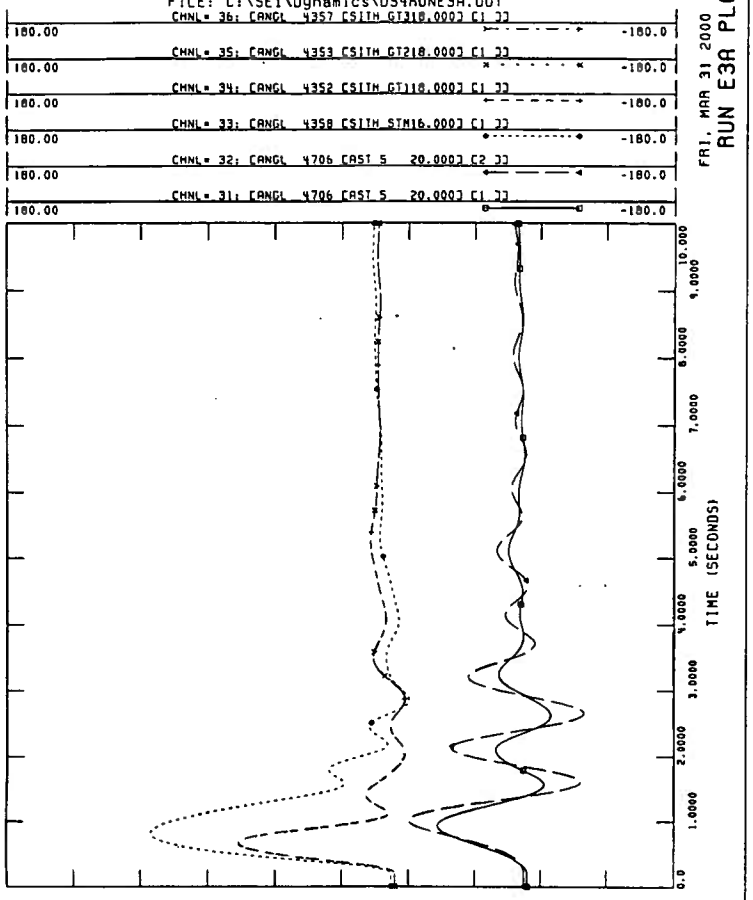

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSHGO 6G22.000] C6]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:06
RUN E3A PLOT 2


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:06
RUN E3A PLOT 4


CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT
CHNL= 6: CANGL 7952 COSHGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CWAFITZIG24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:06
RUN E3A PLOT 1

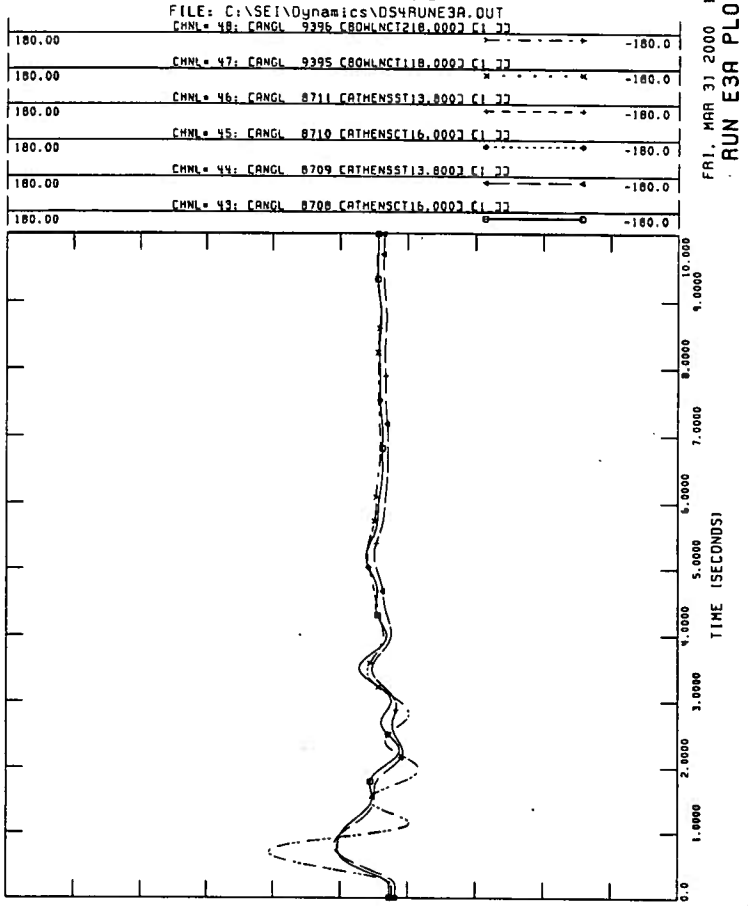

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:06
RUN E3A PLOT 3

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT



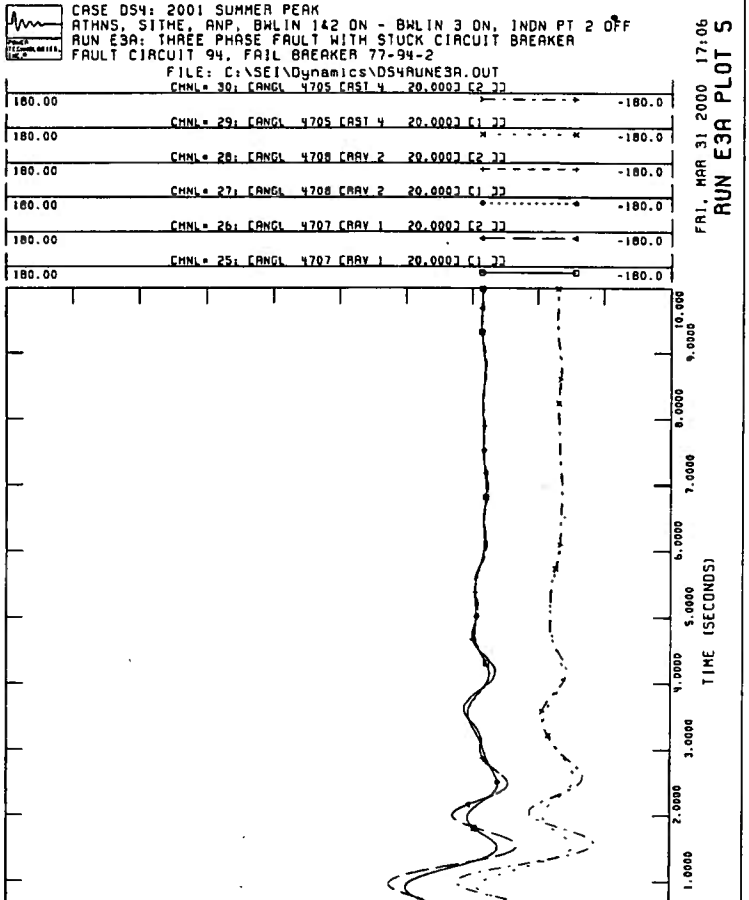
FRI, MAR 31 2000 17:06
RUN E3A PLOT 6

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT



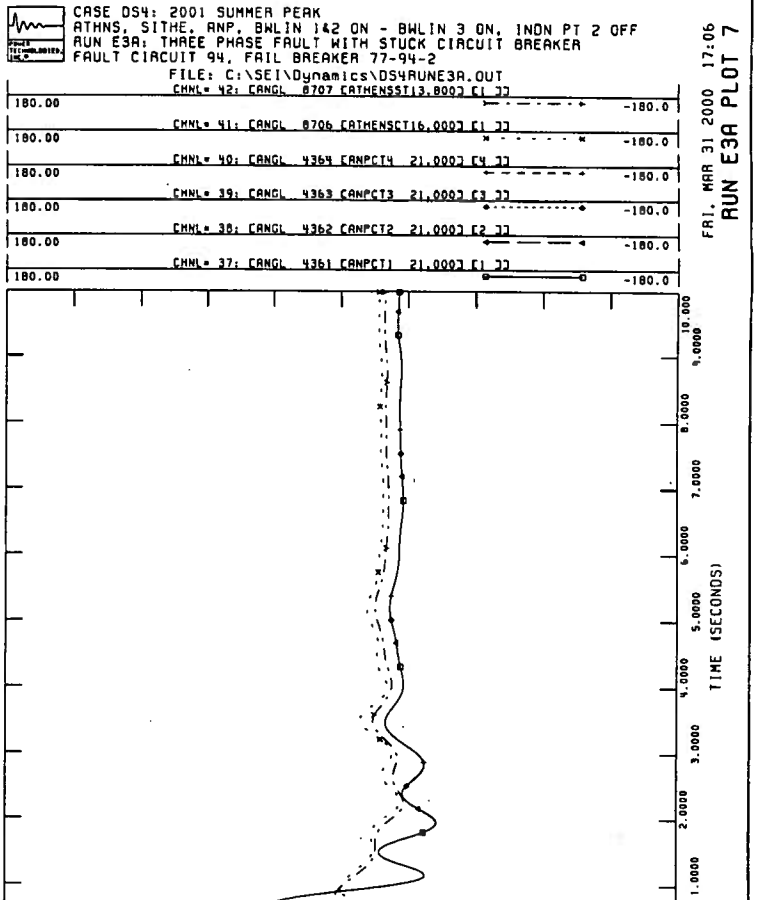
FRI, MAR 31 2000 17:06
RUN E3A PLOT 8

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT



FRI, MAR 31 2000 17:06
RUN E3A PLOT 5

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT



FRI, MAR 31 2000 17:06
RUN E3A PLOT 7

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 10

CHNL= 60; CANGL 23311 CMATN CK424.000] C1]]
CHNL= 59; CANGL 23310 CMATN CK324.000] C1]]
CHNL= 58; CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57; CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56; CANGL 23039 CHOPE CR] C1]]
CHNL= 55; CANGL 2869 CSBRK G1 25.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 12

CHNL= 70; CANGL 17472 CBLLONG2 19.000] C1]]
CHNL= 69; CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68; CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67; CANGL 23040 CSUSQUEHA] C1]]

180.00 -180.0

TIME (SECONDS)
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CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 9

CHNL= 54; CANGL 3648 CBPTHBM=322.000] C3]]
CHNL= 53; CANGL 2371 CBP =4 GM22.000] C1]]
CHNL= 52; CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51; CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50; CANGL 9398 CBOWLNS1 18.000] C1]]
CHNL= 49; CANGL 9397 CBOWLNC1318.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 11

CHNL= 66; CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65; CANGL 23002 CSALEM G2] C1]]
CHNL= 64; CANGL 23001 CSALEM G1] C1]]
CHNL= 63; CANGL 23000 CPCMBTM=3] C1]]
CHNL= 62; CANGL 25999 CPCMBTM=2] C1]]
CHNL= 61; CANGL 23201 COYSTCAG1] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 14

TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2

FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]

FRI, MAR 31 2000 17:06
RUN E3A PLOT 16

CHNL= 696: CAPPA 17004 TO 17230 CKT 1]

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 13

TIME (SECONDS)

CASE DS4: 2001 SUMMER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DS4RUNE3A.OUT

FRI, MAR 31 2000 17:06
RUN E3A PLOT 15

TIME (SECONDS)

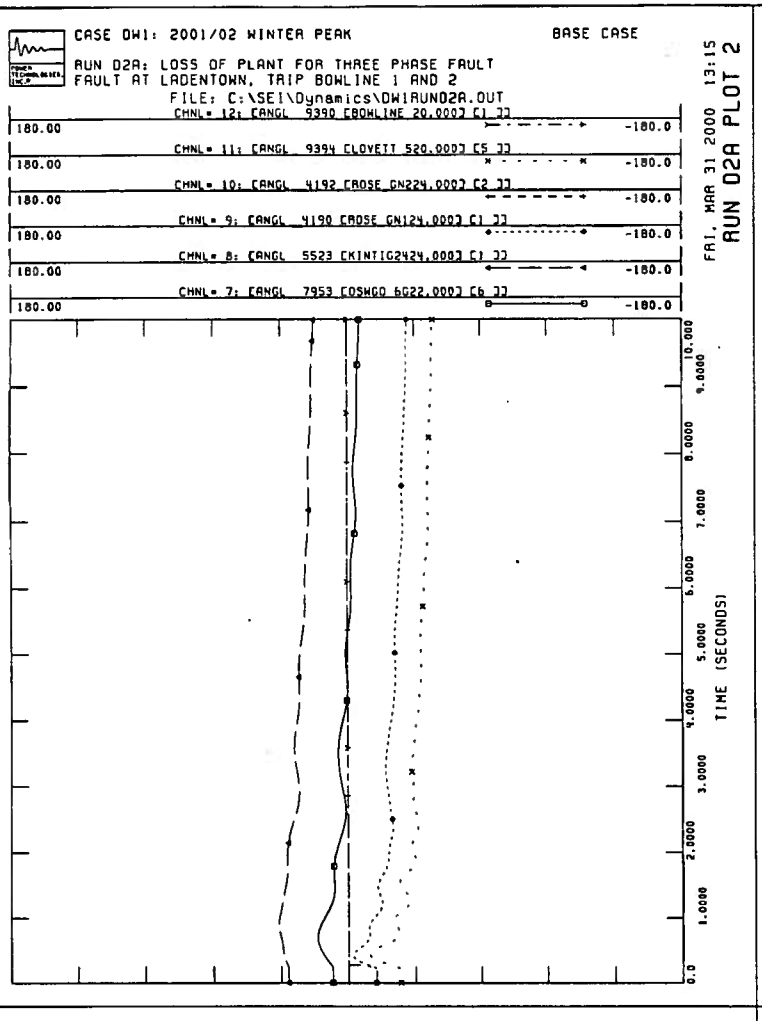
APPENDIX F.5 - Summer Peak Case DW1

Bowline 2 and 3, Athens, ANP and Sithe Off-Line

Bowline 1 On-Line

CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                          / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                          / TRIP BOWLINE 2
DISCONNECT BUS 4310                                 /
DISCONNECT BUS 4311                                 /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 13:15
RUN D2A PLOT 2
TIME (SECONDS)
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2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
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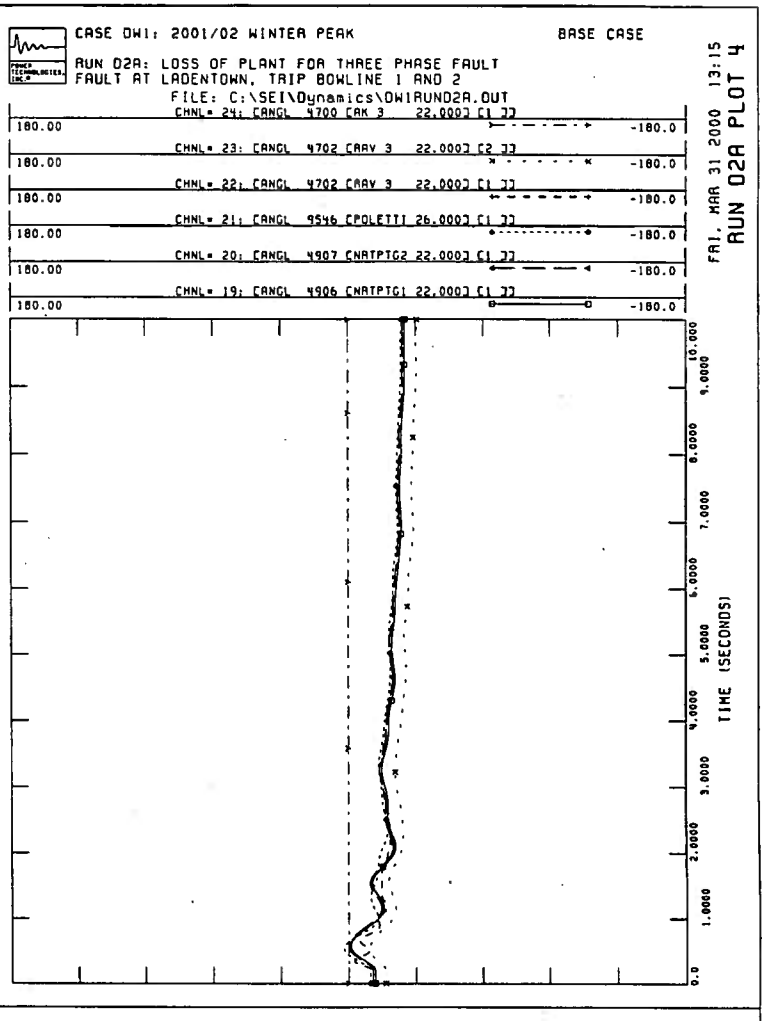
9.0000
10.000


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CARV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CARV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:15
RUN D2A PLOT 4
TIME (SECONDS)
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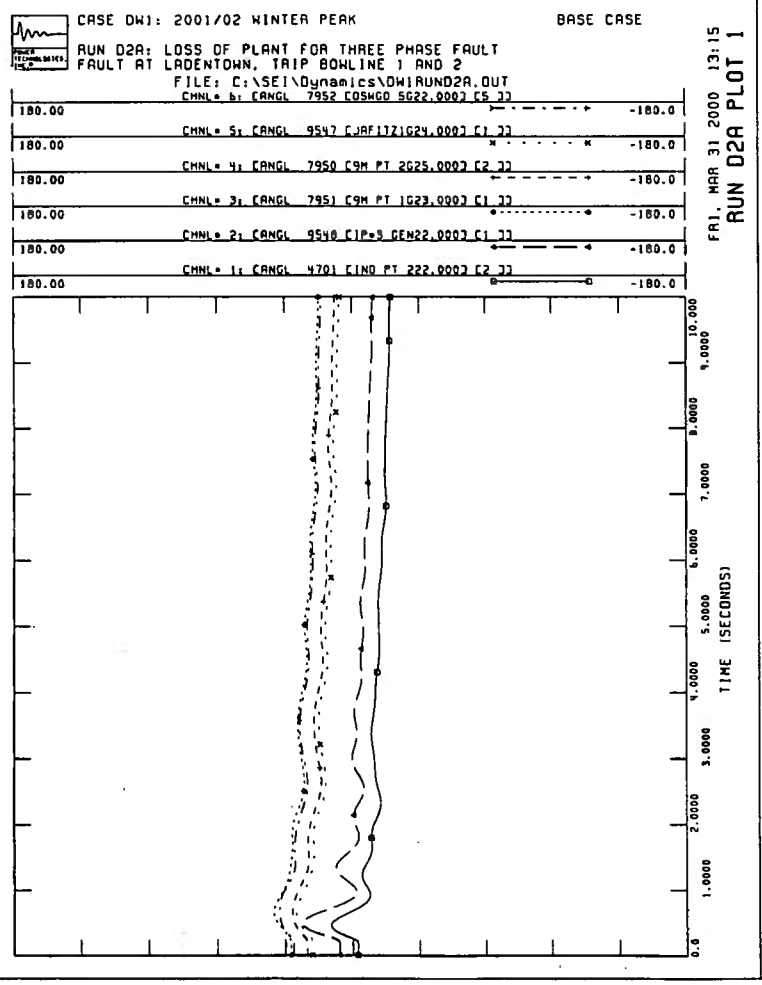
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAF17Z1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 C1P=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:15
RUN D2A PLOT 1
TIME (SECONDS)
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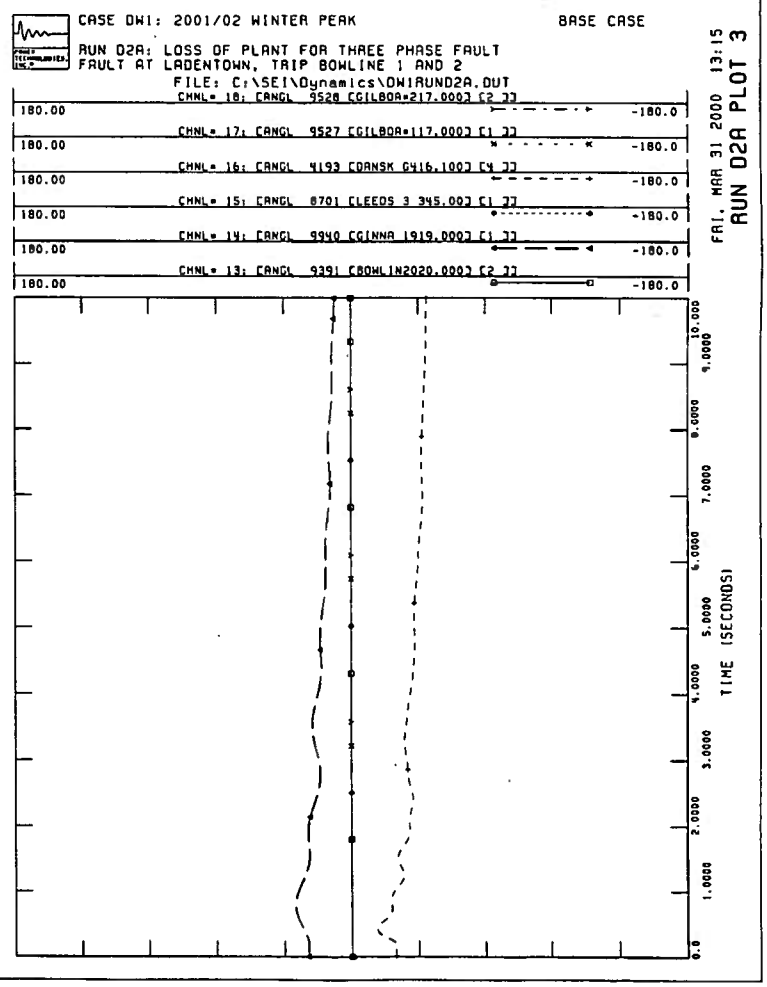
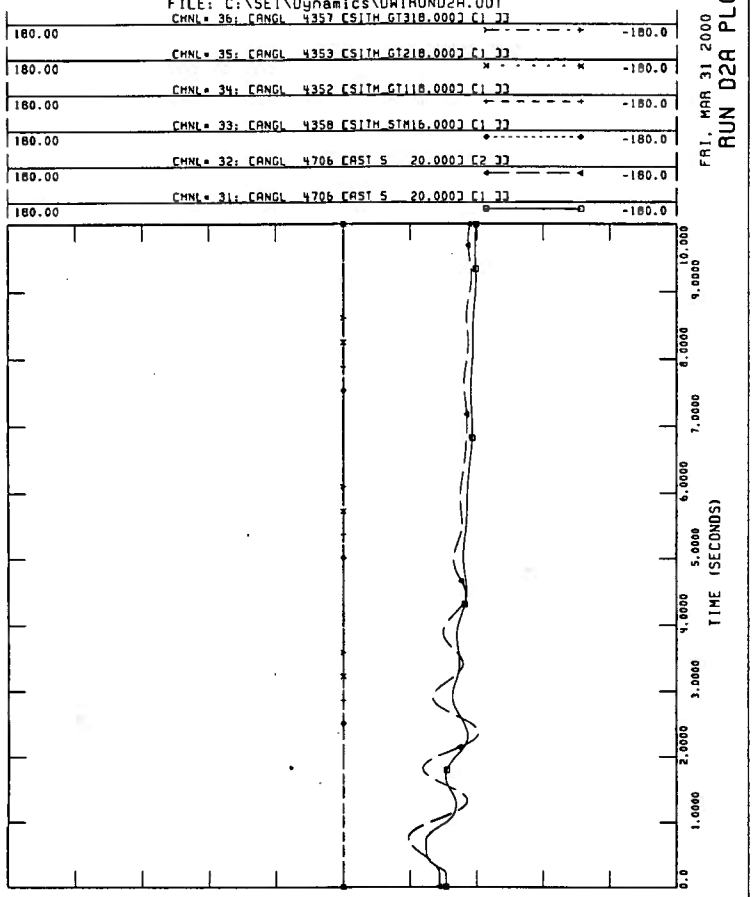
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:15
RUN D2A PLOT 3
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT

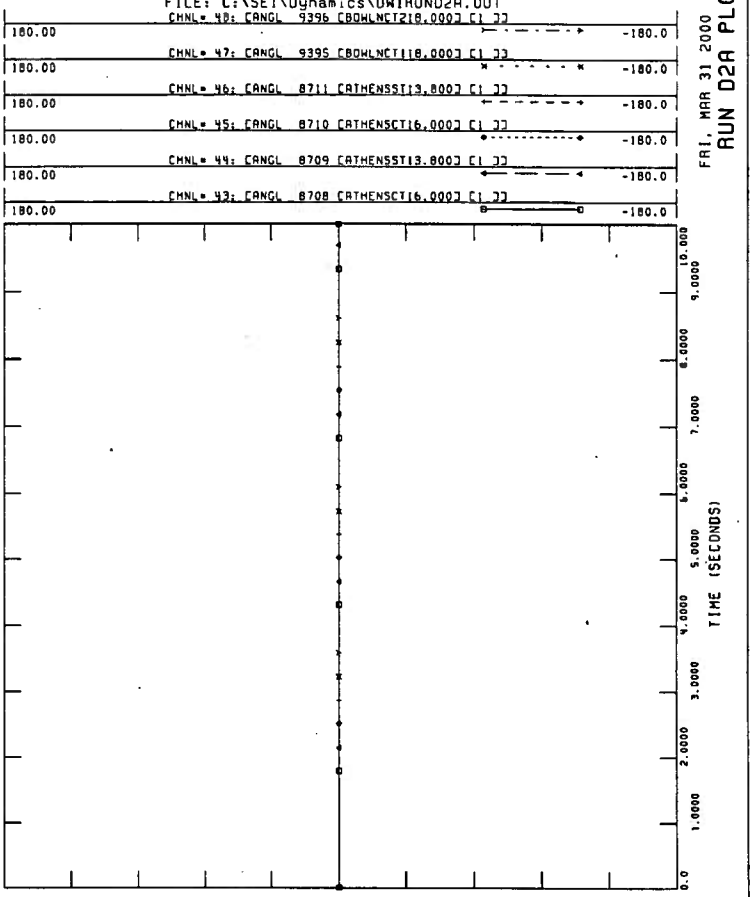
FRI, MAR 31 2000 13:15
RUN D2A PLOT 6



CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT

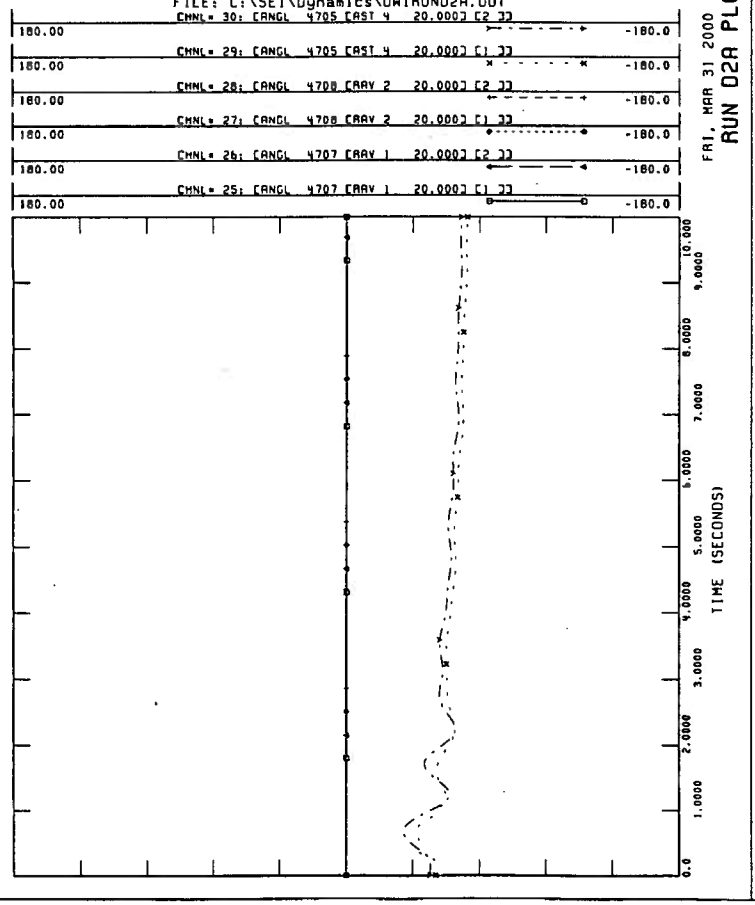
FRI, MAR 31 2000 13:15
RUN D2A PLOT 8



CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT

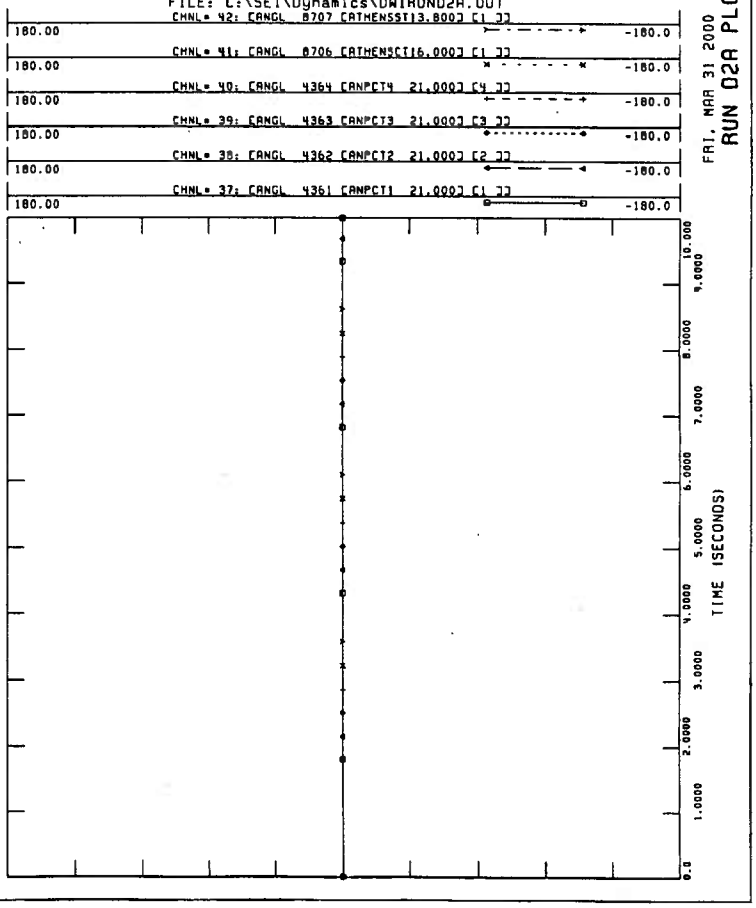
FRI, MAR 31 2000 13:15
RUN D2A PLOT 5

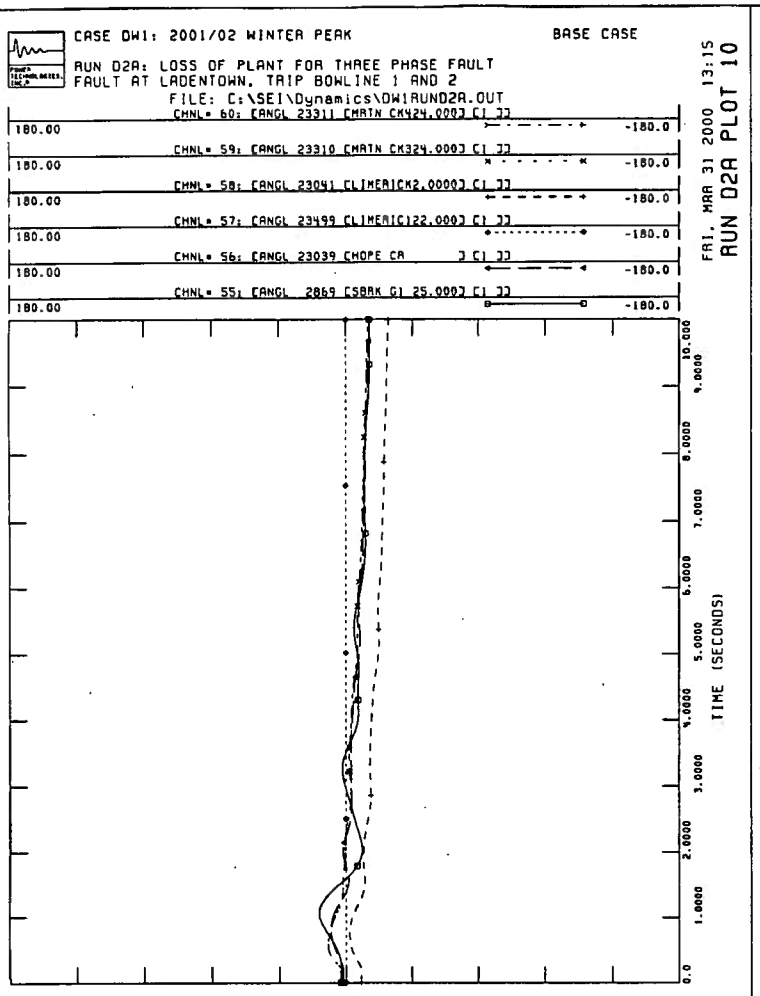


CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT

FRI, MAR 31 2000 13:15
RUN D2A PLOT 7




CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 60: [ANGL 23311 [MAIN CK424.000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SBRK G1 25.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
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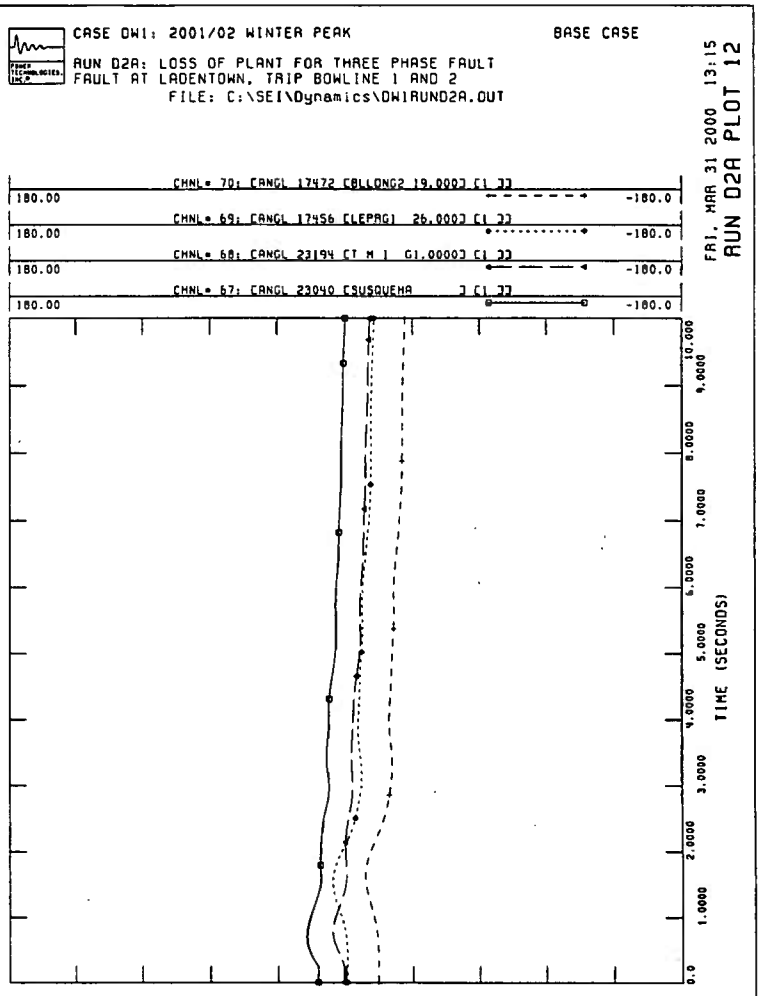
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:15
RUN D2A PLOT 10


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 70: [ANGL 17472 [BLLONG2 19.000] [1]]
CHNL= 69: [ANGL 17456 [LEPAG] 26.000] [1]]
CHNL= 68: [ANGL 23194 [T M] G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
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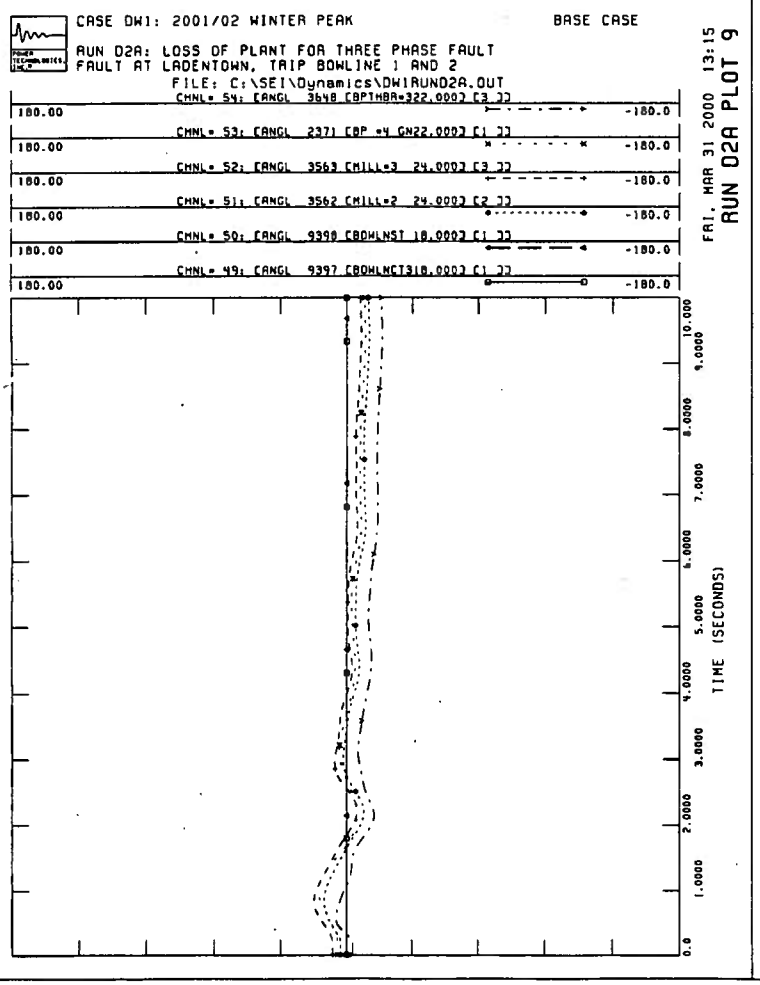
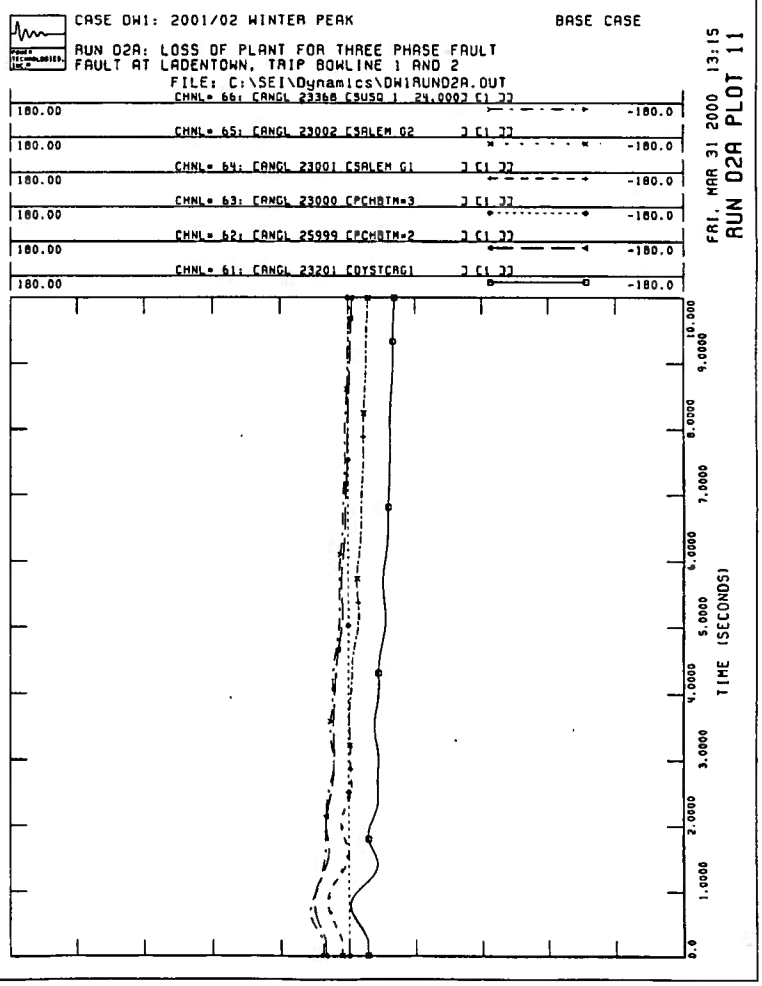
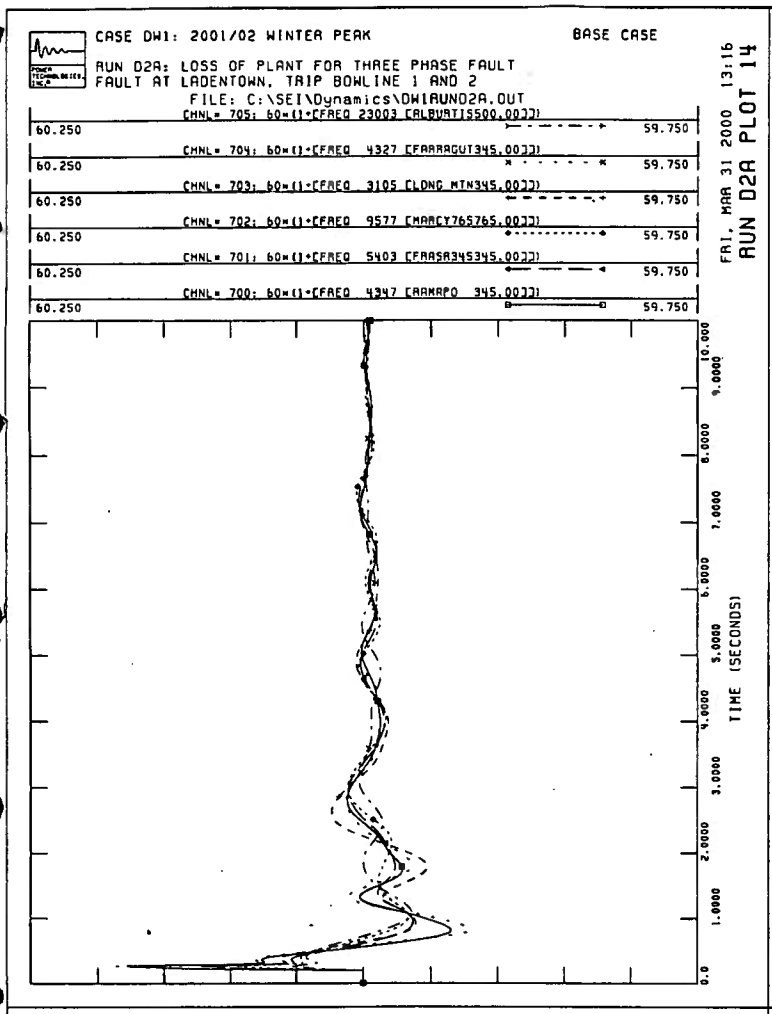
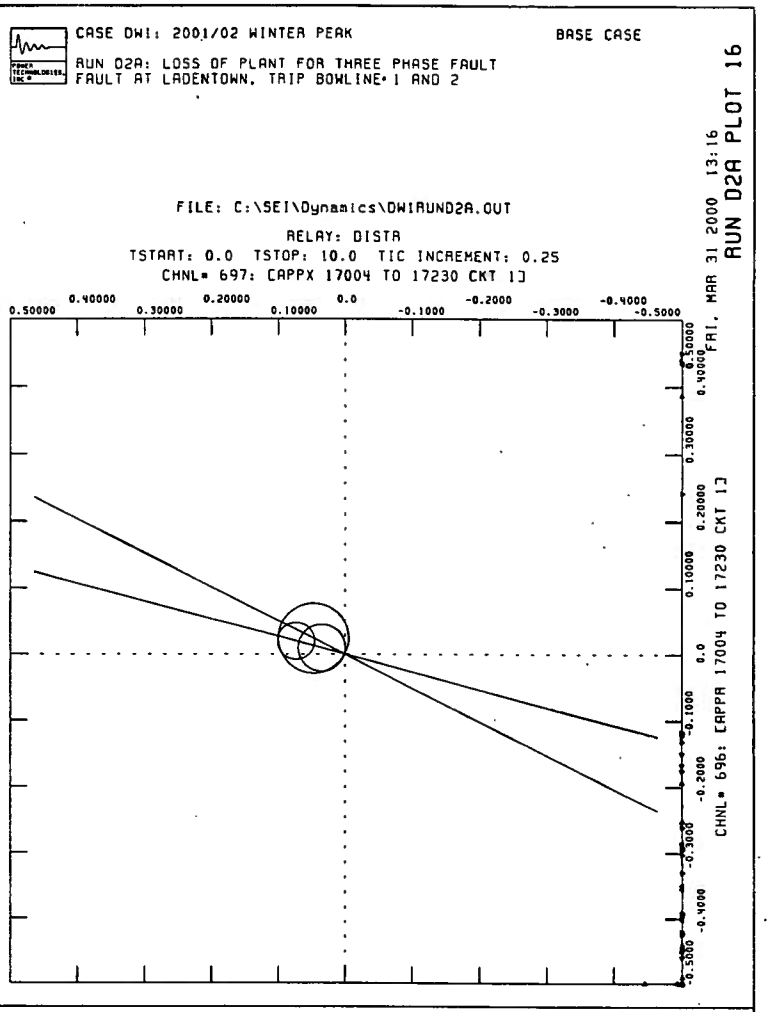
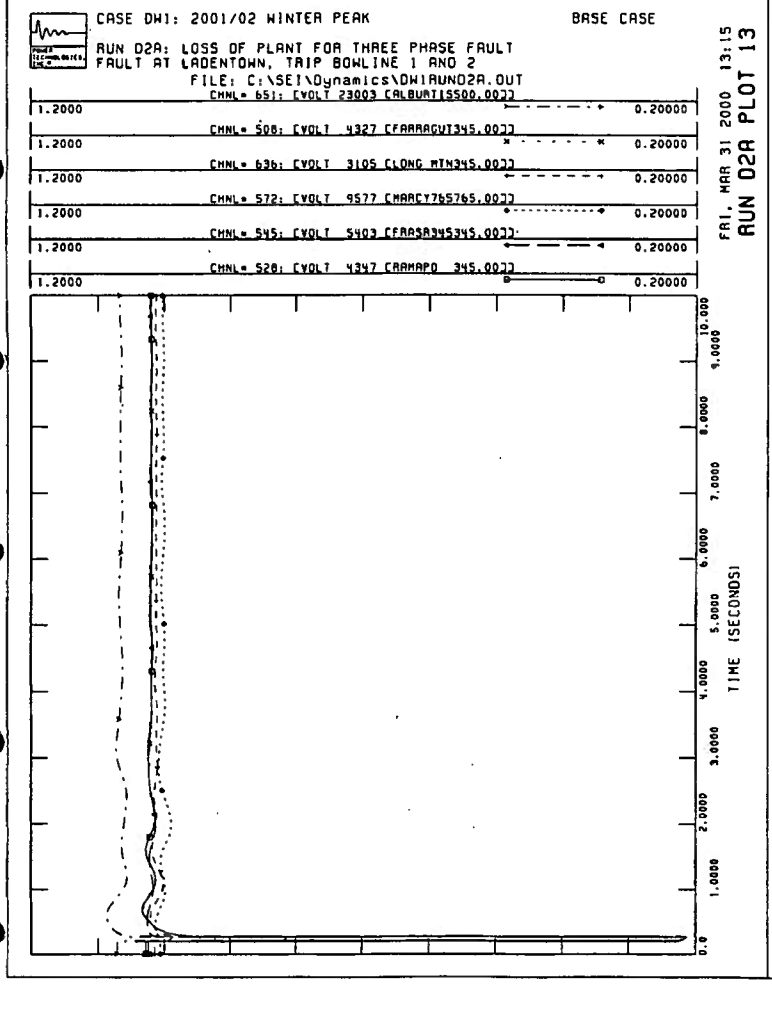
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:15
RUN D2A PLOT 12

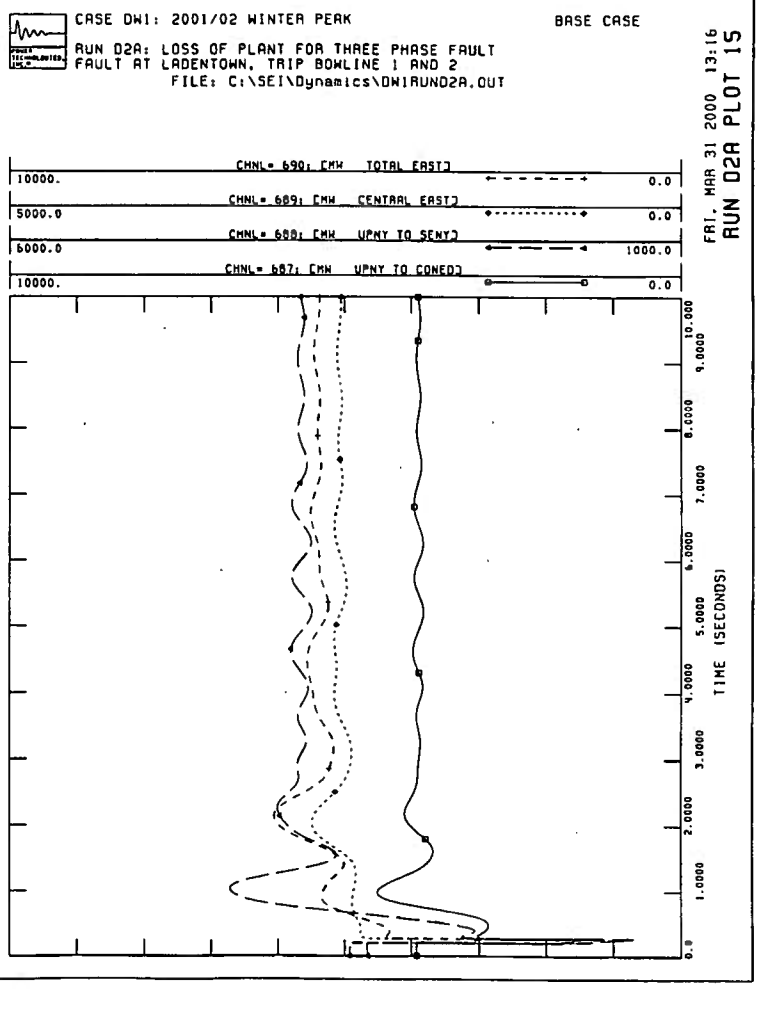

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 54: [ANGL 3648 [BPTHBA=322.000] [3]]
CHNL= 53: [ANGL 2371 [BP =4 GN22.000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50: [ANGL 9398 [BDWLNST 18.000] [1]]
CHNL= 49: [ANGL 9397 [BDWLNCT318.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:15
RUN D2A PLOT 9


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 66: [ANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: [ANGL 23201 [DYSTCAG1] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:15
RUN D2A PLOT 11


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURTIS500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 13:16
RUN D2A PLOT 14
TIME (SECONDS)

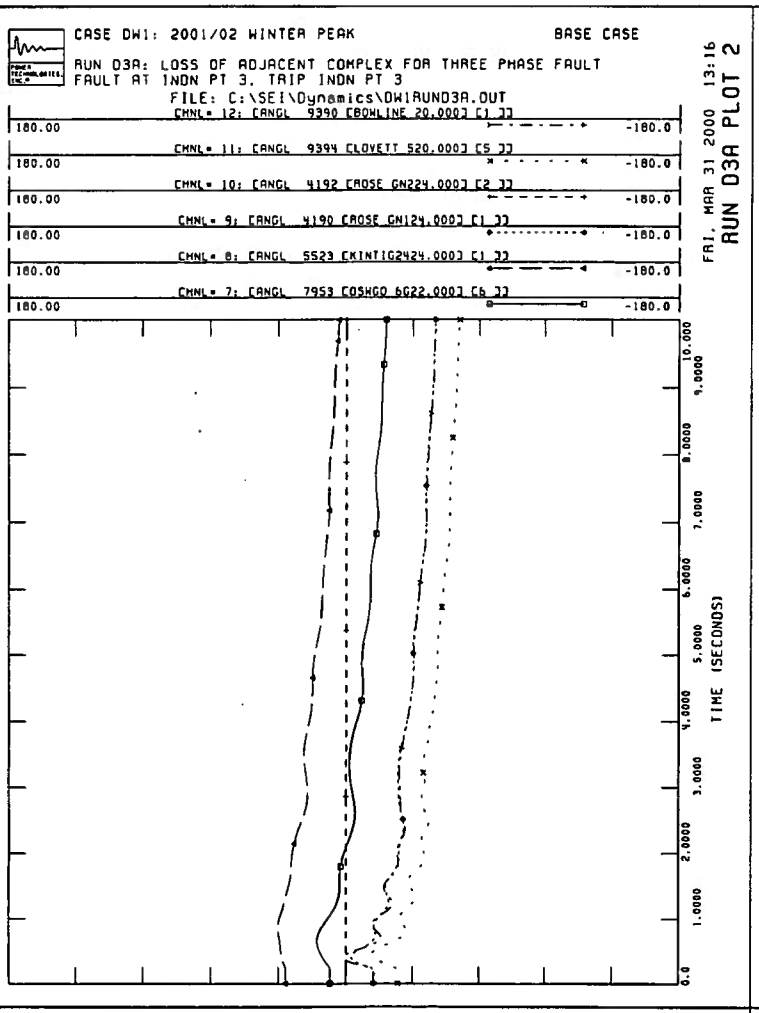

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 13:16
RUN D2A PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

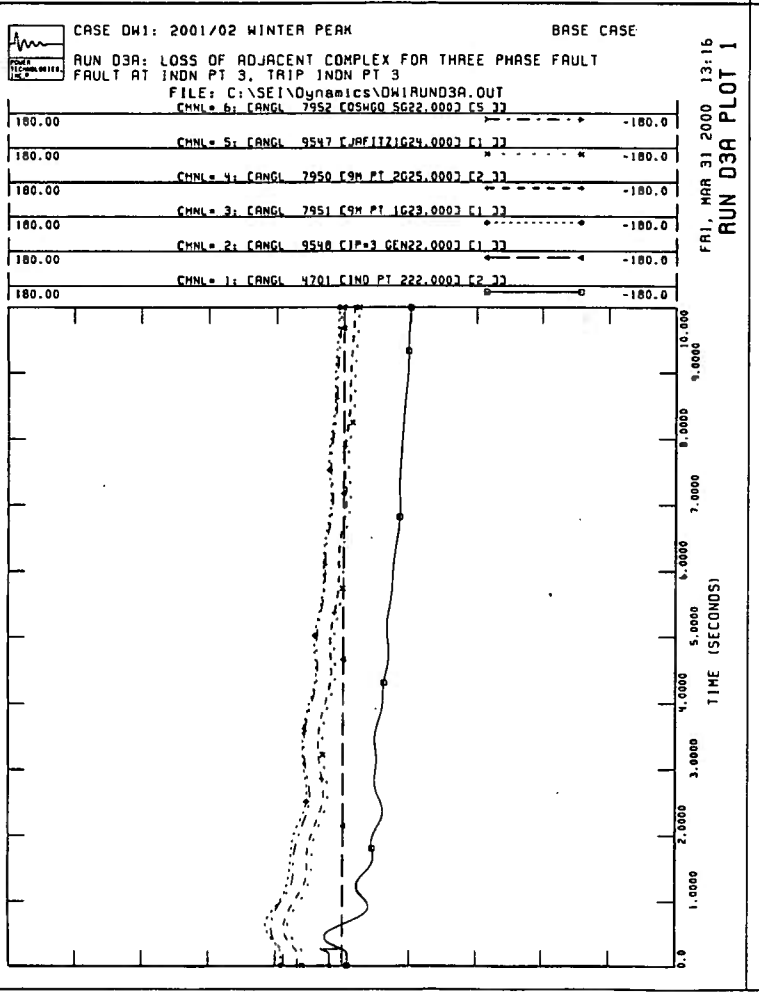

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 651: [VOLT 23003 [ALBURTIS500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 13:15
RUN D2A PLOT 13
TIME (SECONDS)

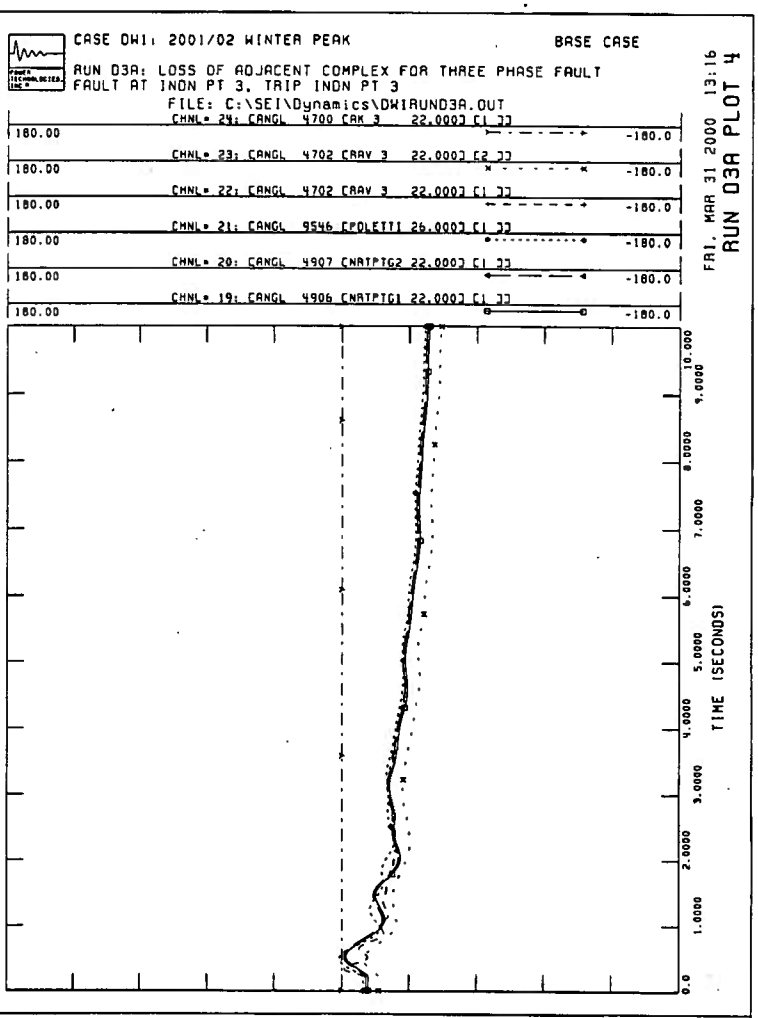

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUND2A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 13:16
RUN D2A PLOT 15
TIME (SECONDS)

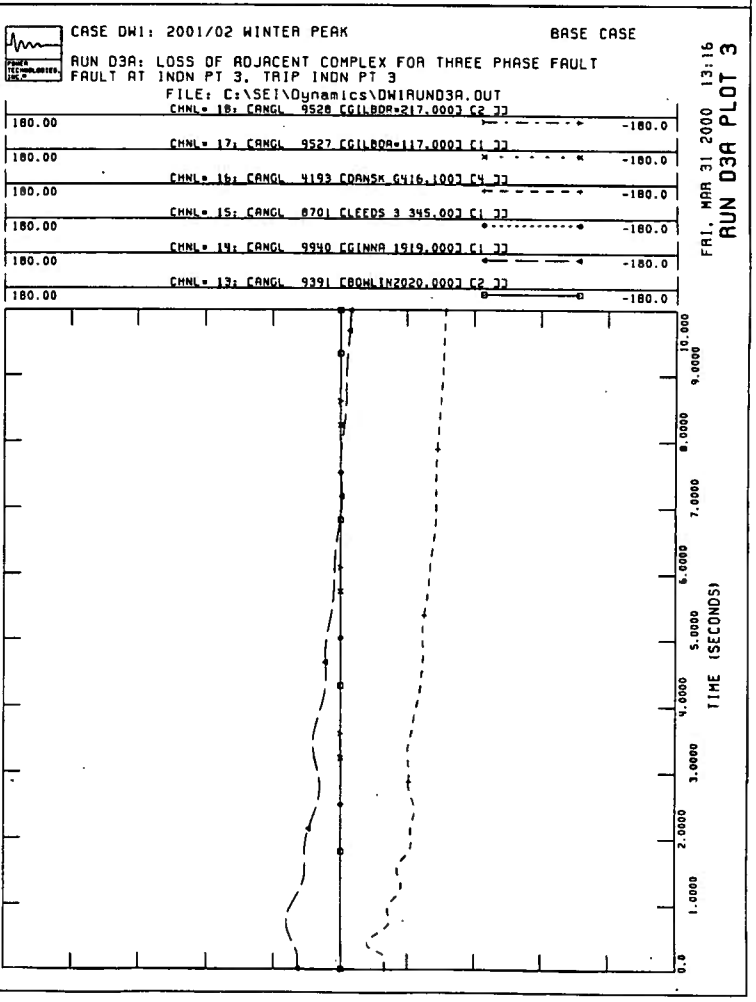
CONTINGENCY D3A

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                           / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT 1NDN PT 3, TRIP 1NDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 2


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT 1NDN PT 3, TRIP 1NDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZIG24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [JP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [1ND PT 222.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 1


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT 1NDN PT 3, TRIP 1NDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [RAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [RAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [FOLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 4


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT 1NDN PT 3, TRIP 1NDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 18: CANGL 9528 [GILBOA-217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA-117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 3

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DW1RUND3A.OUT

CHNL= 36: CANGL 4357 CSITH_GT318.000] [1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] [1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] [1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] [1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] [2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] [1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:16
RUN D3A PLOT 6

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DW1RUND3A.OUT

CHNL= 48: CANGL 9396 CBOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] [1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:16
RUN D3A PLOT 8

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DW1RUND3A.OUT

CHNL= 30: CANGL 4705 CAST 4 20.000] [2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] [1]]
CHNL= 28: CANGL 4708 CRAY 2 20.000] [2]]
CHNL= 27: CANGL 4708 CRAY 2 20.000] [1]]
CHNL= 26: CANGL 4707 CRAY 1 20.000] [2]]
CHNL= 25: CANGL 4707 CRAY 1 20.000] [1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:16
RUN D3A PLOT 5

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

FILE: C:\SEI\Dynamics\DW1RUND3A.OUT

CHNL= 42: CANGL 8707 CATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] [1]]

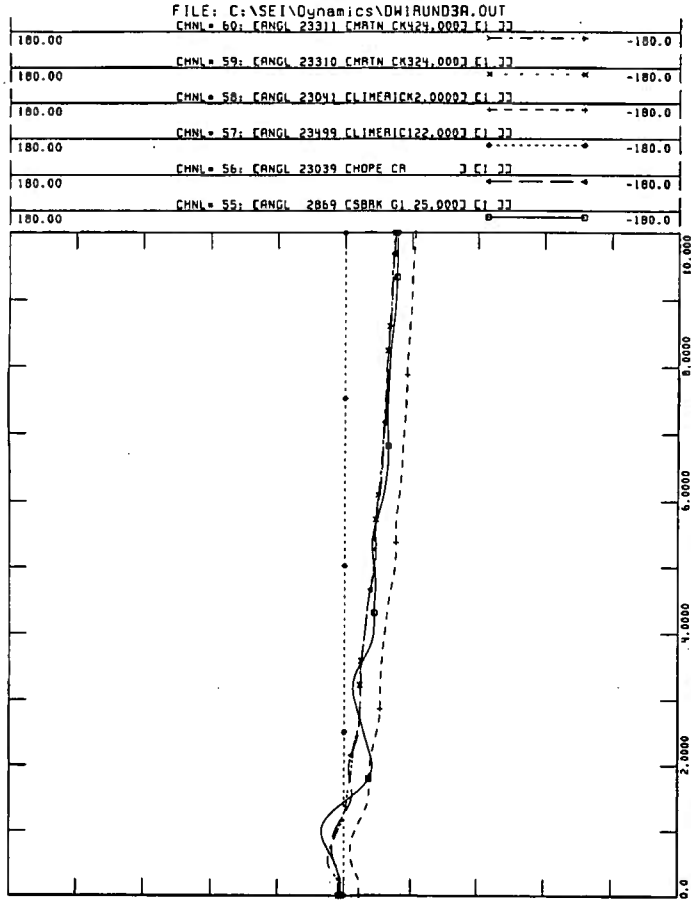
180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:16
RUN D3A PLOT 7

CASE DW1: 2001/02 WINTER PEAK BASE CASE

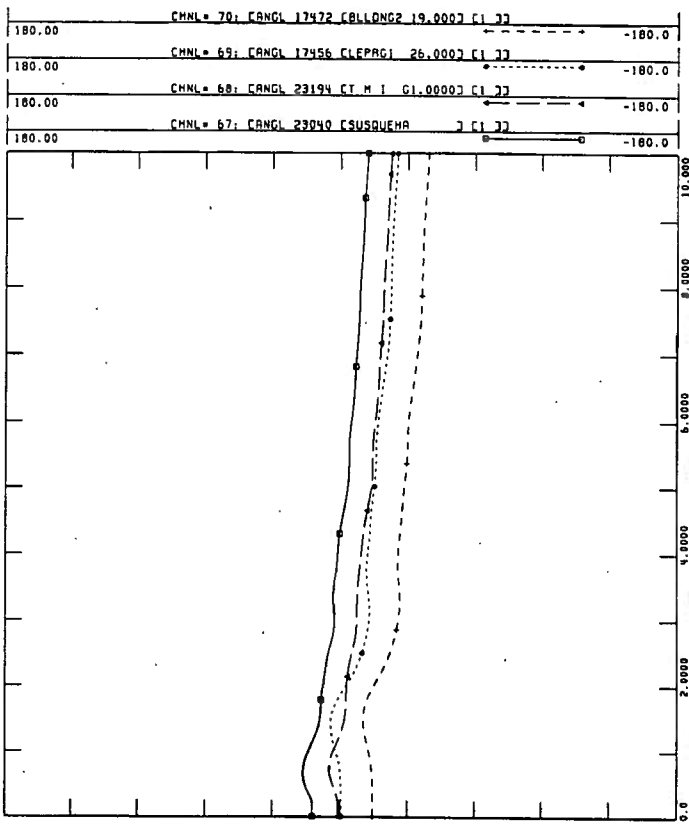
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT



FRI, MAR 31 2000 13:16
RUN D3A PLOT 10

CASE DW1: 2001/02 WINTER PEAK BASE CASE

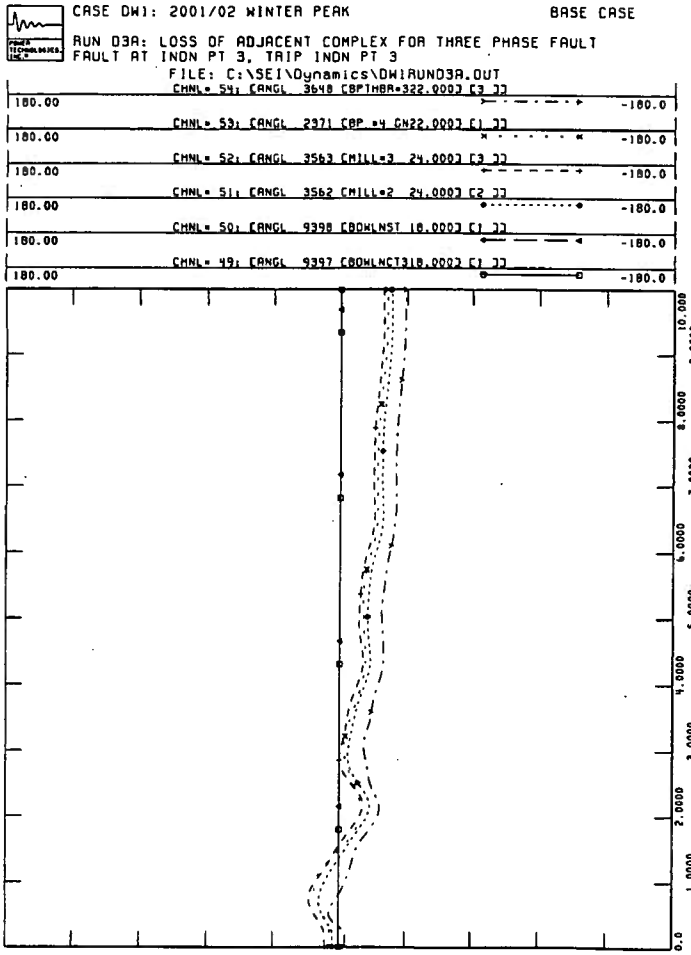
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT



FRI, MAR 31 2000 13:16
RUN D3A PLOT 12

CASE DW1: 2001/02 WINTER PEAK BASE CASE

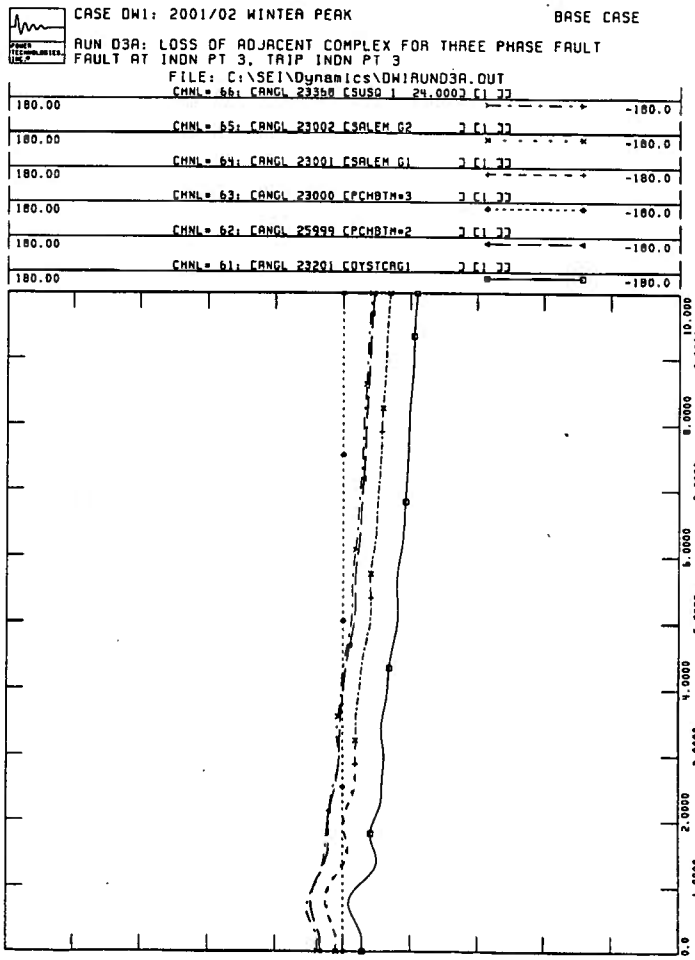
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT



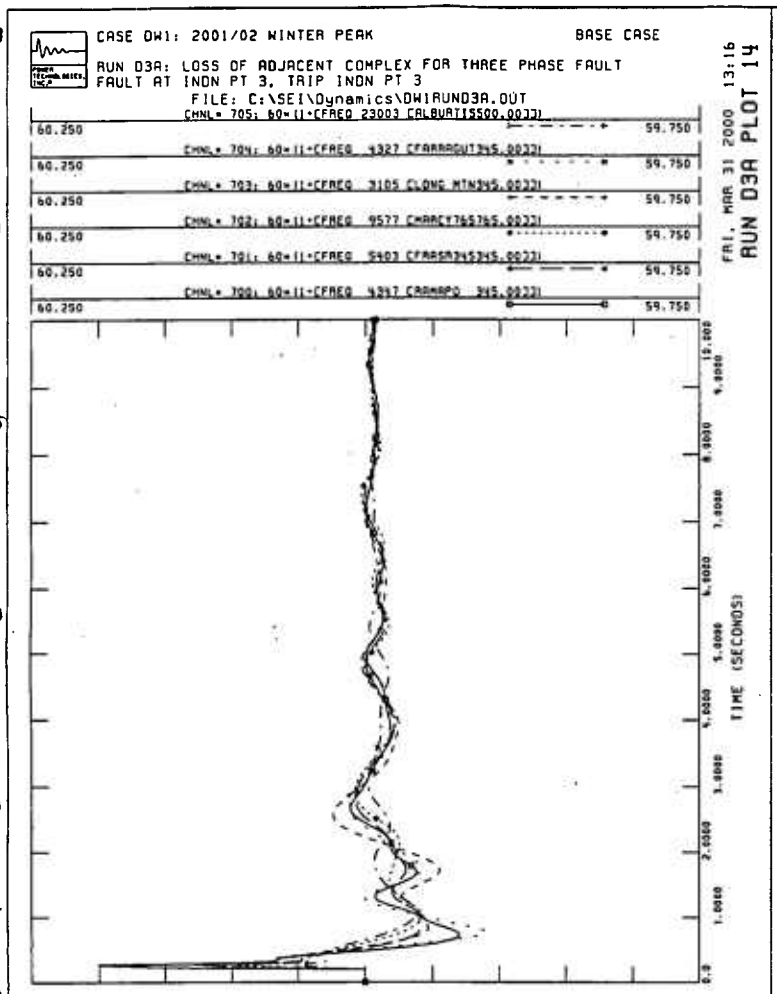
FRI, MAR 31 2000 13:16
RUN D3A PLOT 9

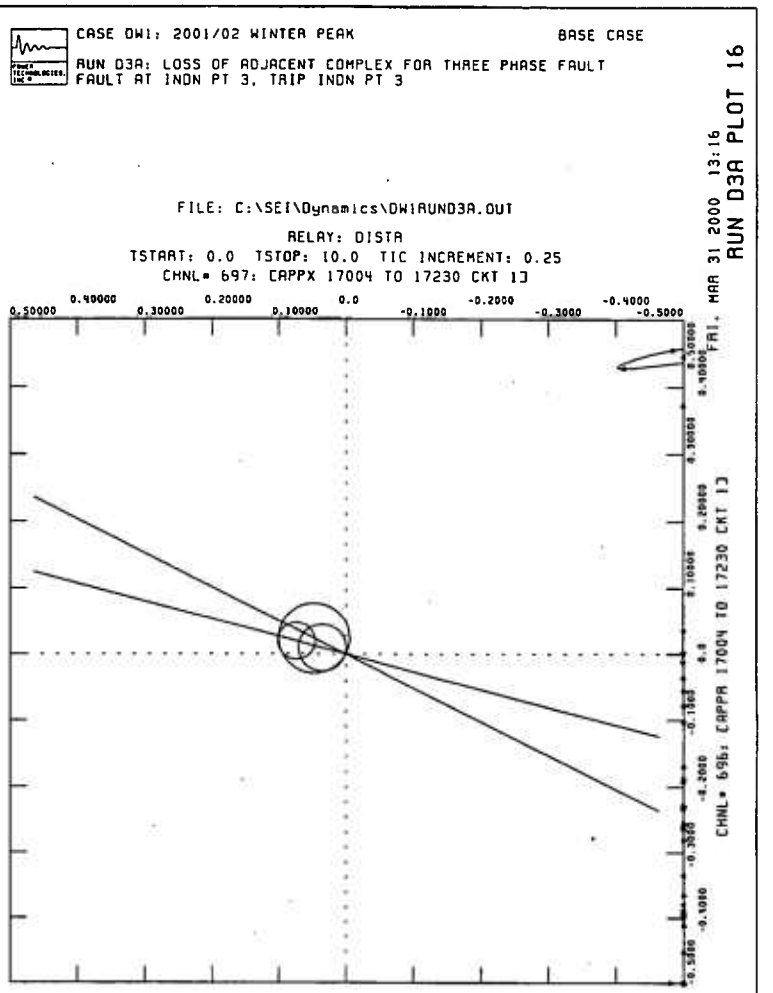
CASE DW1: 2001/02 WINTER PEAK BASE CASE

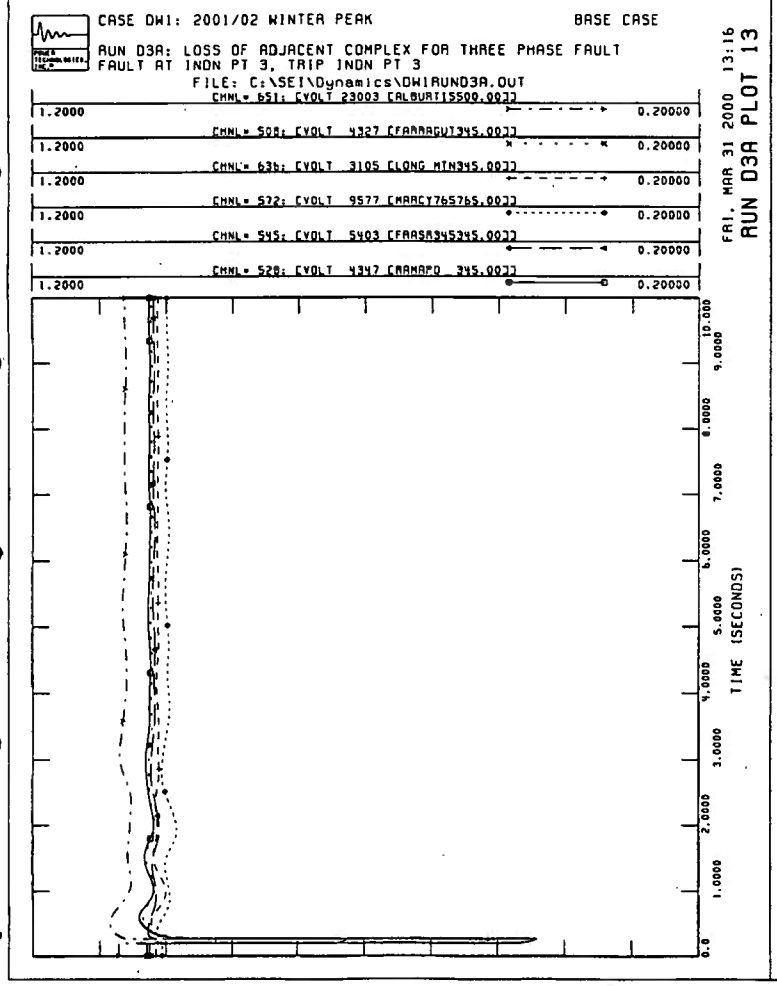
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT

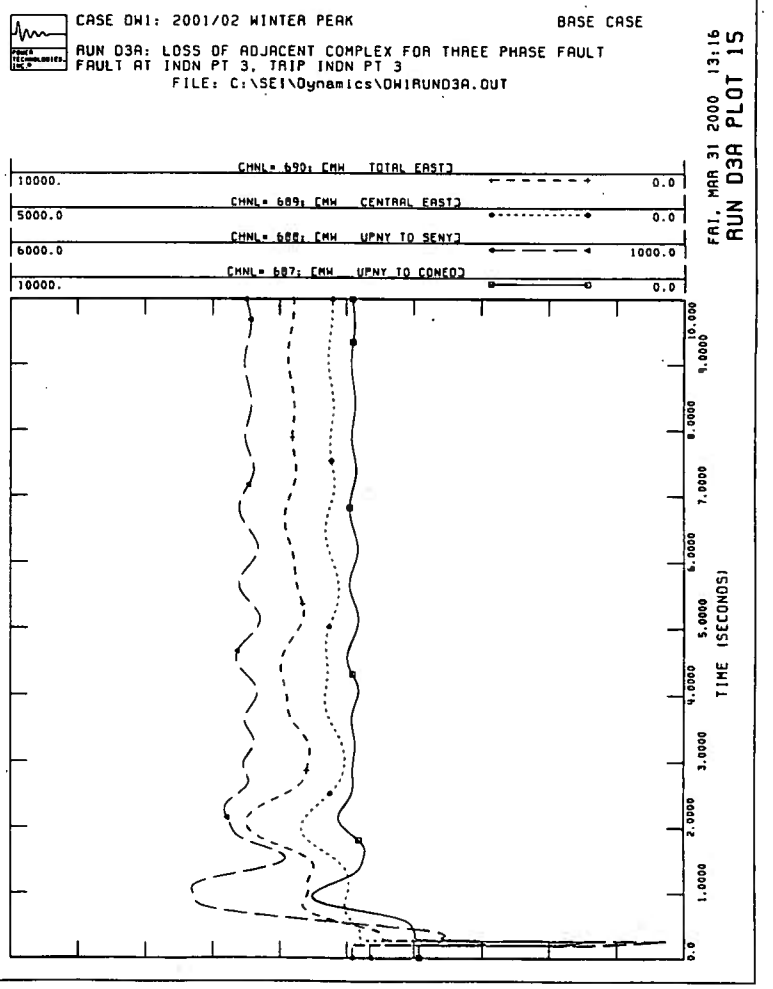


FRI, MAR 31 2000 13:16
RUN D3A PLOT 11


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 705: 60=(1+CFREQ 23003 CALBURT15500.00]]
CHNL= 704: 60=(1+CFREQ 4327 CFARRAGUT345.00]]
CHNL= 703: 60=(1+CFREQ 3105 CLONG MTN345.00]]
CHNL= 702: 60=(1+CFREQ 9577 CMARCY765765.00]]
CHNL= 701: 60=(1+CFREQ 5403 CFRASR345345.00]]
CHNL= 700: 60=(1+CFREQ 4347 CRAMAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 14

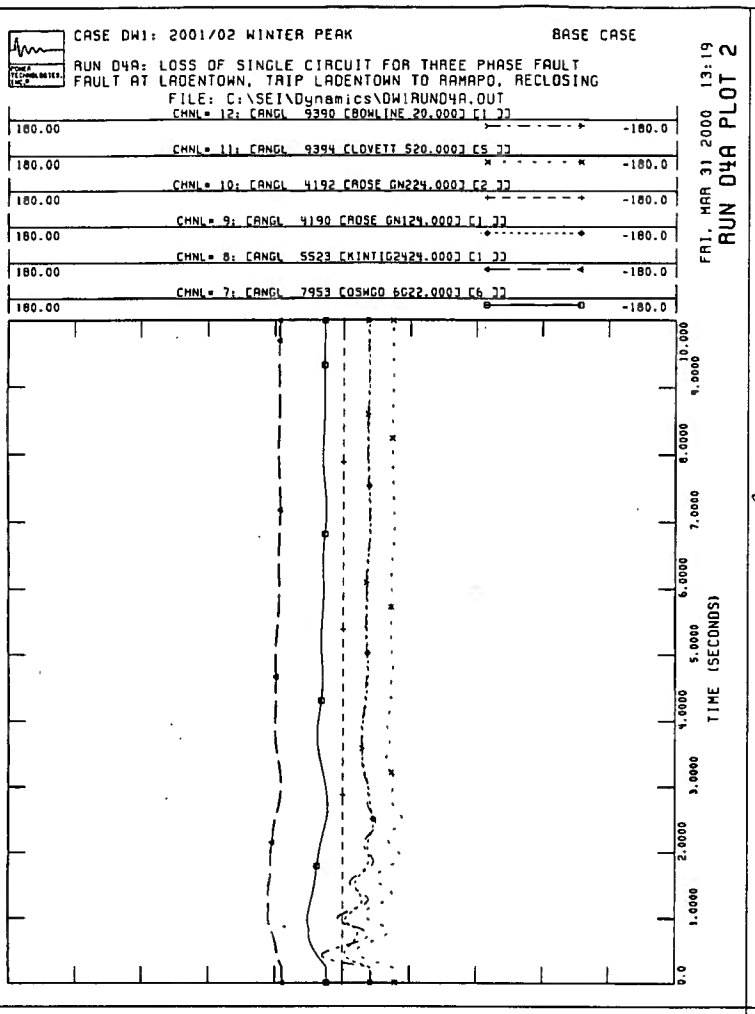

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
CHNL= 696: [APPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 13:16
RUN D3A PLOT 16

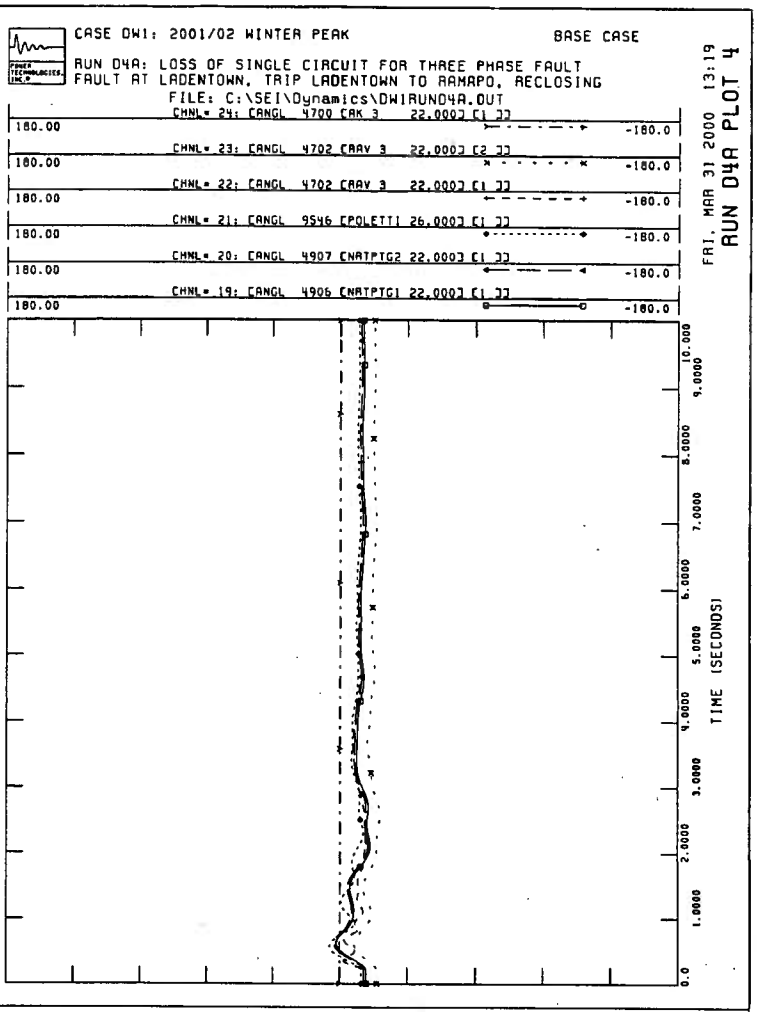

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 651: [VOLT 23003 CALBURT15500.00]]
CHNL= 508: [VOLT 4327 CFARRAGUT345.00]]
CHNL= 636: [VOLT 3105 CLONG MTN345.00]]
CHNL= 572: [VOLT 9577 CMARCY765765.00]]
CHNL= 545: [VOLT 5403 CFRASR345345.00]]
CHNL= 528: [VOLT 4347 CRAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 13

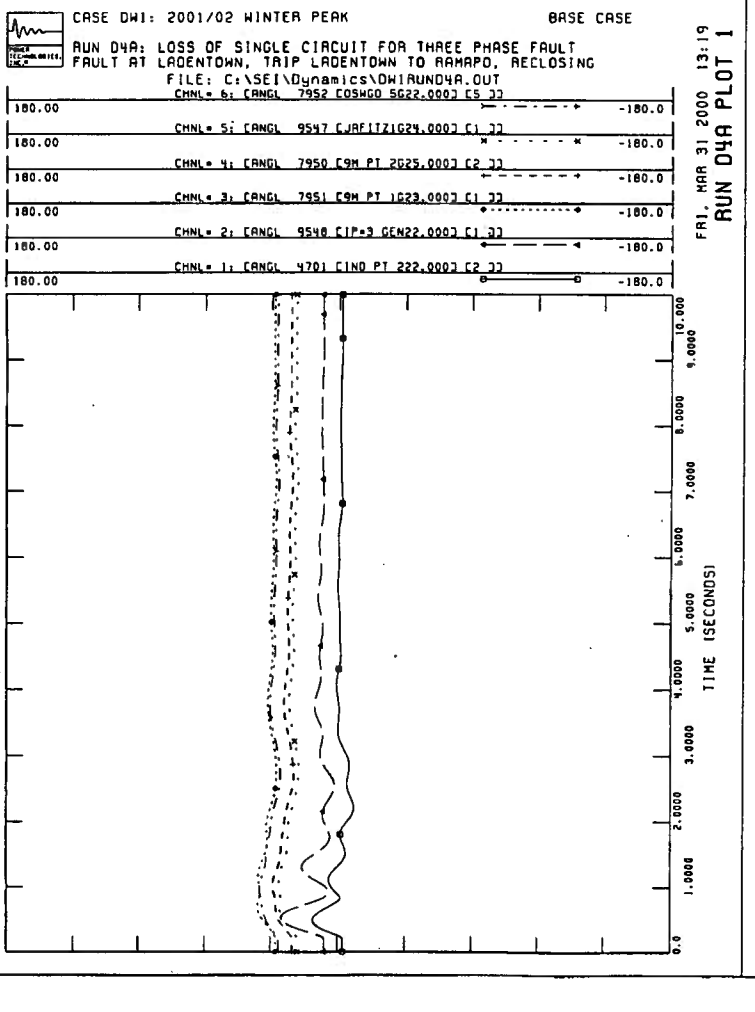

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW1RUND3A.OUT
CHNL= 690: [MW TOTAL EAST]
CHNL= 689: [MW CENTRAL EAST]
CHNL= 688: [MW UPNY TO SENY]
CHNL= 687: [MW UPNY TO CONED]
10000.
5000.0
6000.0
1000.0
0.0
TIME (SECONDS)
FRI, MAR 31 2000 13:16
RUN D3A PLOT 15

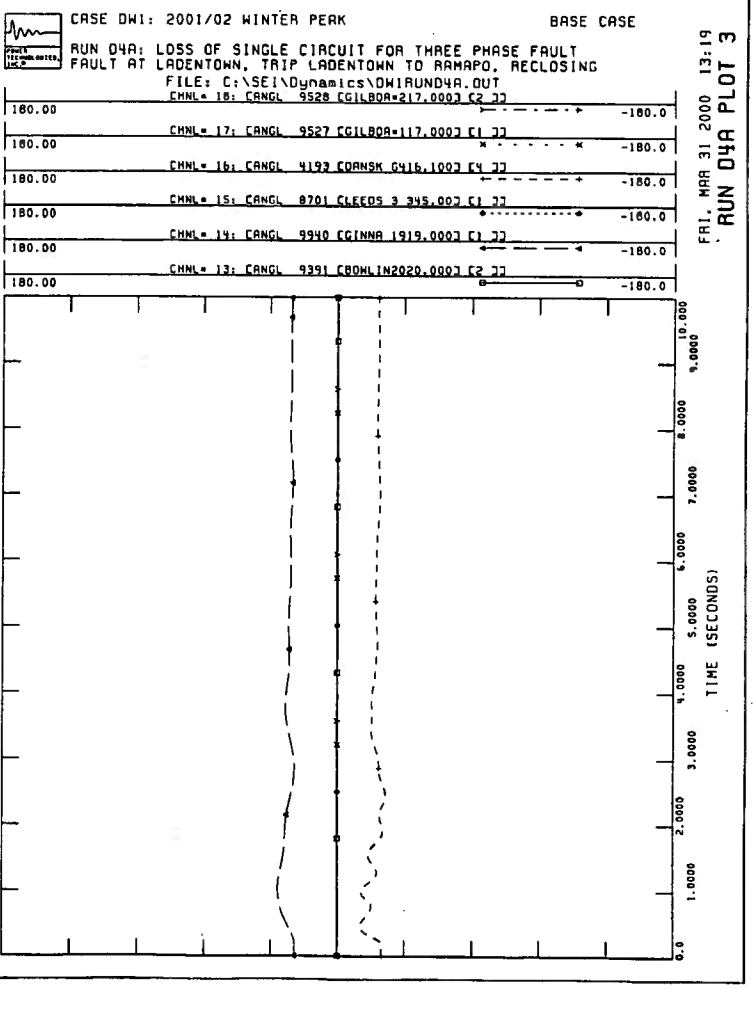
CONTINGENCY D4A

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1             / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345  / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT S20.000] [S]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 13:19
RUN D4A PLOT 2


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [AAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [AAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETT1 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 13:19
RUN D4A PLOT 4


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFLITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 13:19
RUN D4A PLOT 1


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT
CHNL= 18: CANGL 9528 [GILBOA-217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA-117.000] [1]]
CHNL= 16: CANGL 4193 [OANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 13:19
RUN D4A PLOT 3

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

CHNL= 36: CANGL 4357 CSITH GT3 18.000] C1]]
CHNL= 35: CANGL 4353 CSITH GT2 18.000] C1]]
CHNL= 34: CANGL 4352 CSITH GT1 18.000] C1]]
CHNL= 33: CANGL 4350 CSITH STM1 6.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4A PLOT 6

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

CHNL= 48: CANGL 9396 CBOWLNCT2 18.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT1 18.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST3 13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT1 6.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST3 13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT1 6.000] C1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4A PLOT 8

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]

180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4A PLOT 5

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

CHNL= 42: CANGL 8707 CATHENSST3 13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT1 6.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

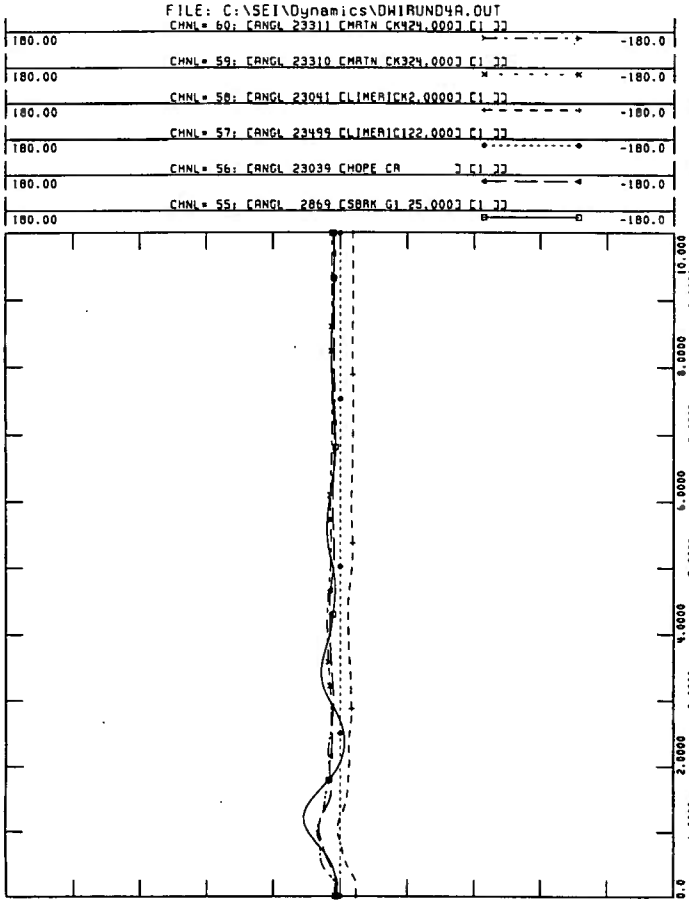
180.00 -180.0

TIME (SECONDS) 0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4A PLOT 7

CASE DW1: 2001/02 WINTER PEAK BASE CASE

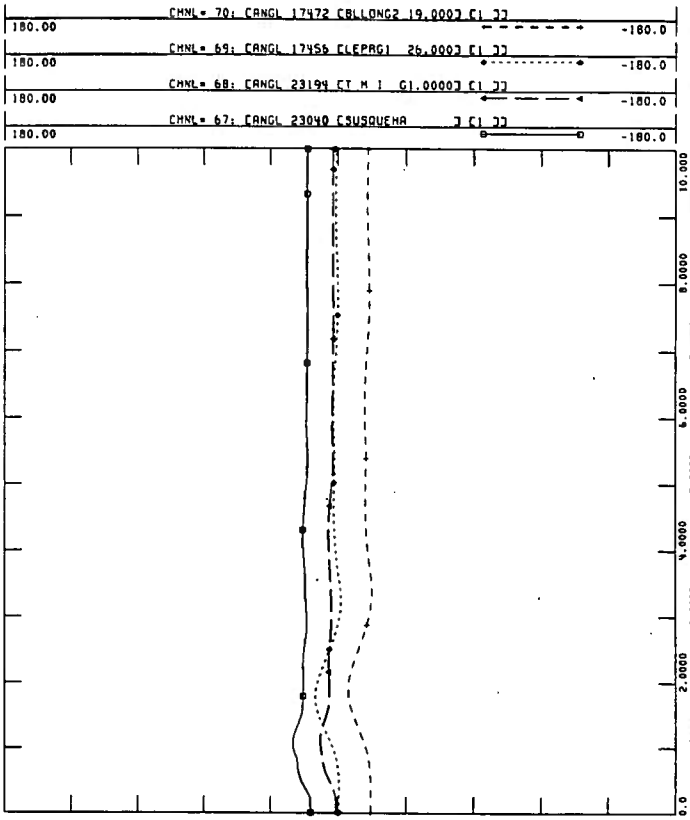
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT



FRI, MAR 31 2000 13:19
RUN D4A PLOT 10

CASE DW1: 2001/02 WINTER PEAK BASE CASE

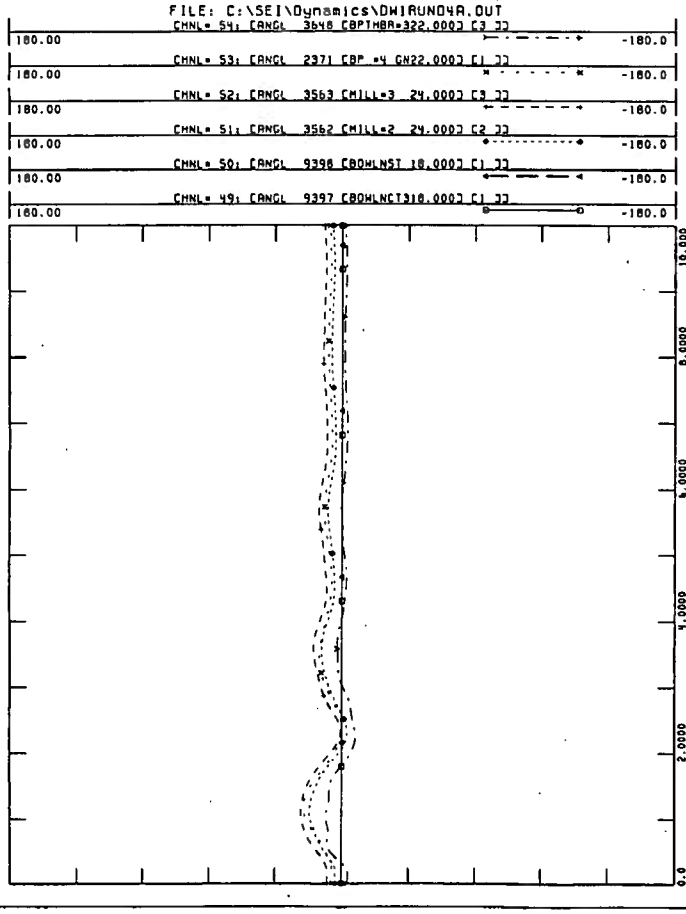
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT



FRI, MAR 31 2000 13:19
RUN D4A PLOT 12

CASE DW1: 2001/02 WINTER PEAK BASE CASE

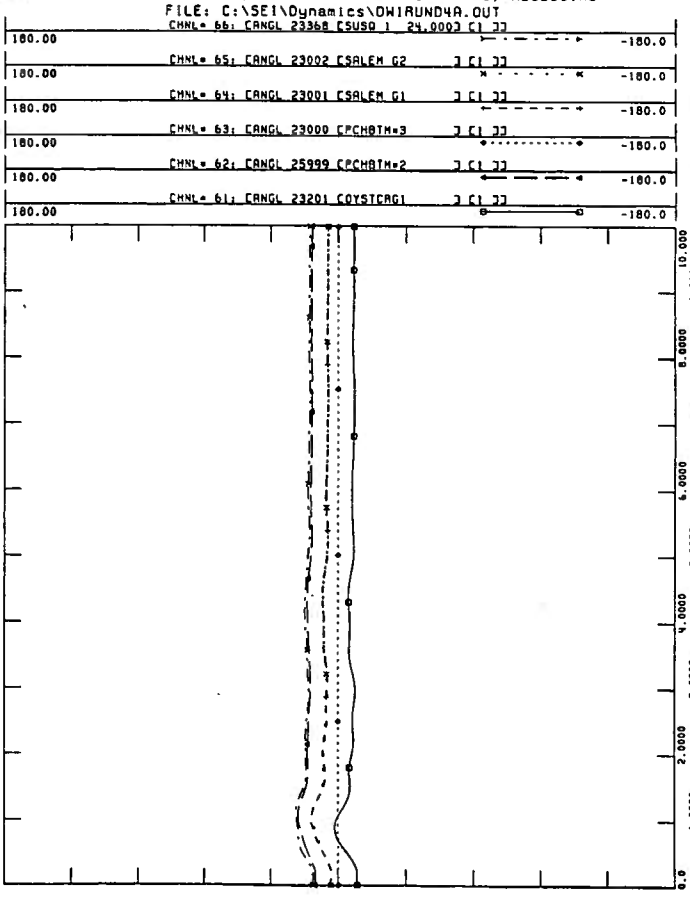
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT



FRI, MAR 31 2000 13:19
RUN D4A PLOT 9

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

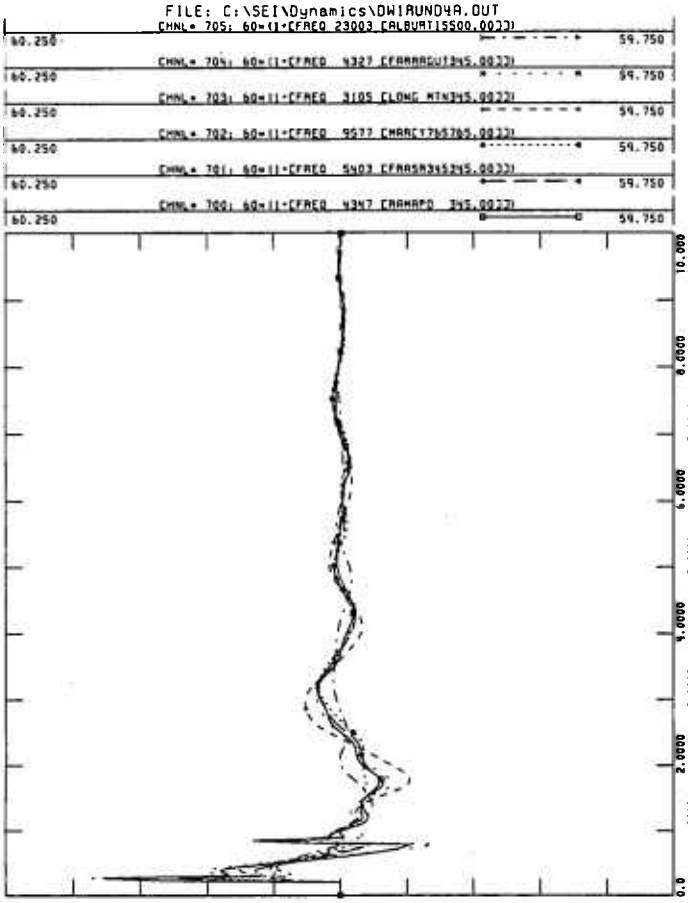


FRI, MAR 31 2000 13:19
RUN D4A PLOT 11

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DW1RUND4A.OUT



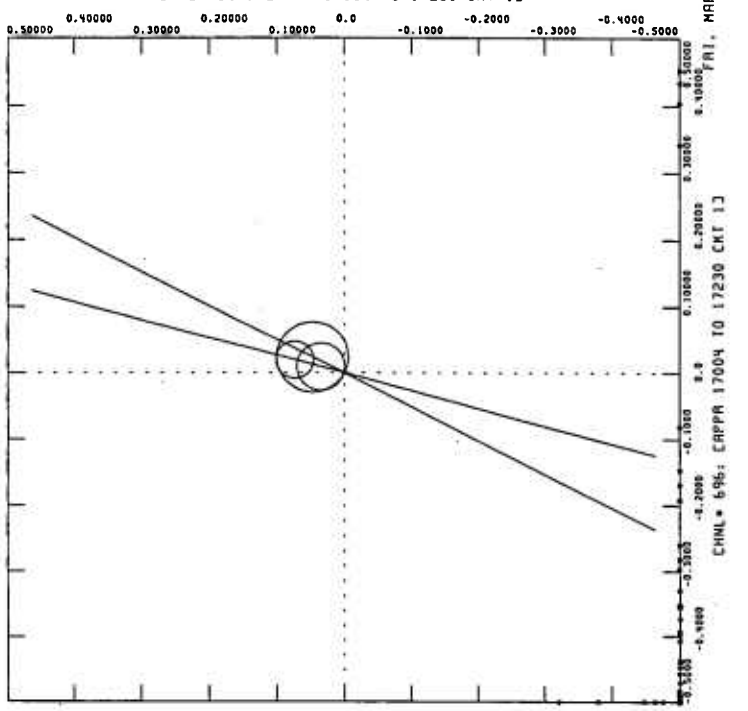
FRI, MAR 31 2000 13:19
RUN D4A PLOT 14

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1J

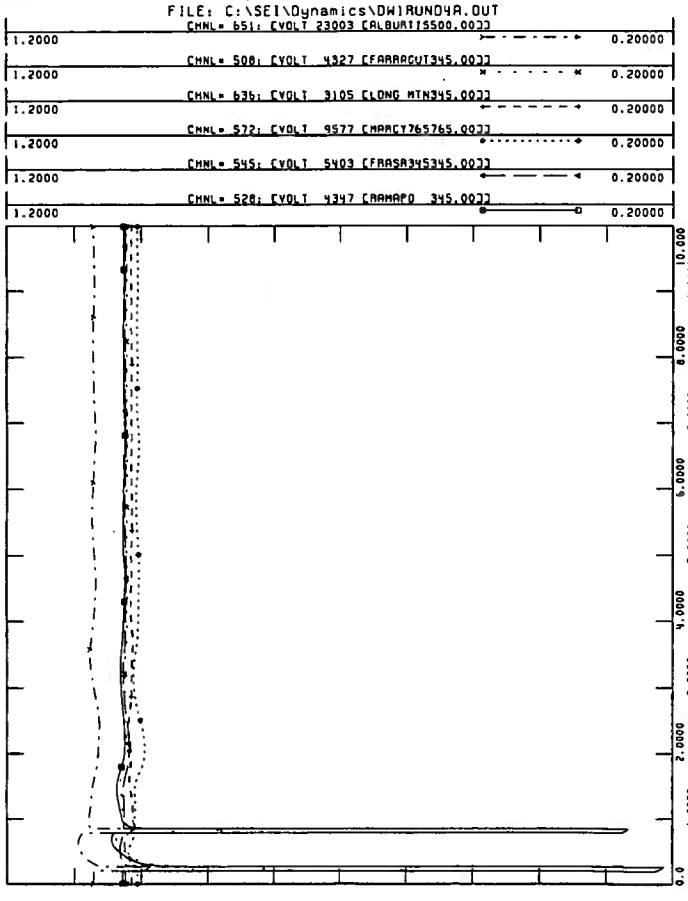


FRI, MAR 31 2000 13:19
RUN D4A PLOT 16

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

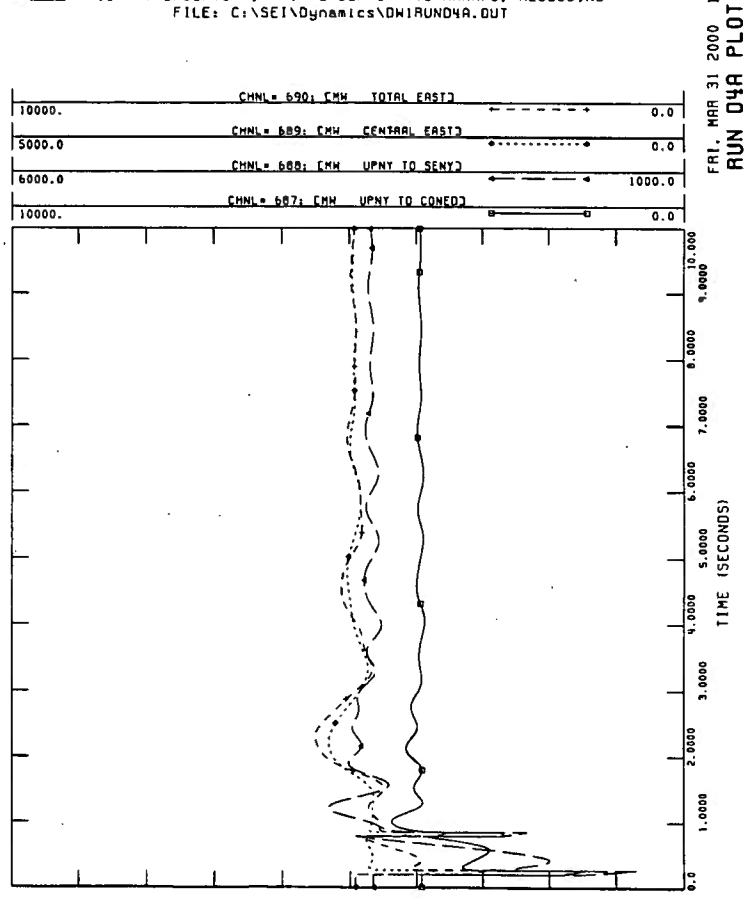
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT



FRI, MAR 31 2000 13:19
RUN D4A PLOT 13

CASE DW1: 2001/02 WINTER PEAK BASE CASE

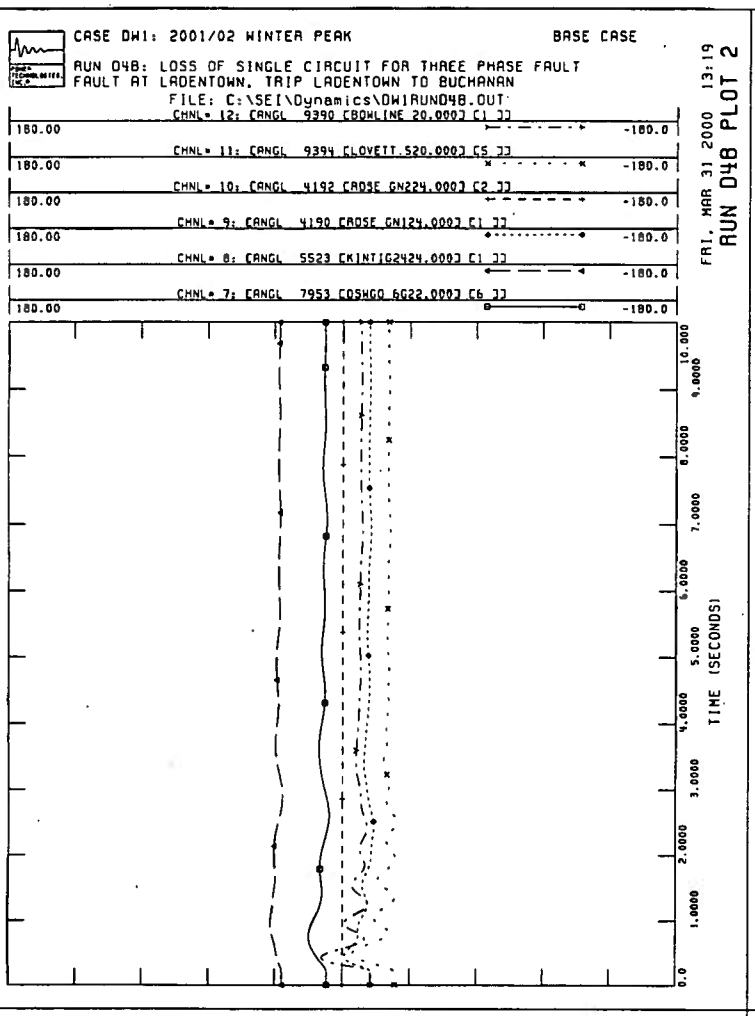
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW1RUND4A.OUT

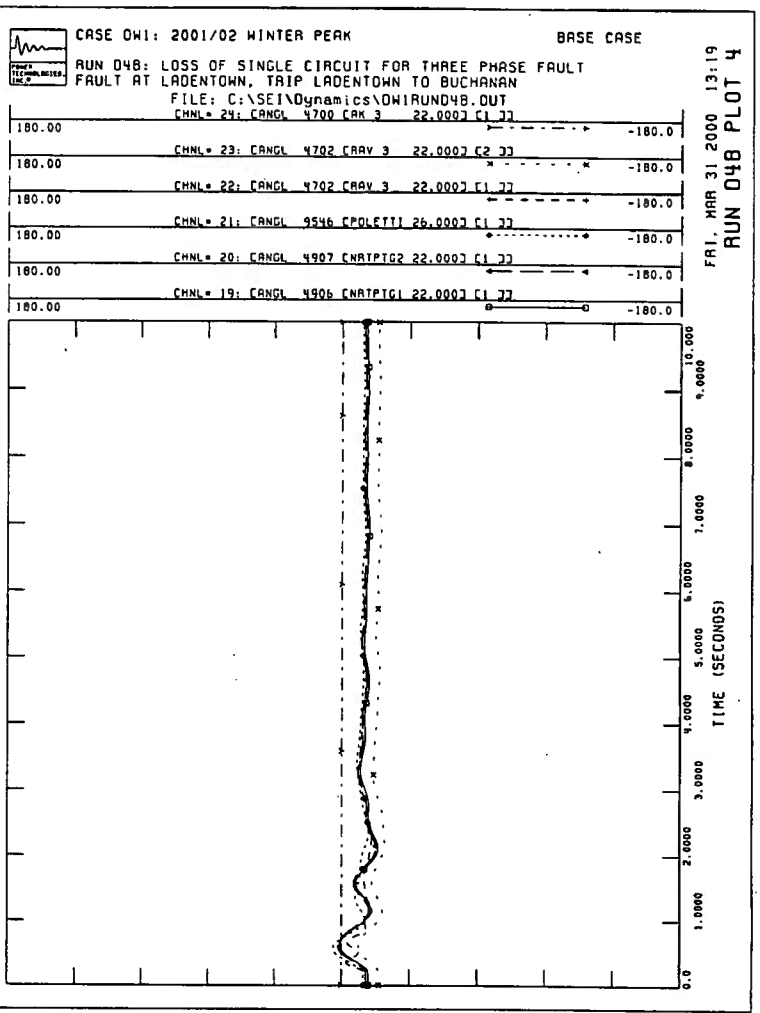


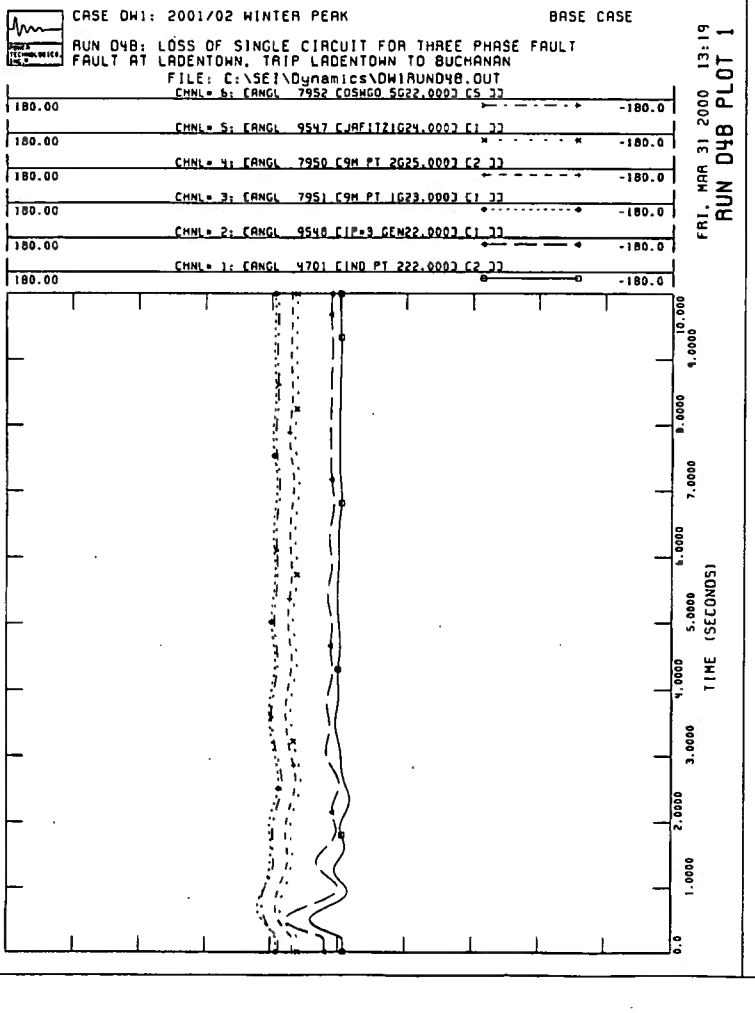
FRI, MAR 31 2000 13:19
RUN D4A PLOT 15

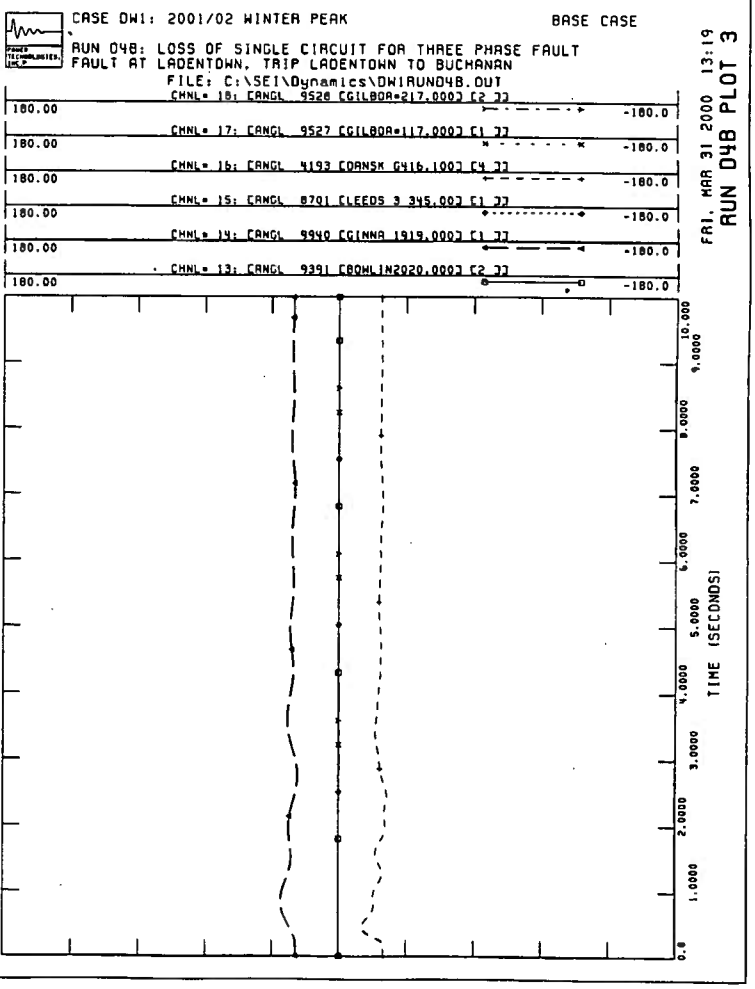
CONTINGENCY D4B

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSHGD 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN 048 PLOT 2

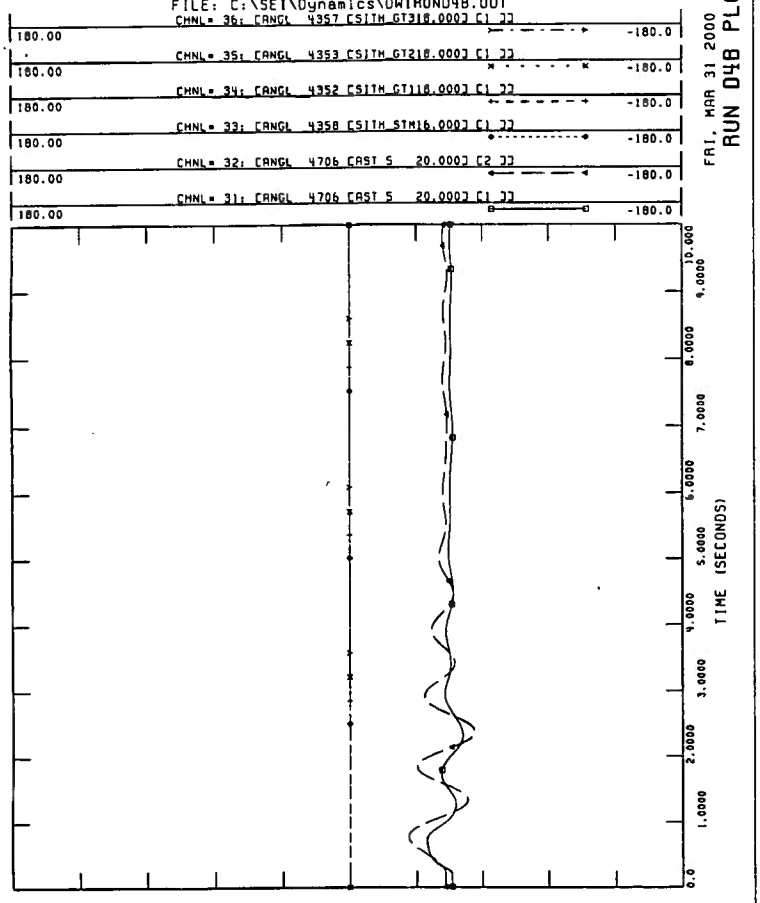

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN 048 PLOT 4


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT
CHNL= 6: CANGL 7952 COSHGD 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZIG24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN 048 PLOT 1


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN 048 PLOT 3

CASE DW1: 2001/02 WINTER PEAK BASE CASE

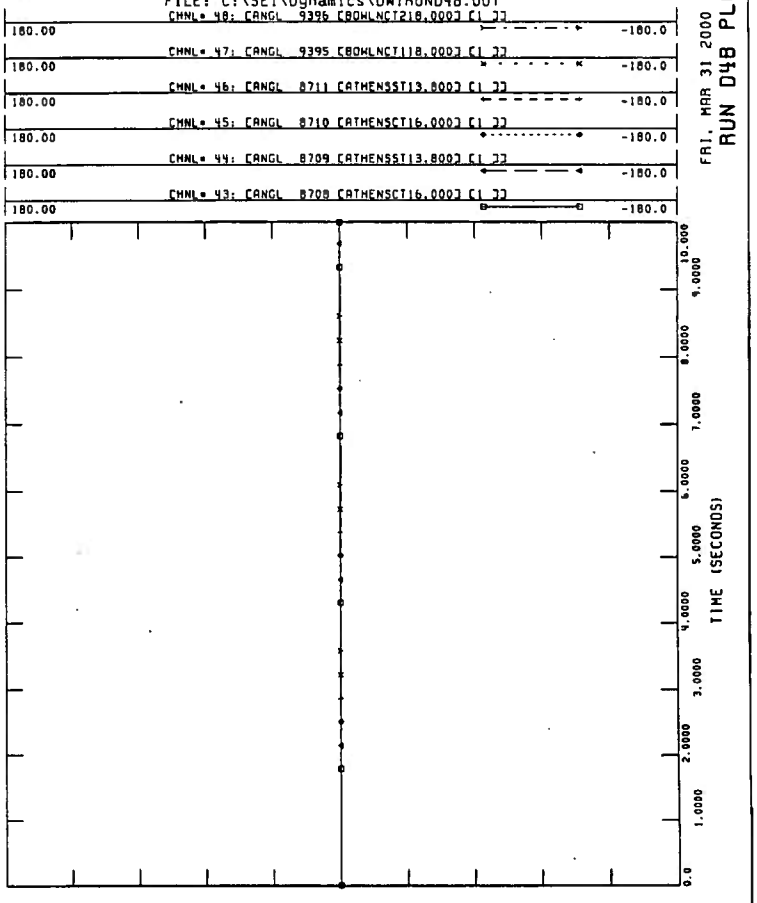
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND4B.OUT



FRI, MAR 31 2000 13:19
RUN D4B PLOT 6

CASE DW1: 2001/02 WINTER PEAK BASE CASE

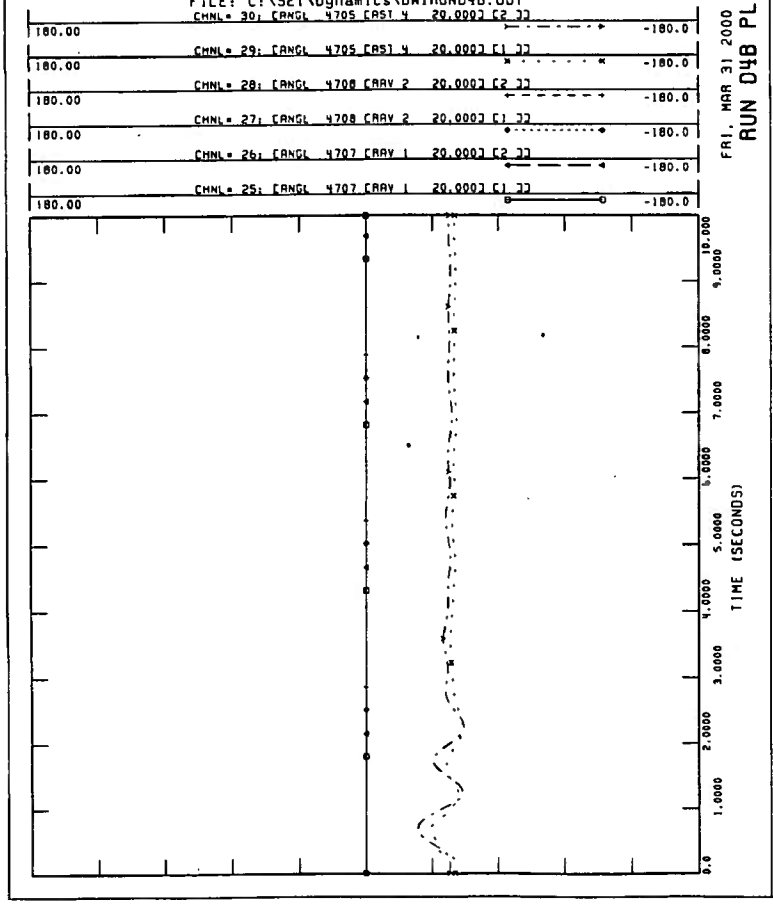
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND4B.OUT



FRI, MAR 31 2000 13:19
RUN D4B PLOT 8

CASE DW1: 2001/02 WINTER PEAK BASE CASE

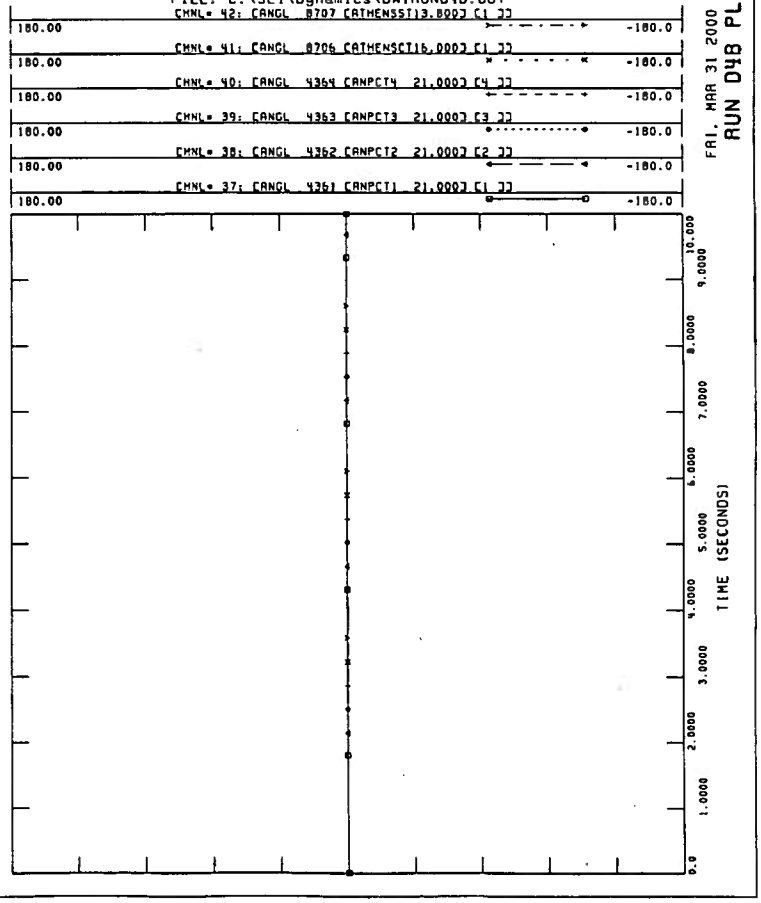
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND4B.OUT



FRI, MAR 31 2000 13:19
RUN D4B PLOT 5

CASE DW1: 2001/02 WINTER PEAK BASE CASE

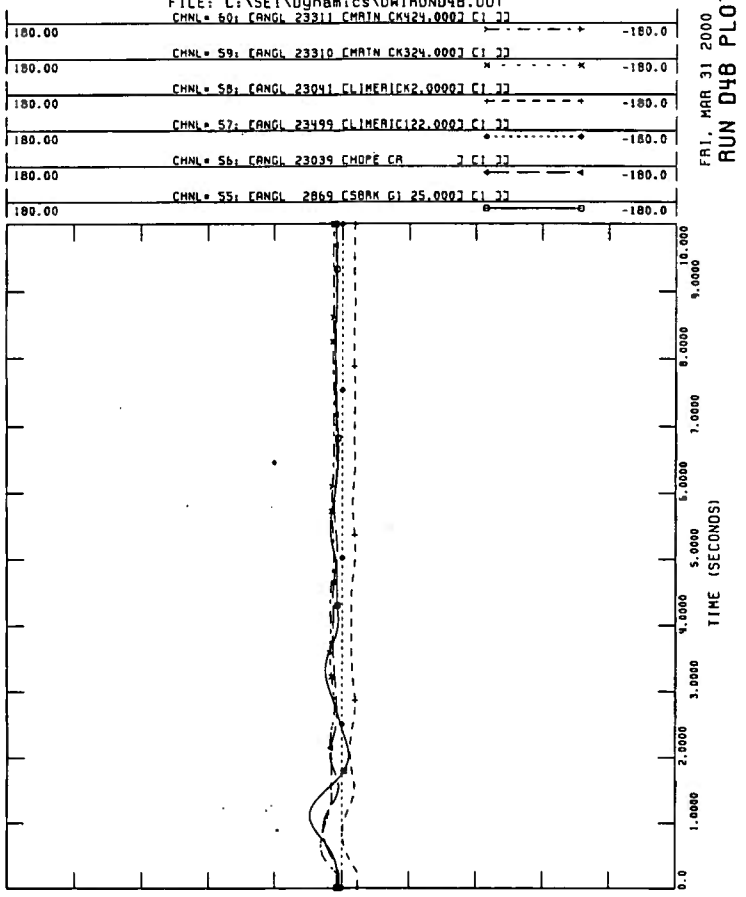
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND4B.OUT



FRI, MAR 31 2000 13:19
RUN D4B PLOT 7

CASE DW1: 2001/02 WINTER PEAK BASE CASE

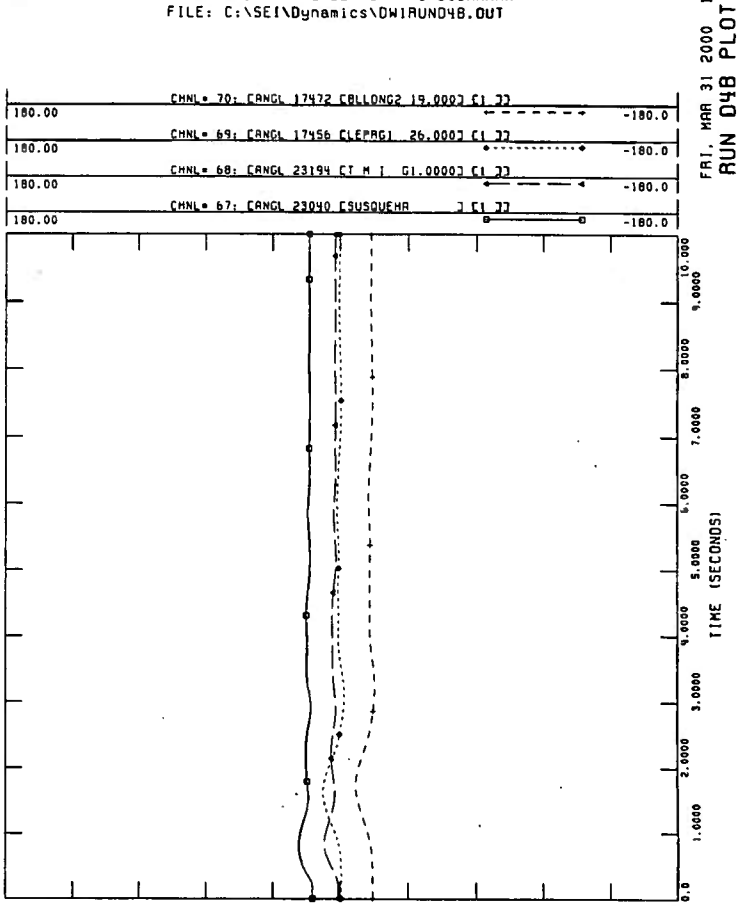
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT



FRI, MAR 31 2000 13:19
RUN 048 PLOT 10

CASE DW1: 2001/02 WINTER PEAK BASE CASE

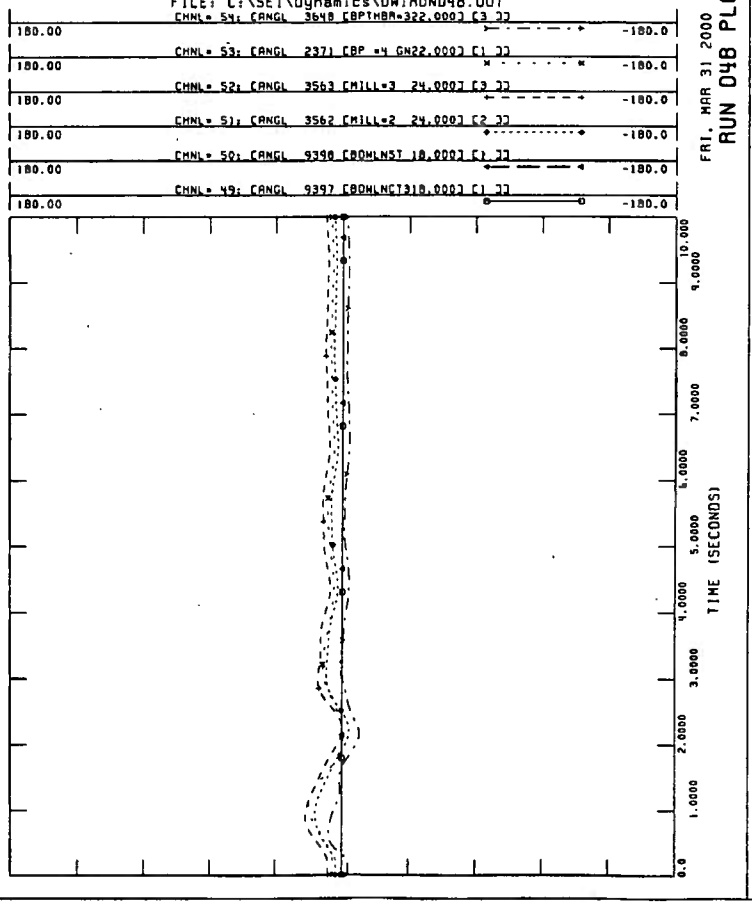
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT



FRI, MAR 31 2000 13:19
RUN 048 PLOT 12

CASE DW1: 2001/02 WINTER PEAK BASE CASE

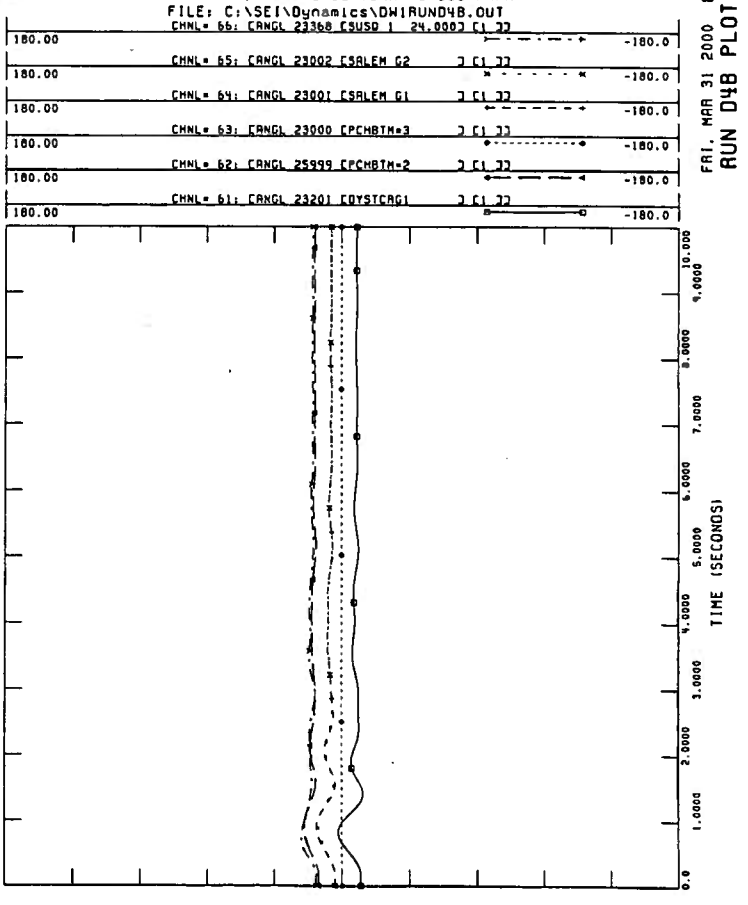
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT



FRI, MAR 31 2000 13:19
RUN 048 PLOT 9

CASE DW1: 2001/02 WINTER PEAK BASE CASE

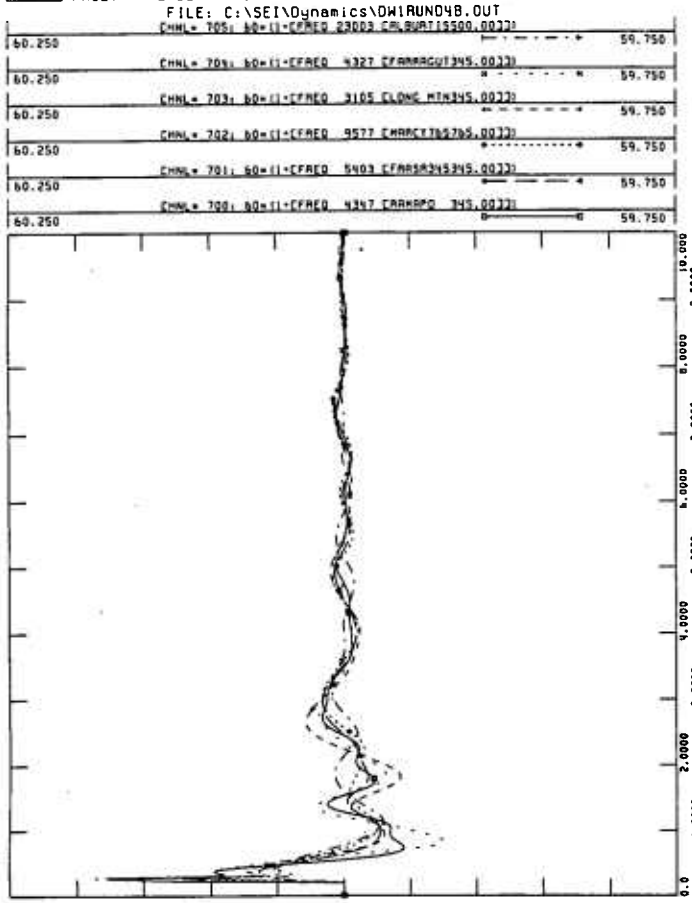
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUN048.OUT



FRI, MAR 31 2000 13:19
RUN 048 PLOT 11

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND48.OUT



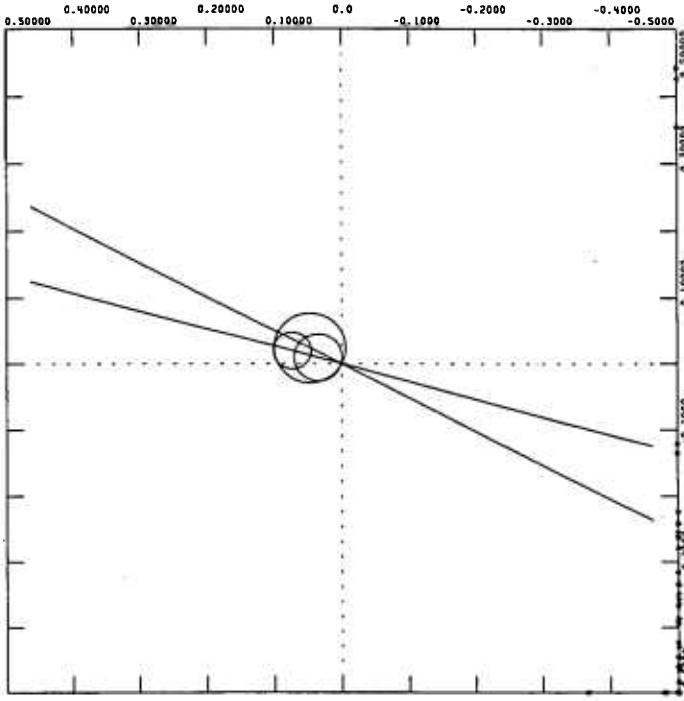
FRI, MAR 31 2000 13:19
RUN D48 PLOT 14

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN

FILE: C:\SEI\Dynamics\DW1RUND48.OUT

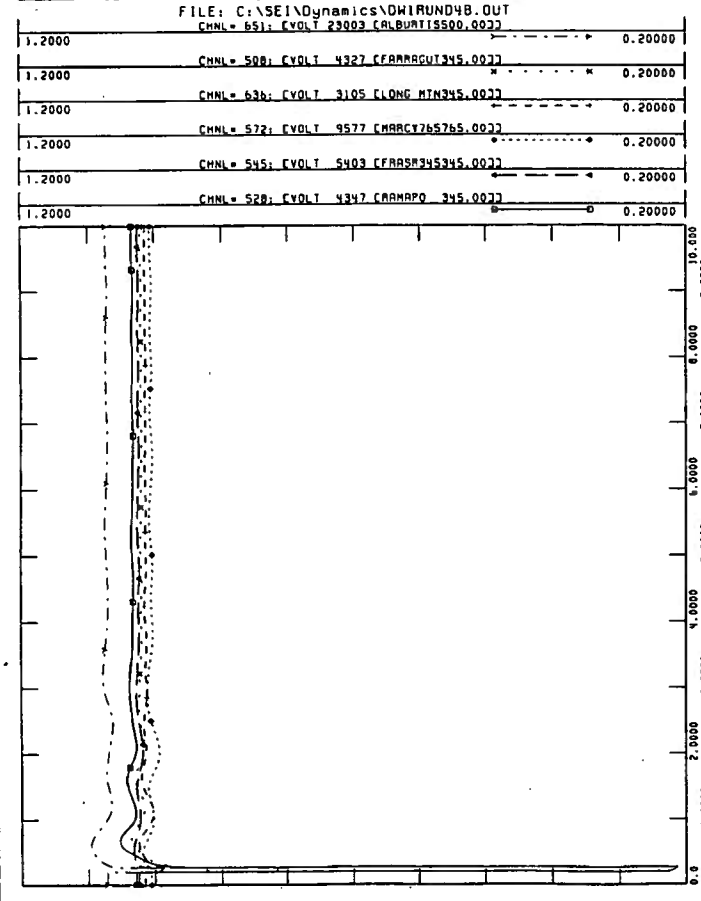
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 13:19
RUN D48 PLOT 16

CASE DW1: 2001/02 WINTER PEAK BASE CASE

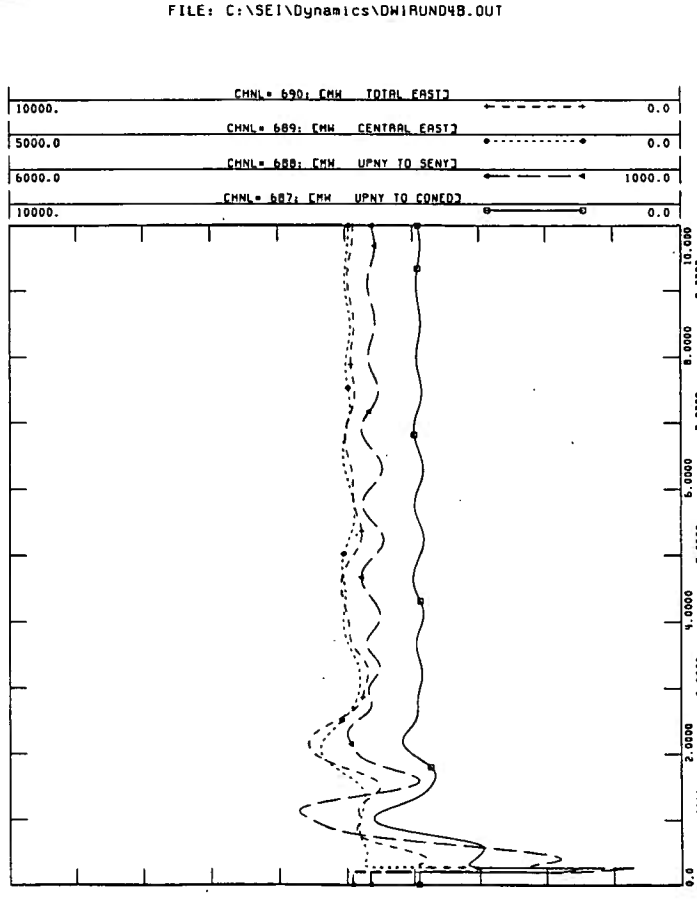
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND48.OUT



FRI, MAR 31 2000 13:19
RUN D48 PLOT 13

CASE DW1: 2001/02 WINTER PEAK BASE CASE

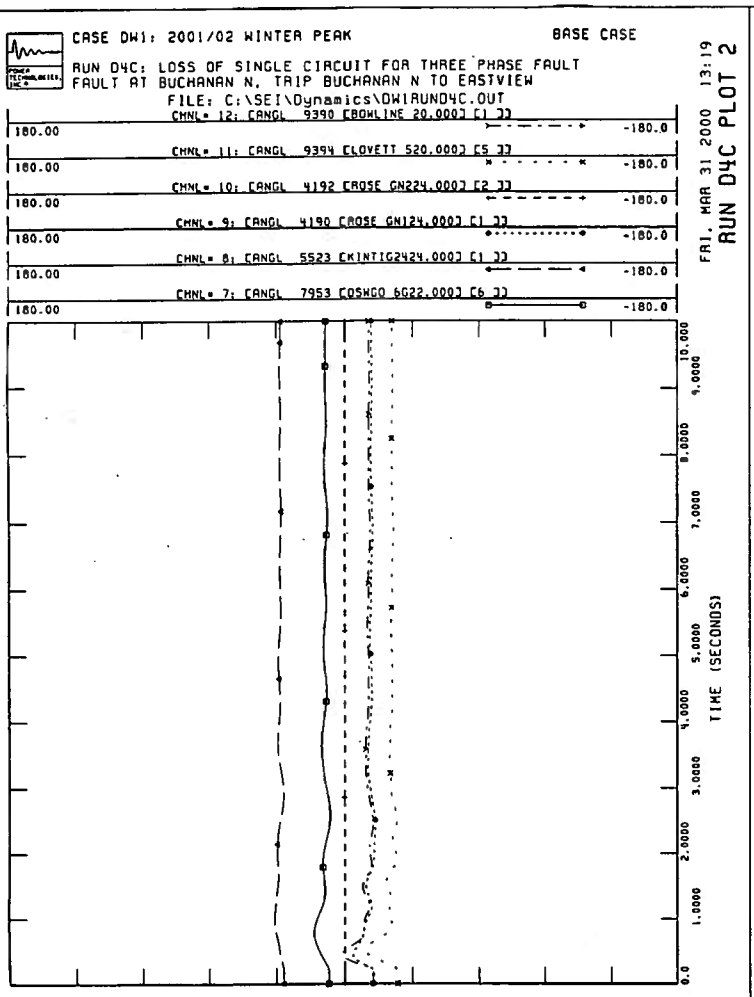
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW1RUND48.OUT

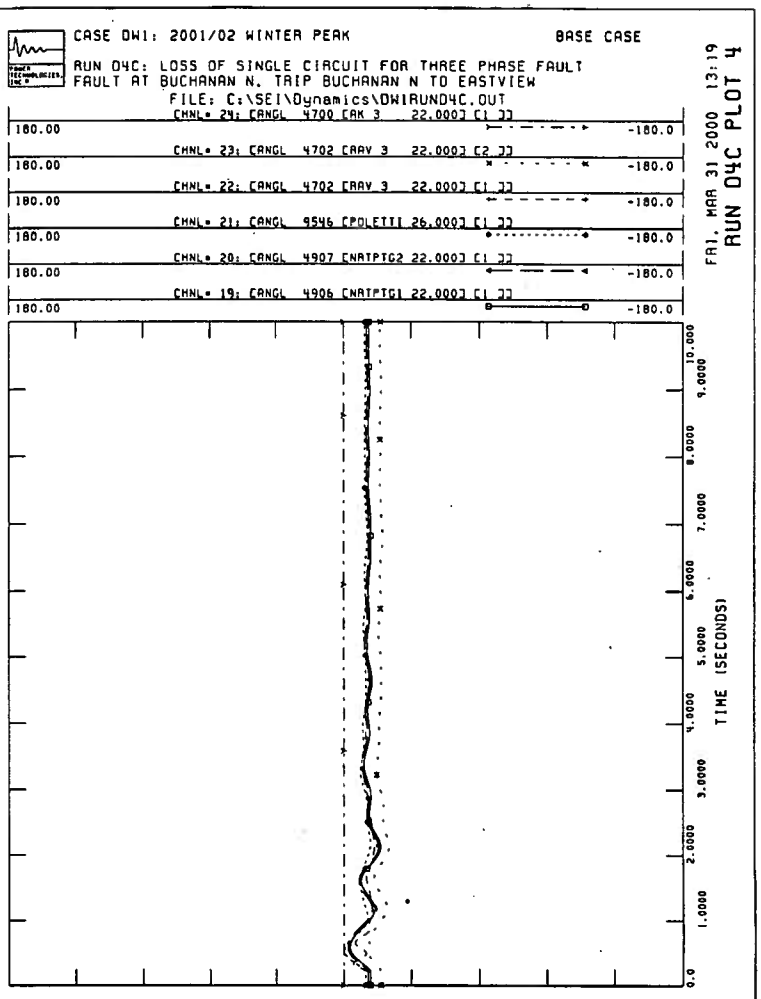


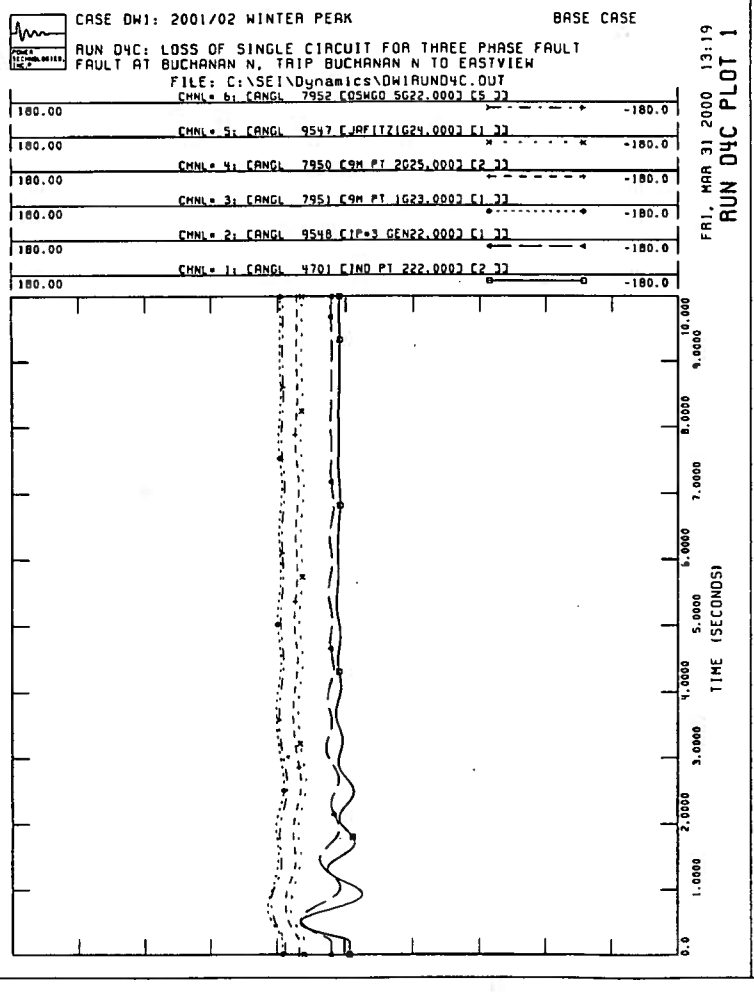
FRI, MAR 31 2000 13:19
RUN D48 PLOT 15

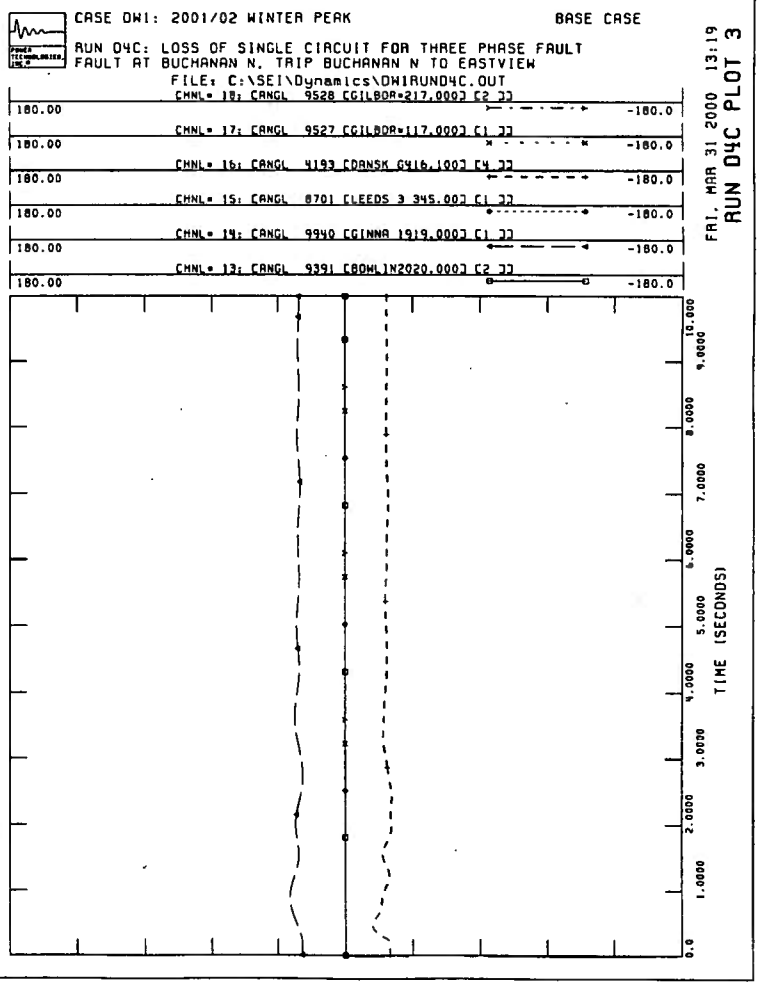
CONTINGENCY D4C

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN D4C PLOT 2

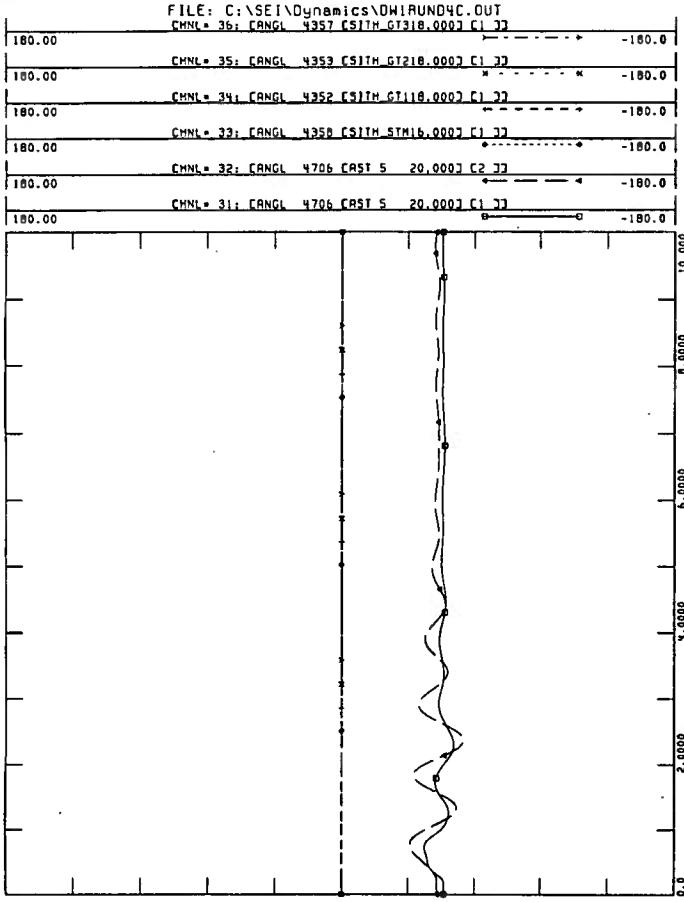

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [ARV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [ARV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [WATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [WATPTG1 22.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN D4C PLOT 4


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZIG24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2025.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP*3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN D4C PLOT 1


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT
CHNL= 18: CANGL 9528 [GILBOA*217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA*117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.]00] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:19
RUN D4C PLOT 3

CASE DW1: 2001/02 WINTER PEAK BASE CASE

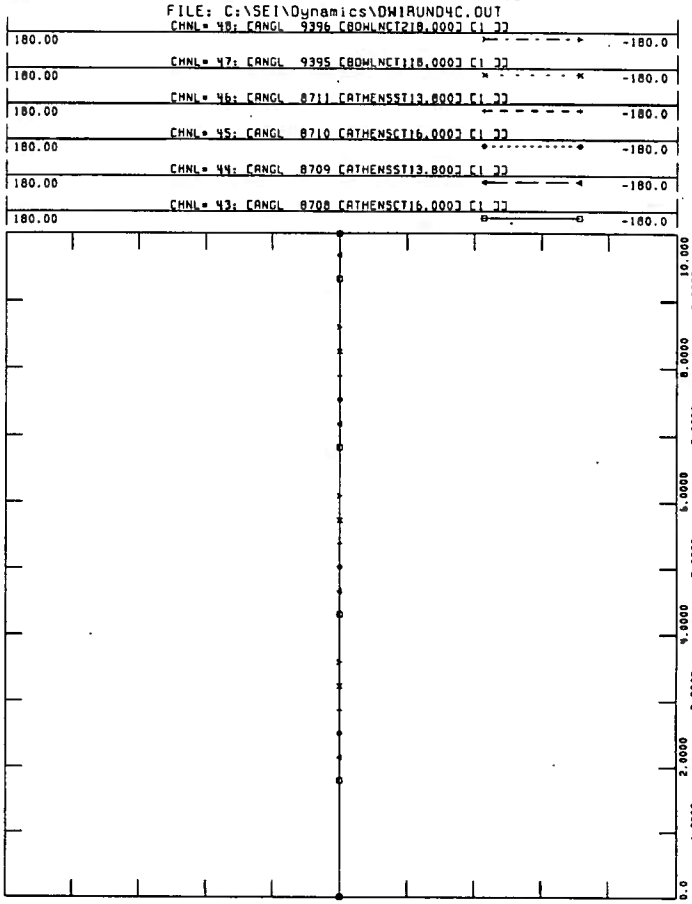
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT



FRI, MAR 31 2000 13:19
RUN D4C PLOT 6

CASE DW1: 2001/02 WINTER PEAK BASE CASE

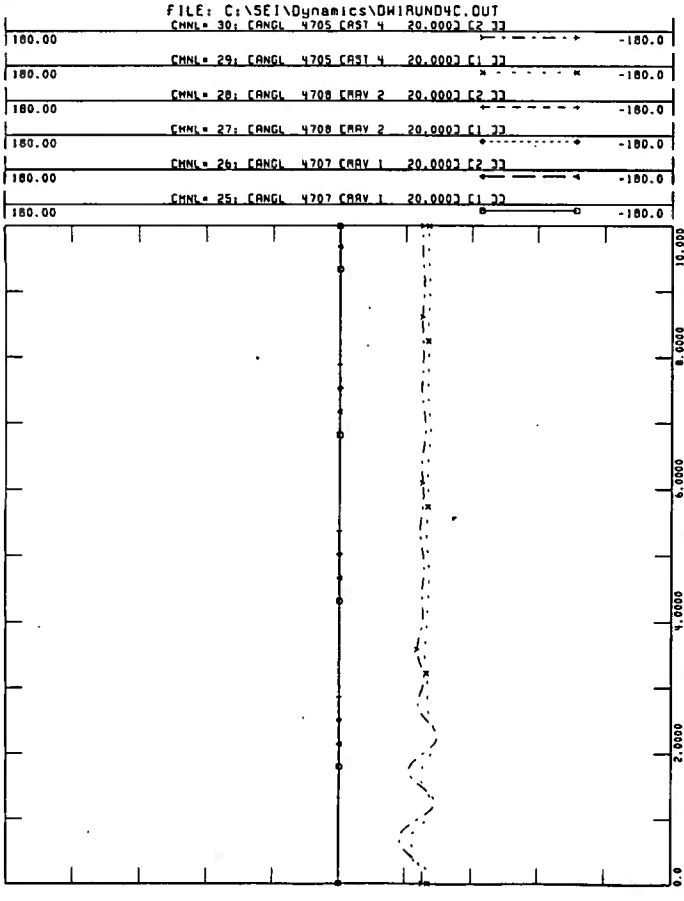
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT



FRI, MAR 31 2000 13:19
RUN D4C PLOT 8

CASE DW1: 2001/02 WINTER PEAK BASE CASE

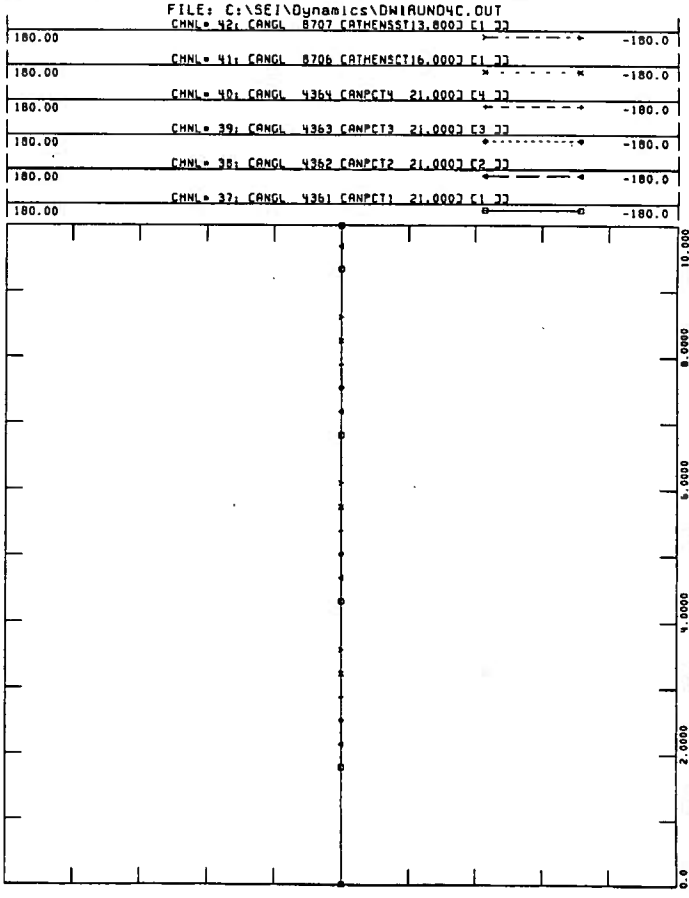
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT



FRI, MAR 31 2000 13:19
RUN D4C PLOT 5

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT



FRI, MAR 31 2000 13:19
RUN D4C PLOT 7

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT

CHNL= 60; CANGL 23311 CMAIN CK424.000] C1]]
CHNL= 59; CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58; CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57; CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56; CANGL 23039 CHOPE CR] C1]]
CHNL= 55; CANGL 2869 CSBRK G1 25.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4C PLOT 10

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT

CHNL= 70; CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69; CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68; CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67; CANGL 23040 CSUSQUEHA] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4C PLOT 12

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT

CHNL= 54; CANGL 3648 CBPTMBA=322.000] C3]]
CHNL= 53; CANGL 2371 CBP #4 GN22.000] C1]]
CHNL= 52; CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51; CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50; CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49; CANGL 9397 CBOWLNCT318.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4C PLOT 9

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N. TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT

CHNL= 66; CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65; CANGL 23002 CSALEM G2] C1]]
CHNL= 64; CANGL 23001 CSALEM G1] C1]]
CHNL= 63; CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62; CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61; CANGL 2320] CDYSTCAG1] C1]]

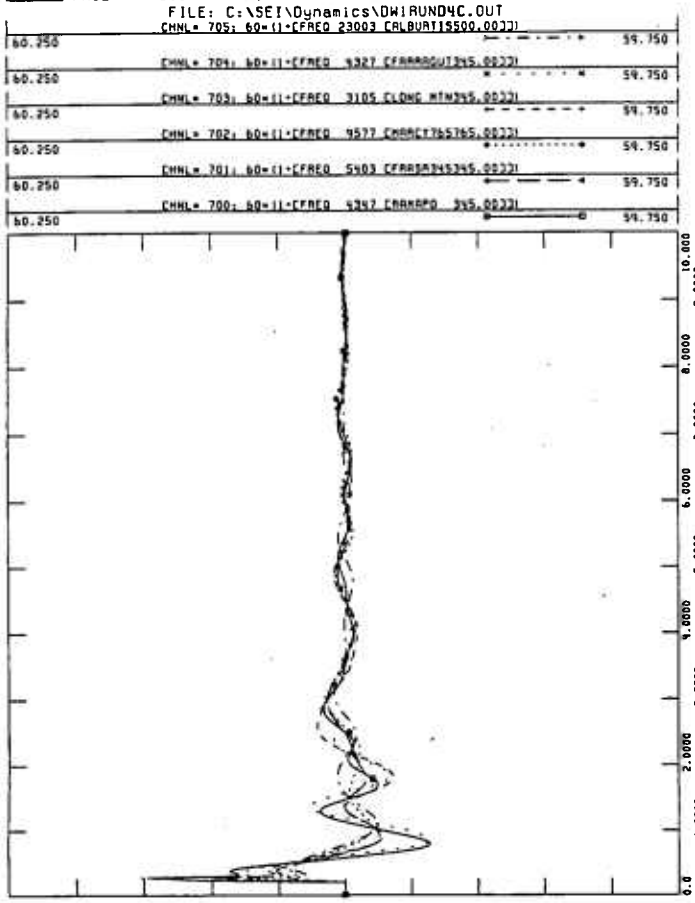
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 13:19
RUN D4C PLOT 11

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT



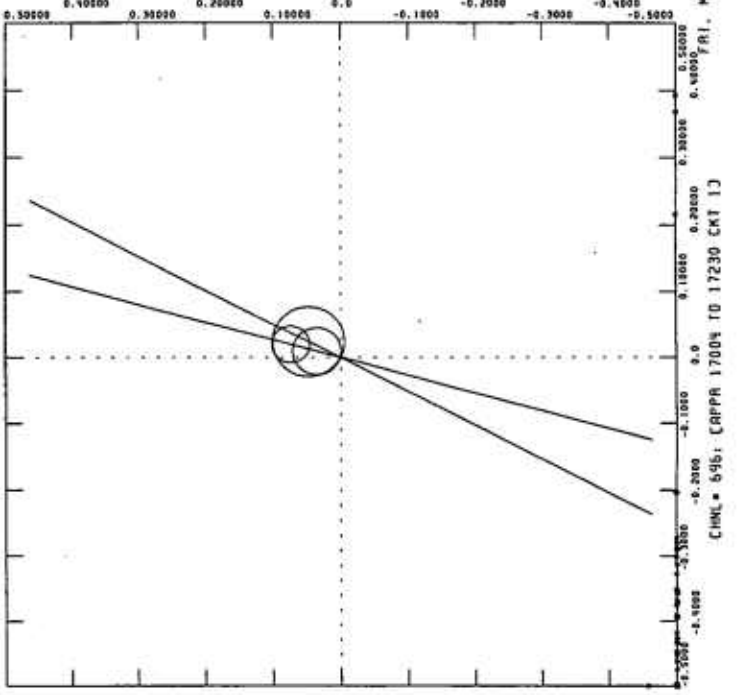
FRI, MAR 31 2000 13:19
RUN D4C PLOT 14

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW

FILE: C:\SEI\Dynamics\DW1RUND4C.OUT

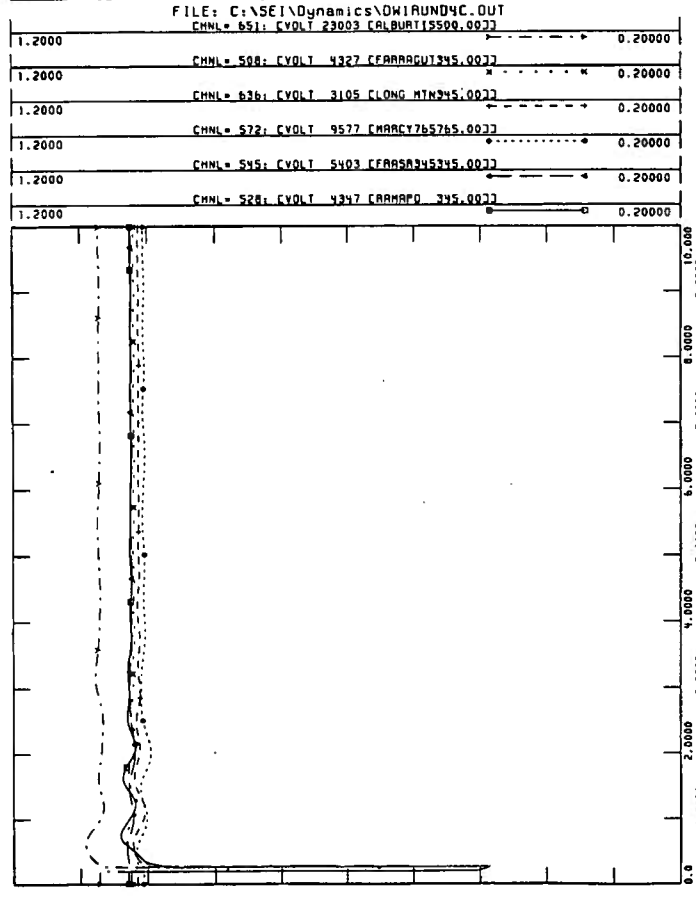
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 13:19
RUN D4C PLOT 16

CASE DW1: 2001/02 WINTER PEAK BASE CASE

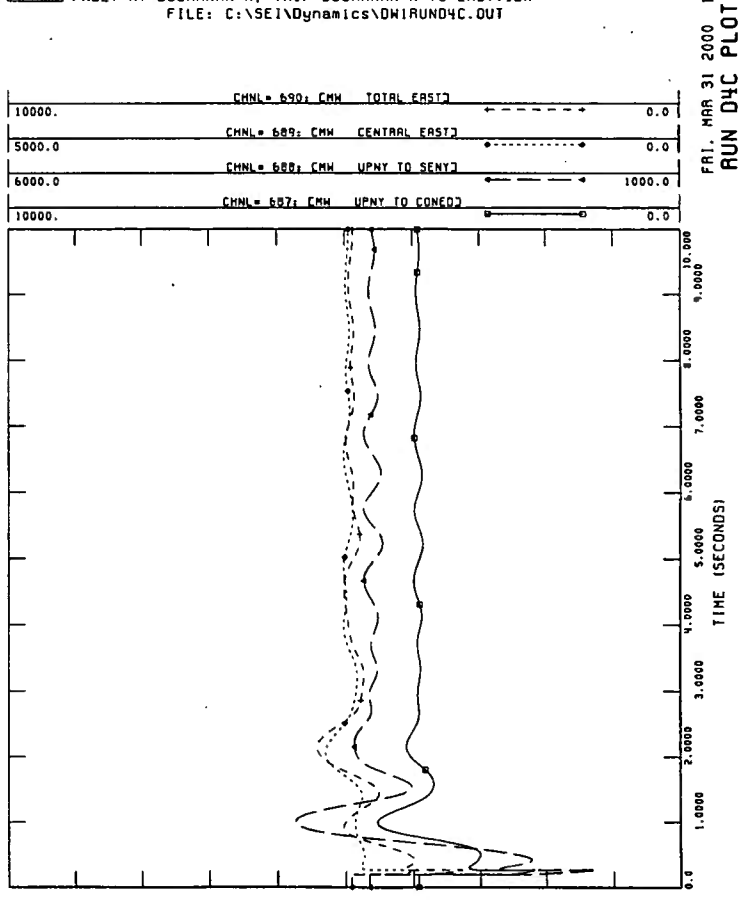
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT



FRI, MAR 31 2000 13:19
RUN D4C PLOT 13

CASE DW1: 2001/02 WINTER PEAK BASE CASE

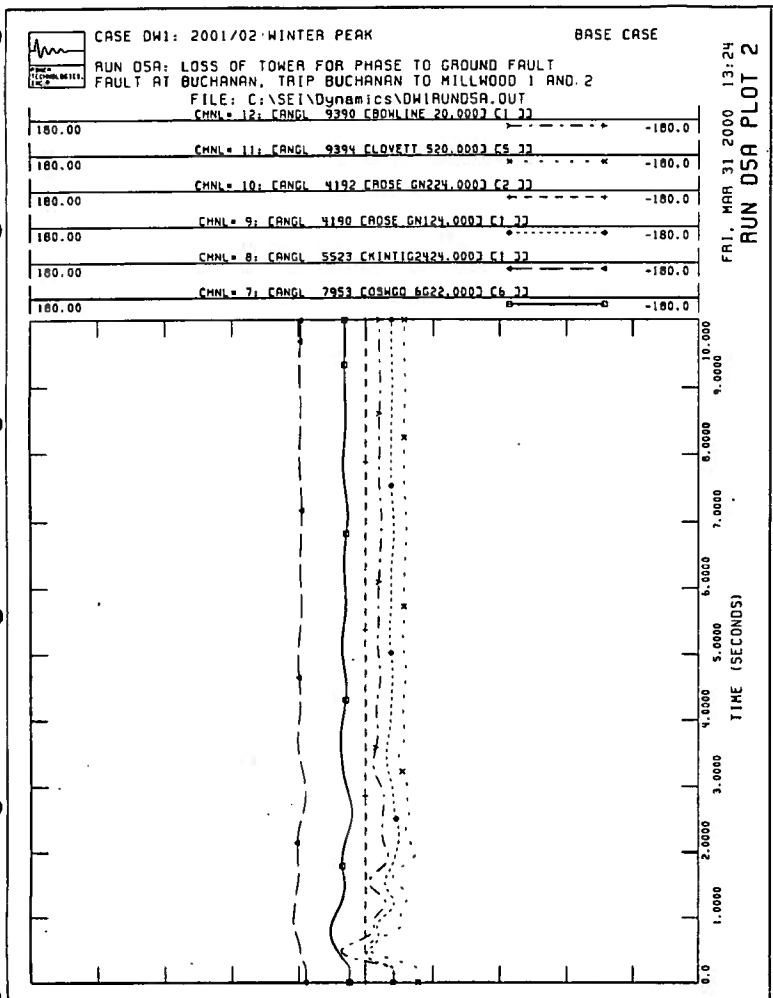
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW1RUND4C.OUT

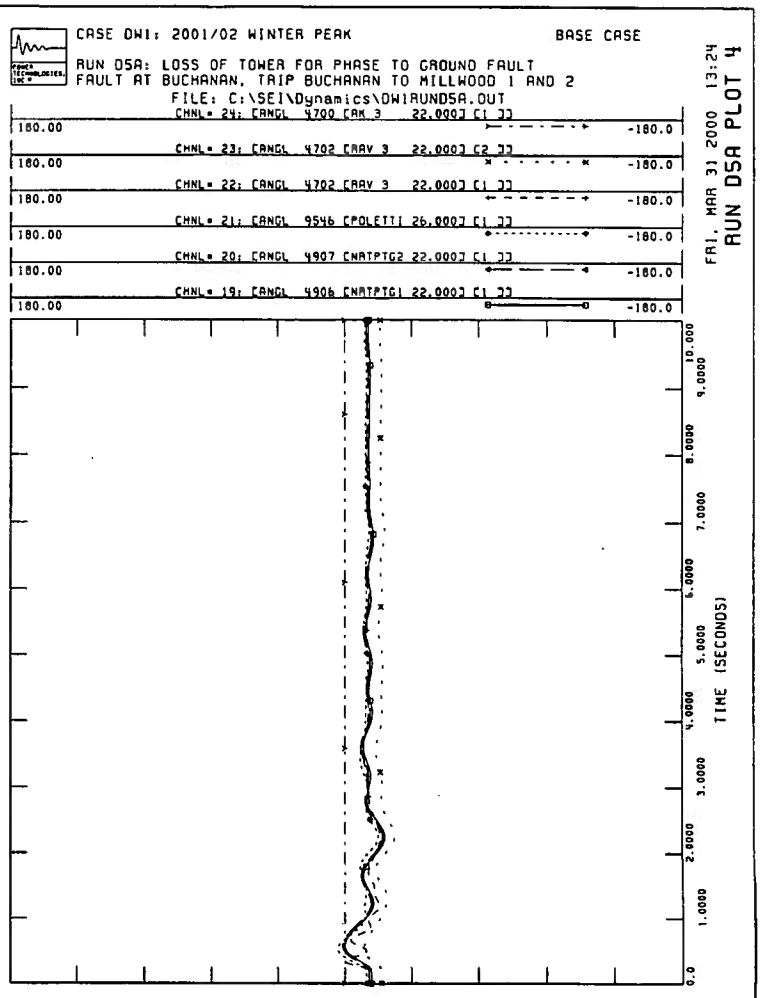


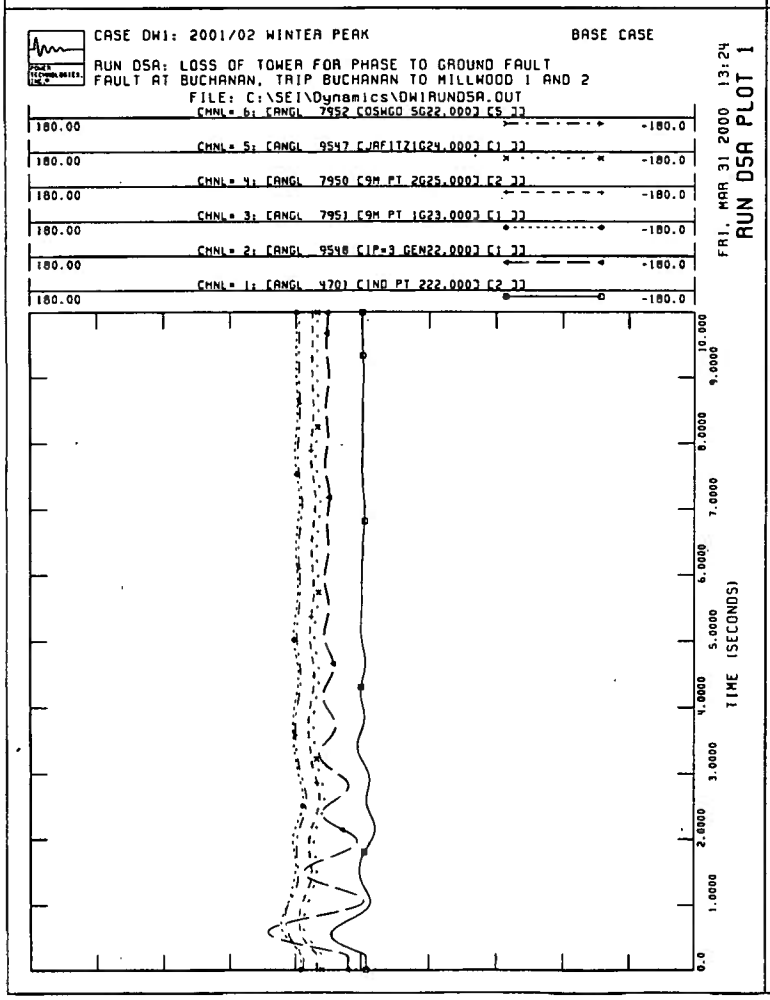
FRI, MAR 31 2000 13:19
RUN D4C PLOT 15

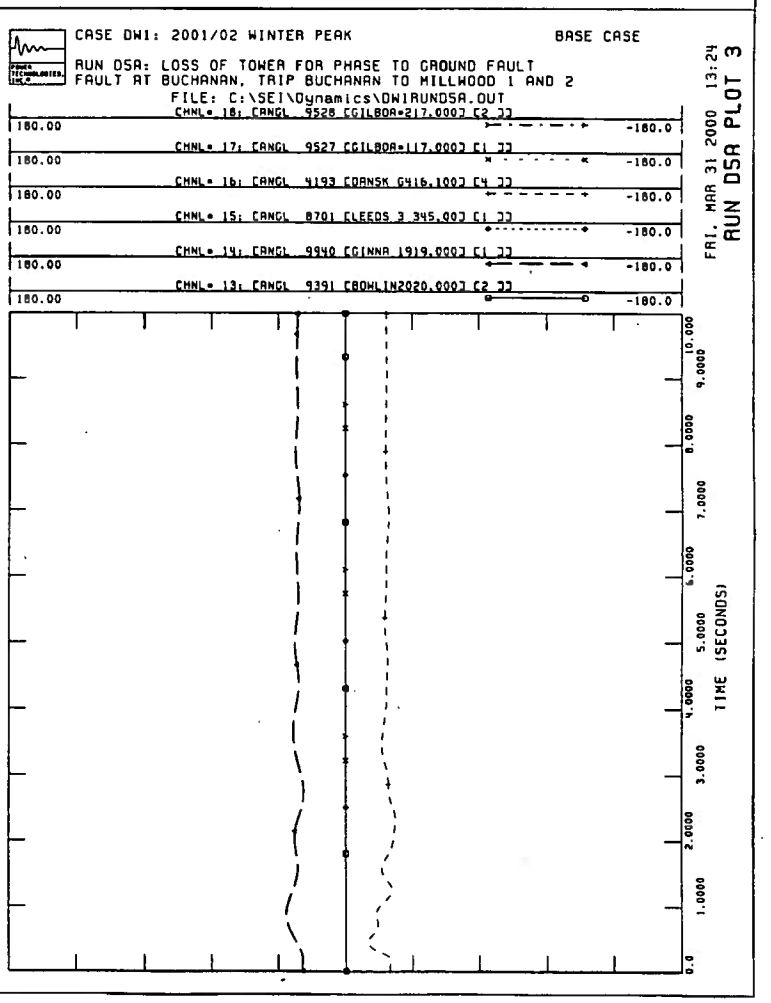
CONTINGENCY D5A

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1             / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2             / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 2


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 4


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 1


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
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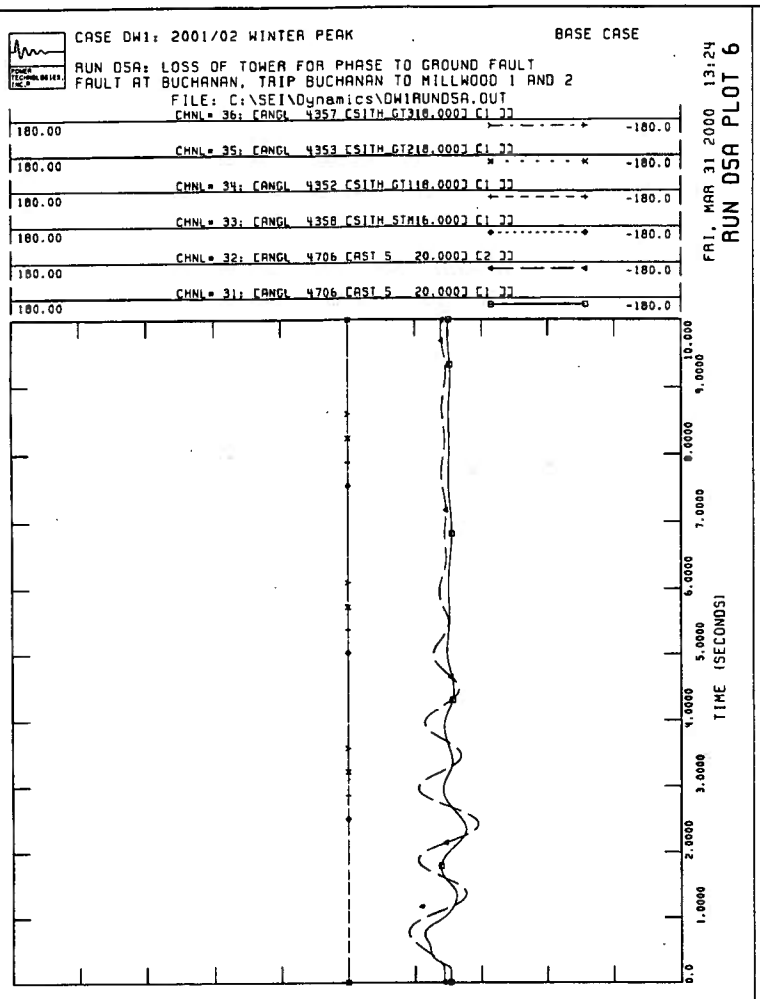
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 3


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
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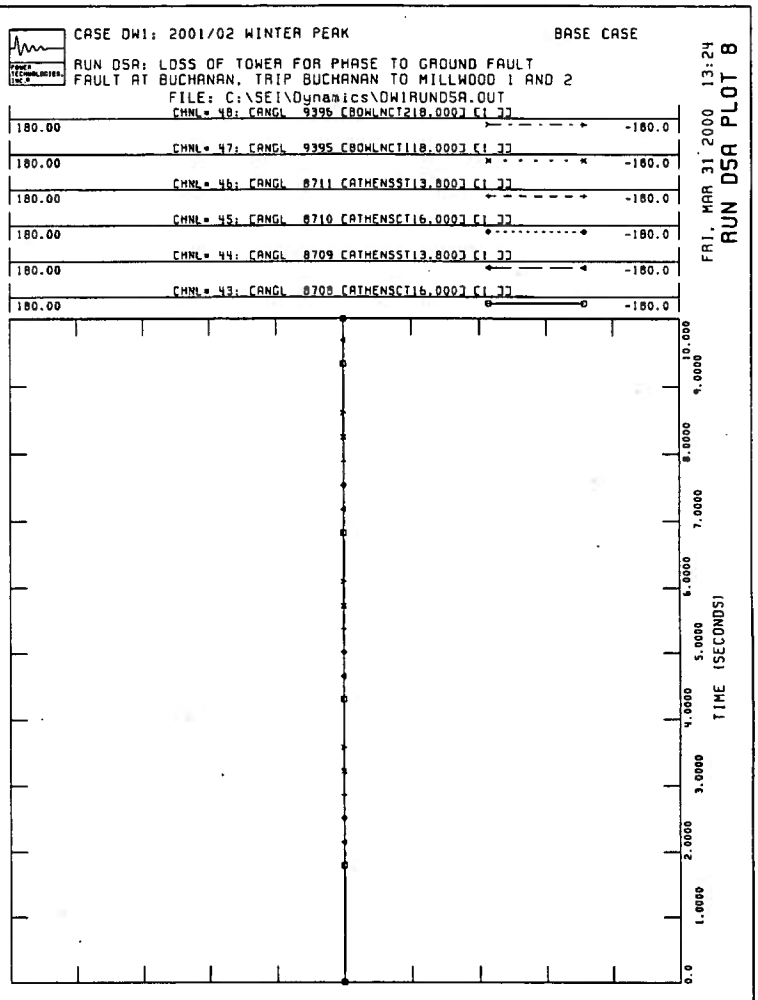
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 6


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 48: CANGL 9395 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
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1.0000
2.0000
3.0000
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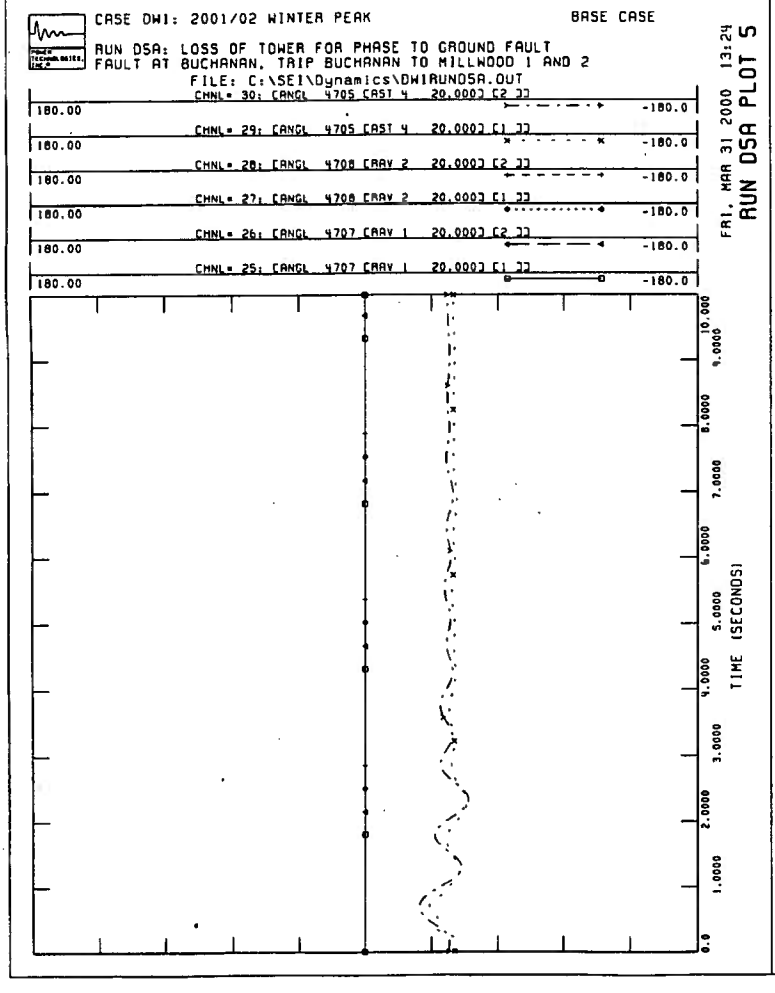
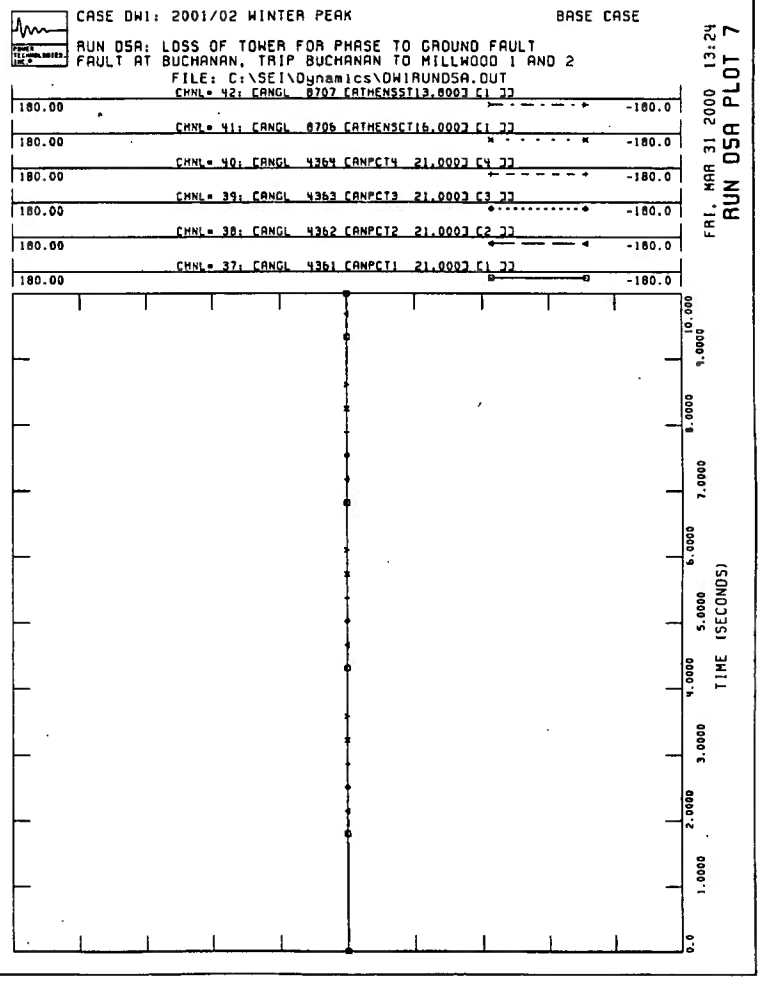
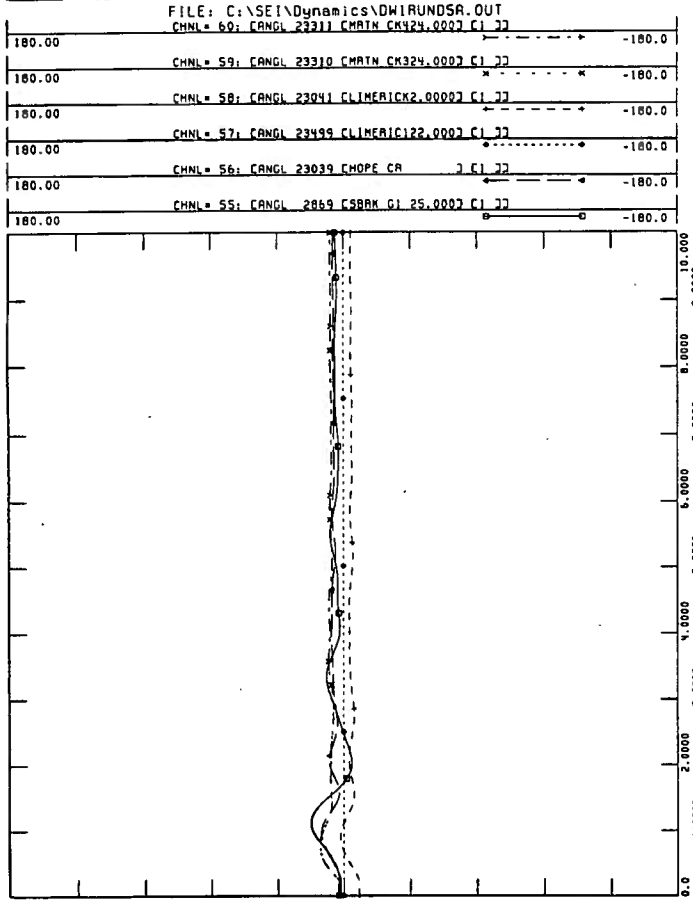
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 8


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAY 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAY 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAY 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAY 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 5


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN DSA PLOT 7

CASE DW1: 2001/02 WINTER PEAK BASE CASE

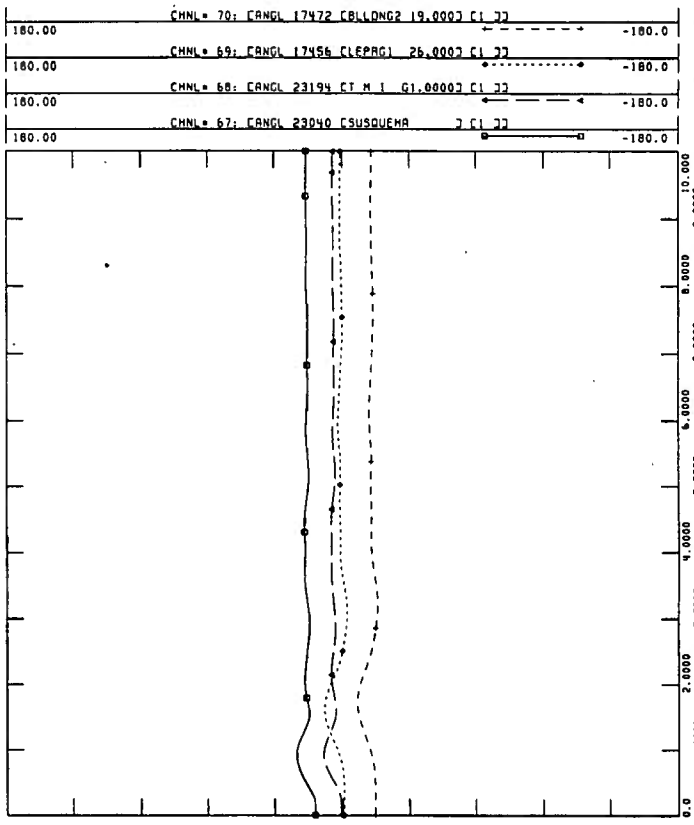
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



FRI, MAR 31 2000 13:24
RUN DSA PLOT 10

CASE DW1: 2001/02 WINTER PEAK BASE CASE

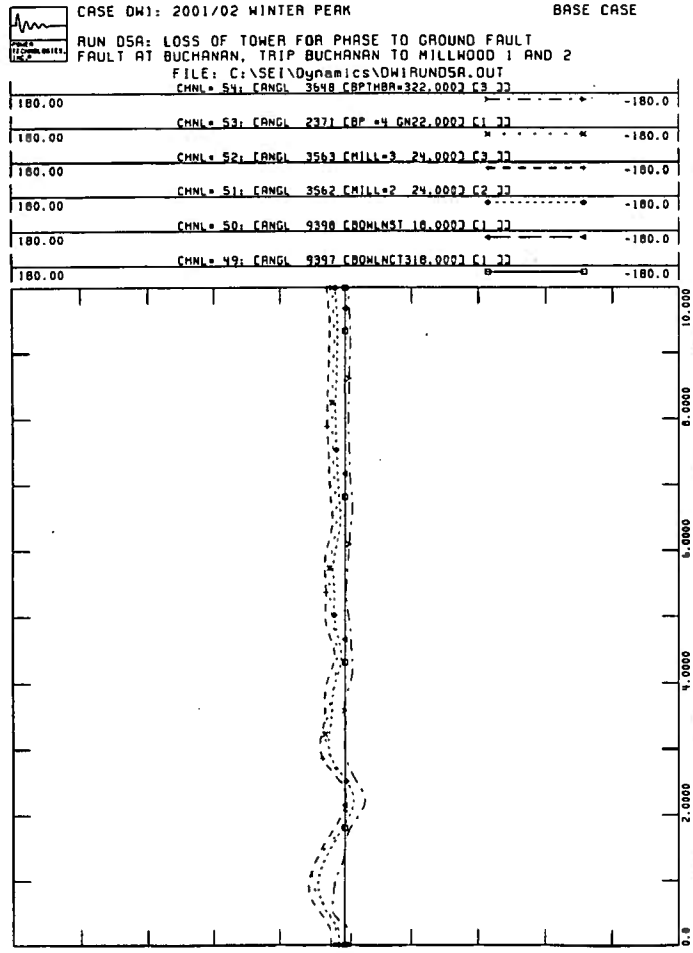
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



FRI, MAR 31 2000 13:24
RUN DSA PLOT 12

CASE DW1: 2001/02 WINTER PEAK BASE CASE

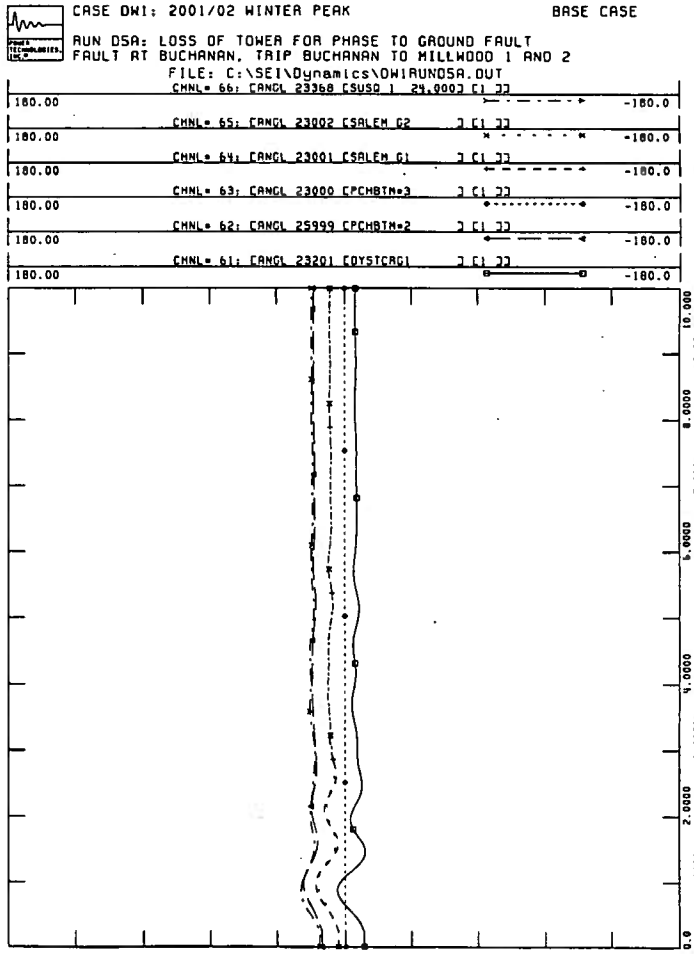
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



FRI, MAR 31 2000 13:24
RUN DSA PLOT 9

CASE DW1: 2001/02 WINTER PEAK BASE CASE

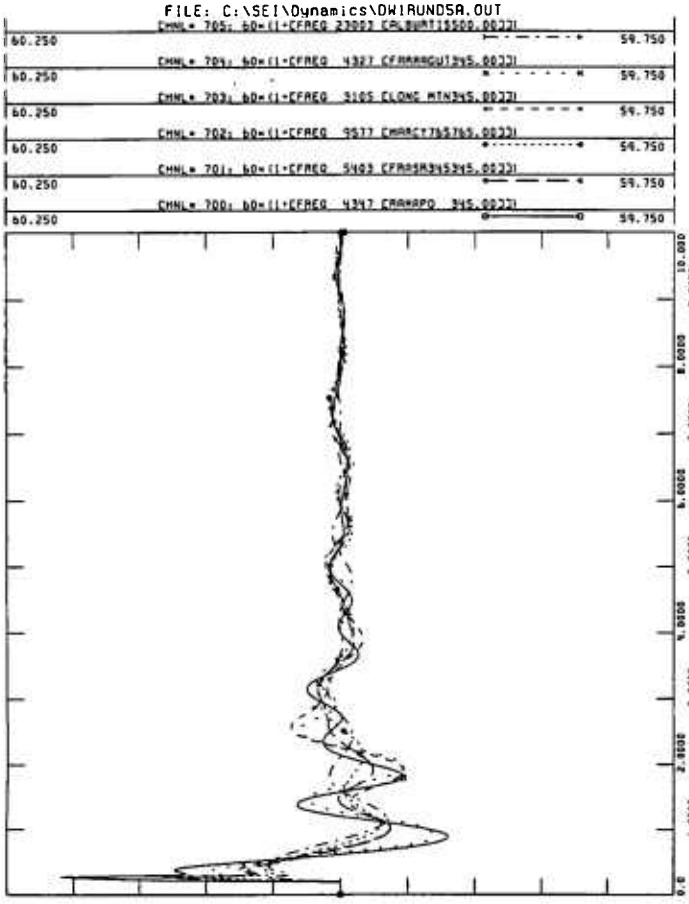
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



FRI, MAR 31 2000 13:24
RUN DSA PLOT 11

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



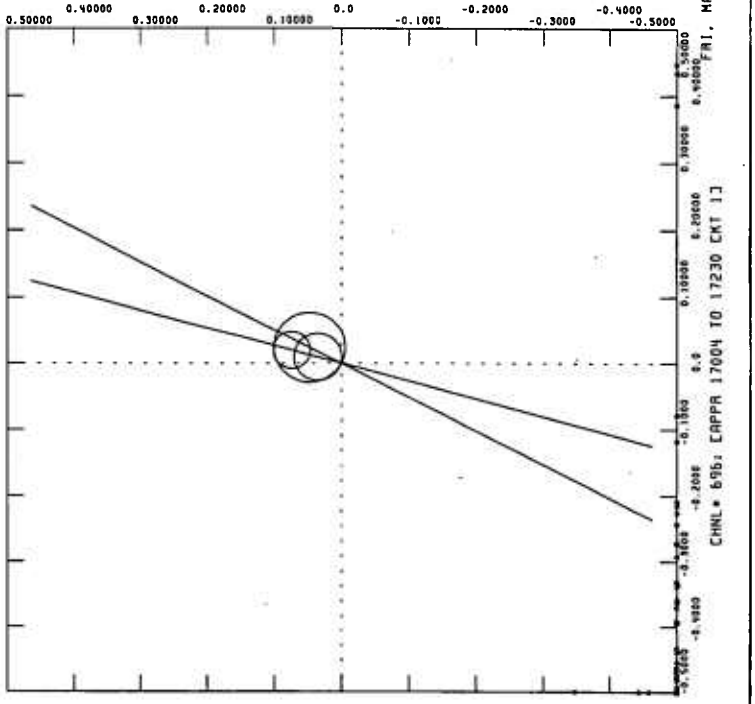
FRI, MAR 31 2000 13:24
RUN DSA PLOT 14

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2

FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT

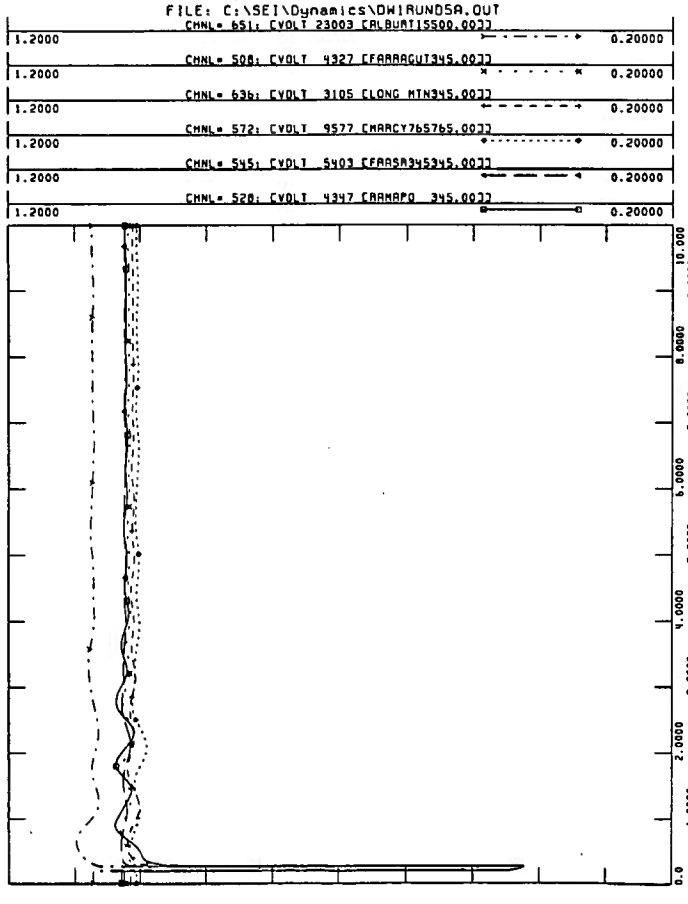
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 13:24
RUN DSA PLOT 16

CASE DW1: 2001/02 WINTER PEAK BASE CASE

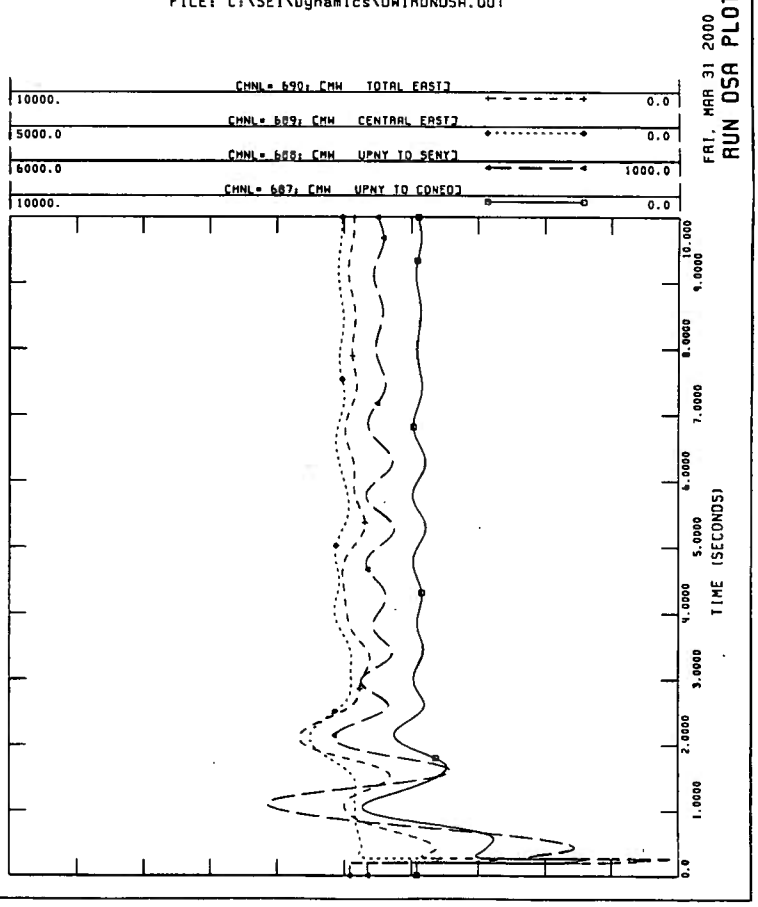
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



FRI, MAR 31 2000 13:24
RUN DSA PLOT 13

CASE DW1: 2001/02 WINTER PEAK BASE CASE

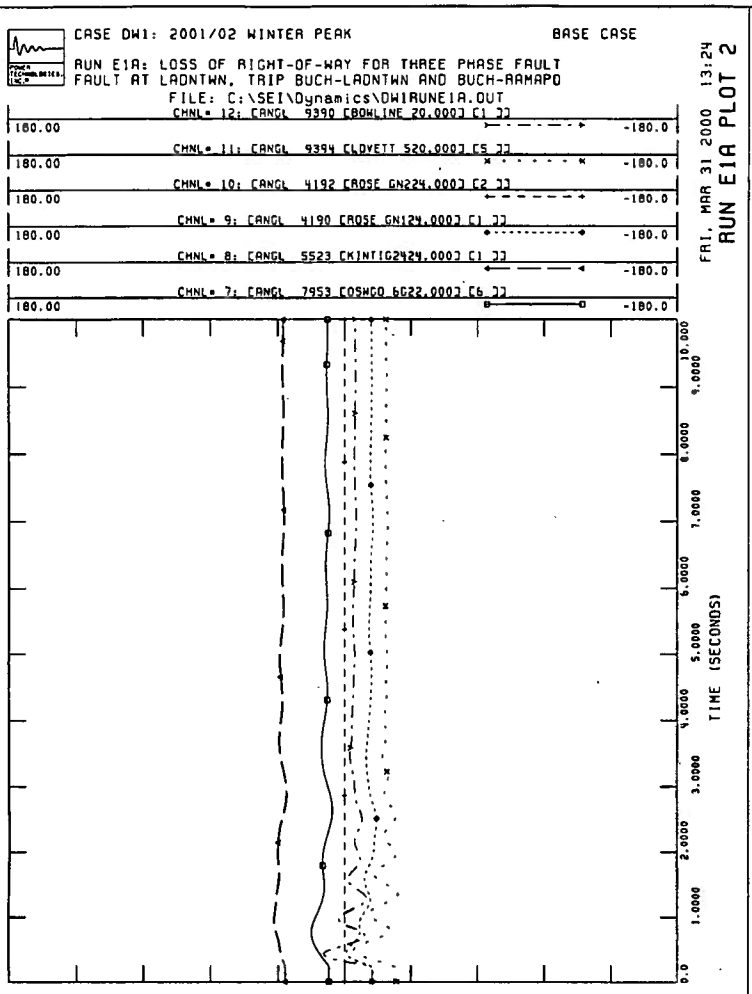
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW1RUNDSA.OUT



FRI, MAR 31 2000 13:24
RUN DSA PLOT 15

CONTINGENCY E1A

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-AAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSHGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 13:24
RUN E1A PLOT 2
TIME (SECONDS)
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2.0000
3.0000
4.0000
5.0000
6.0000
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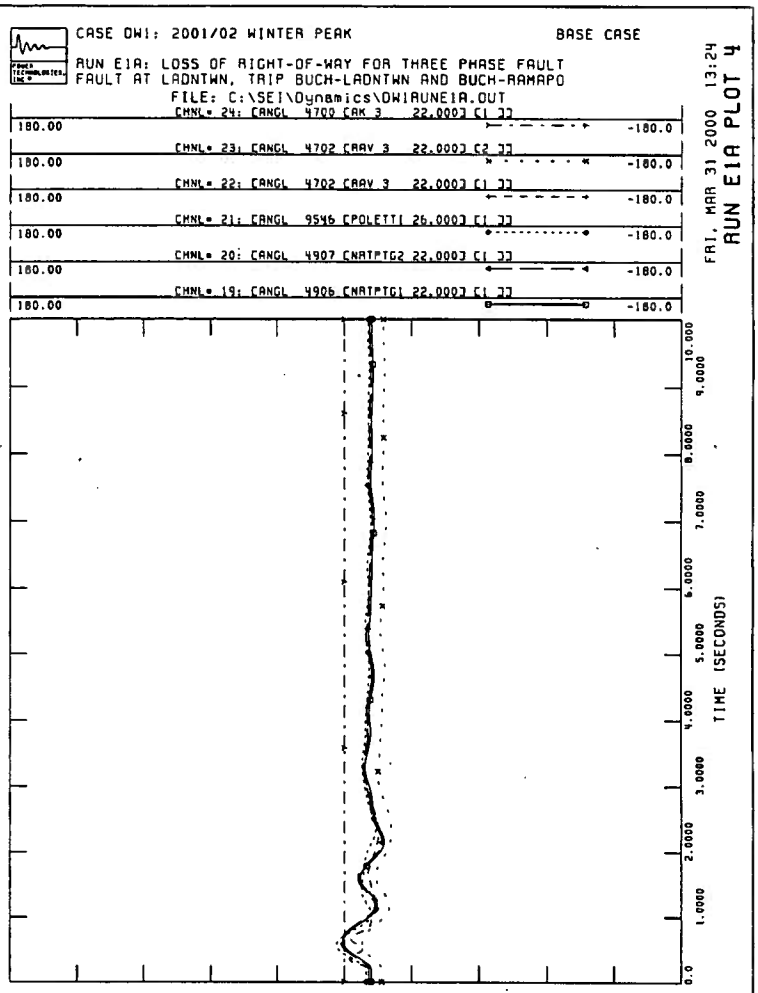
9.0000
10.000


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-AAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 13:24
RUN E1A PLOT 4
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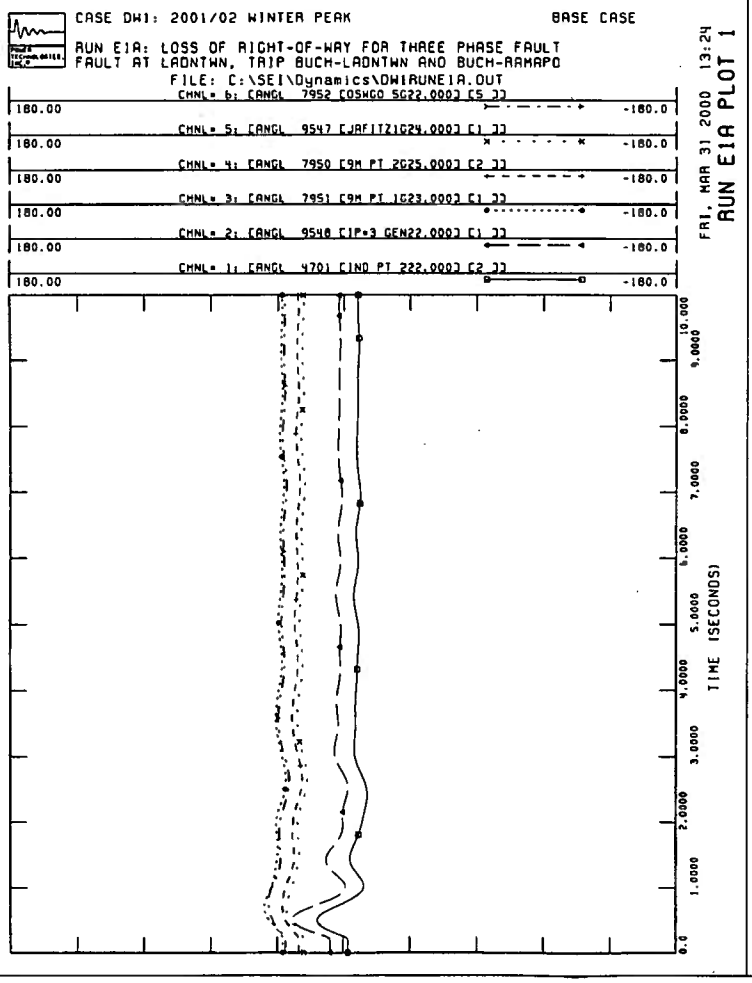
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-AAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 6: CANGL 7952 COSHGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP*3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
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-180.0
FRI, MAR 31 2000 13:24
RUN E1A PLOT 1
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2.0000
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4.0000
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6.0000
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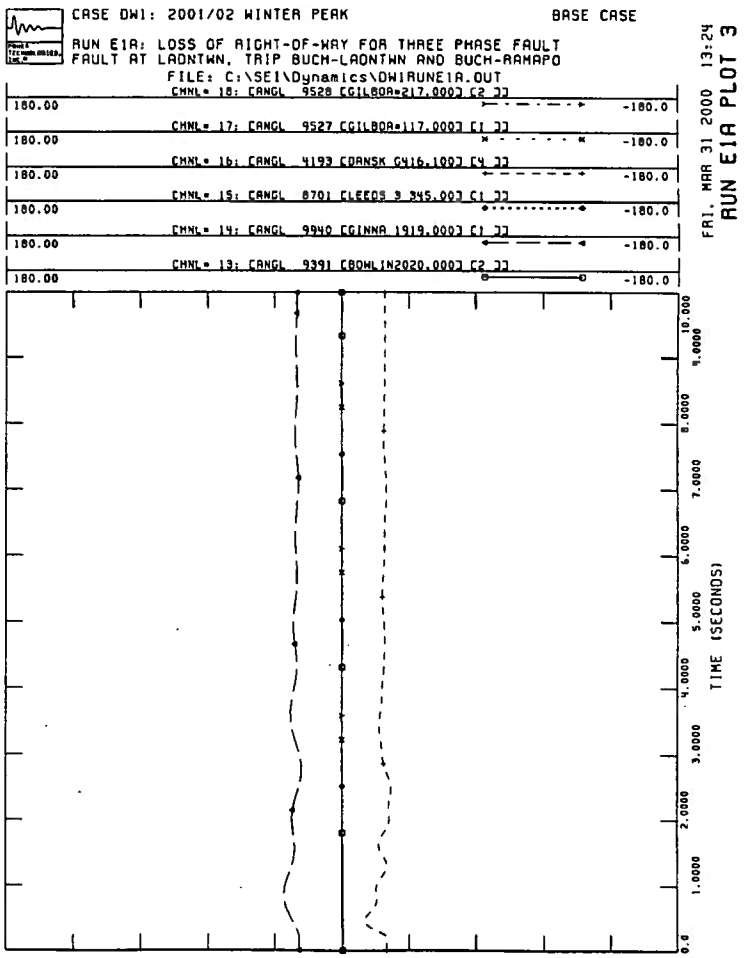
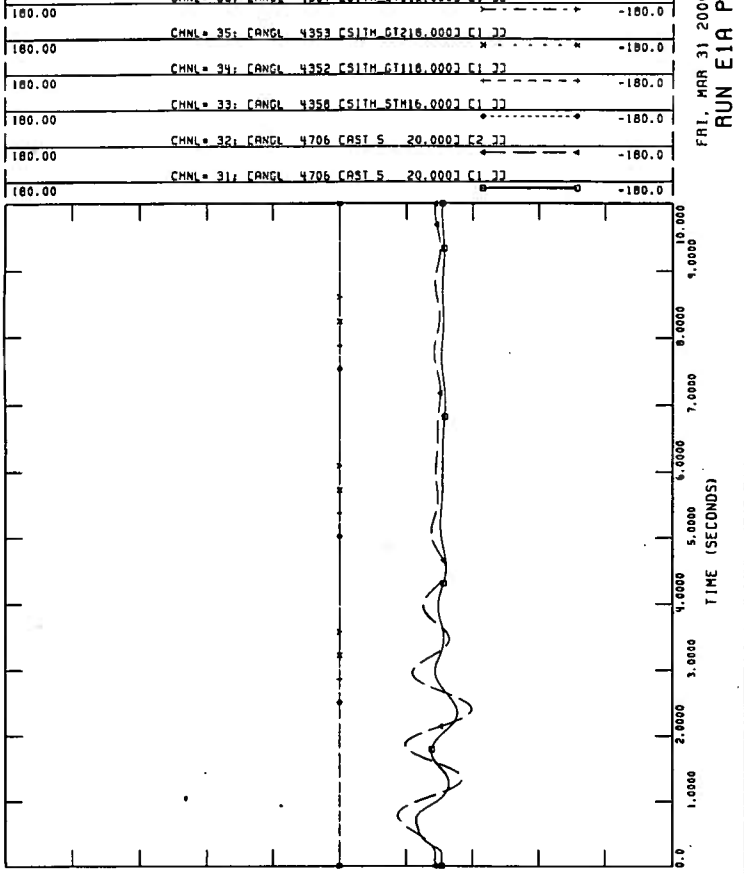
9.0000
10.000


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-AAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 18: CANGL 9528 CG1LBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CG1LBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 13:24
RUN E1A PLOT 3
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT

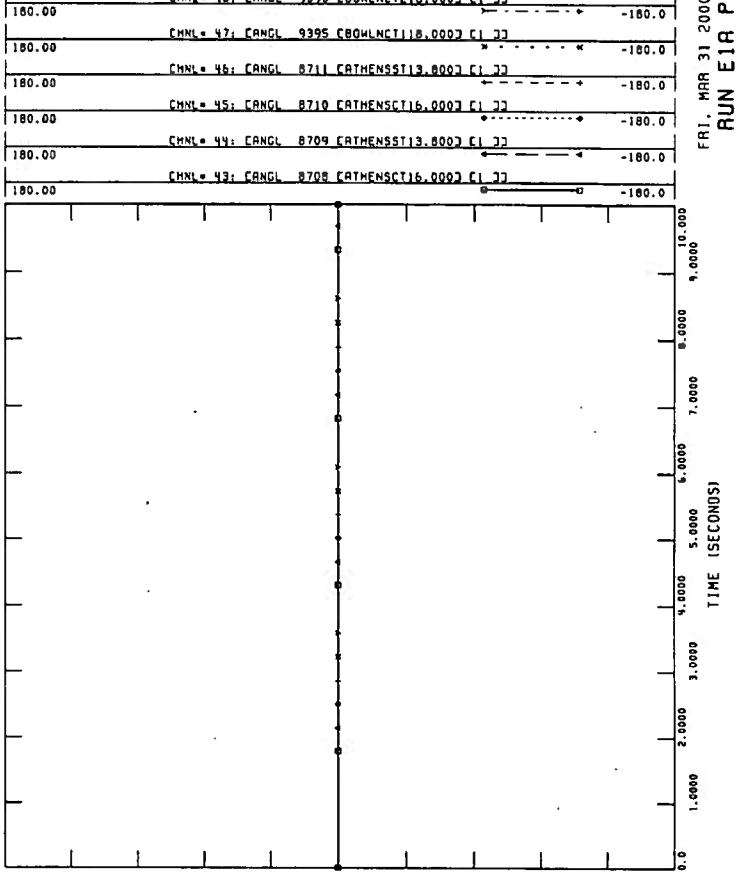
FRI, MAR 31 2000 13:24
RUN E1A PLOT 6



CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT

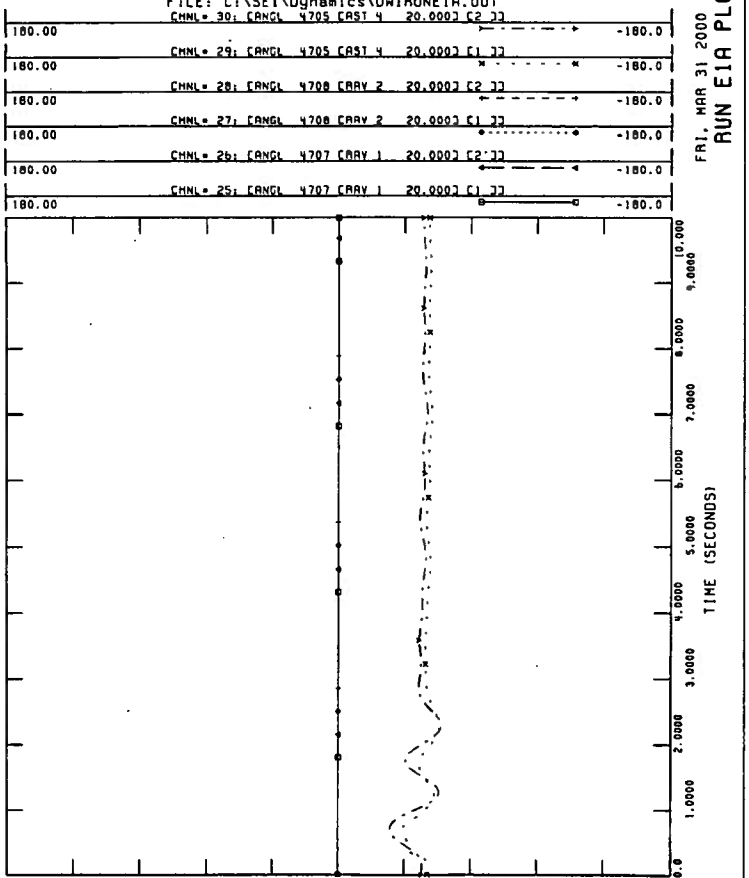
FRI, MAR 31 2000 13:24
RUN E1A PLOT 8



CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT

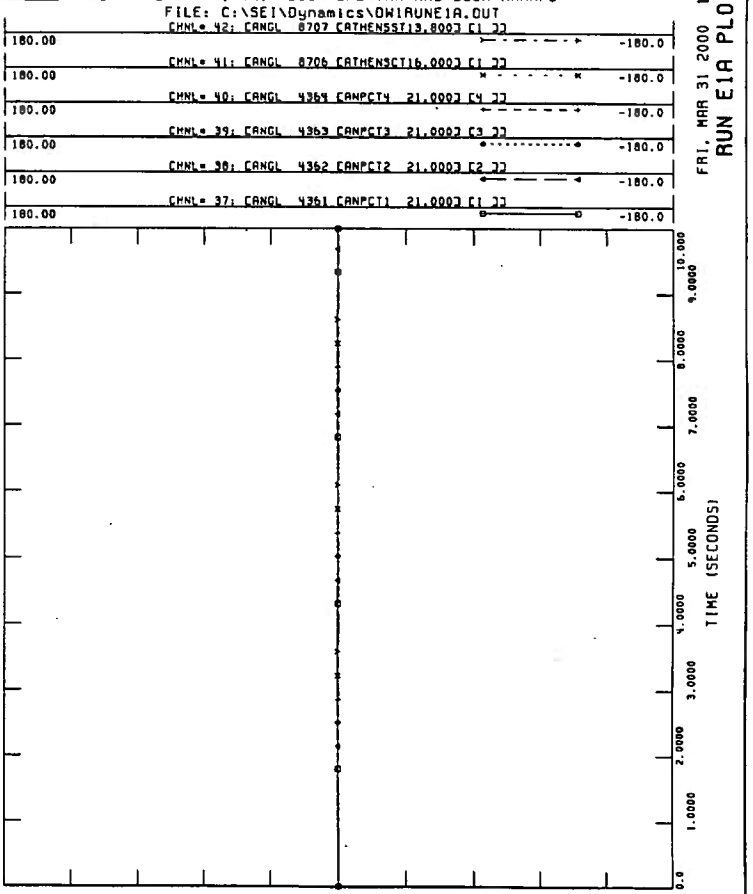
FRI, MAR 31 2000 13:24
RUN E1A PLOT 5

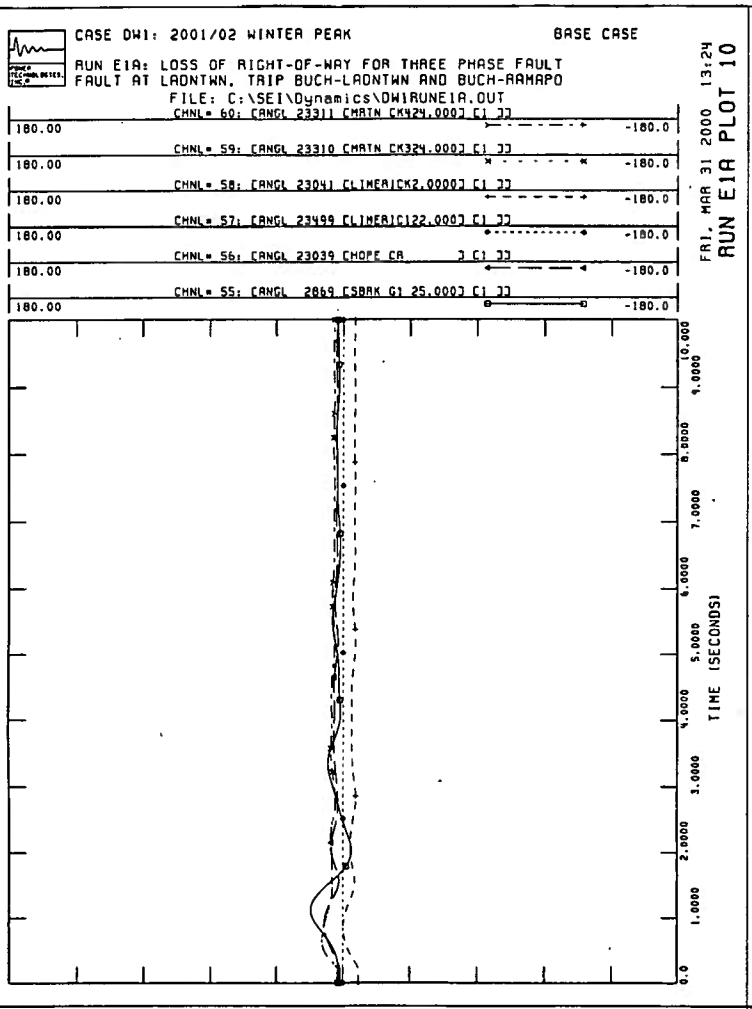


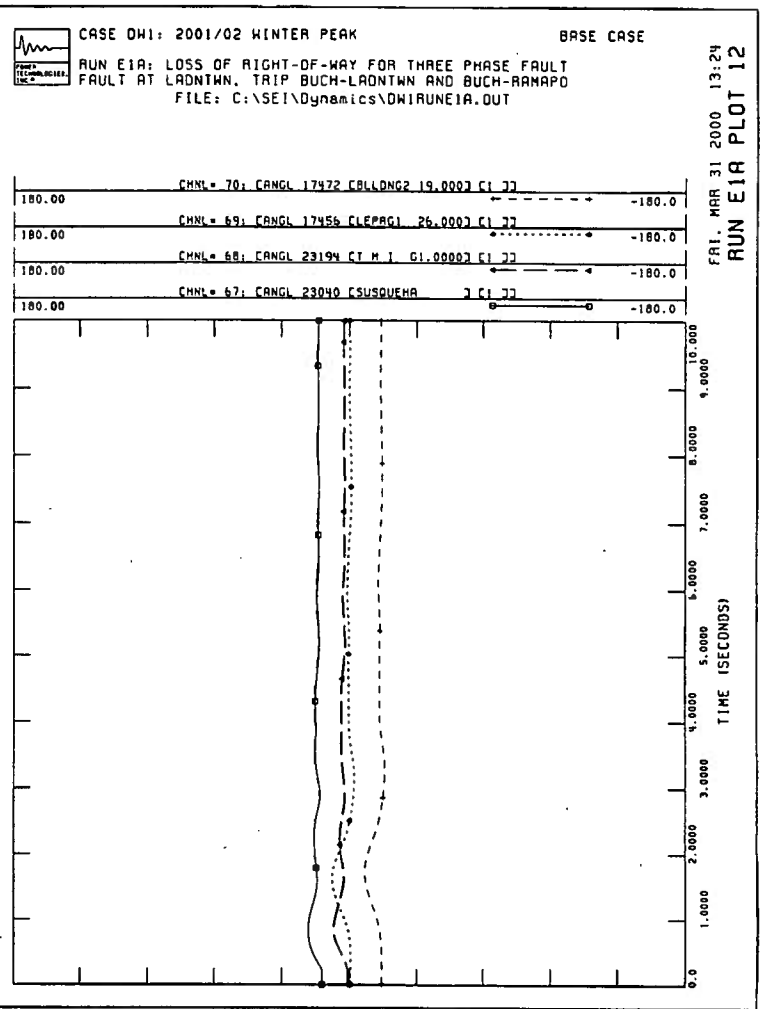
CASE DW1: 2001/02 WINTER PEAK BASE CASE

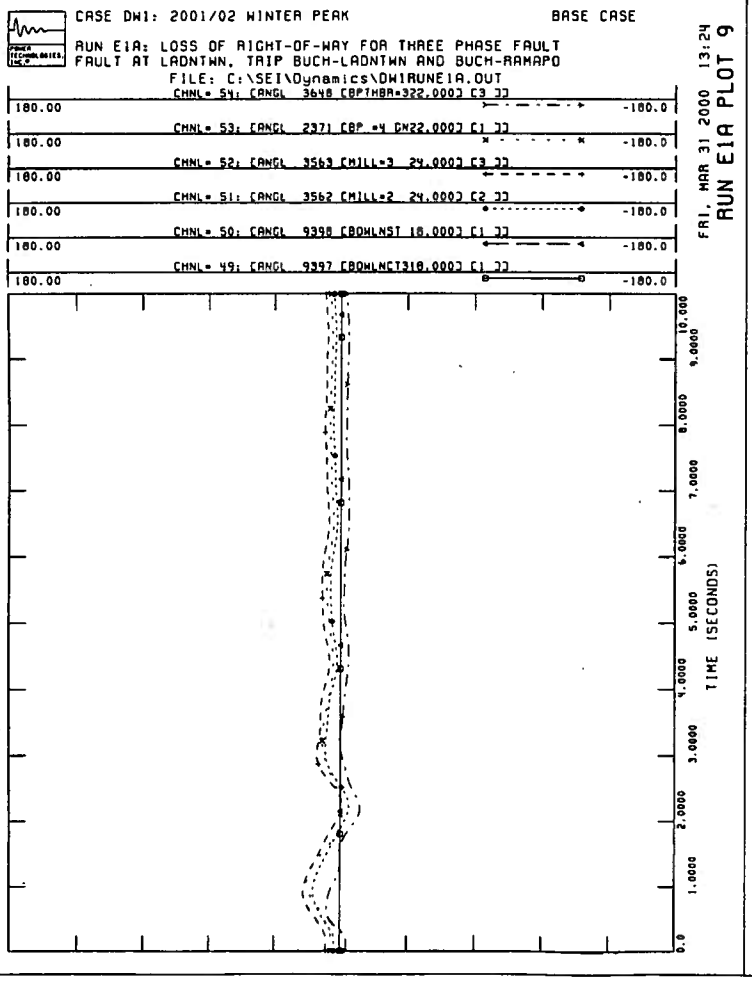
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT

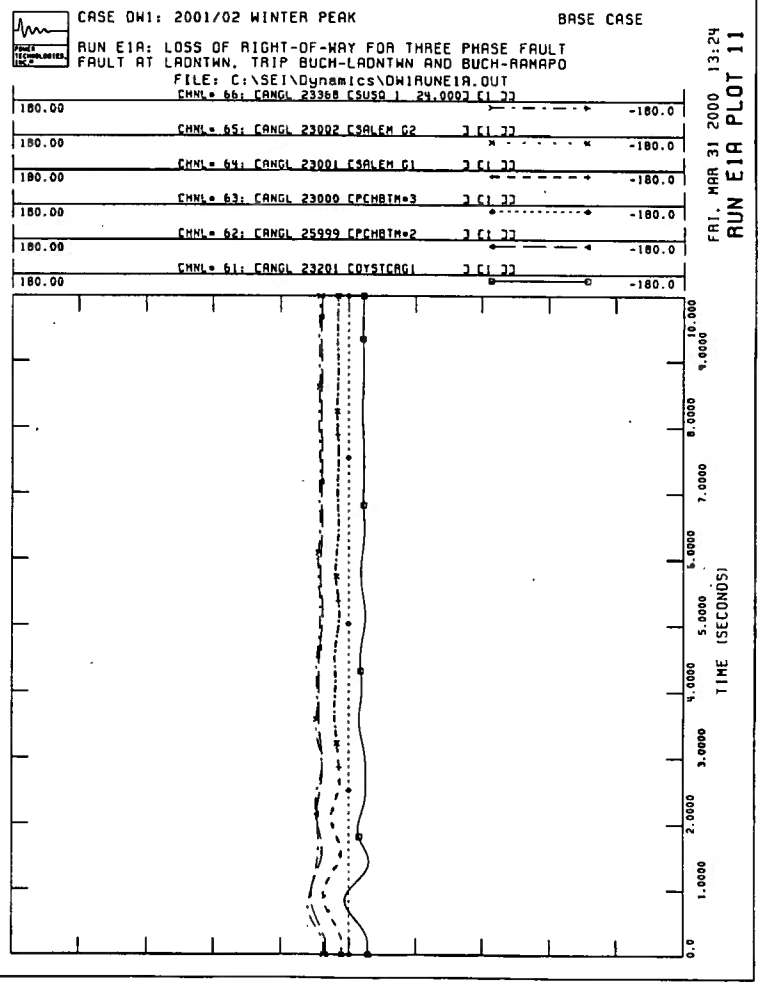
FRI, MAR 31 2000 13:24
RUN E1A PLOT 7




CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN E1A PLOT 10

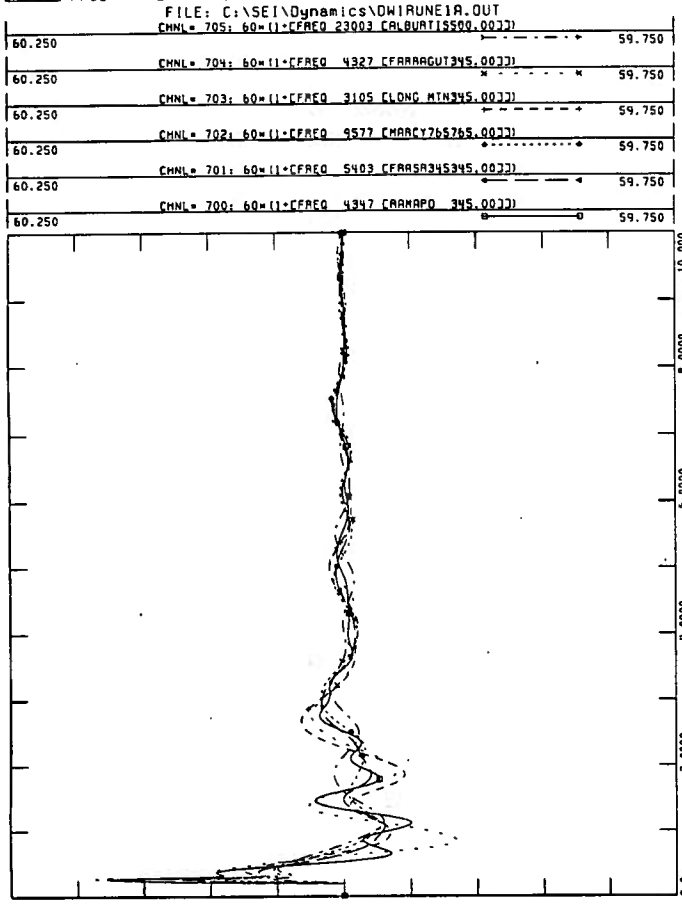

CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 70: CANGL 17472 CBLLONG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M I G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN E1A PLOT 12


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3]]
CHNL= 53: CANGL 2371 CBP =4 DM22.000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN E1A PLOT 9


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCMBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCMBTM=2] C1]]
CHNL= 61: CANGL 23201 CDYSTCRG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 13:24
RUN E1A PLOT 11

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT



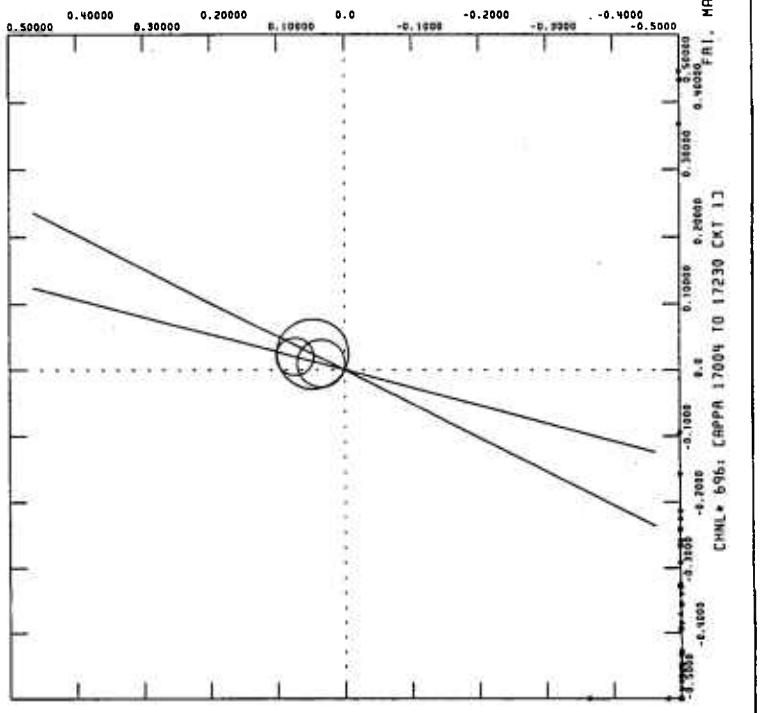
FRI, MAR 31 2000 13:24
RUN E1A PLOT 14

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO

FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT

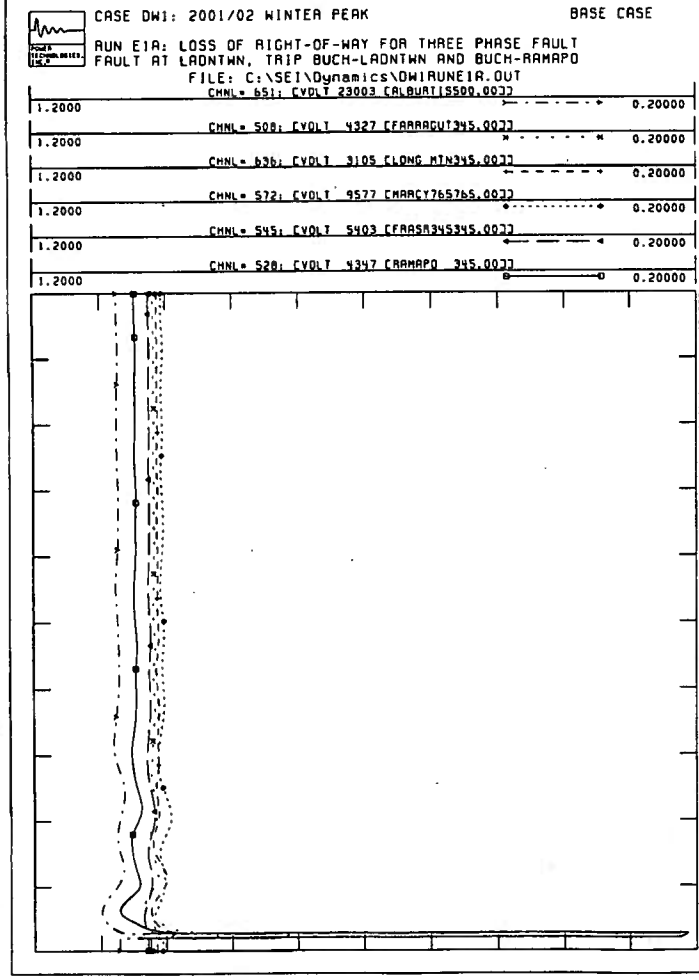
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]



FRI, MAR 31 2000 13:24
RUN E1A PLOT 16

CASE DW1: 2001/02 WINTER PEAK BASE CASE

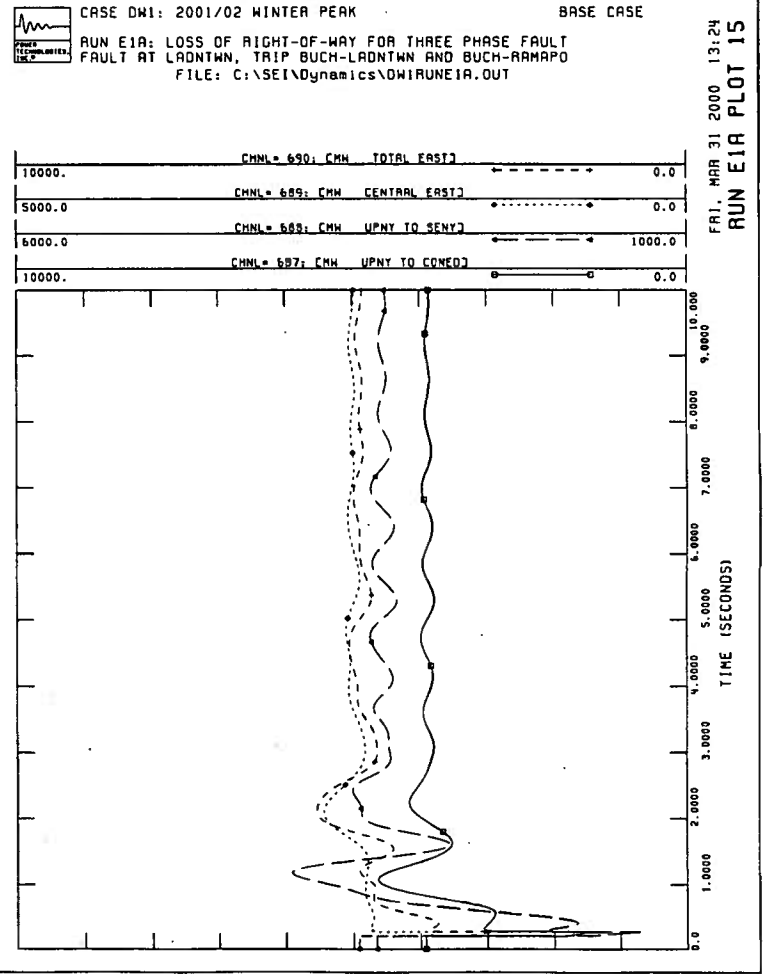
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT



FRI, MAR 31 2000 13:24
RUN E1A PLOT 13

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW1RUNE1A.OUT



FRI, MAR 31 2000 13:24
RUN E1A PLOT 15

CONTINGENCY E2A

```
RECOVER FROM D1.SNP AND DW1.CNV
START OUTPUT DW1RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                                    / DISCONNECT RAMAPO SUBSTATION
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 2

CHNL= 12: CANGL 9390 CBQWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7959 COSWGO 6G22.000] C6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 4

CHNL= 24: CANGL 4700 CRK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 1

CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 3

CHNL= 18: CANGL 9528 CG1LB0A=217.000] C2]]
CHNL= 17: CANGL 9527 CG1LB0A=117.000] C1]]
CHNL= 16: CANGL 9193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBQWLIN2020.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 6

CHNL= 36; CANGL 4357 CS1TH_GT318.000] C1]]
CHNL= 35; CANGL 4353 CS1TH_GT218.000] C1]]
CHNL= 34; CANGL 4352 CS1TH_GT118.000] C1]]
CHNL= 33; CANGL 4358 CS1TH_STM16.000] C1]]
CHNL= 32; CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31; CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 8

CHNL= 48; CANGL 9396 CBOWLNCT]18.000] C1]]
CHNL= 47; CANGL 9395 CBOWLNCT]18.000] C1]]
CHNL= 46; CANGL 8711 CATHENSST]3.8000] C1]]
CHNL= 45; CANGL 8710 CATHENSCT]6.0000] C1]]
CHNL= 44; CANGL 8709 CATHENSST]3.8000] C1]]
CHNL= 43; CANGL 8708 CATHENSCT]6.0000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 5

CHNL= 30; CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29; CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28; CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27; CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26; CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25; CANGL 4707 CRAV 1 20.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

FRI, MAR 31 2000 13:24
RUN E2A PLOT 7

CHNL= 42; CANGL 8707 CATHENSST]3.8000] C1]]
CHNL= 41; CANGL 8706 CATHENSCT]6.0000] C1]]
CHNL= 40; CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39; CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38; CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37; CANGL 4361 CANPCT1 21.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

CHNL= 60: CANGL 23311 CMATN CK424,0000] C1]]
CHNL= 59: CANGL 23310 CMATN CK324,0000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2,0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122,0000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25,0000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

FRI, MAR 31 2000 13:24
RUN E2A PLOT 10

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

CHNL= 70: CANGL 17472 CBLLONG2 19,0000] C1]]
CHNL= 69: CANGL 17456 CLEPRG1 26,0000] C1]]
CHNL= 68: CANGL 23194 CT M] G1,0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

FRI, MAR 31 2000 13:24
RUN E2A PLOT 12

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

CHNL= 54: CANGL 3648 CBPTMBR=322,0000] C3]]
CHNL= 53: CANGL 2371 CBP =4 GN22,0000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24,0000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24,0000] C2]]
CHNL= 50: CANGL 9398 CBOWLNS1 18,0000] C1]]
CHNL= 49: CANGL 9397 CBOWLNC1318,0000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

TIME (SECONDS)

FRI, MAR 31 2000 13:24
RUN E2A PLOT 9

CASE DW1: 2001/02 WINTER PEAK BASE CASE

RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT

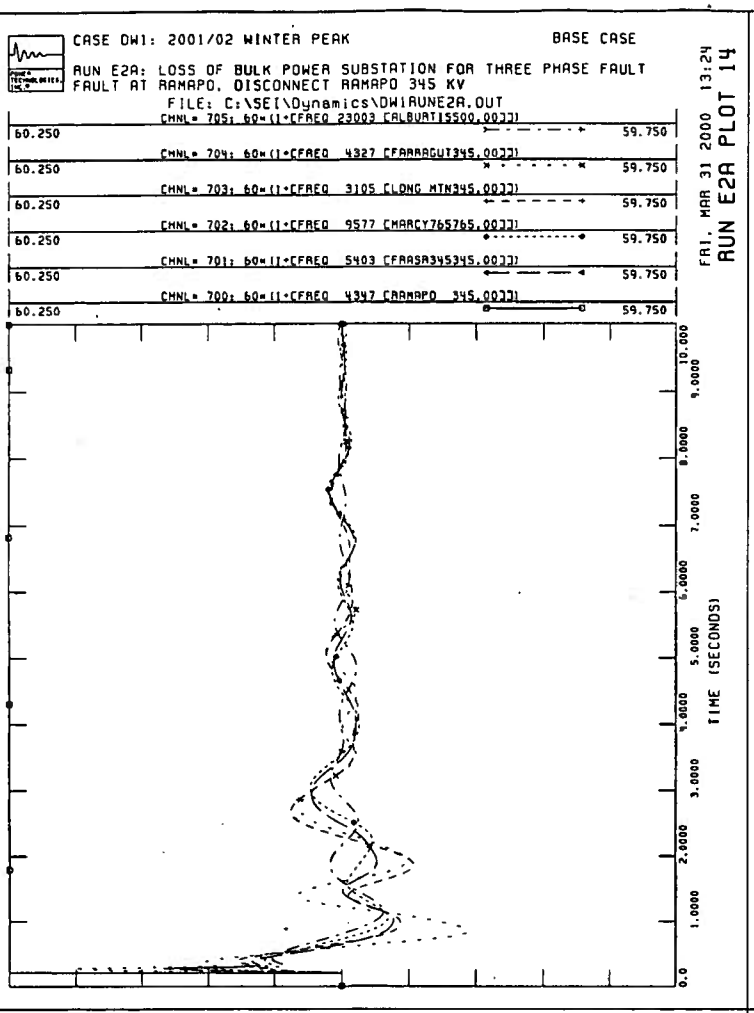
CHNL= 66: CANGL 23368 CSUSQ 1 24,0000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23009 CPCMBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCMBTM=2] C1]]
CHNL= 61: CANGL 23201 CDYSTCAG1] C1]]

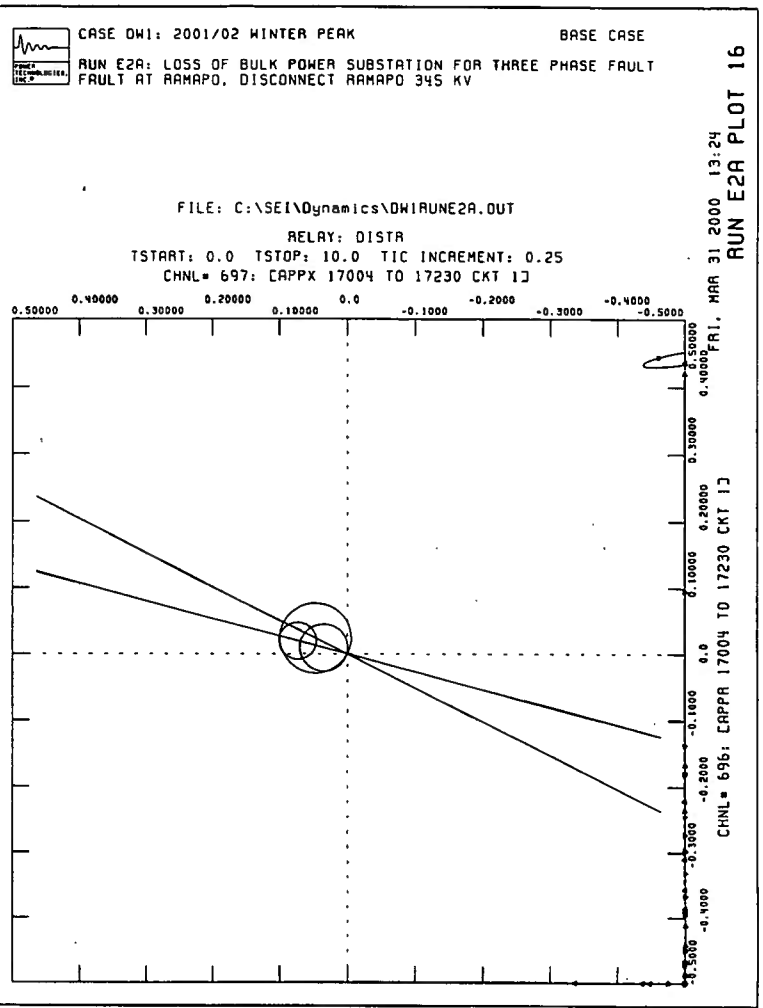
180.00 -180.0

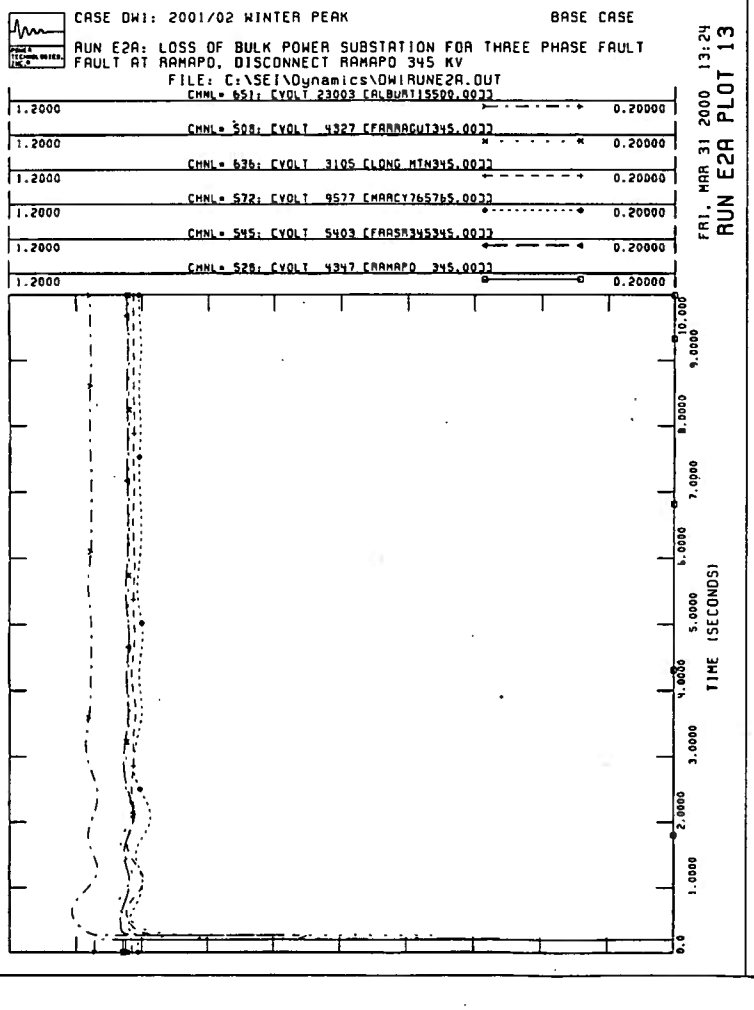
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

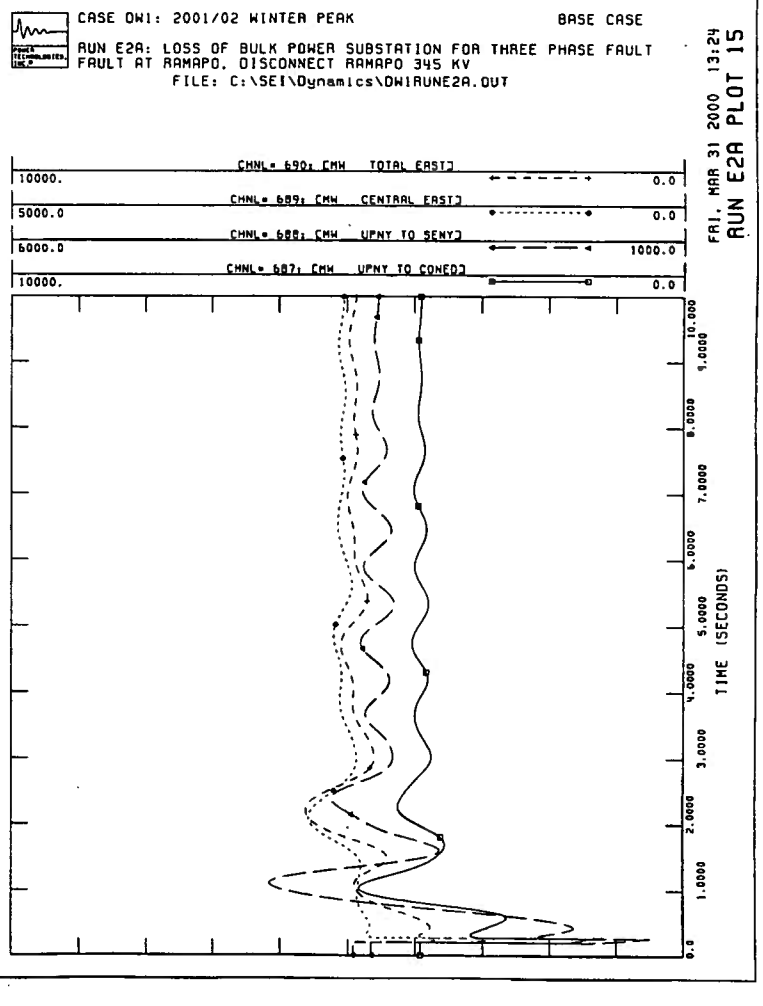
TIME (SECONDS)

FRI, MAR 31 2000 13:24
RUN E2A PLOT 11


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURT15500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 13:24
RUN E2A PLOT 14
TIME (SECONDS)


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 13:24
RUN E2A PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT
CHNL= 651: [VOLT 23003 [ALBURT15500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 13:24
RUN E2A PLOT 13
TIME (SECONDS)


CASE DW1: 2001/02 WINTER PEAK
BASE CASE
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW1RUNE2A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 13:24
RUN E2A PLOT 15
TIME (SECONDS)

APPENDIX F.6 - Summer Peak Case DW2

Bowline 2 and 3 Off-Line

Bowline 1, Athens, ANP and Sithe On-Line

CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                           / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                           / TRIP BOWLINE 2
DISCONNECT BUS 9300                              /
DISCONNECT BUS 9301                              /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

CHNL= 12; CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11; CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10; CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9; CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8; CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7; CANGL 7953 COSWGO 6G22.000] C6]]

180.00 -180.0

FRI, MAR 31 2000 15:30
RUN D2A PLOT 2

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

CHNL= 24; CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23; CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22; CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21; CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20; CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19; CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

FRI, MAR 31 2000 15:30
RUN D2A PLOT 4

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

CHNL= 6; CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5; CANGL 9547 CJAFLTZ1G24.000] C1]]
CHNL= 4; CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3; CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2; CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1; CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

FRI, MAR 31 2000 15:30
RUN D2A PLOT 1

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

CHNL= 18; CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17; CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16; CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15; CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14; CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13; CANGL 9391 CBOWLIN2020.000] C2]]

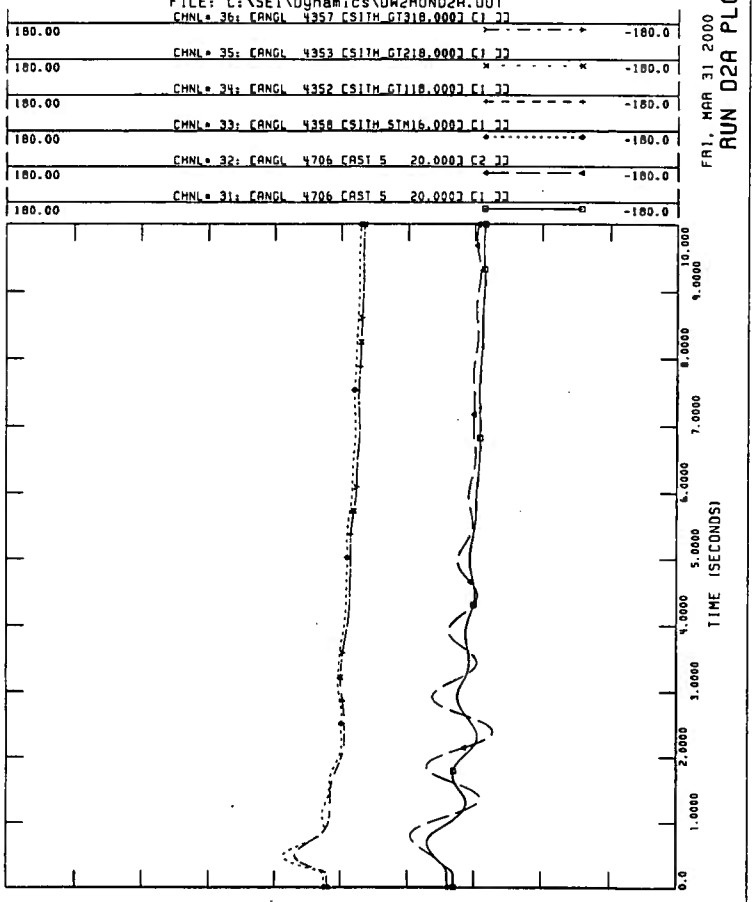
180.00 -180.0

FRI, MAR 31 2000 15:30
RUN D2A PLOT 3

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

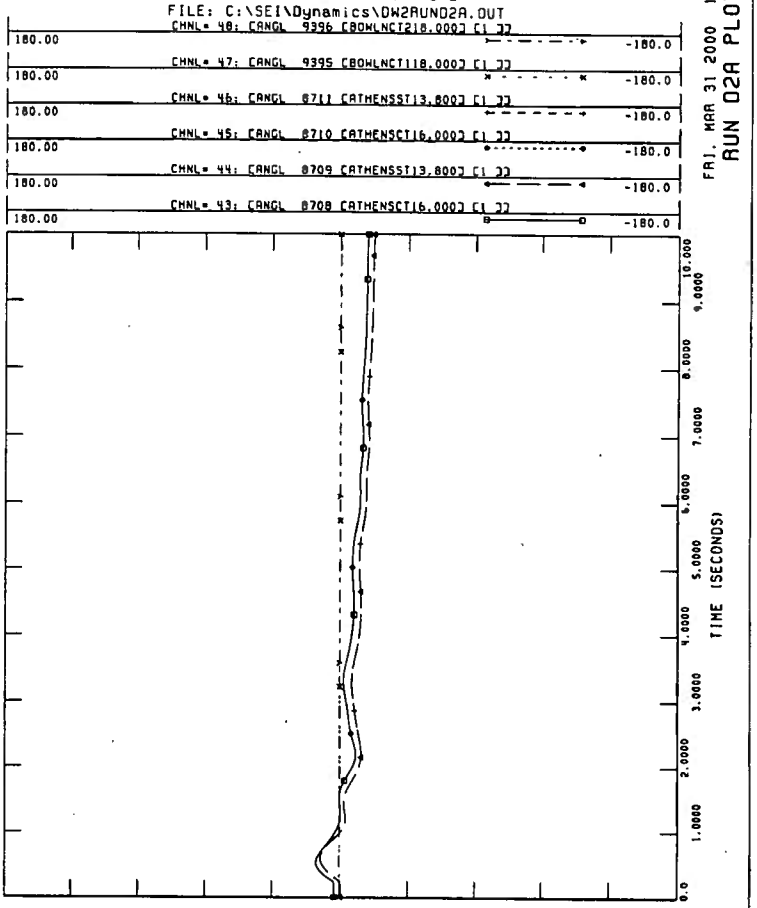
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

FRI, MAR 31 2000 15:30
RUN D2A PLOT 6



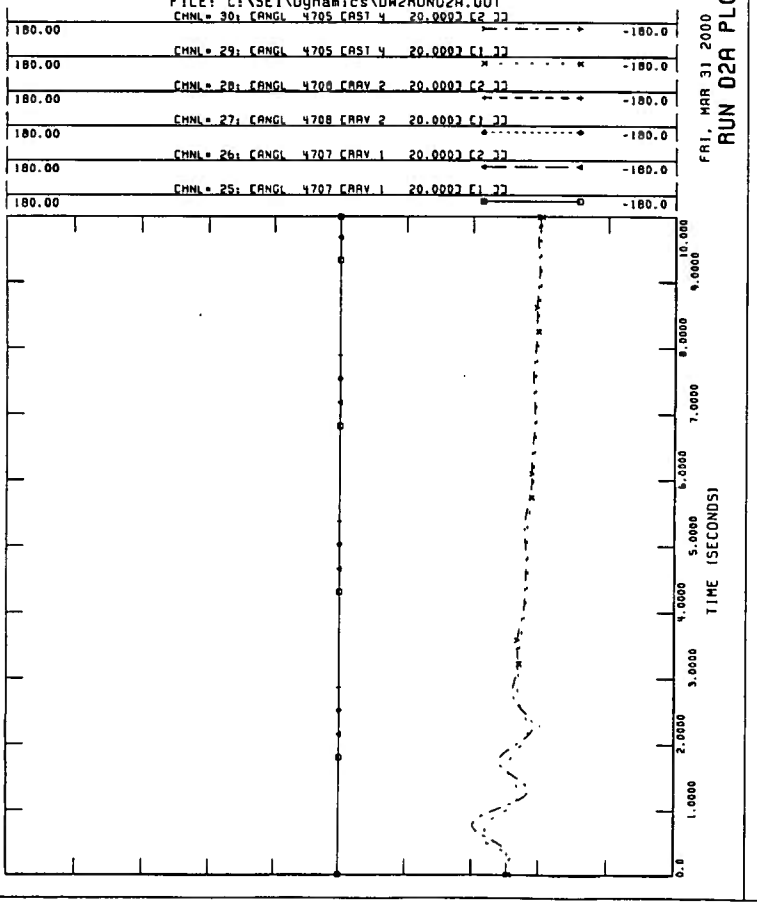
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

FRI, MAR 31 2000 15:30
RUN D2A PLOT 8



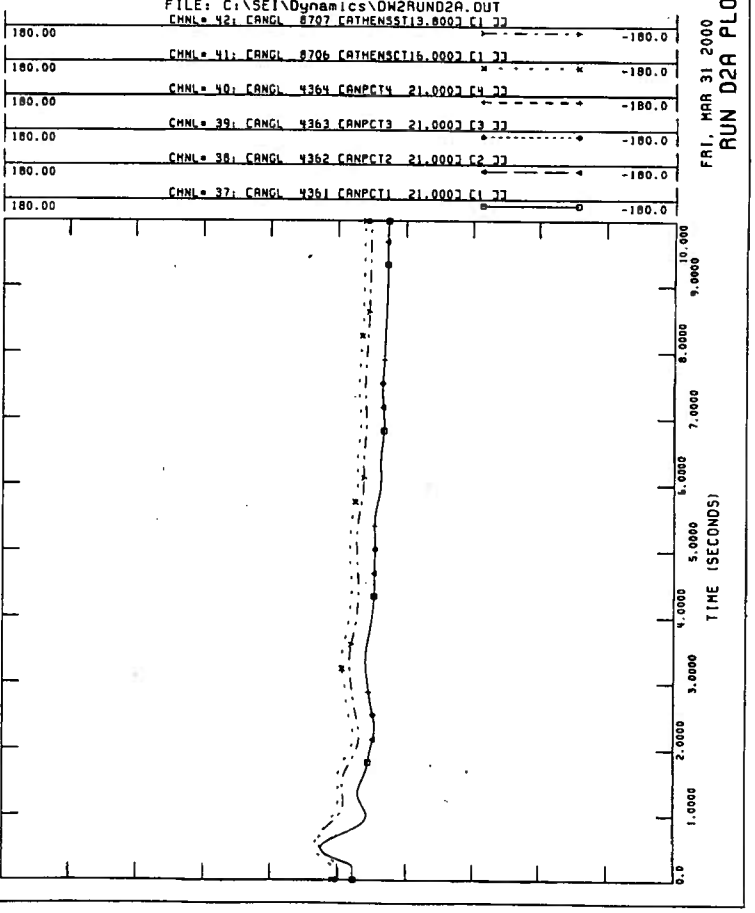
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

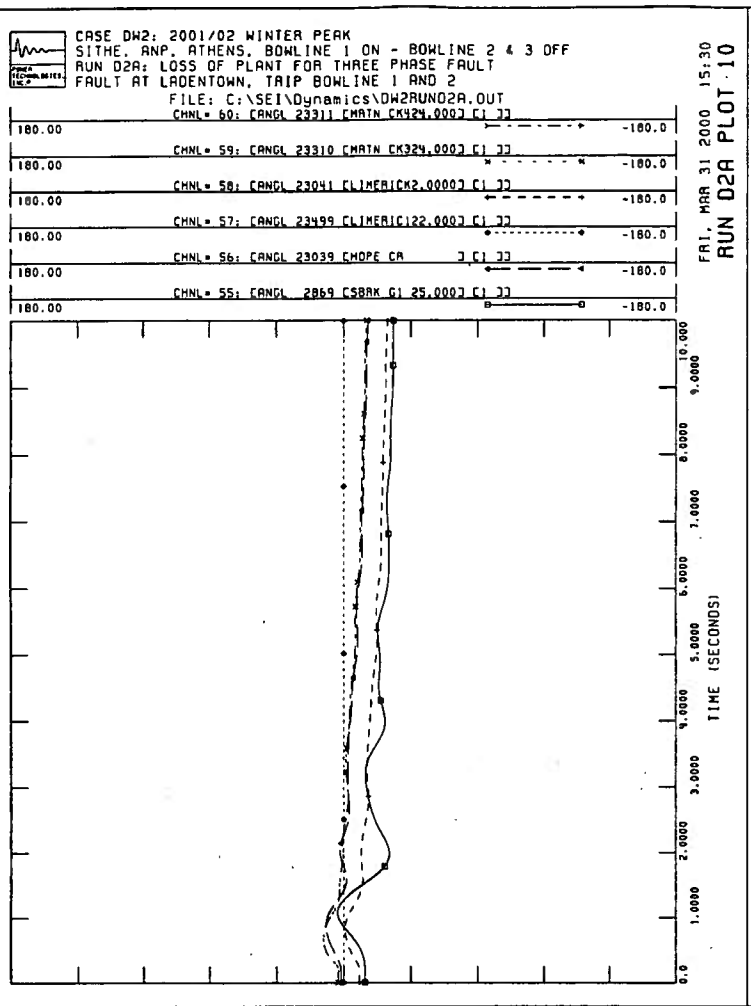
FRI, MAR 31 2000 15:30
RUN D2A PLOT 5

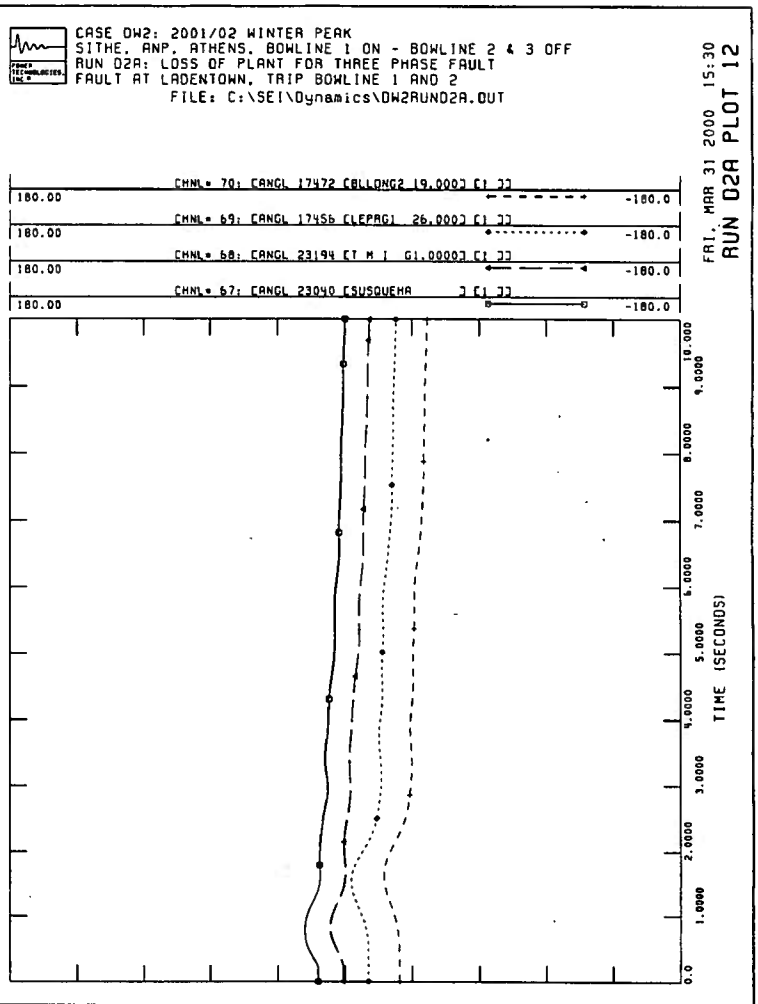


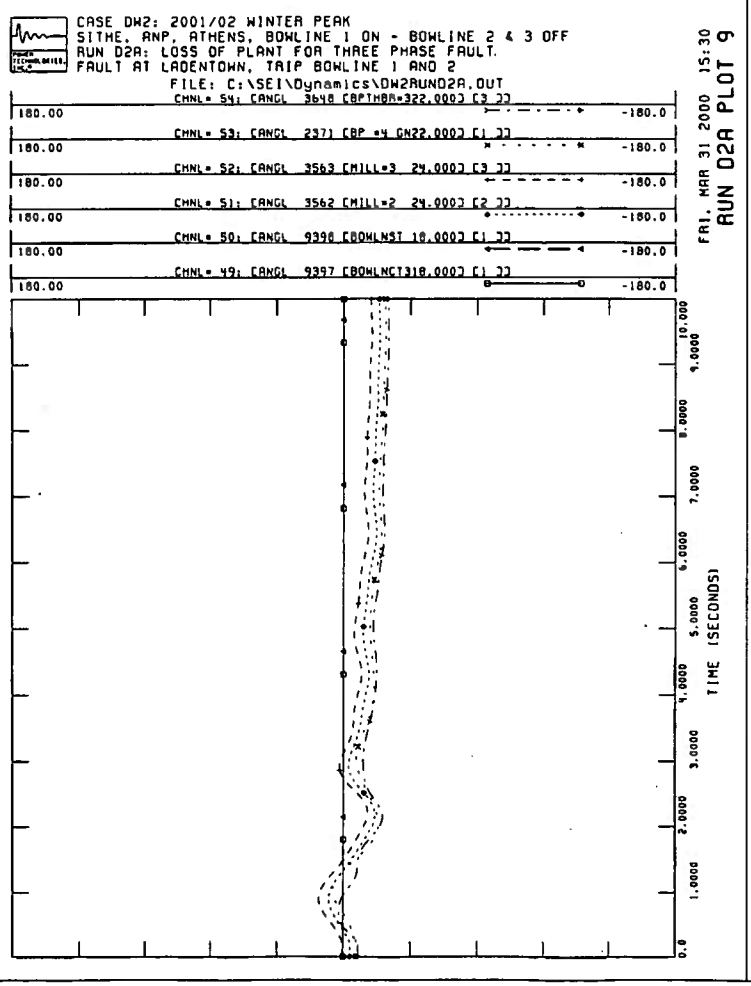
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT

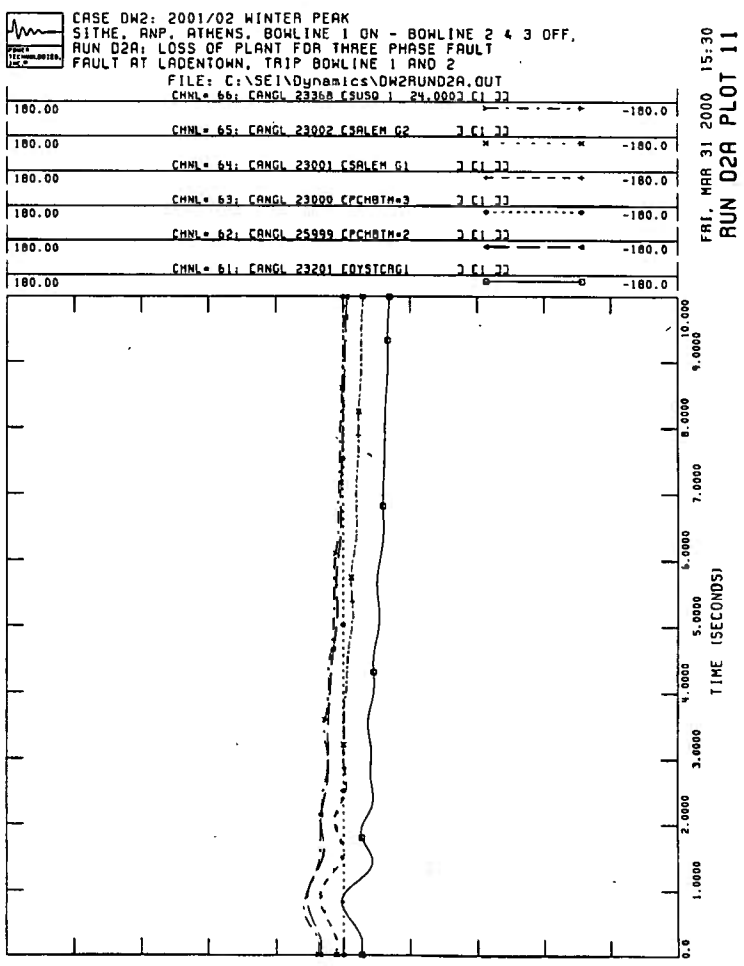
FRI, MAR 31 2000 15:30
RUN D2A PLOT 7

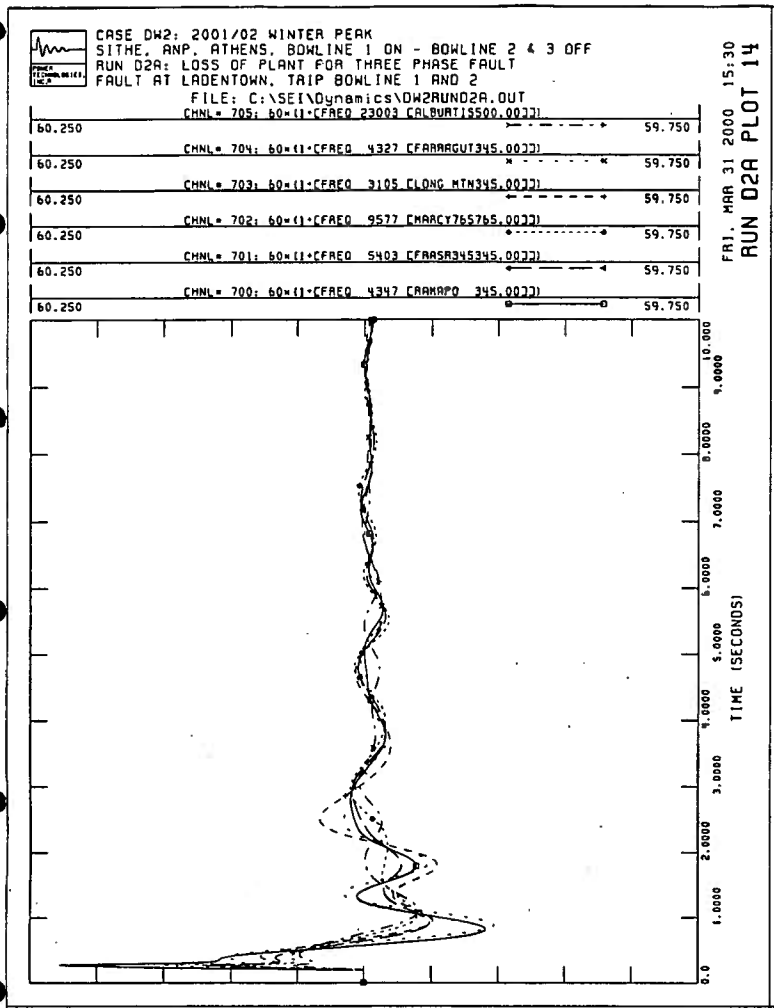


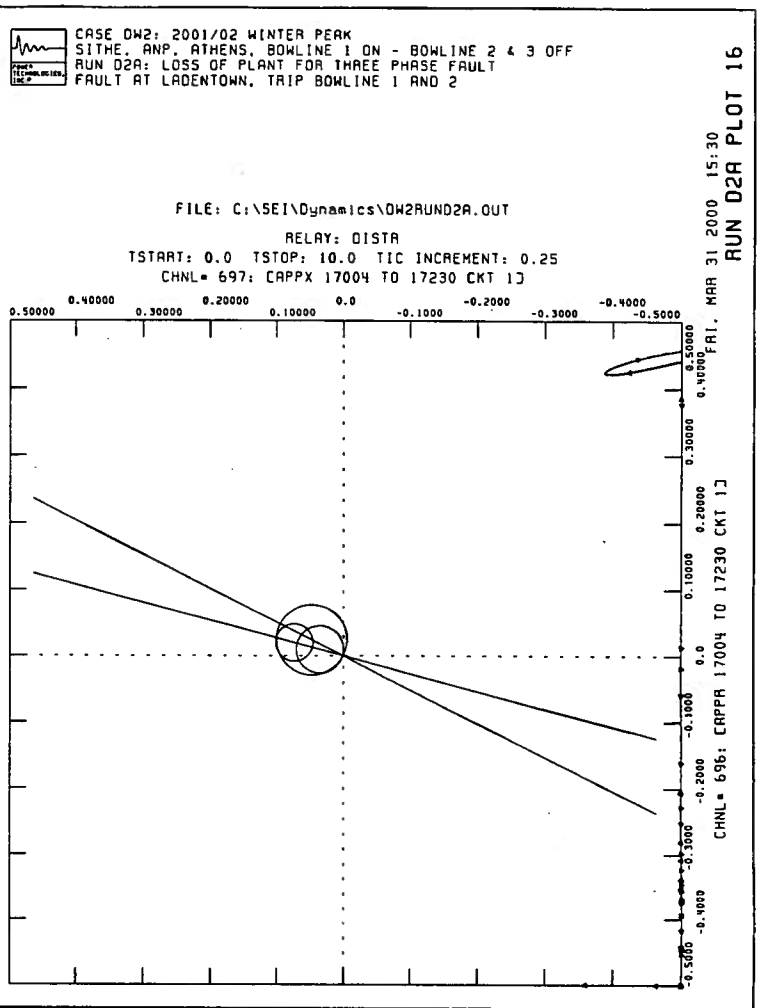

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 60: CANGL 23311 [MAIN CK324,0000] [1]]
CHNL= 59: CANGL 23310 [MAIN CK324,0000] [1]]
CHNL= 58: CANGL 23041 [LIMERICK2,0000] [1]]
CHNL= 57: CANGL 23499 [LIMERIC122,000] [1]]
CHNL= 56: CANGL 23039 [MOPE CR] [1]]
CHNL= 55: CANGL 2869 [SBRK G1 25,000] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D2A PLOT 10
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

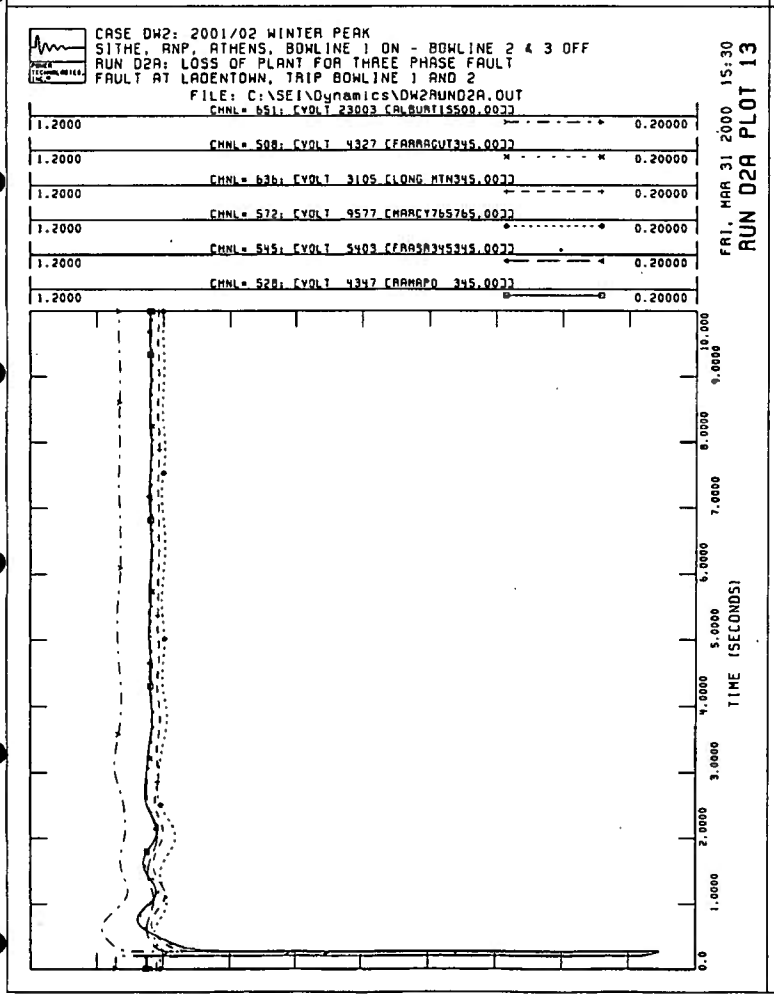

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 70: CANGL 17472 [BLLONG2 19,000] [1]]
CHNL= 69: CANGL 17456 [LEPAG1 26,000] [1]]
CHNL= 68: CANGL 23194 [T M 1 G1,0000] [1]]
CHNL= 67: CANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D2A PLOT 12
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

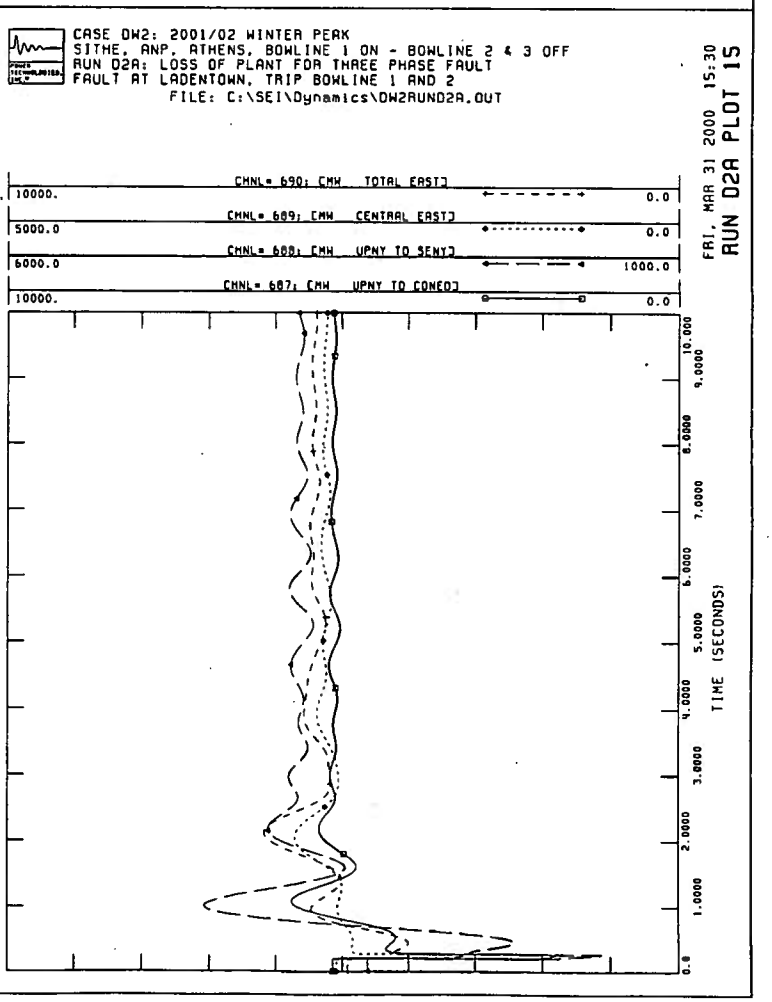

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT.
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 54: CANGL 3648 [BPTH8A=322,000] [3]]
CHNL= 53: CANGL 2371 [BP =4 GN22,000] [1]]
CHNL= 52: CANGL 3563 [MILL=3 24,000] [3]]
CHNL= 51: CANGL 3562 [MILL=2 24,000] [2]]
CHNL= 50: CANGL 9398 [BOWLN3T 18,000] [1]]
CHNL= 49: CANGL 9397 [BOWLNGT318,000] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D2A PLOT 9
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF,
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 66: CANGL 23368 [SUSQ 1 24,000] [1]]
CHNL= 65: CANGL 23002 [SALEM G2] [1]]
CHNL= 64: CANGL 23001 [SALEM G1] [1]]
CHNL= 63: CANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: CANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: CANGL 23201 [KEYSTCAG]] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D2A PLOT 11
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURT1S500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 15:30
RUN D2A PLOT 14
TIME (SECONDS)

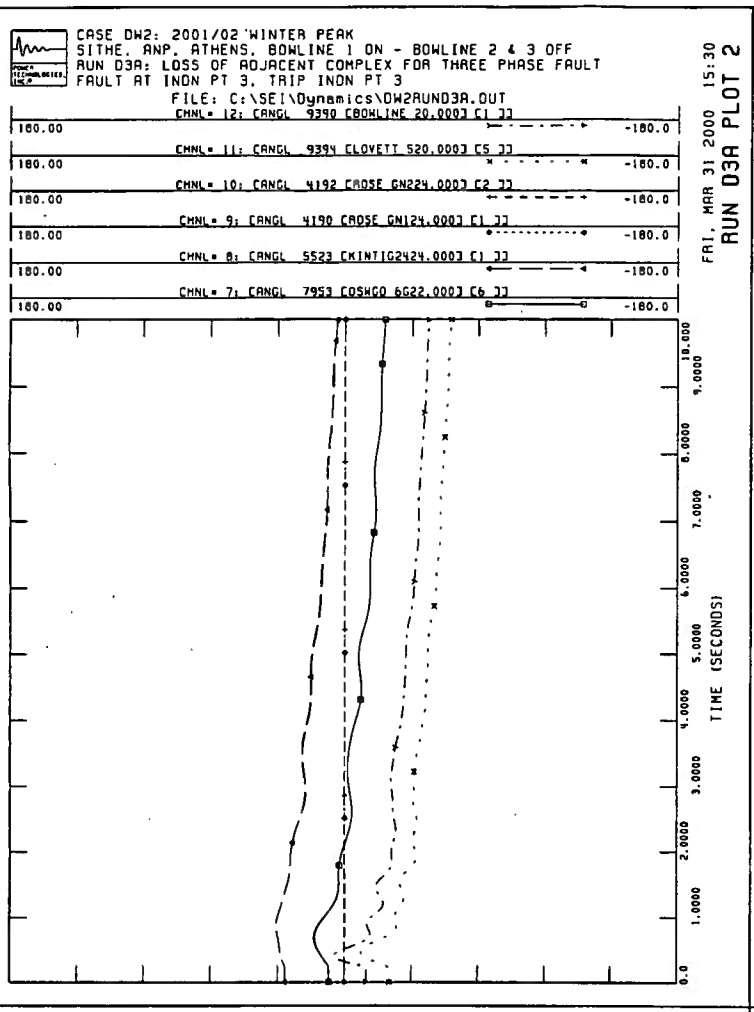

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 15:30
RUN D2A PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

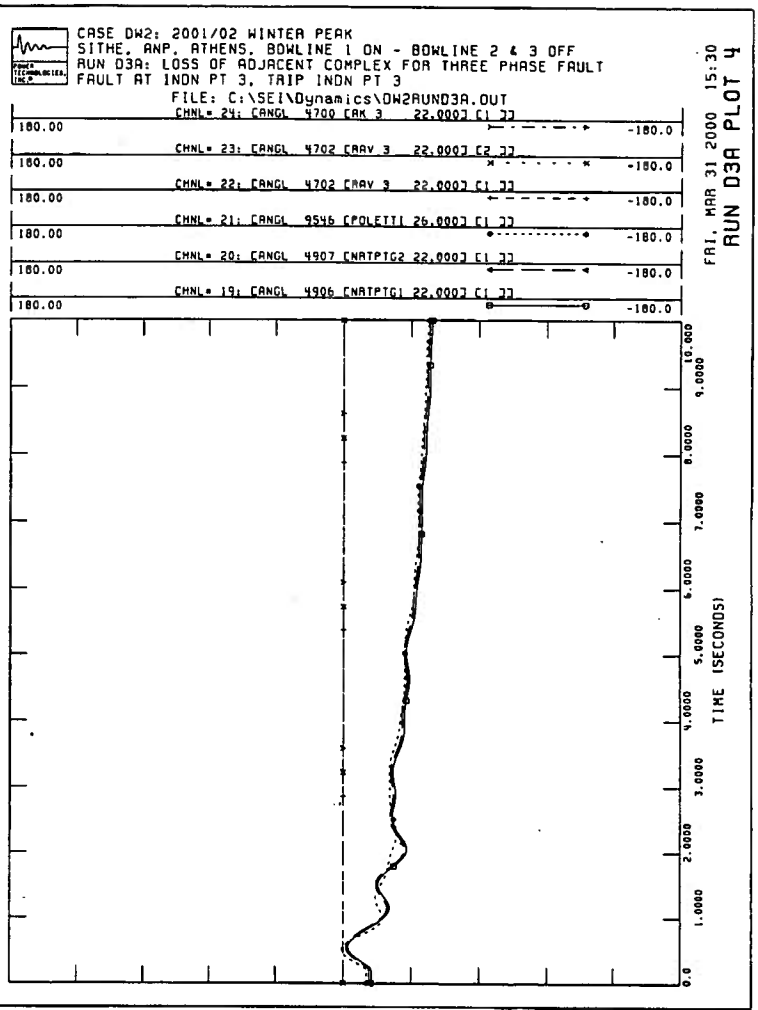

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 651: [VOLT 23003 [ALBURT1S500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 15:30
RUN D2A PLOT 13
TIME (SECONDS)

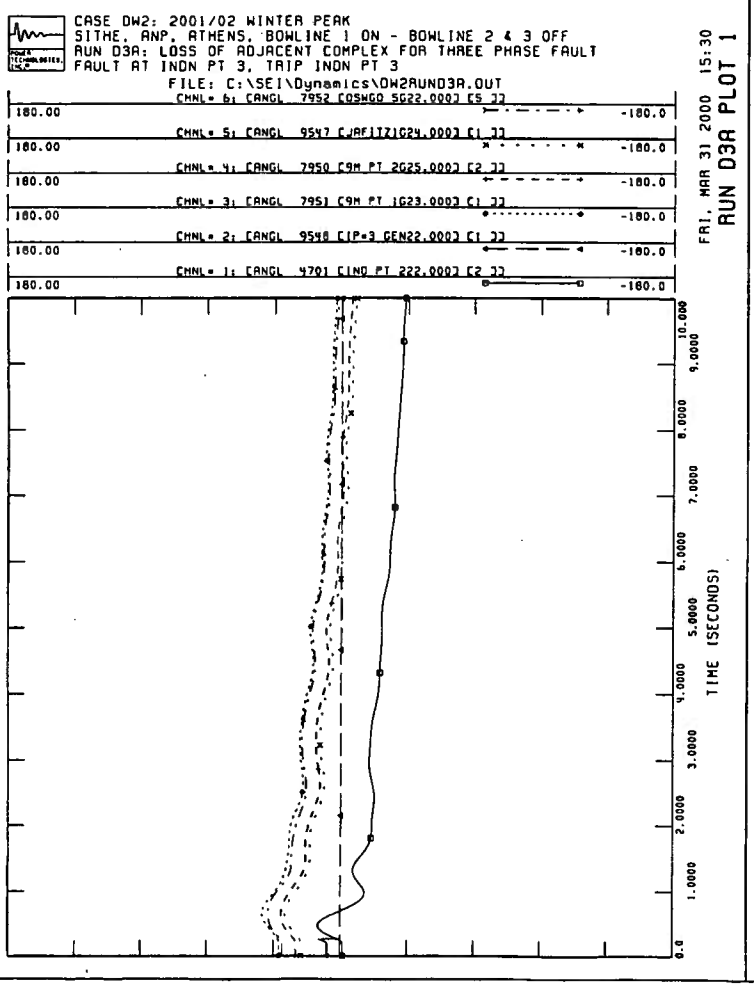

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUND2A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 15:30
RUN D2A PLOT 15
TIME (SECONDS)

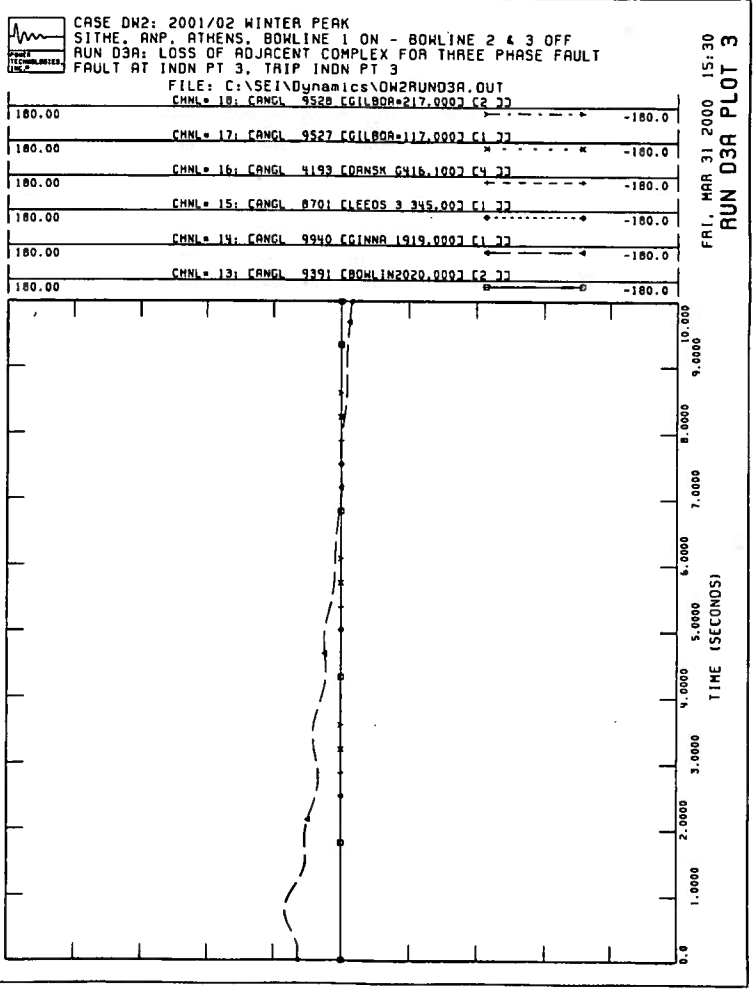
CONTINGENCY D3A

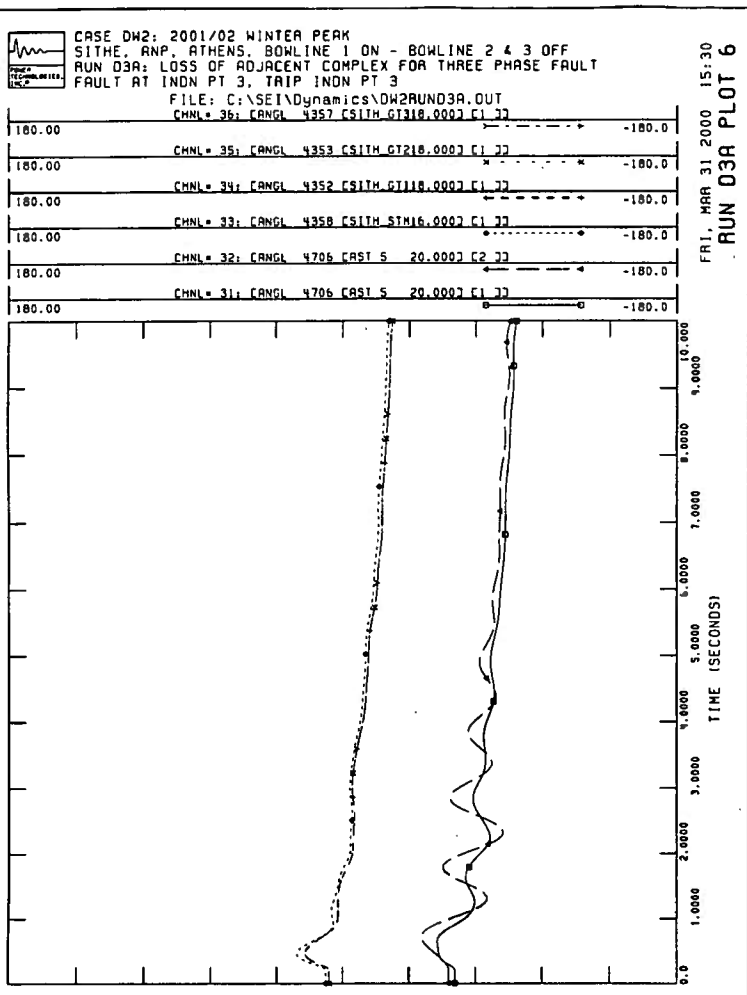
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                           / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

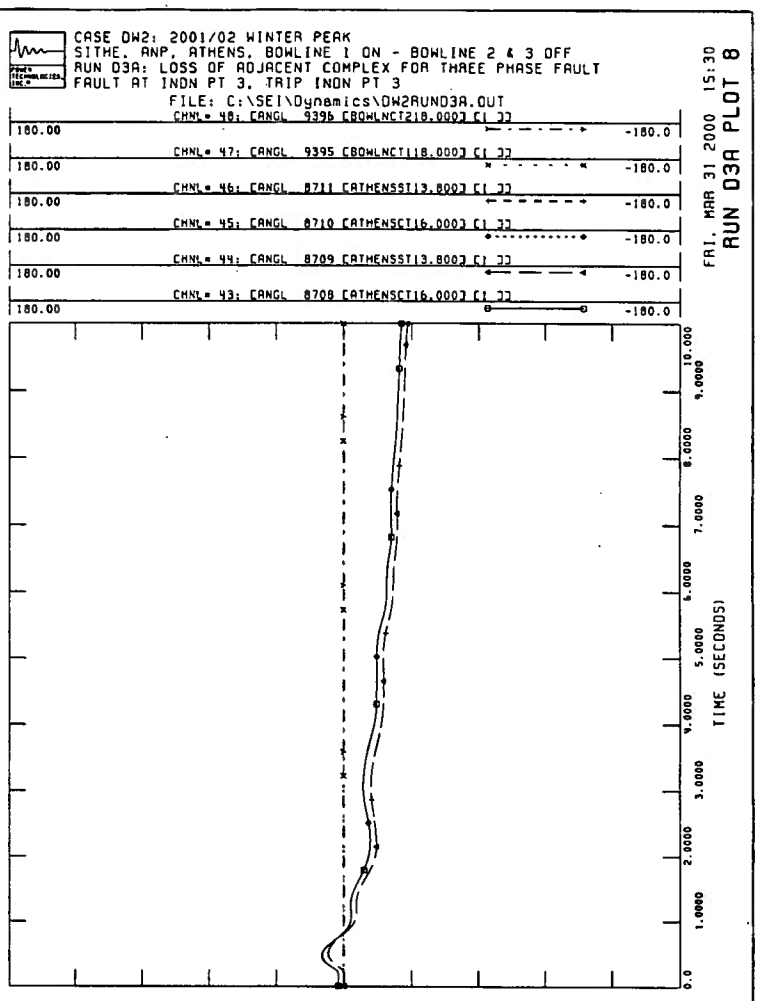

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D3A PLOT 2
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)

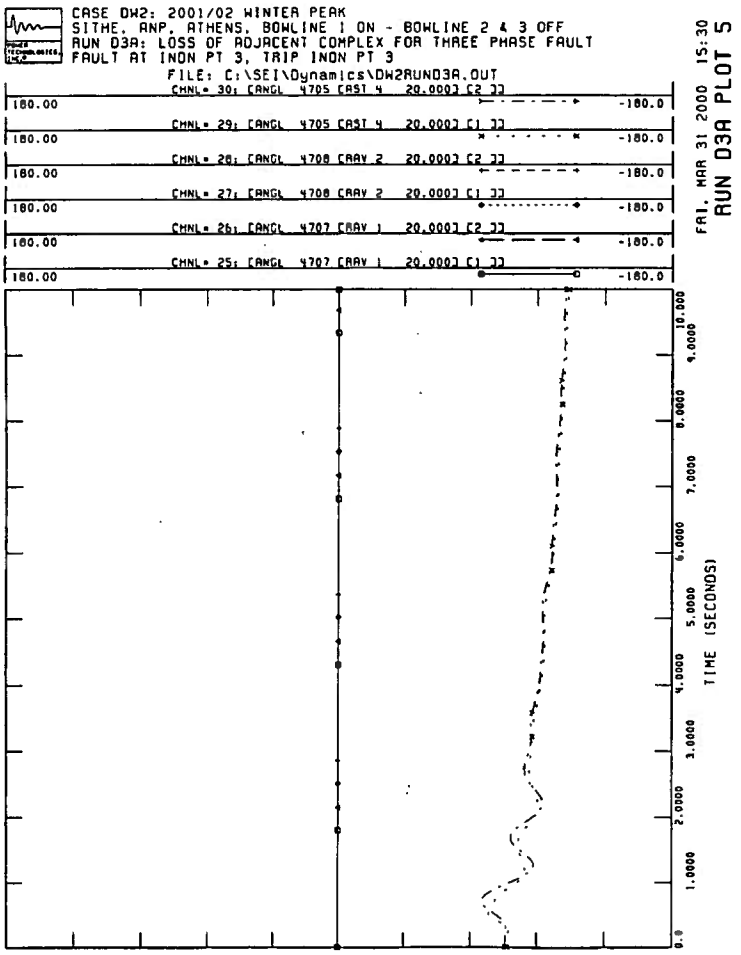

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
CHNL= 24: CANGL 4700 [RK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [RAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [RAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D3A PLOT 4
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)

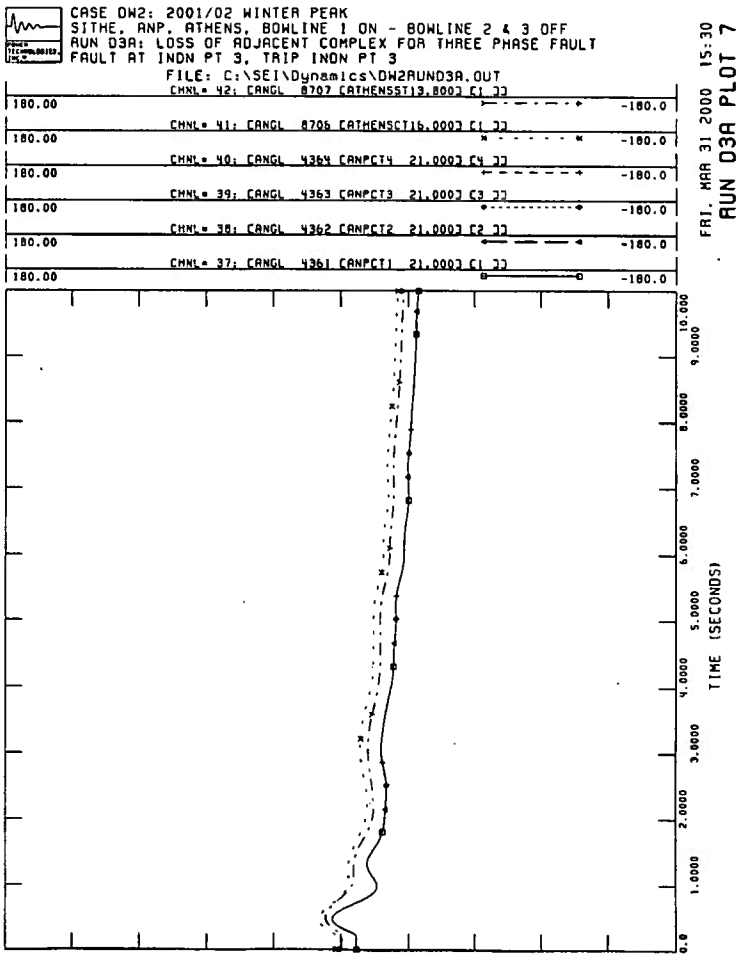

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP+3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D3A PLOT 1
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=217.000] [1]]
CHNL= 16: CANGL 4193 [ORANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
FRI, MAR 31 2000 15:30
RUN D3A PLOT 3
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
FRI, MAR 31 2000 15:30
RUN D3A PLOT 6
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
FRI, MAR 31 2000 15:30
RUN D3A PLOT 8
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
FRI, MAR 31 2000 15:30
RUN D3A PLOT 5
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
FRI, MAR 31 2000 15:30
RUN D3A PLOT 7
TIME (SECONDS)

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

FRI, MAR 31 2000 15:30
RUN .D3A PLOT 10

CHNL= 60: CANGL 23311 CMAIN CK424.0000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERICK22.0000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.0000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

FRI, MAR 31 2000 15:30
RUN D3A PLOT 12

CHNL= 70: CANGL 17472 CBLLDNG2_19.0000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.0000] C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

FRI, MAR 31 2000 15:30
RUN D3A PLOT 9

CHNL= 54: CANGL 3648 CBPTMBA=322.0000] C3]]
CHNL= 53: CANGL 2371 CBP =4 CW22.0000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.0000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.0000] C2]]
CHNL= 50: CANGL 9398 CBOWLNST 18.0000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.0000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

FRI, MAR 31 2000 15:30
RUN D3A PLOT 11

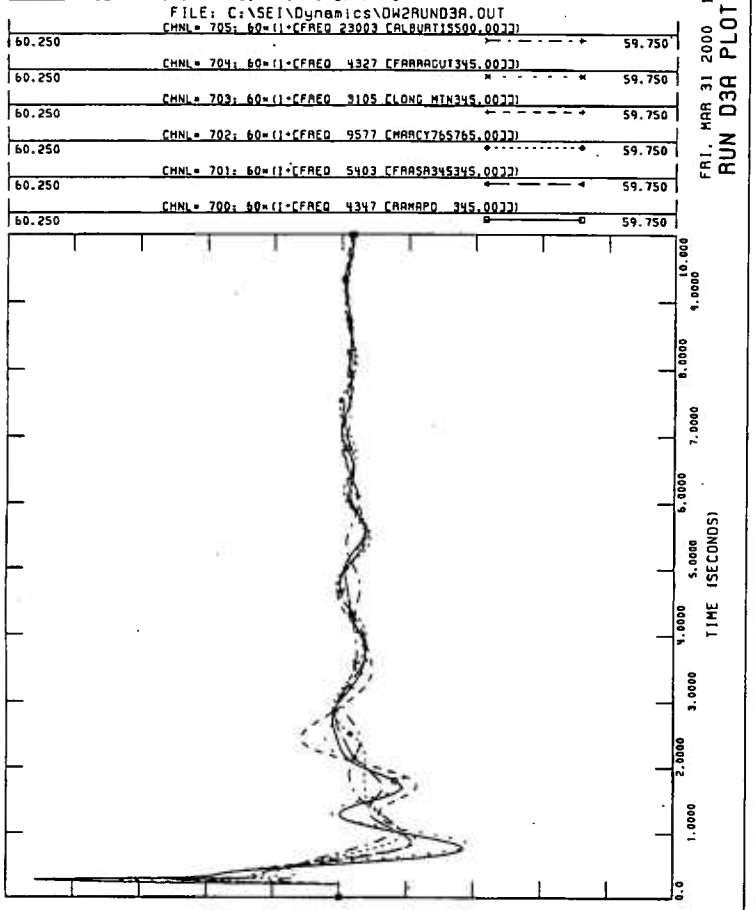
CHNL= 66: CANGL 23368 CSUSQ 1 24.0000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCAG1] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

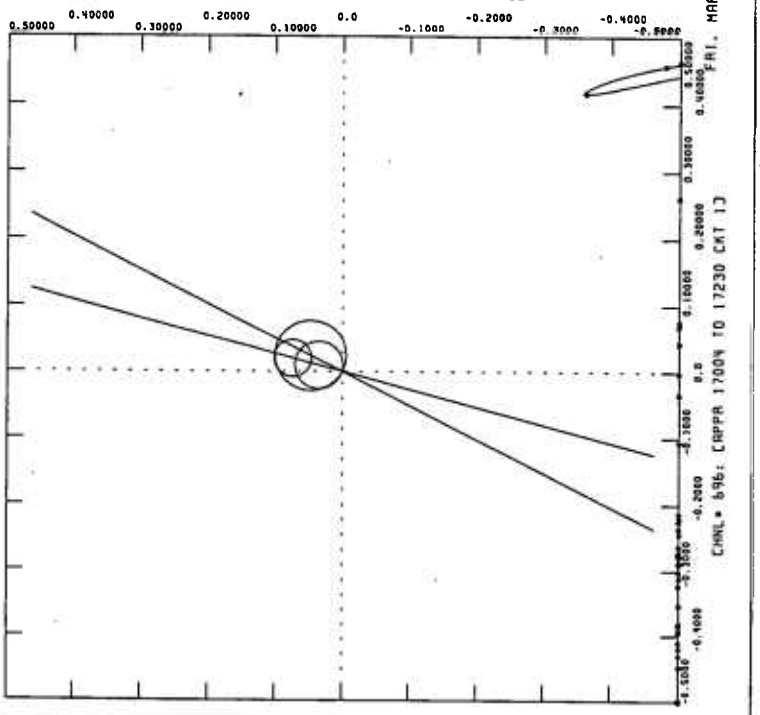
FRI, MAR 31 2000 15:30
RUN D3A PLOT 14



CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

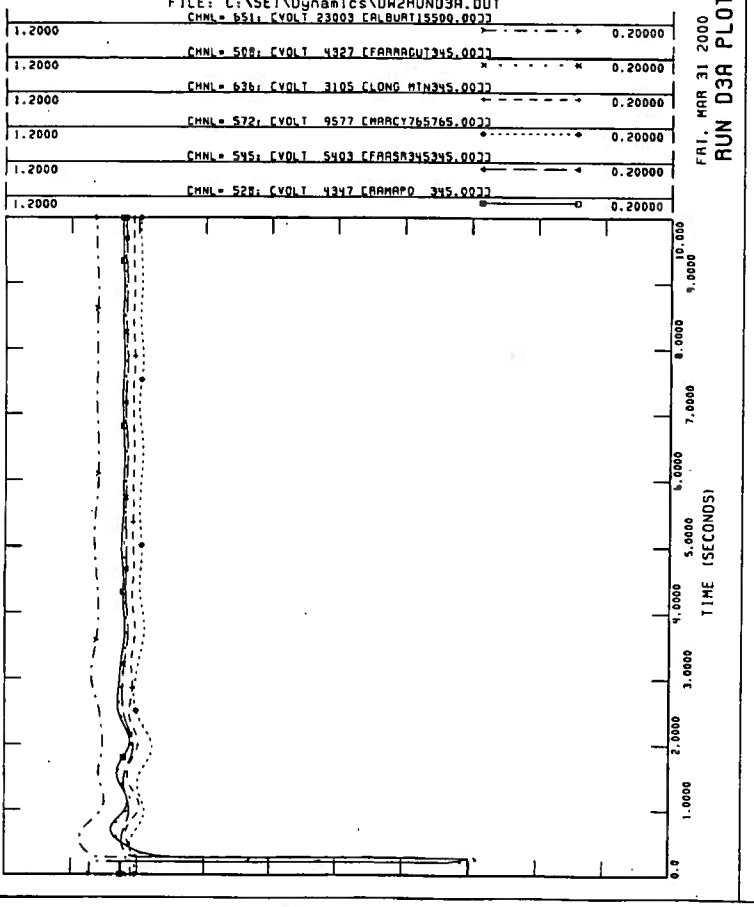
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1J

FRI, MAR 31 2000 15:30
RUN D3A PLOT 16



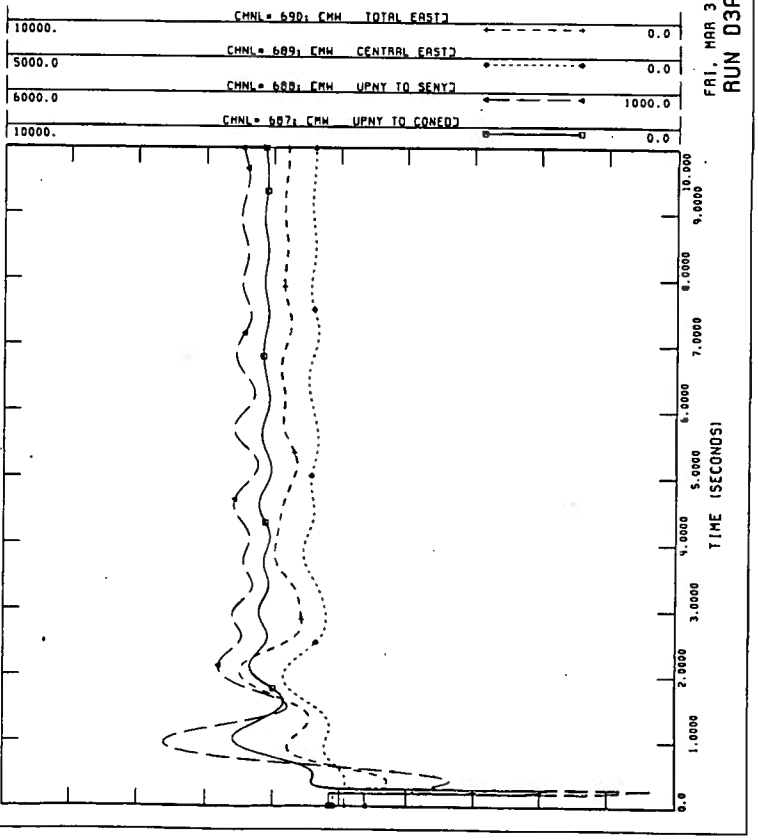
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

FRI, MAR 31 2000 15:30
RUN D3A PLOT 13



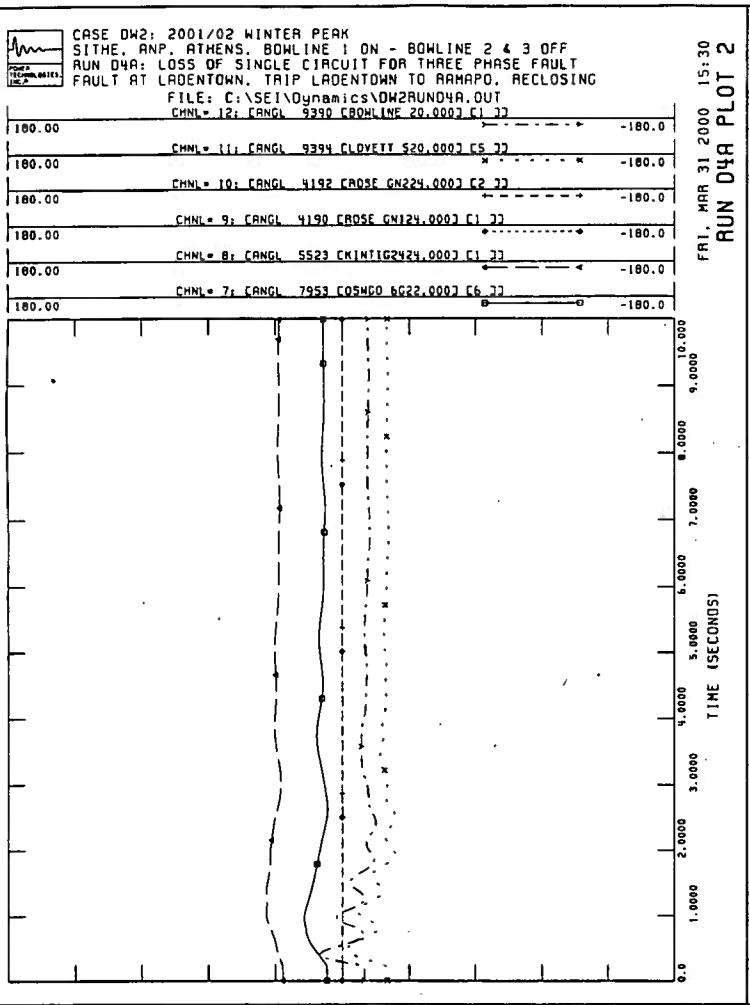
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW2RUND3A.OUT

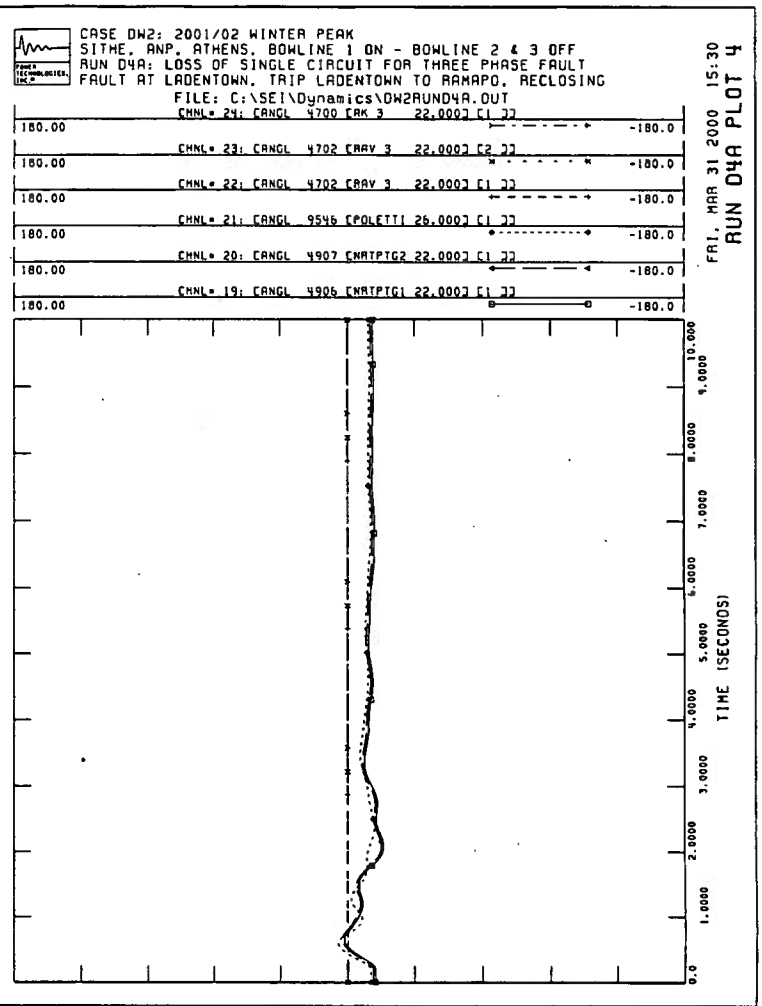
FRI, MAR 31 2000 15:30
RUN D3A PLOT 15

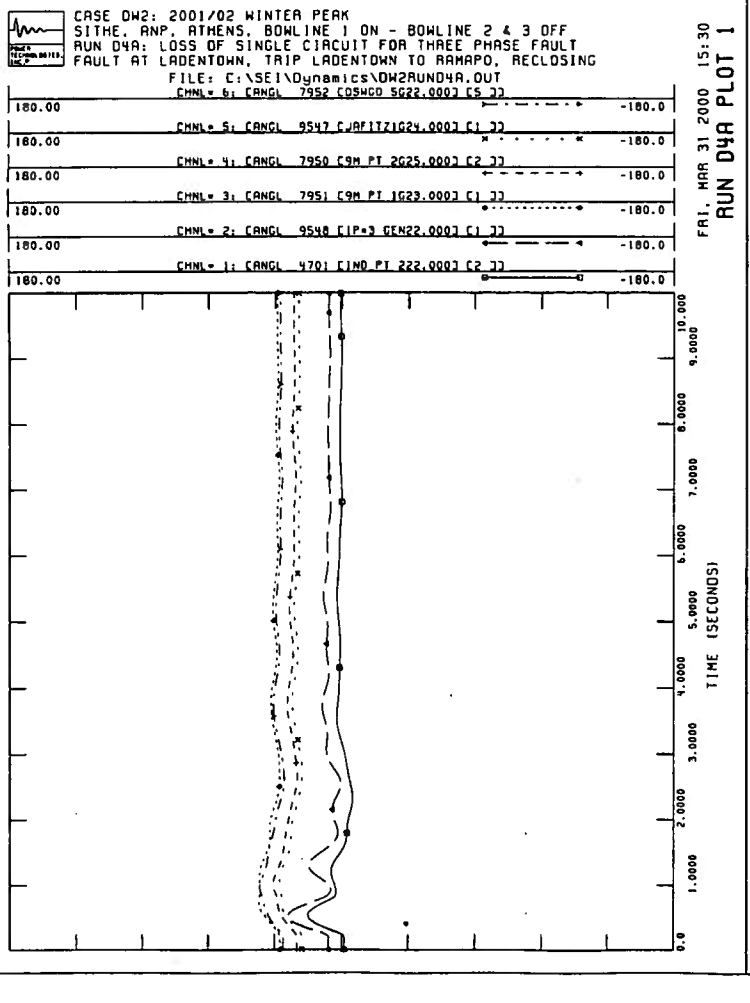


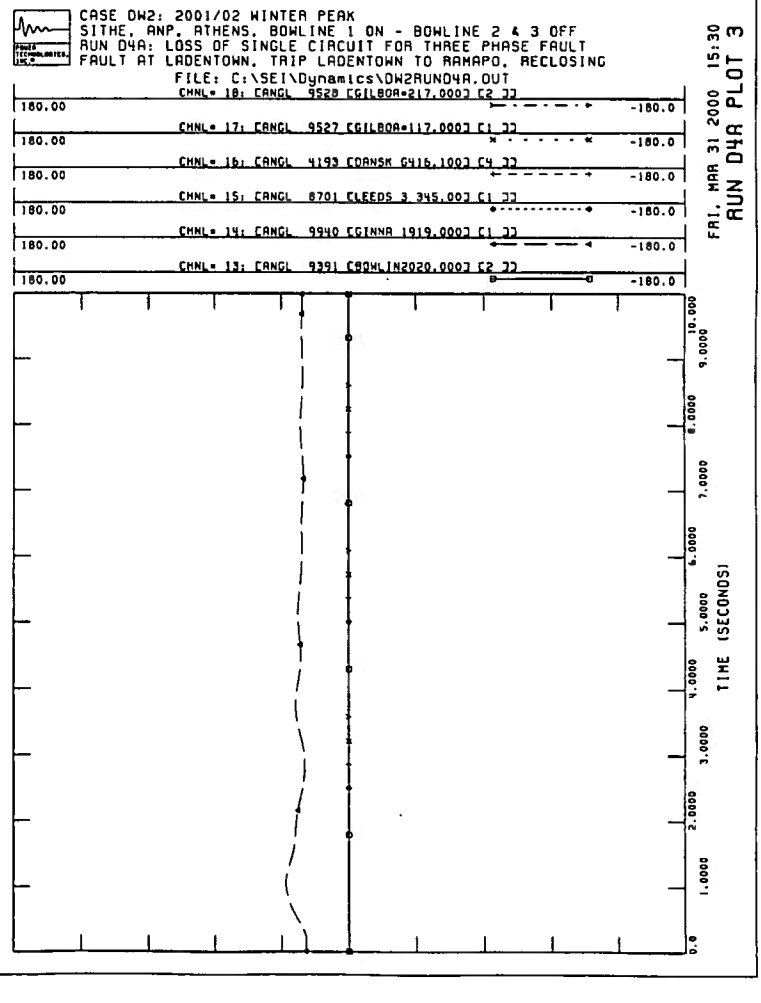
CONTINGENCY D4A

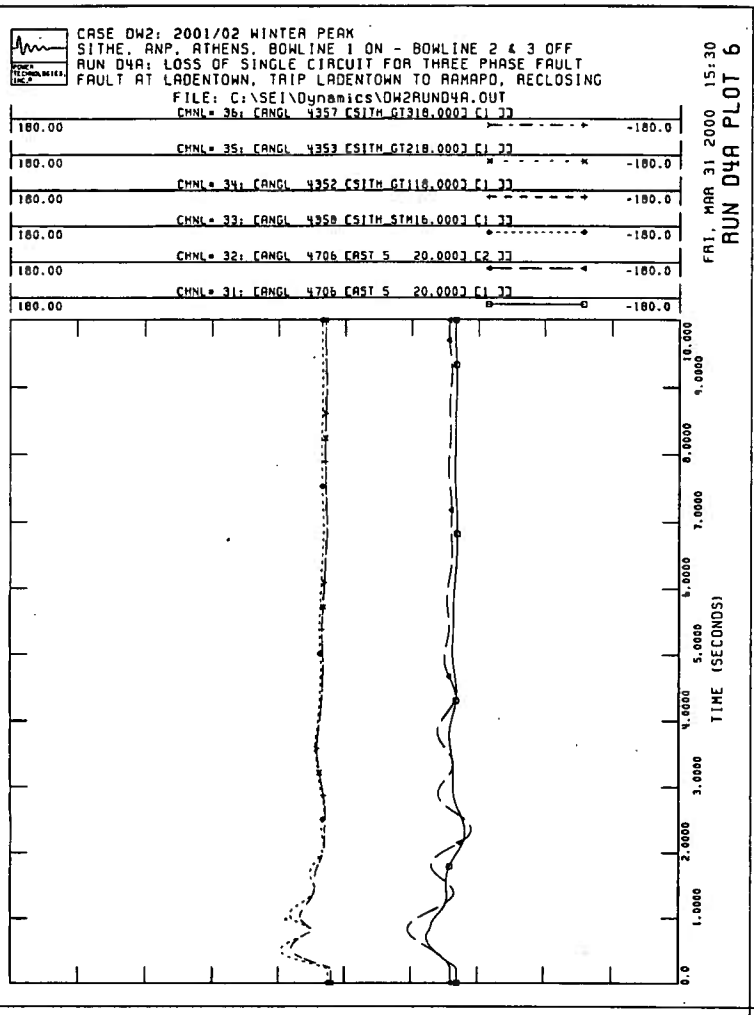
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1             / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345  / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

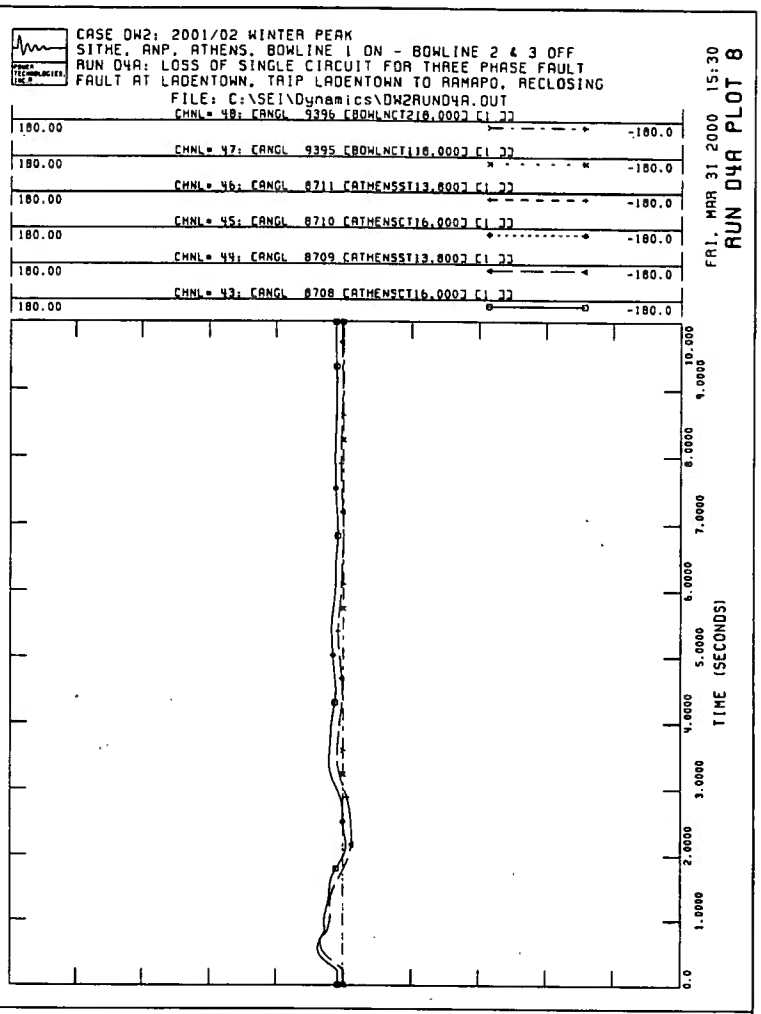

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1 JJ
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5 JJ
CHNL= 10: CANGL 4192 CROSE GN224.000] C2 JJ
CHNL= 9: CANGL 4190 CROSE GN124.000] C1 JJ
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1 JJ
CHNL= 7: CANGL 7953 COSWEO 6G22.000] C6 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 2

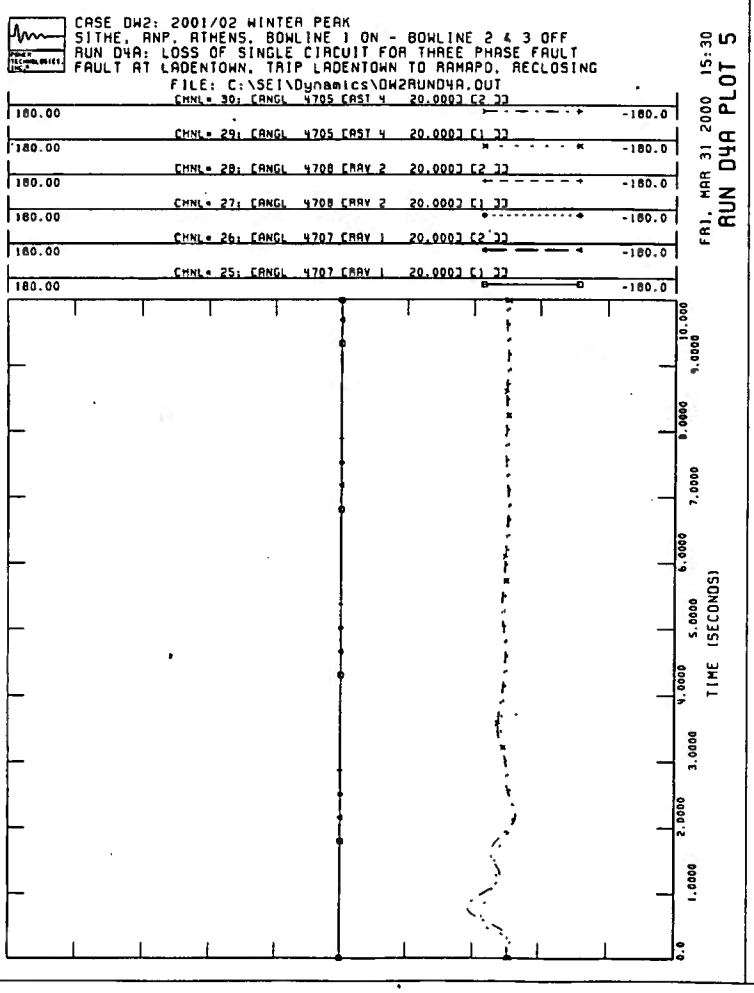

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 24: CANGL 4700 CRK 3 22.000] C1 JJ
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2 JJ
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1 JJ
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1 JJ
CHNL= 20: CANGL 4907 CNRTPTG2 22.000] C1 JJ
CHNL= 19: CANGL 4906 CNRTPTG1 22.000] C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 4

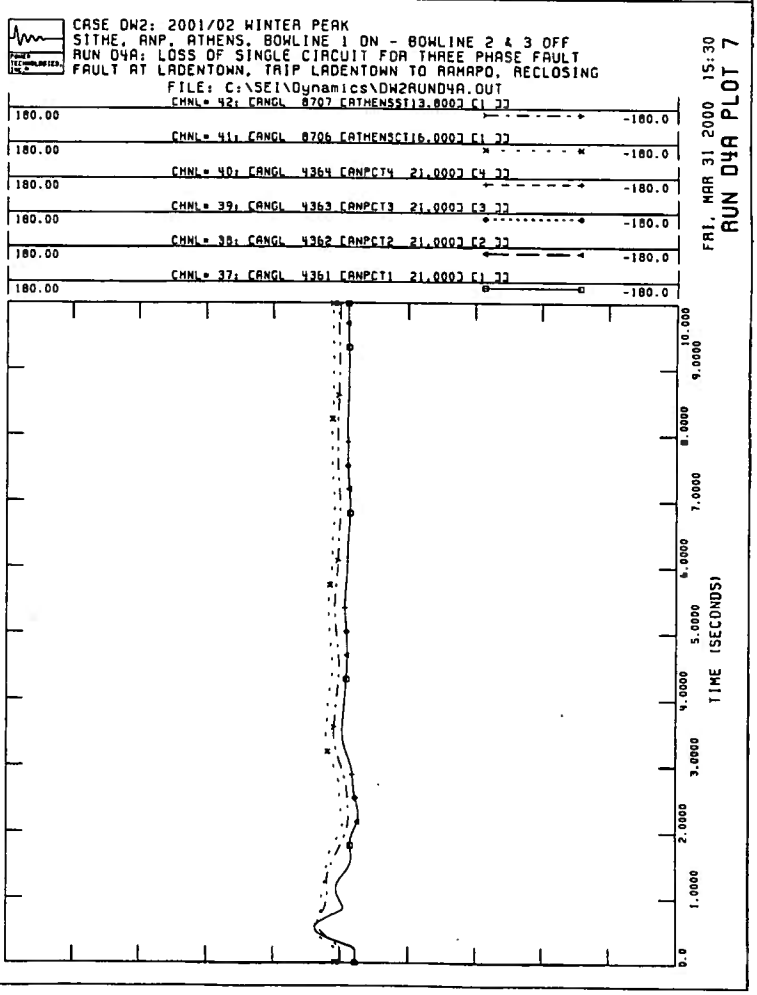

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 6: CANGL 7952 COSWEO 5G22.000] C5 JJ
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1 JJ
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2 JJ
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1 JJ
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1 JJ
CHNL= 1: CANGL 4701 CJMD PT 222.000] C2 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 1


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2 JJ
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1 JJ
CHNL= 16: CANGL 4193 CDANSK G416.100] C4 JJ
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1 JJ
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1 JJ
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 3

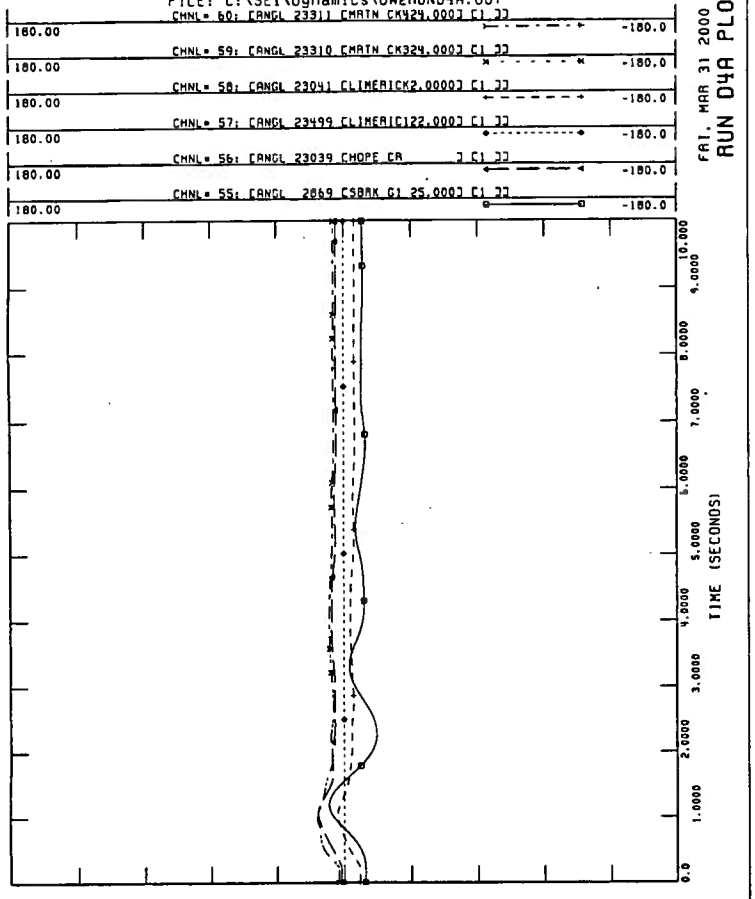

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 36; CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35; CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34; CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33; CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32; CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31; CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 6


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 48; CANGL 9396 CBOWLNCT]16.000] C1]]
CHNL= 47; CANGL 9395 CBOWLNCT]16.000] C1]]
CHNL= 46; CANGL 8711 CATHENSST]13.800] C1]]
CHNL= 45; CANGL 8710 CATHENSCT]16.000] C1]]
CHNL= 44; CANGL 8709 CATHENSST]13.800] C1]]
CHNL= 43; CANGL 8708 CATHENSCT]16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 8


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 30; CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29; CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28; CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27; CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26; CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25; CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 5

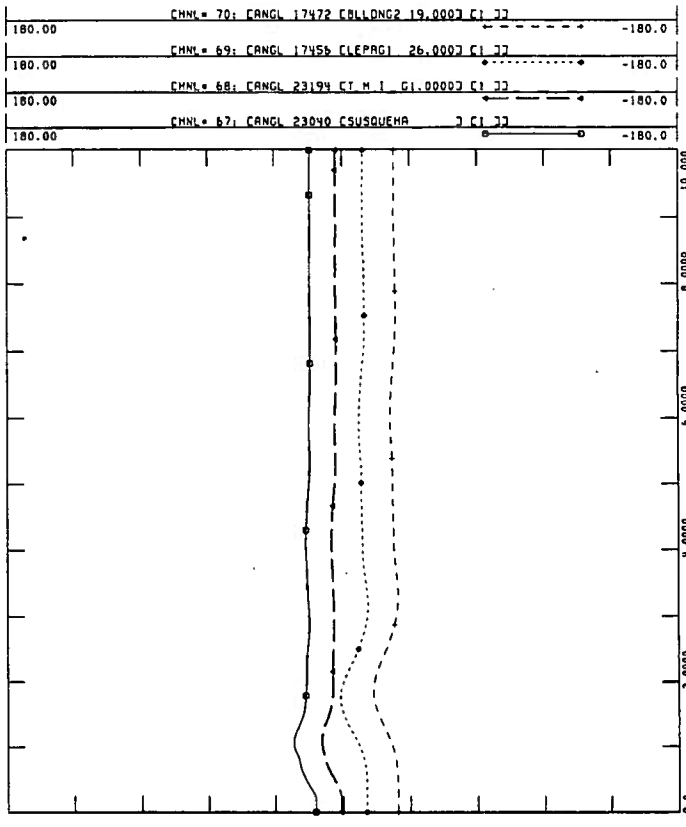

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
CHNL= 42; CANGL 8707 CATHENSST]13.800] C1]]
CHNL= 41; CANGL 8706 CATHENSCT]16.000] C1]]
CHNL= 40; CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39; CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38; CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37; CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:30
RUN D4A PLOT 7

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT



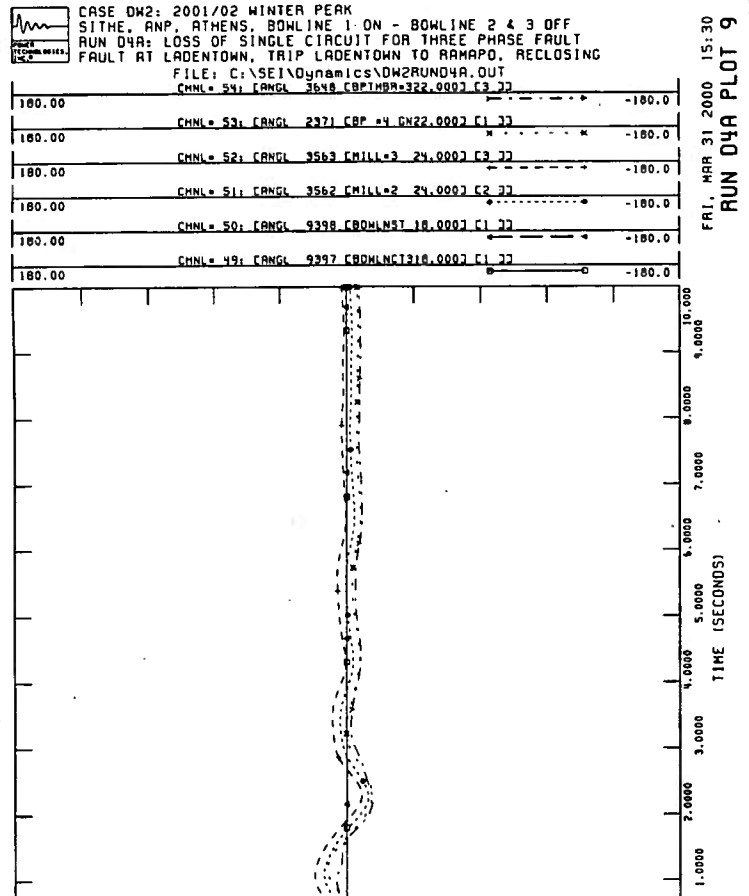
FRI, MAR 31 2000 15:30
RUN D4A PLOT 10

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT



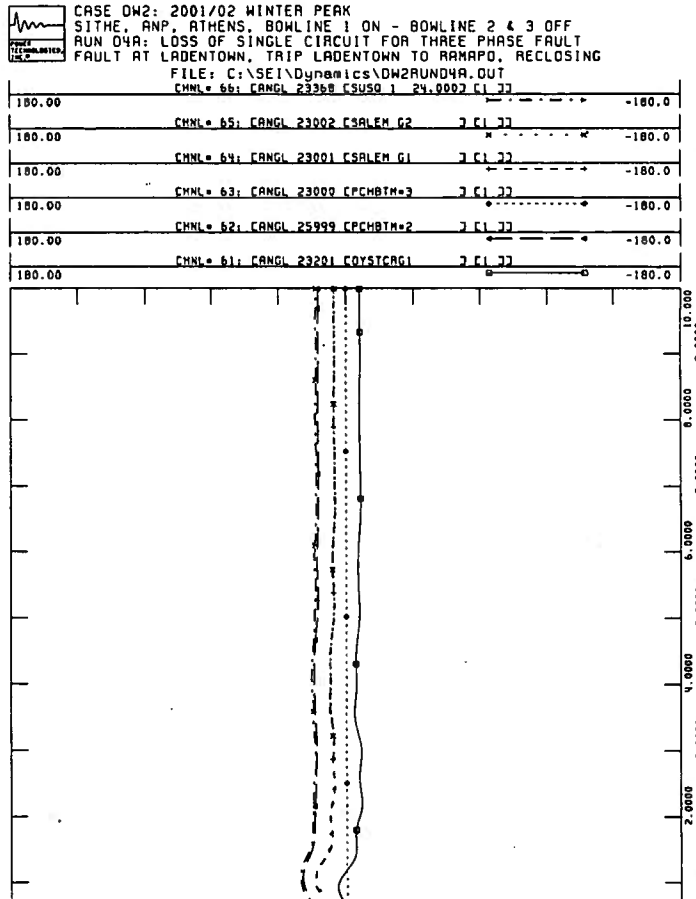
FRI, MAR 31 2000 15:30
RUN D4A PLOT 12

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT



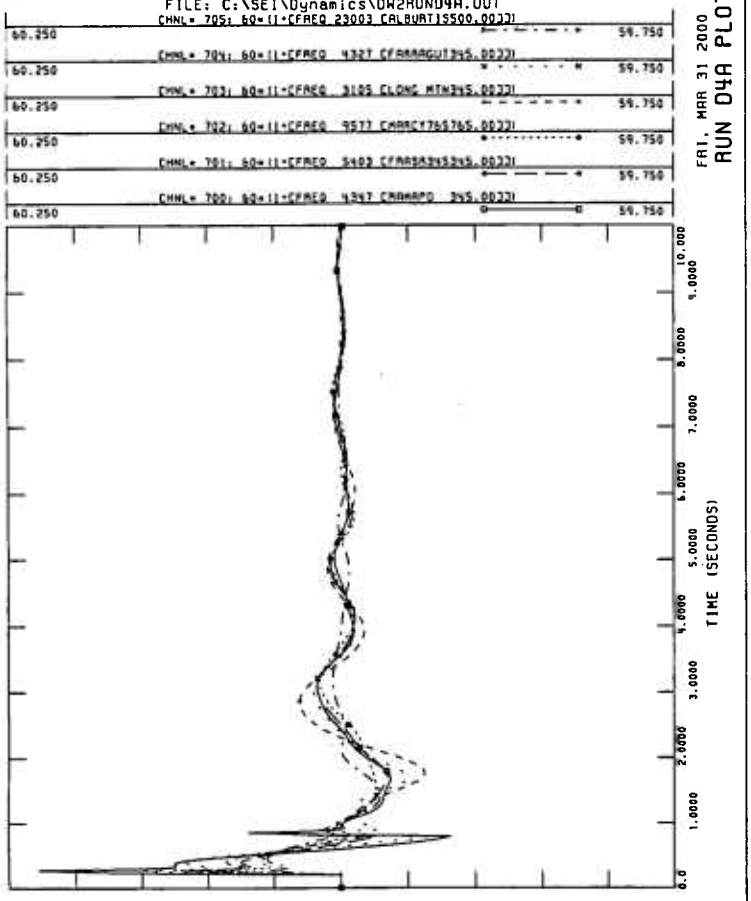
FRI, MAR 31 2000 15:30
RUN D4A PLOT 9

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT



FRI, MAR 31 2000 15:30
RUN D4A PLOT 11

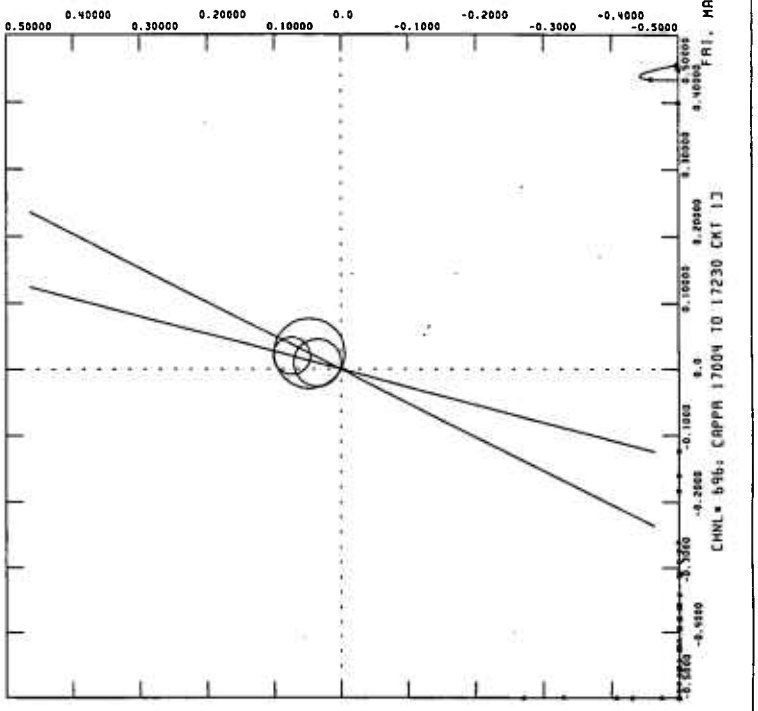
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT



FRI, MAR 31 2000 15:30
RUN D4A PLOT 14

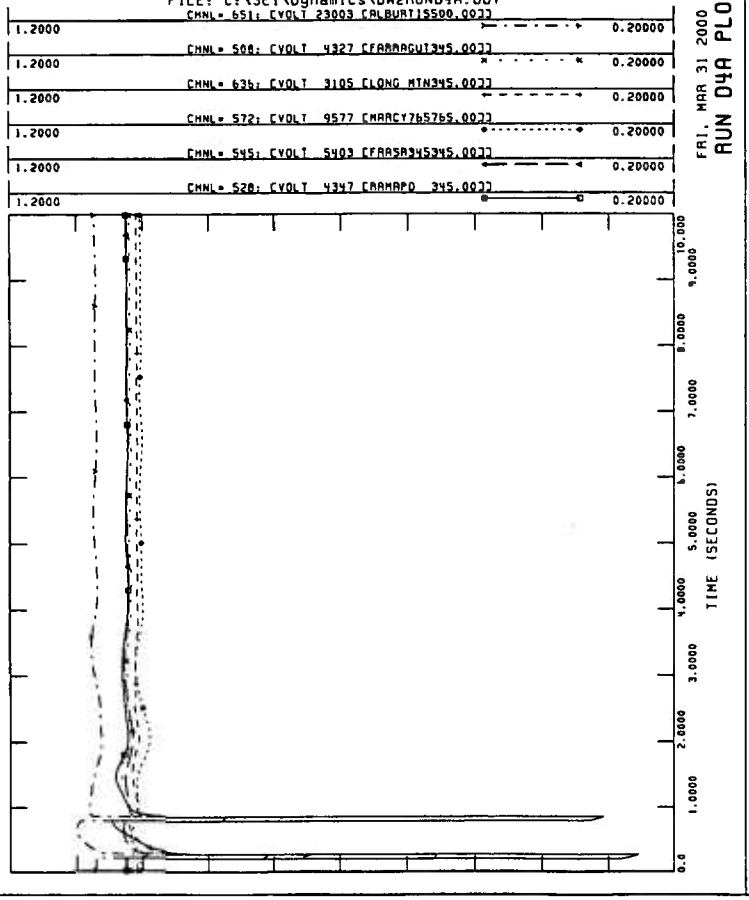
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DW2RUND4A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



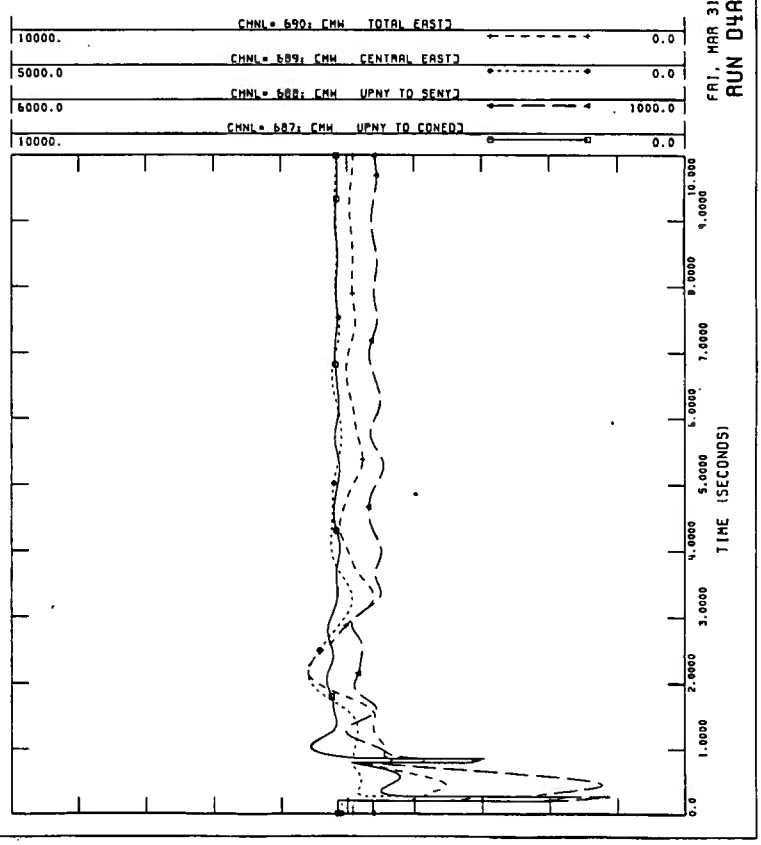
FRI, MAR 31 2000 15:30
RUN D4A PLOT 16

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT



FRI, MAR 31 2000 15:30
RUN D4A PLOT 13

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW2RUND4A.OUT

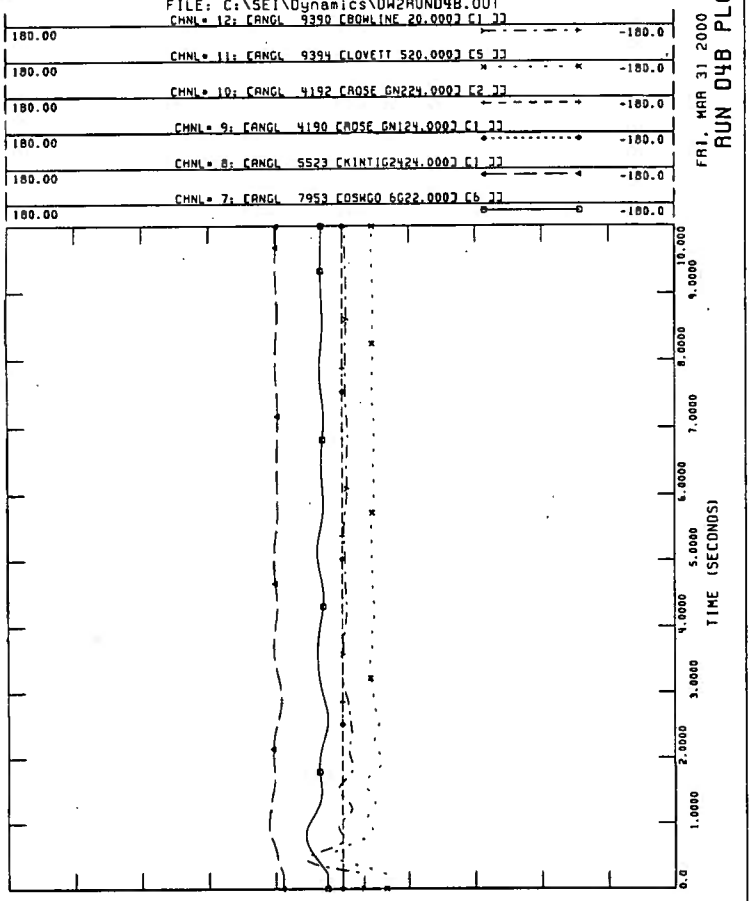


FRI, MAR 31 2000 15:30
RUN D4A PLOT 15

CONTINGENCY D4B

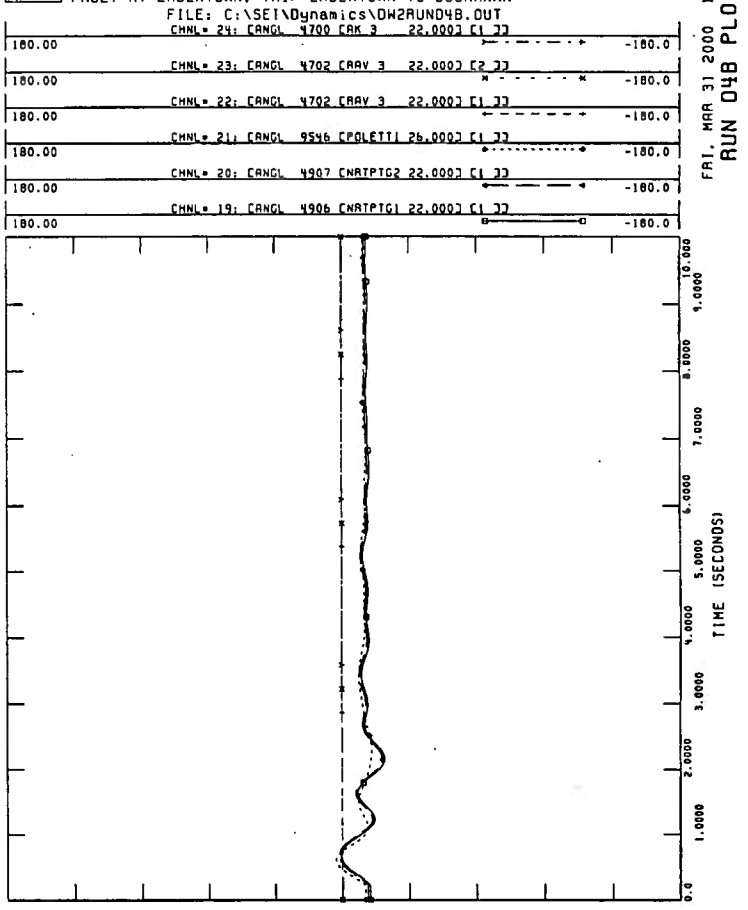
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 04B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN04B.OUT



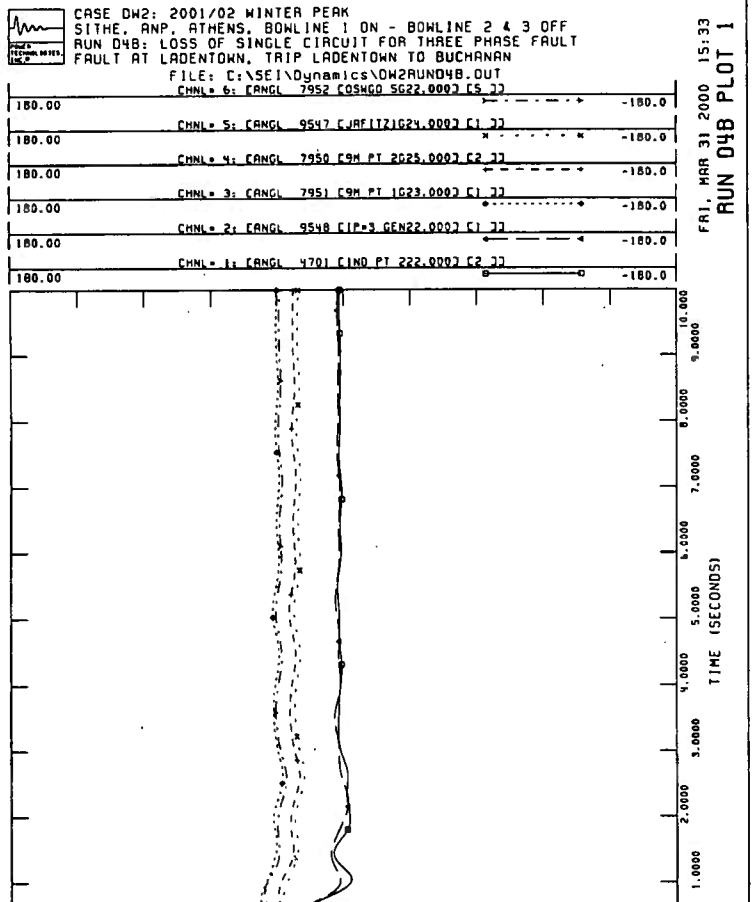
FRI, MAR 31 2000 15:33
RUN 04B PLOT 2

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 04B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN04B.OUT



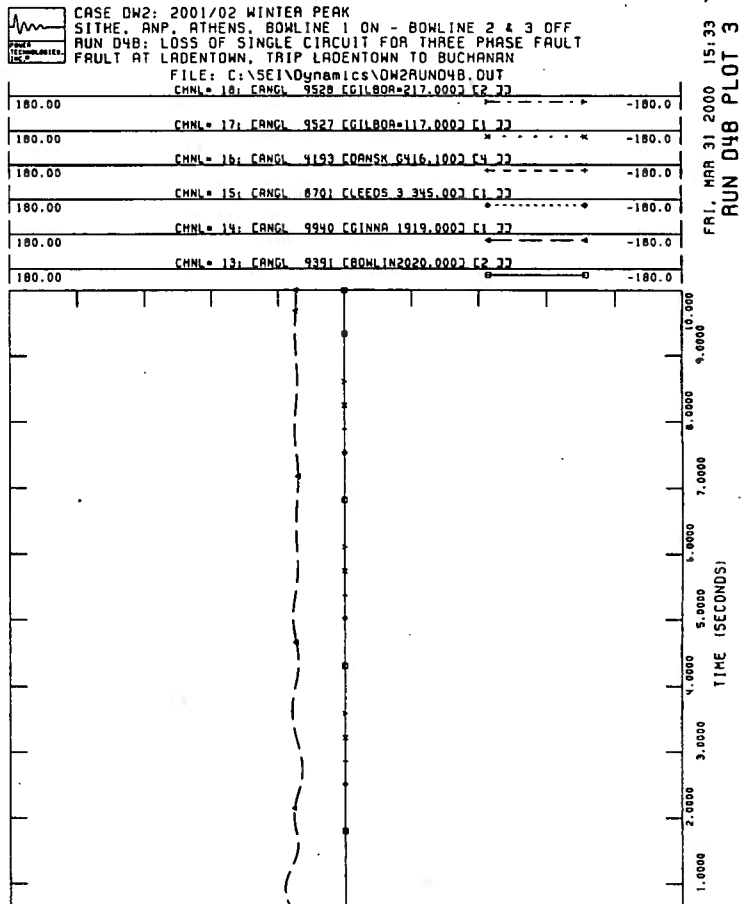
FRI, MAR 31 2000 15:33
RUN 04B PLOT 4

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 04B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN04B.OUT

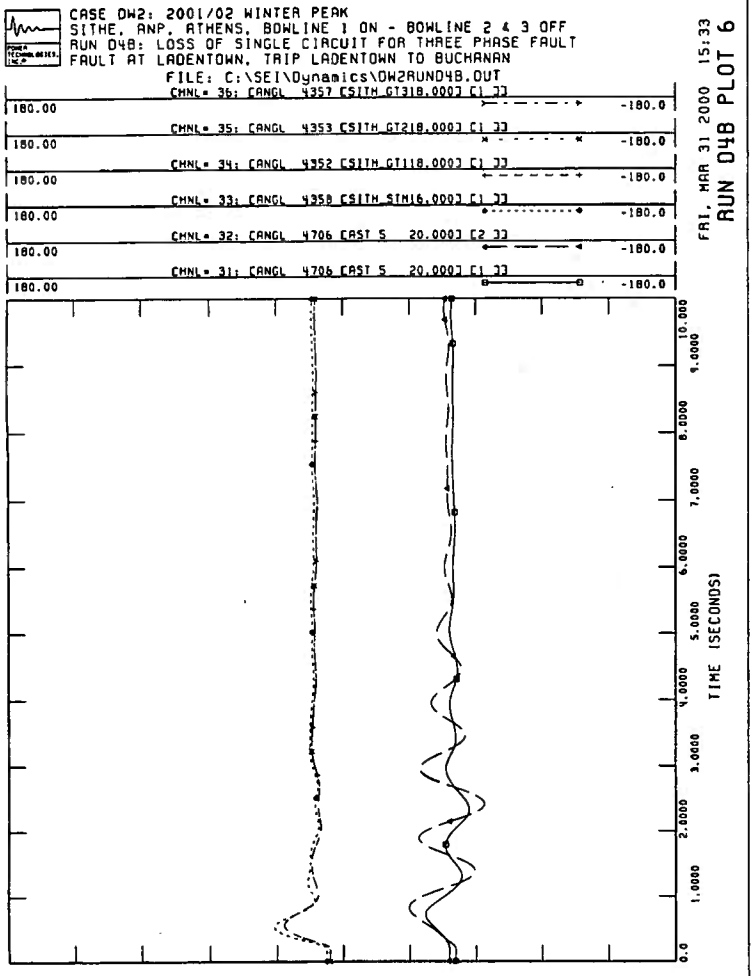


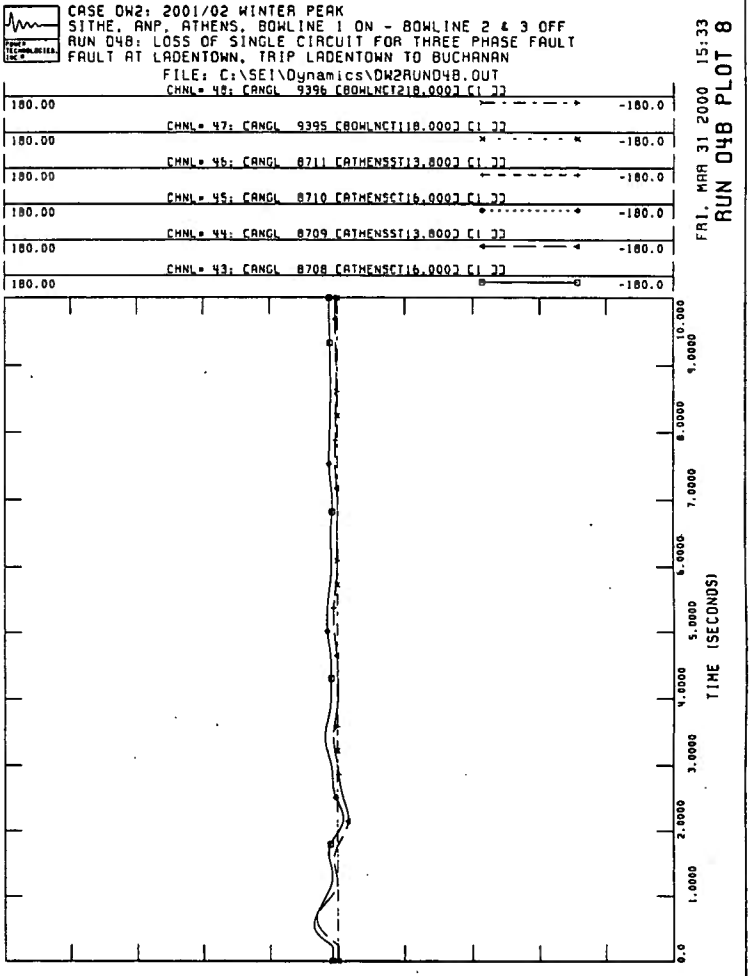
FRI, MAR 31 2000 15:33
RUN 04B PLOT 1

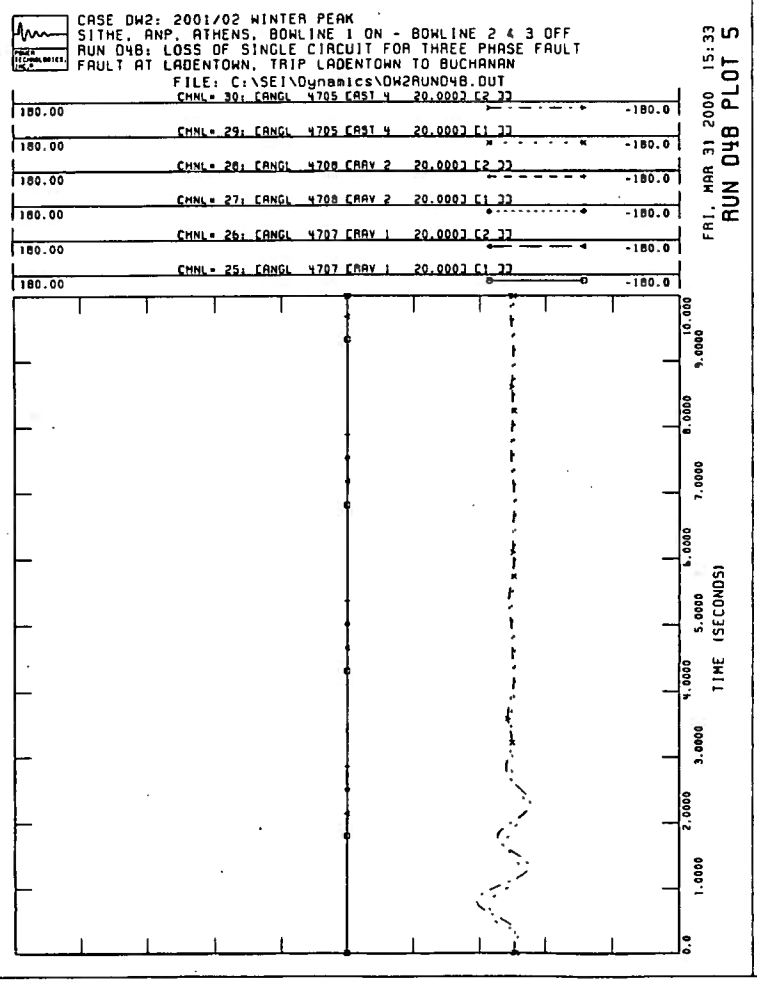
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 04B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN04B.OUT

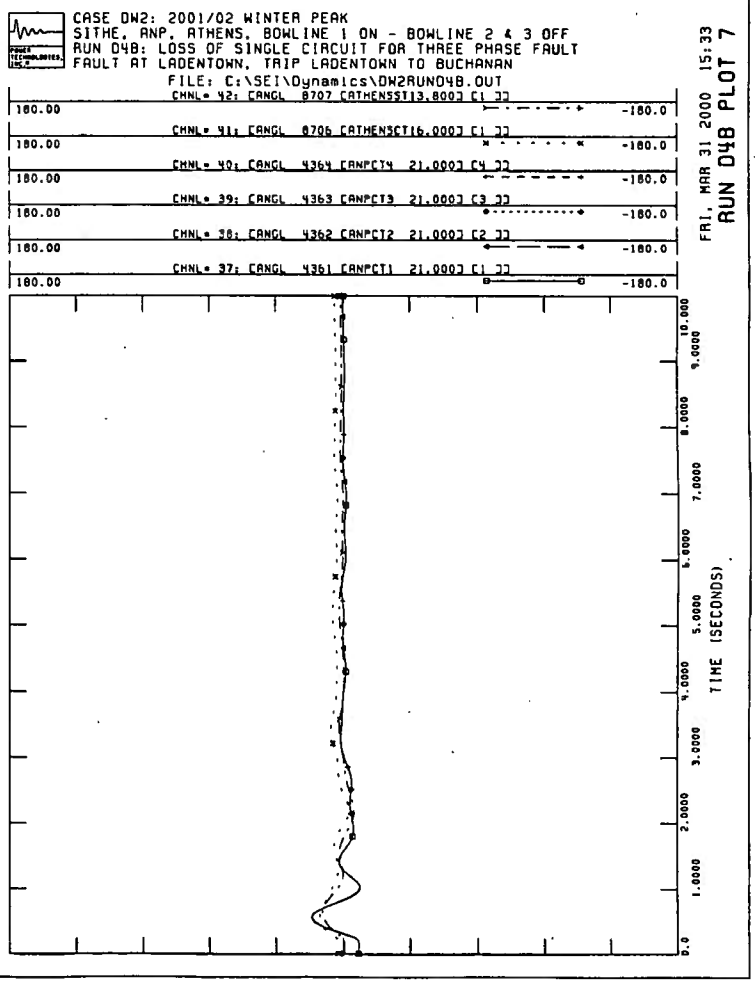


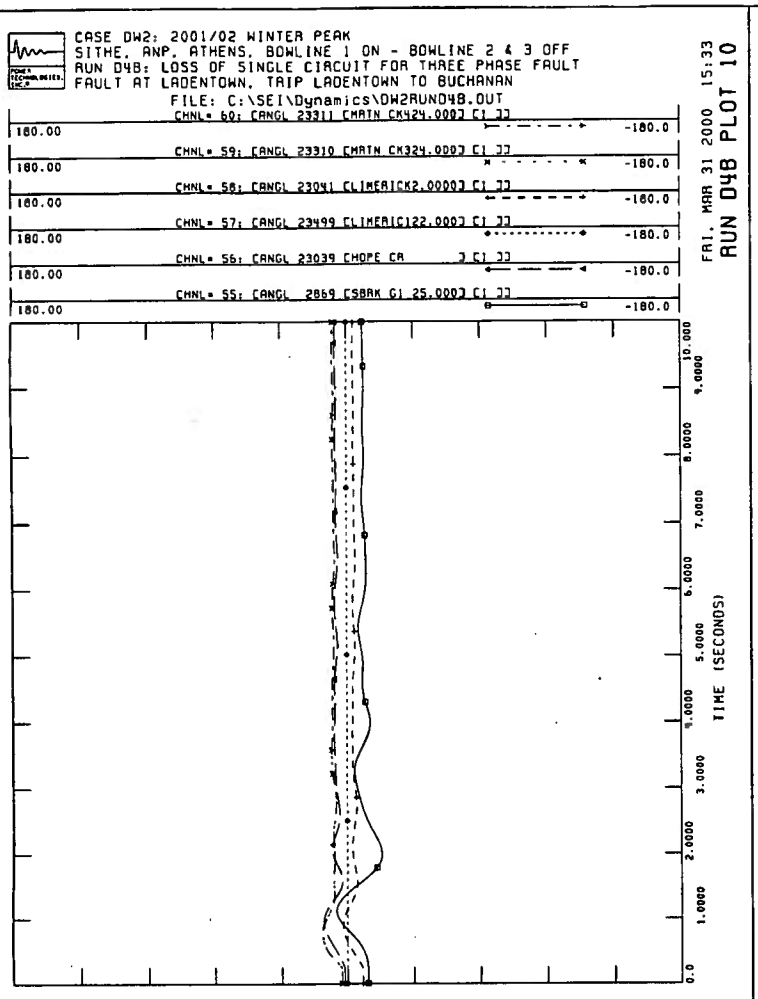
FRI, MAR 31 2000 15:33
RUN 04B PLOT 3

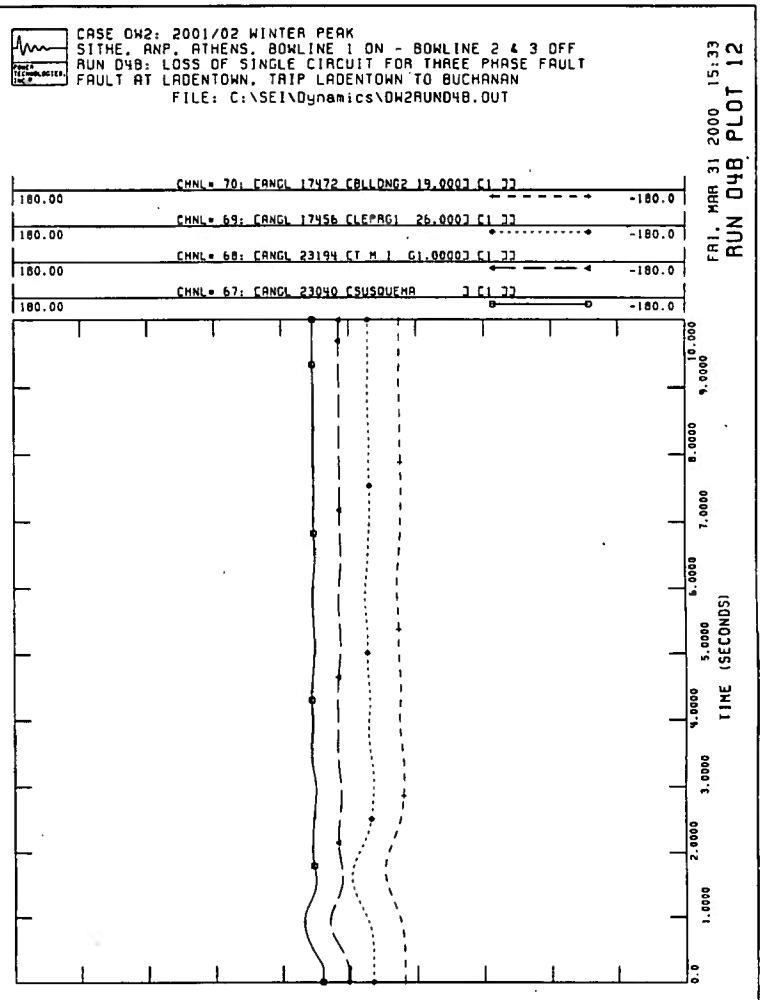

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 6
CHNL= 36: CANGL 4357 [SITH_GT2 18.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT2 18.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT1 18.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM 16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

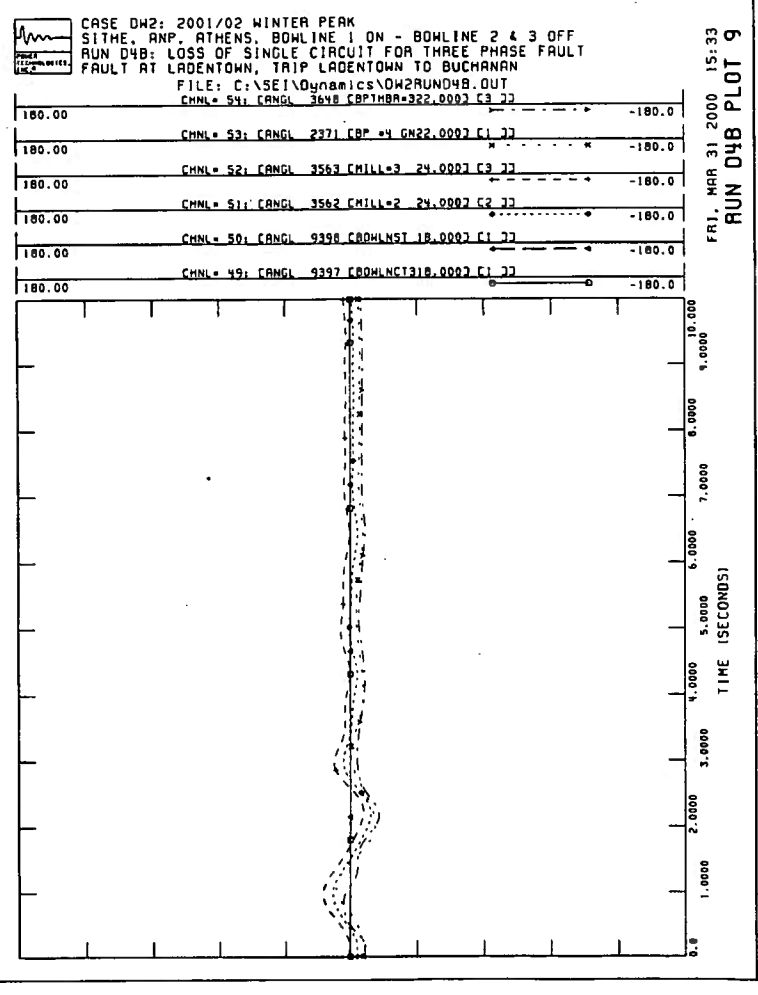

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 8
CHNL= 48: CANGL 9396 [BOWLNCT2 18.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT1 18.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST3 13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT1 16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST3 13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT1 16.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

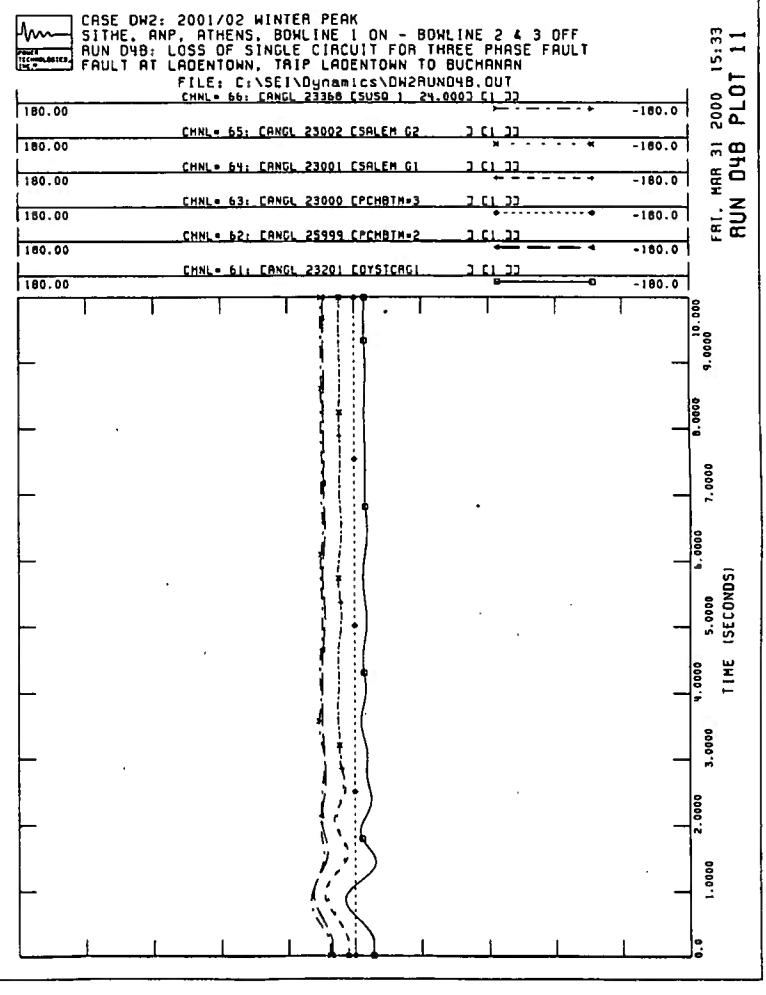

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 5
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARAV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARAV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARAV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARAV 1 20.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

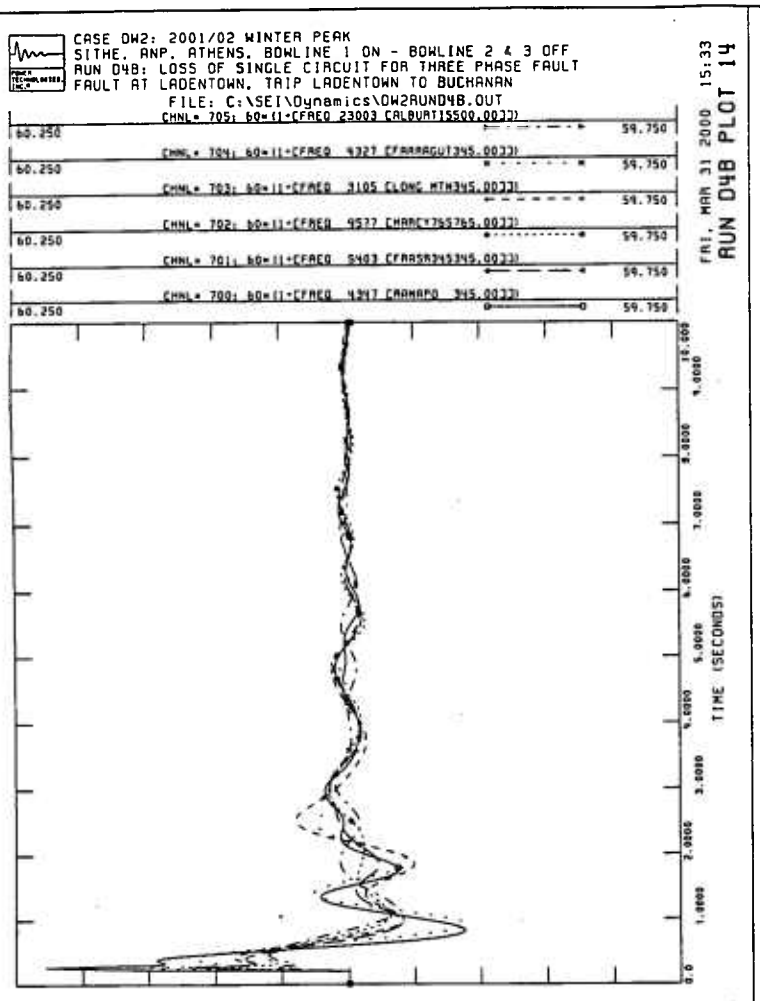

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 7
CHNL= 42: CANGL 8707 [ATHENSST3 13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT1 16.000] [1]]
CHNL= 40: CANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [ANPCT1 21.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

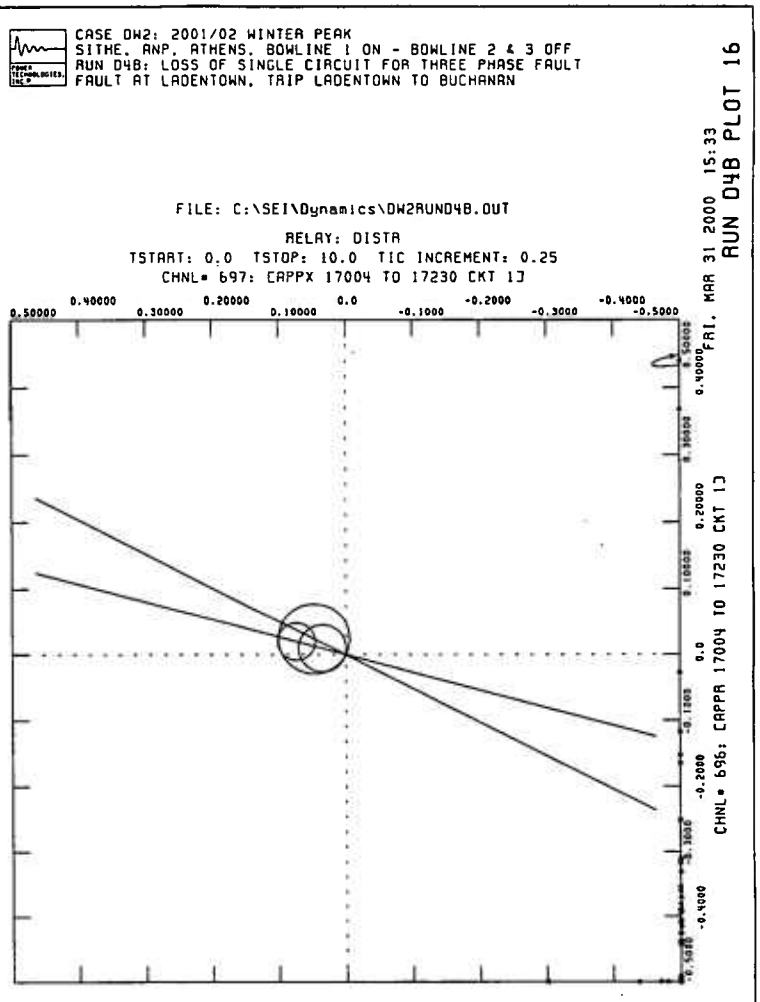

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUND48.OUT
CHNL= 60: CANGL 23311 CMAIN CK424.0000 C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000 C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000 C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.0000 C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.0000 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4B PLOT 10

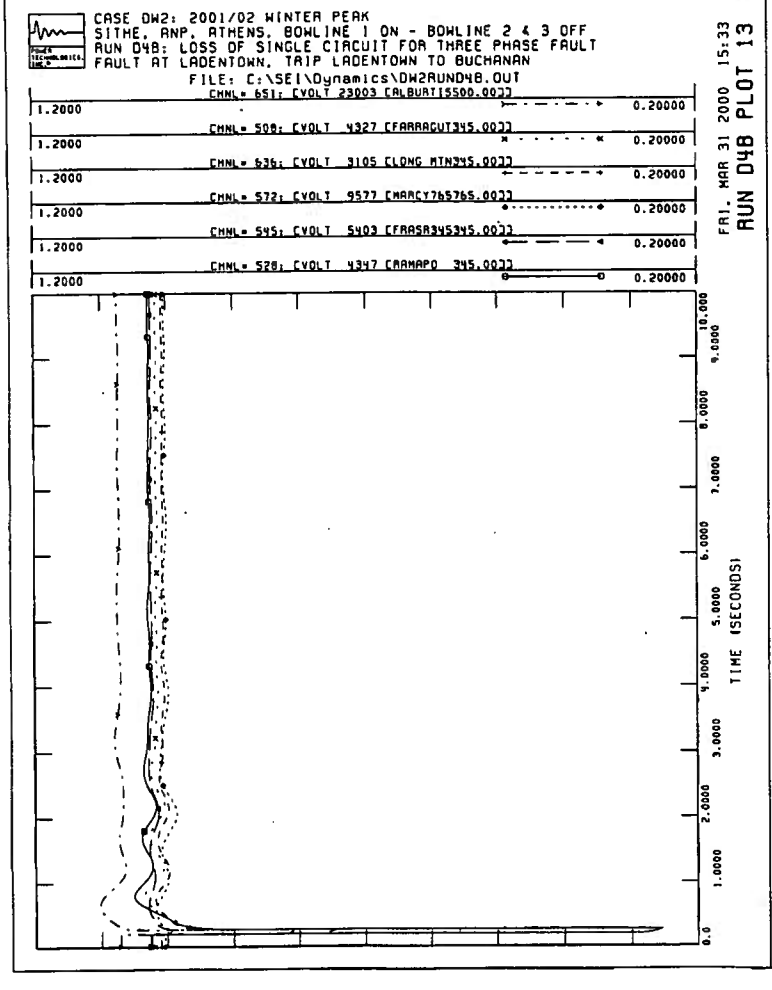

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUND48.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.0000 C1]]
CHNL= 69: CANGL 17456 CLEPRG1 26.0000 C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000 C1]]
CHNL= 67: CANGL 23040 CSUSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4B PLOT 12

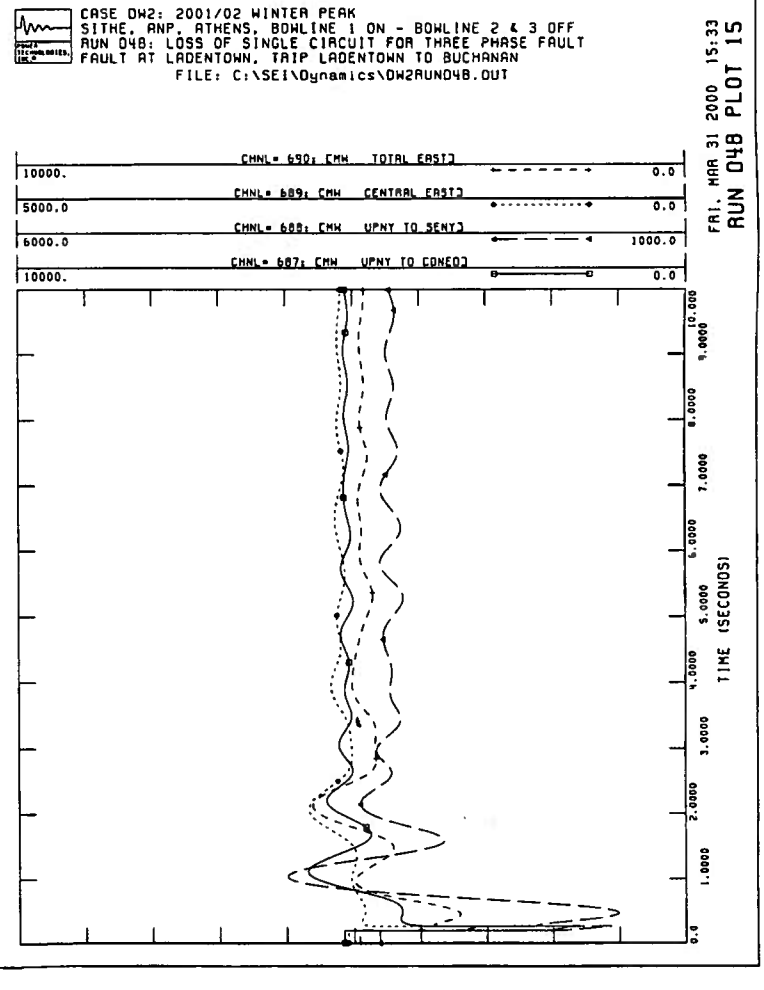

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUND48.OUT
CHNL= 54: CANGL 3648 CBPTHBR=322.0000 C3]]
CHNL= 53: CANGL 2371 CBP #4 GN22.0000 C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.0000 C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.0000 C2]]
CHNL= 50: CANGL 9398 CBOWLN5T 18.0000 C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.0000 C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4B PLOT 9


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUND48.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.0000 C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCAG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4B PLOT 11


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 14
TIME (SECONDS)

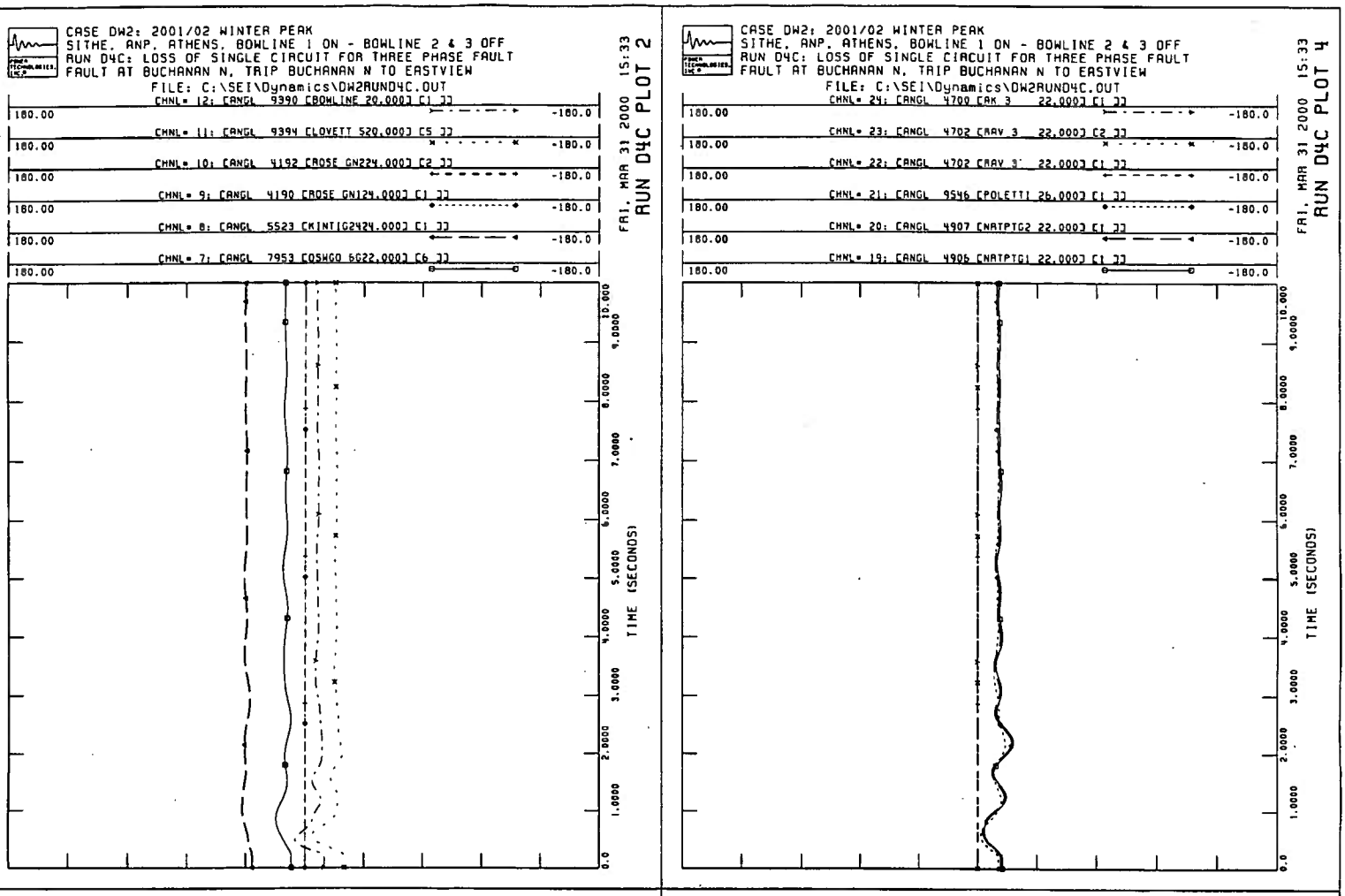

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 15:33
RUN 048 PLOT 16


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 13
TIME (SECONDS)

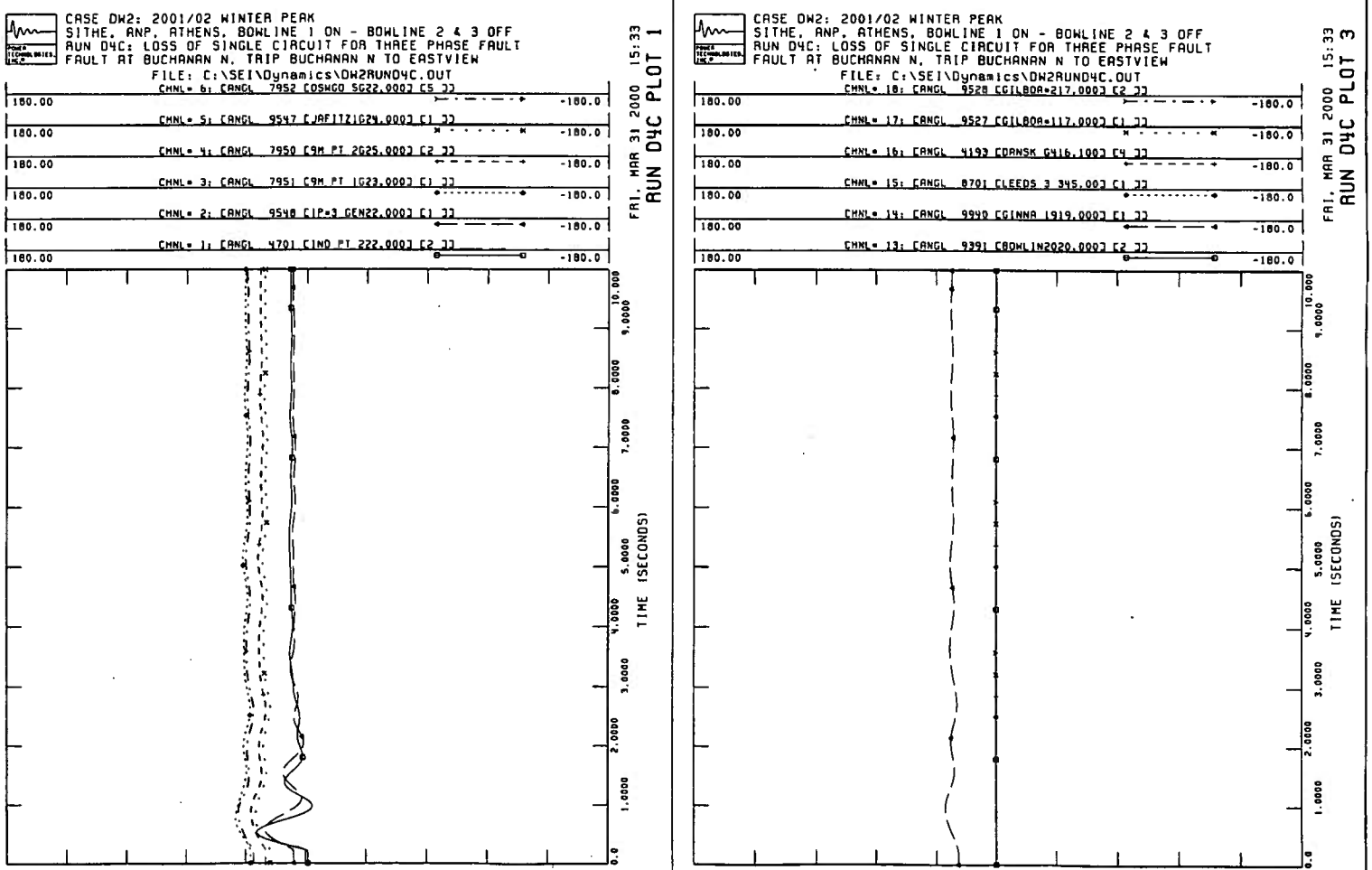

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW2RUN048.OUT
FRI, MAR 31 2000 15:33
RUN 048 PLOT 15
TIME (SECONDS)

CONTINGENCY D4C

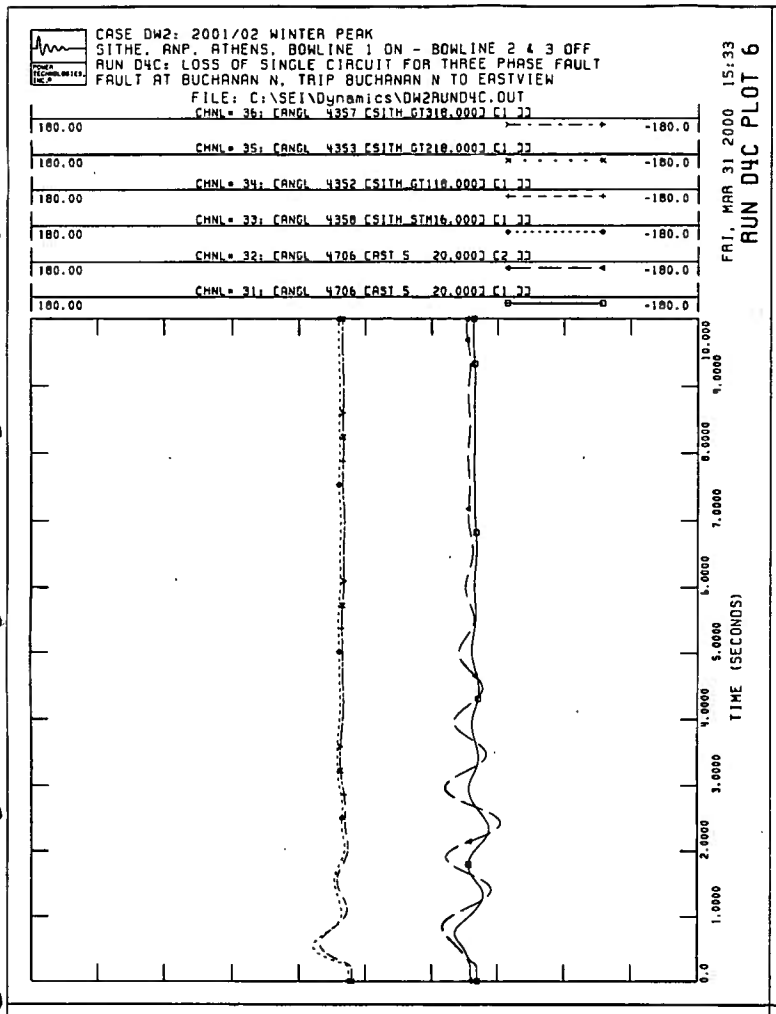
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

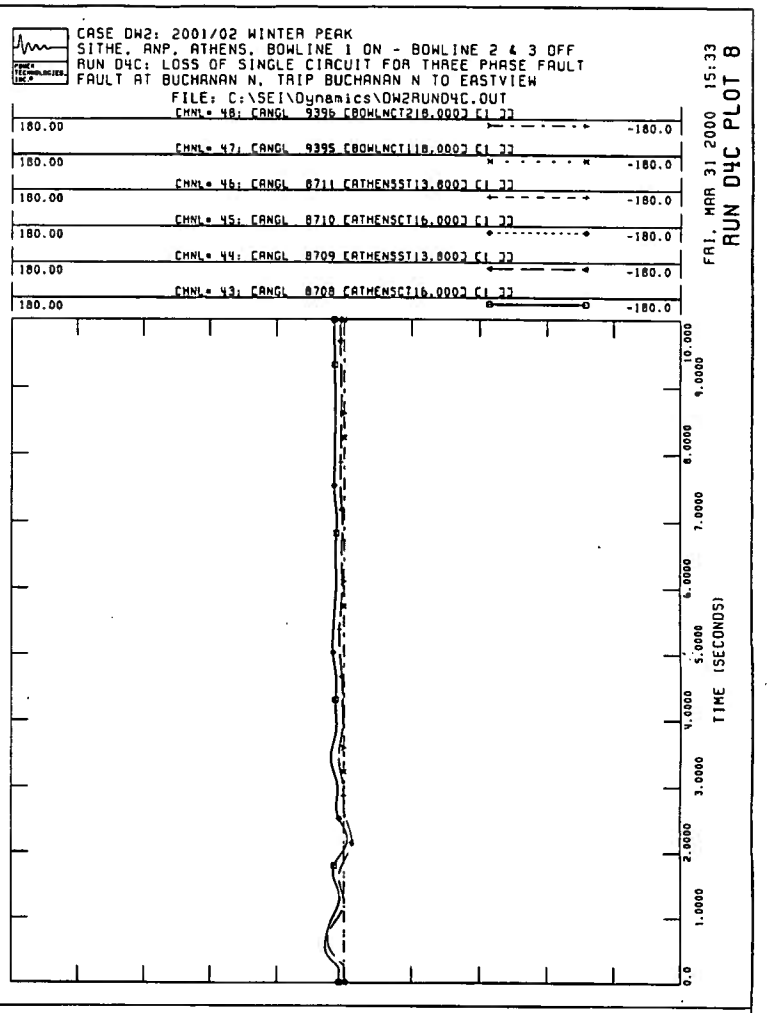

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
FRI, MAR 31 2000 15:33
RUN D4C PLOT 2
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

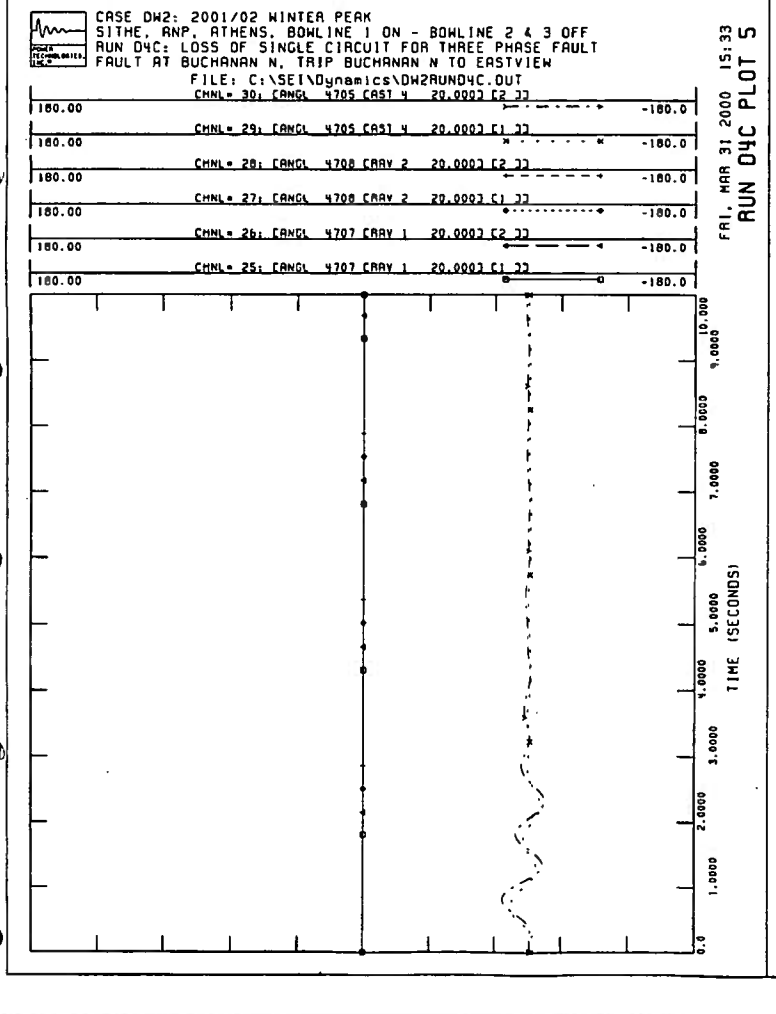
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 24: CANGL 4700 CRK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3' 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 15:33
RUN D4C PLOT 4
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

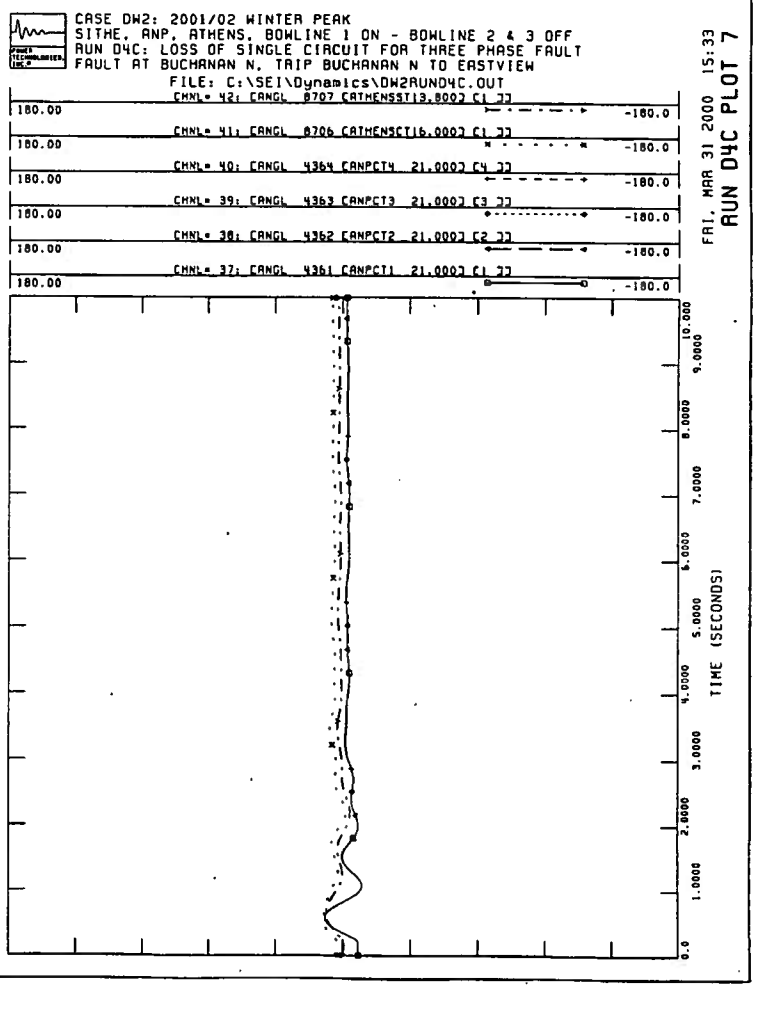

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFLTZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 15:33
RUN D4C PLOT 1
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
FRI, MAR 31 2000 15:33
RUN D4C PLOT 3
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

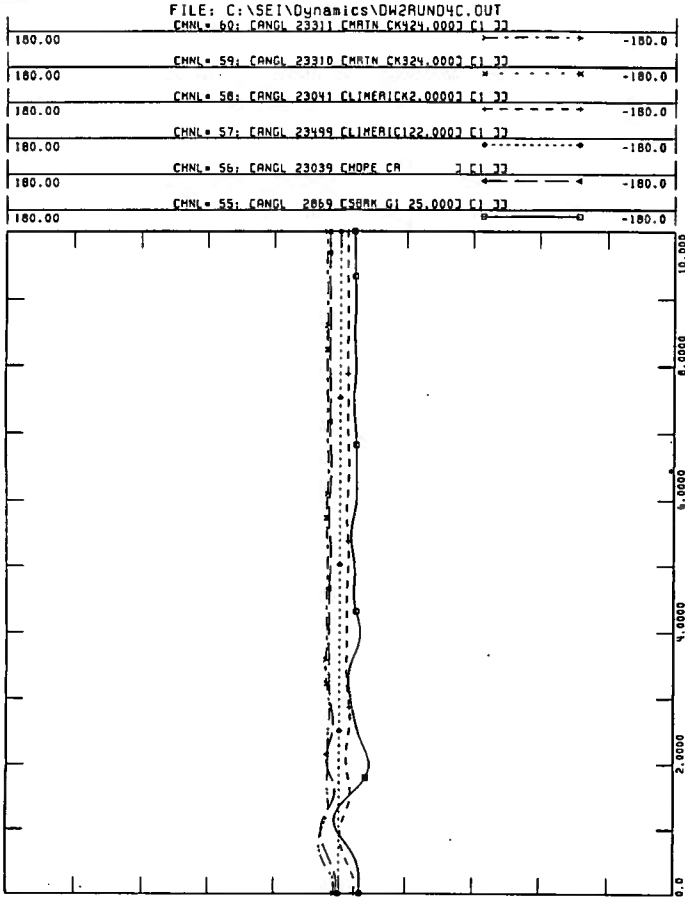

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 36; CANGL 4357 CSITH_GT318.0000 C1 JJ
CHNL= 35; CANGL 4353 CSITH_GT218.0000 C1 JJ
CHNL= 34; CANGL 4352 CSITH_GT118.0000 C1 JJ
CHNL= 33; CANGL 4358 CSITH_STM16.0000 C1 JJ
CHNL= 32; CANGL 4706 CAST 5 20.0000 C2 JJ
CHNL= 31; CANGL 4706 CAST 5 20.0000 C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 6


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 48; CANGL 9396 CBOWLNCT218.0000 C1 JJ
CHNL= 47; CANGL 9395 CBOWLNCT118.0000 C1 JJ
CHNL= 46; CANGL 8711 CATHENSST13.8000 C1 JJ
CHNL= 45; CANGL 8710 CATHENSCT16.0000 C1 JJ
CHNL= 44; CANGL 8709 CATHENSST13.8000 C1 JJ
CHNL= 43; CANGL 8708 CATHENSCT16.0000 C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 8


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 30; CANGL 4705 CAST 4 20.0000 C2 JJ
CHNL= 29; CANGL 4705 CAST 4 20.0000 C1 JJ
CHNL= 28; CANGL 4708 CARV 2 20.0000 C2 JJ
CHNL= 27; CANGL 4708 CARV 2 20.0000 C1 JJ
CHNL= 26; CANGL 4707 CARV 1 20.0000 C2 JJ
CHNL= 25; CANGL 4707 CARV 1 20.0000 C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 5

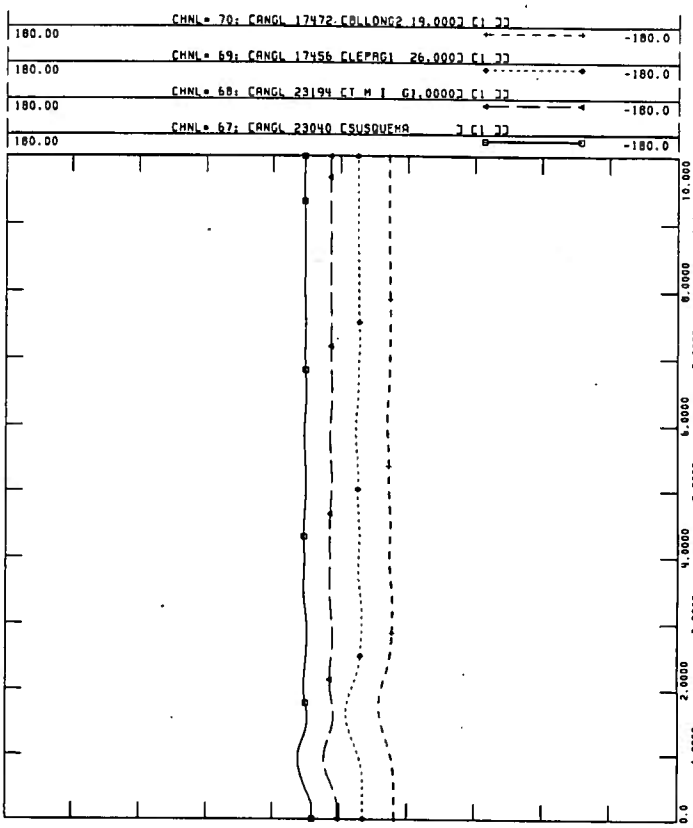

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 42; CANGL 8707 CATHENSST13.8000 C1 JJ
CHNL= 41; CANGL 8706 CATHENSCT16.0000 C1 JJ
CHNL= 40; CANGL 4364 CANPCT4 21.0000 C4 JJ
CHNL= 39; CANGL 4363 CANPCT3 21.0000 C3 JJ
CHNL= 38; CANGL 4362 CANPCT2 21.0000 C2 JJ
CHNL= 37; CANGL 4361 CANPCT1 21.0000 C1 JJ
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 7

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT



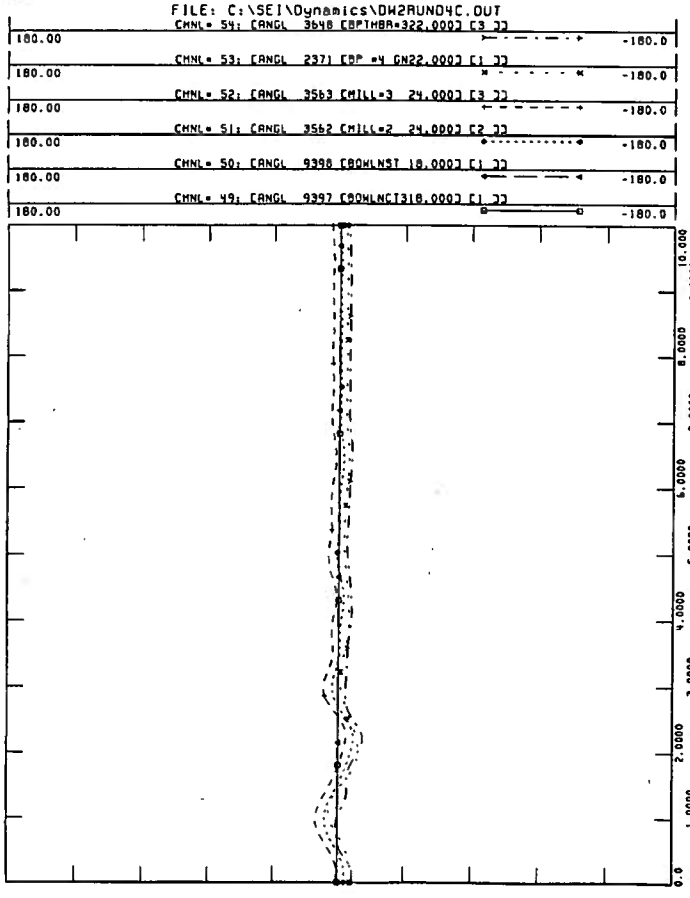
FRI, MAR 31 2000 15:33
RUN D4C PLOT 10

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT



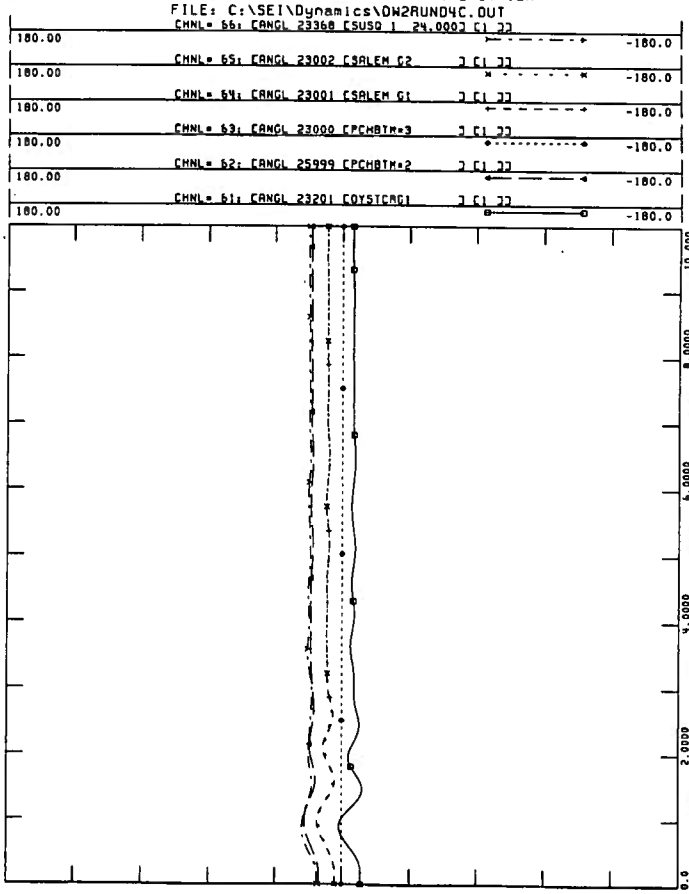
FRI, MAR 31 2000 15:33
RUN D4C PLOT 12

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT

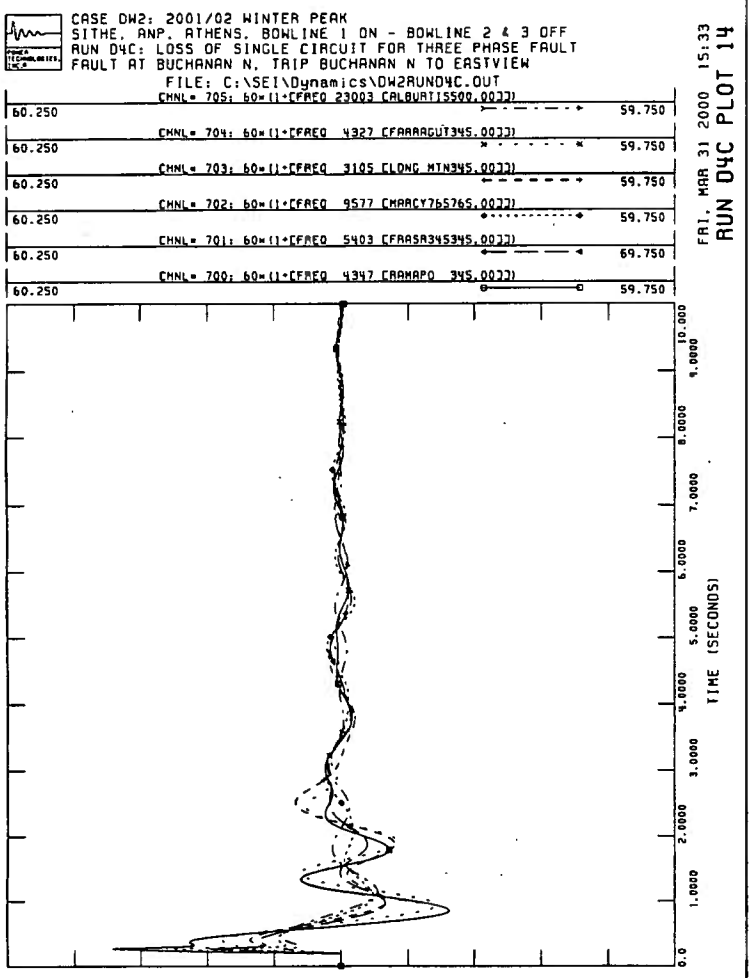


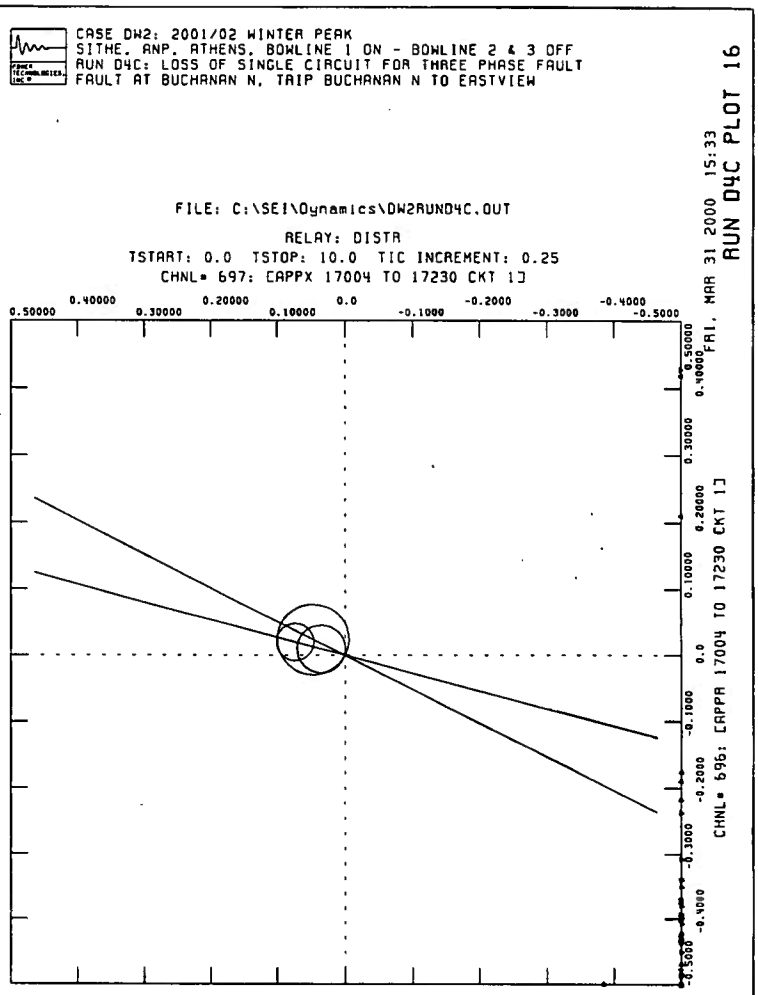
FRI, MAR 31 2000 15:33
RUN D4C PLOT 9

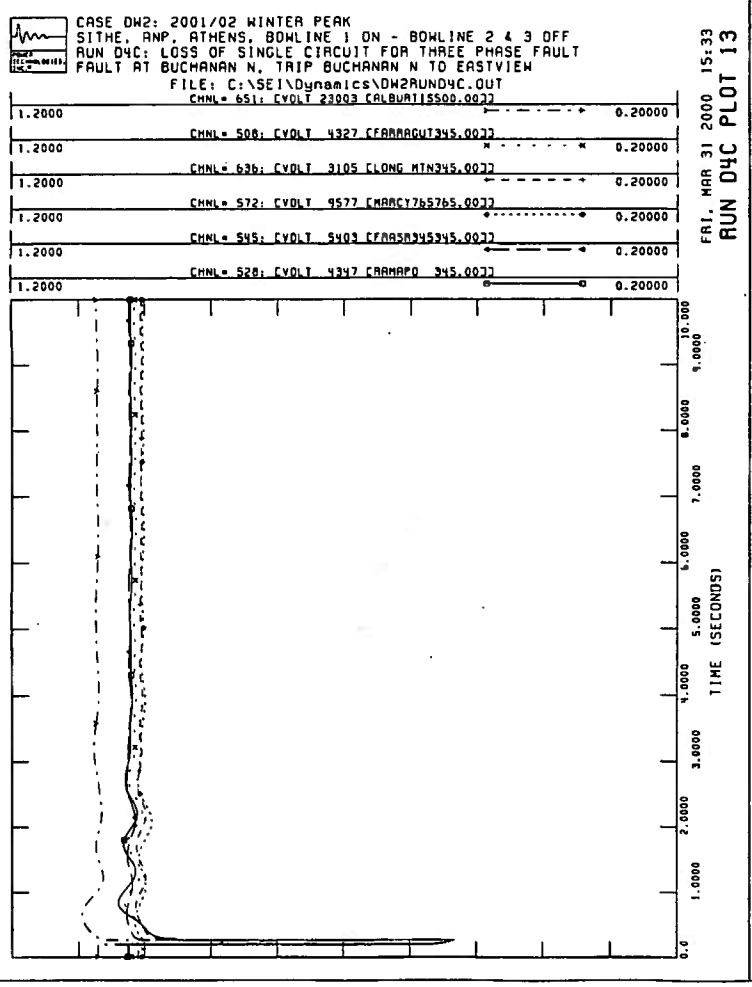
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT

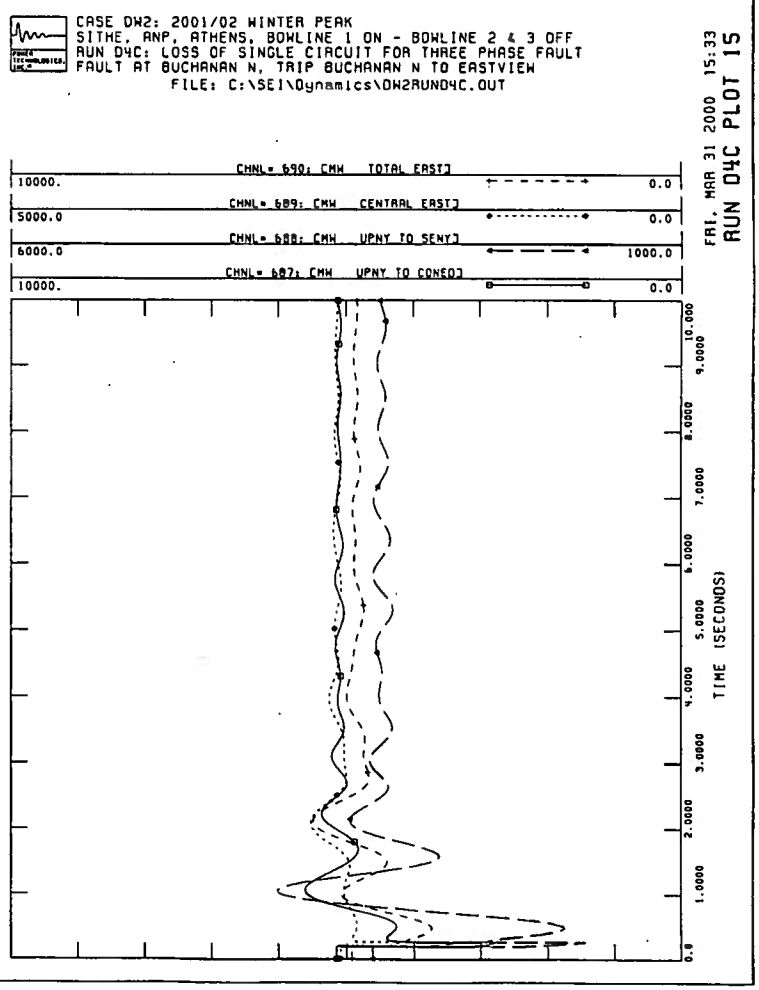


FRI, MAR 31 2000 15:33
RUN D4C PLOT 11


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 705: 60=()*CFREQ 23003 CALBUAT15500.00]]
CHNL= 704: 60=()*CFREQ 4327 CFAAAAGUT345.00]]
CHNL= 703: 60=()*CFREQ 3105 CLONG MTN345.00]]
CHNL= 702: 60=()*CFREQ 9577 CMAACY765765.00]]
CHNL= 701: 60=()*CFREQ 5403 CFAASA345345.00]]
CHNL= 700: 60=()*CFREQ 4347 CAAMAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 14

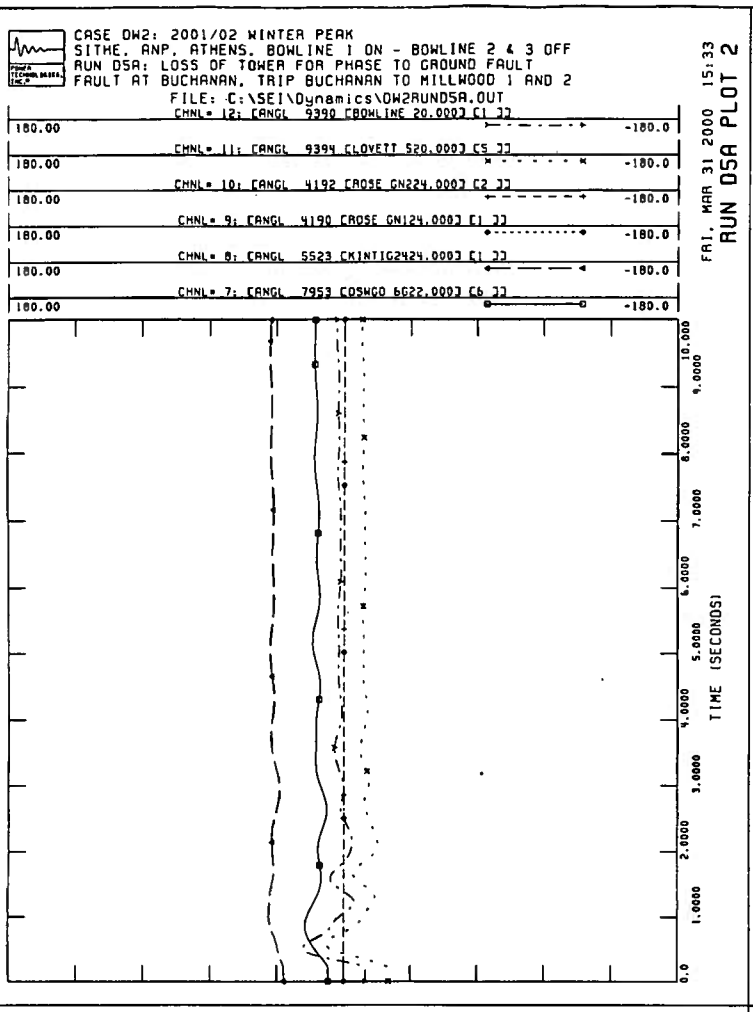

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPA 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 15:33
RUN D4C PLOT 16

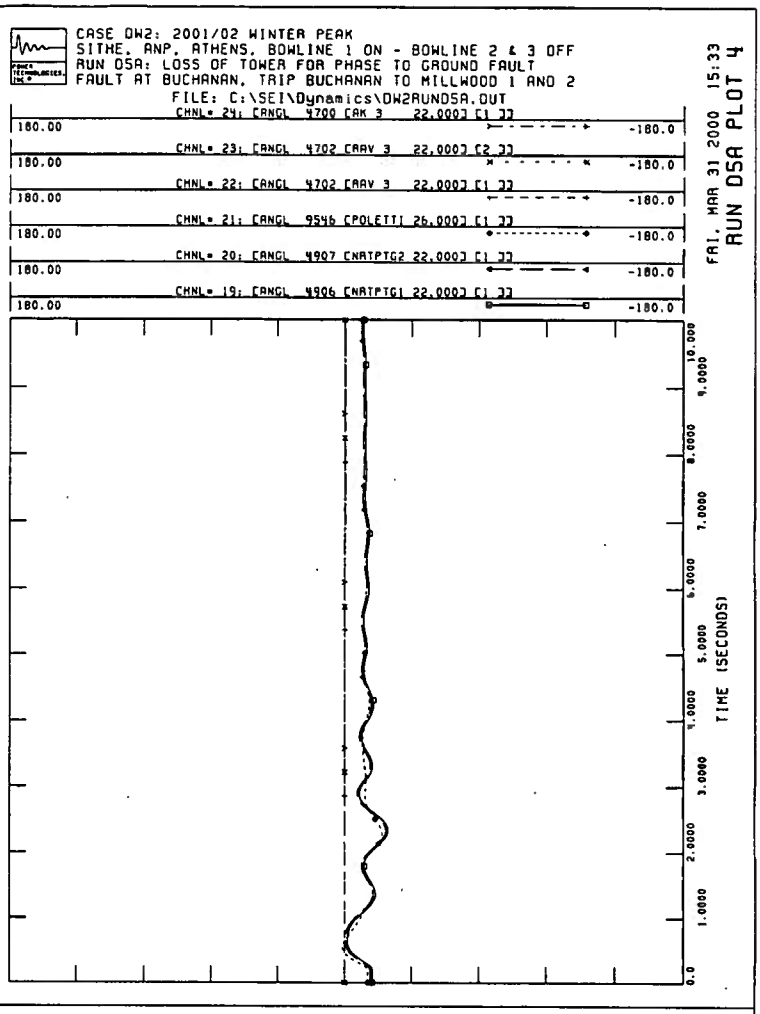

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 651: CVOLT 23003 CALBUAT15500.00]]
CHNL= 508: CVOLT 4327 CFAAAAGUT345.00]]
CHNL= 636: CVOLT 3105 CLONG MTN345.00]]
CHNL= 572: CVOLT 9577 CMAACY765765.00]]
CHNL= 545: CVOLT 5403 CFAASA345345.00]]
CHNL= 528: CVOLT 4347 CAAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 13

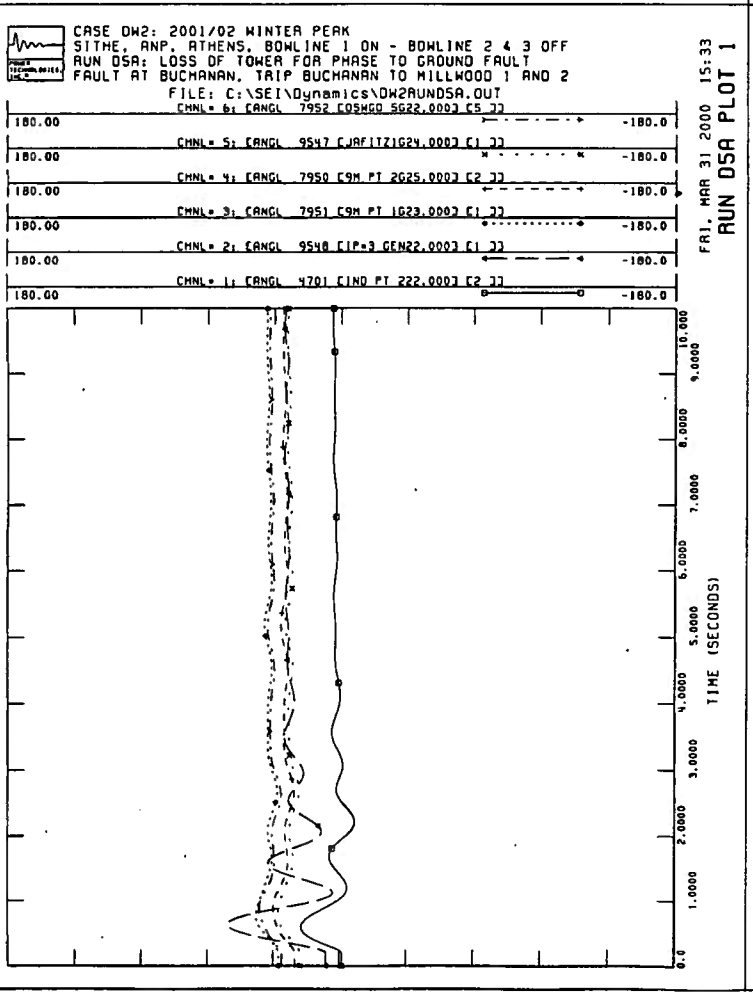

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW2RUND4C.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
0.0
5000.0
6000.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN D4C PLOT 15

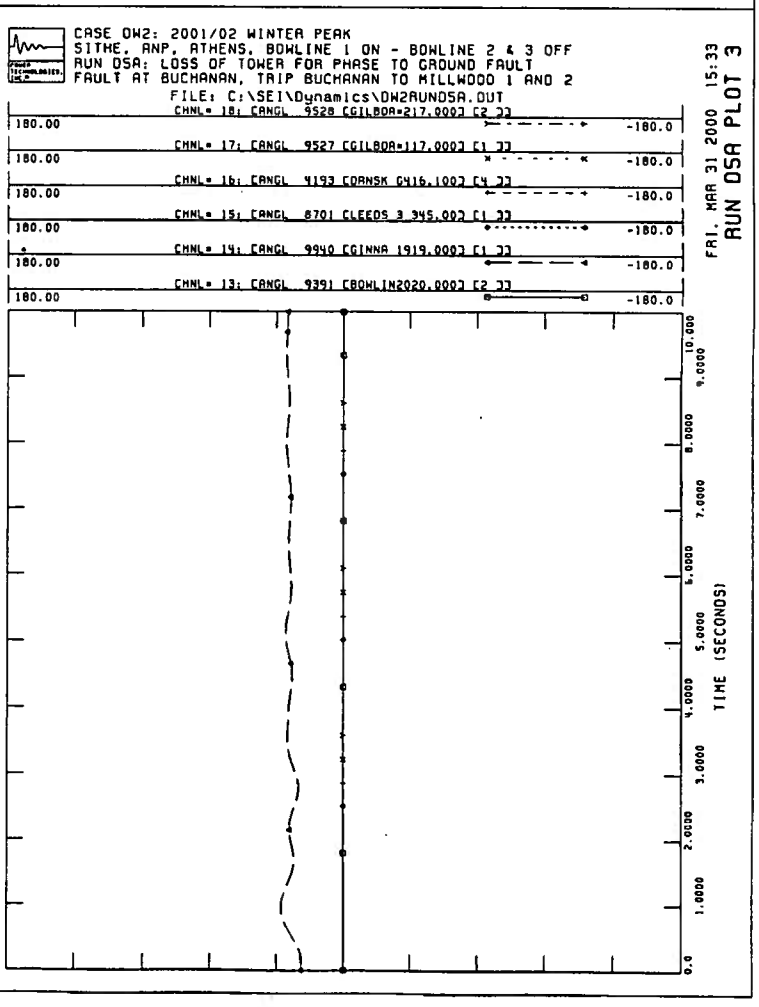
CONTINGENCY D5A

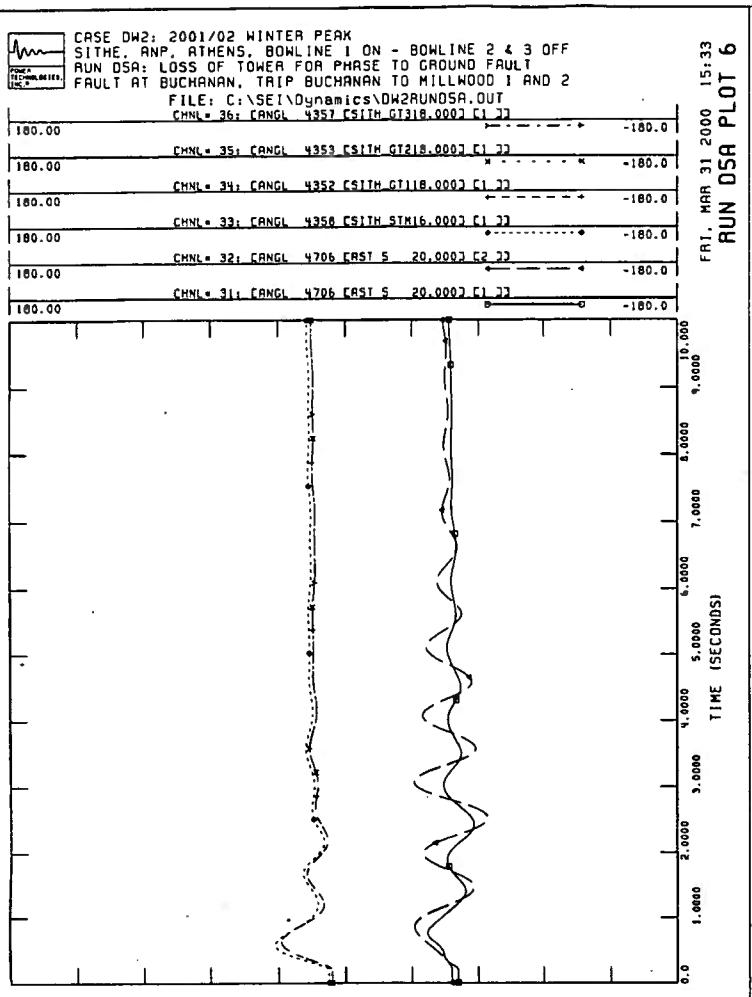
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1             / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2             / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

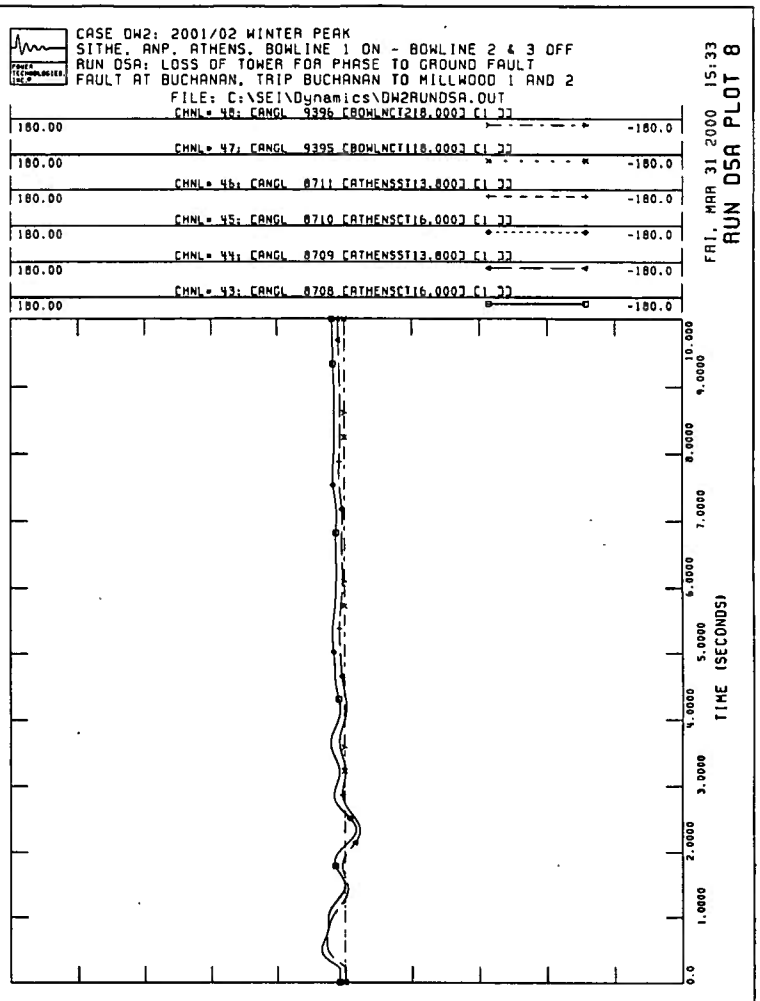

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN DSA PLOT 2

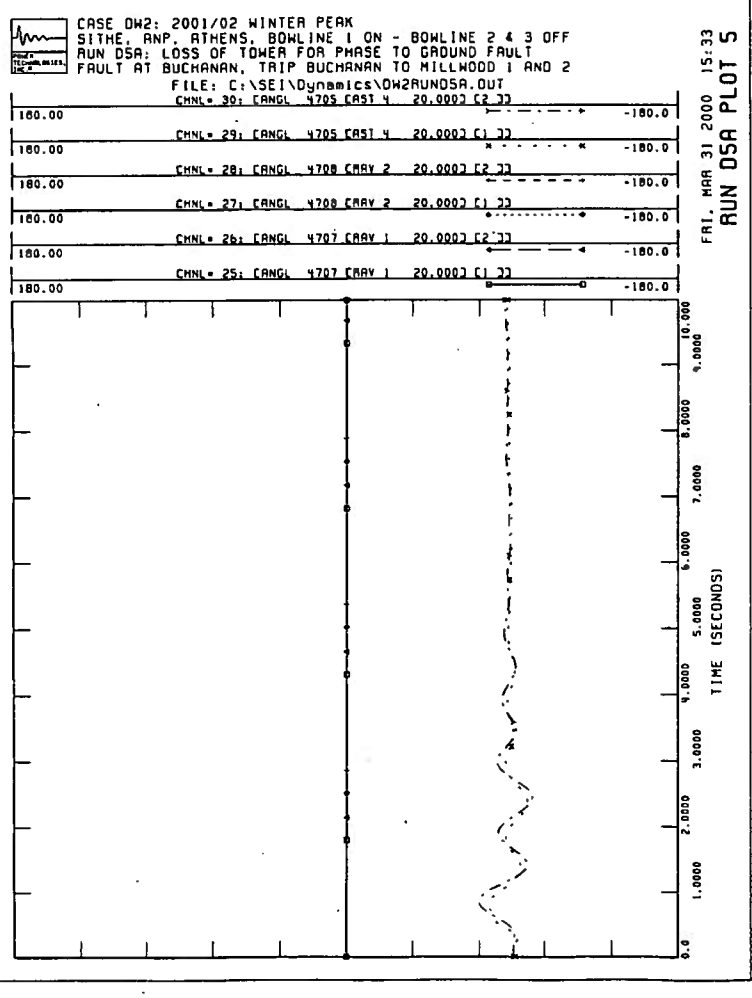

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT1 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN DSA PLOT 4

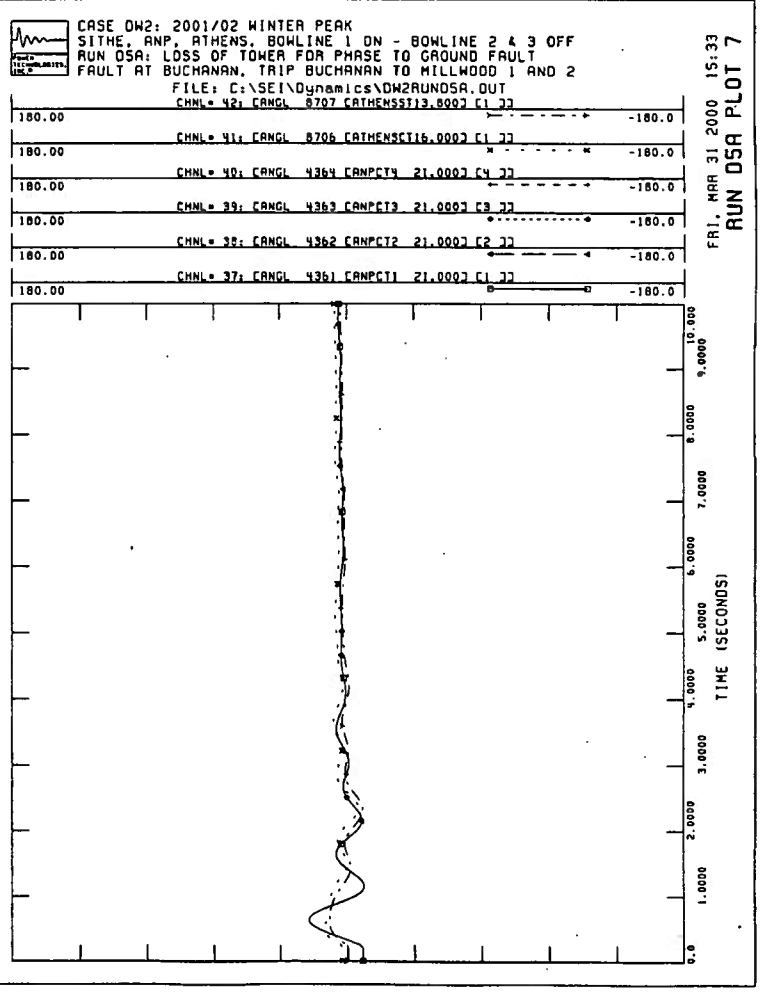

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN DSA PLOT 1


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CORNSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9949 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 15:33
RUN DSA PLOT 3

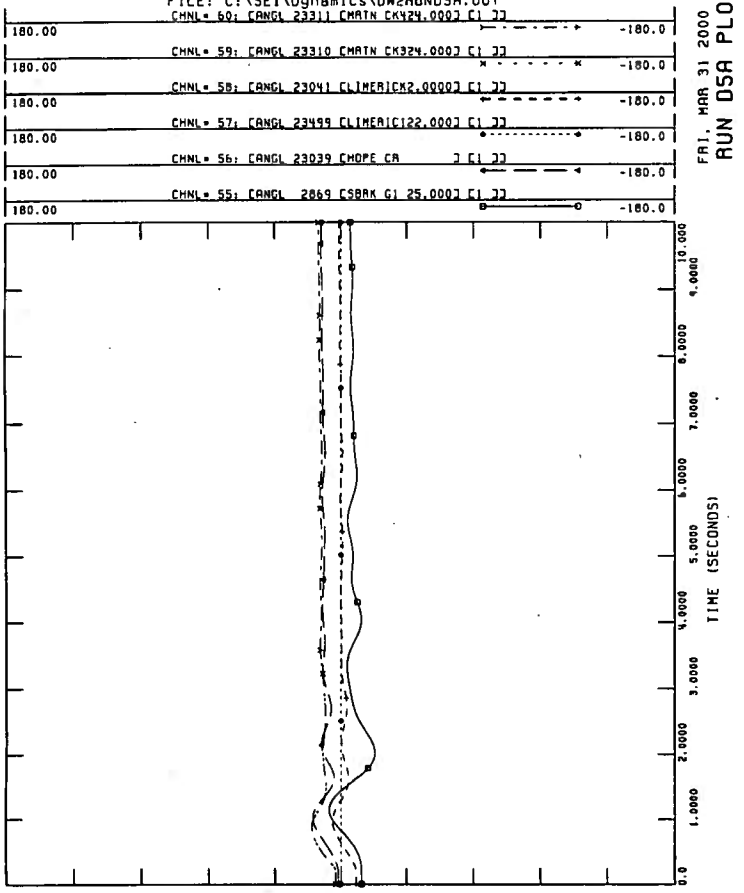

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
FRI, MAR 31 2000 15:33
RUN DSA PLOT 6
CHNL= 36: CANGL 4357 [SITH GT218.000] [1]]
CHNL= 35: CANGL 4353 [SITH GT218.000] [1]]
CHNL= 34: CANGL 4352 [SITH GT118.000] [1]]
CHNL= 33: CANGL 4358 [SITH STM16.000] [1]]
CHNL= 32: CANGL 4706 [AST S 20.000] [2]]
CHNL= 31: CANGL 4706 [AST S 20.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
FRI, MAR 31 2000 15:33
RUN DSA PLOT 8
CHNL= 48: CANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
FRI, MAR 31 2000 15:33
RUN DSA PLOT 5
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARV 1 20.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

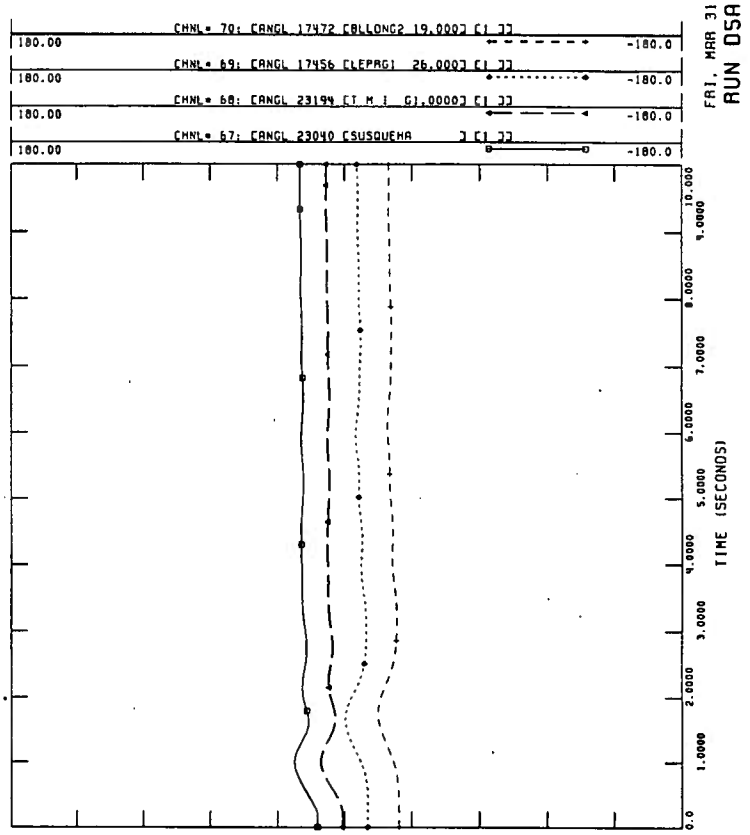

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT
FRI, MAR 31 2000 15:33
RUN DSA PLOT 7
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT



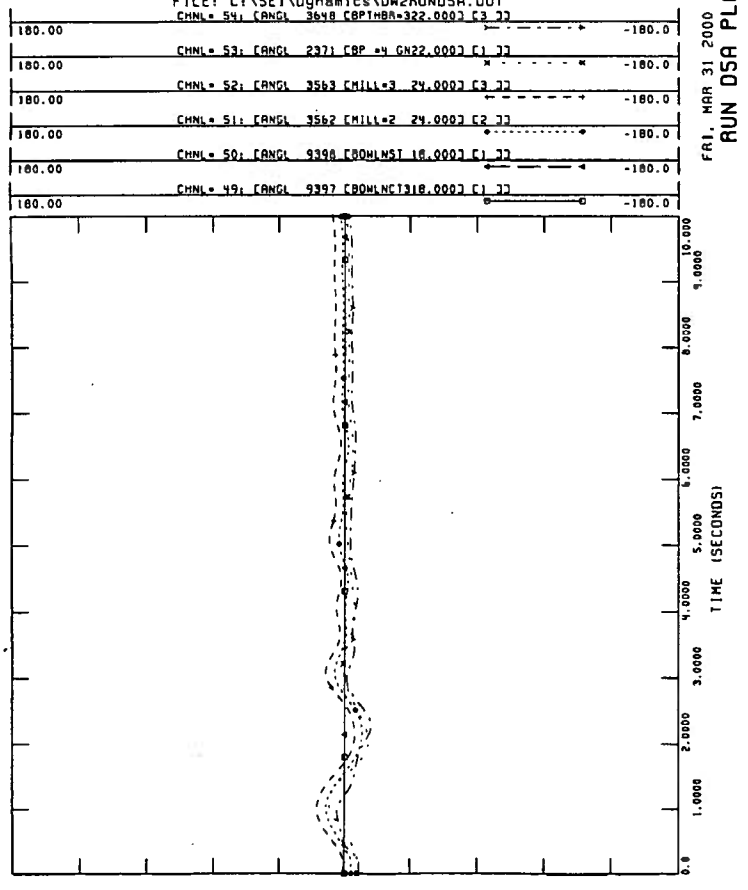
FRI, MAR 31 2000 15:33
RUN DSA PLOT 10

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT



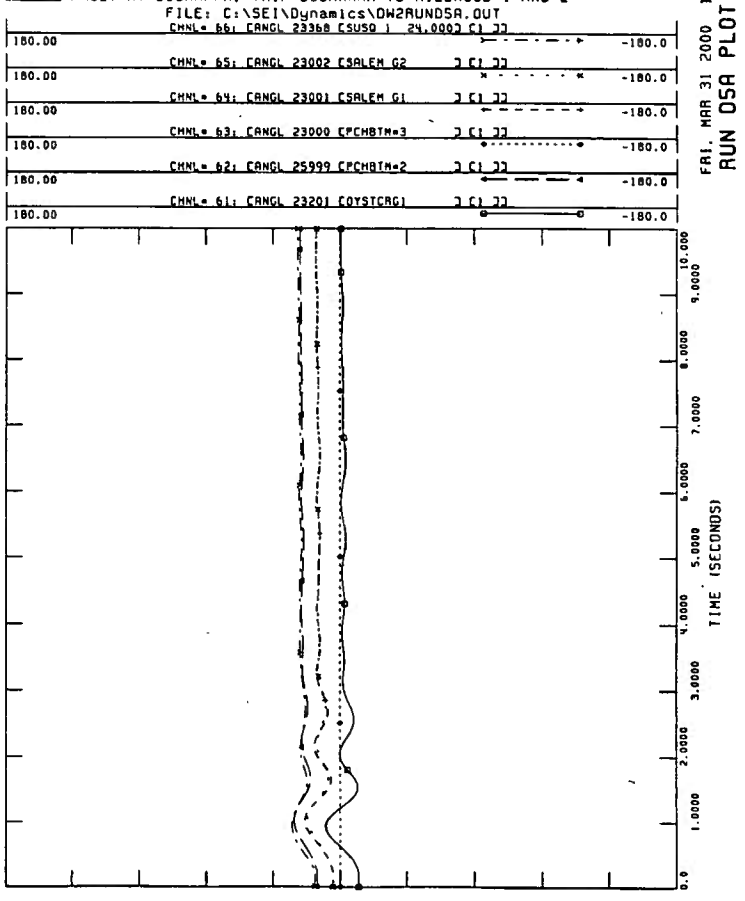
FRI, MAR 31 2000 15:33
RUN DSA PLOT 12

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT



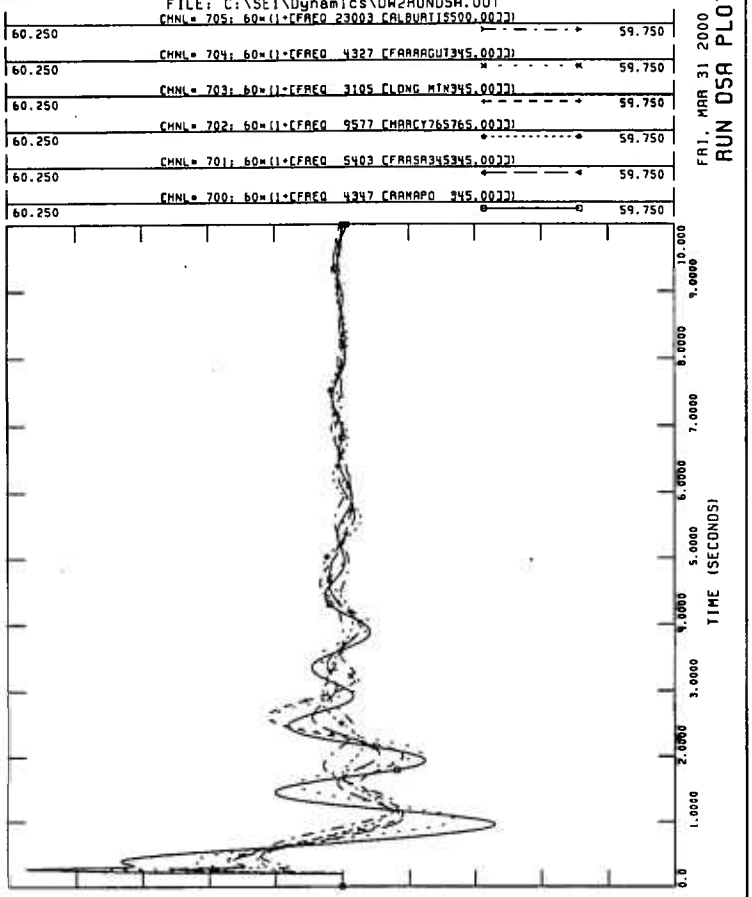
FRI, MAR 31 2000 15:33
RUN DSA PLOT 9

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT



FRI, MAR 31 2000 15:33
RUN DSA PLOT 11

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT

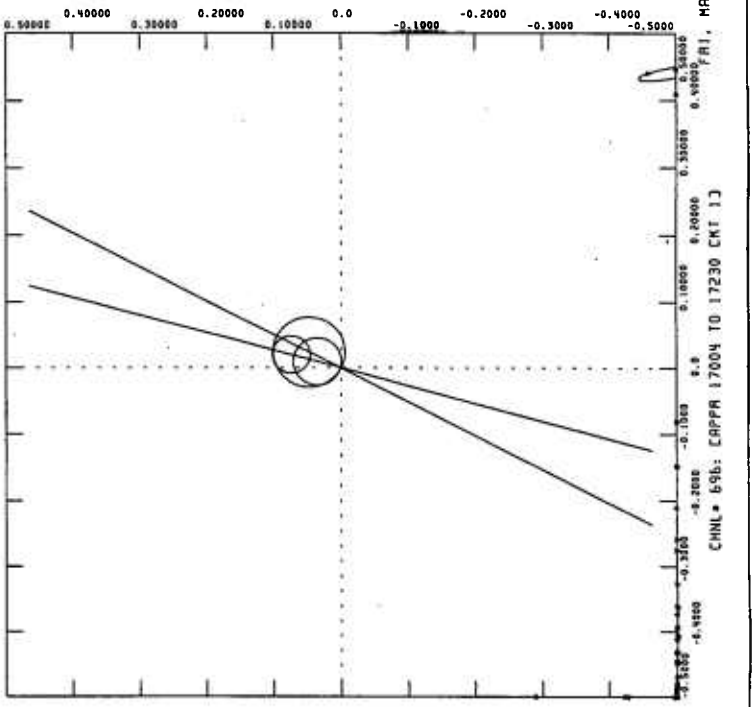


FRI, MAR 31 2000 15:33
RUN DSA PLOT 14

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2

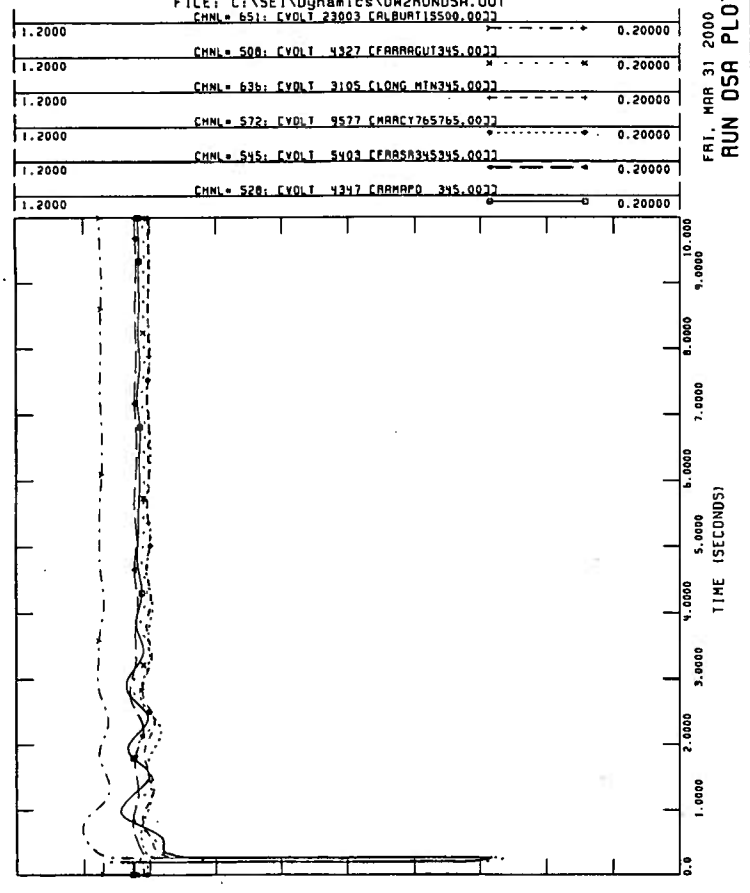
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT

RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1J



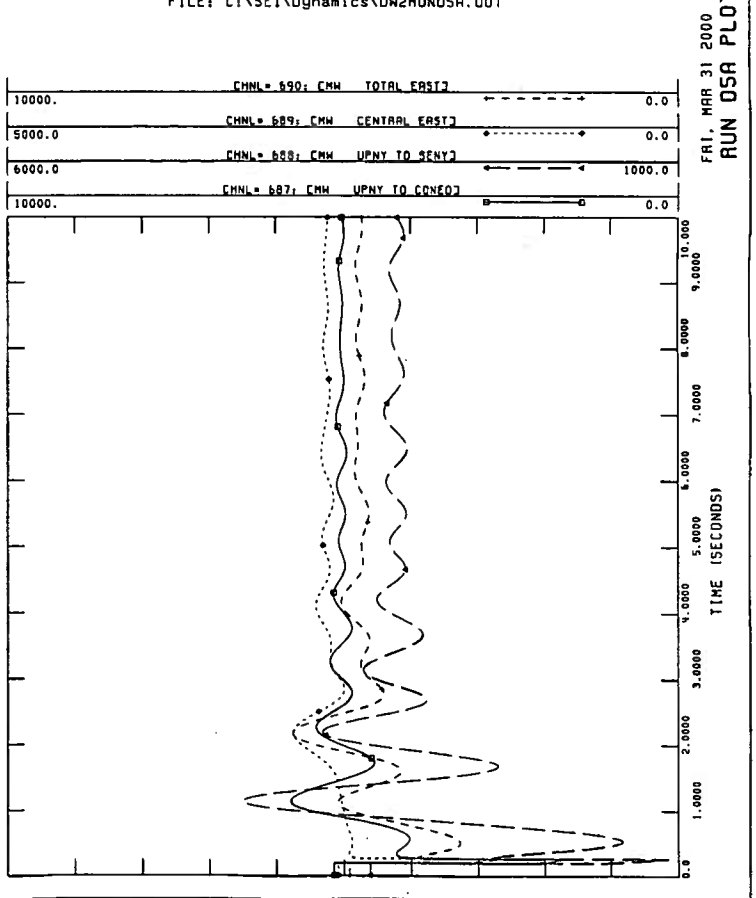
FRI, MAR 31 2000 15:33
RUN DSA PLOT 16

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT



FRI, MAR 31 2000 15:33
RUN DSA PLOT 13

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW2RUNDSA.OUT

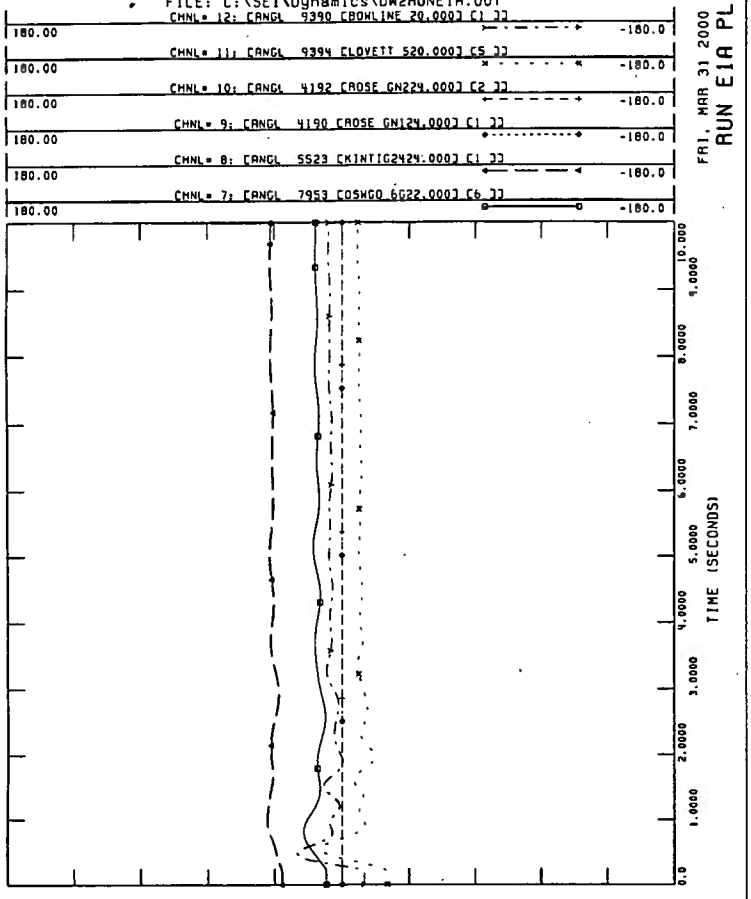


FRI, MAR 31 2000 15:33
RUN DSA PLOT 15

CONTINGENCY E1A

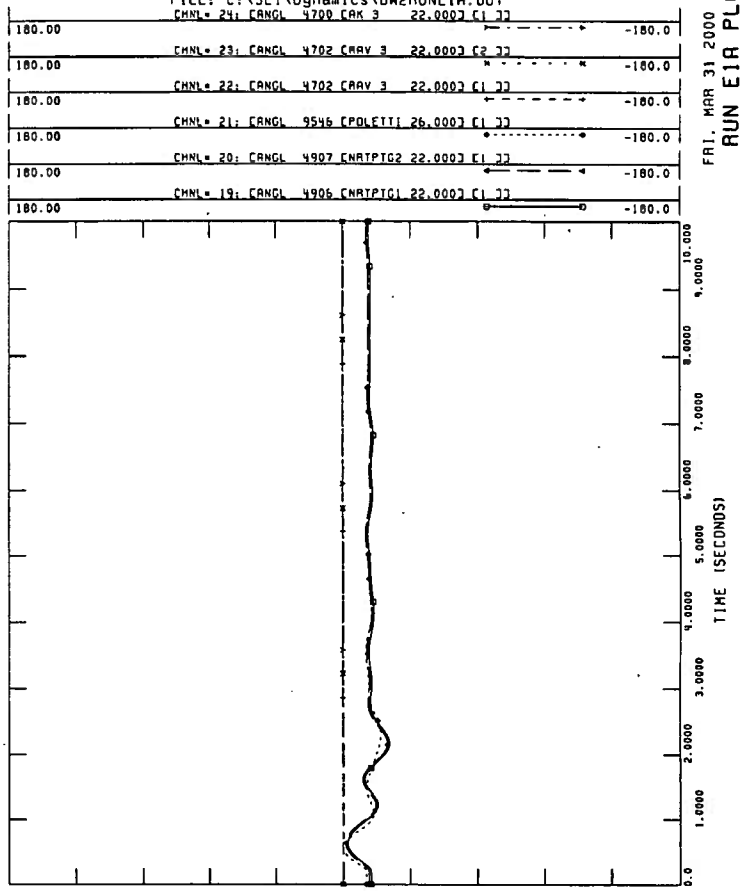
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT



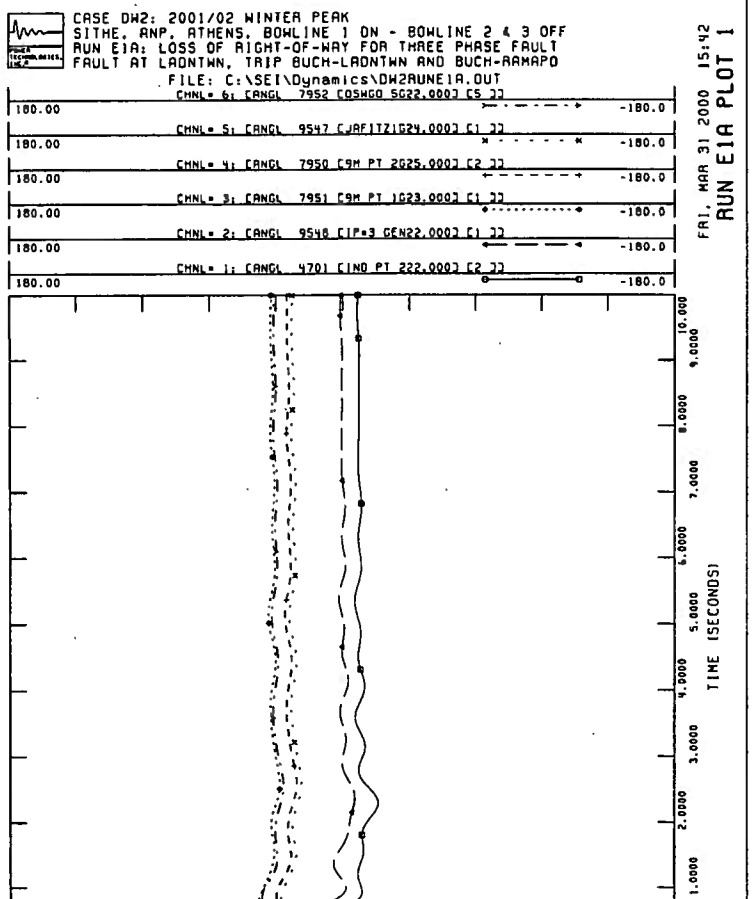
FRI, MAR 31 2000 15:42
RUN E1A PLOT 2

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT



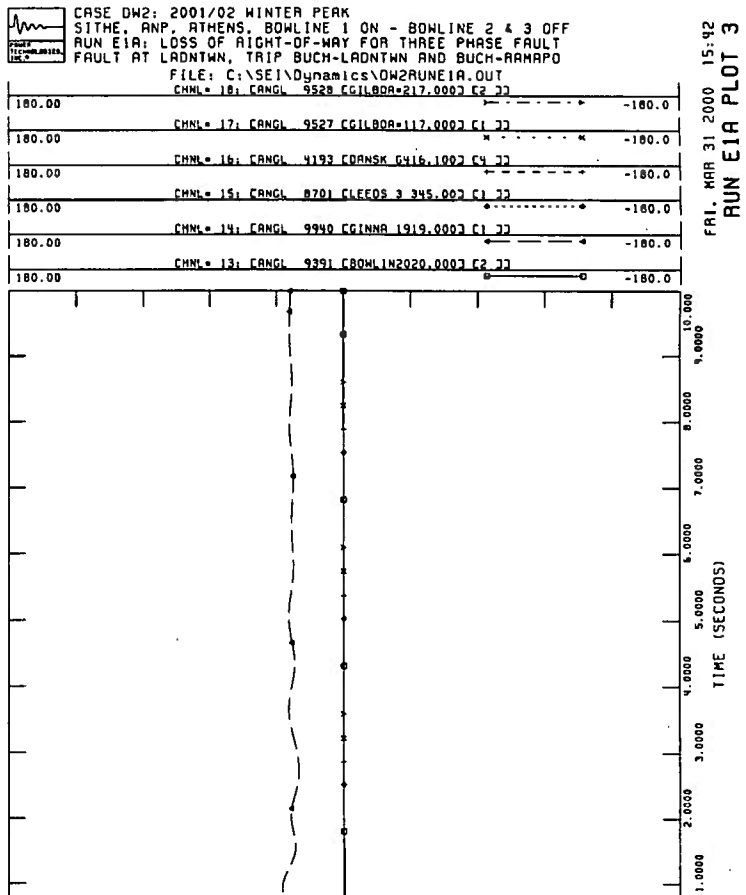
FRI, MAR 31 2000 15:42
RUN E1A PLOT 4

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT

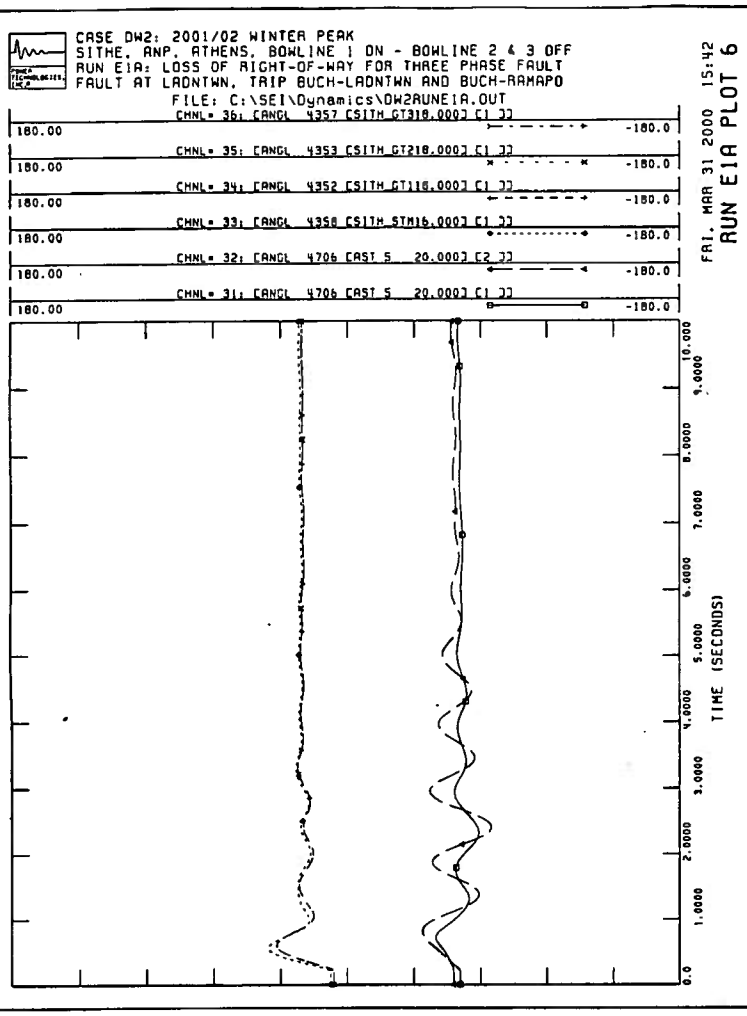


FRI, MAR 31 2000 15:42
RUN E1A PLOT 1

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT



FRI, MAR 31 2000 15:42
RUN E1A PLOT 3


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
FRI, MAR 31 2000 15:42
RUN E1A PLOT 6
CHNL= 36: CANGL 4357 CSITH_GT210.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT210.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT116.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
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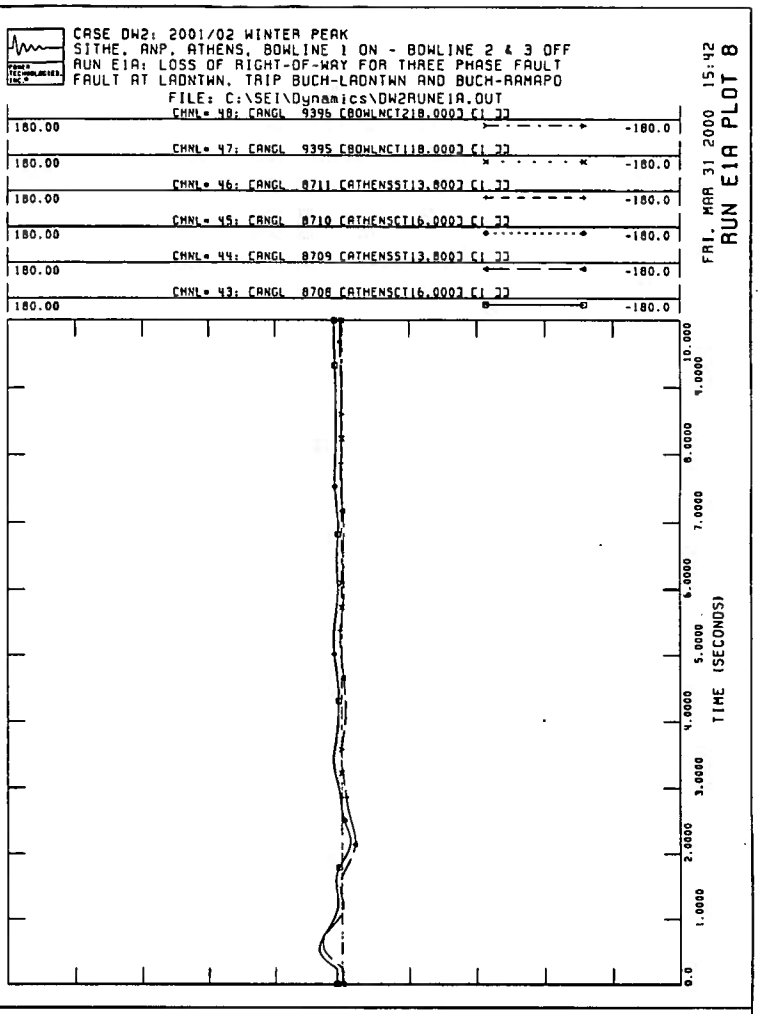
9.0000
10.000
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
FRI, MAR 31 2000 15:42
RUN E1A PLOT 8
CHNL= 48: CANGL 9396 CBOWLNCT]18.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT]18.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST]3.8000] C1]]
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CHNL= 43: CANGL 8708 CATHENSCT]6.0000] C1]]
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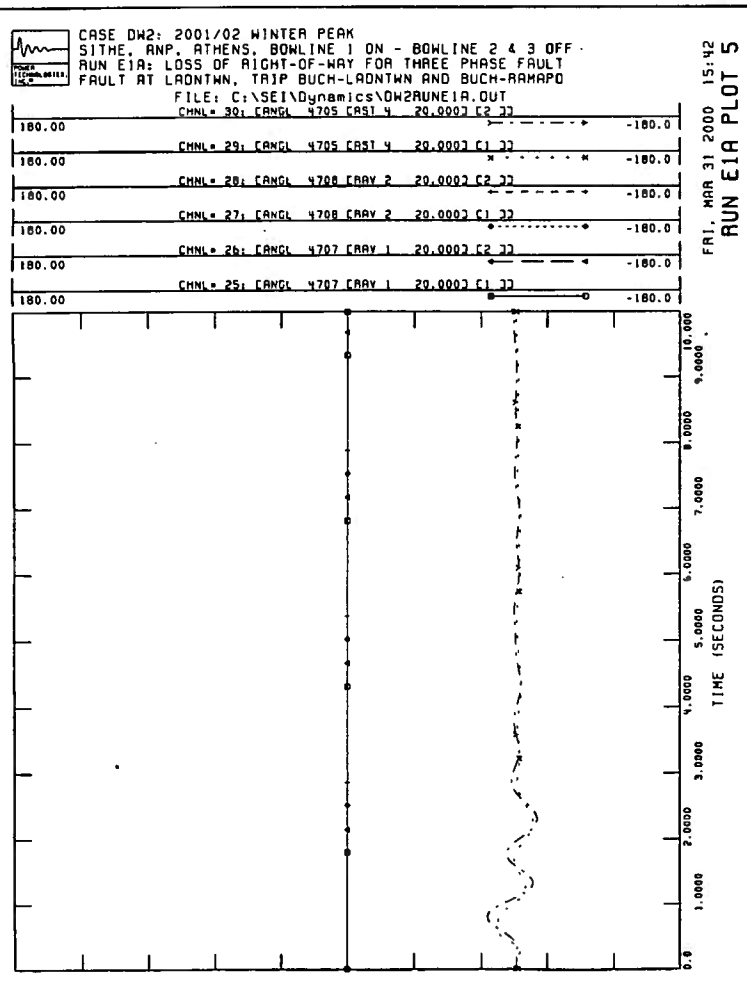
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
FRI, MAR 31 2000 15:42
RUN E1A PLOT 5
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
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CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
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CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]
180.00
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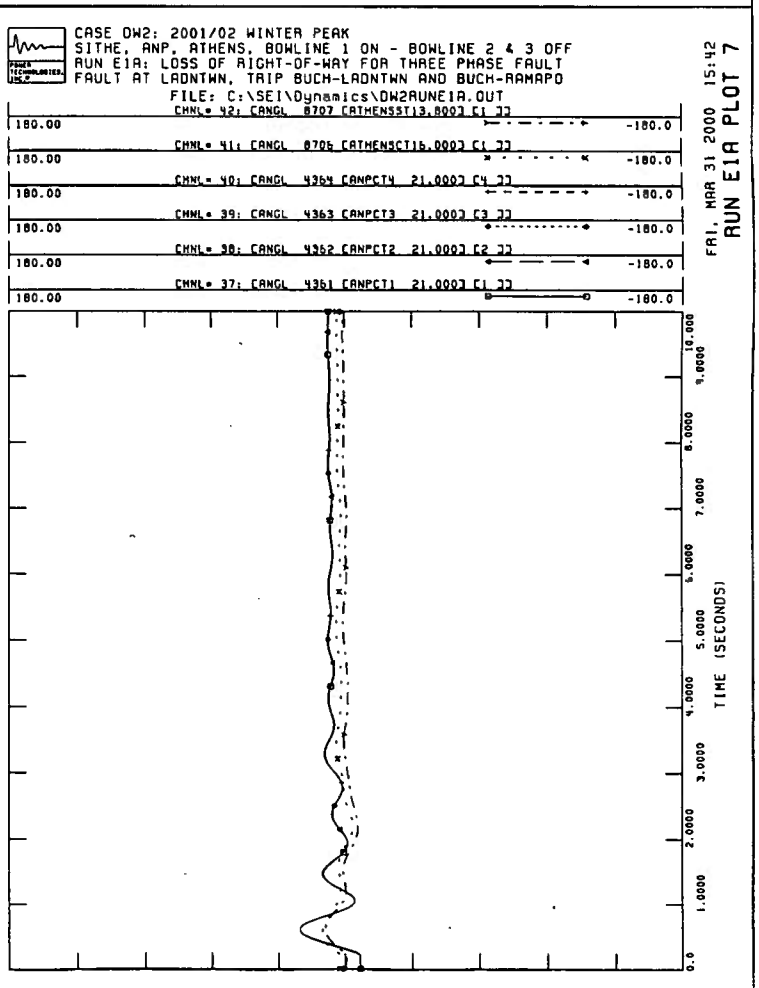
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
FRI, MAR 31 2000 15:42
RUN E1A PLOT 7
CHNL= 42: CANGL 8707 CATHENSST]3.8000] C1]]
CHNL= 41: CANGL 8706 CATHENSCT]6.0000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
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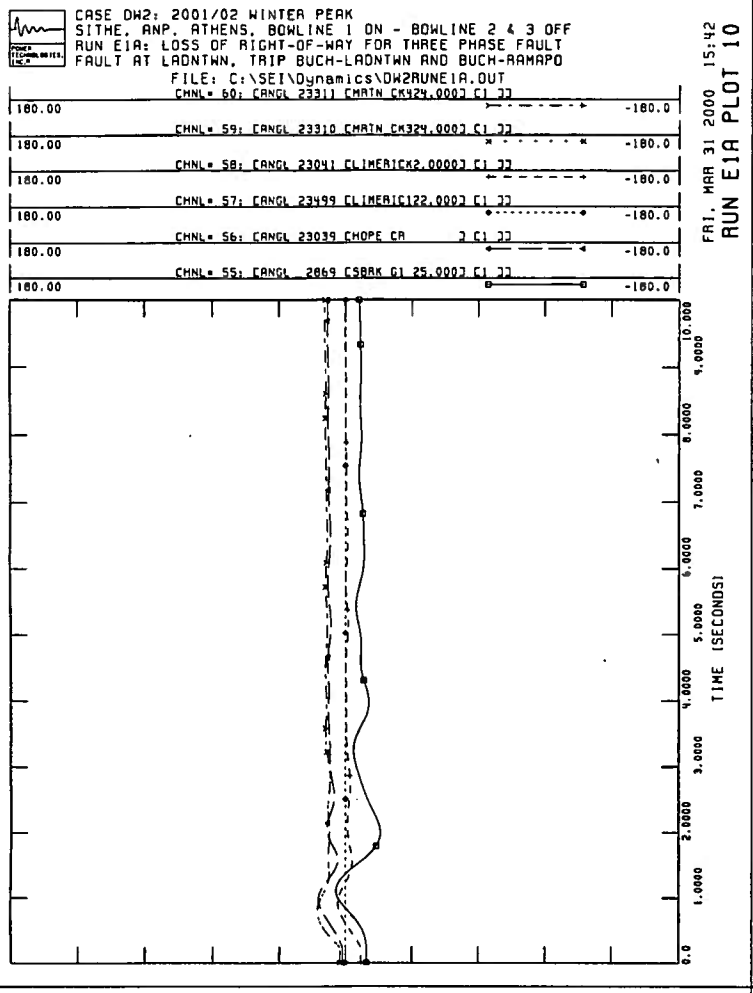
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
CHNL= 60; CANGL 23311 CMAIN_CK424,0000] C1]]
CHNL= 59; CANGL 23310 CMAIN_CK324,0000] C1]]
CHNL= 58; CANGL 23041 CLIMERICK2,0000] C1]]
CHNL= 57; CANGL 23499 CLIMERIC122,000] C1]]
CHNL= 56; CANGL 23039 CHOPE CR] C1]]
CHNL= 55; CANGL 2869 CSBRK G1 25,000] C1]]
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-180.0
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1.0000
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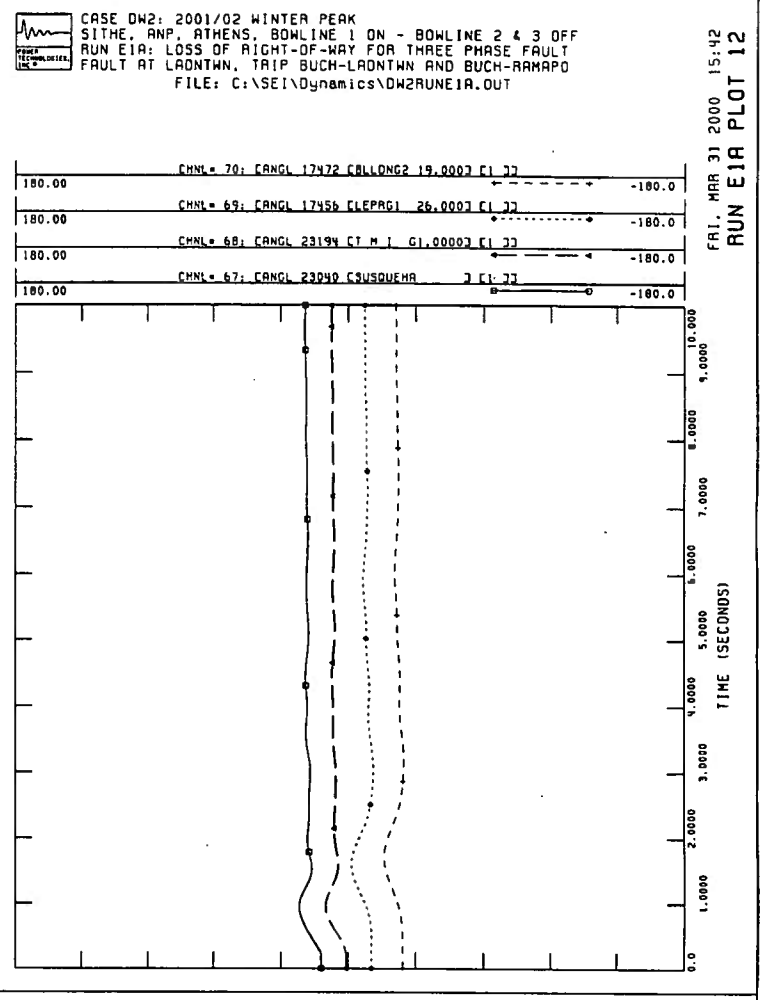
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:42
RUN E1A PLOT 10


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
CHNL= 70; CANGL 17472 CBLLONG2 19,0000] C1]]
CHNL= 69; CANGL 17456 CLEPRG1 26,0000] C1]]
CHNL= 68; CANGL 23194 CT M I G1,0000] C1]]
CHNL= 67; CANGL 23040 C3USQUEHA] C1]]
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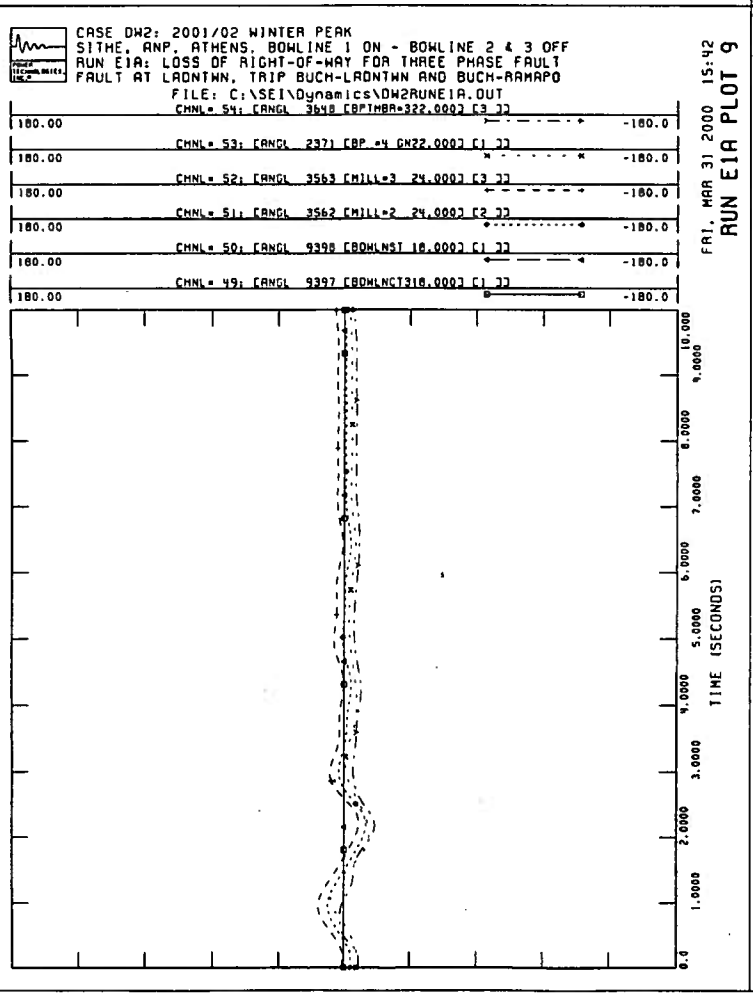
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:42
RUN E1A PLOT 12


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
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CHNL= 54; CANGL 3648 CBPTMBA=322,000] C3]]
CHNL= 53; CANGL 2371 CBP_=4 GN22,000] C1]]
CHNL= 52; CANGL 3563 CMILL=3 24,000] C3]]
CHNL= 51; CANGL 3562 CMILL=2 24,000] C2]]
CHNL= 50; CANGL 9398 CBOWLNST 18,000] C1]]
CHNL= 49; CANGL 9397 CBOWLNCT318,000] C1]]
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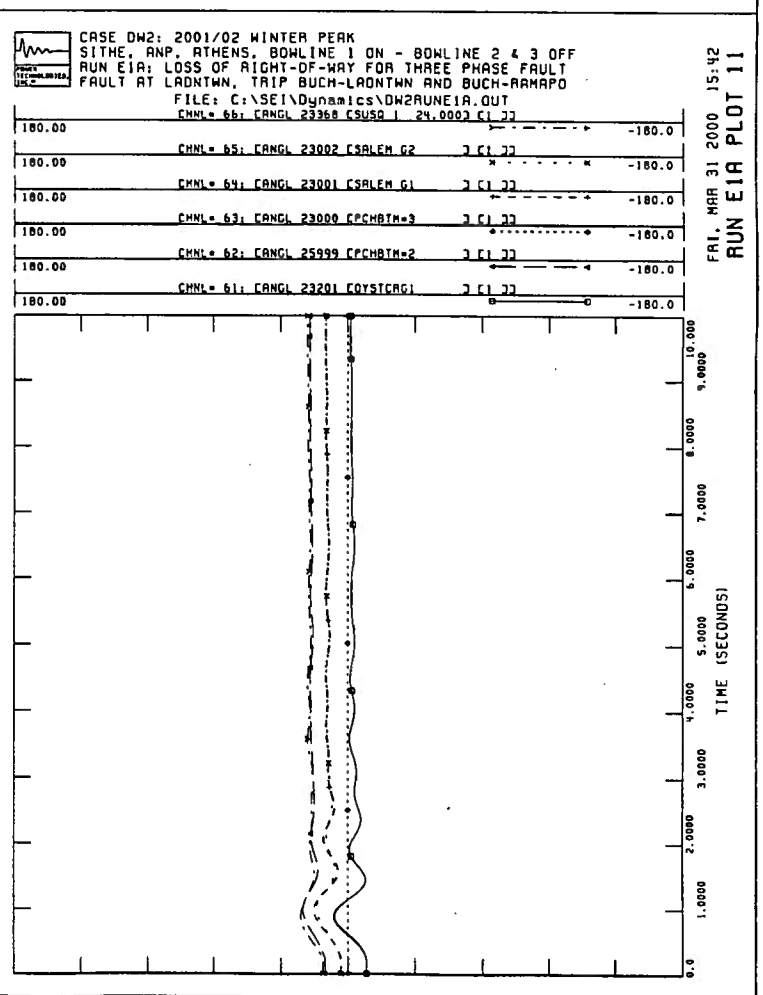
TIME (SECONDS)
FRI, MAR 31 2000 15:42
RUN E1A PLOT 9


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT
CHNL= 66; CANGL 23368 CSUSQ 1 24,000] C1]]
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CHNL= 64; CANGL 23001 CSALEM G1] C1]]
CHNL= 63; CANGL 23000 CPCHBTM=3] C1]]
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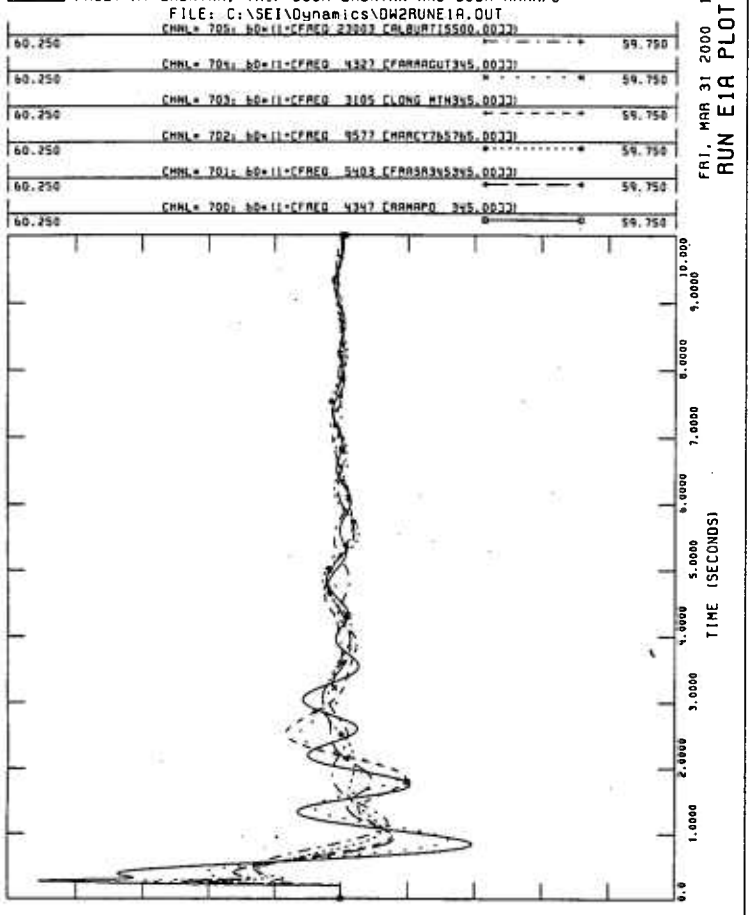
10.000
TIME (SECONDS)
FRI, MAR 31 2000 15:42
RUN E1A PLOT 11

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT

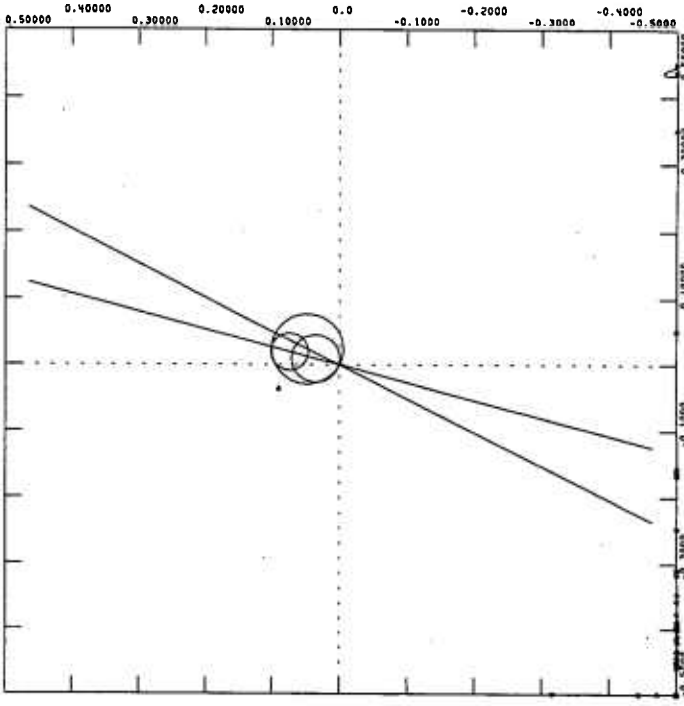


FRI, MAR 31 2000 15:42
RUN E1A PLOT 14

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO

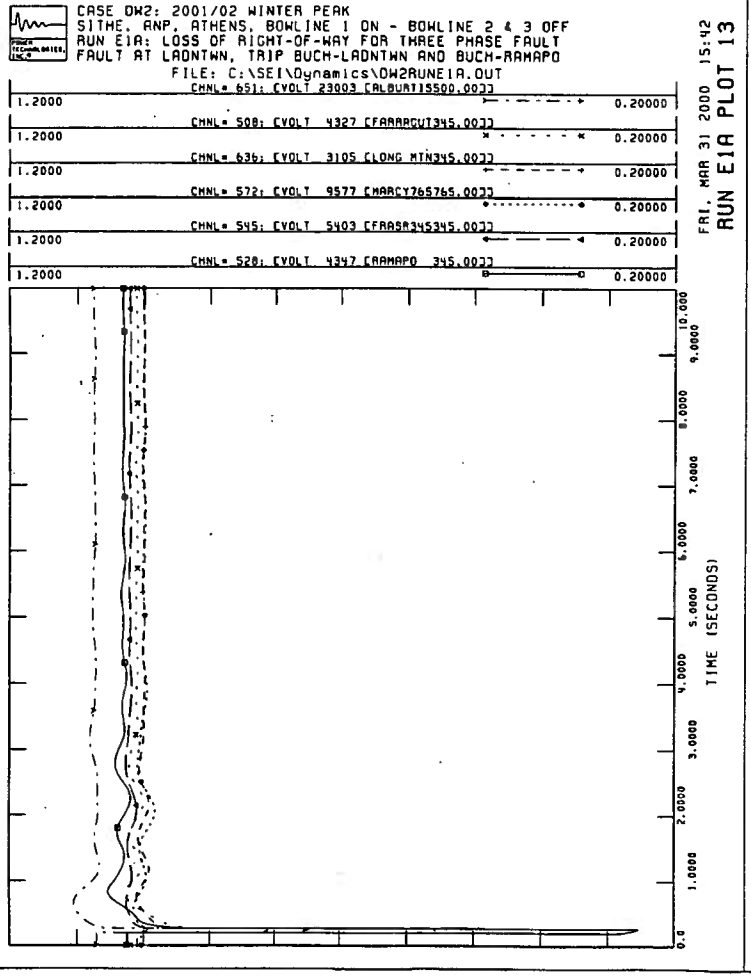
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT

RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



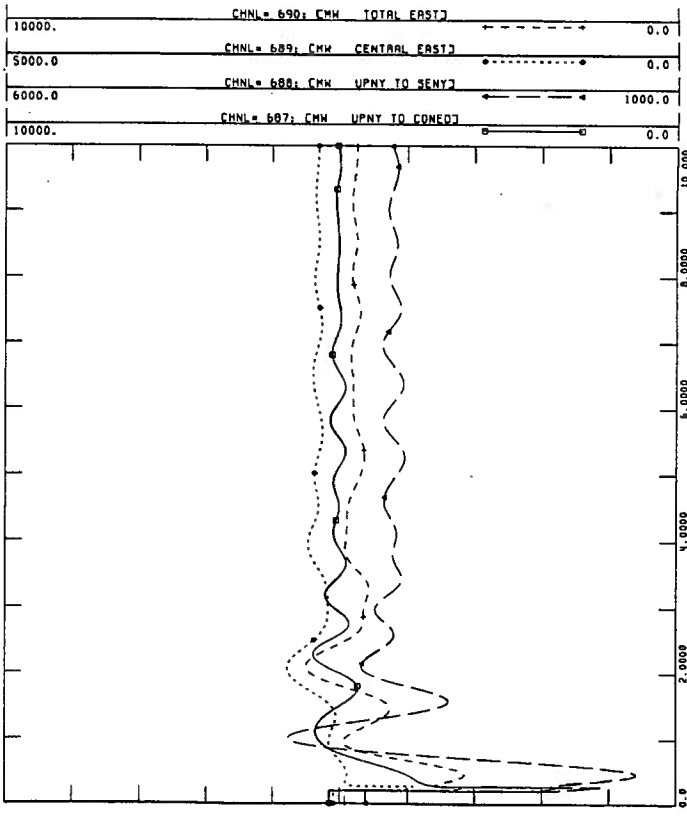
FRI, MAR 31 2000 15:42
RUN E1A PLOT 16

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT



FRI, MAR 31 2000 15:42
RUN E1A PLOT 13

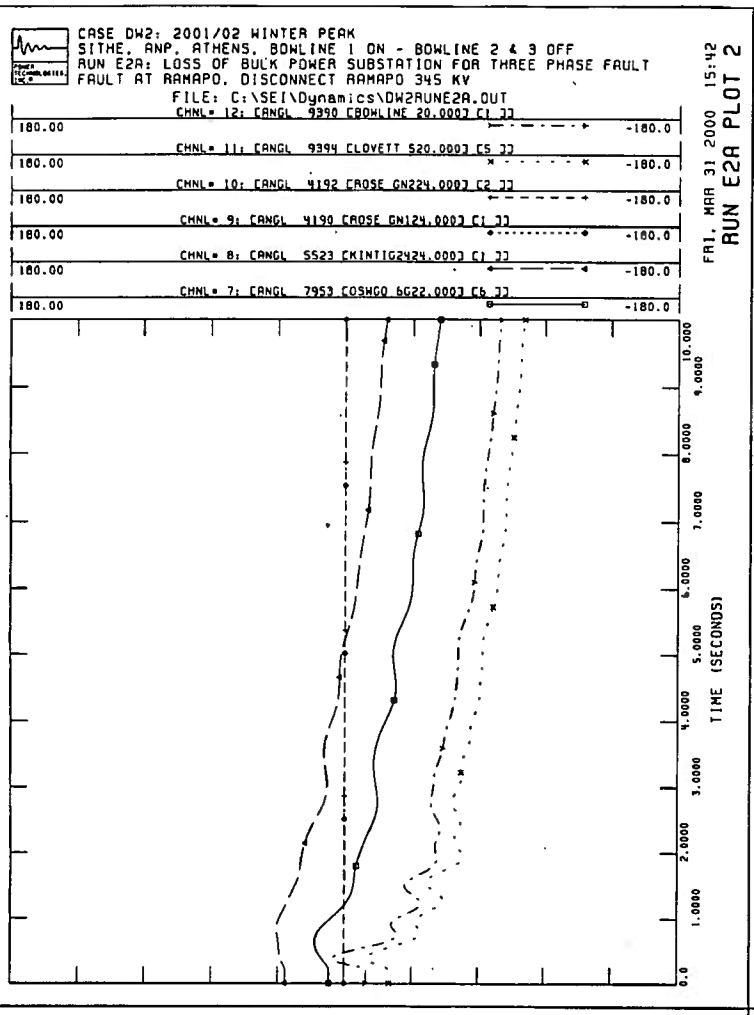
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW2RUNE1A.OUT

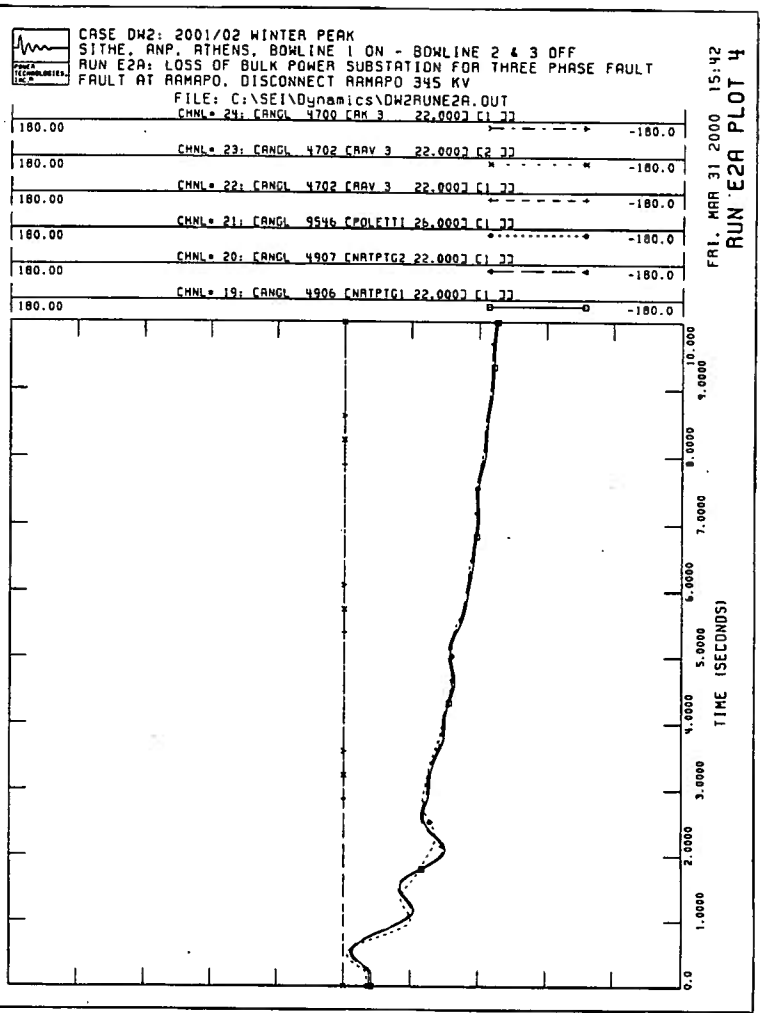


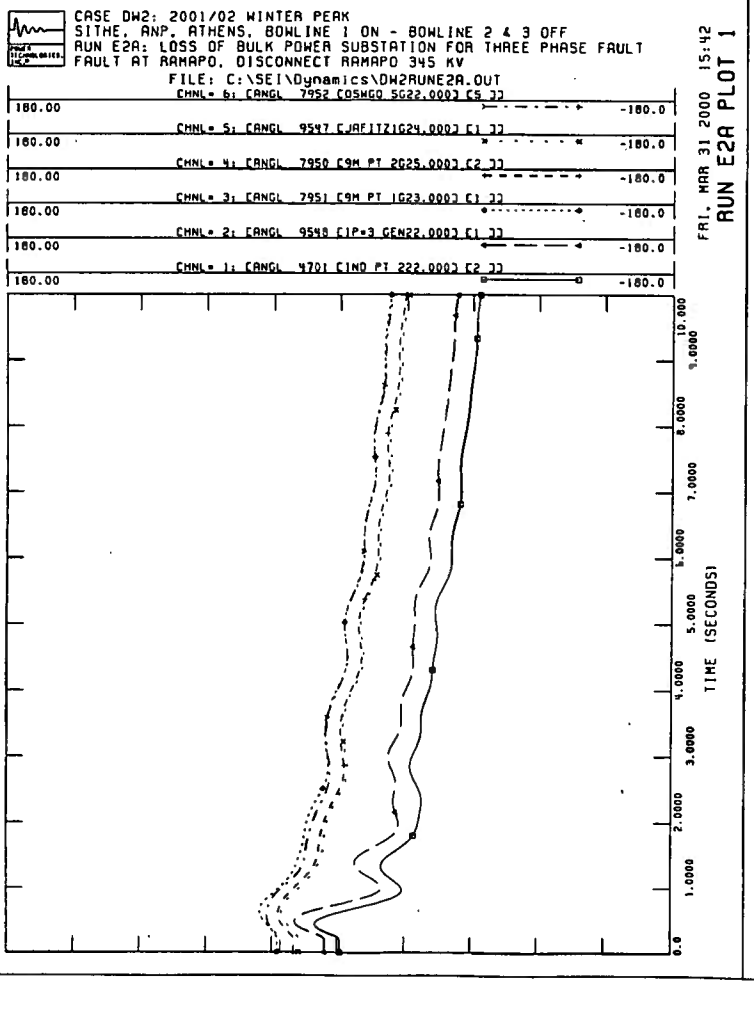
FRI, MAR 31 2000 15:42
RUN E1A PLOT 15

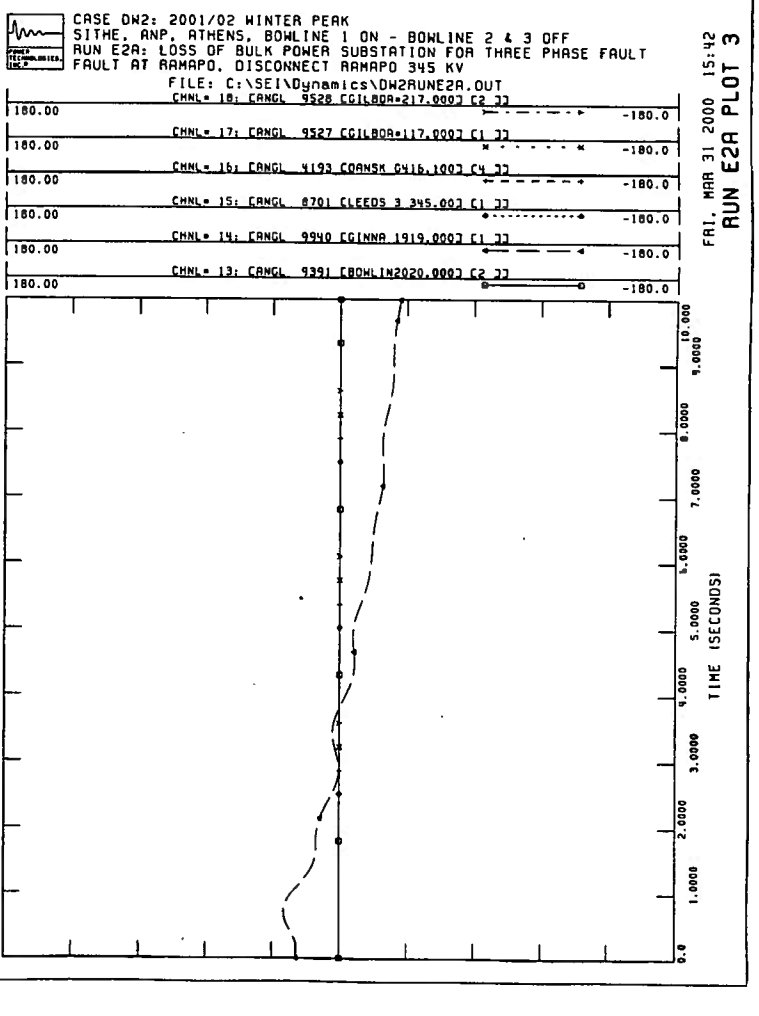
CONTINGENCY E2A

```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                              / DISCONNECT RAMAPO SUBSTATION
DROP GENERATOR 1 AT BUS 4352                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4353                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4357                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4358                           / TRIP SITHE ST
DROP GENERATOR 1 AT BUS 4361                           / TRIP ANP CT
DROP GENERATOR 2 AT BUS 4362                           / TRIP ANP CT
DROP GENERATOR 3 AT BUS 4363                           / TRIP ANP CT
DROP GENERATOR 4 AT BUS 4364                           / TRIP ANP ST
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

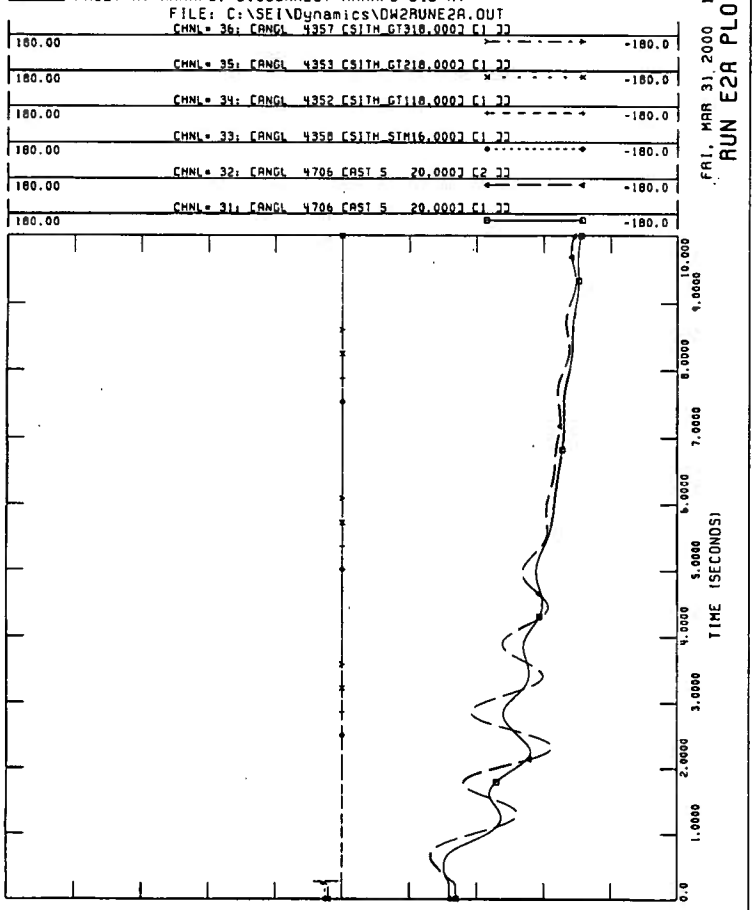

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT
FRI, MAR 31 2000 15:42
RUN E2A PLOT 2
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT
FRI, MAR 31 2000 15:42
RUN E2A PLOT 4
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT
FRI, MAR 31 2000 15:42
RUN E2A PLOT 1
TIME (SECONDS)

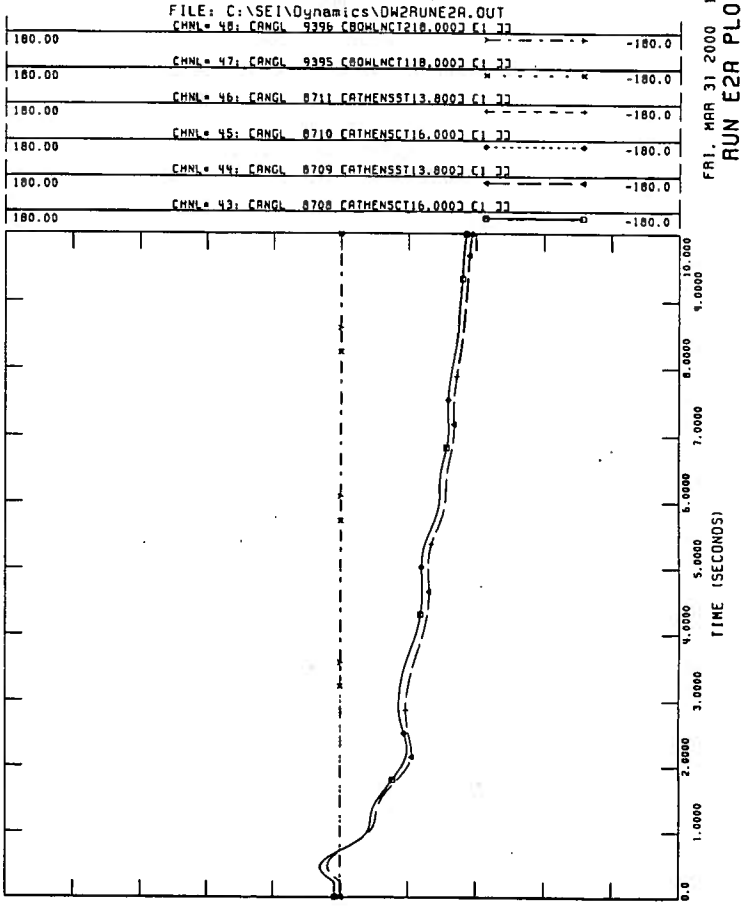

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT
FRI, MAR 31 2000 15:42
RUN E2A PLOT 3
TIME (SECONDS)

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT



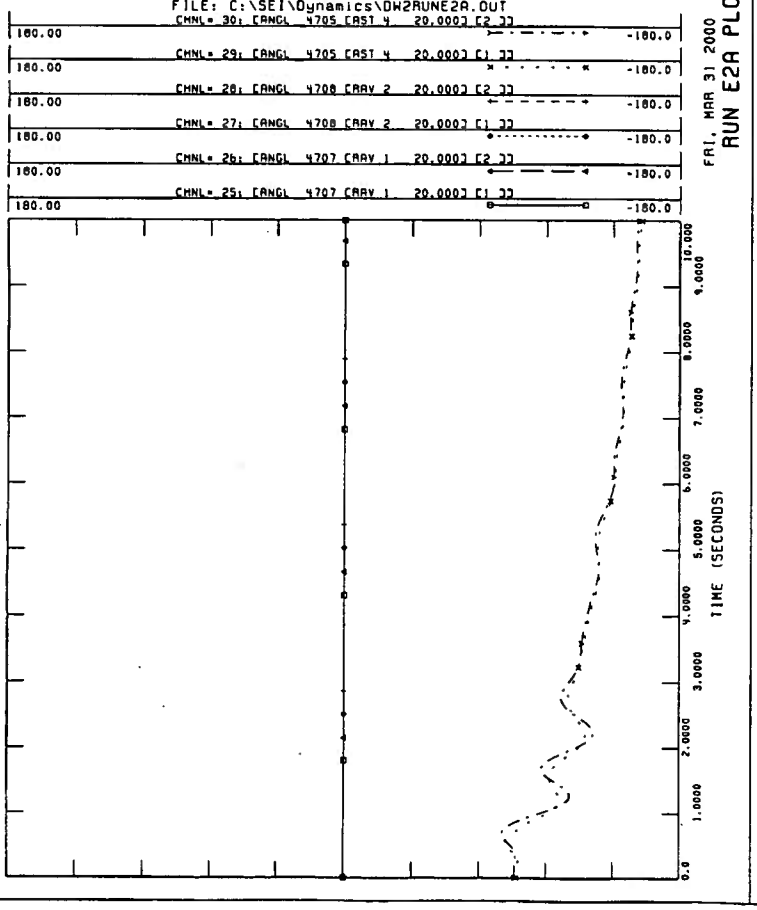
FRI, MAR 31 2000 15:42
RUN E2A PLOT 6

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT



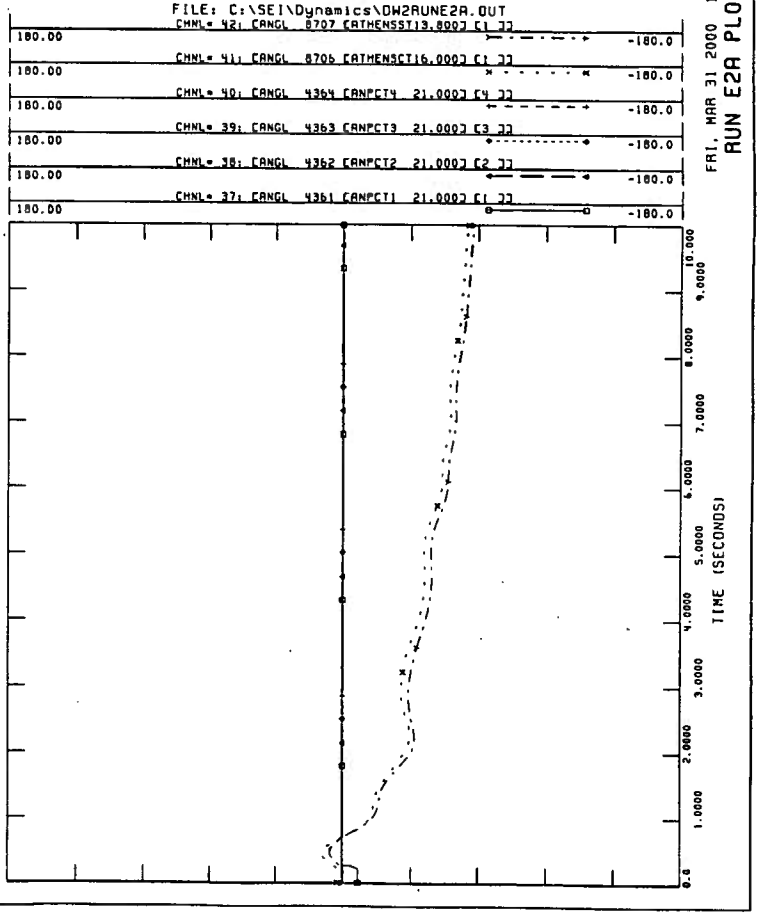
FRI, MAR 31 2000 15:42
RUN E2A PLOT 8

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT



FRI, MAR 31 2000 15:42
RUN E2A PLOT 5

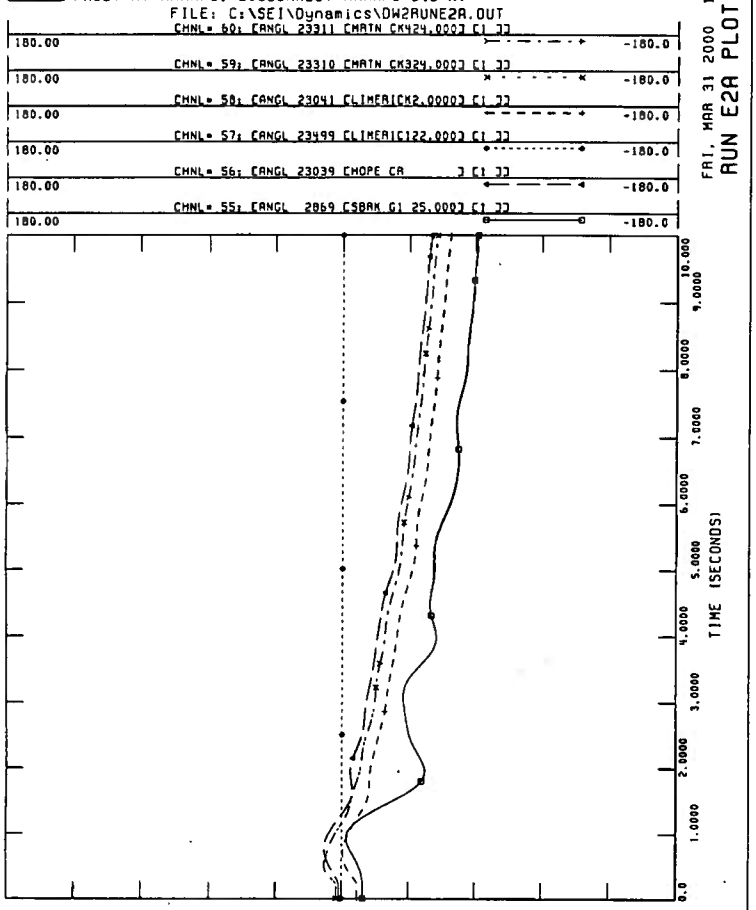
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT



FRI, MAR 31 2000 15:42
RUN E2A PLOT 7

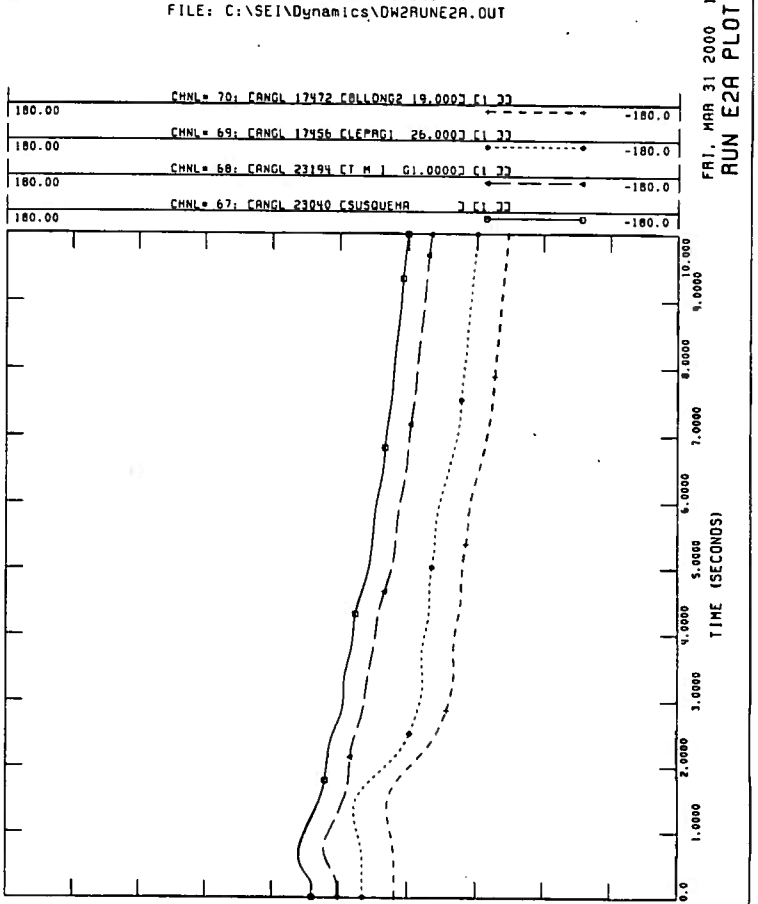
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT

FRI, MAR 31 2000 15:42
RUN E2A PLOT 10



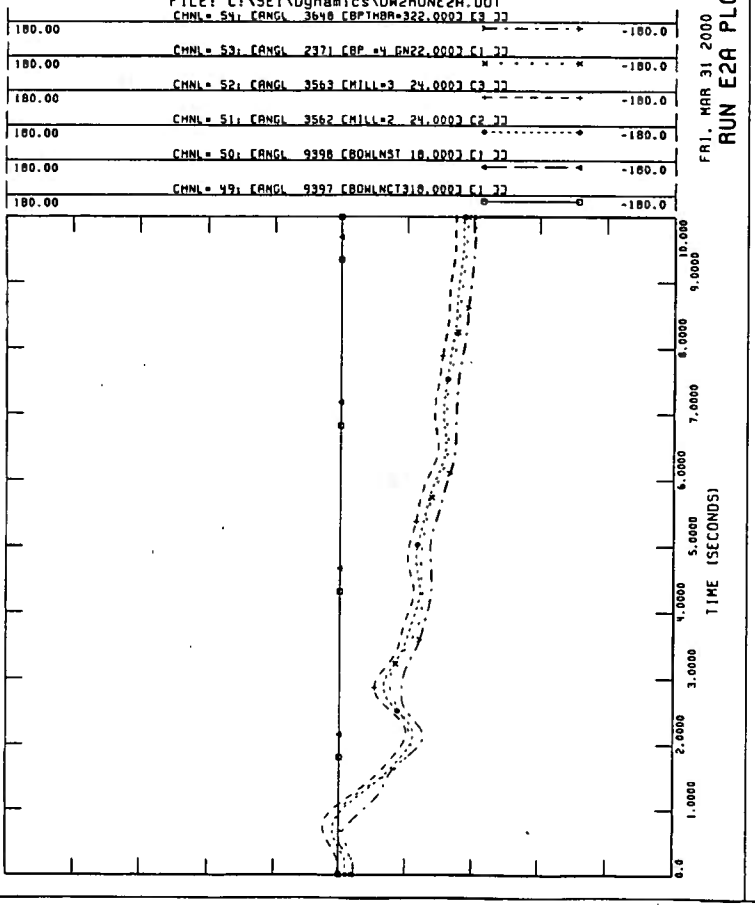
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT

FRI, MAR 31 2000 15:42
RUN E2A PLOT 12



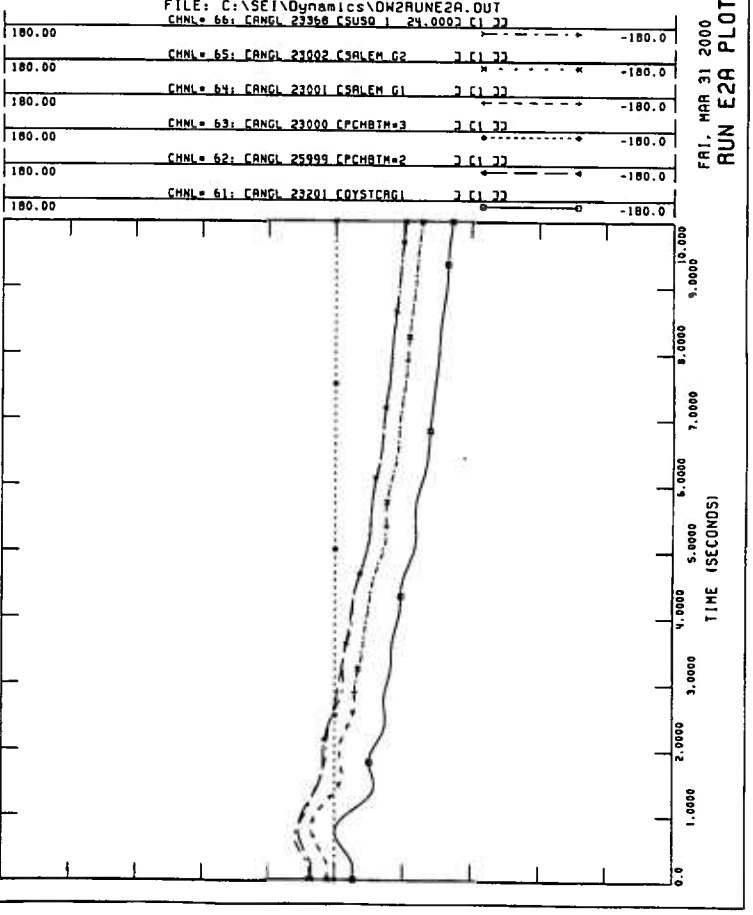
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT

FRI, MAR 31 2000 15:42
RUN E2A PLOT 9

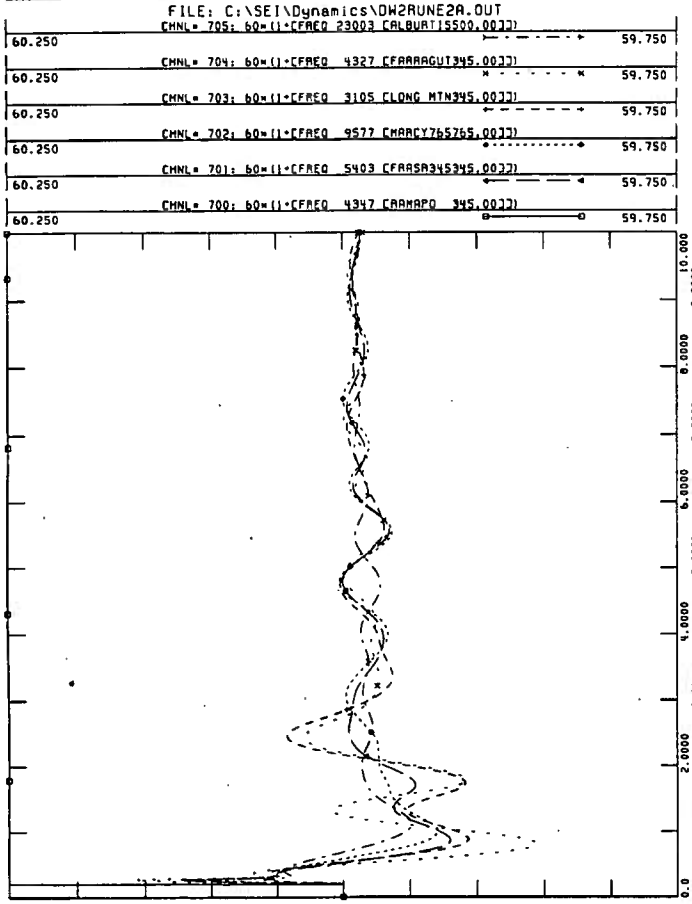


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT

FRI, MAR 31 2000 15:42
RUN E2A PLOT 11



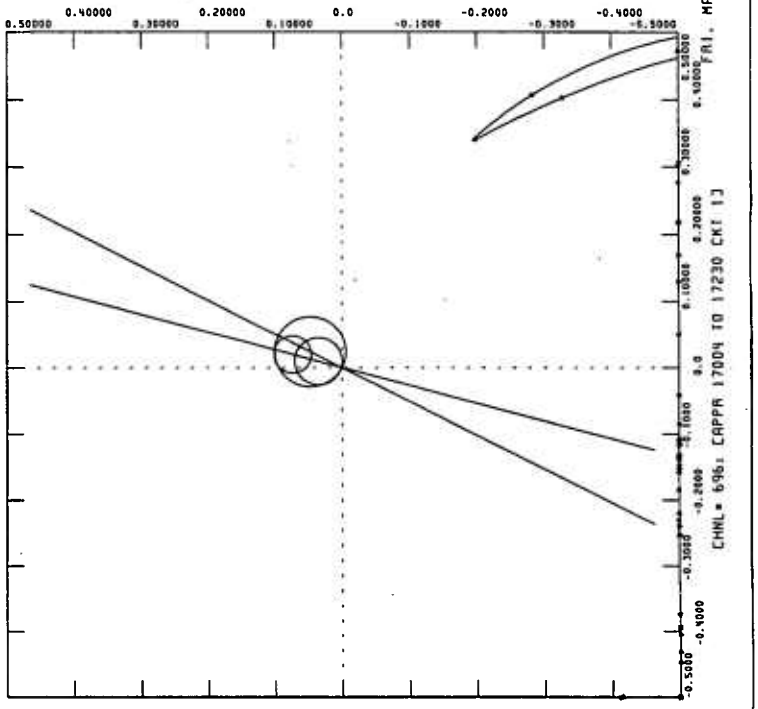
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT



FRI, MAR 31 2000 15:42
RUN E2A PLOT 14

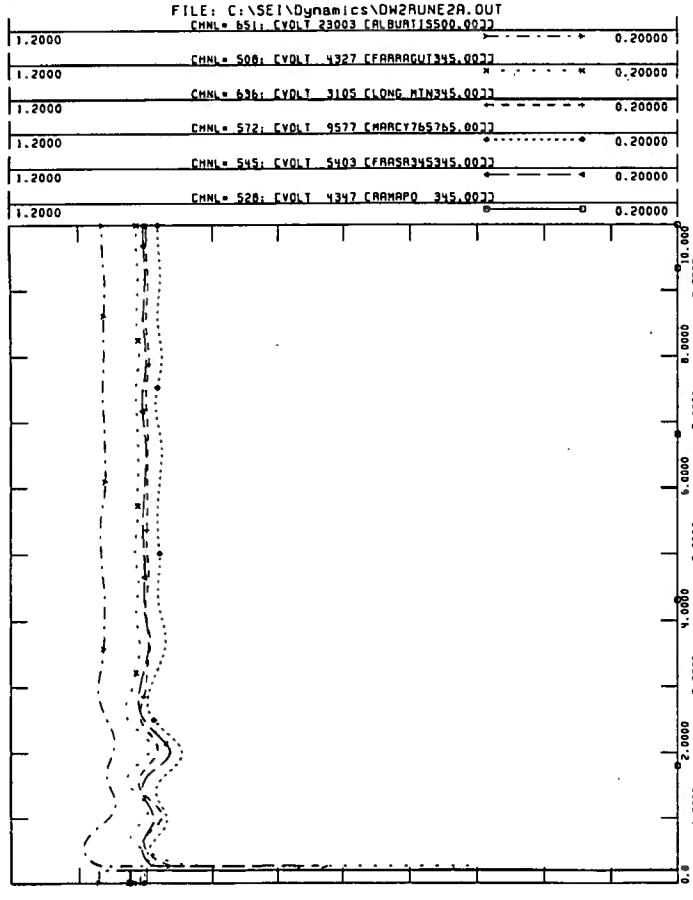
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1[]



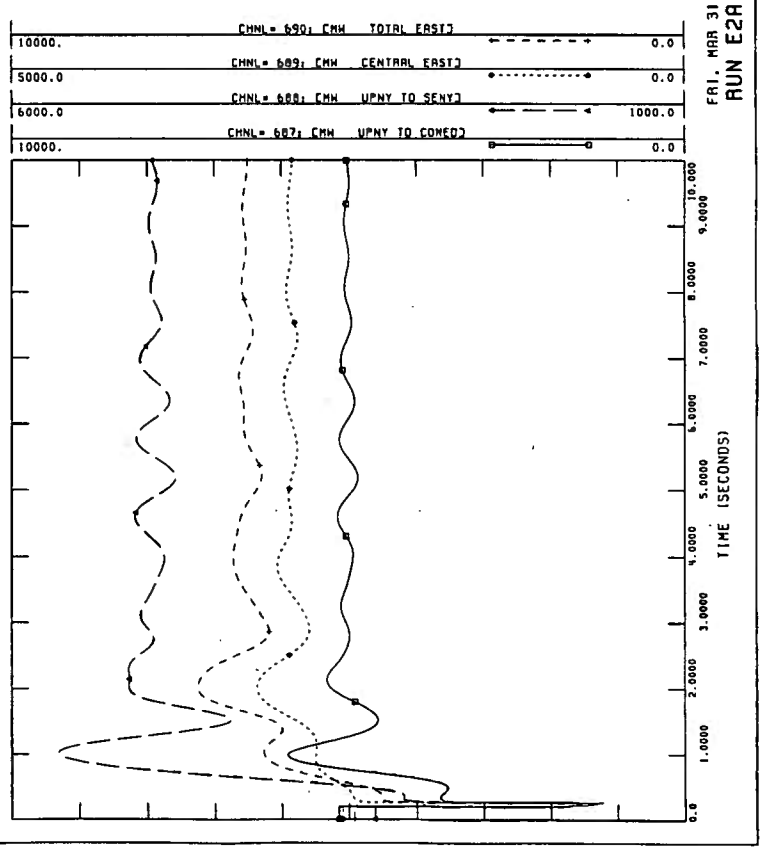
FRI, MAR 31 2000 15:42
RUN E2A PLOT 16

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT



FRI, MAR 31 2000 15:42
RUN E2A PLOT 13

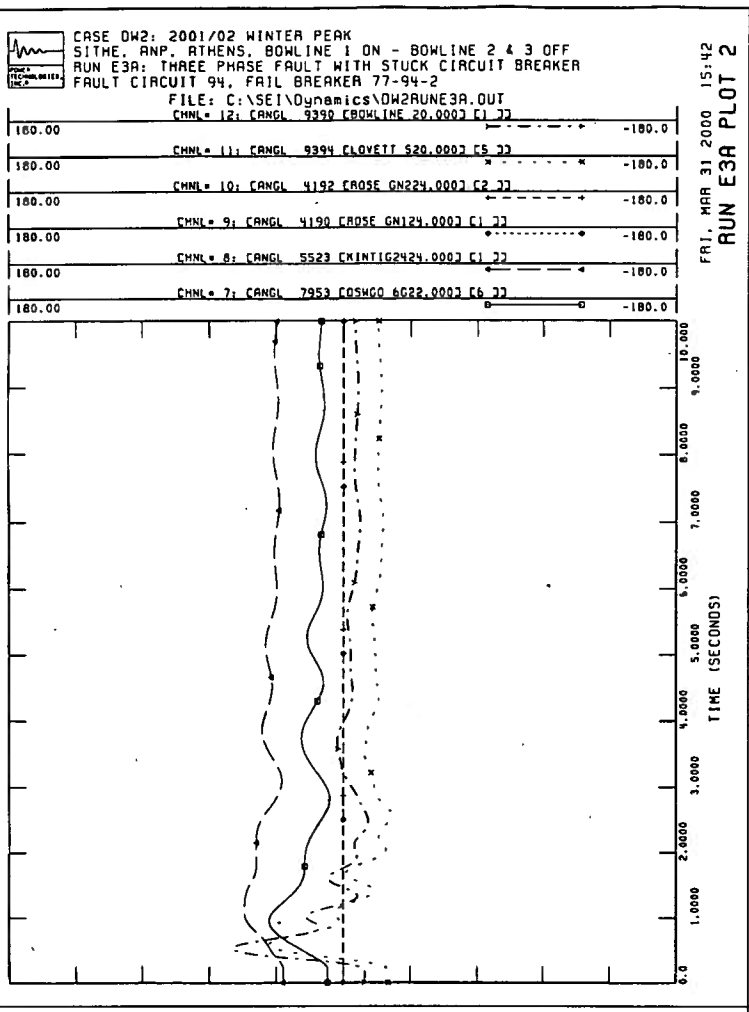
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW2RUNE2A.OUT

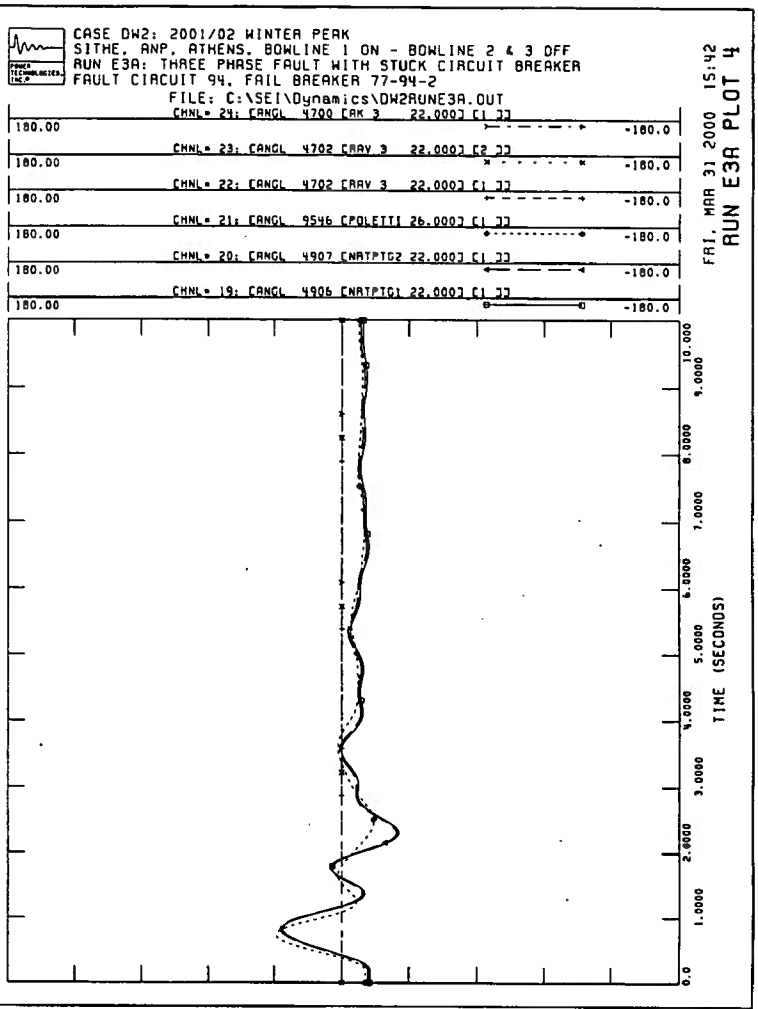


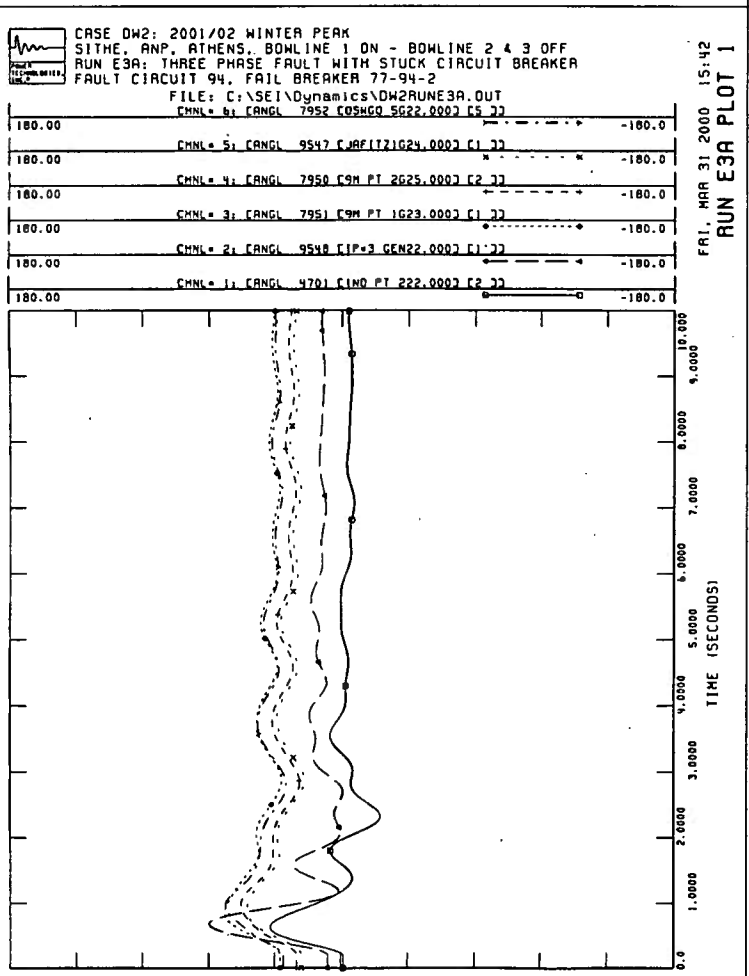
FRI, MAR 31 2000 15:42
RUN E2A PLOT 15

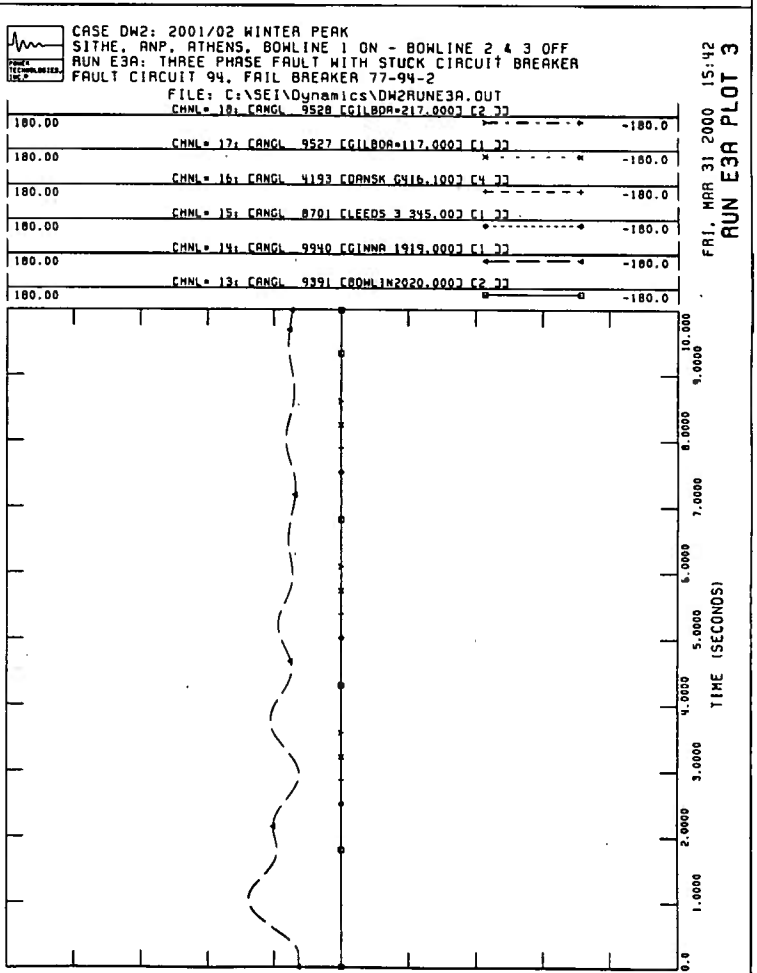
CONTINGENCY E3A

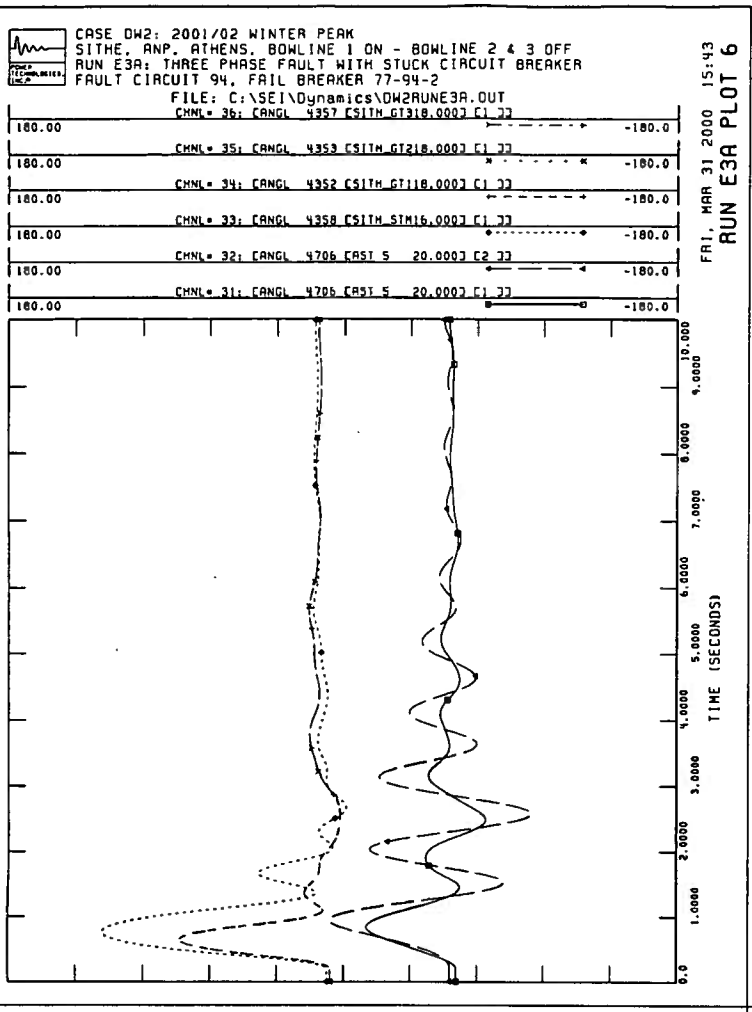
```
RECOVER FROM D1.SNP AND DW2.CNV
START OUTPUT DW2RUNE3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1             / TRIP RAMAPO-BUCHANAN N
RUN FOR 5.75 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4360 CKT 1             / TRIP RAMAPO-ANP CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

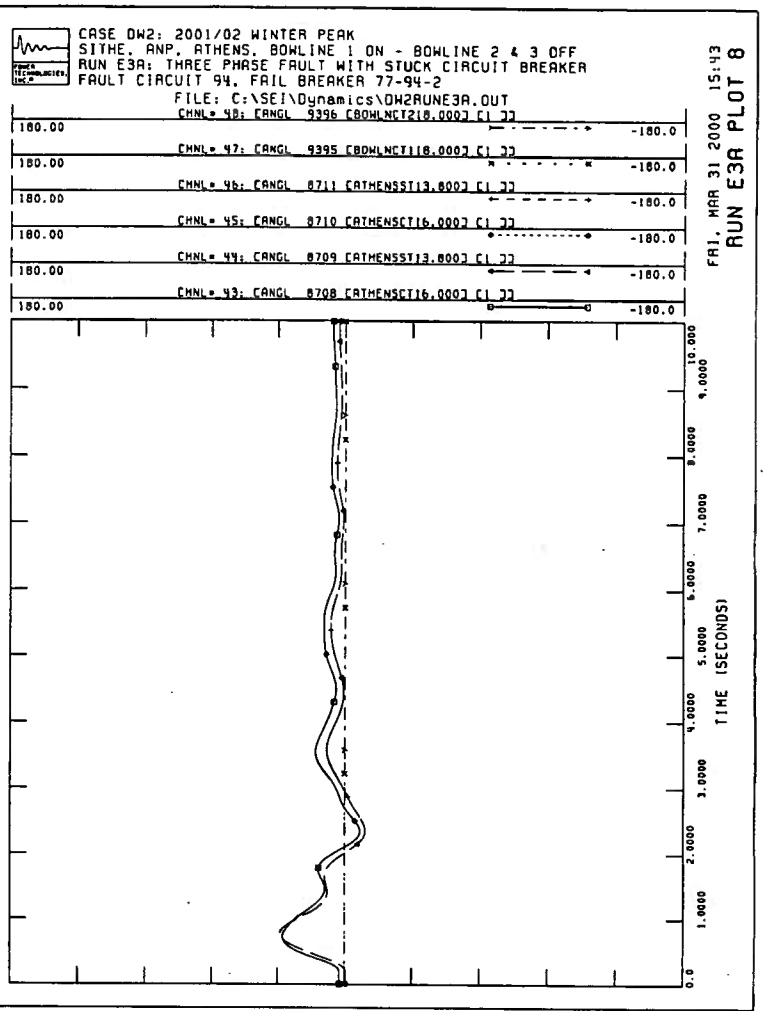

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:42
RUN E3A PLOT 2
TIME (SECONDS)

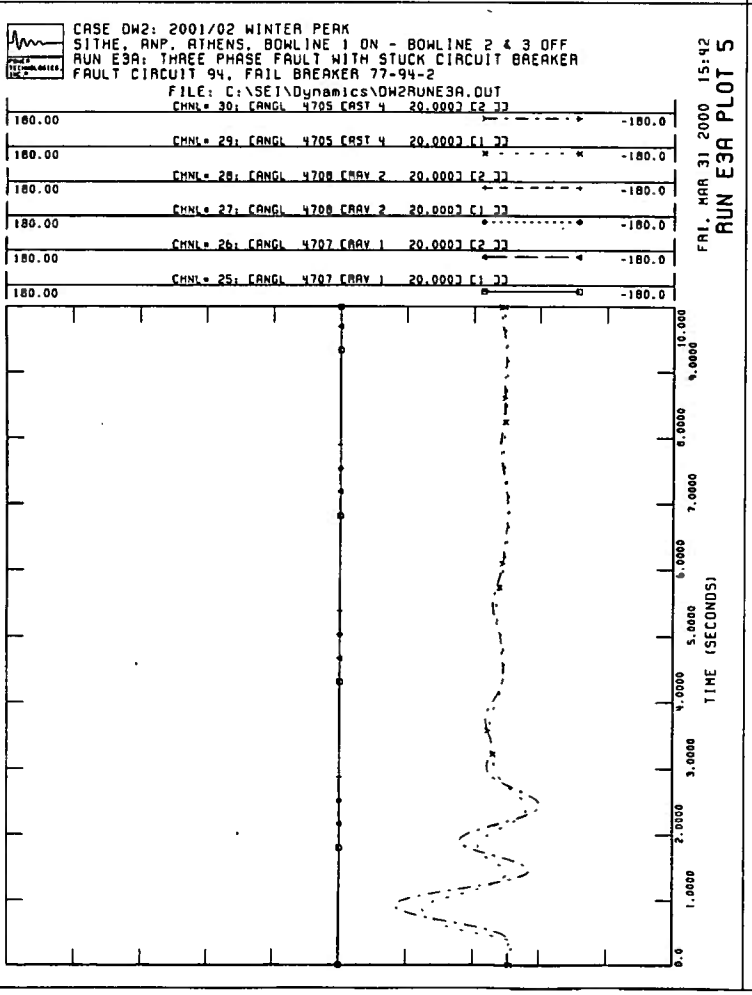

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:42
RUN E3A PLOT 4
TIME (SECONDS)

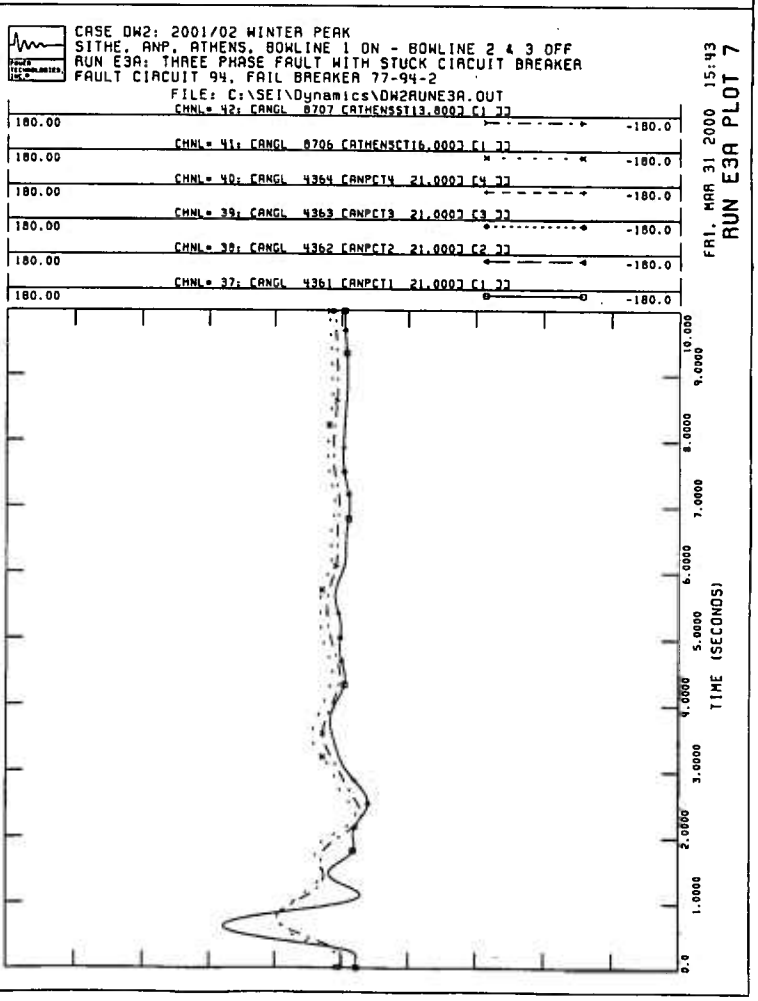

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:42
RUN E3A PLOT 1
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:42
RUN E3A PLOT 3
TIME (SECONDS)

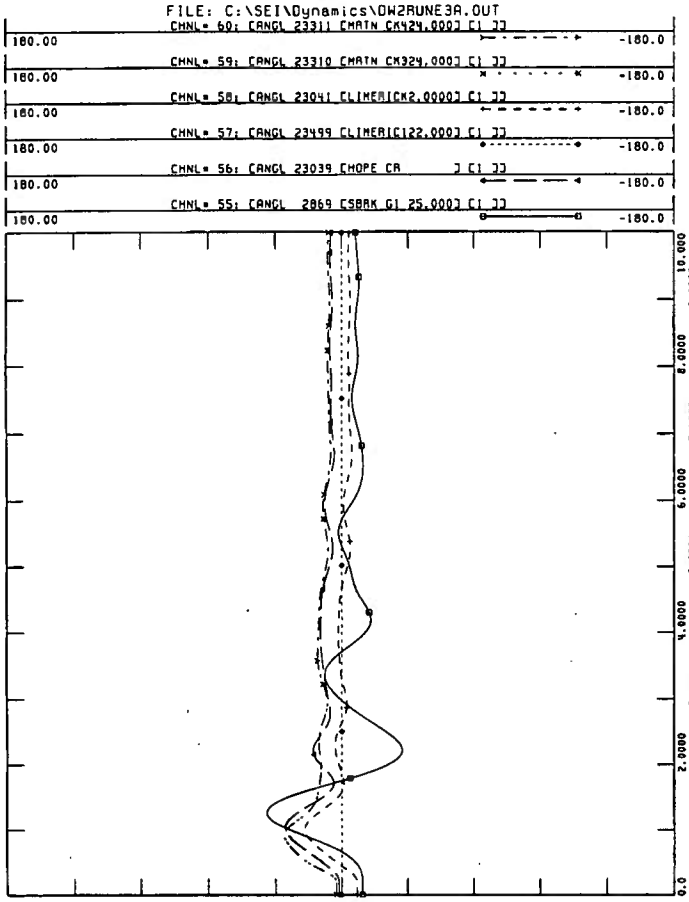

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
CHNL= 36: CANGL 4357 [SITH_GT318.000] [1]
CHNL= 35: CANGL 4353 [SITH_GT218.000] [1]
CHNL= 34: CANGL 4352 [SITH_GT118.000] [1]
CHNL= 33: CANGL 4358 [SITH_STM16.000] [1]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]
CHNL= 31: CANGL 4705 [AST 5 20.000] [1]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 15:43
RUN E3A PLOT 6


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
CHNL= 48: CANGL 9396 [BOWLNCT218.000] [1]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 15:43
RUN E3A PLOT 8


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]
CHNL= 28: CANGL 4708 [AAV 2 20.000] [2]
CHNL= 27: CANGL 4708 [AAV 2 20.000] [1]
CHNL= 26: CANGL 4707 [AAV 1 20.000] [2]
CHNL= 25: CANGL 4707 [AAV 1 20.000] [1]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 15:42
RUN E3A PLOT 5

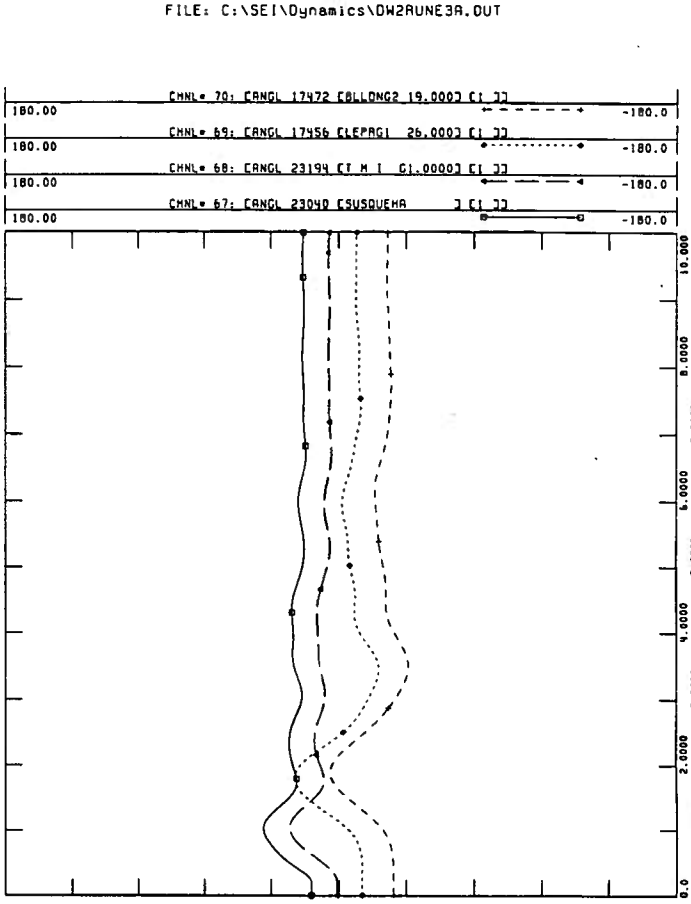

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 15:43
RUN E3A PLOT 7

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT



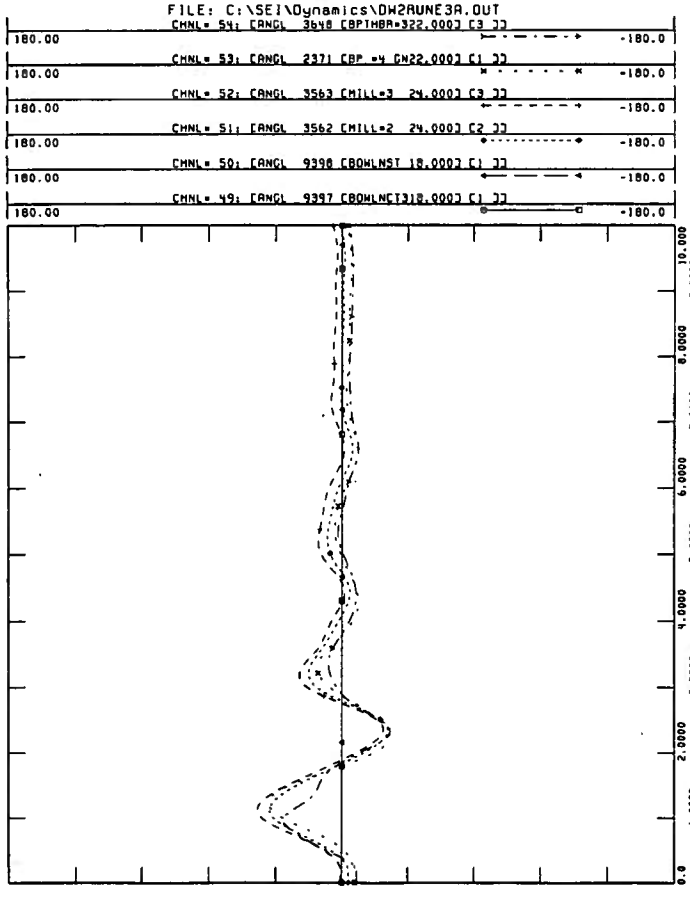
FRI, MAR 31 2000 15:43
RUN E3A PLOT 10

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT



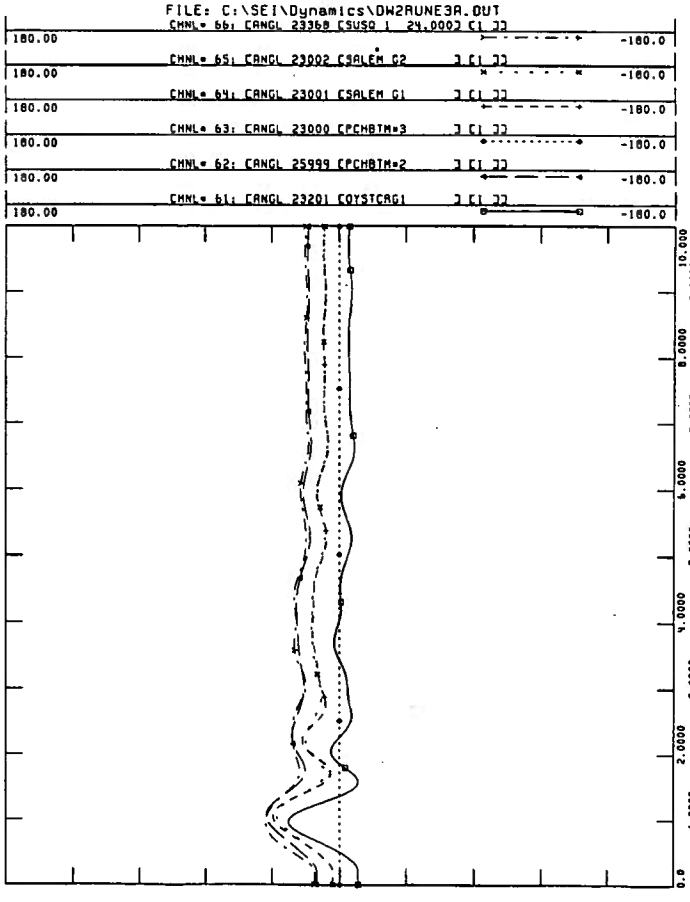
FRI, MAR 31 2000 15:43
RUN E3A PLOT 12

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT

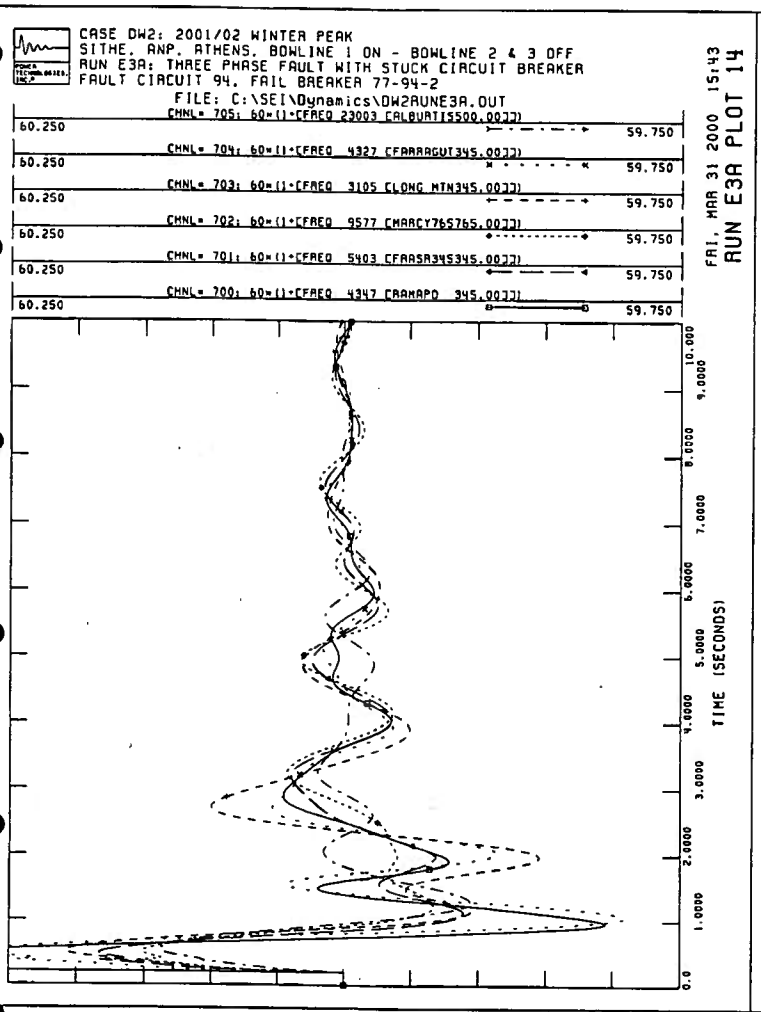


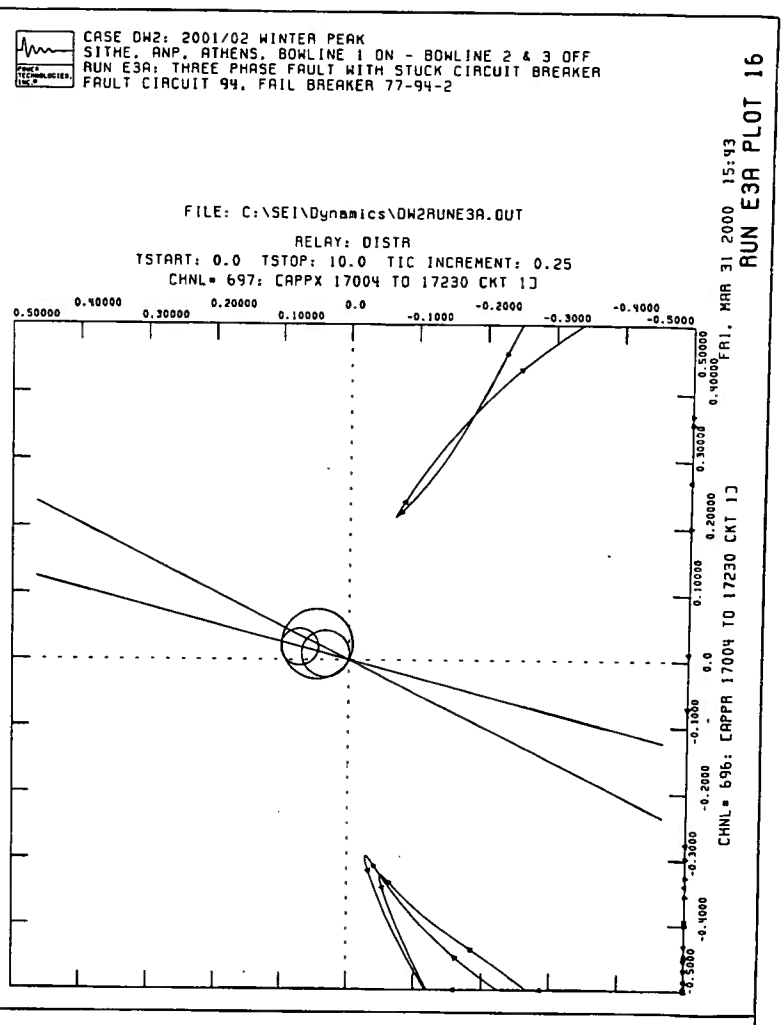
FRI, MAR 31 2000 15:43
RUN E3A PLOT 9

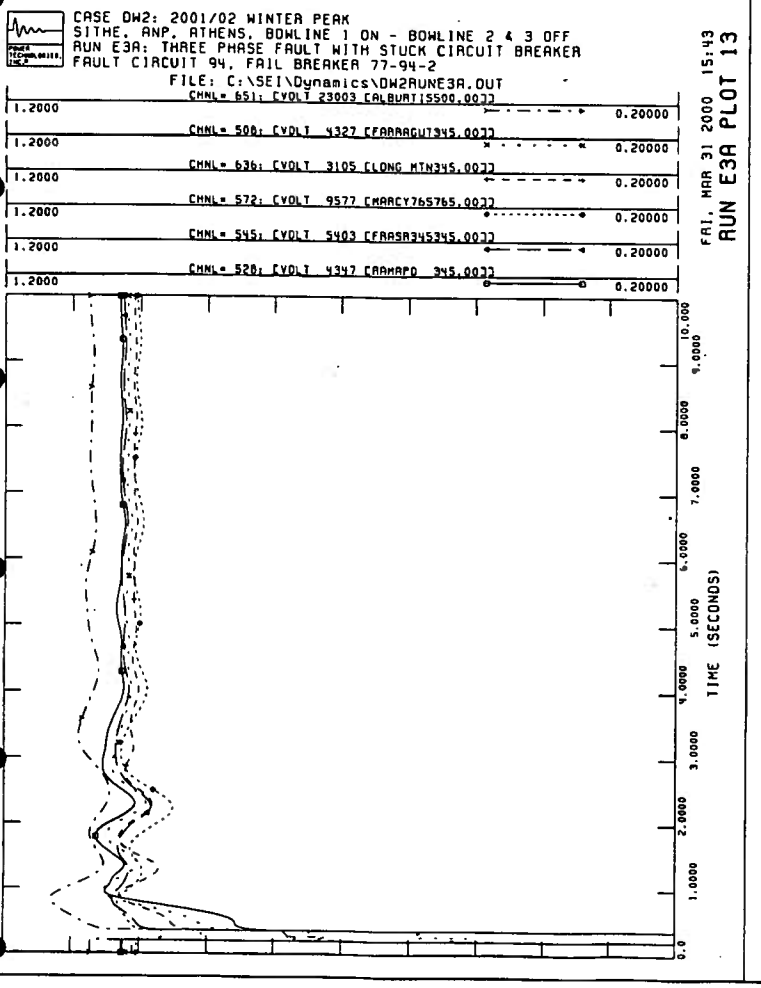
CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT

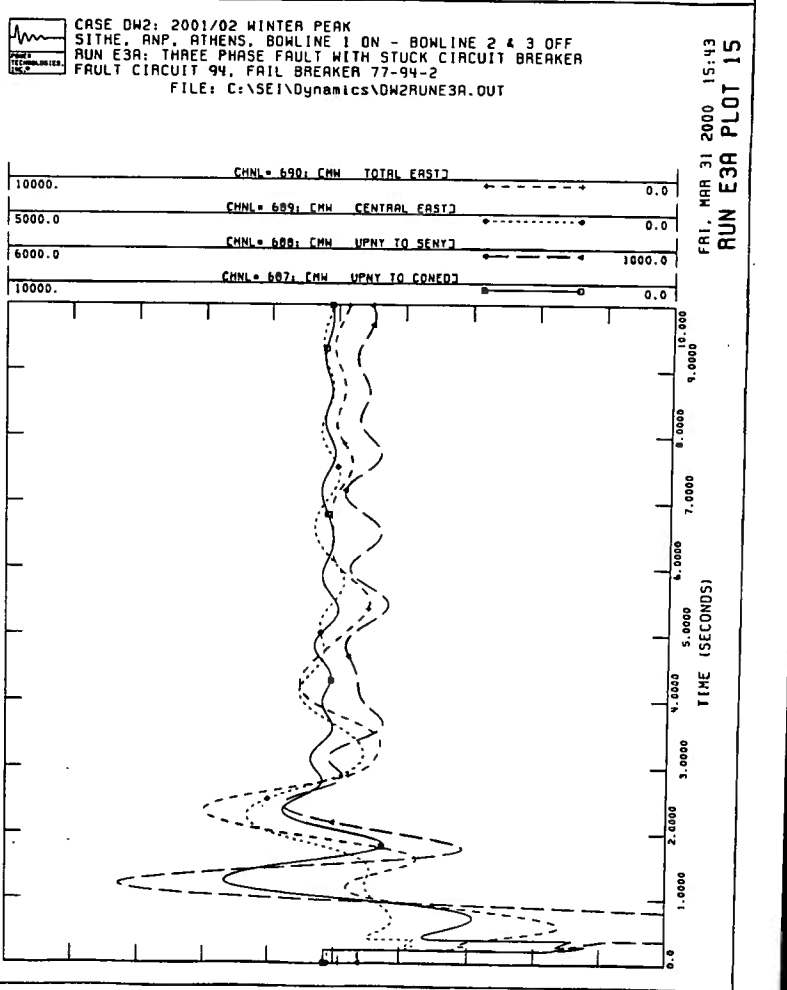


FRI, MAR 31 2000 15:43
RUN E3A PLOT 11


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:43
RUN E3A PLOT 14
TIME (SECONDS)


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 15:43
RUN E3A PLOT 16


CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:43
RUN E3A PLOT 13
TIME (SECONDS)

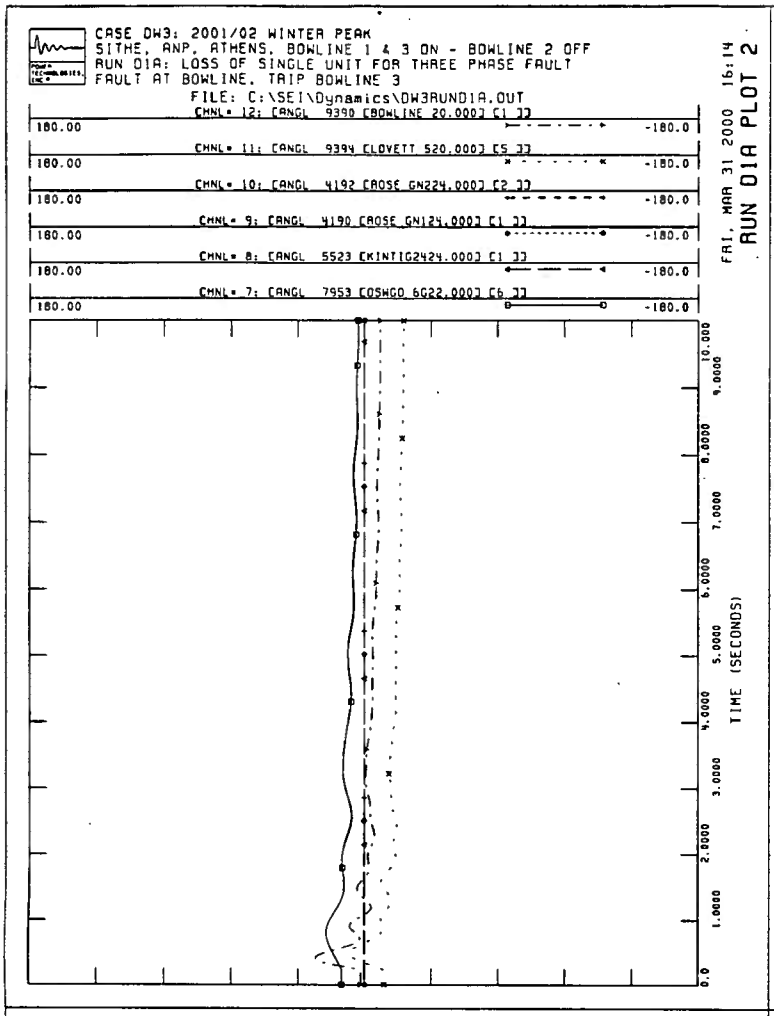

CASE DW2: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 ON - BOWLINE 2 & 3 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW2RUNE3A.OUT
FRI, MAR 31 2000 15:43
RUN E3A PLOT 15
TIME (SECONDS)

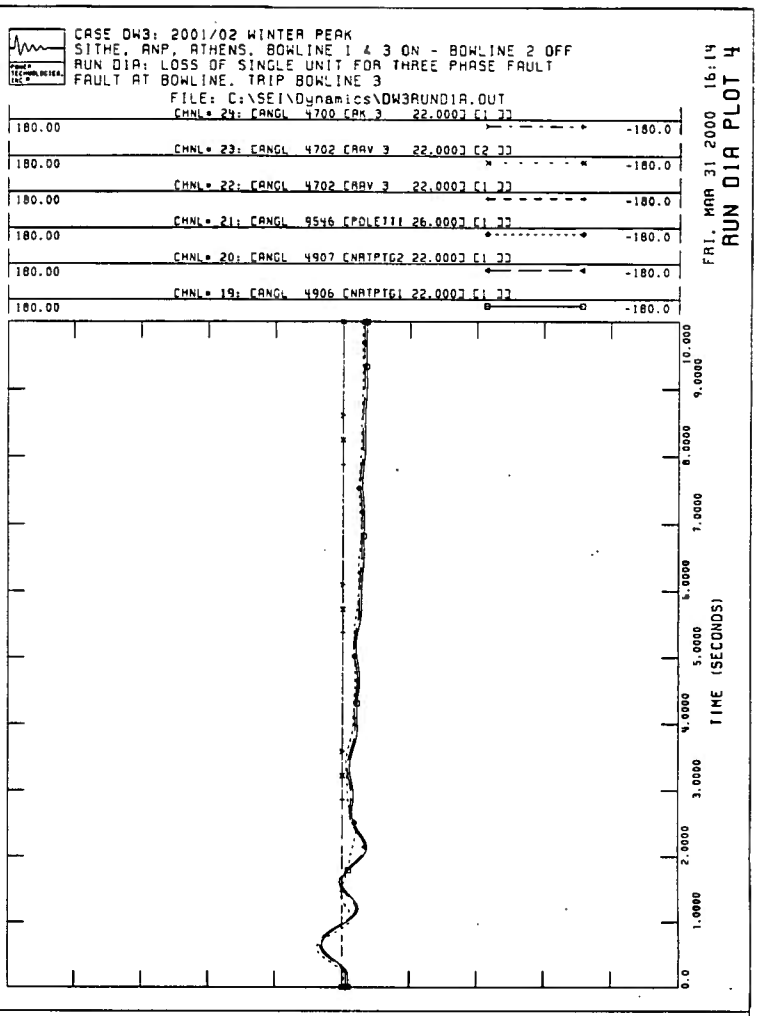
APPENDIX F.7 - Summer Peak Case DW3

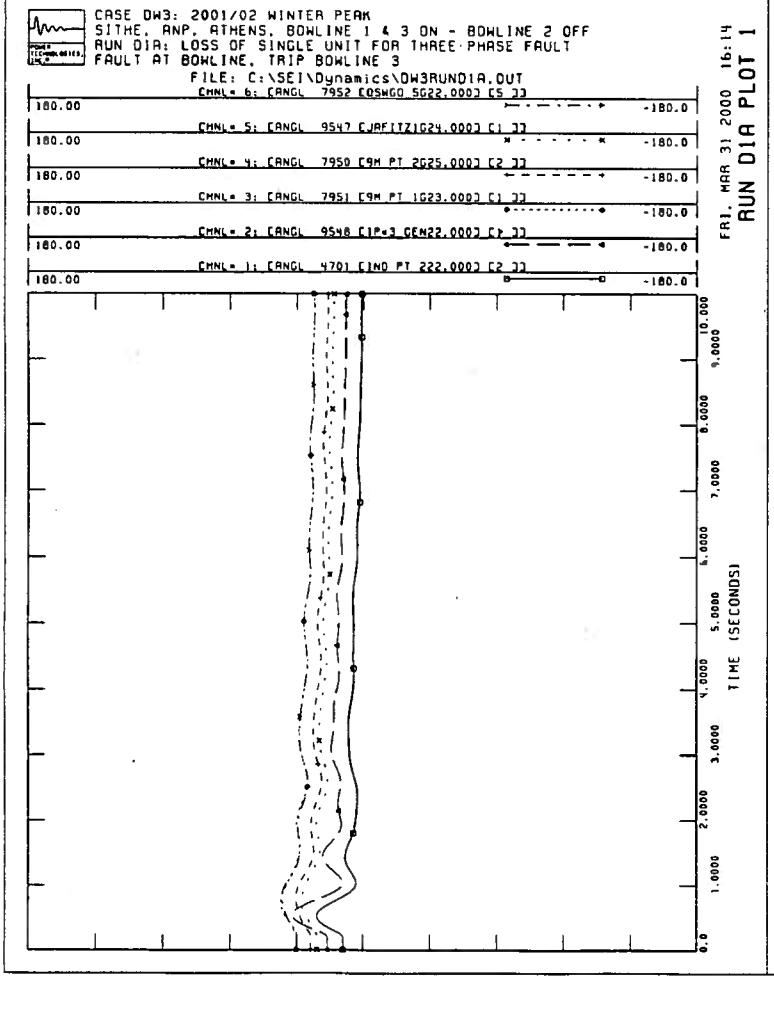
Bowline 1, 2 and 3, Athens, ANP and Sithe On-Line

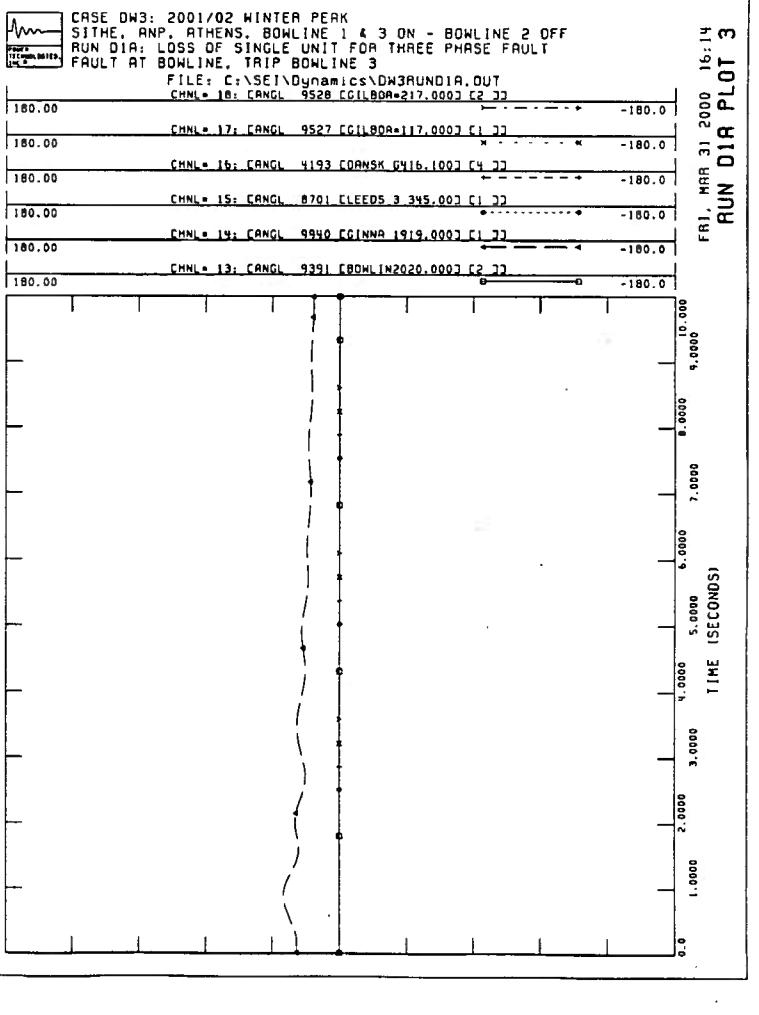
CONTINGENCY D1A

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4310 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BOWLINE
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9398                           / TRIP BOWLINE 3 ST
TRIP BRANCH FROM BUS 9398 TO BUS 4311 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

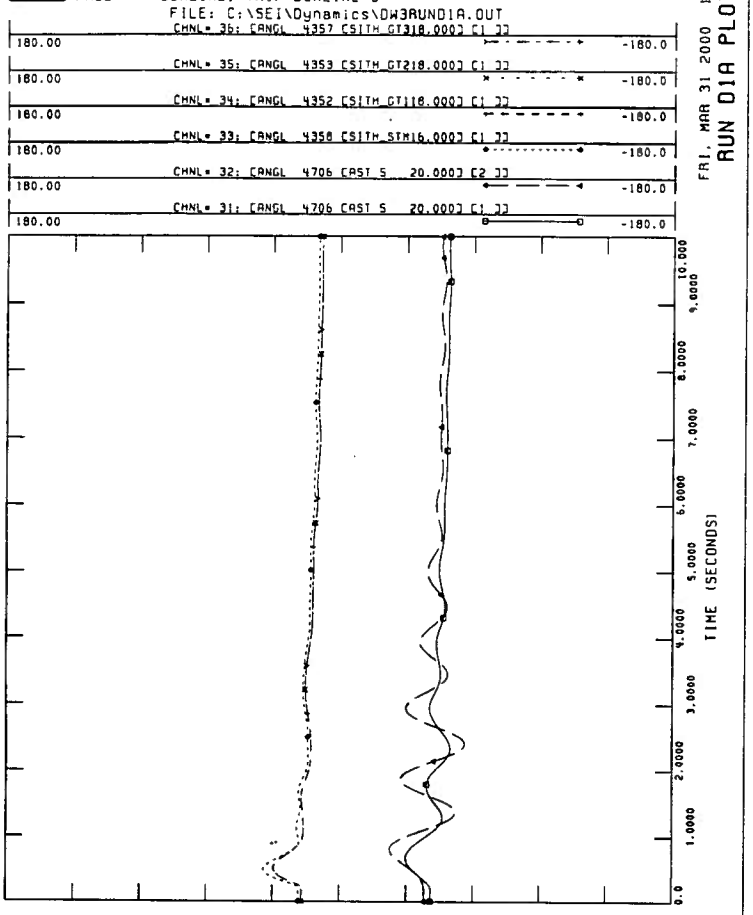

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D1A PLOT 2


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [ARV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [ARV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETIT 26.000] [1]]
CHNL= 20: CANGL 4907 [WATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [WATPTG1 22.000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D1A PLOT 4


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [1P*3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D1A PLOT 1

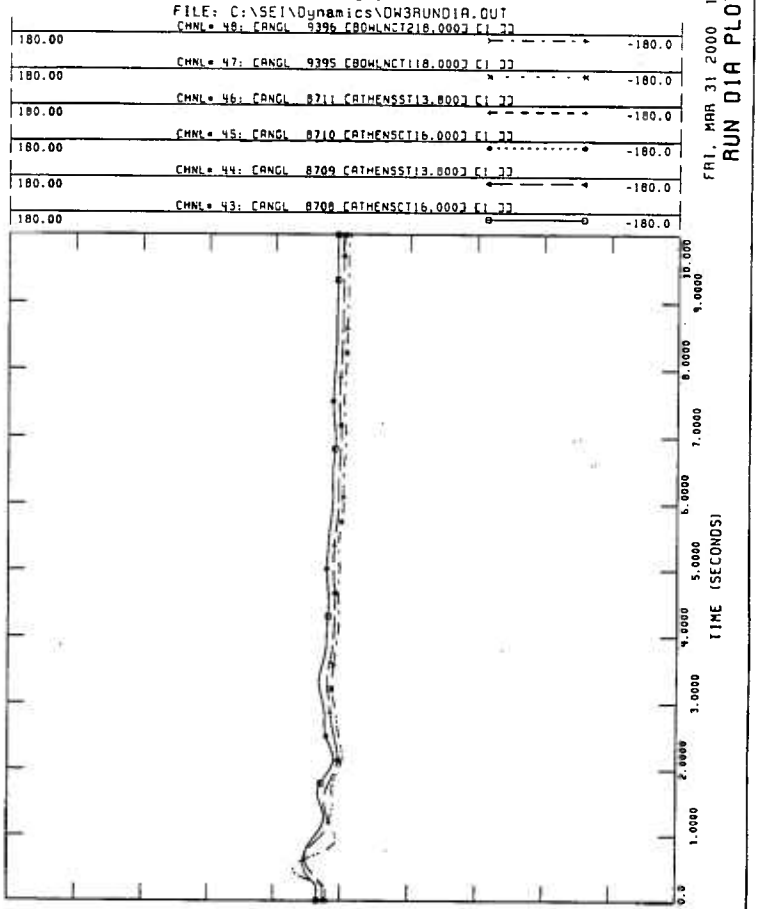

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D1A PLOT 3

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT



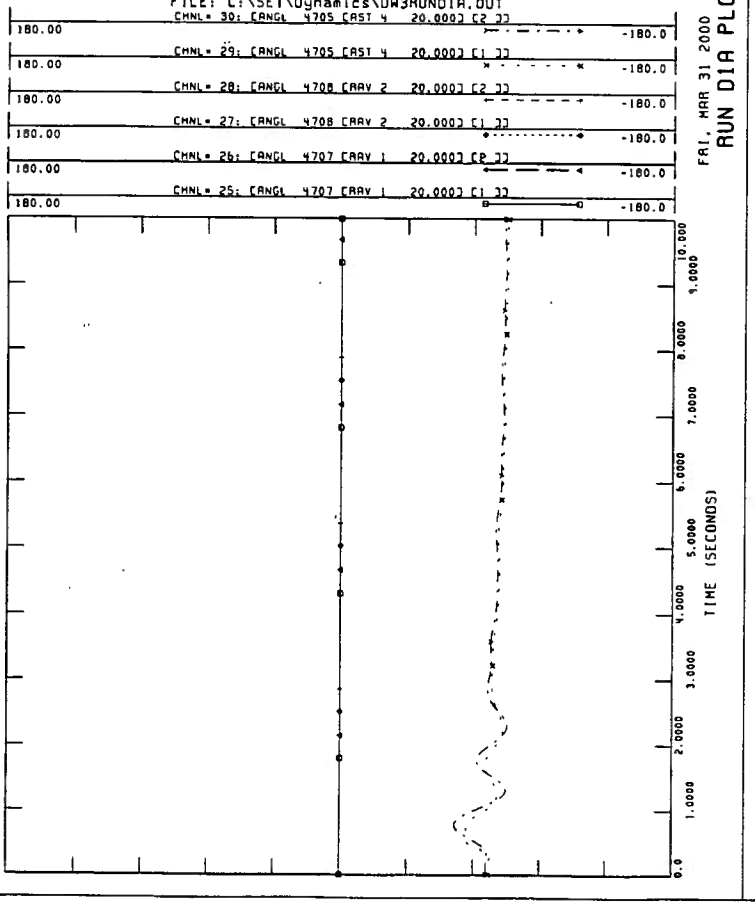
FRI, MAR 31 2000 16:14
RUN D1A PLOT 6

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT



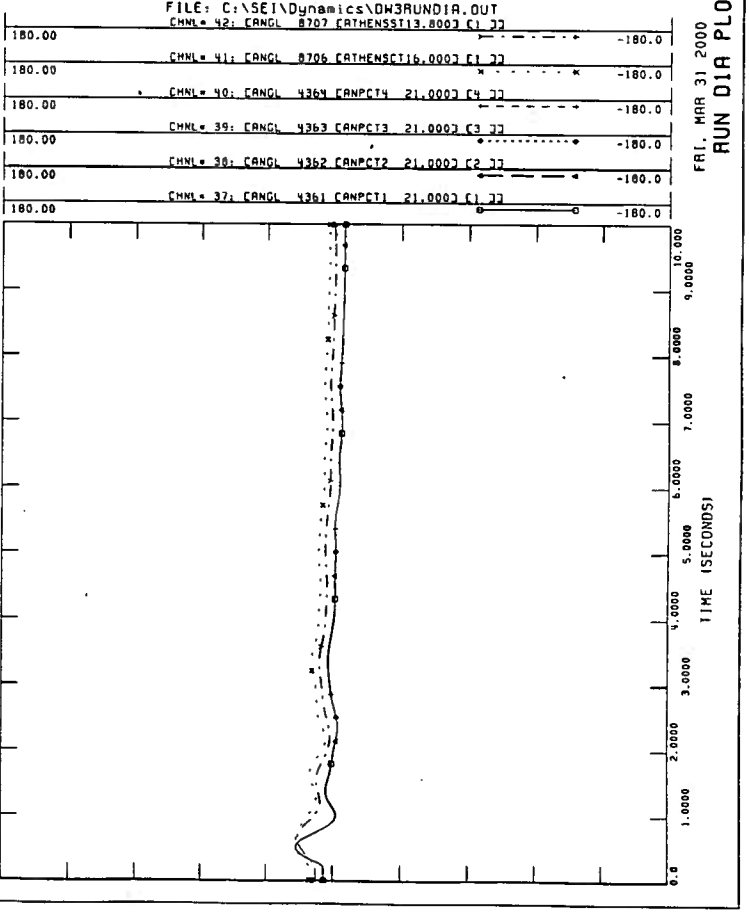
FRI, MAR 31 2000 16:14
RUN D1A PLOT 8

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT



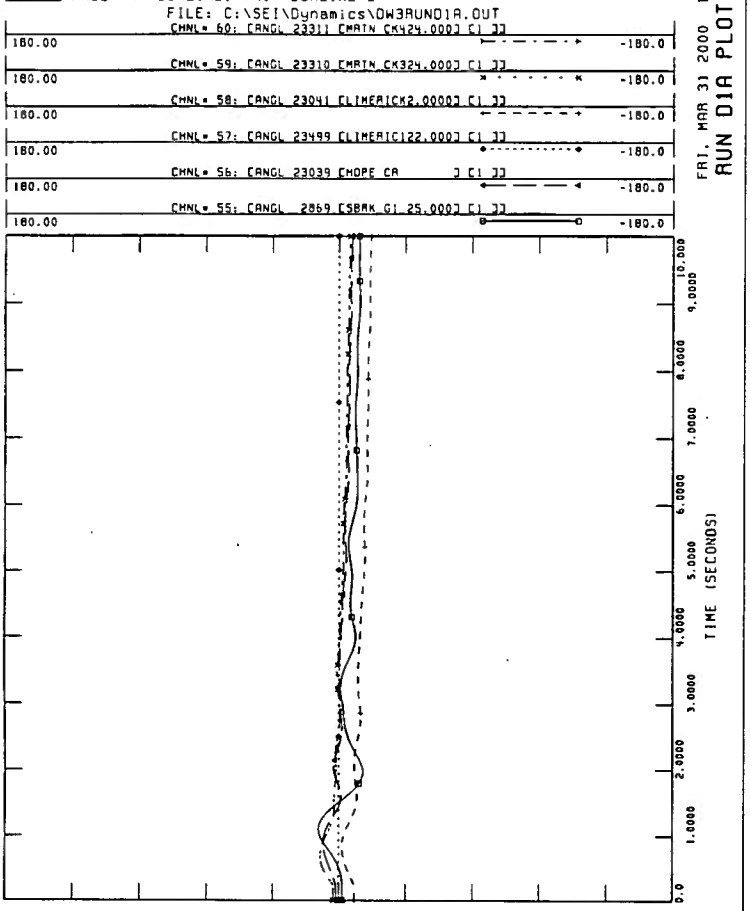
FRI, MAR 31 2000 16:14
RUN D1A PLOT 5

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT



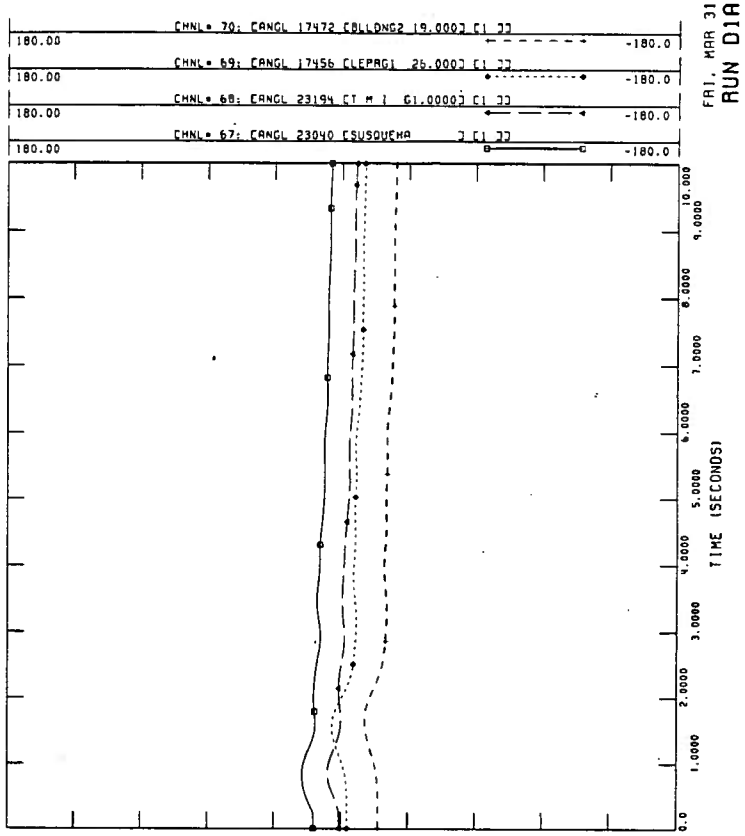
FRI, MAR 31 2000 16:14
RUN D1A PLOT 7

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT



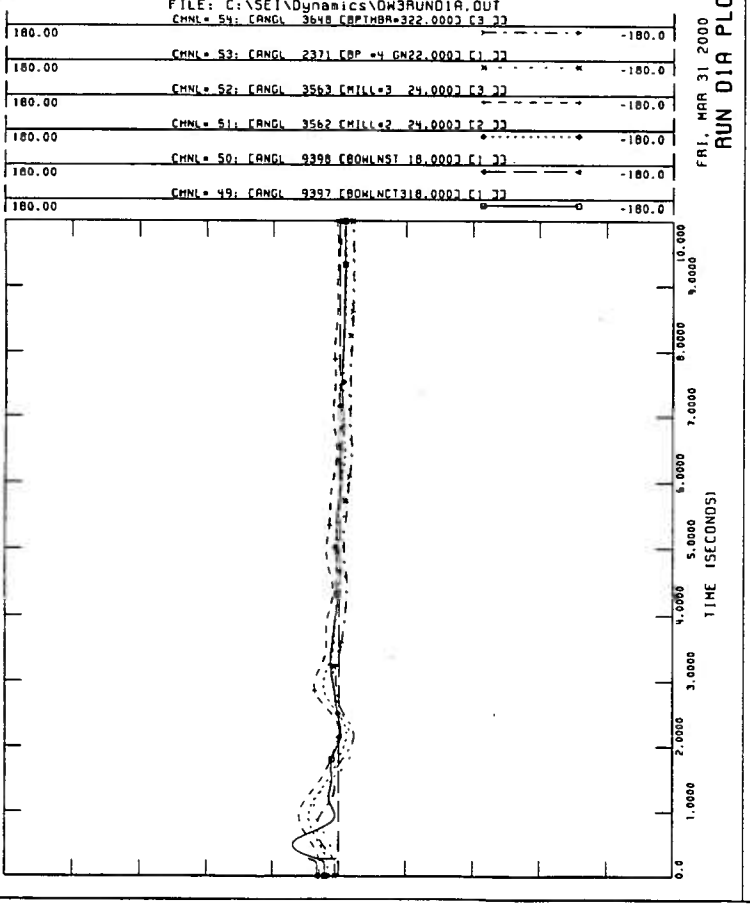
FRI, MAR 31 2000 16:14
RUN D1A PLOT 10

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT



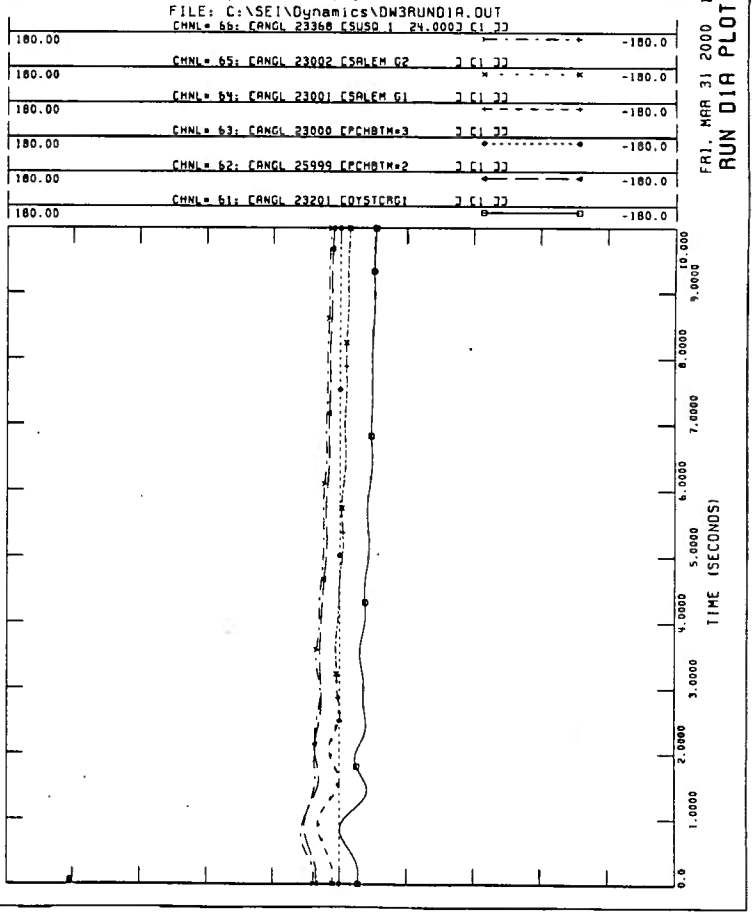
FRI, MAR 31 2000 16:14
RUN D1A PLOT 12

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT

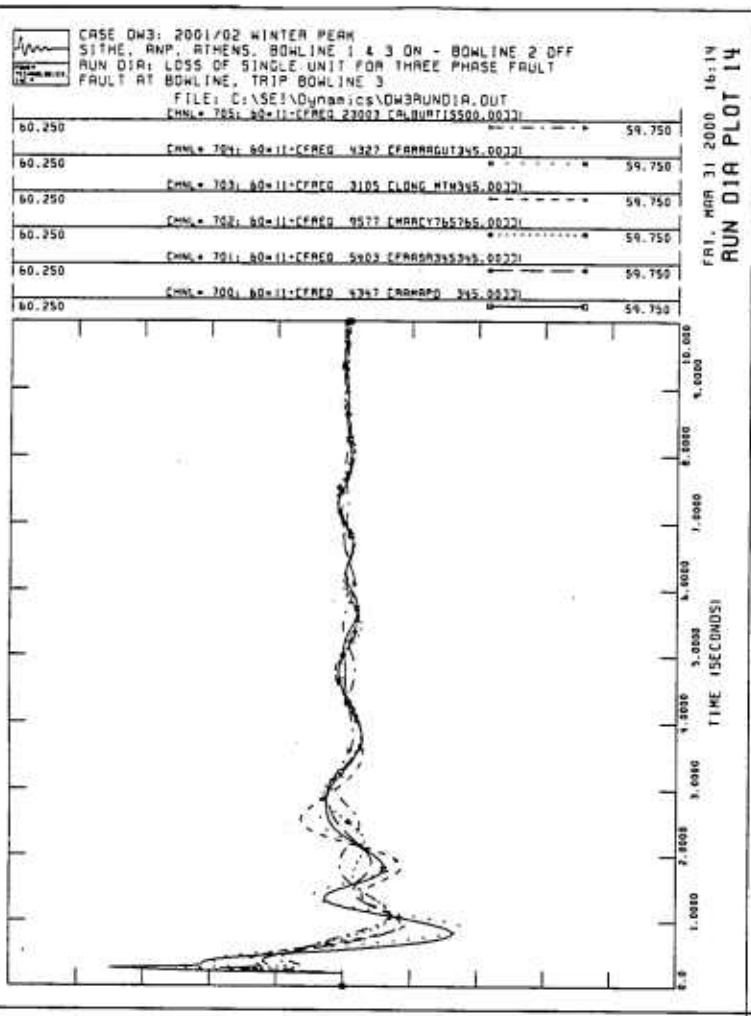


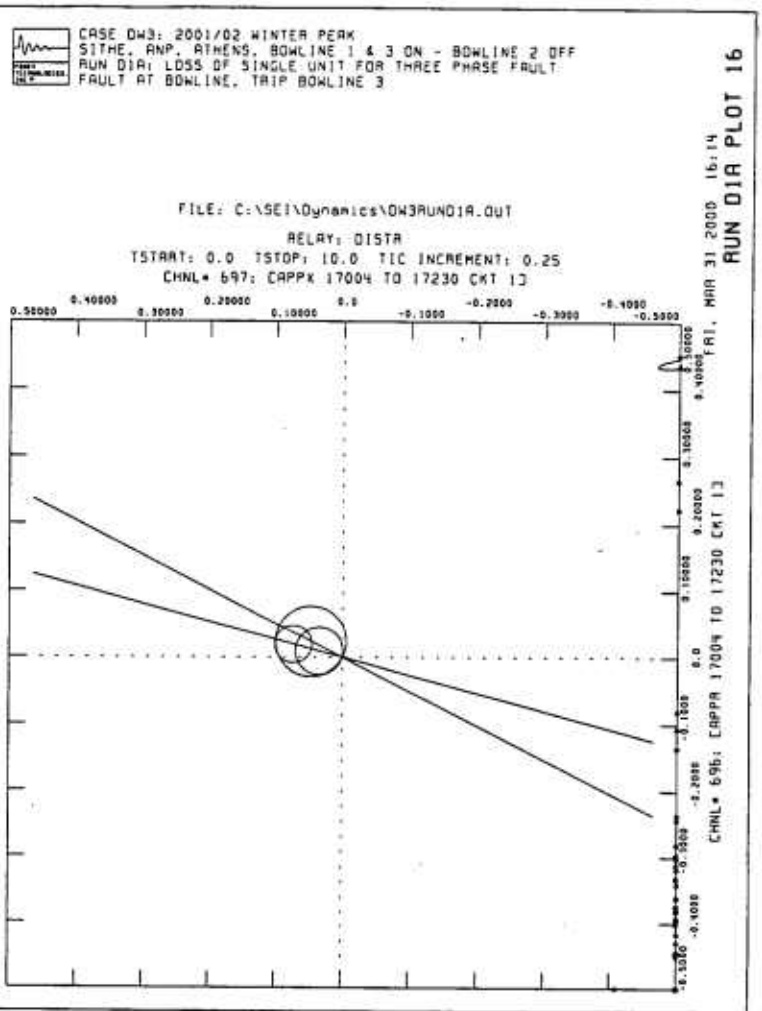
FRI, MAR 31 2000 16:14
RUN D1A PLOT 9

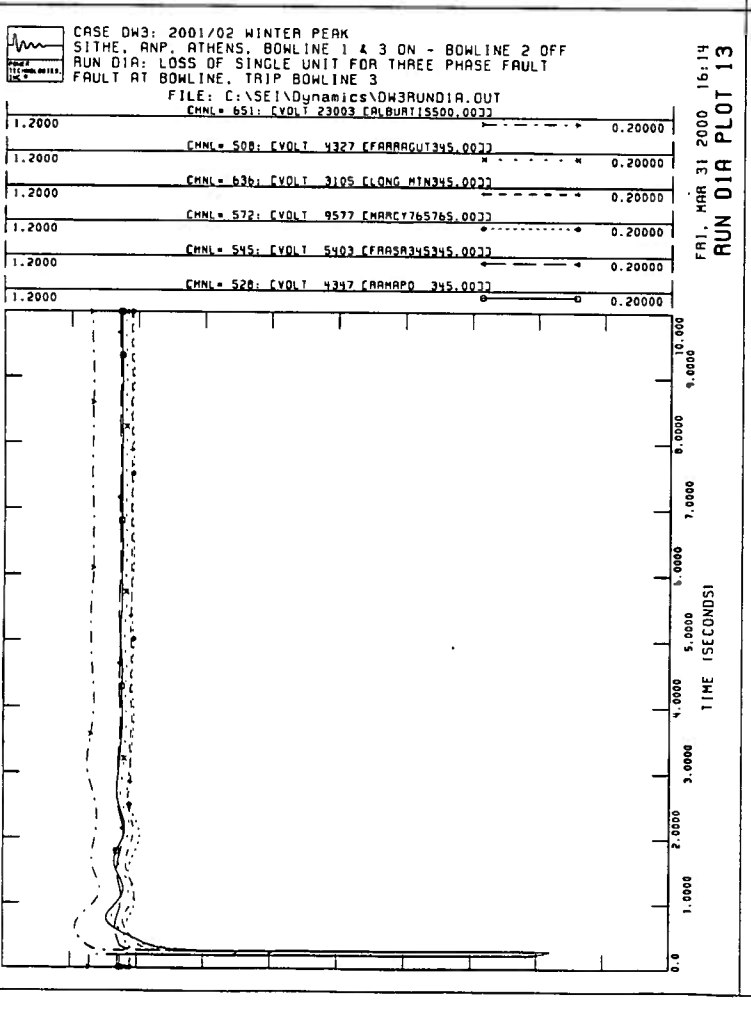
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT

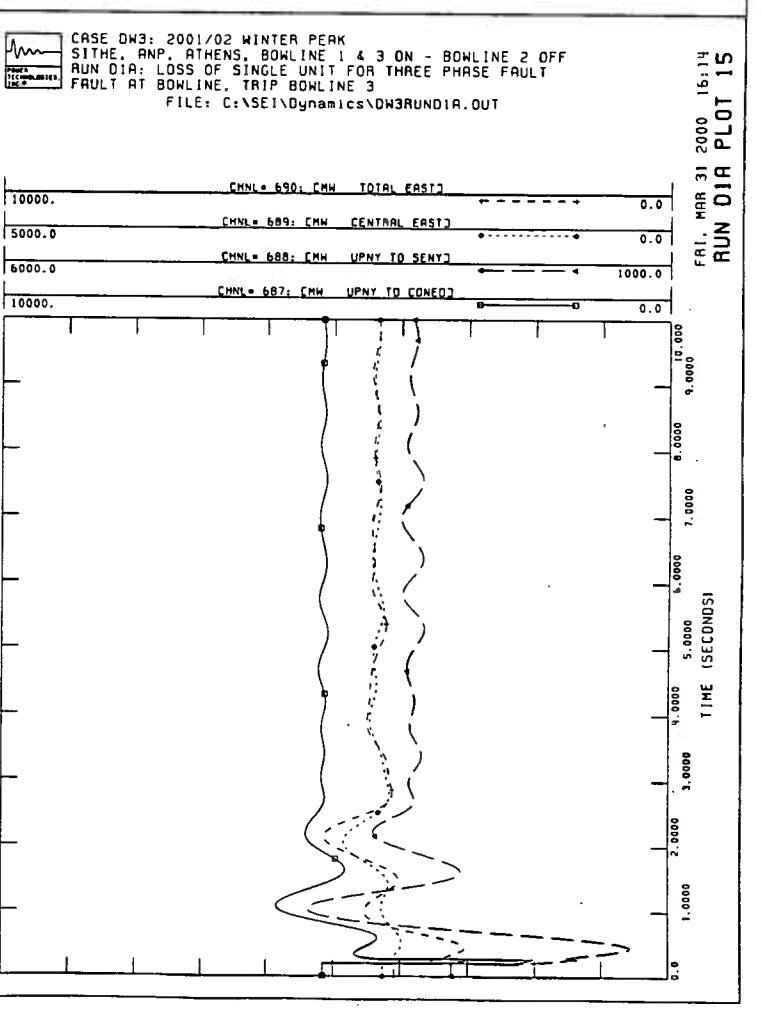


FRI, MAR 31 2000 16:14
RUN D1A PLOT 11


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
FRI, MAR 31 2000 16:14
RUN D1A PLOT 14
TIME (SECONDS)

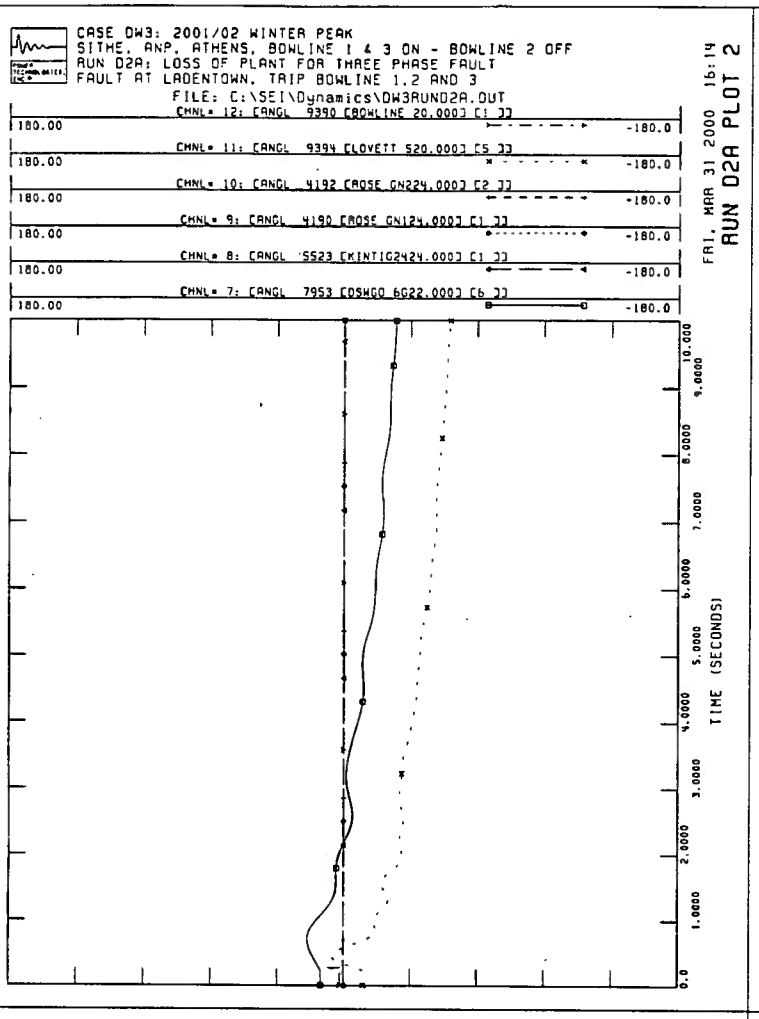

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 16:14
RUN D1A PLOT 16

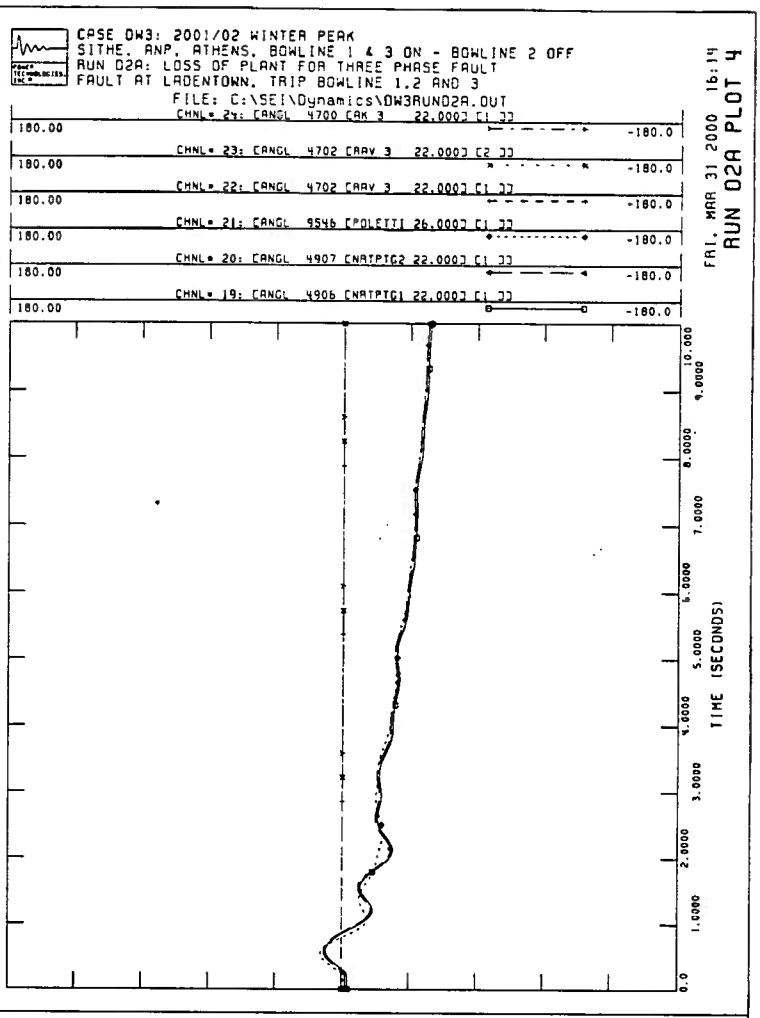

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
FRI, MAR 31 2000 16:14
RUN D1A PLOT 13
TIME (SECONDS)

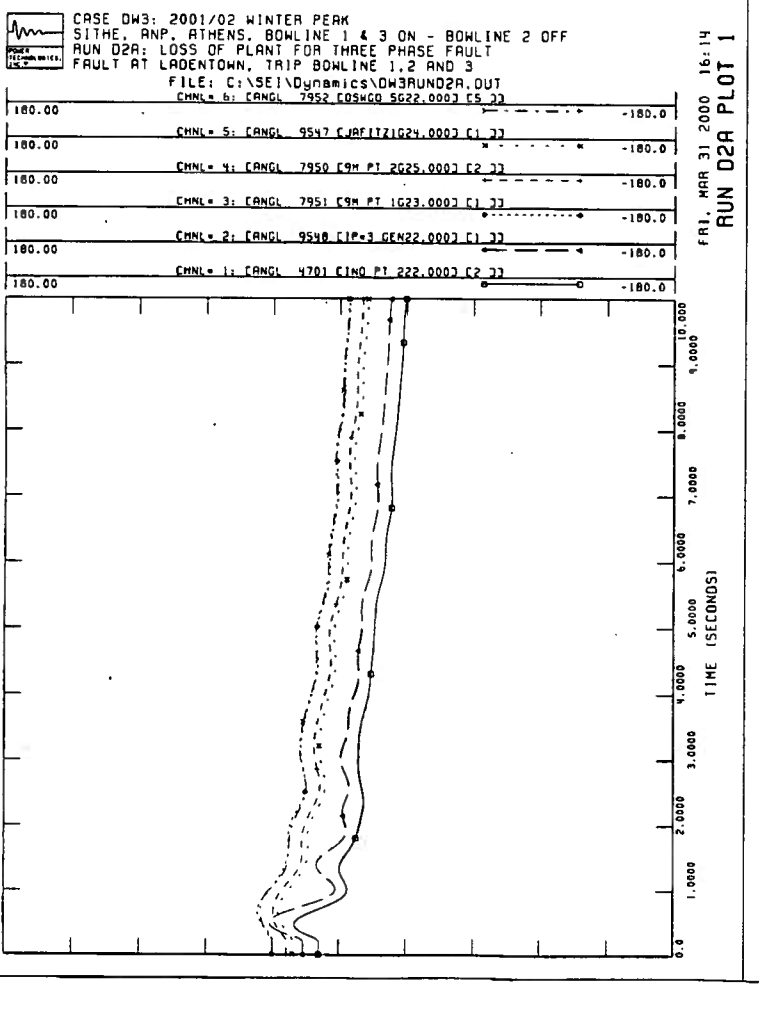

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW3RUND1A.OUT
FRI, MAR 31 2000 16:14
RUN D1A PLOT 15
TIME (SECONDS)

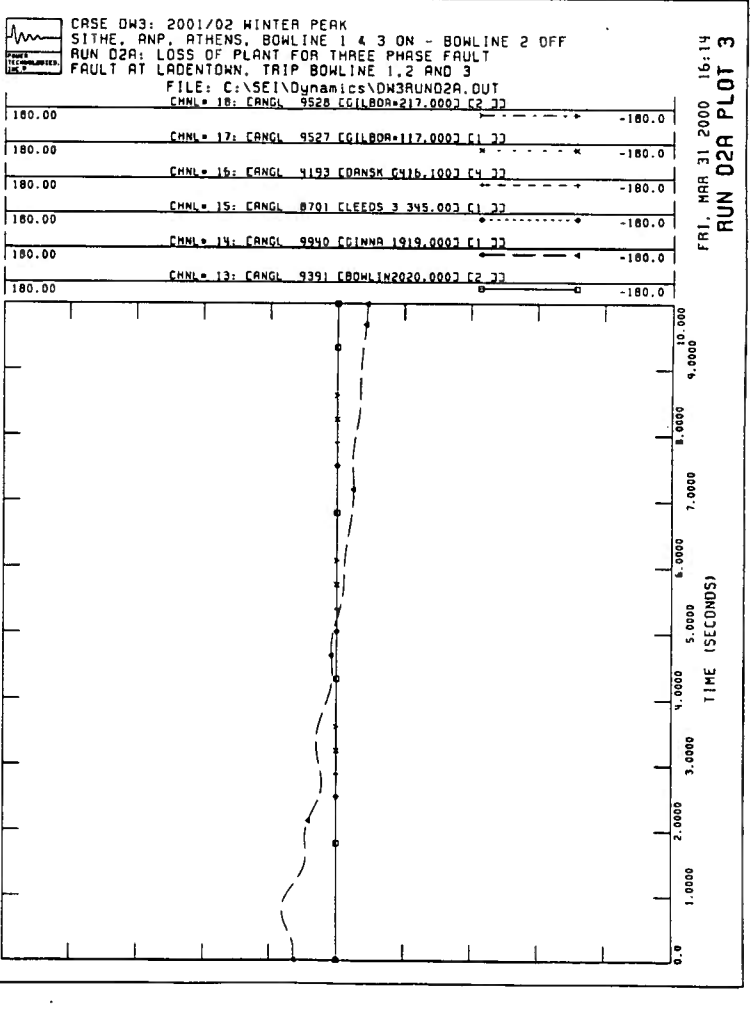
CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                           / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                           / TRIP BOWLINE 2
DROP GENERATOR 1 AT BUS 9395                           / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9396                           / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9397                           / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9398                           / TRIP BOWLINE 3 ST
DISCONNECT BUS 9300                                /
DISCONNECT BUS 9301                                /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWEGO 6G22.000] [6]]
180.00
-180.0
FRI, MAR 31 2000 16:14
RUN D2A PLOT 2
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

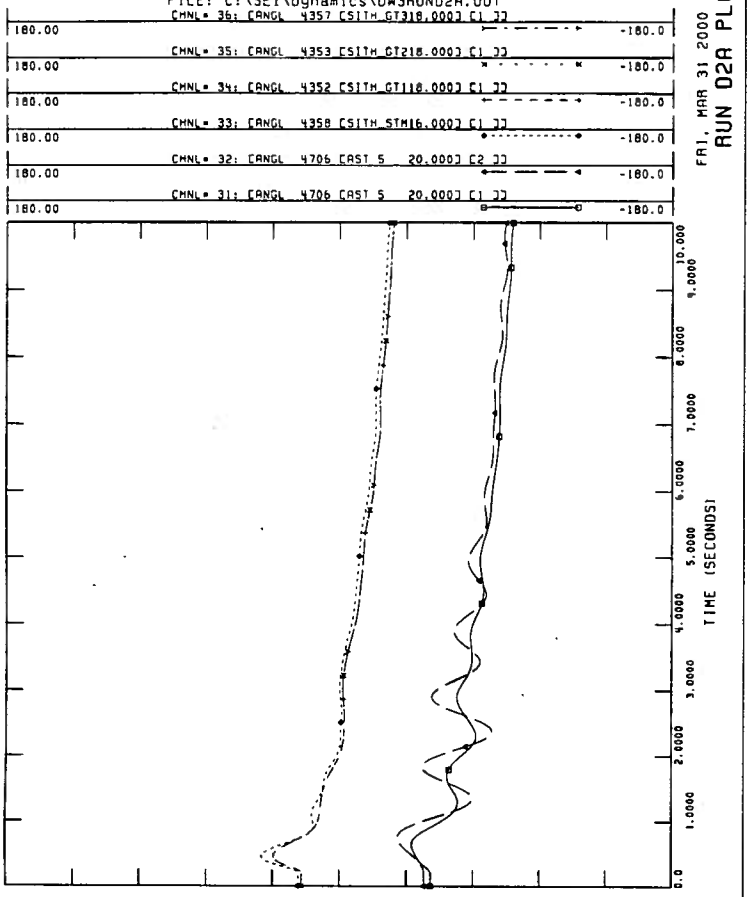

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [ARV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [ARV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:14
RUN D2A PLOT 4
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 6: CANGL 7952 [OSWEGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZIG24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP-3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [INO PT 222.000] [2]]
180.00
-180.0
FRI, MAR 31 2000 16:14
RUN D2A PLOT 1
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 18: CANGL 9528 [GI(LBDA=217.000] [2]]
CHNL= 17: CANGL 9527 [GI(LBDA=117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
FRI, MAR 31 2000 16:14
RUN D2A PLOT 3
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

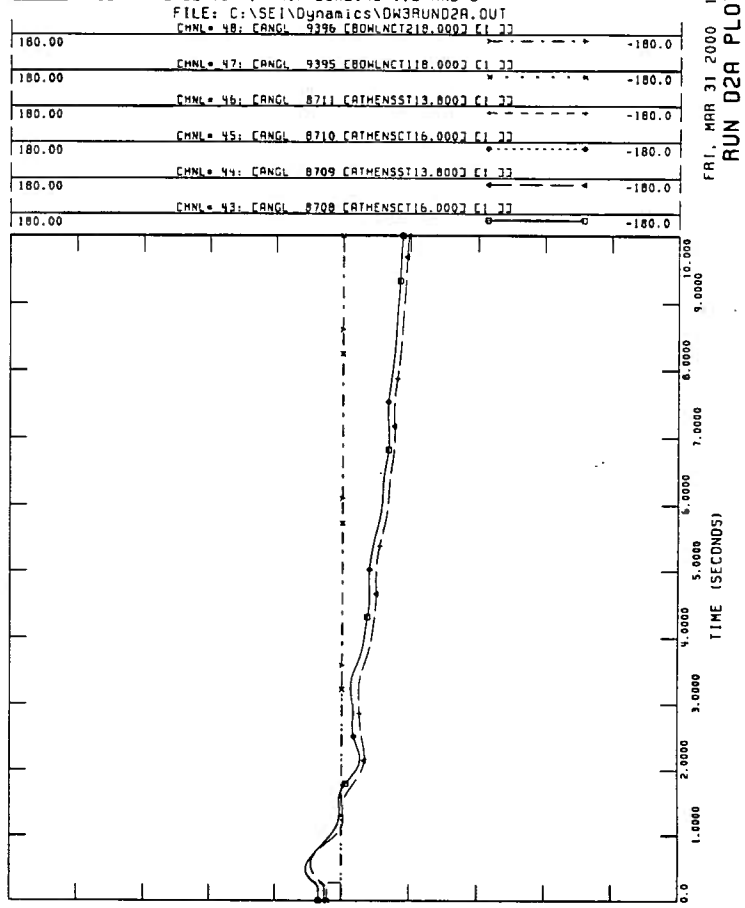
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT

FRI, MAR 31 2000 16:14
RUN D2A PLOT 6



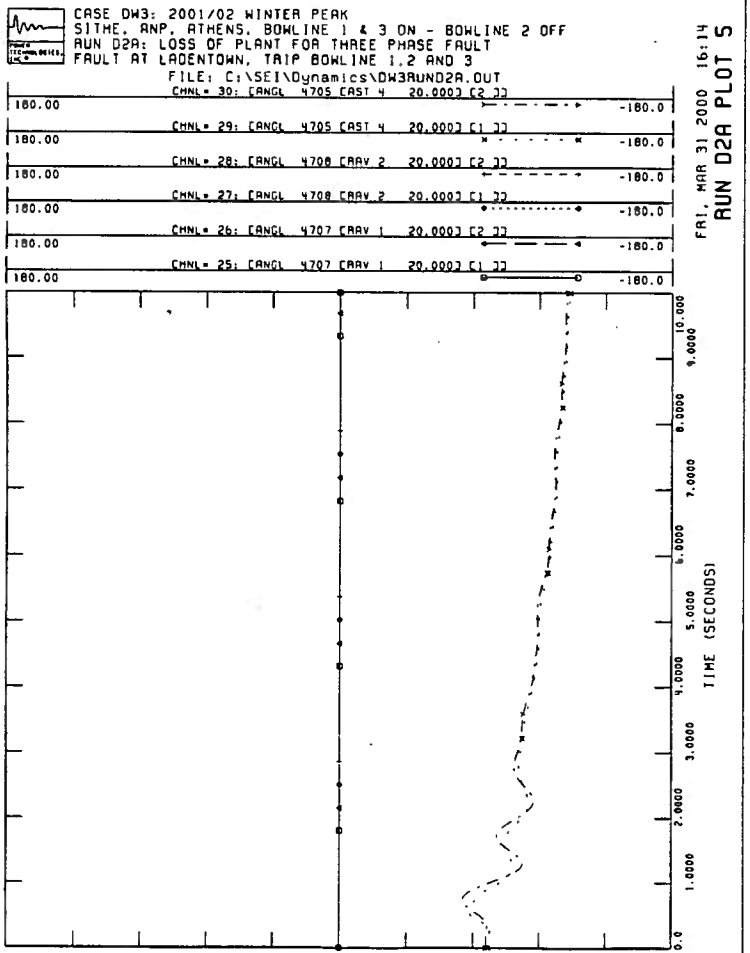
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT

FRI, MAR 31 2000 16:14
RUN D2A PLOT 8



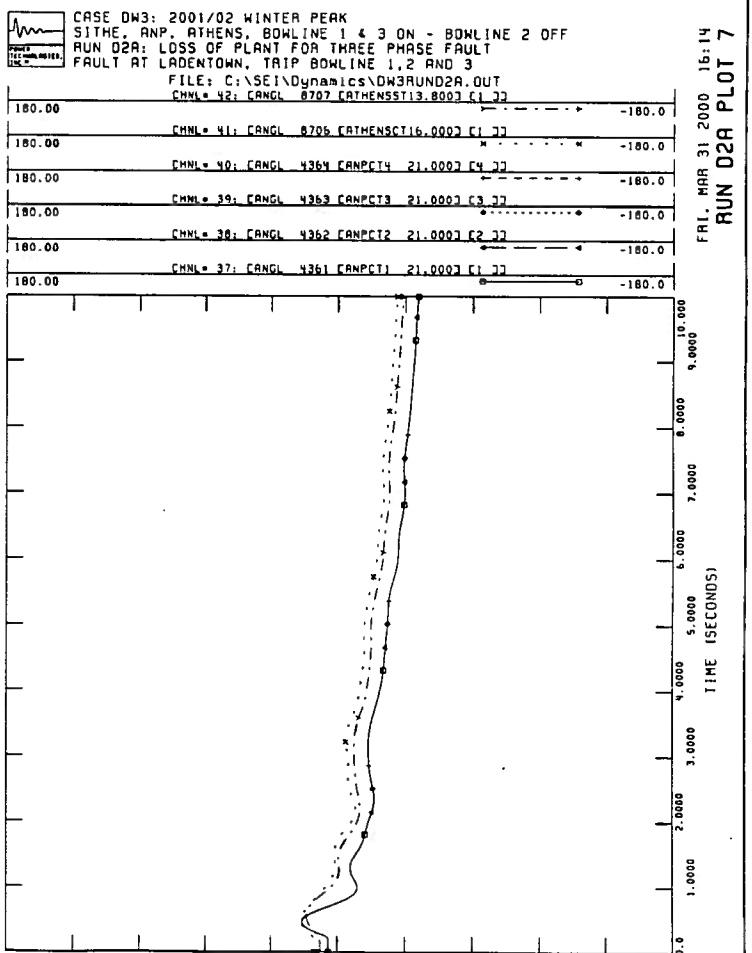
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT

FRI, MAR 31 2000 16:14
RUN D2A PLOT 5

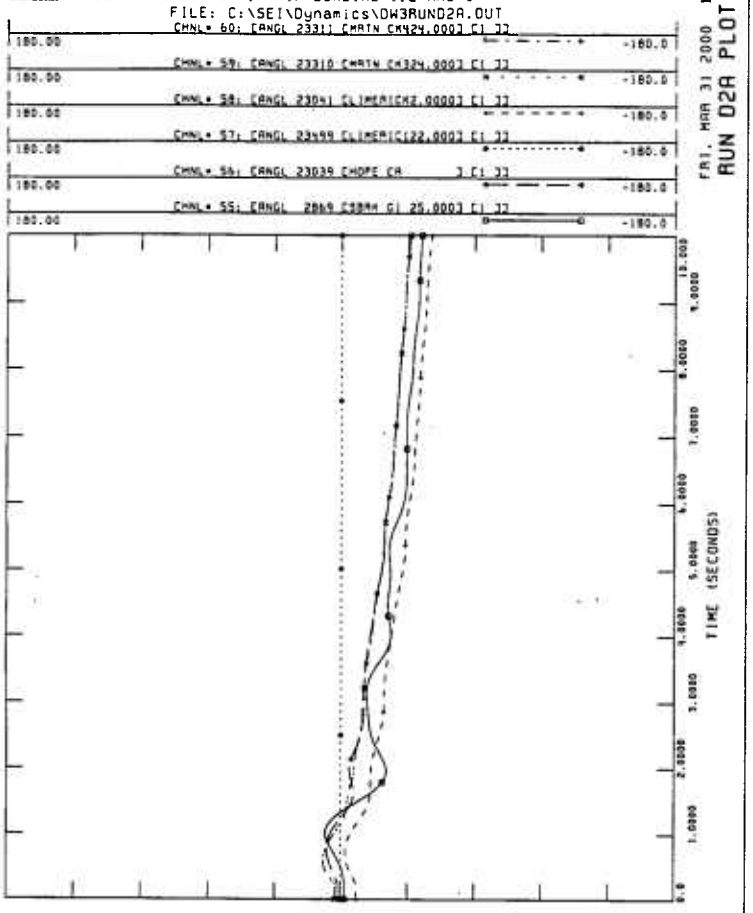


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT

FRI, MAR 31 2000 16:14
RUN D2A PLOT 7

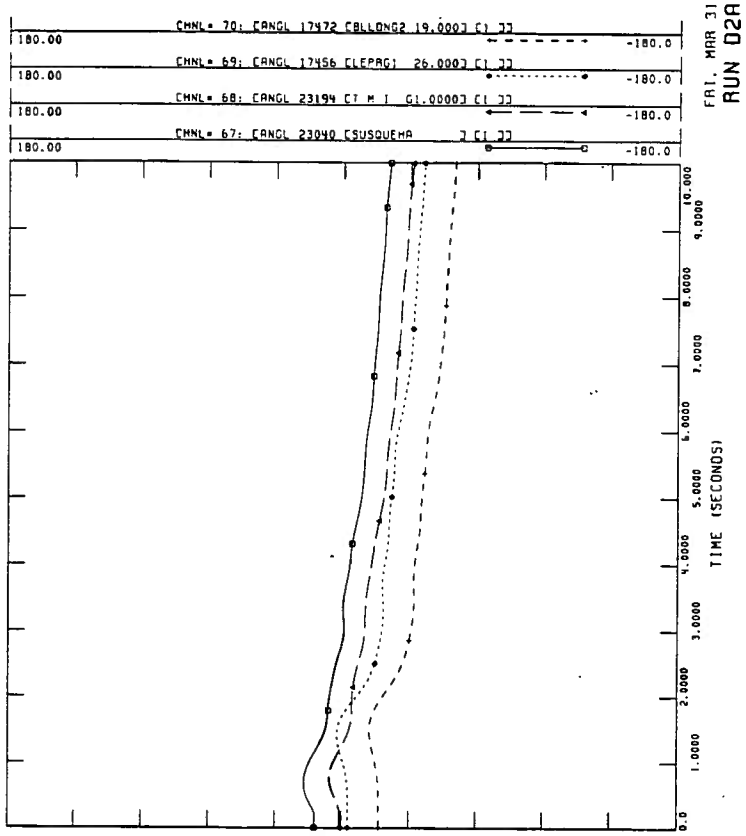


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT



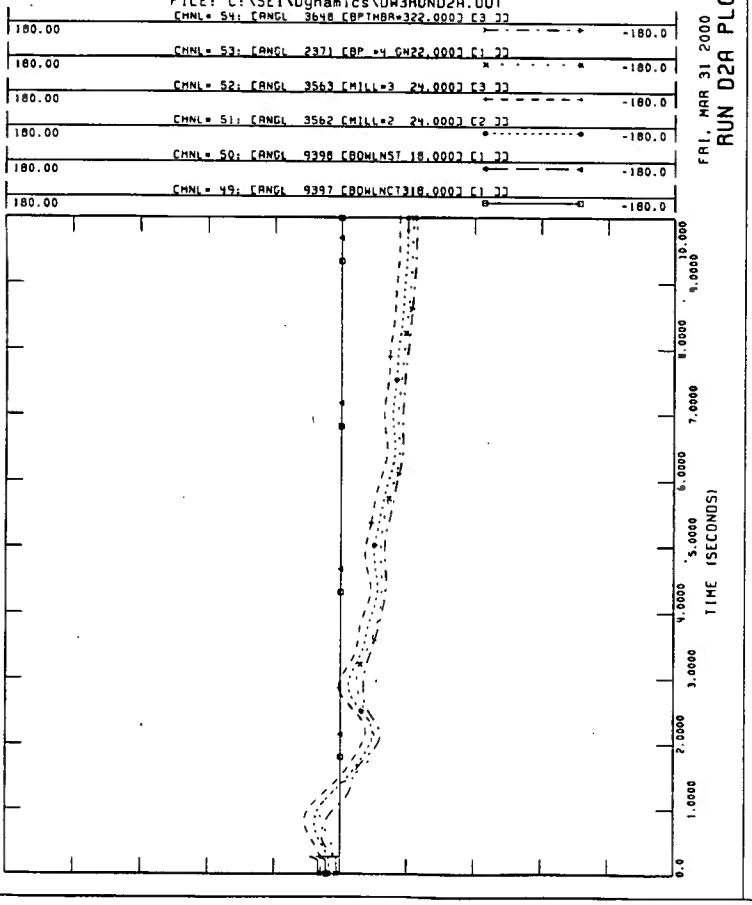
FRI, MAR 31 2000 16:14
RUN D2A PLOT 10

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT



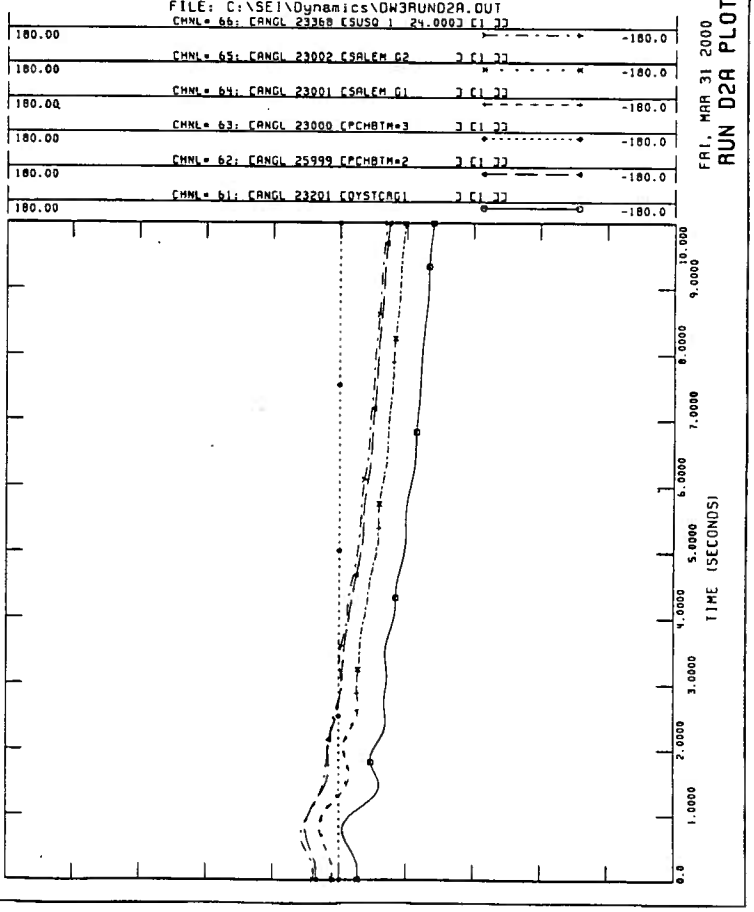
FRI, MAR 31 2000 16:14
RUN D2A PLOT 12

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT

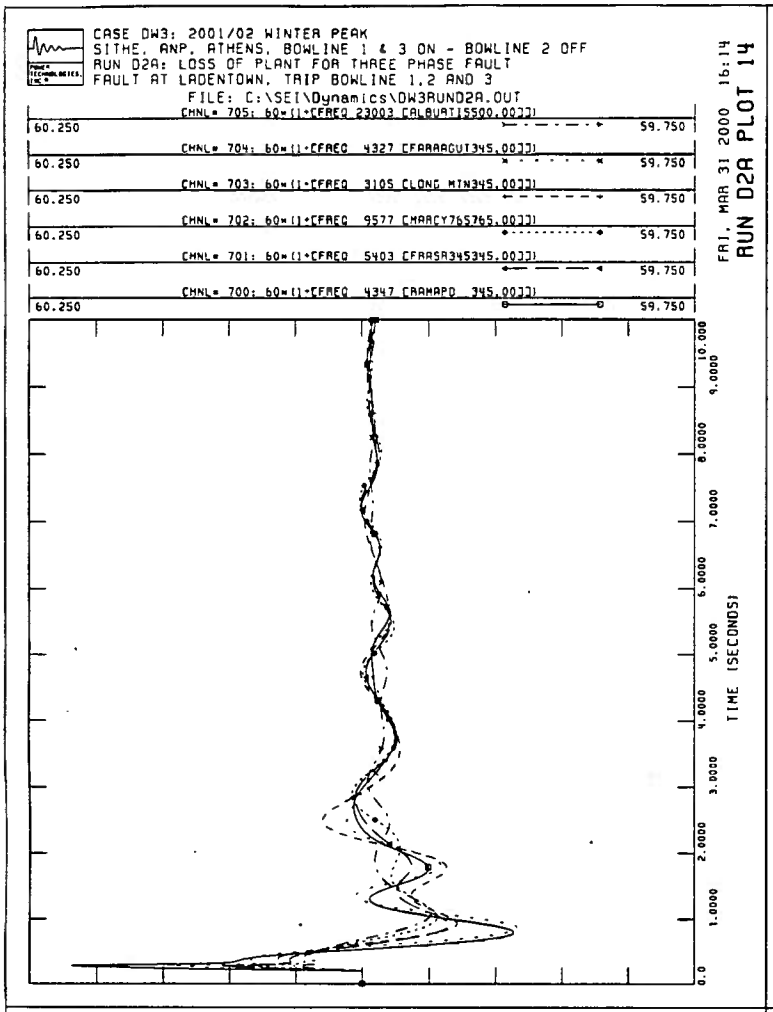


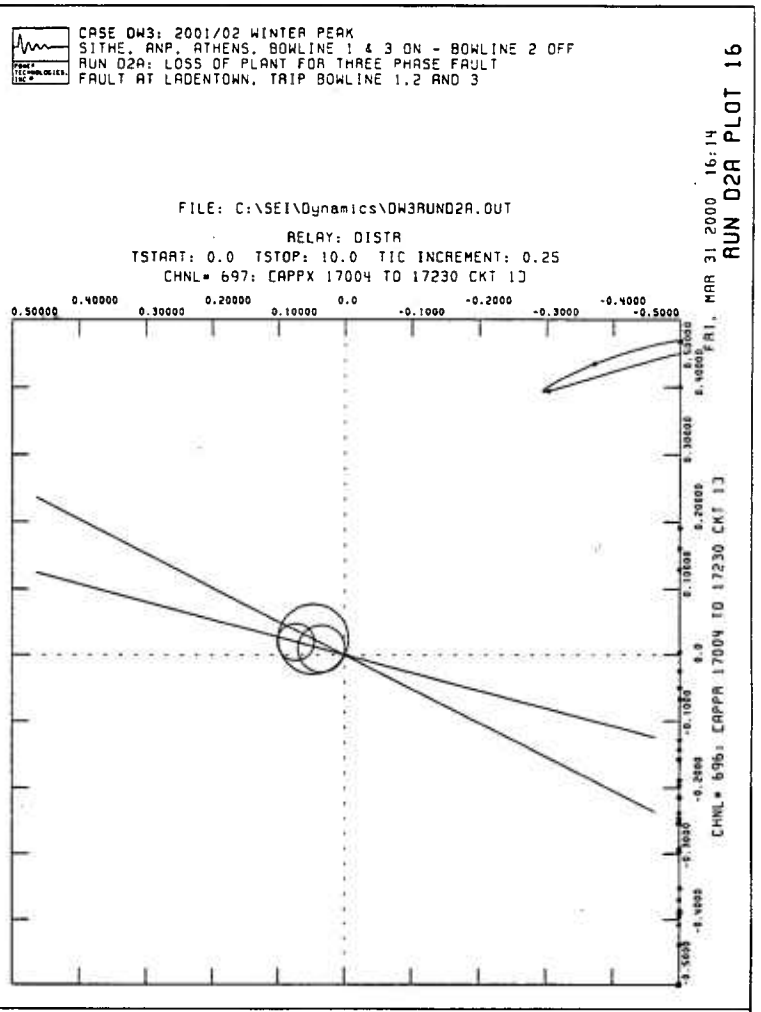
FRI, MAR 31 2000 16:14
RUN D2A PLOT 9

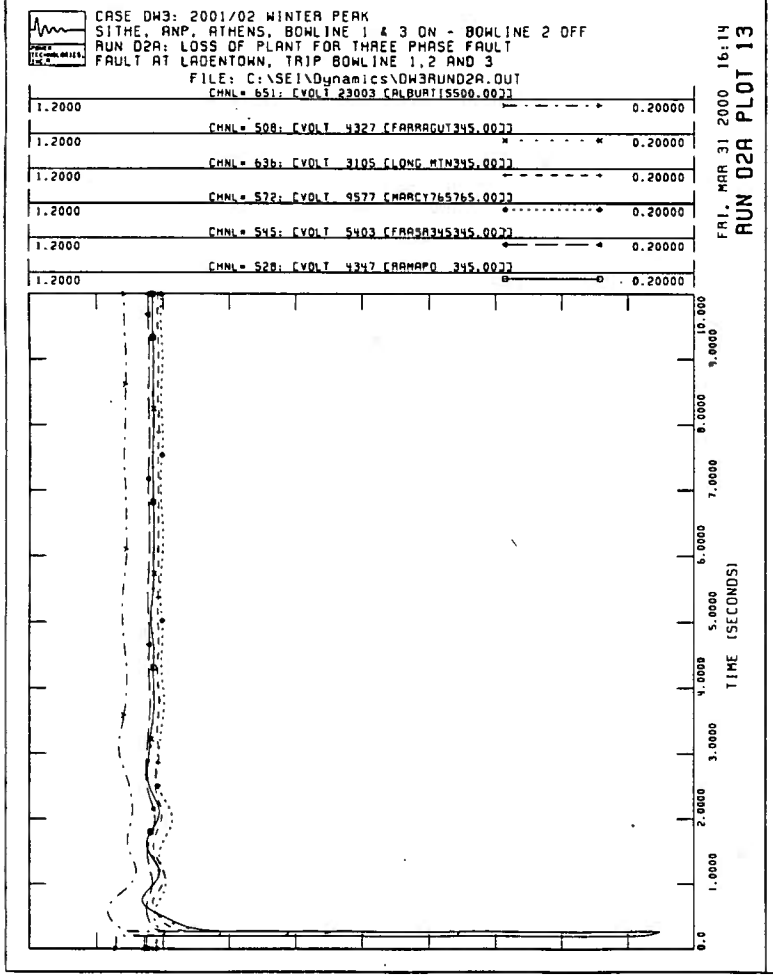
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT

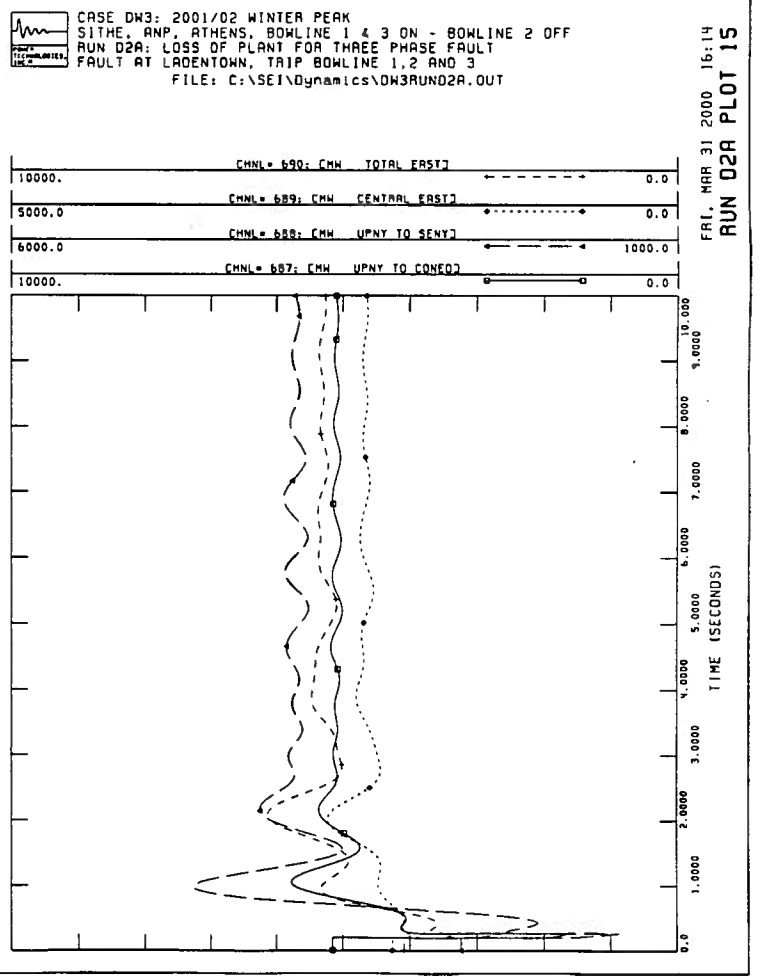


FRI, MAR 31 2000 16:14
RUN D2A PLOT 11


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 705: 60*()*CFREQ 23003 CALBUAT[5500.000]
CHNL= 704: 60*()*CFREQ 4327 CFARRAGUT345.000]
CHNL= 703: 60*()*CFREQ 3105 CLONG MTN345.000]
CHNL= 702: 60*()*CFREQ 9577 CMARCY765765.000]
CHNL= 701: 60*()*CFREQ 5403 CFRASR345345.000]
CHNL= 700: 60*()*CFREQ 4347 CRAMAPO 345.000]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D2A PLOT 14


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPA 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:14
RUN D2A PLOT 16


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 651: CVOLT 23003 CALBUAT[5500.000]
CHNL= 508: CVOLT 4327 CFARRAGUT345.000]
CHNL= 636: CVOLT 3105 CLONG MTN345.000]
CHNL= 572: CVOLT 9577 CMARCY765765.000]
CHNL= 545: CVOLT 5403 CFRASR345345.000]
CHNL= 528: CVOLT 4347 CRAMAPO 345.000]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D2A PLOT 13


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW3RUND2A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:14
RUN D2A PLOT 15

CONTINGENCY D3A

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                          / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 CDSWGD 6G22.000] C6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 16:15
RUN D3A PLOT 2

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

CHNL= 24: CANGL 4700 CAK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CAAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CAAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT] 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 16:15
RUN D3A PLOT 4

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

CHNL= 6: CANGL 7952 CDSWGD 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFLITG1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 C1P=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 16:15
RUN D3A PLOT 1

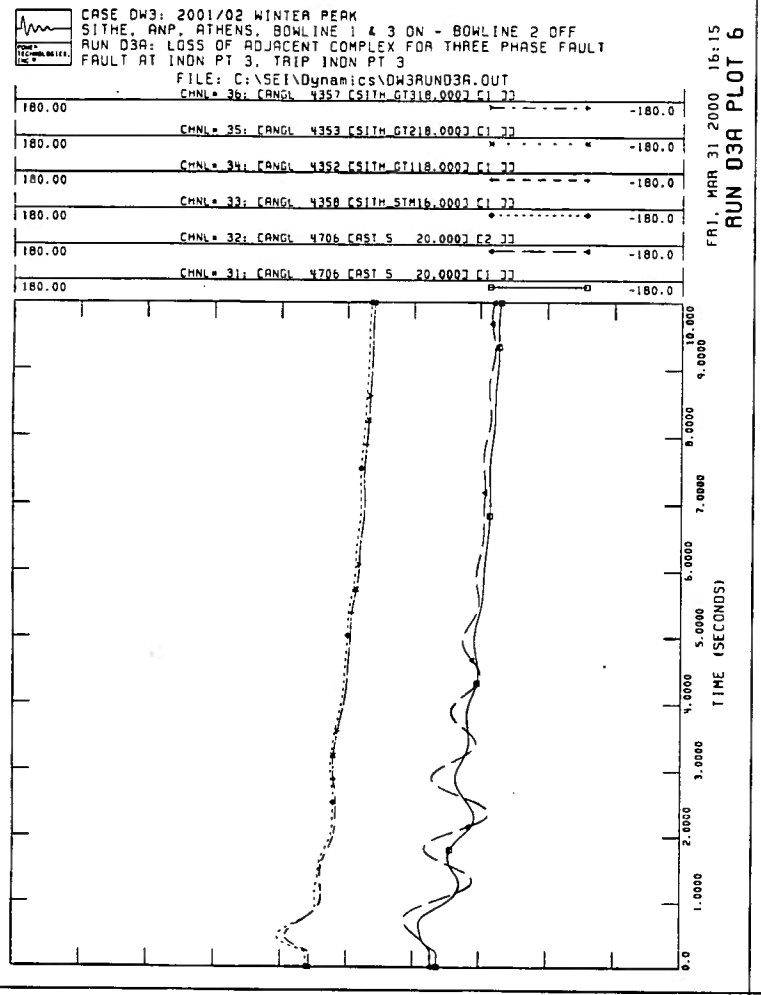
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

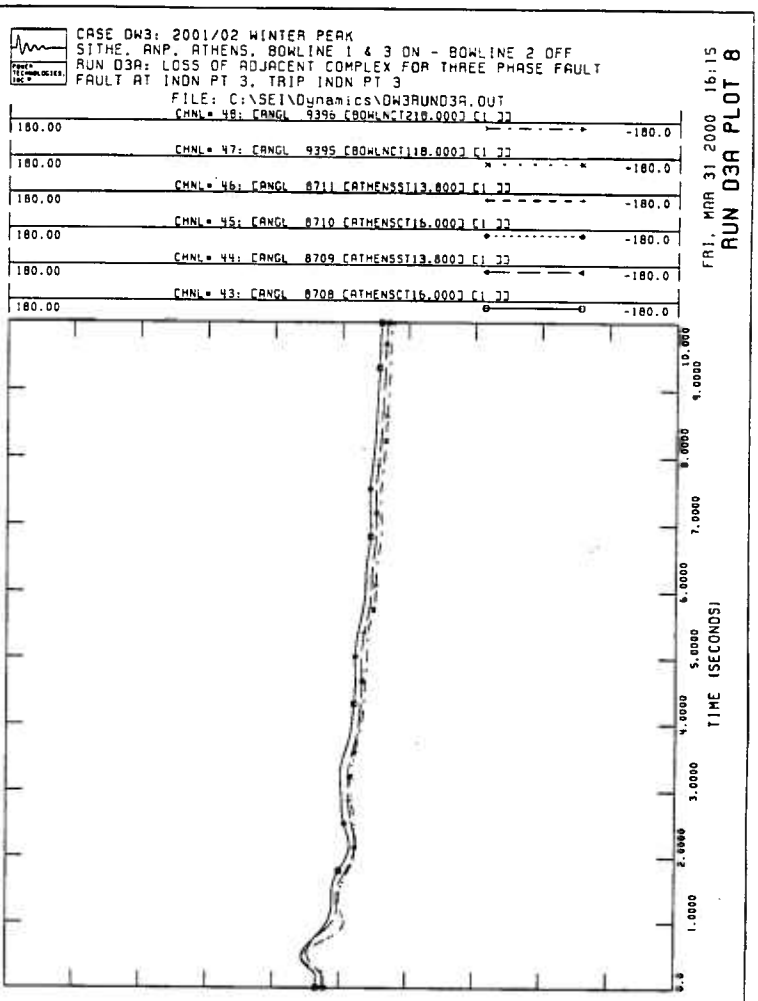
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

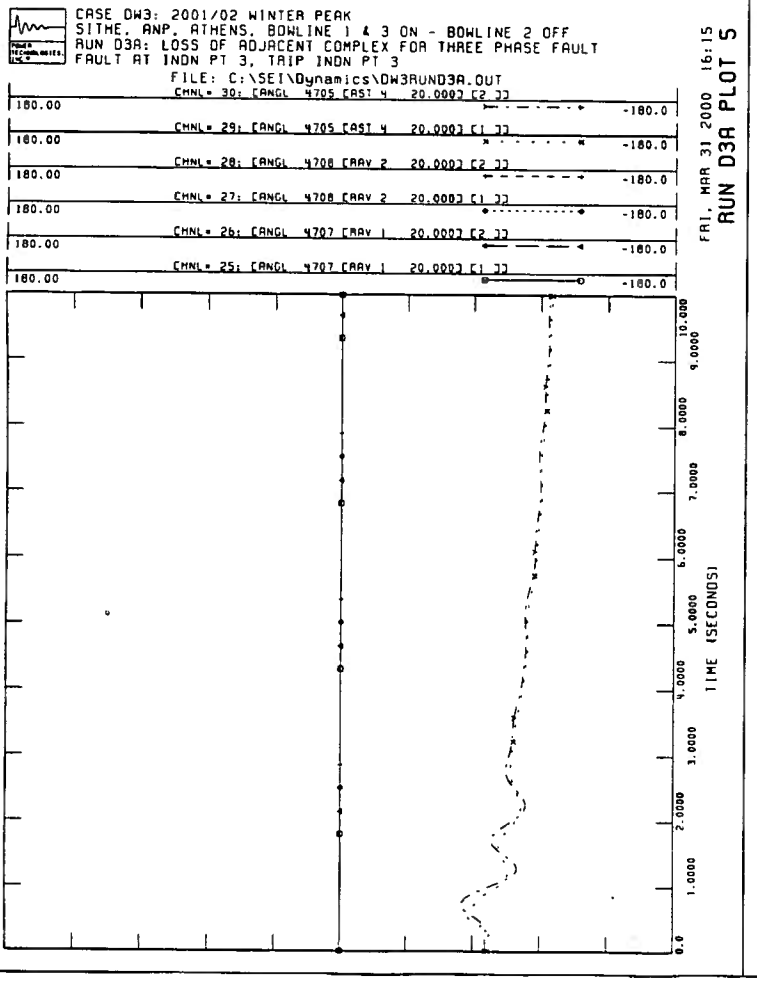
180.00 -180.0

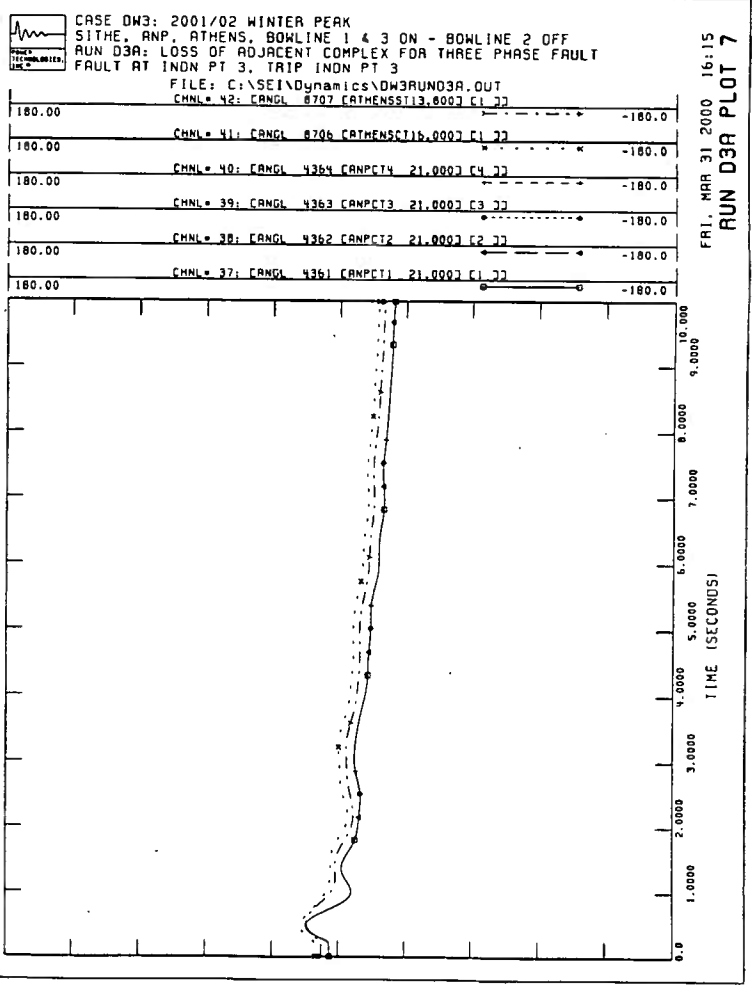
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

FRI, MAR 31 2000 16:15
RUN D3A PLOT 3


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 36: CANGL 4357 [SITH_GT2|8.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT2|8.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT1|8.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM|6.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:15
RUN D3A PLOT 6
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

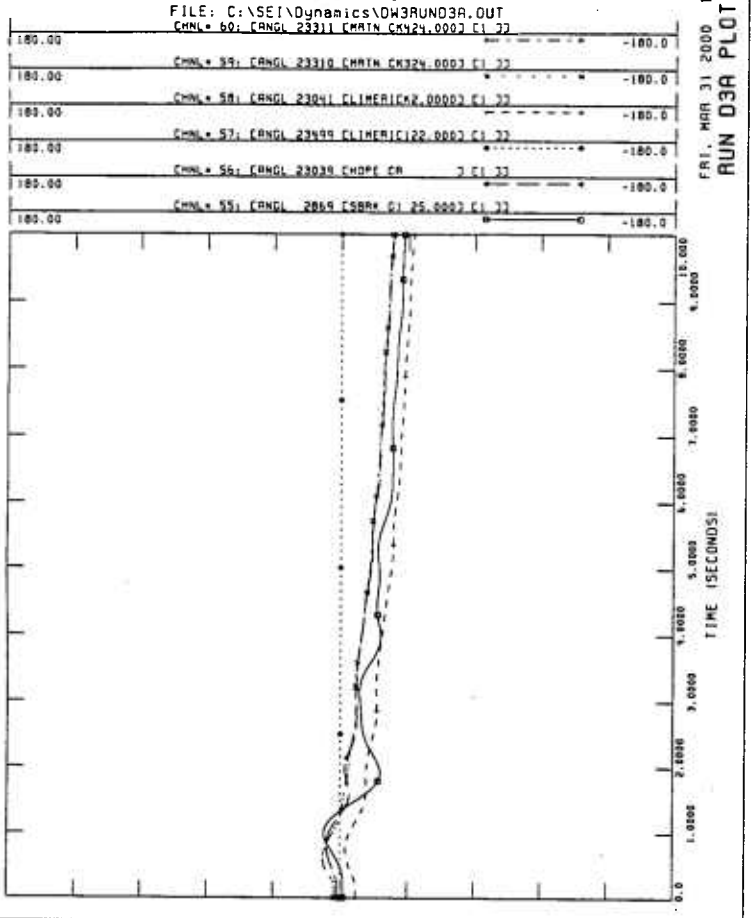

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 48: CANGL 9396 [BOWLNCT|8.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT|8.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST|3.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT|6.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST|3.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT|6.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:15
RUN D3A PLOT 8
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [AAV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [AAV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [AAV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [AAV 1 20.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:15
RUN D3A PLOT 5
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 42: CANGL 8707 [ATHENSST|3.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT|6.000] [1]]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 16:15
RUN D3A PLOT 7
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

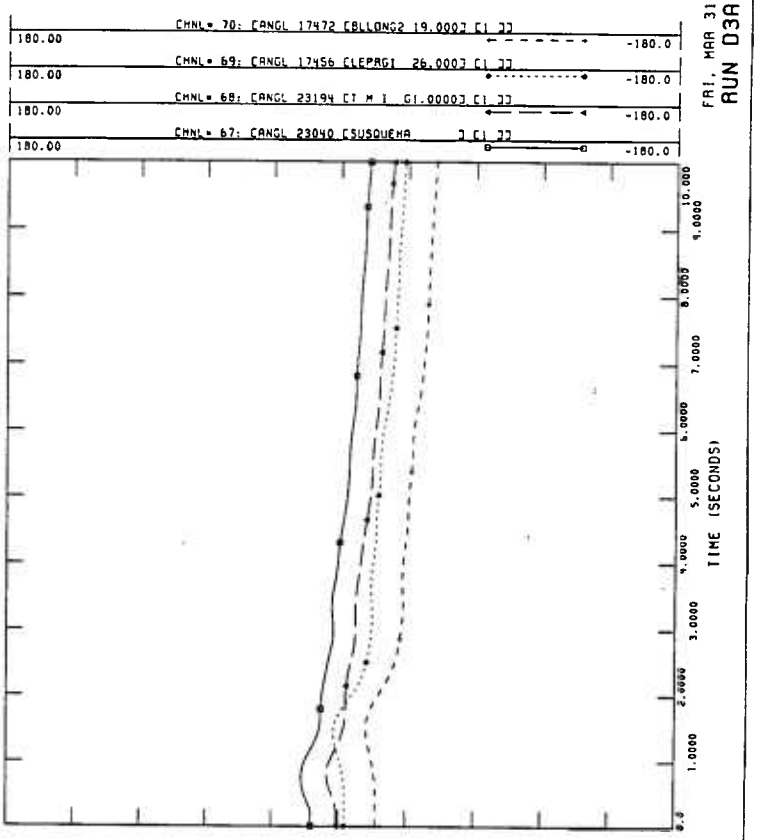
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

FRI, MAR 31 2000 16:15
RUN D3A PLOT 10



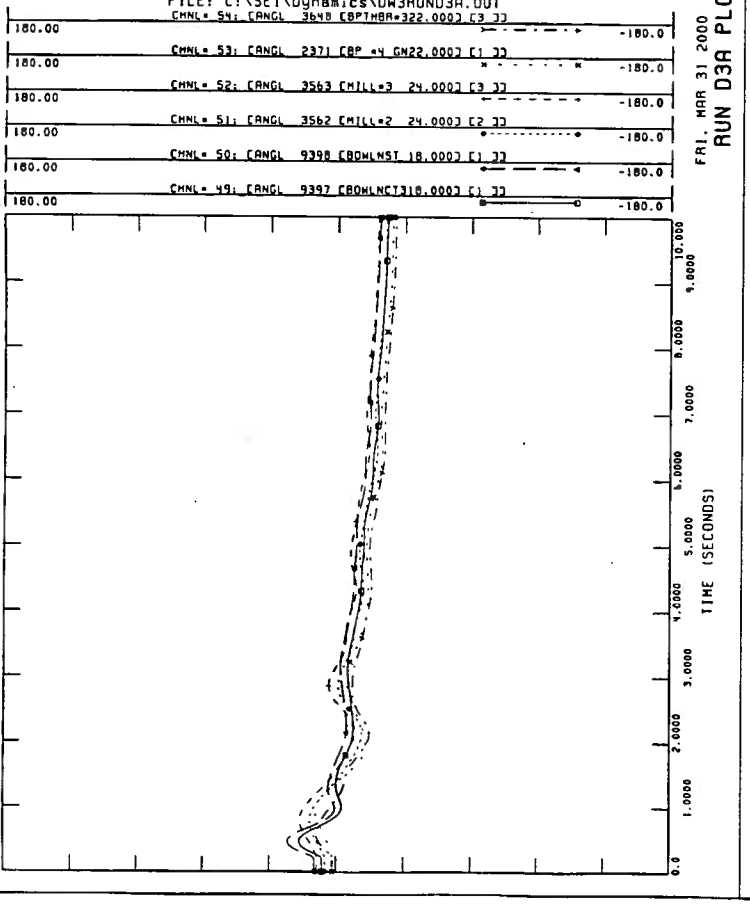
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

FRI, MAR 31 2000 16:15
RUN D3A PLOT 12



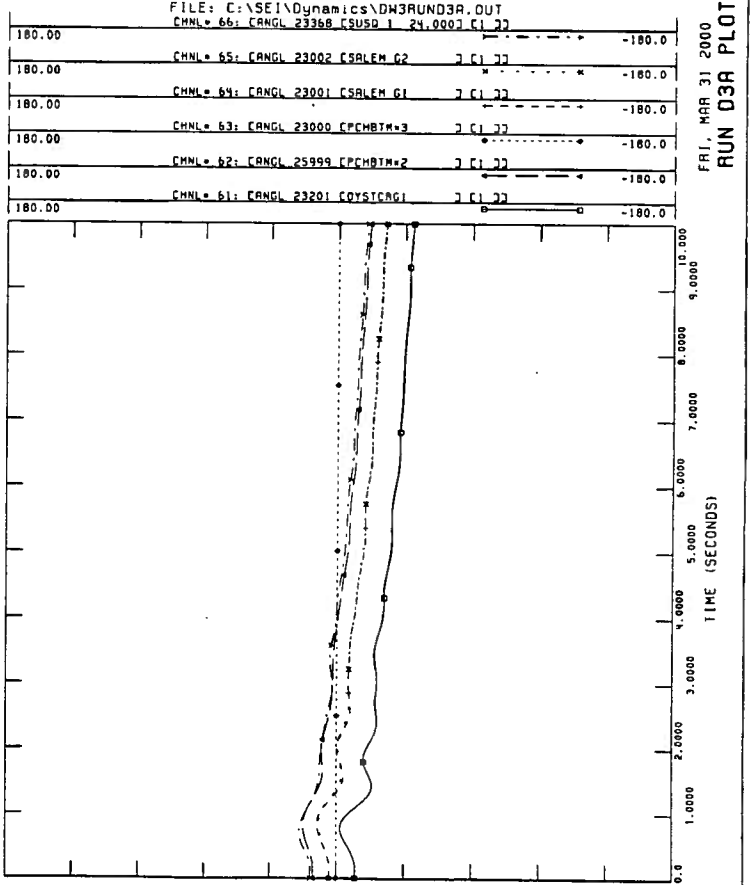
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

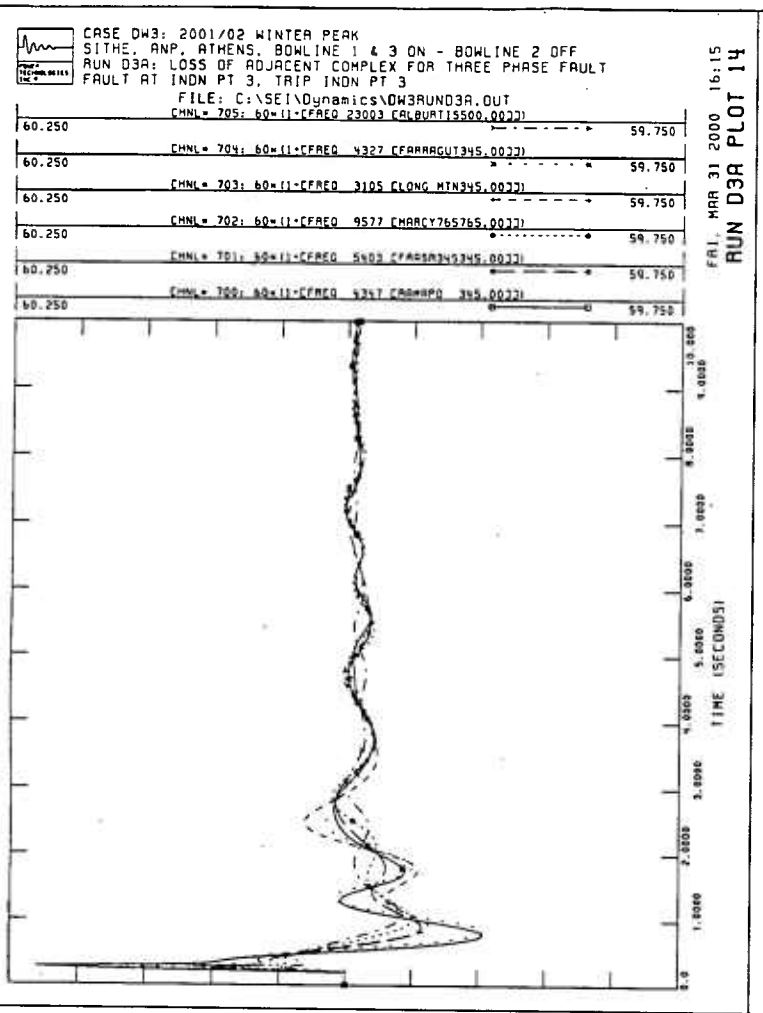
FRI, MAR 31 2000 16:15
RUN D3A PLOT 9

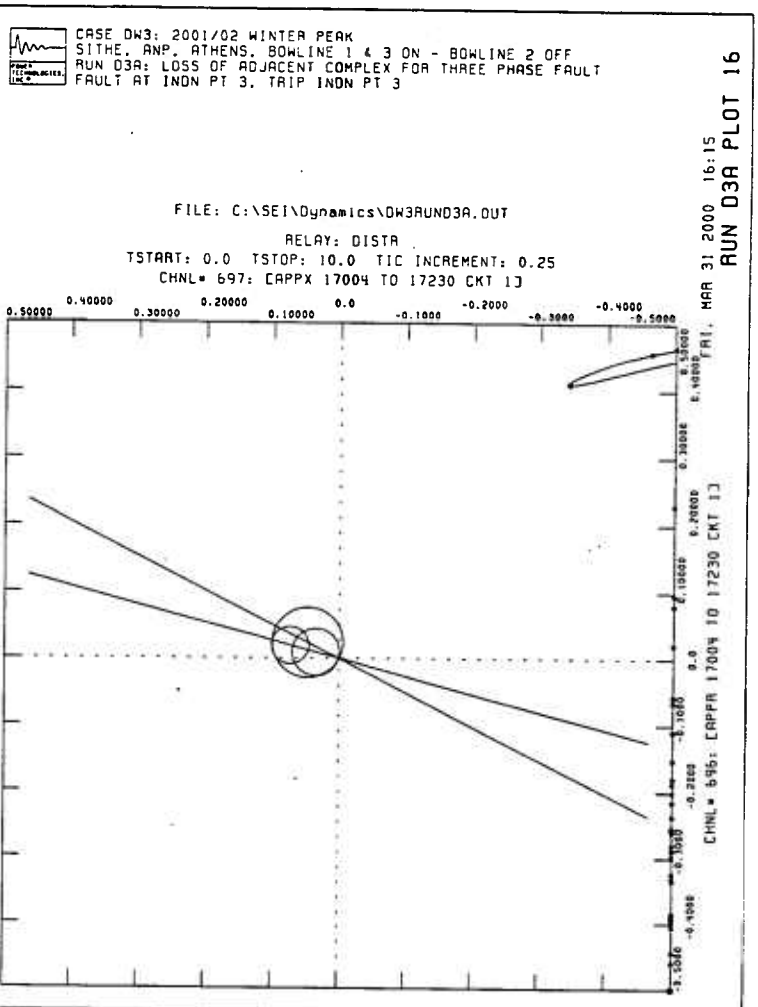


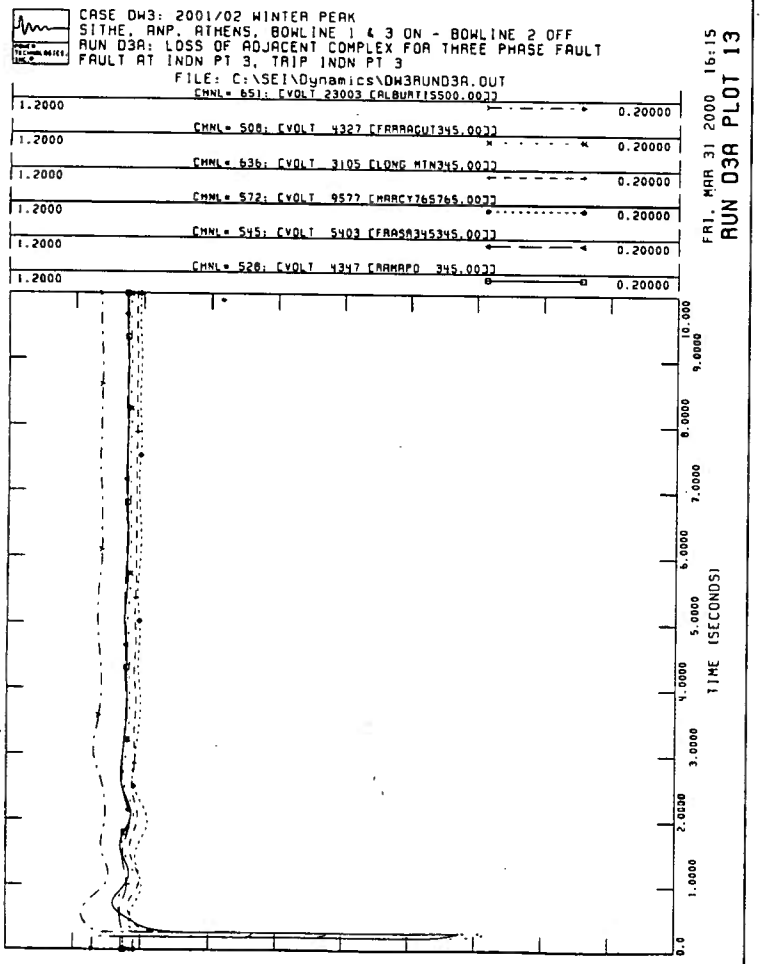
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT

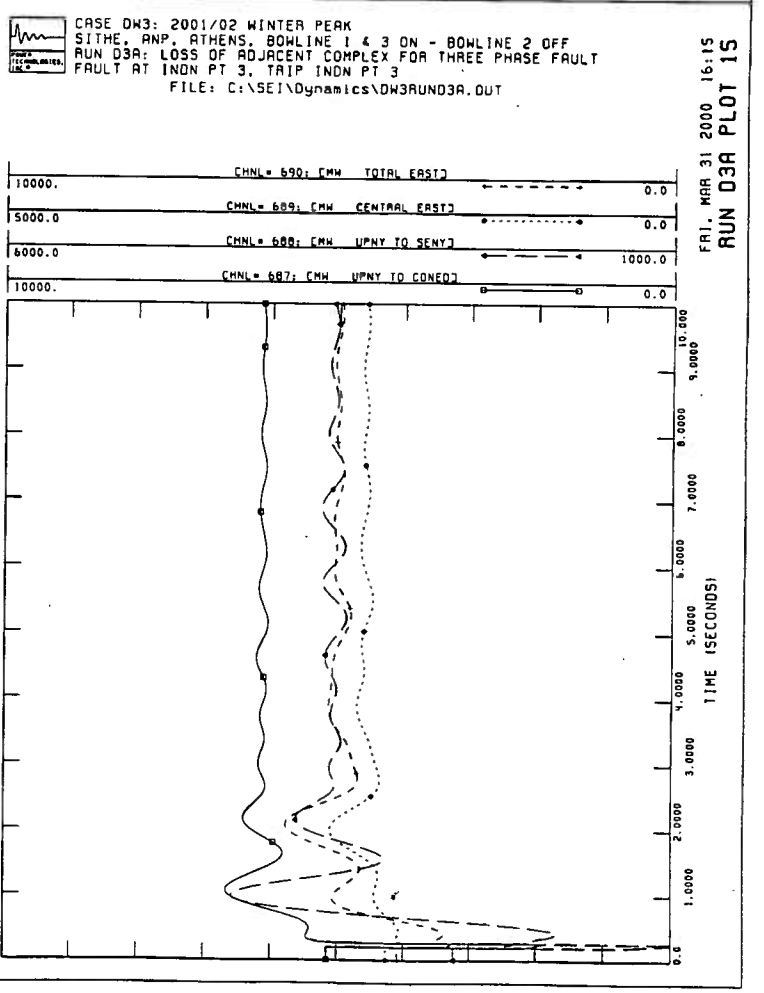
FRI, MAR 31 2000 16:15
RUN D3A PLOT 11




CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 705: 60=(1)-CFREQ 23003 [ALBURTIS500.00]]
CHNL= 704: 60=(1)-CFREQ 4327 [FRRRAGUT345.00]]
CHNL= 703: 60=(1)-CFREQ 3105 [LONG MTN345.00]]
CHNL= 702: 60=(1)-CFREQ 9577 [MARCY765765.00]]
CHNL= 701: 60=(1)-CFREQ 5403 [FRASR345345.00]]
CHNL= 700: 60=(1)-CFREQ 4347 [FRRMAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:15
RUN D3A PLOT 14


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
0.50000
0.40000
0.30000
0.20000
0.10000
0.0
-0.1000
-0.2000
-0.3000
-0.4000
-0.5000
CHNL= 696: CAPPX 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:15
RUN D3A PLOT 16


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 651: CVOLT 23003 [ALBURTIS500.00]]
CHNL= 508: CVOLT 4327 [FRRRAGUT345.00]]
CHNL= 636: CVOLT 3105 [LONG MTN345.00]]
CHNL= 572: CVOLT 9577 [MARCY765765.00]]
CHNL= 545: CVOLT 5403 [FRASR345345.00]]
CHNL= 528: CVOLT 4347 [FRRMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:15
RUN D3A PLOT 13

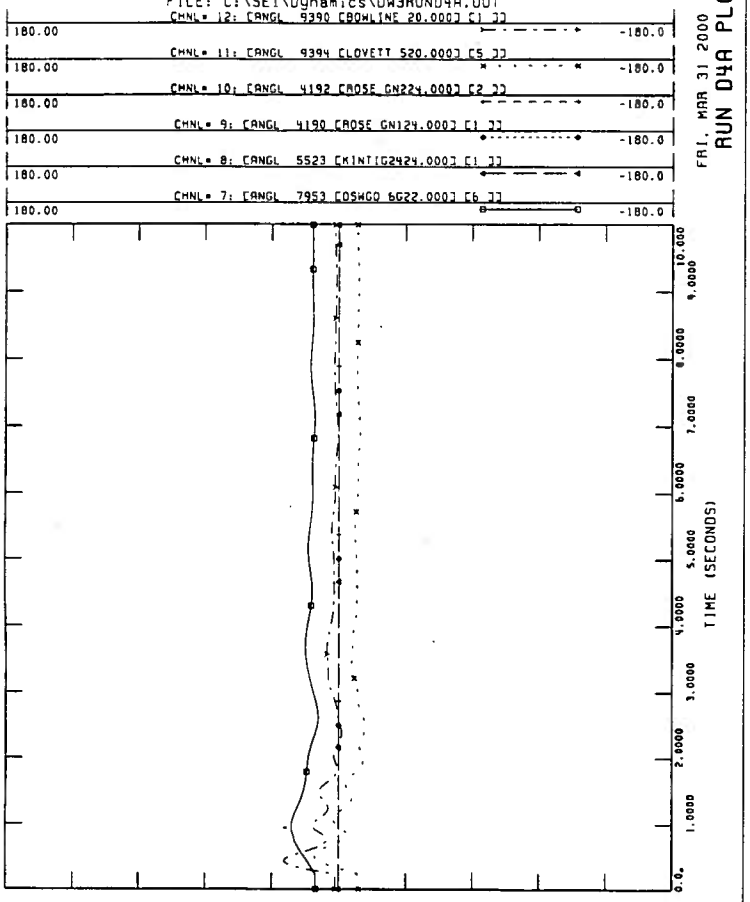

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW3RUND3A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:15
RUN D3A PLOT 15

CONTINGENCY D4A

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1             / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345  / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

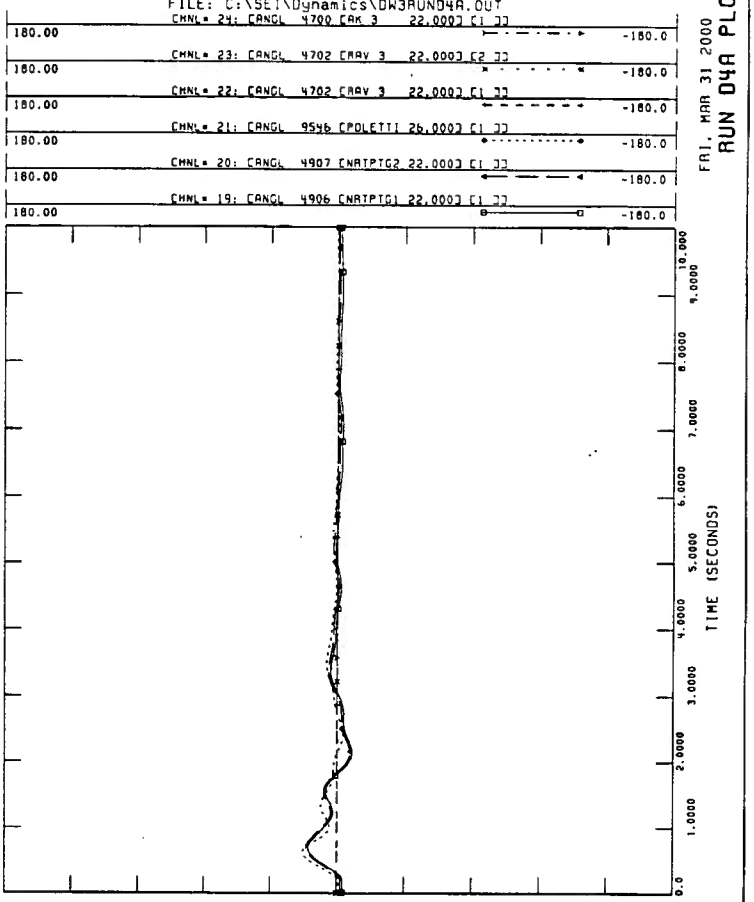
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 2



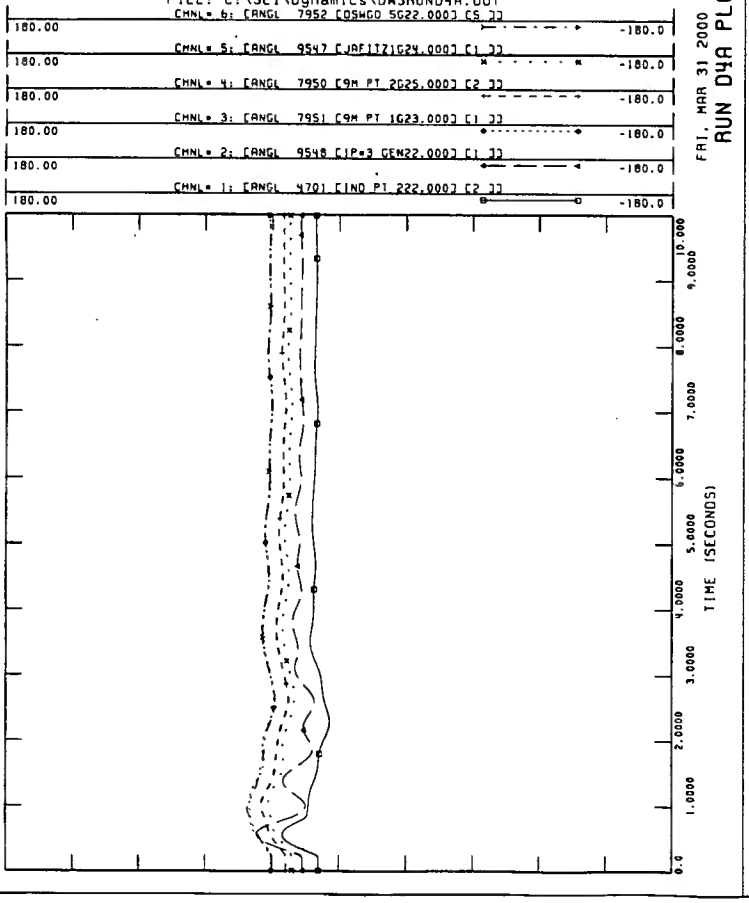
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 4



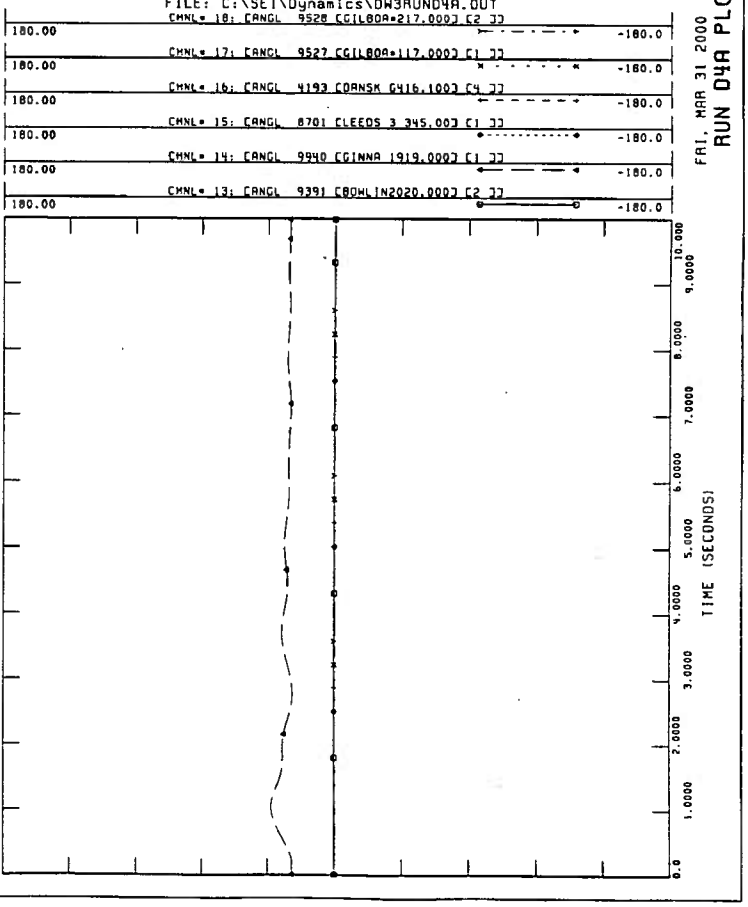
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 1



CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 3



CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 6

CHNL= 36: CANGL 4357 CSITH GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

FRI, MAR 31 2000 16:15
RUN D4A PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]

180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

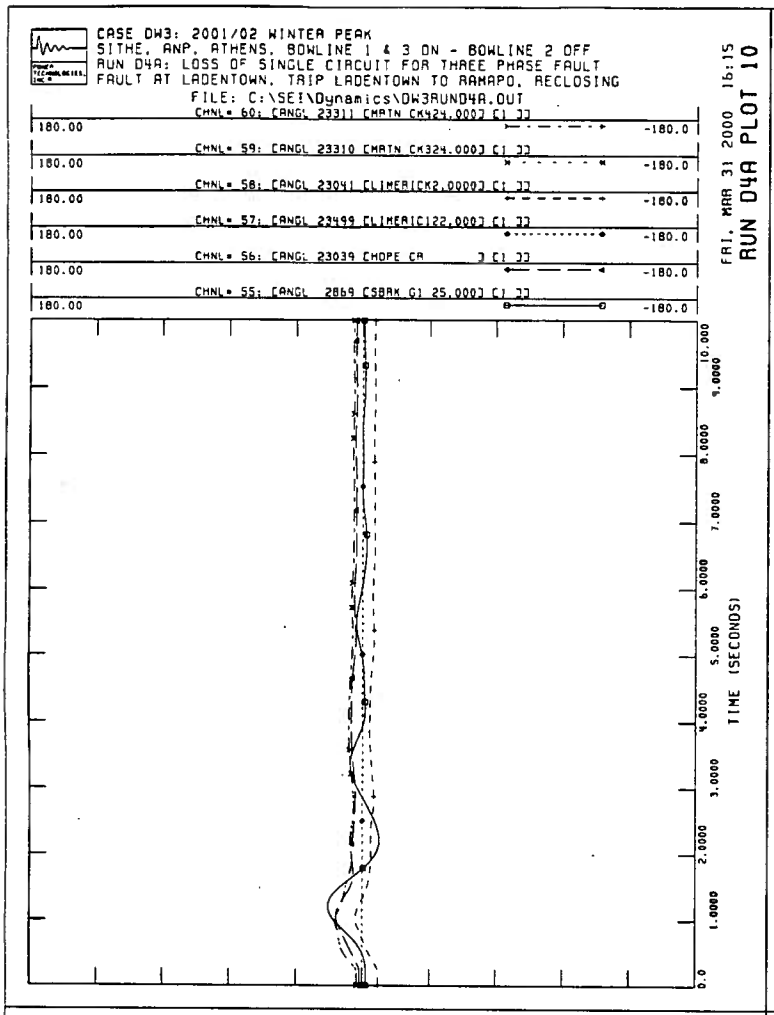
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT

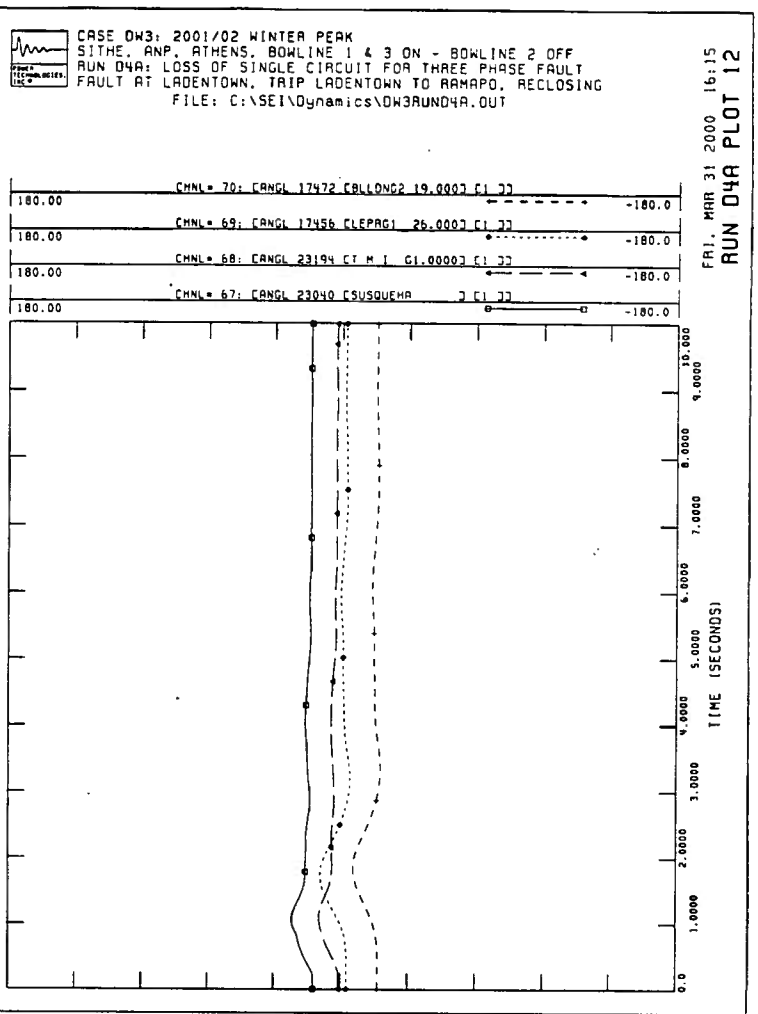
FRI, MAR 31 2000 16:15
RUN D4A PLOT 7

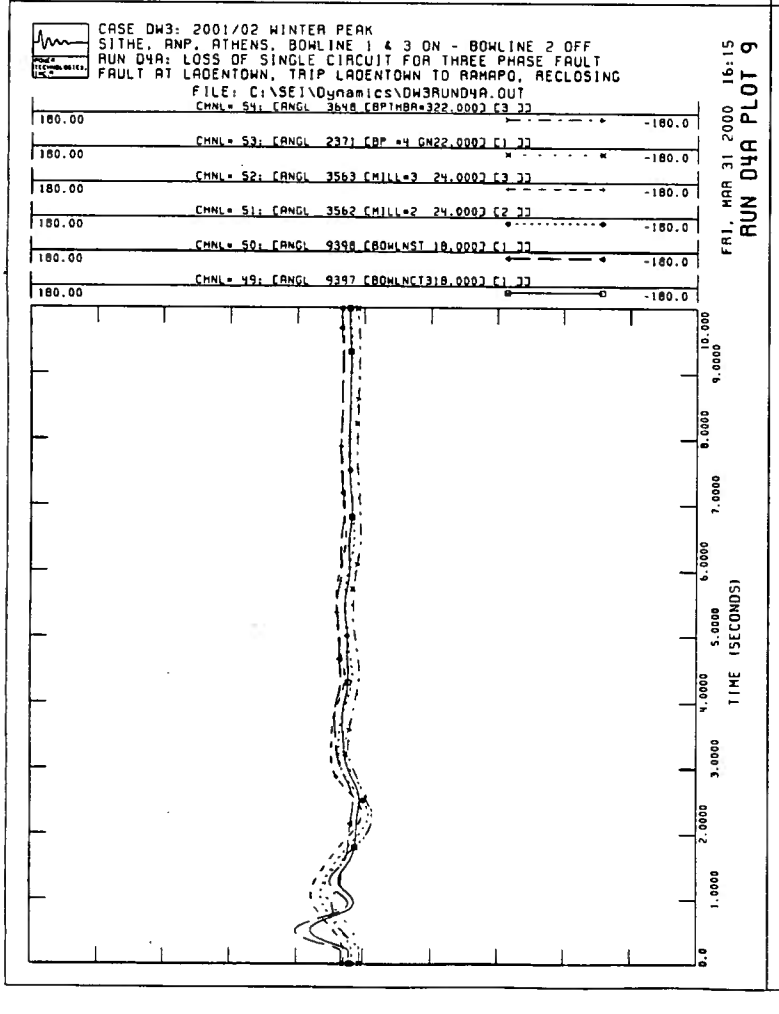
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

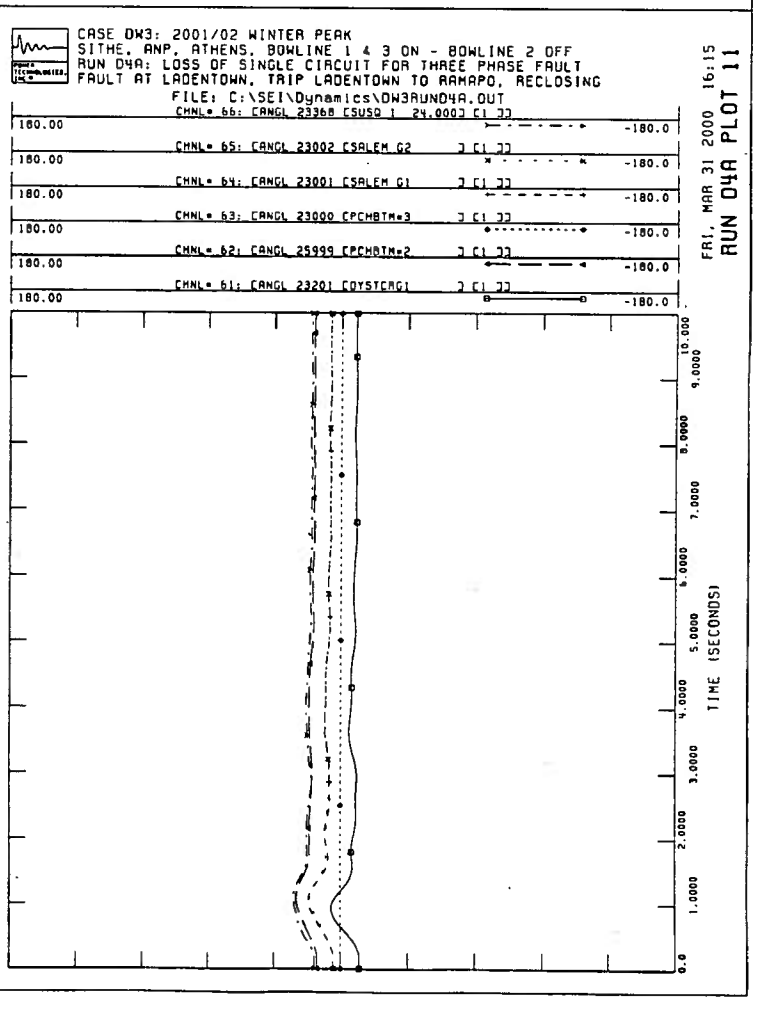
180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

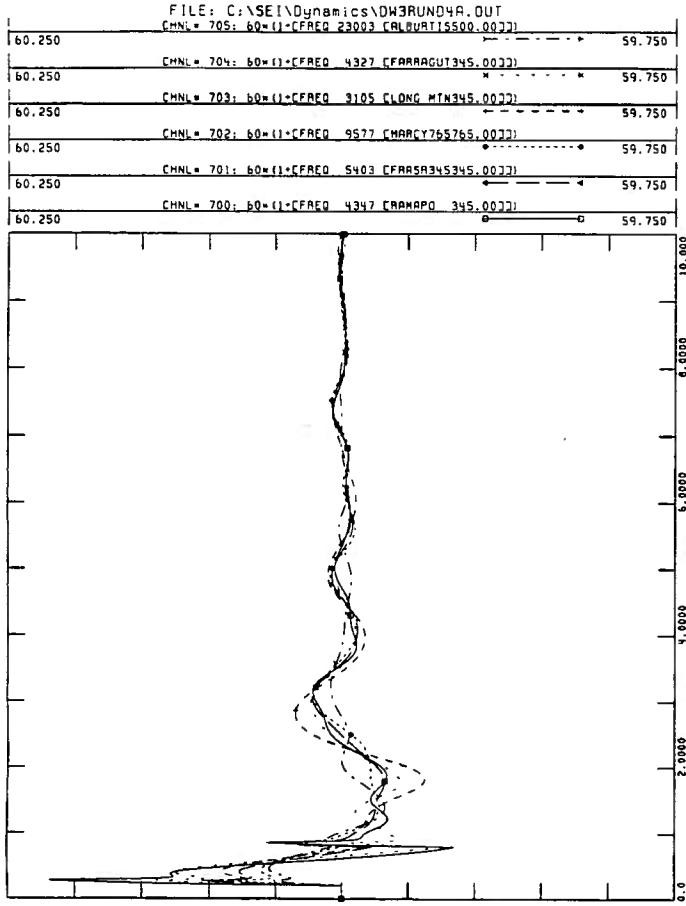

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT
FRI, MAR 31 2000 16:15
RUN D4A PLOT 10
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT
FRI, MAR 31 2000 16:15
RUN D4A PLOT 12
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT
FRI, MAR 31 2000 16:15
RUN D4A PLOT 9
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT
FRI, MAR 31 2000 16:15
RUN D4A PLOT 11
TIME (SECONDS)

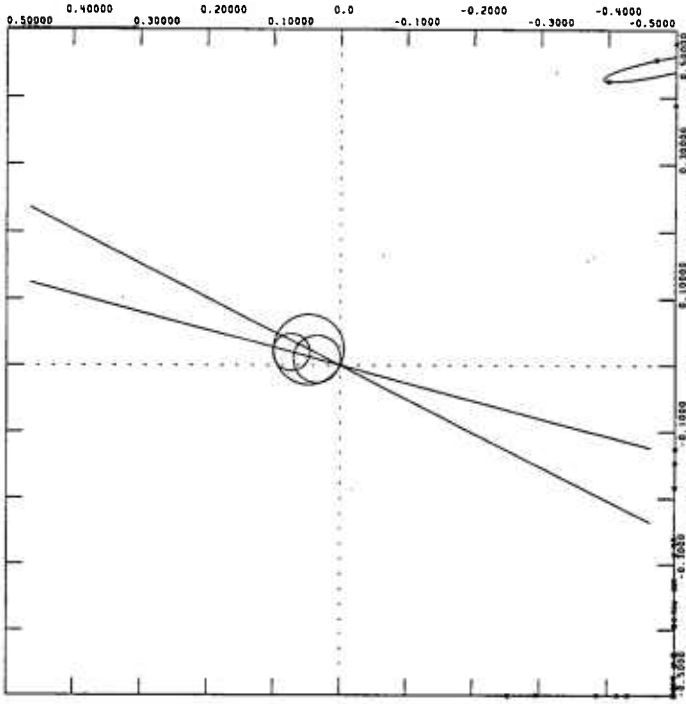
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT



FRI, MAR 31 2000 16:15
RUN D4A PLOT 14

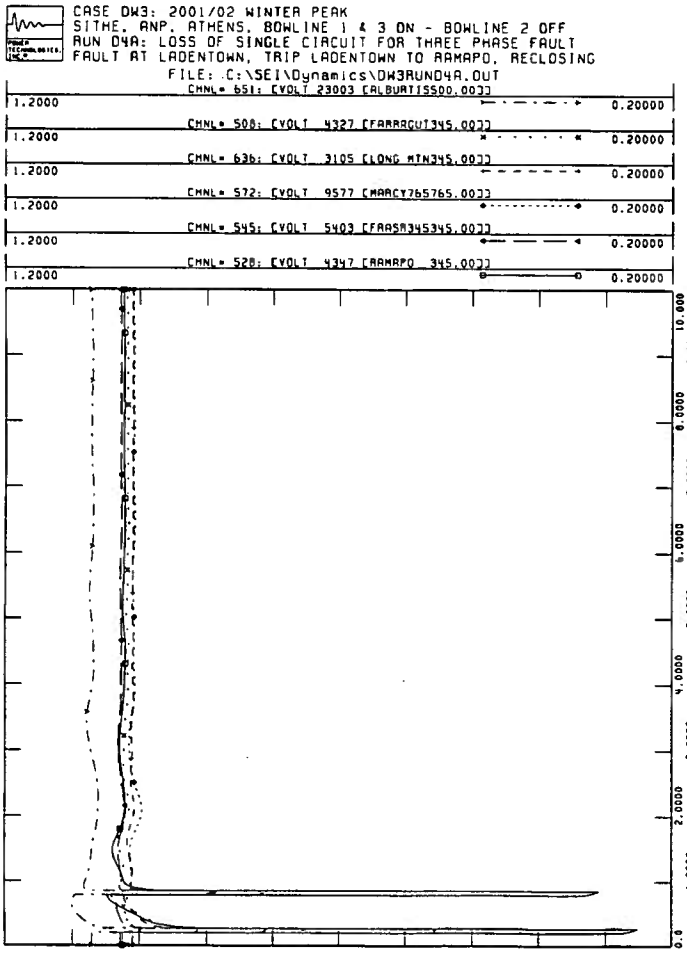
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DW3RUND4A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]



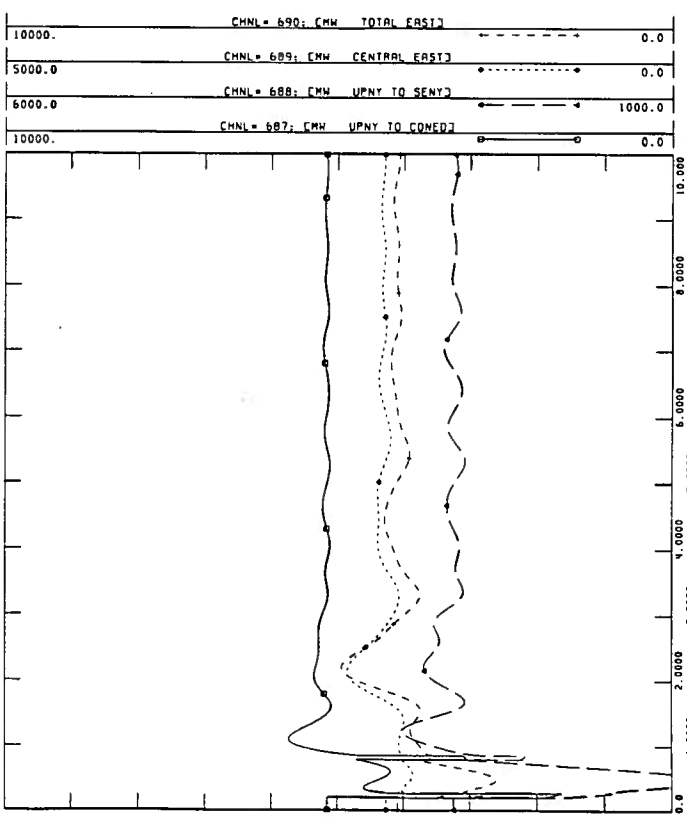
FRI, MAR 31 2000 16:15
RUN D4A PLOT 16

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT



FRI, MAR 31 2000 16:15
RUN D4A PLOT 13

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW3RUND4A.OUT



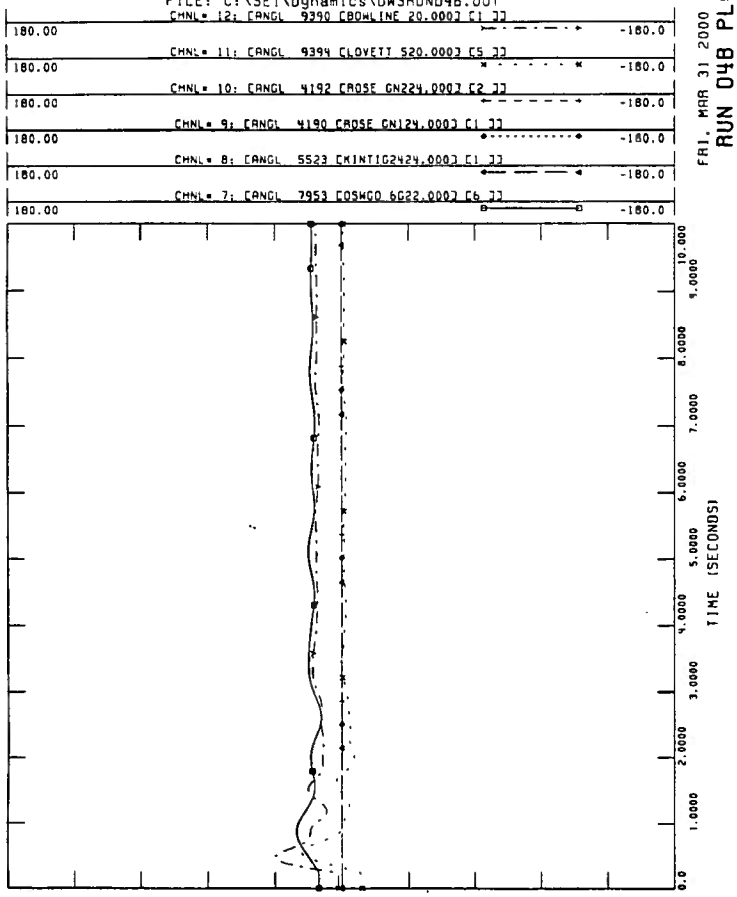
FRI, MAR 31 2000 16:15
RUN D4A PLOT 15

CONTINGENCY D4B

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA      / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

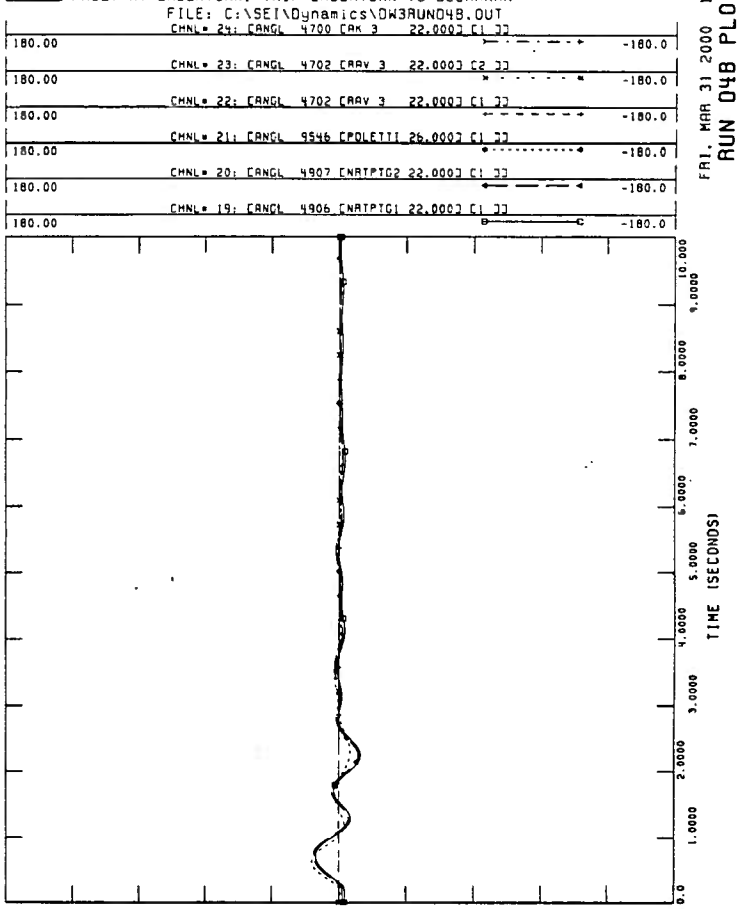
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT

FRI, MAR 31 2000 16:43
RUN 048 PLOT 2



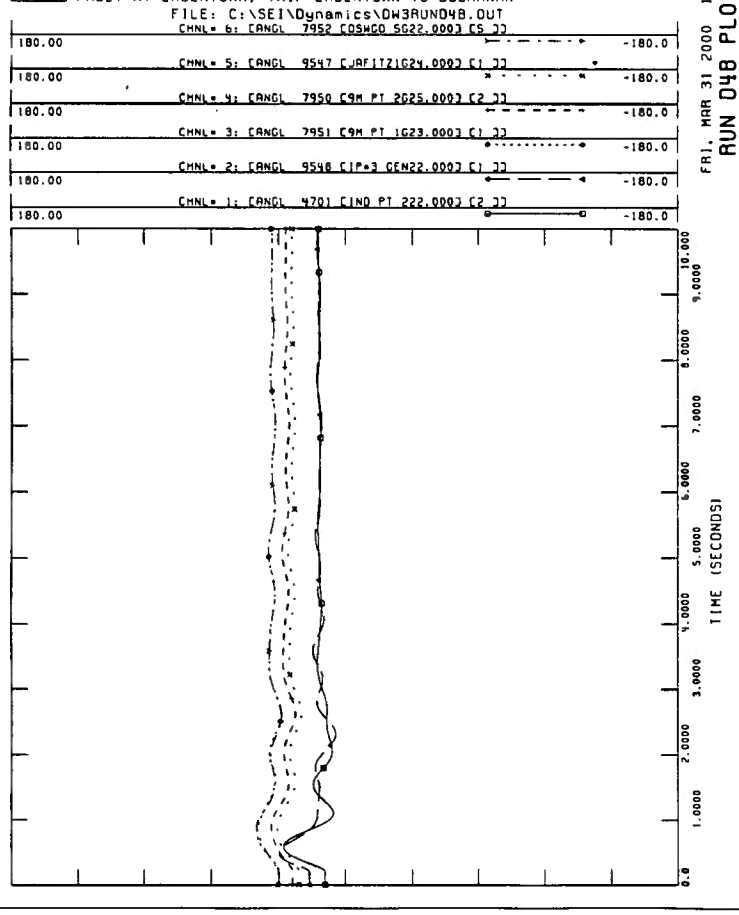
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT

FRI, MAR 31 2000 16:43
RUN 048 PLOT 4



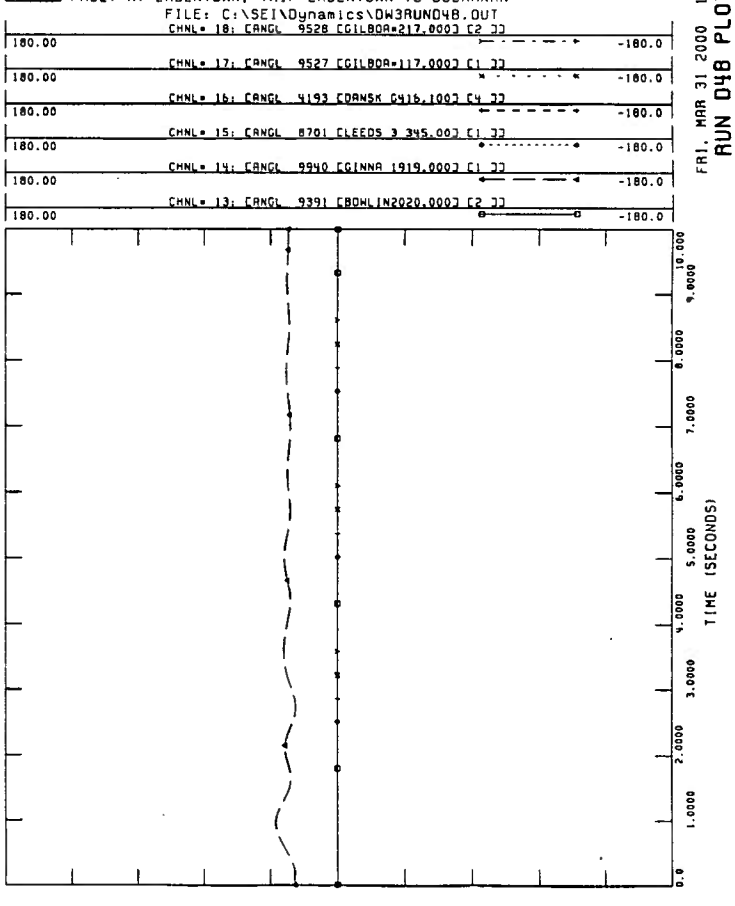
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT

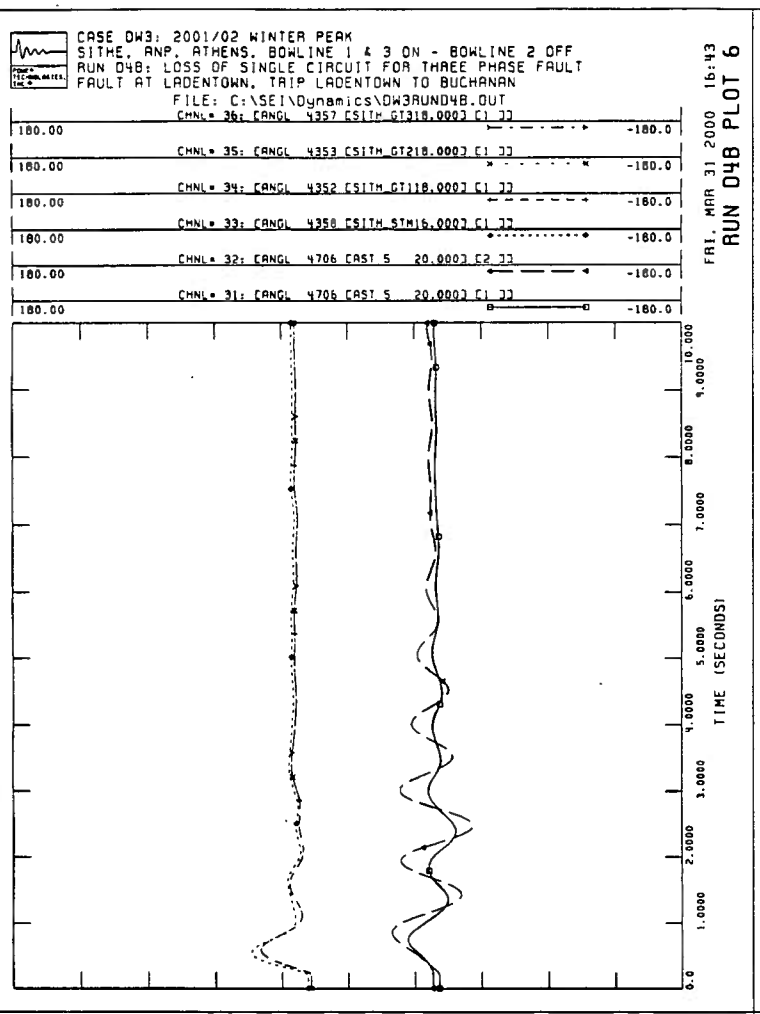
FRI, MAR 31 2000 16:43
RUN 048 PLOT 1

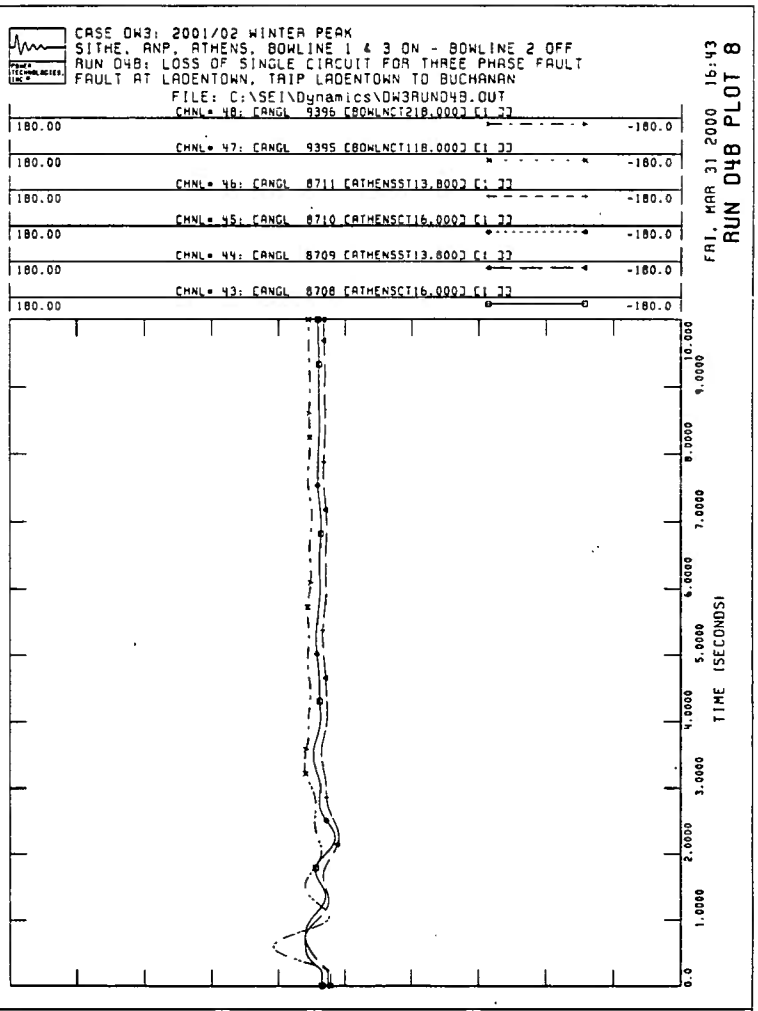


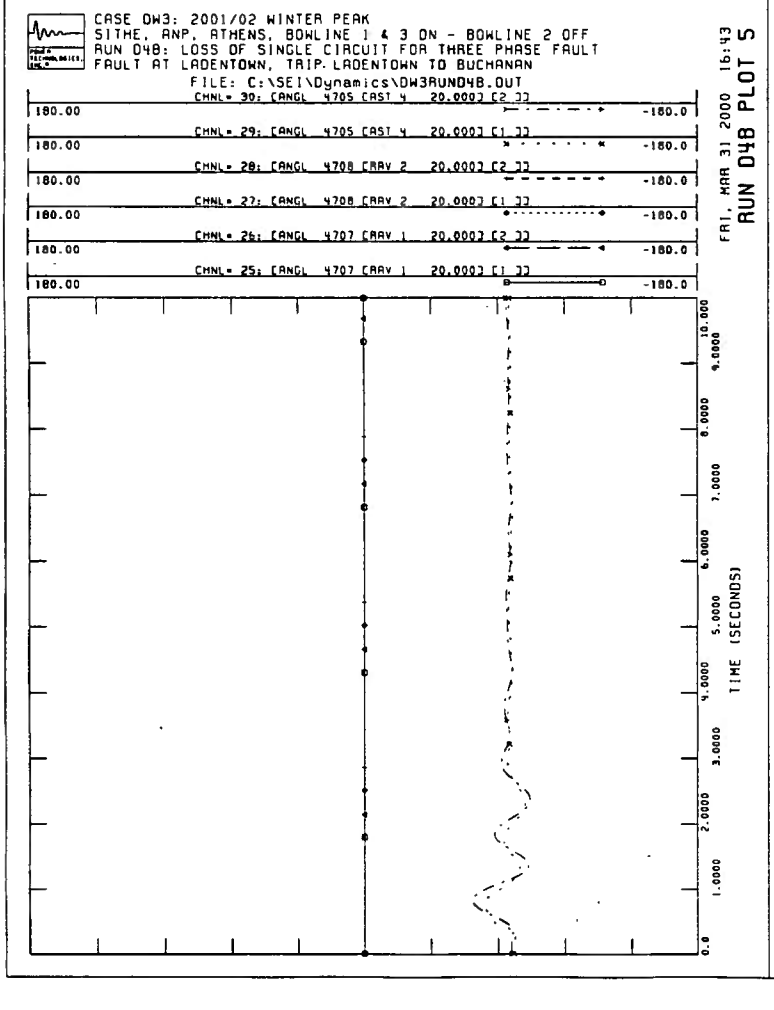
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT

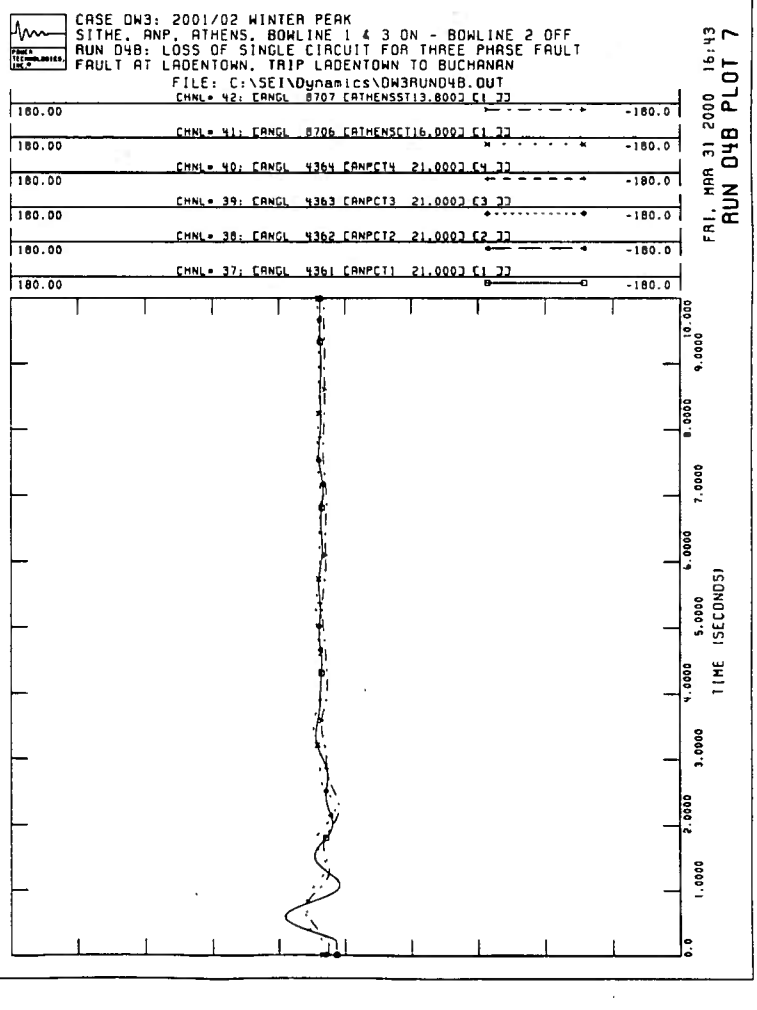
FRI, MAR 31 2000 16:43
RUN 048 PLOT 3

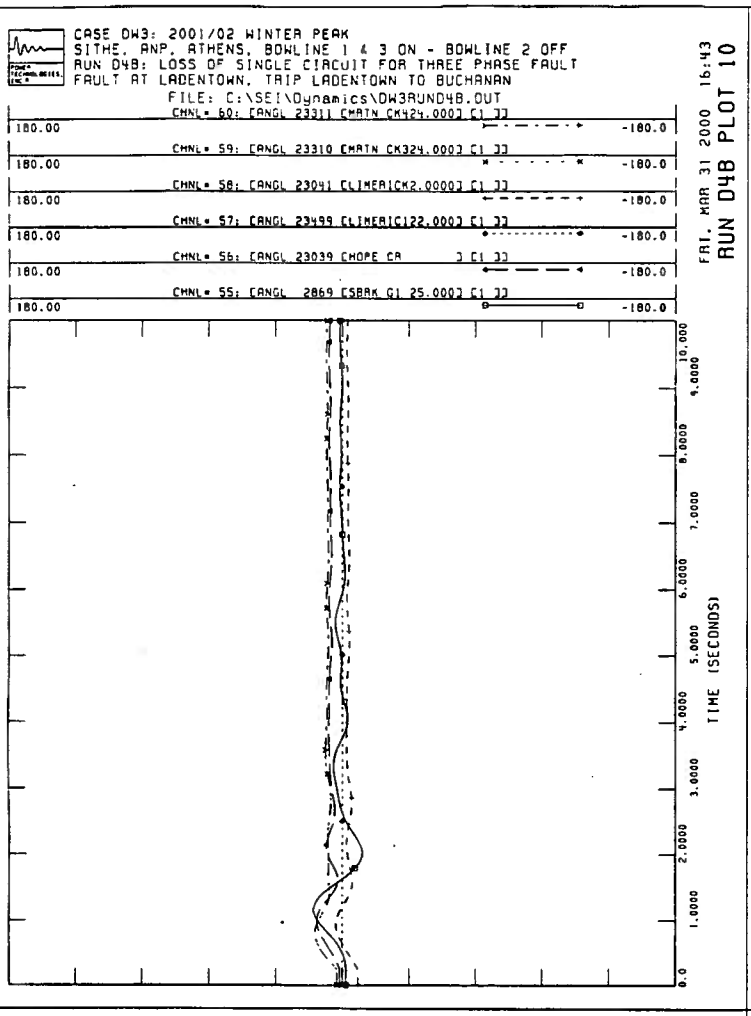


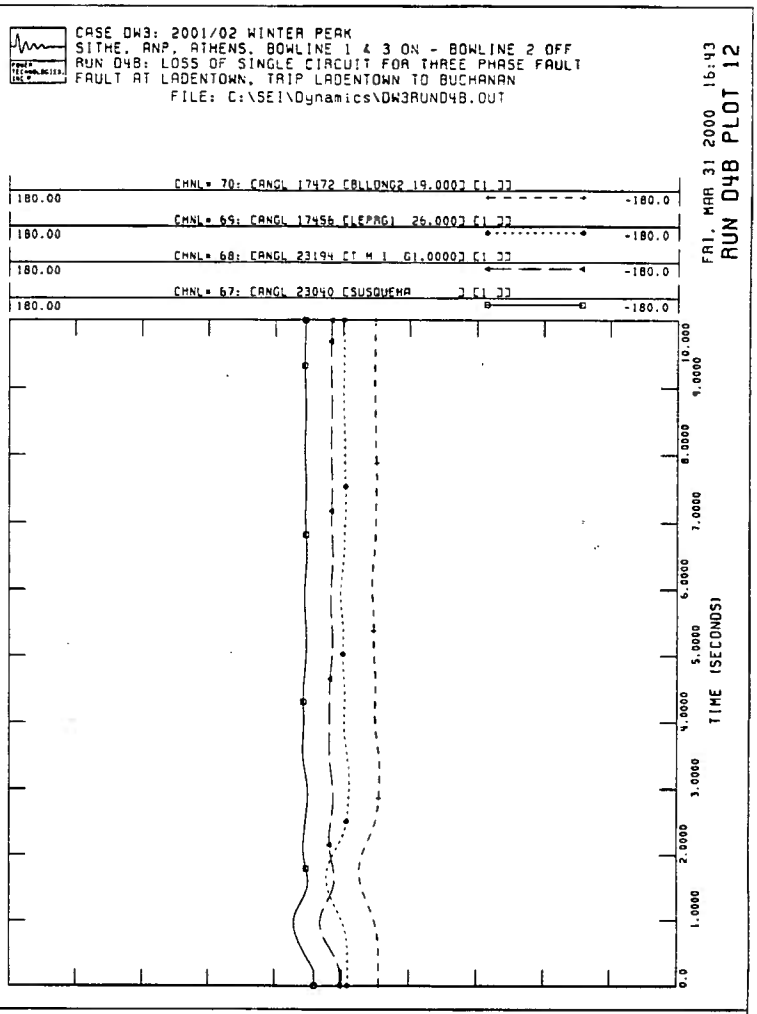

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 16:43
RUN 048 PLOT 6
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

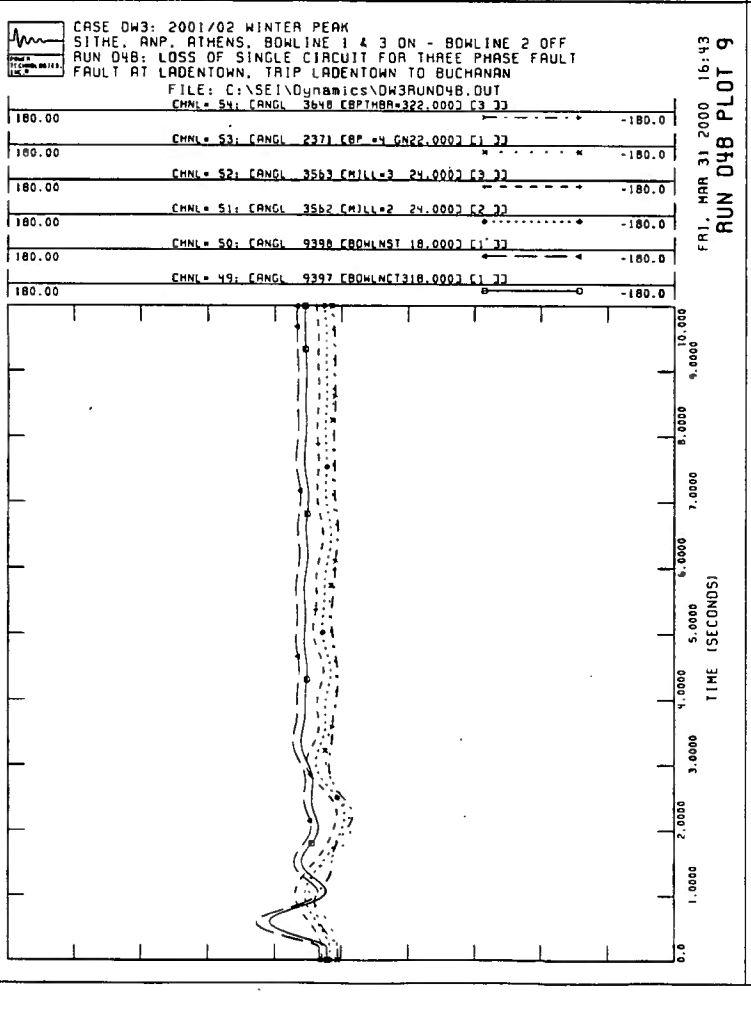

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 16:43
RUN 048 PLOT 8
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

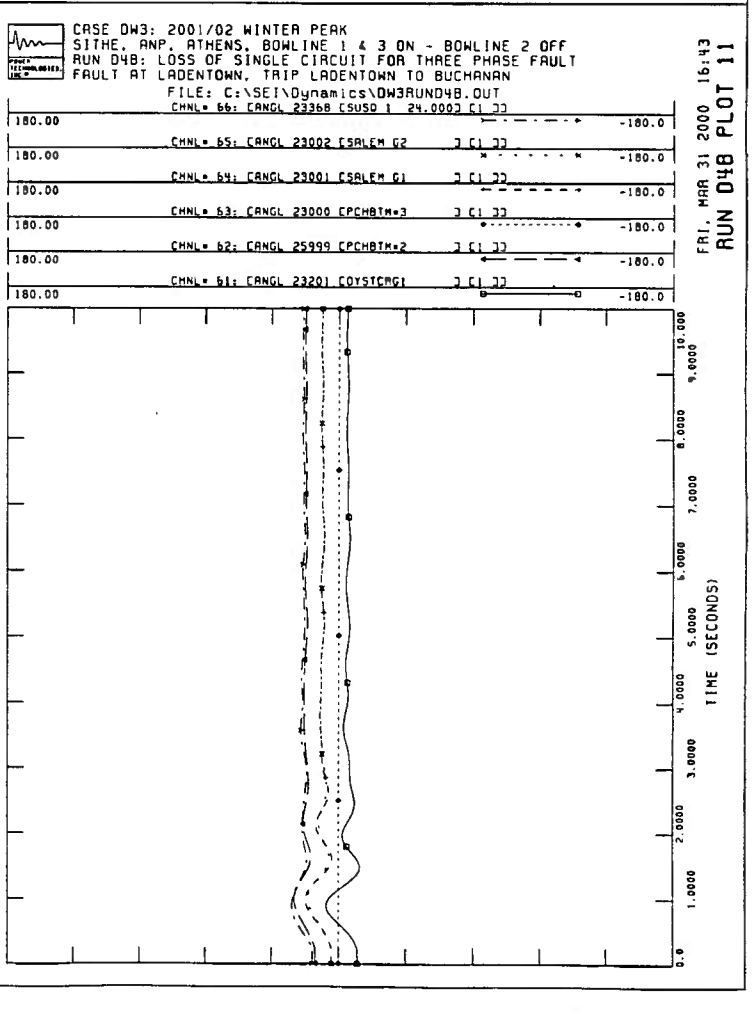

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 16:43
RUN 048 PLOT 5
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

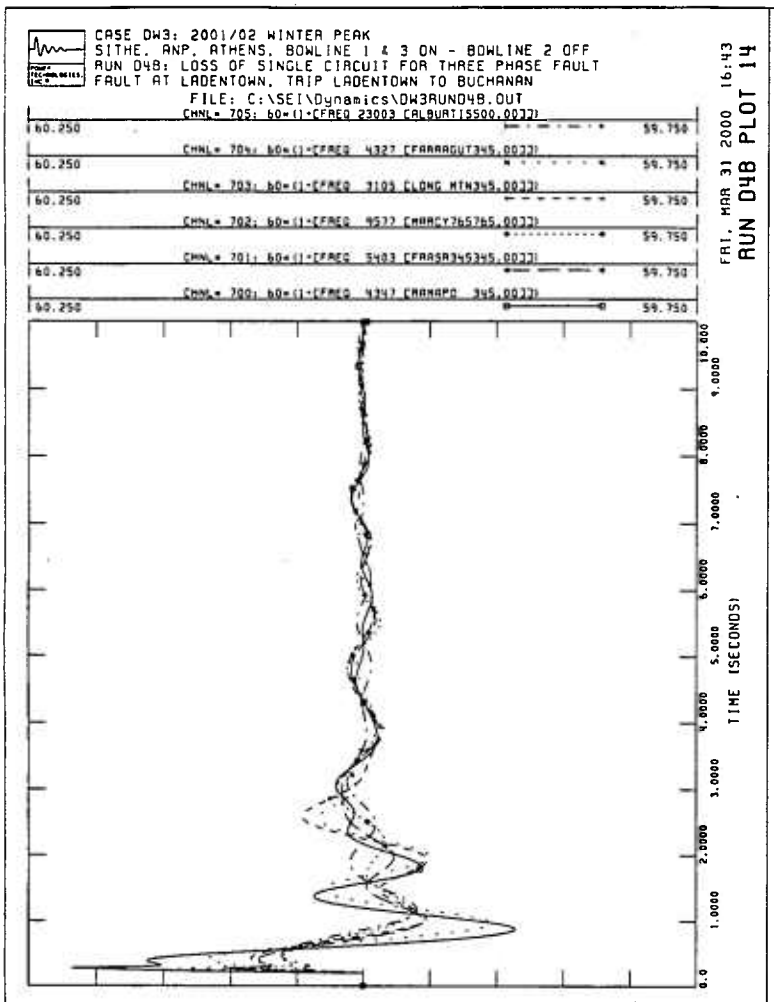

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN 048: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUN048.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
FRI, MAR 31 2000 16:43
RUN 048 PLOT 7
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

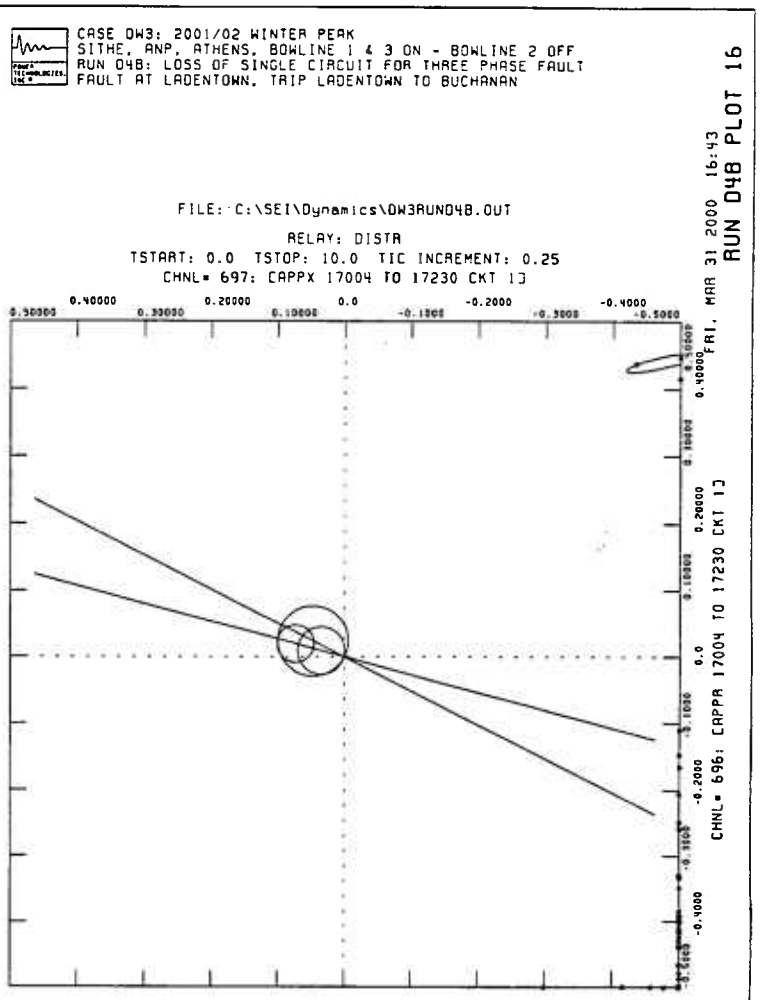

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND48.OUT
FRI, MAR 31 2000 16:43
RUN D48 PLOT 10
TIME (SECONDS)

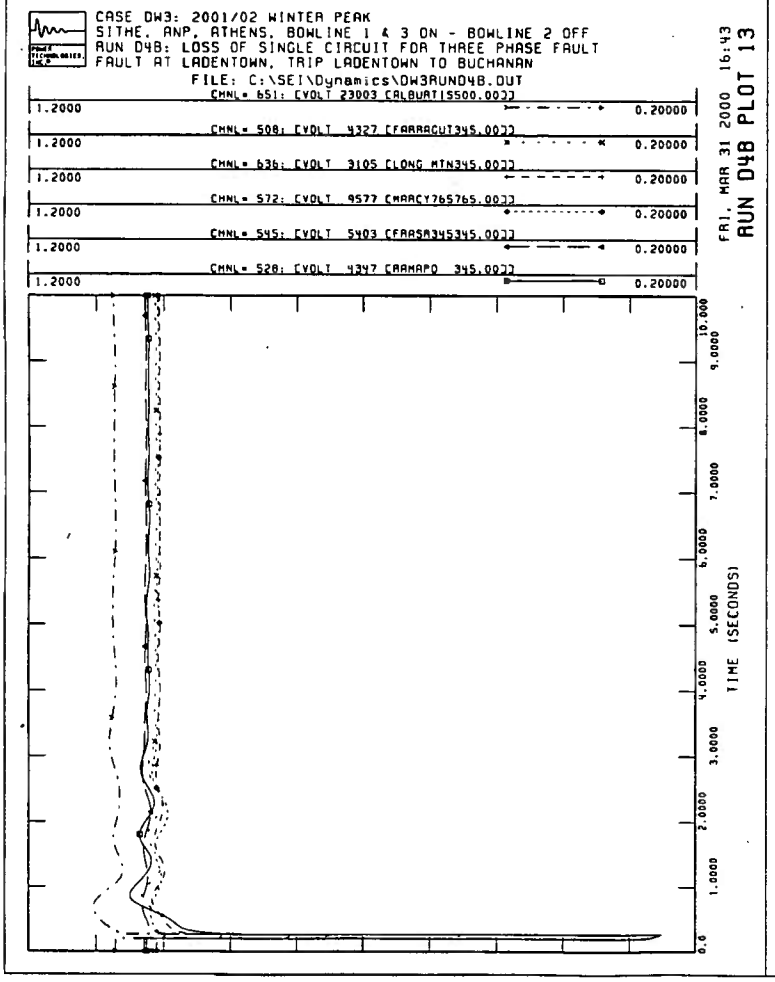

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND48.OUT
FRI, MAR 31 2000 16:43
RUN D48 PLOT 12
TIME (SECONDS)

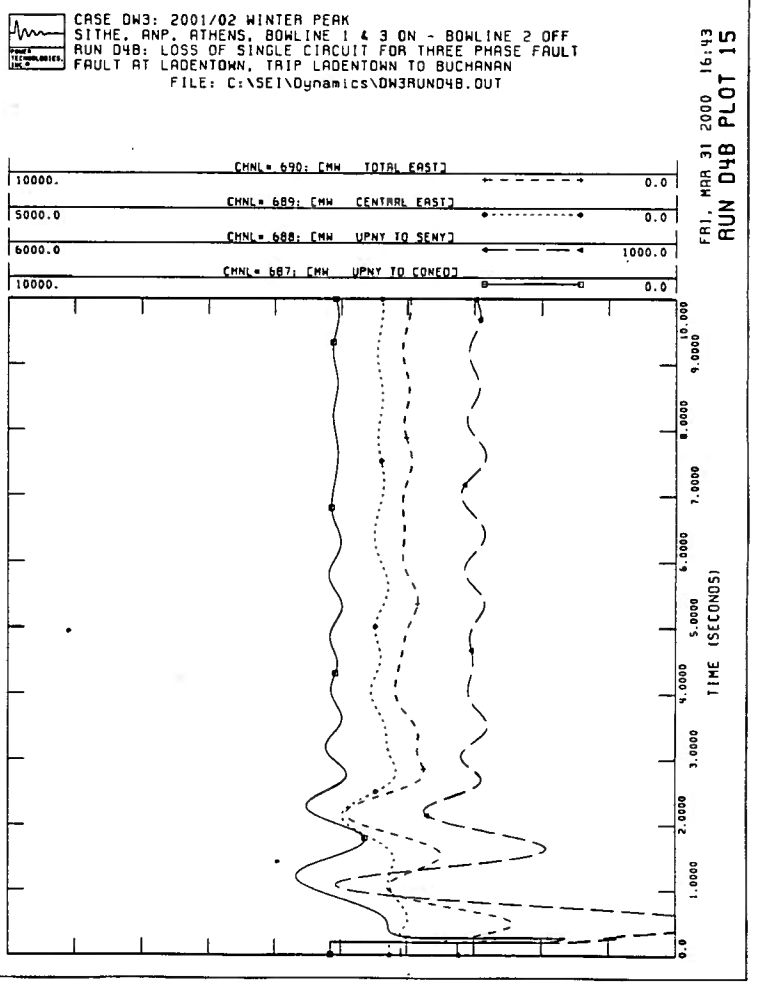

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND48.OUT
FRI, MAR 31 2000 16:43
RUN D48 PLOT 9
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND48.OUT
FRI, MAR 31 2000 16:43
RUN D48 PLOT 11
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND4B.OUT
FRI, MAR 31 2000 16:43
RUN D4B PLOT 14
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND4B.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPA 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:43
RUN D4B PLOT 16

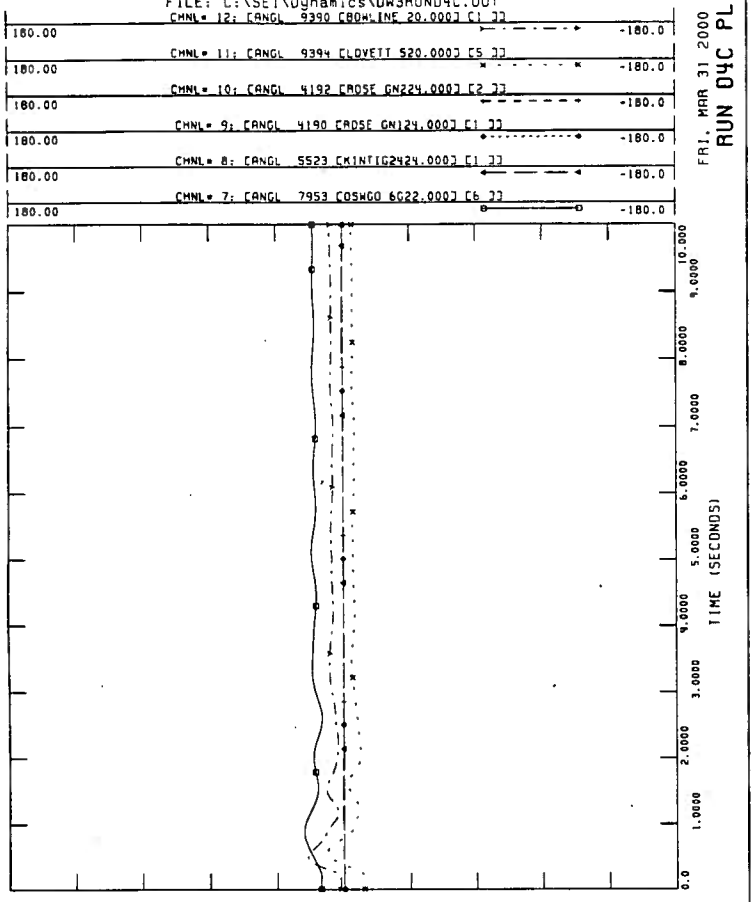

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND4B.OUT
FRI, MAR 31 2000 16:43
RUN D4B PLOT 13
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW3RUND4B.OUT
FRI, MAR 31 2000 16:43
RUN D4B PLOT 15
TIME (SECONDS)

CONTINGENCY D4C

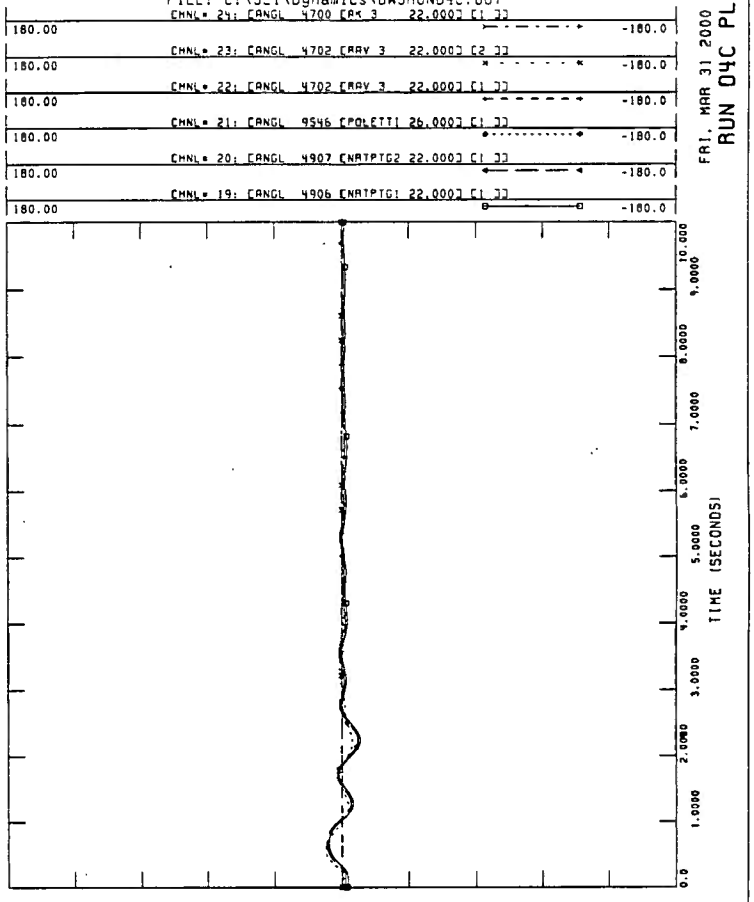
```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT



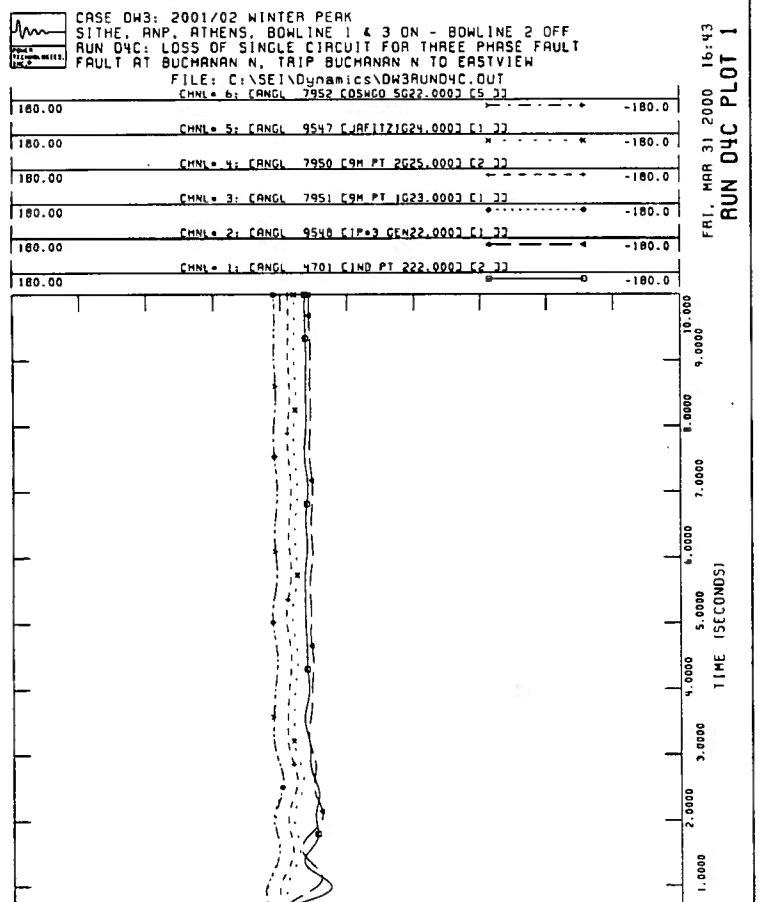
FRI, MAR 31 2000 16:43
RUN D4C PLOT 2

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT



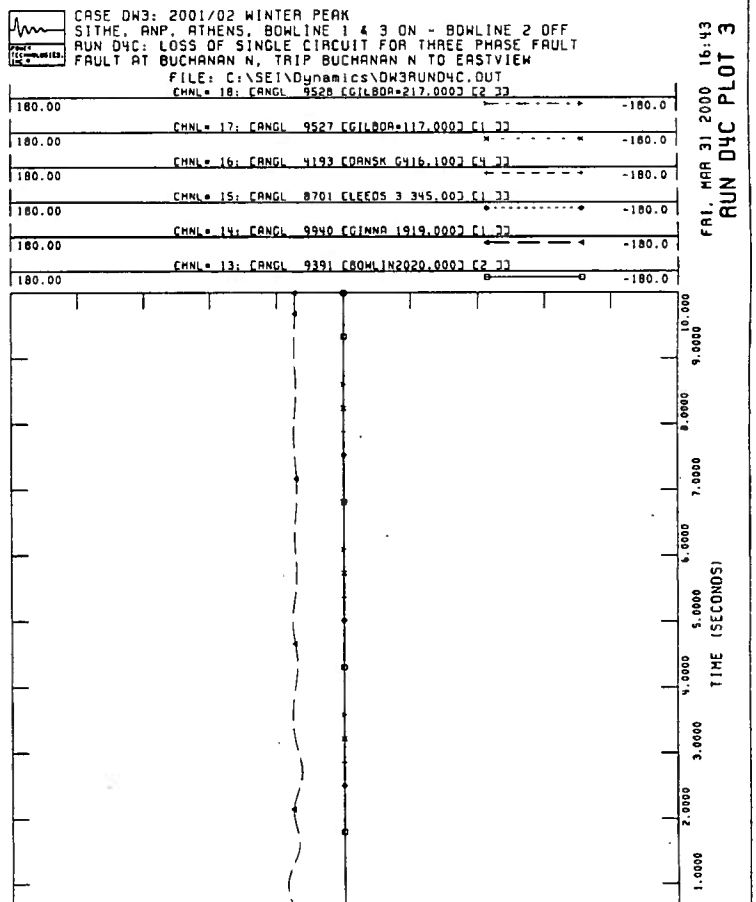
FRI, MAR 31 2000 16:43
RUN D4C PLOT 4

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT



FRI, MAR 31 2000 16:43
RUN D4C PLOT 1

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT



FRI, MAR 31 2000 16:43
RUN D4C PLOT 3

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT

FRI, MAR 31 2000 16:43
RUN D4C PLOT 6

CHNL= 36: CANGL 4357 CSITH GT3[8.000] C1]]
CHNL= 35: CANGL 4353 CSITH GT2[8.000] C1]]
CHNL= 34: CANGL 4352 CSITH GT1[8.000] C1]]
CHNL= 33: CANGL 4350 CSITH STM[6.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT

FRI, MAR 31 2000 16:43
RUN D4C PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT2[8.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT1[8.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST[3.600] C1]]
CHNL= 45: CANGL 8710 CATHENSCT[6.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST[3.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT[6.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT

FRI, MAR 31 2000 16:43
RUN D4C PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CAAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CAAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CAAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CAAV 1 20.000] C1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT

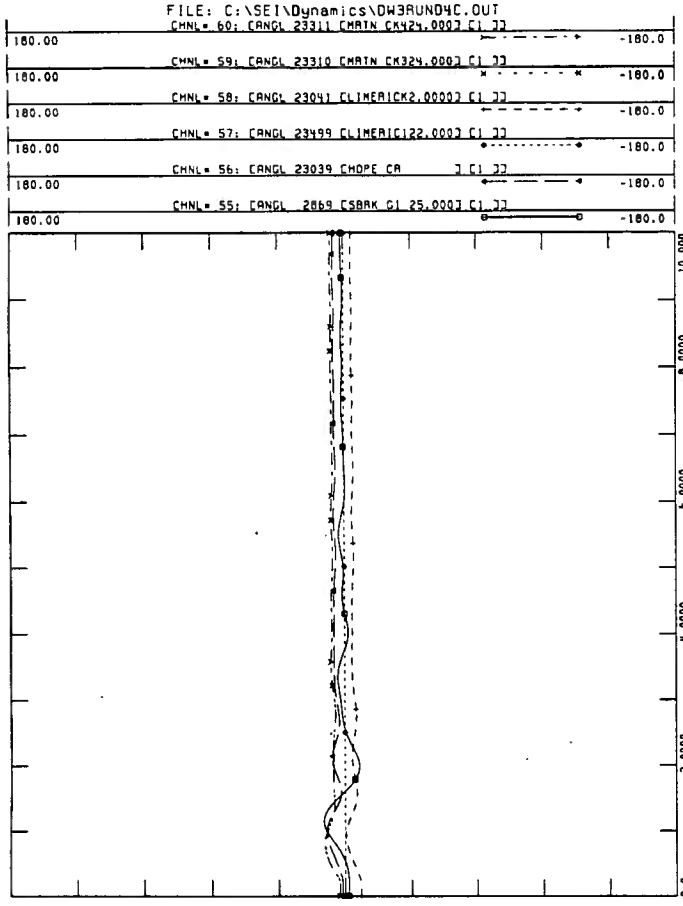
FRI, MAR 31 2000 16:43
RUN D4C PLOT 7

CHNL= 42: CANGL 8707 CATHENSST[3.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT[6.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

180.00 -180.0

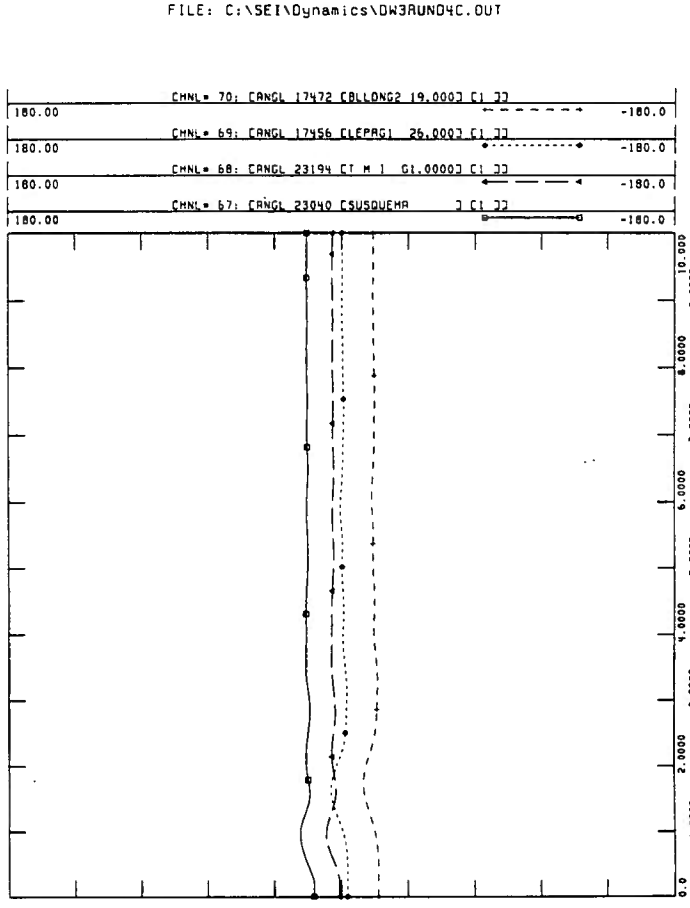
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT



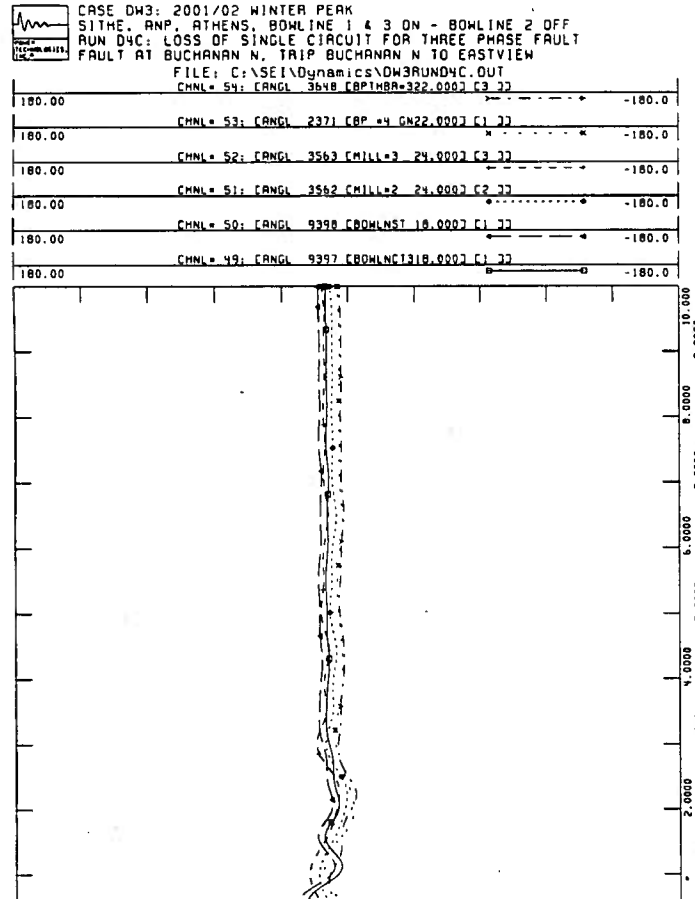
FRI, MAR 31 2000 16:43
RUN D4C PLOT 10

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT



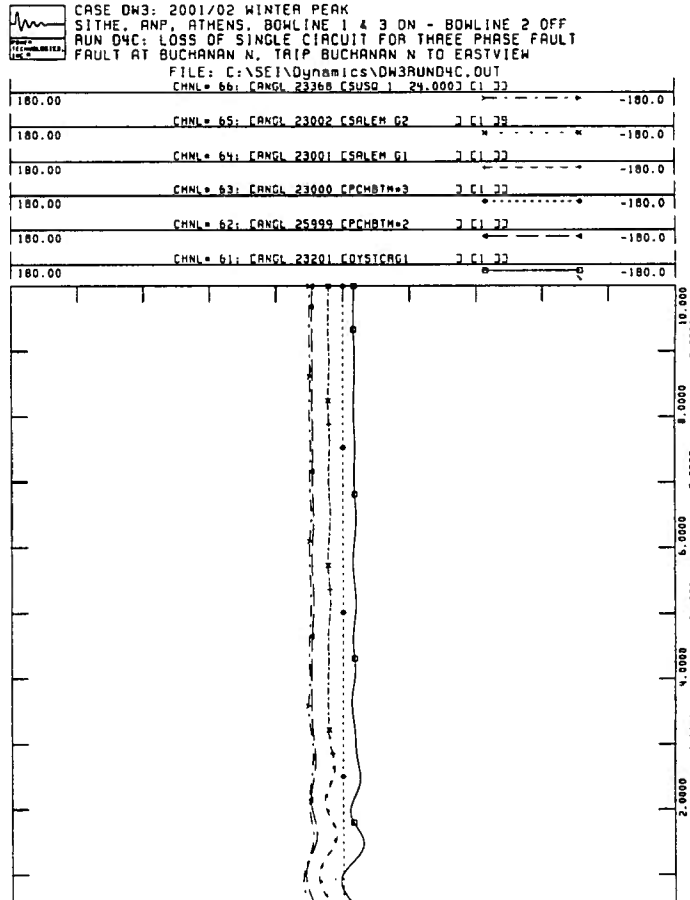
FRI, MAR 31 2000 16:43
RUN D4C PLOT 12

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT

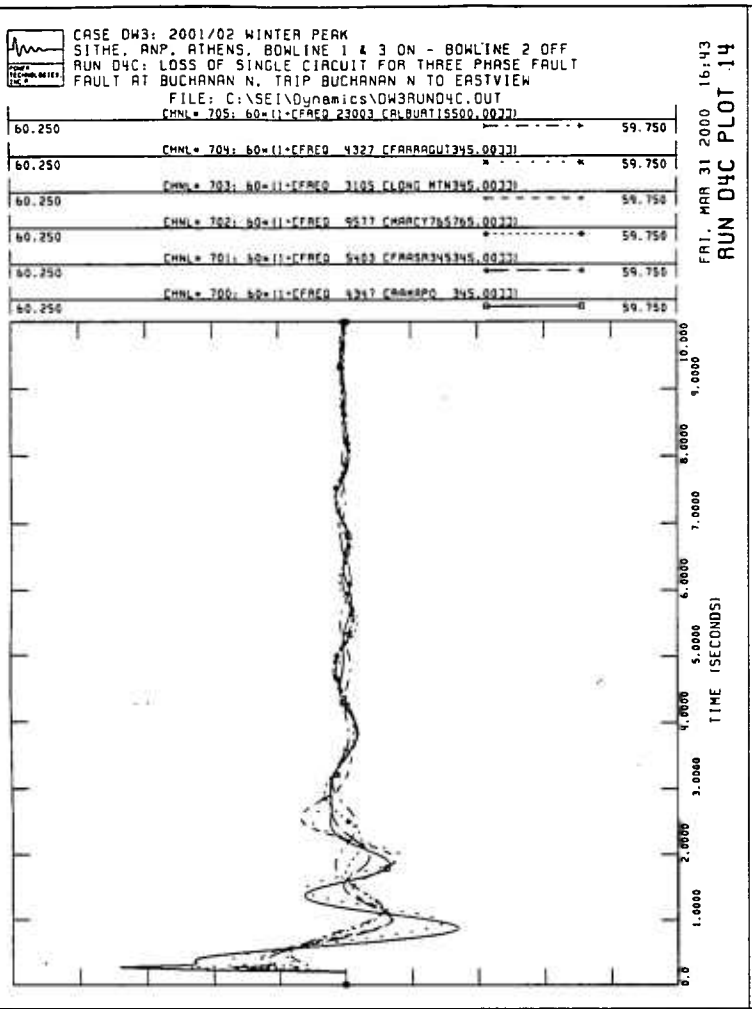


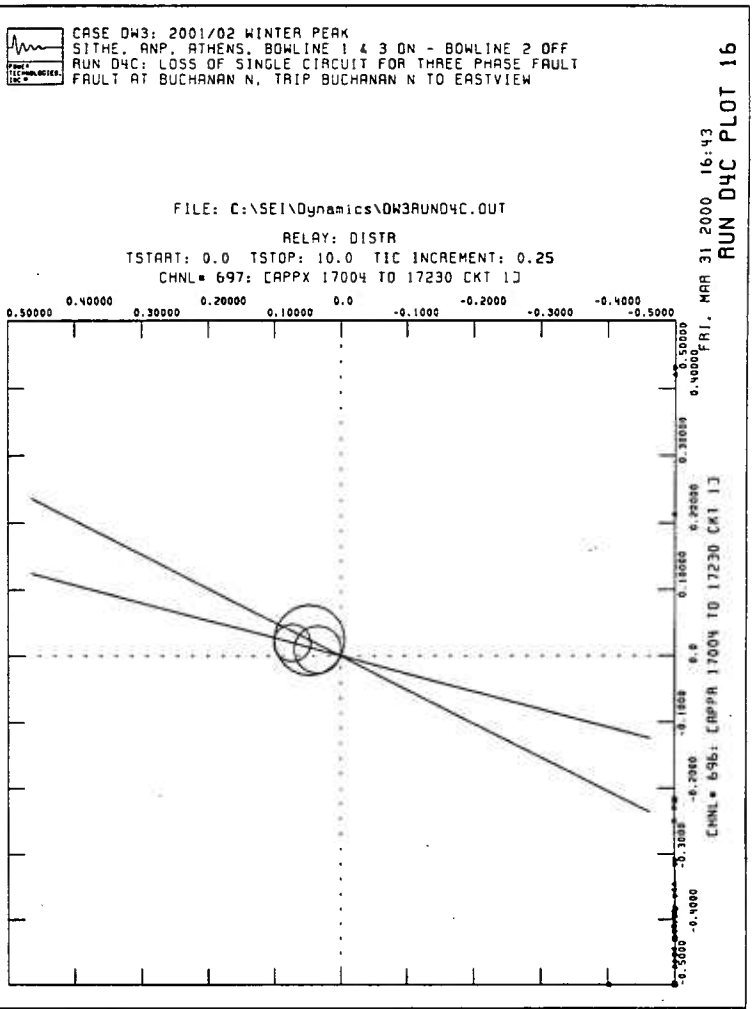
FRI, MAR 31 2000 16:43
RUN D4C PLOT 9

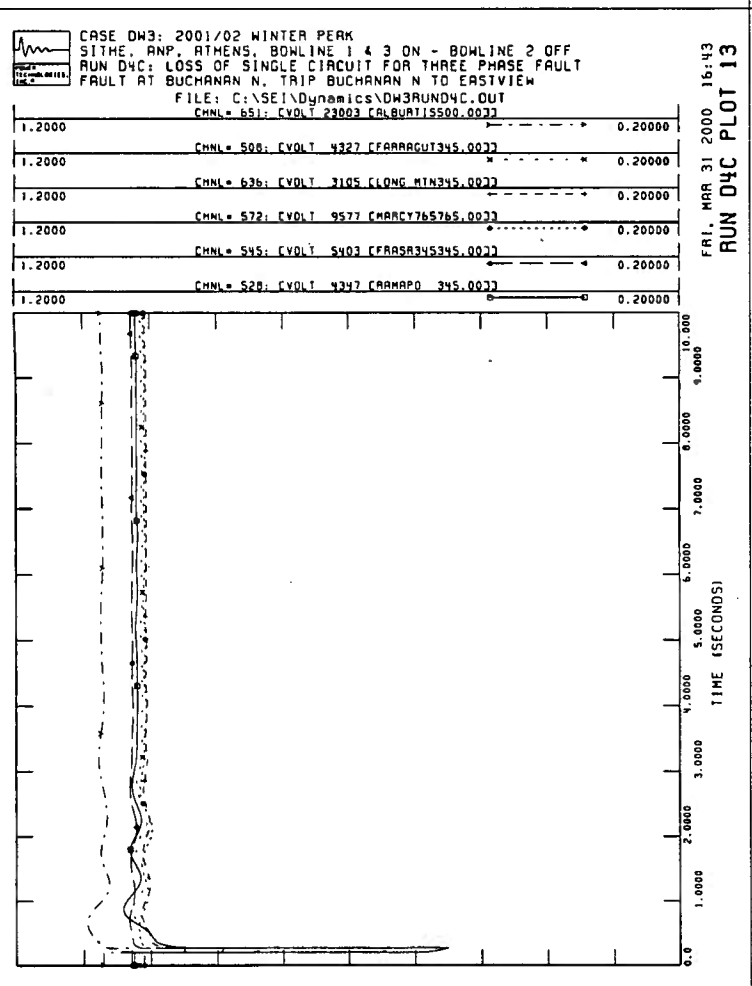
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT

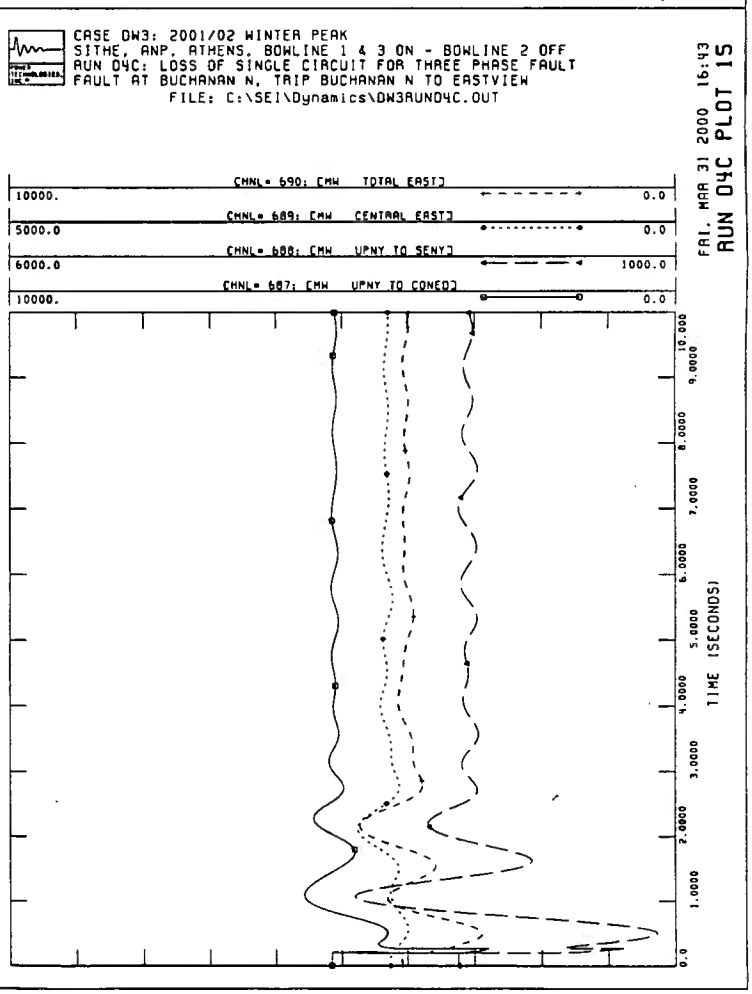


FRI, MAR 31 2000 16:43
RUN D4C PLOT 11


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT
FRI, MAR 31 2000 16:43
RUN D4C PLOT 14
TIME (SECONDS)

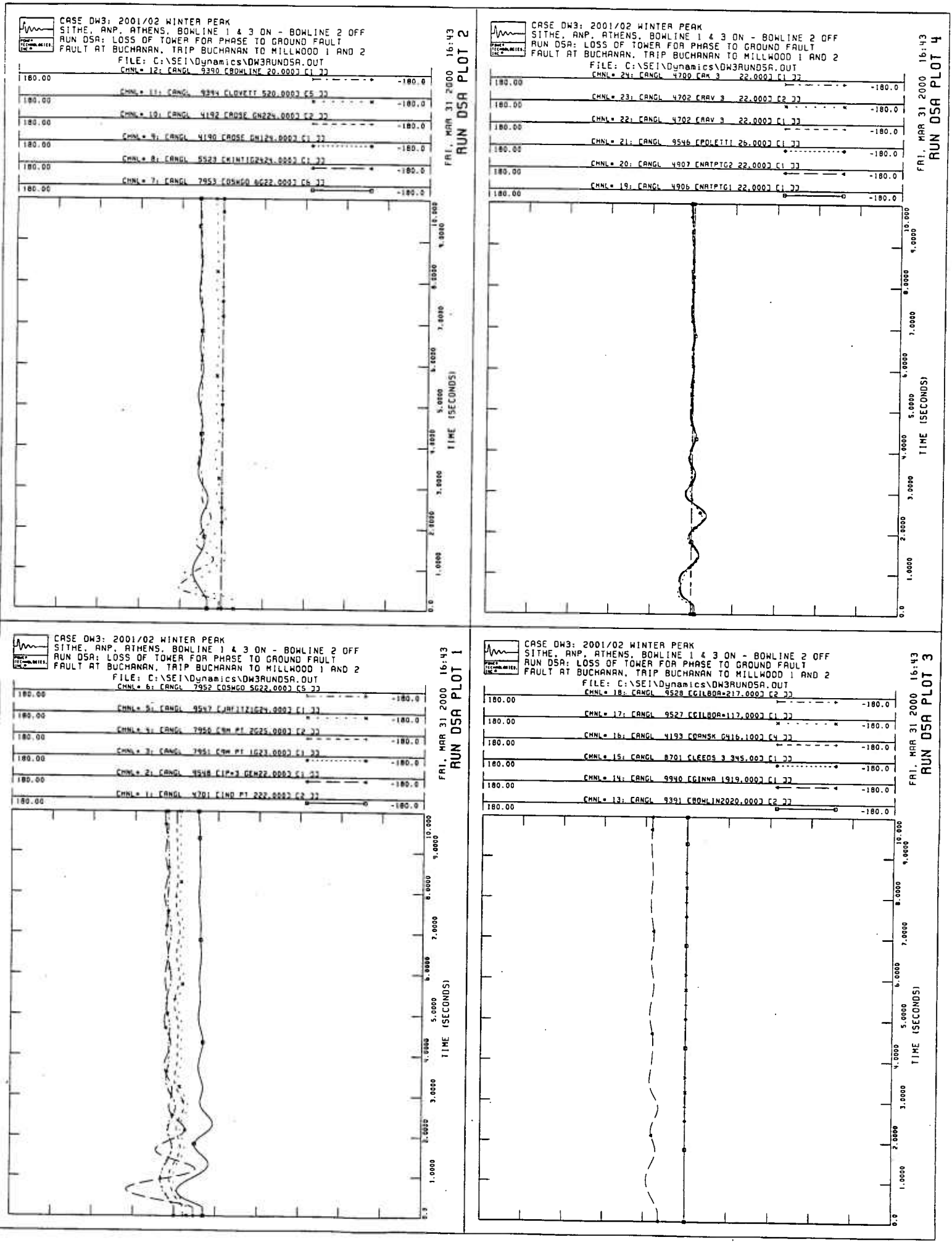

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
FRI, MAR 31 2000 16:43
RUN D4C PLOT 16


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT
FRI, MAR 31 2000 16:43
RUN D4C PLOT 13
TIME (SECONDS)


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW3RUND4C.OUT
FRI, MAR 31 2000 16:43
RUN D4C PLOT 15
TIME (SECONDS)

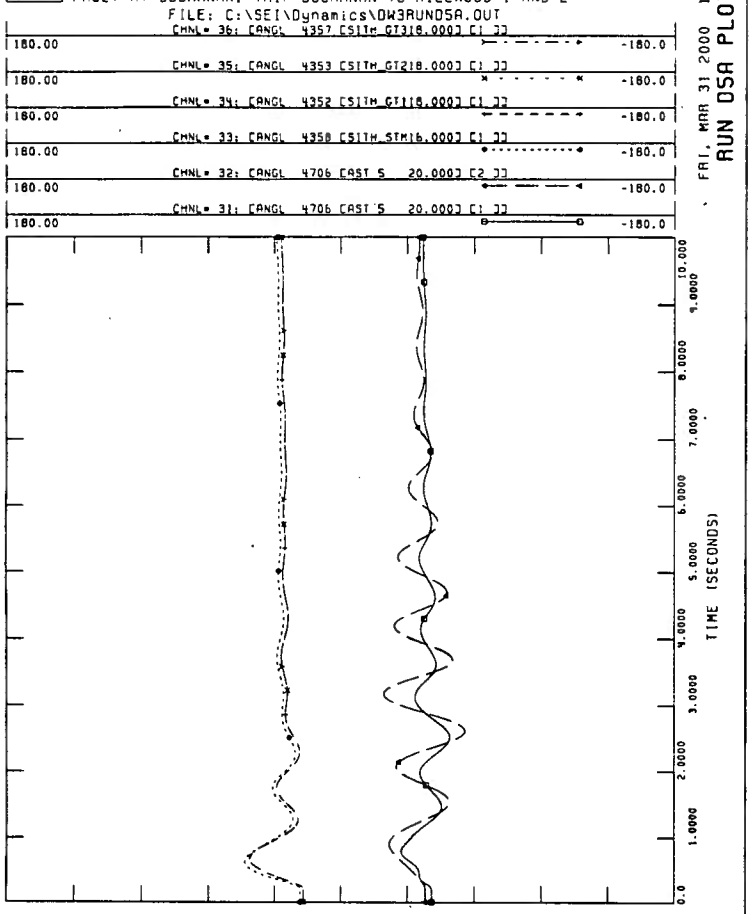
CONTINGENCY D5A

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1             / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2             / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT
FRI, MAR 31 2000 16:43
RUN DSA PLOT 2
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1 JJ
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5 JJ
CHNL= 10: CANGL 4192 CROSE GN224.000] C2 JJ
CHNL= 9: CANGL 4190 CROSE GN124.000] C1 JJ
CHNL= 8: CANGL 5523 CWINTIG2424.000] C1 JJ
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6 JJ
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT
FRI, MAR 31 2000 16:43
RUN DSA PLOT 4
CHNL= 24: CANGL 4700 CRAV 3 22.000] C1 JJ
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2 JJ
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1 JJ
CHNL= 21: CANGL 9546 CPOLETT1 26.000] C1 JJ
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1 JJ
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1 JJ
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT
FRI, MAR 31 2000 16:43
RUN DSA PLOT 1
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5 JJ
CHNL= 5: CANGL 9547 CWHITZ1G24.000] C1 JJ
CHNL= 4: CANGL 7950 CSW PT 2G25.000] C2 JJ
CHNL= 3: CANGL 7951 CSW PT 1G23.000] C1 JJ
CHNL= 2: CANGL 9548 CIP-3 GEN22.000] C1 JJ
CHNL= 1: CANGL 4701 CIND PT 222.000] C2 JJ
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT
FRI, MAR 31 2000 16:43
RUN DSA PLOT 3
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2 JJ
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1 JJ
CHNL= 16: CANGL 4193 CDANSK G416.100] C4 JJ
CHNL= 15: CANGL 8701 CLEEDS 3 345.000] C1 JJ
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1 JJ
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2 JJ
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000

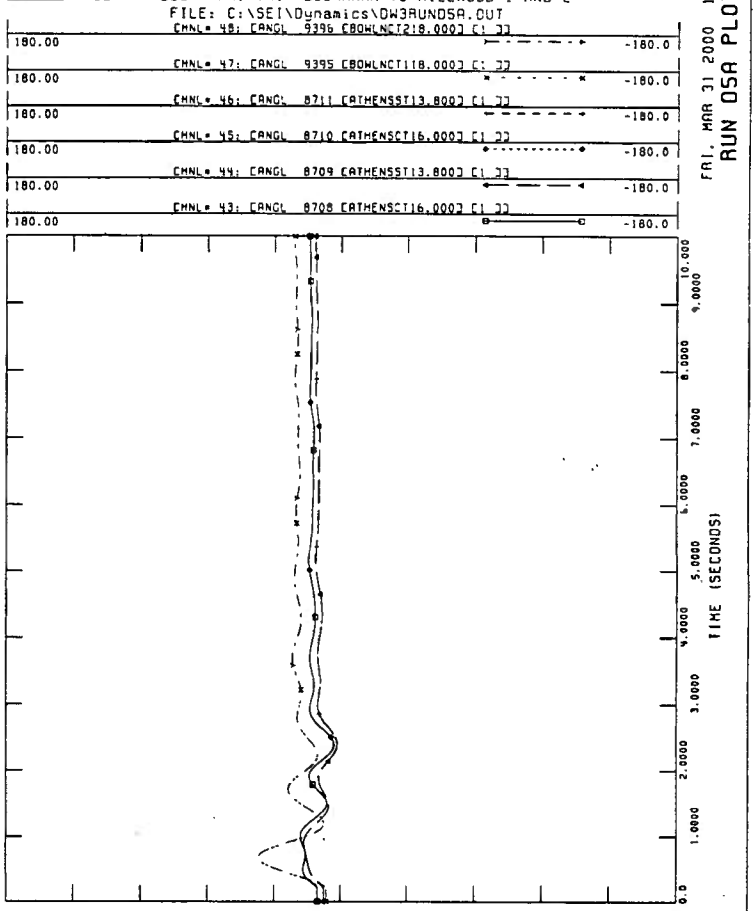
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT

FRI, MAR 31 2000 16:44
RUN DSA PLOT 6



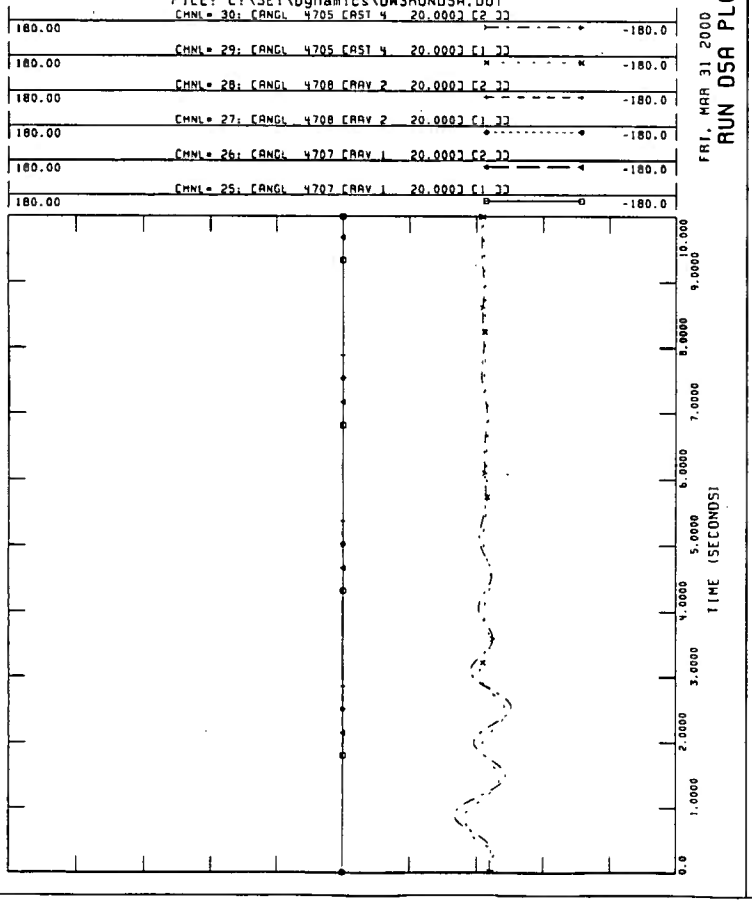
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT

FRI, MAR 31 2000 16:44
RUN DSA PLOT 8



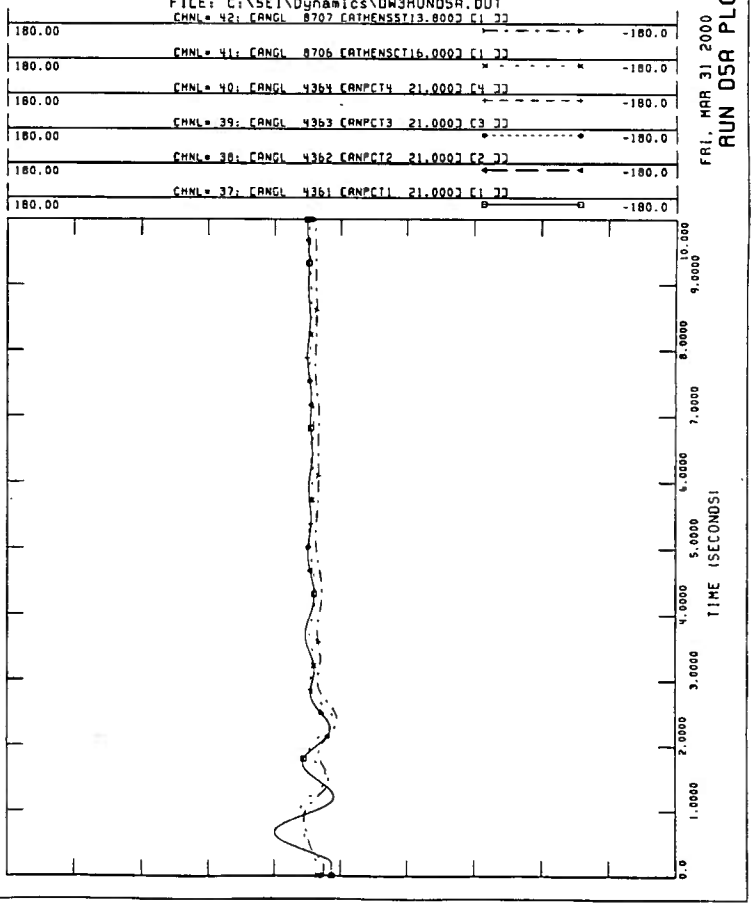
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT

FRI, MAR 31 2000 16:43
RUN DSA PLOT 5

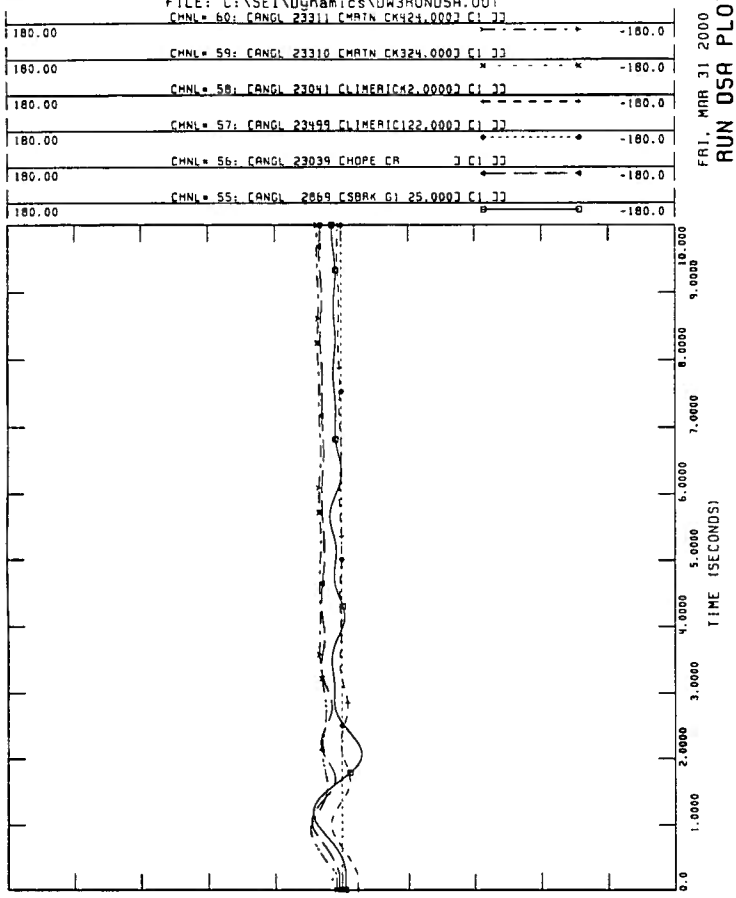


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT

FRI, MAR 31 2000 16:44
RUN DSA PLOT 7

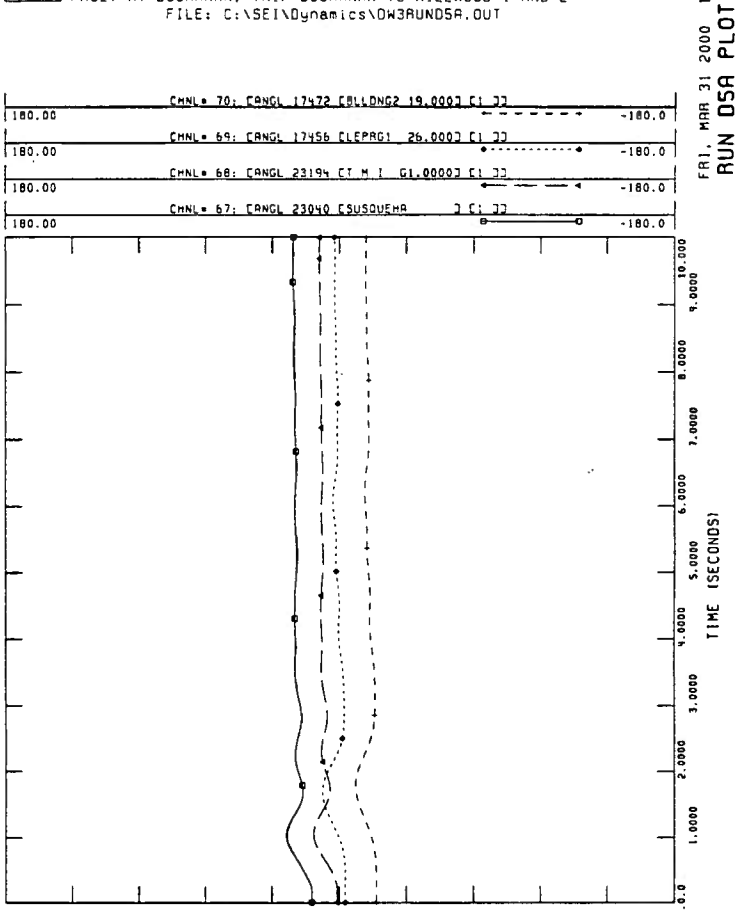


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT



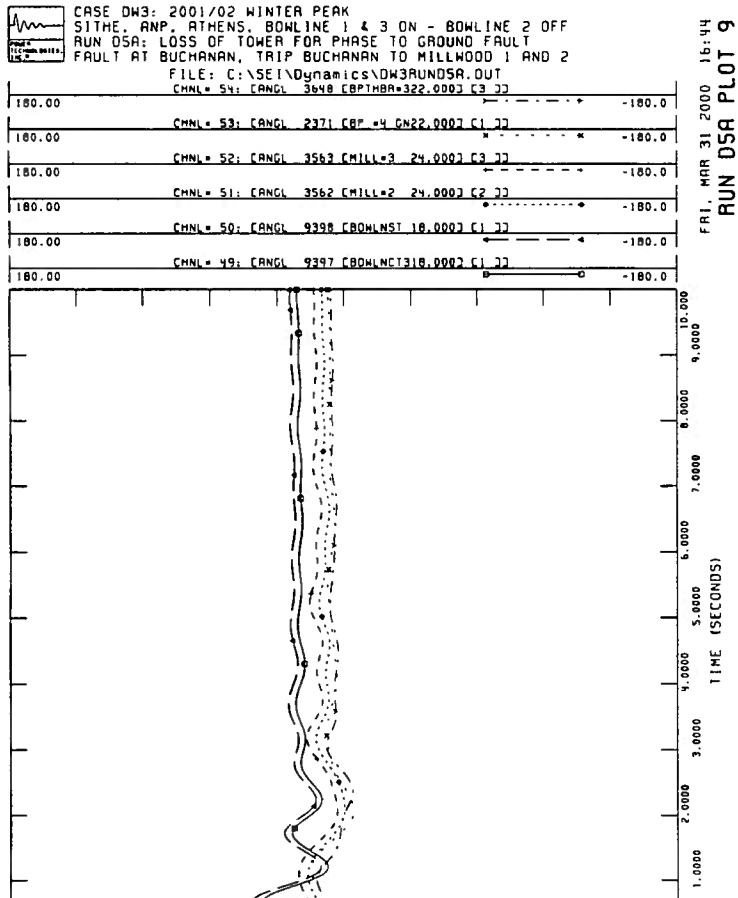
FRI, MAR 31 2000 16:44
RUN DSA PLOT 10

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT



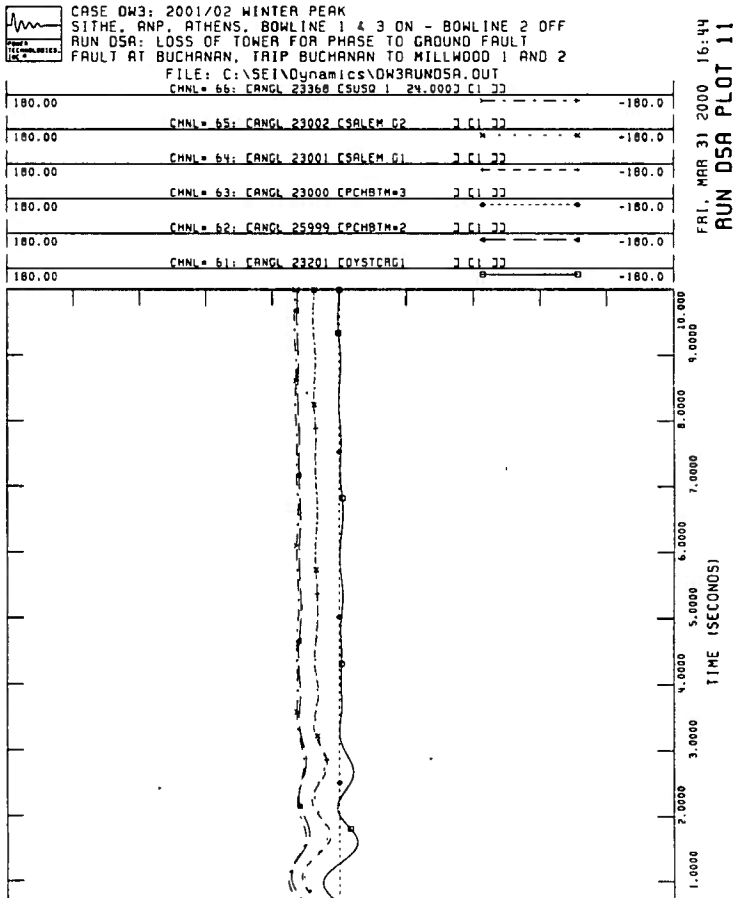
FRI, MAR 31 2000 16:44
RUN DSA PLOT 12

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT



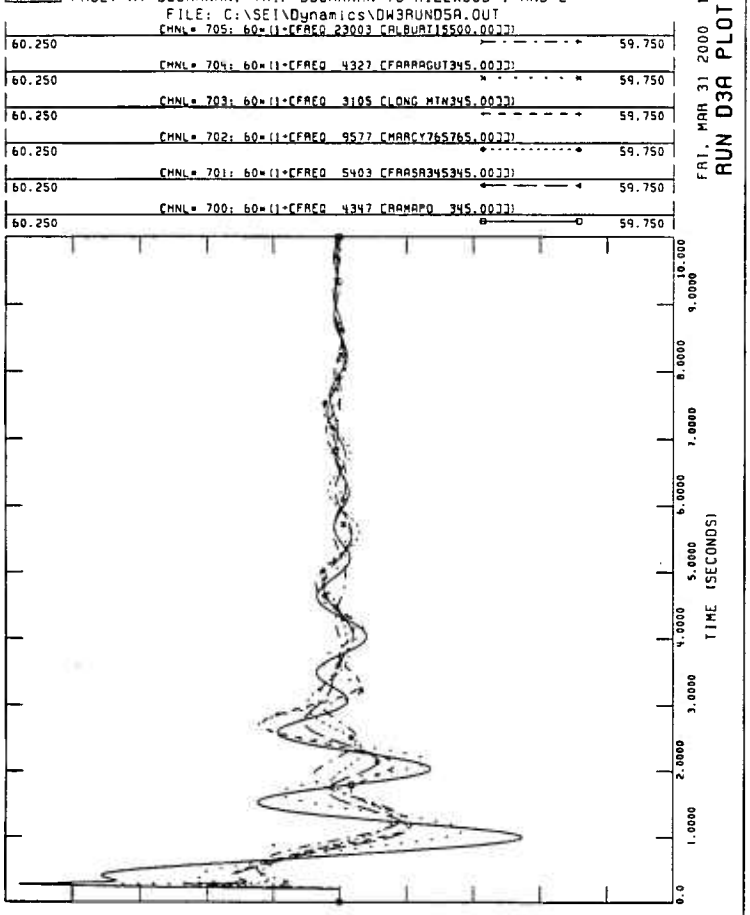
FRI, MAR 31 2000 16:44
RUN DSA PLOT 9

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUNDSA.OUT



FRI, MAR 31 2000 16:44
RUN DSA PLOT 11

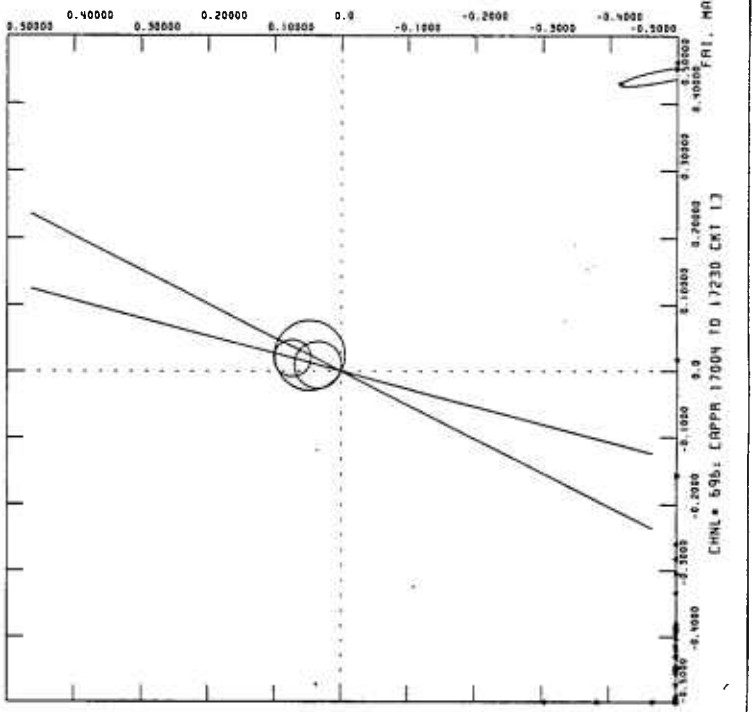
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D5A: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUND5A.OUT



FRI, MAR 31 2000 16:44
RUN D3A PLOT 14

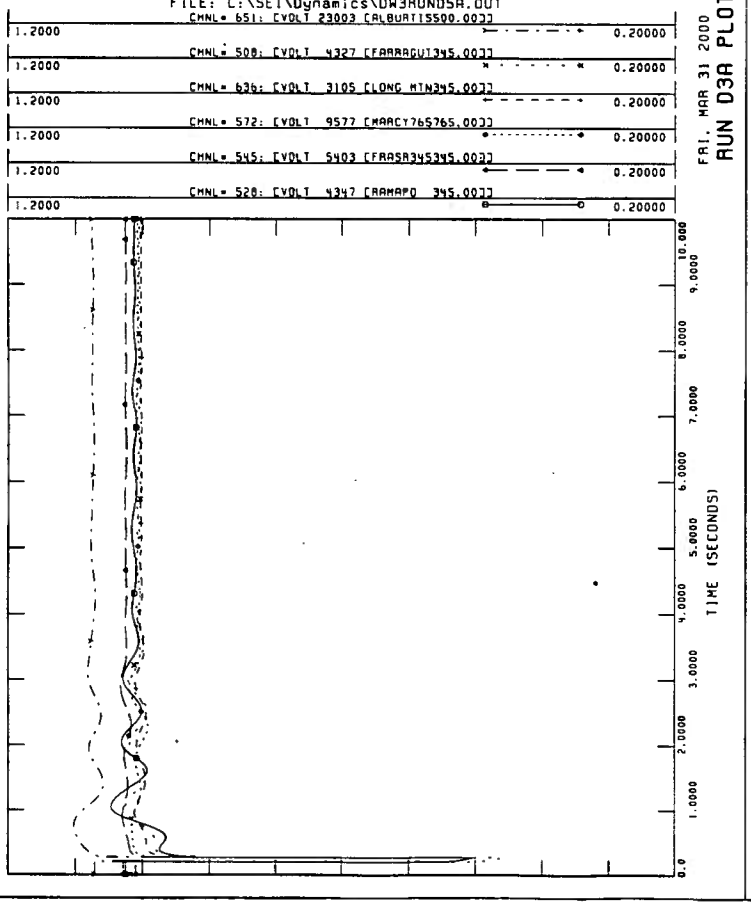
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D5A: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2

FILE: C:\SEI\Dynamics\DW3RUND5A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]



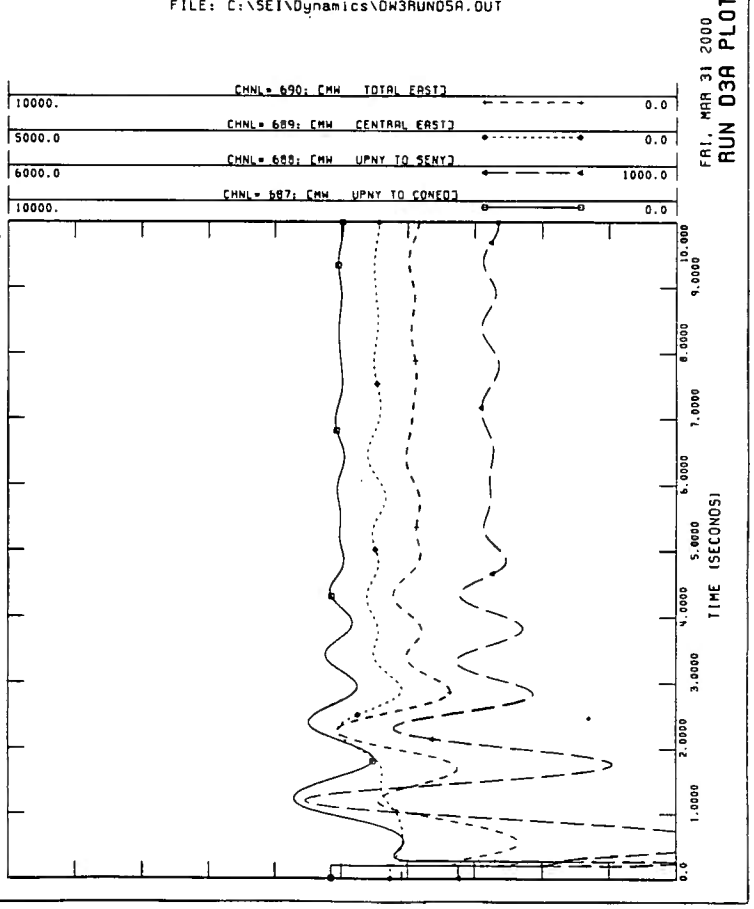
FRI, MAR 31 2000 16:44
RUN D3A PLOT 16

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D5A: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUND5A.OUT



FRI, MAR 31 2000 16:44
RUN D3A PLOT 13

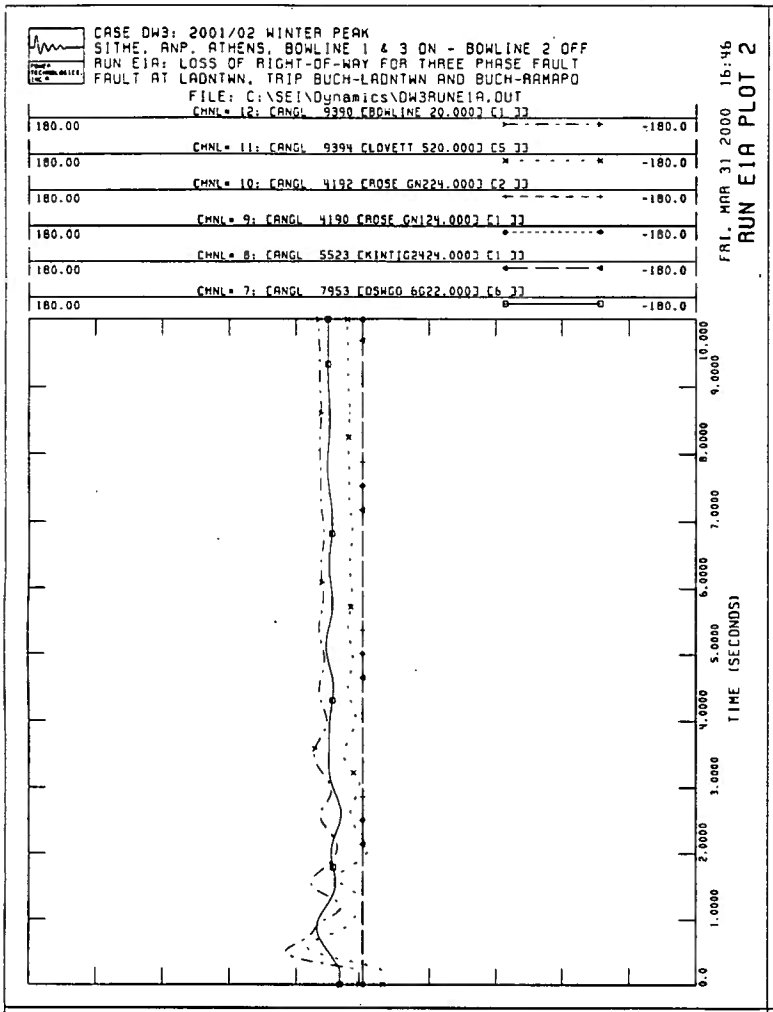
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN D5A: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW3RUND5A.OUT

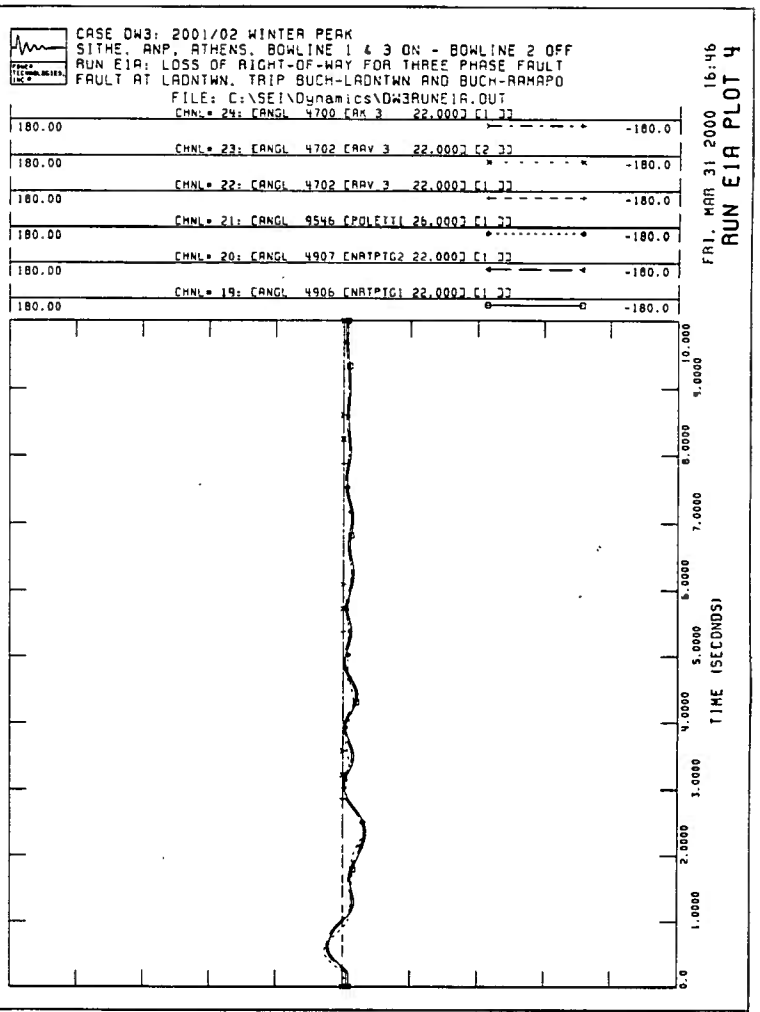


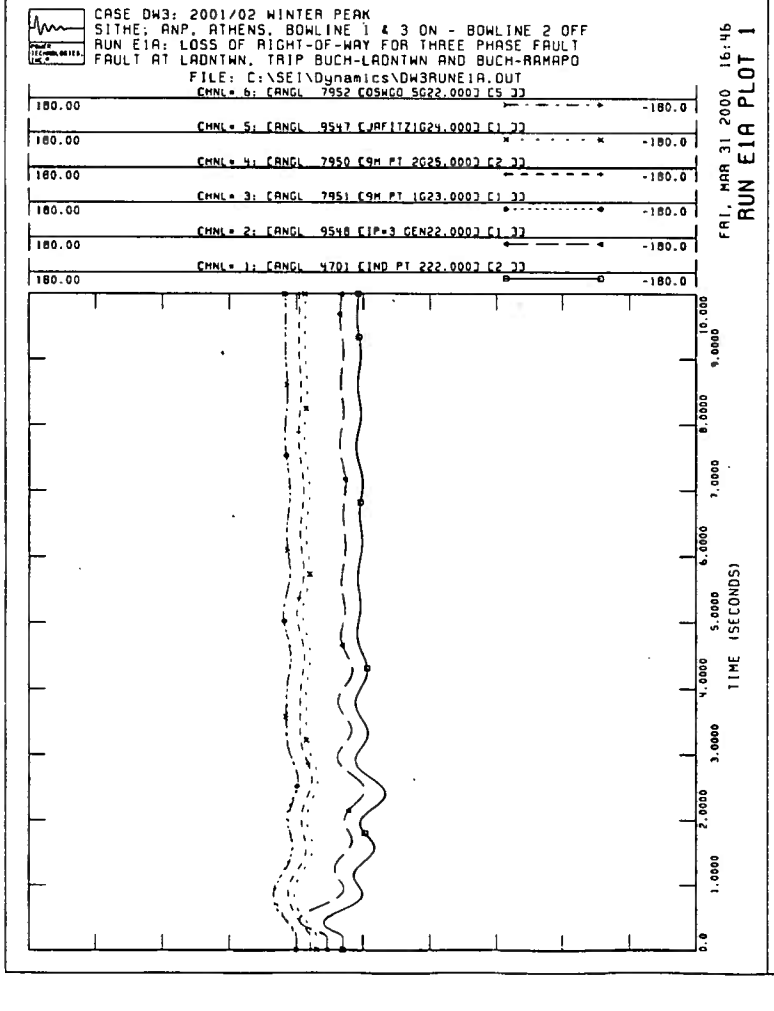
FRI, MAR 31 2000 16:44
RUN D3A PLOT 15

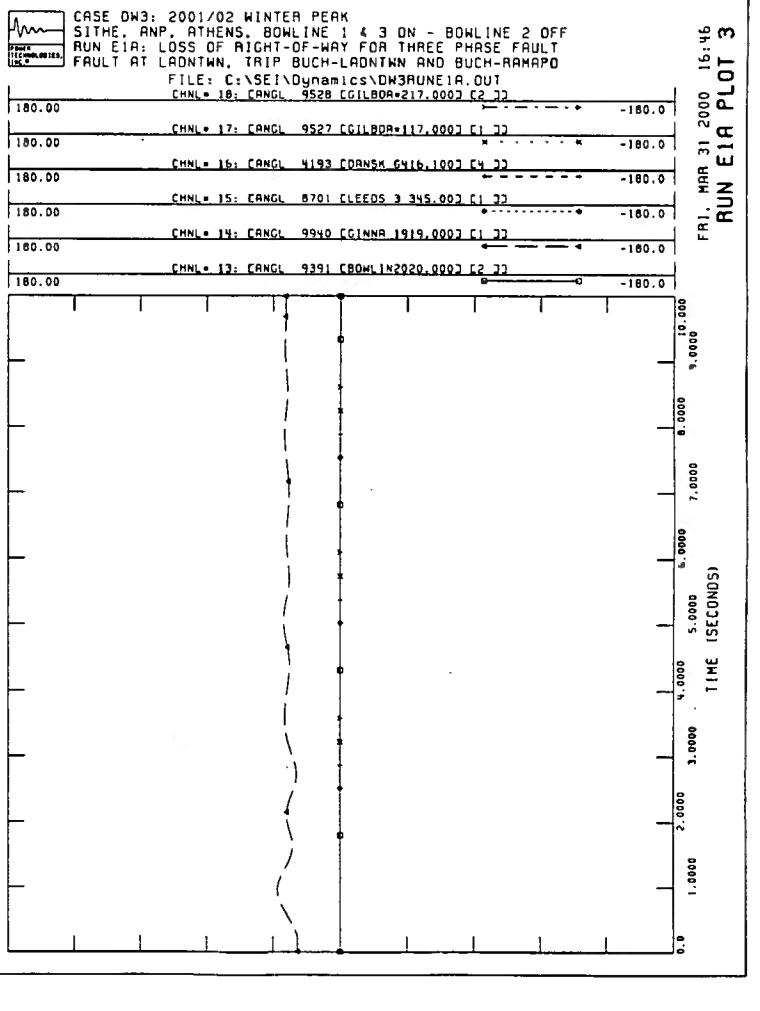
CONTINGENCY E1A

```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1             / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1             / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 2


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 24: CANGL 4700 CAR 3 22.000] C1]]
CHNL= 23: CANGL 4702 CARV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CARV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT[26.000] C1]]
CHNL= 20: CANGL 4907 CNRTPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNRTPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 4


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZIG24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 1


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWL1N2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 3

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT

FRI, MAR 31 2000 16:46
RUN E1A PLOT 6

CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT

FRI, MAR 31 2000 16:46
RUN E1A PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT

FRI, MAR 31 2000 16:46
RUN E1A PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

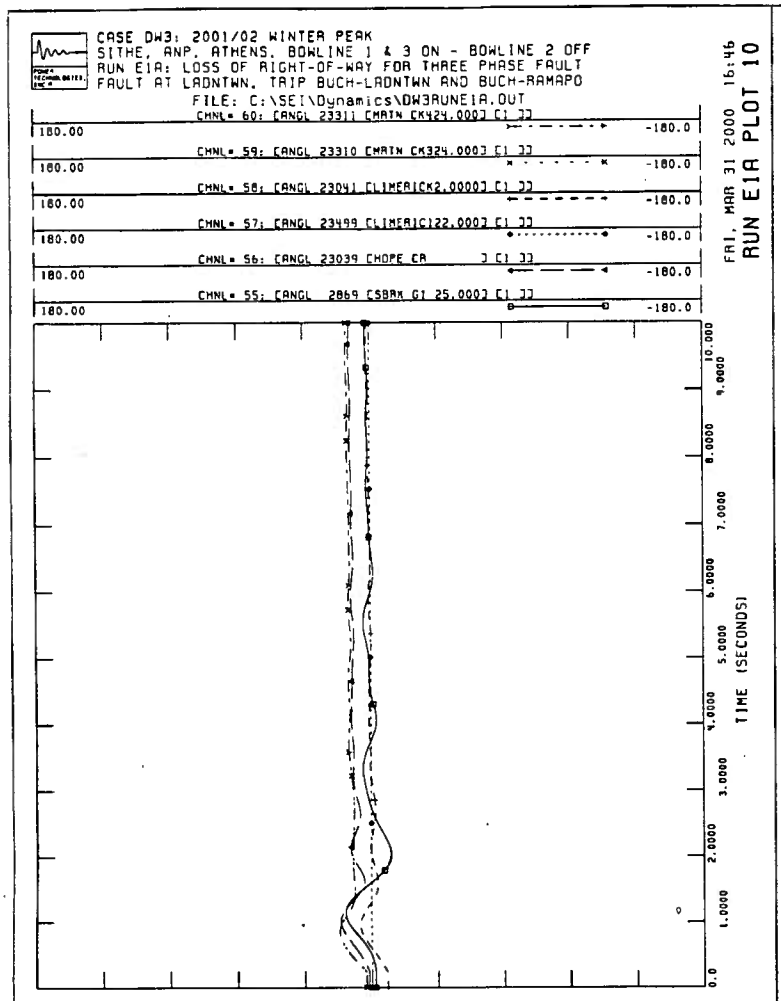
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT

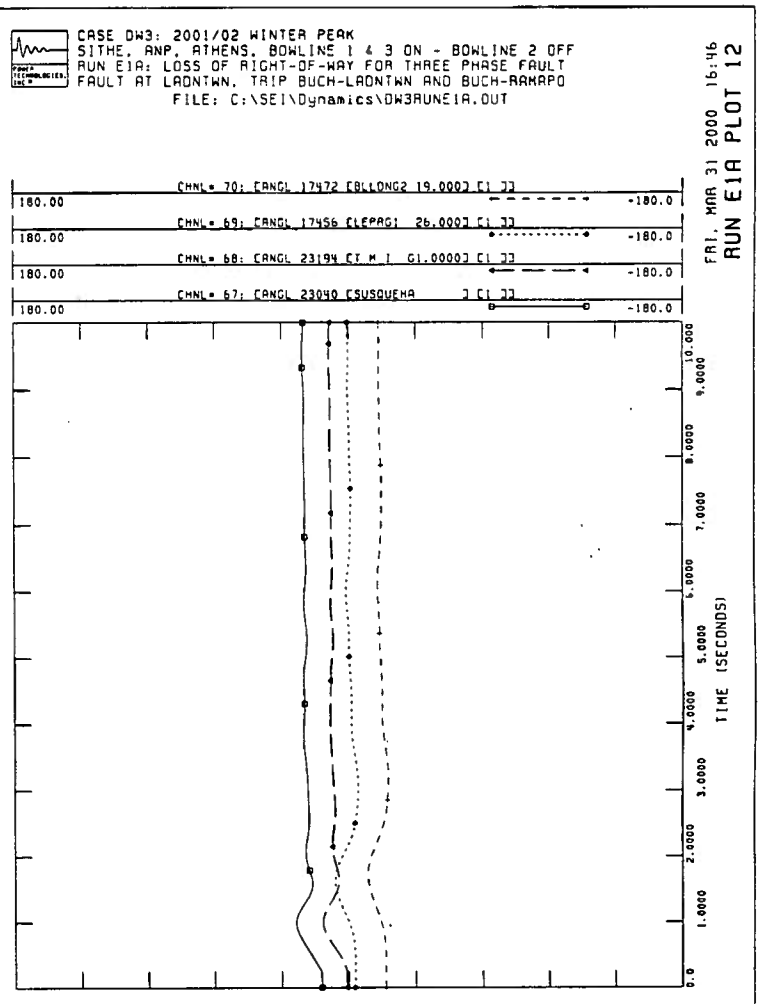
FRI, MAR 31 2000 16:46
RUN E1A PLOT 7

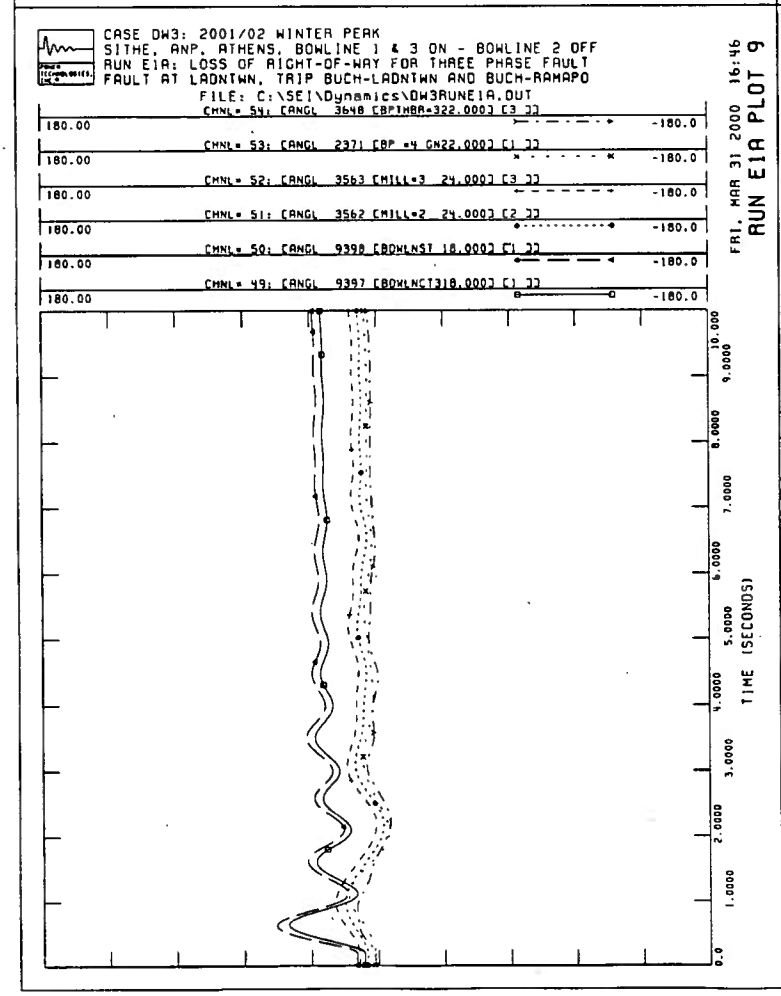
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

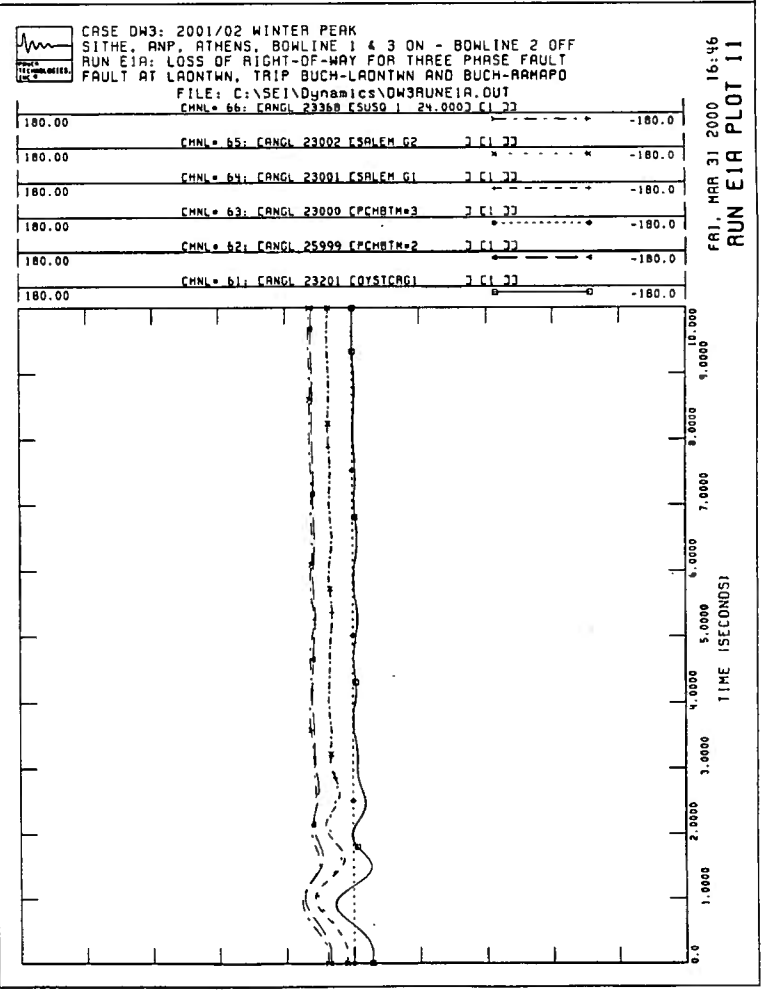
180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

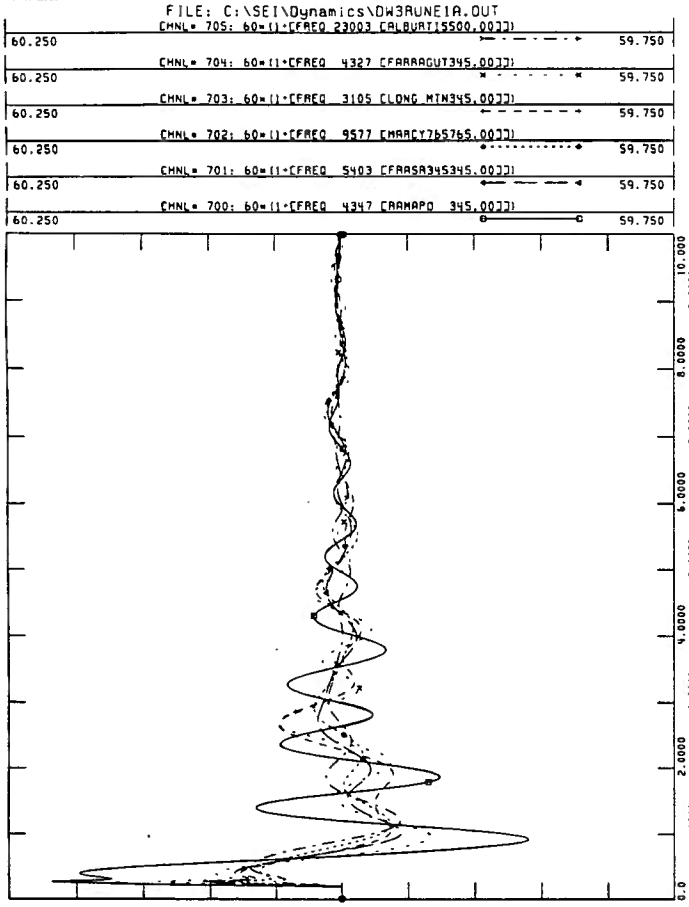

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 60: [ANGL 23311 [MAIN CK424.000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SSBRK G1 25.000] [1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 10


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 70: [ANGL 17472 [BLLONG2 19.000] [1]]
CHNL= 69: [ANGL 17456 [LEPAG1 26.000] [1]]
CHNL= 68: [ANGL 23194 [T M I G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 12


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 54: [ANGL 3648 [BPTHBA=322.000] [3]]
CHNL= 53: [ANGL 2371 [BP =4 GN22.000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNST 18.000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNGT318.000] [1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 9


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
CHNL= 66: [ANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCMBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCMBTM=2] [1]]
CHNL= 61: [ANGL 23201 [COYSTCAG1] [1]]
180.00
-180.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E1A PLOT 11

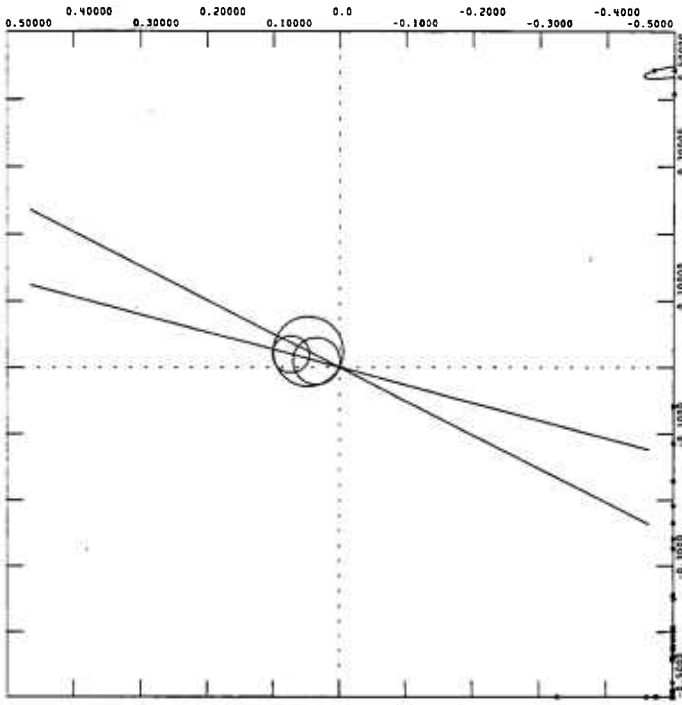
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT



FRI, MAR 31 2000 16:46
RUN E1A PLOT 14

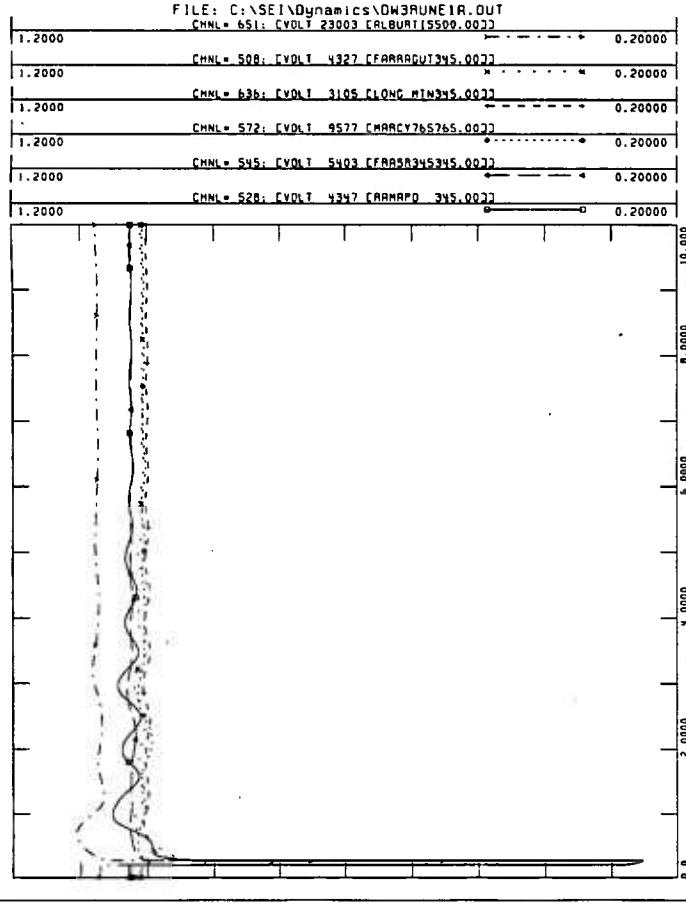
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO

FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25



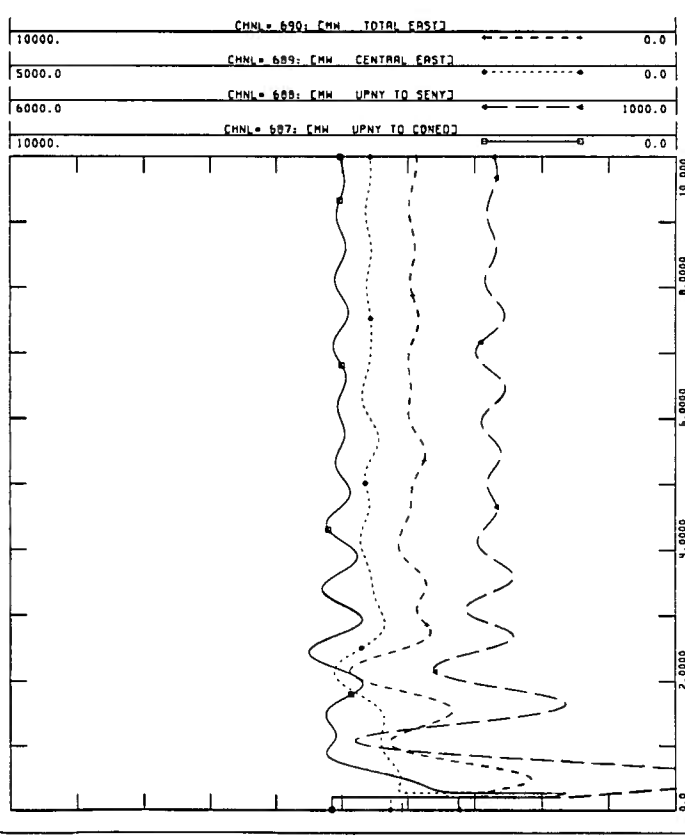
FRI, MAR 31 2000 16:46
RUN E1A PLOT 16

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT



FRI, MAR 31 2000 16:46
RUN E1A PLOT 13

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW3RUNE1A.OUT

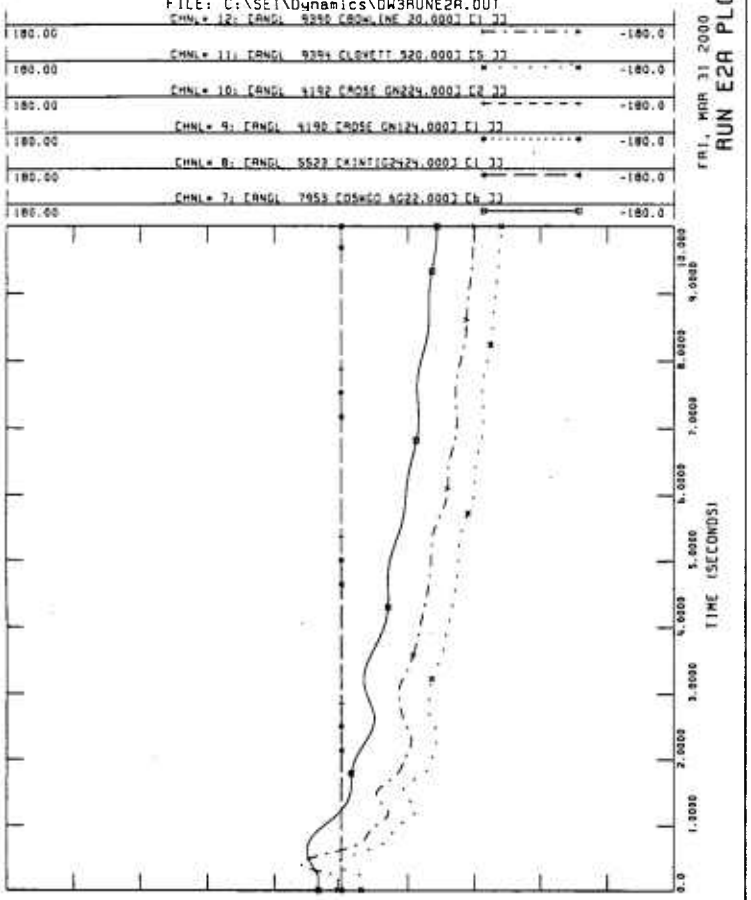


FRI, MAR 31 2000 16:46
RUN E1A PLOT 15

CONTINGENCY E2A

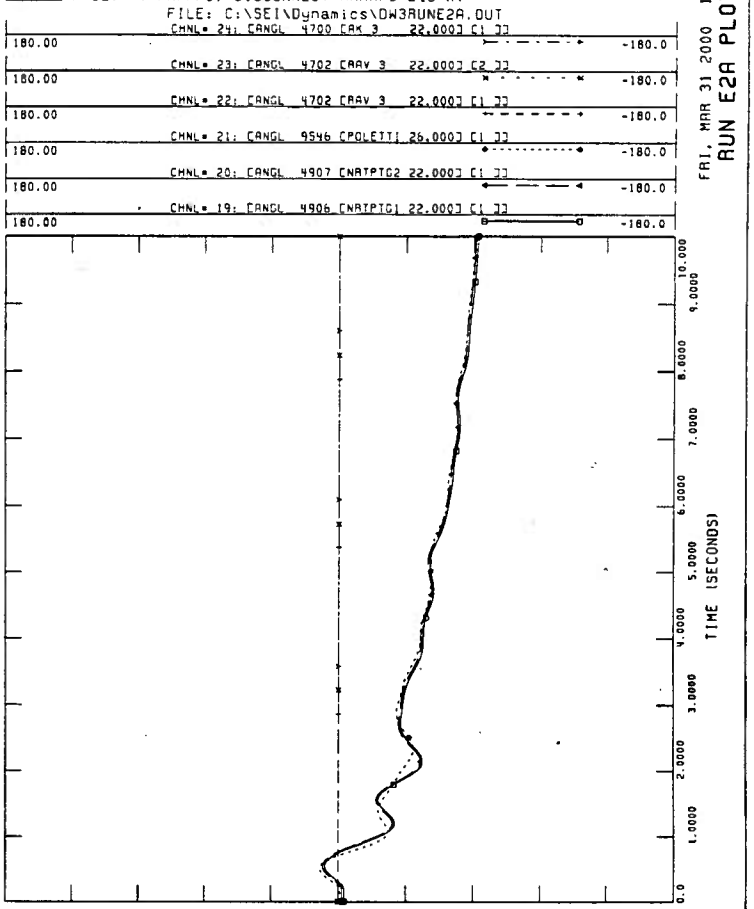
```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                              / DISCONNECT RAMAPO SUBSTATION
DROP GENERATOR 1 AT BUS 4352                            / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4353                            / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4357                            / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4358                            / TRIP SITHE ST
DROP GENERATOR 1 AT BUS 4361                            / TRIP ANP CT
DROP GENERATOR 2 AT BUS 4362                            / TRIP ANP CT
DROP GENERATOR 3 AT BUS 4363                            / TRIP ANP CT
DROP GENERATOR 4 AT BUS 4364                            / TRIP ANP ST
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT



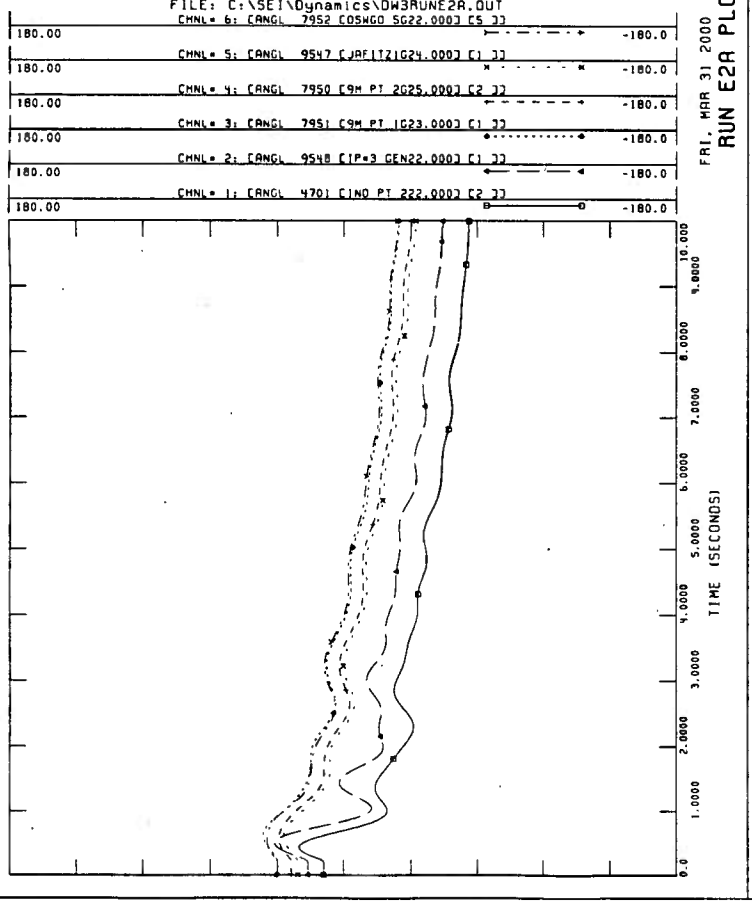
FRI, MAR 31 2000 16:46
RUN E2A PLOT 2

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT



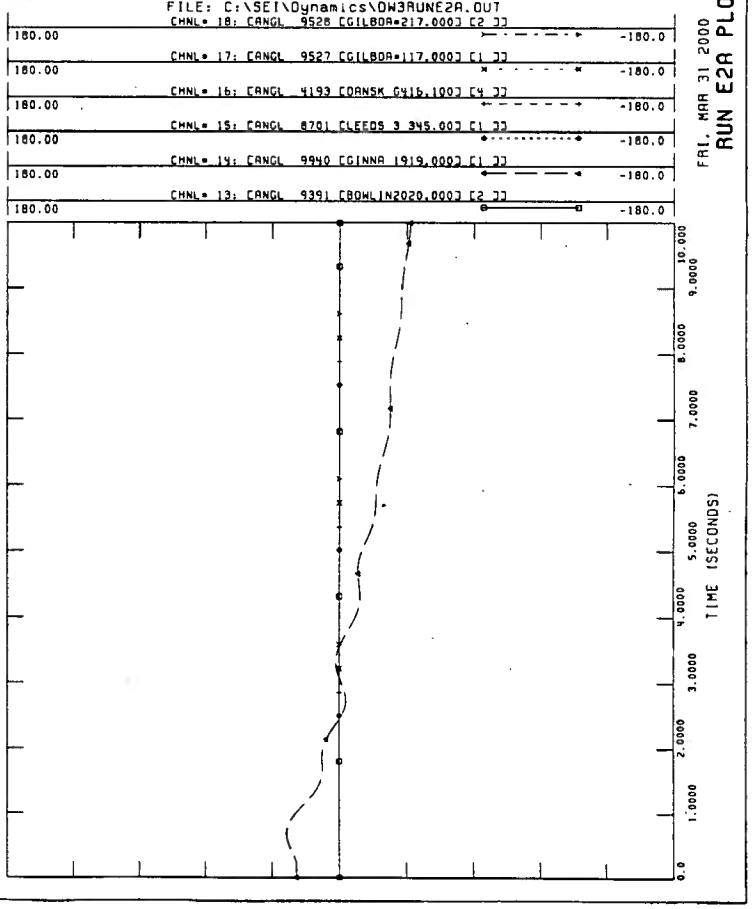
FRI, MAR 31 2000 16:46
RUN E2A PLOT 4

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT



FRI, MAR 31 2000 16:46
RUN E2A PLOT 1

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT



FRI, MAR 31 2000 16:46
RUN E2A PLOT 3

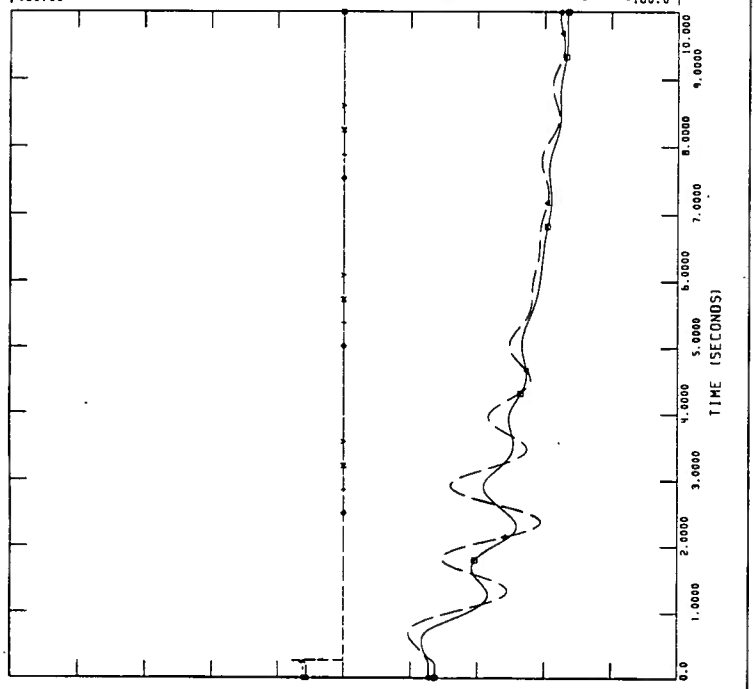
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 6

CHNL= 36: [ANGL 4357 [SITH_GT218.000] [1]]
CHNL= 35: [ANGL 4353 [SITH_GT218.000] [1]]
CHNL= 34: [ANGL 4352 [SITH_GT118.000] [1]]
CHNL= 33: [ANGL 4350 [SITH_STM16.000] [1]]
CHNL= 32: [ANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: [ANGL 4706 [AST 5 20.000] [1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



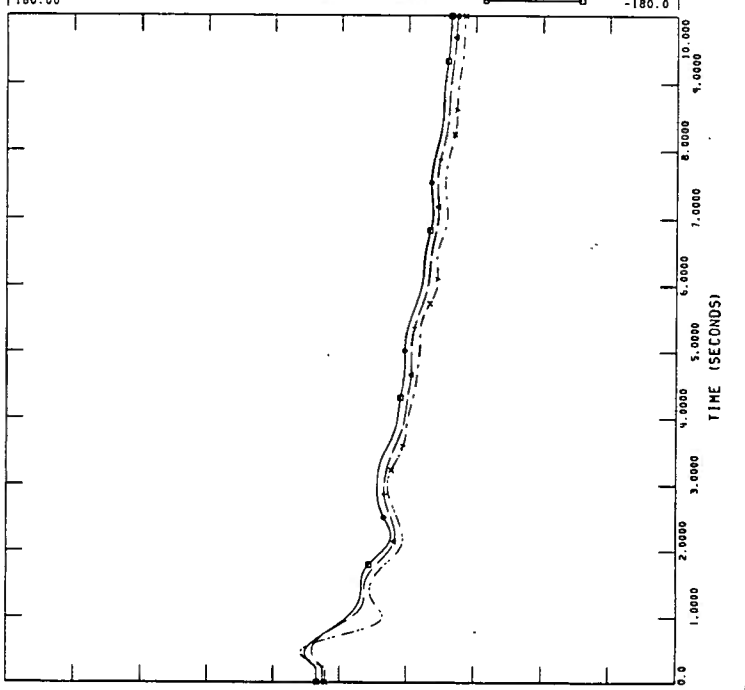
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 8

CHNL= 48: [ANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: [ANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: [ANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: [ANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: [ANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: [ANGL 8708 [ATHENSCT16.000] [1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



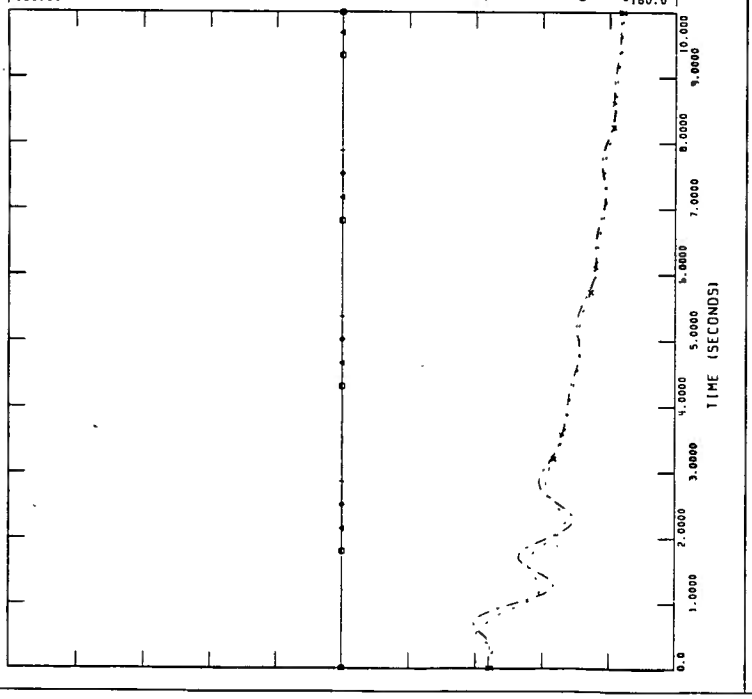
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 5

CHNL= 30: [ANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: [ANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: [ANGL 4708 [RAV 2 20.000] [2]]
CHNL= 27: [ANGL 4708 [RAV 2 20.000] [1]]
CHNL= 26: [ANGL 4707 [RAV 1 20.000] [2]]
CHNL= 25: [ANGL 4707 [RAV 1 20.000] [1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



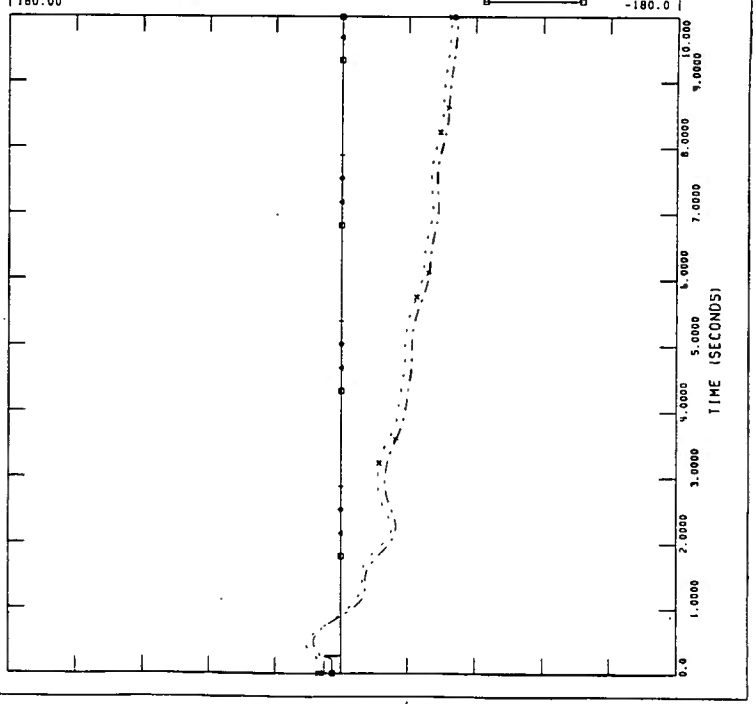
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 7

CHNL= 42: [ANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: [ANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: [ANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: [ANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: [ANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: [ANGL 4361 [ANPCT1 21.000] [1]]

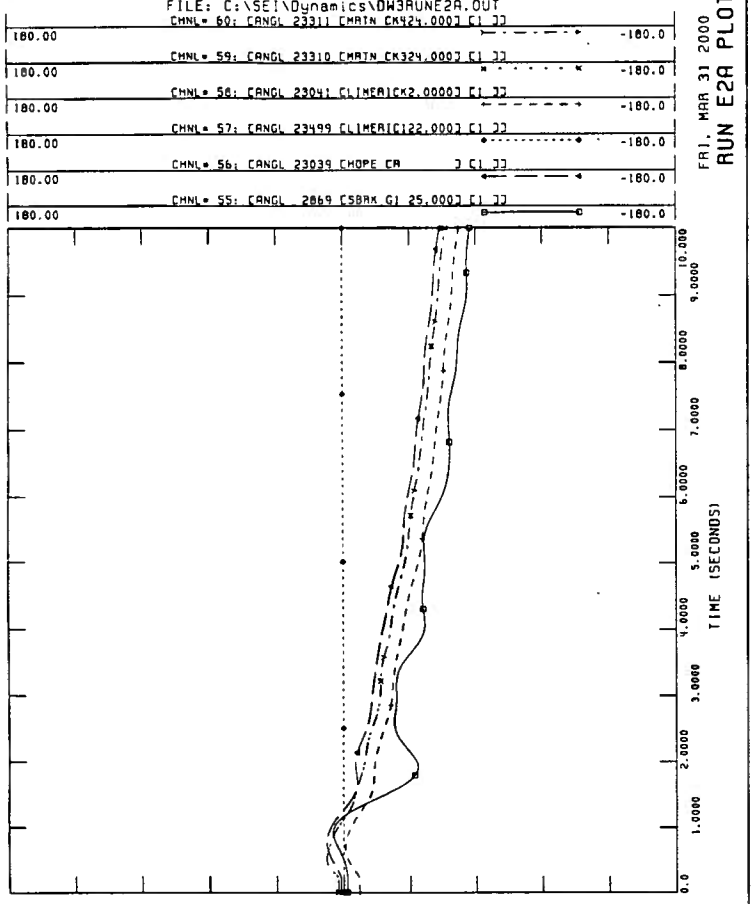
180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



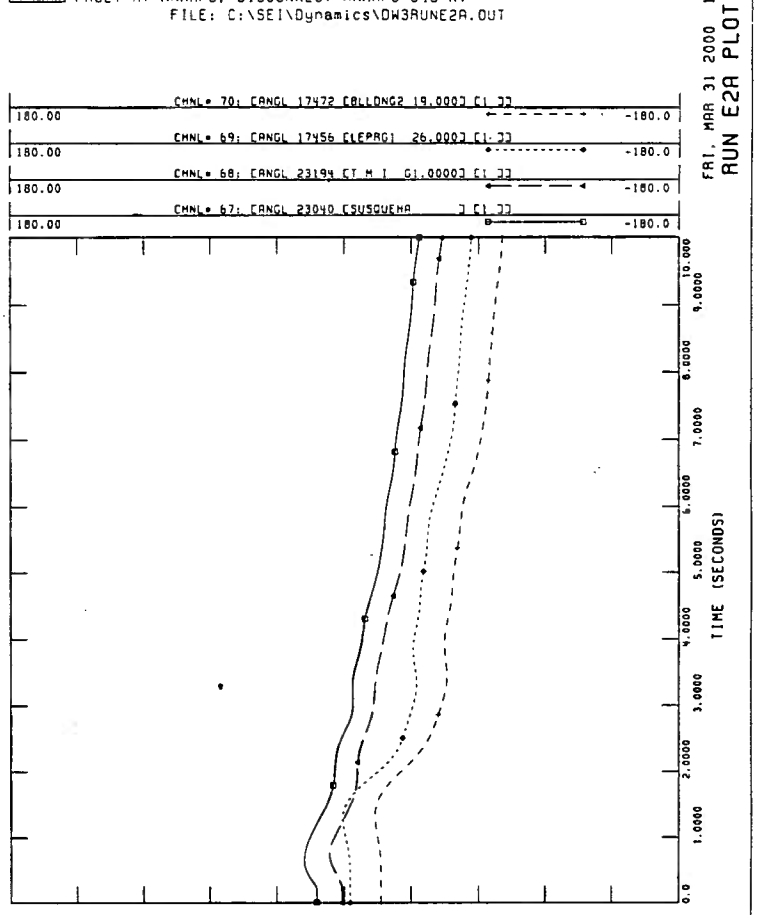
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 10



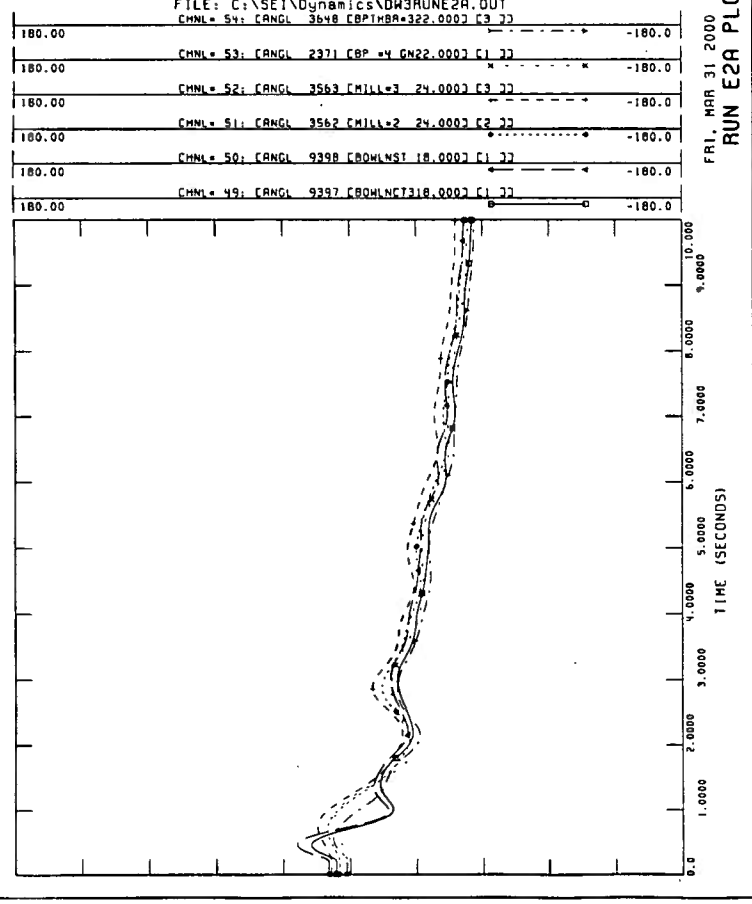
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 12



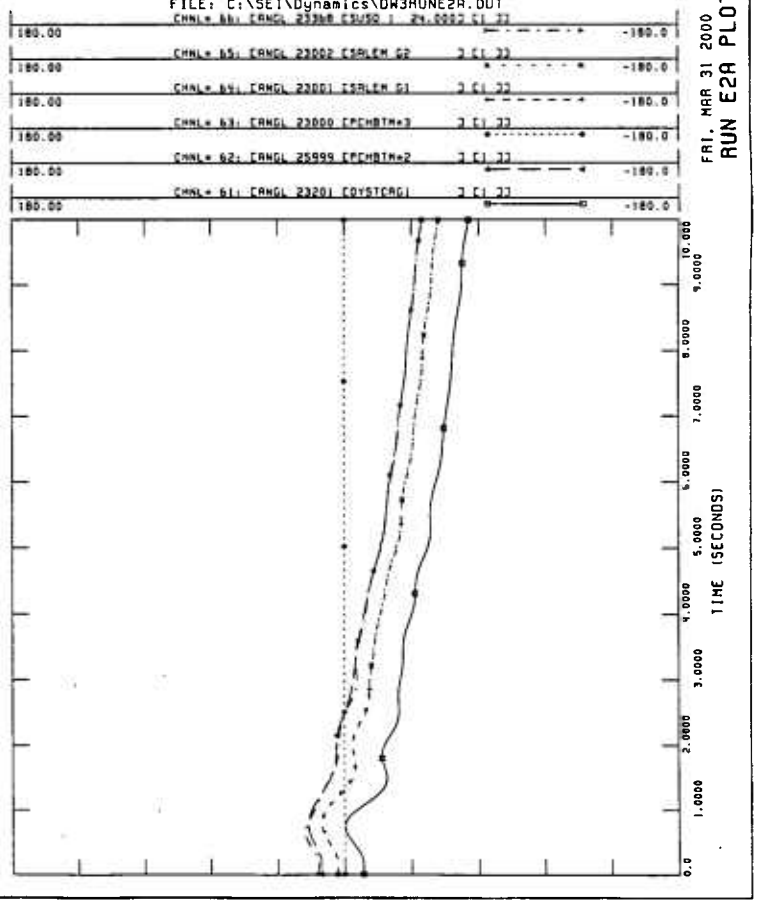
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 9

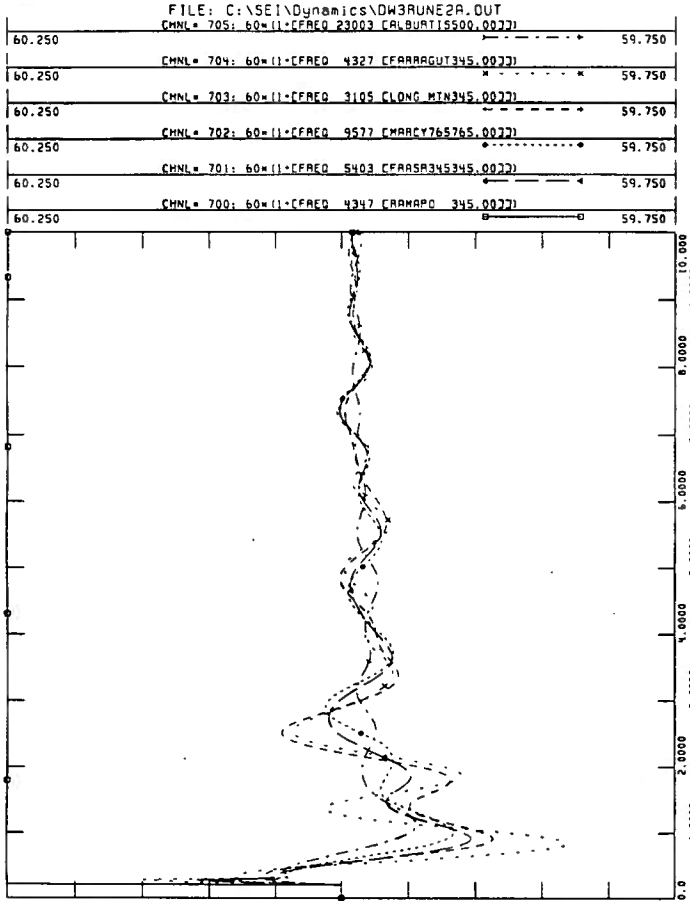


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

FRI, MAR 31 2000 16:46
RUN E2A PLOT 11



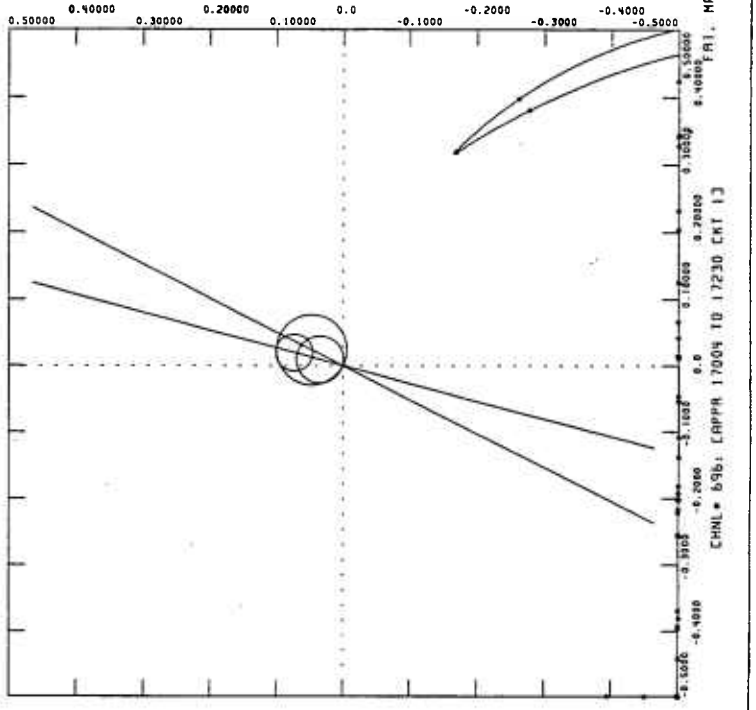
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT



FRI, MAR 31 2000 16:46
RUN E2A PLOT 14

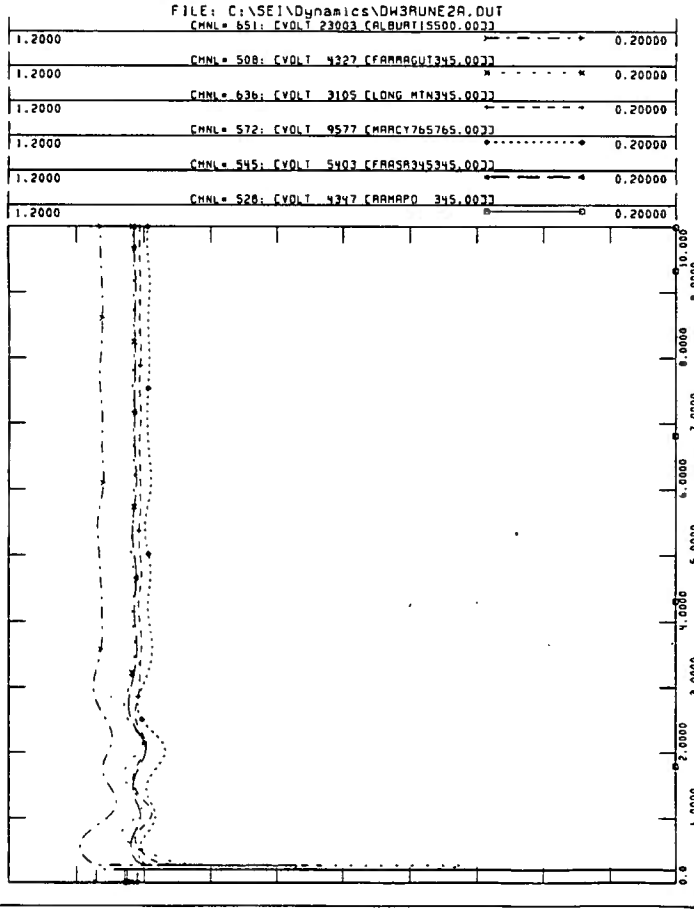
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV

FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



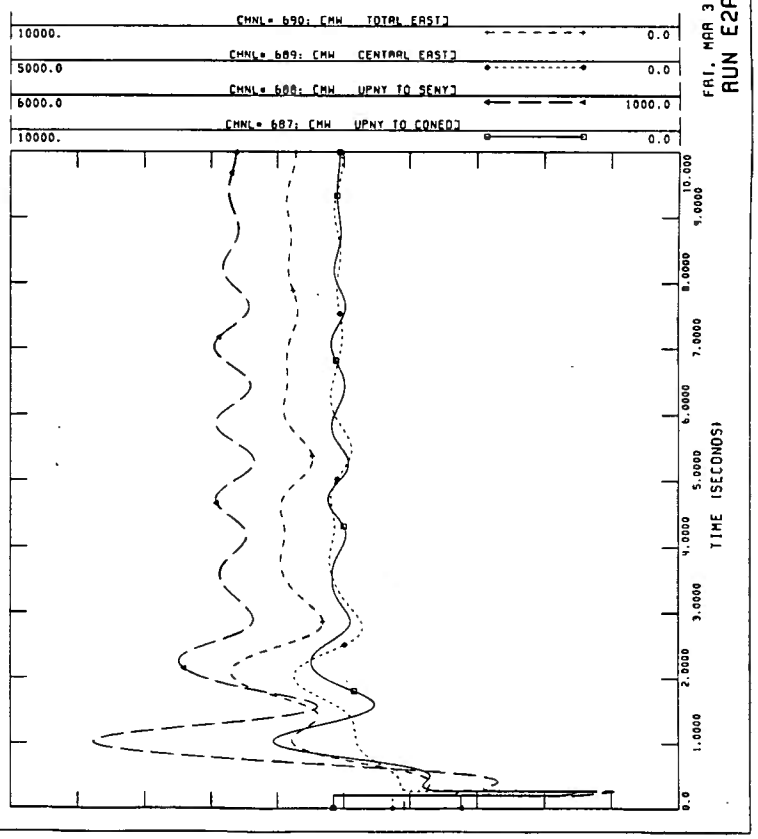
FRI, MAR 31 2000 16:46
RUN E2A PLOT 16

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT



FRI, MAR 31 2000 16:46
RUN E2A PLOT 13

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW3RUNE2A.OUT

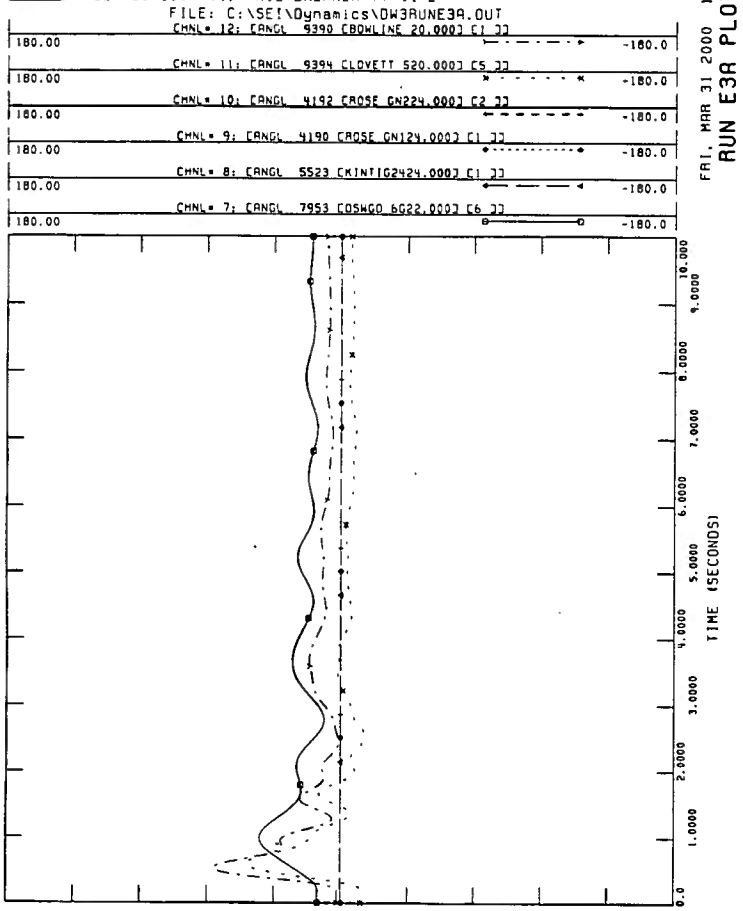


FRI, MAR 31 2000 16:46
RUN E2A PLOT 15

CONTINGENCY E3A

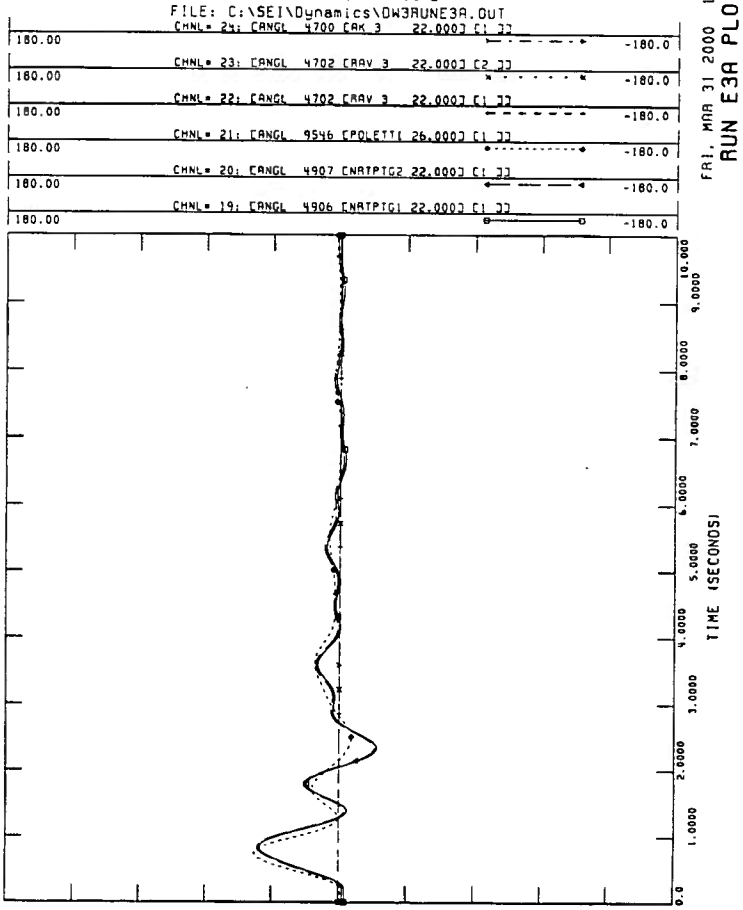
```
RECOVER FROM D1.SNP AND DW3.CNV
START OUTPUT DW3RUNE3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
RUN FOR 5.50 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4360 CKT 1              / TRIP RAMAPO-ANP CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



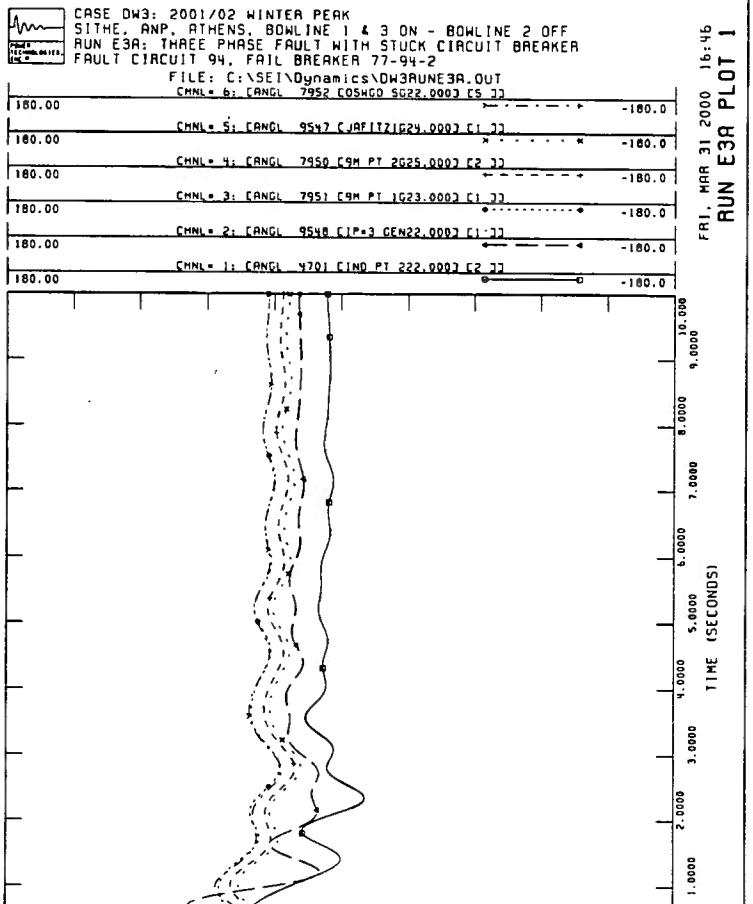
FRI, MAR 31 2000 16:46
RUN E3A PLOT 2

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



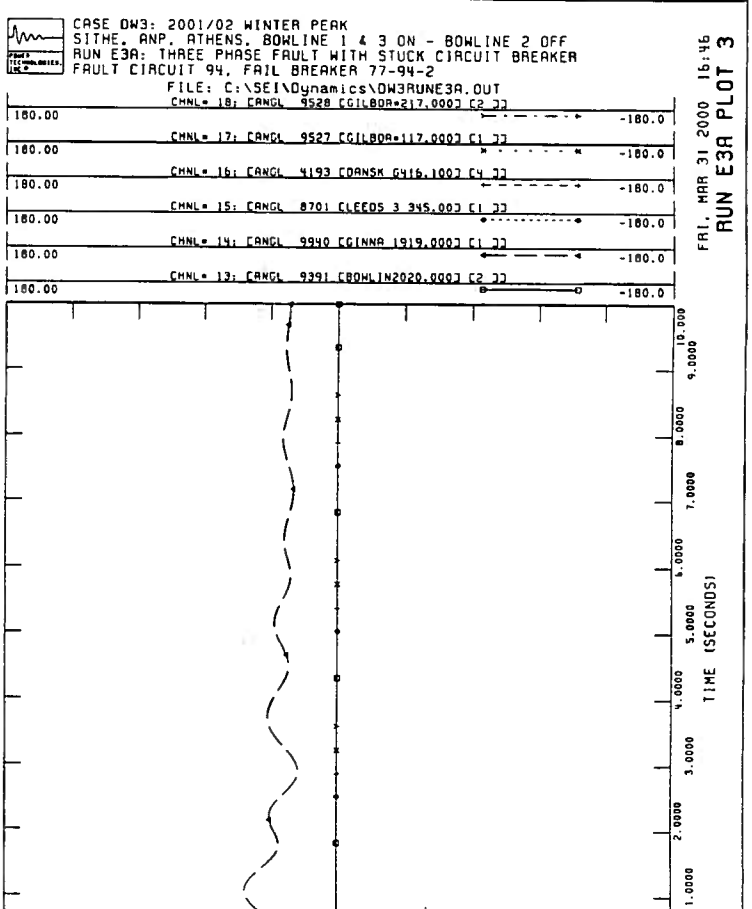
FRI, MAR 31 2000 16:46
RUN E3A PLOT 4

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



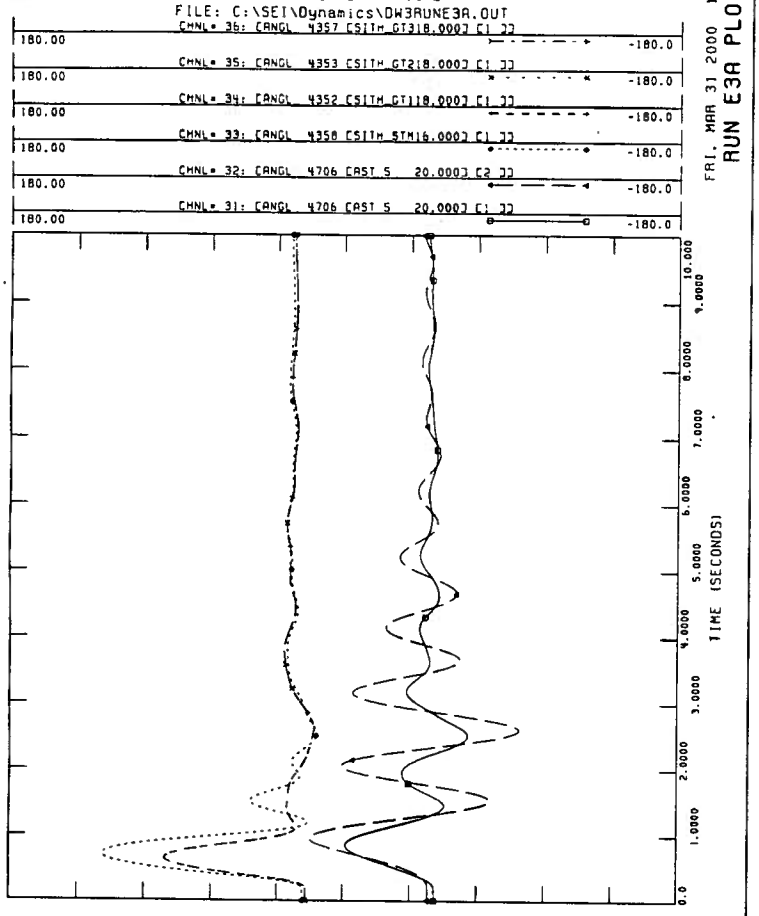
FRI, MAR 31 2000 16:46
RUN E3A PLOT 1

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



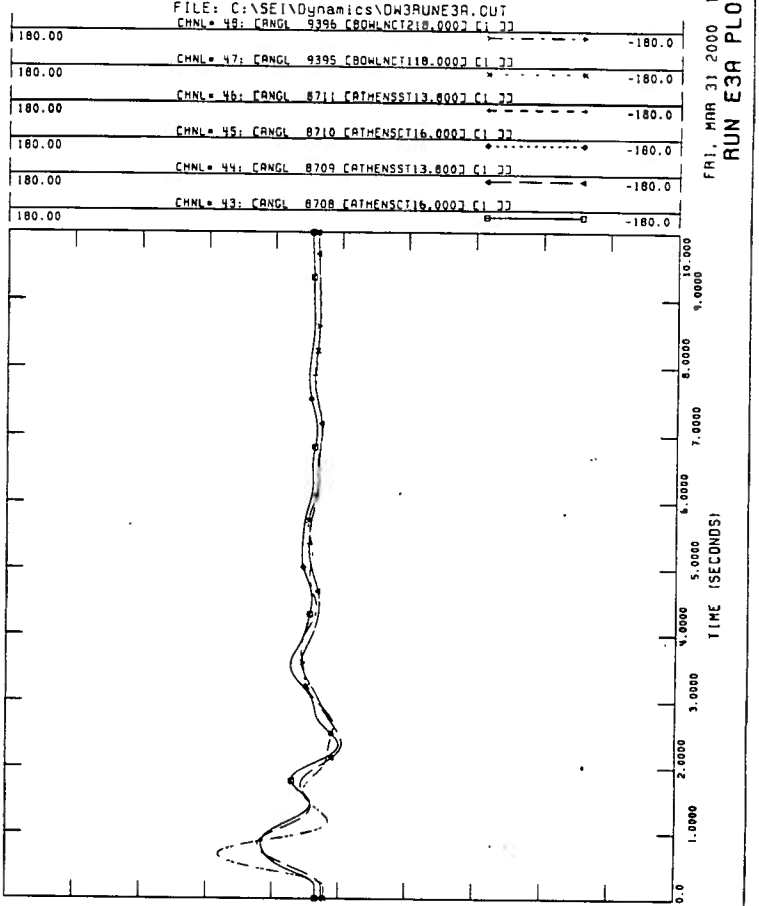
FRI, MAR 31 2000 16:46
RUN E3A PLOT 3

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



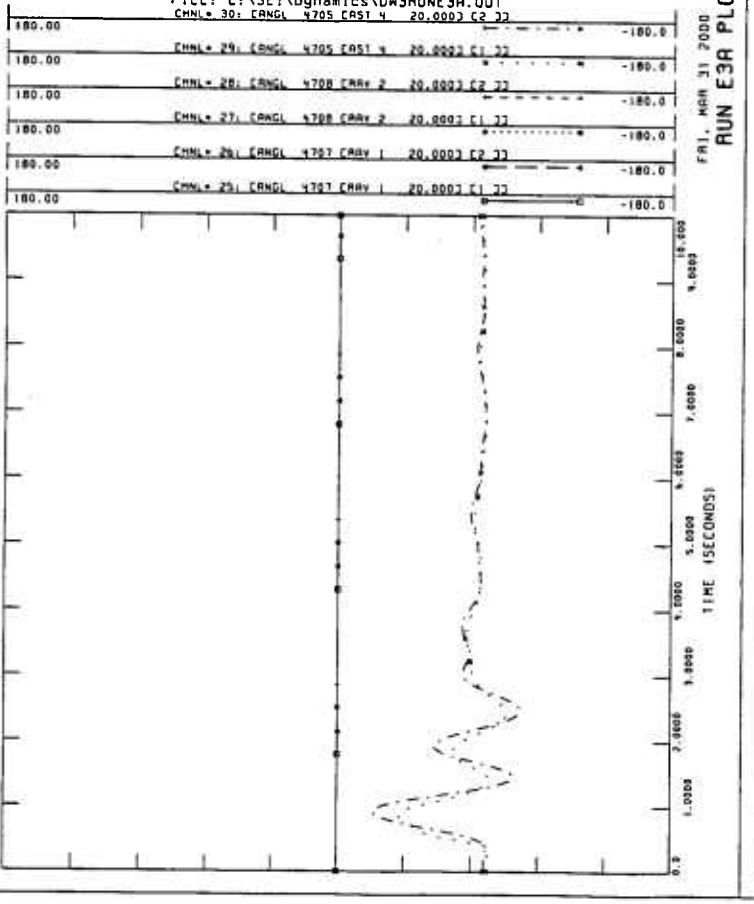
FRI, MAR 31 2000 16:46
RUN E3A PLOT 6

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



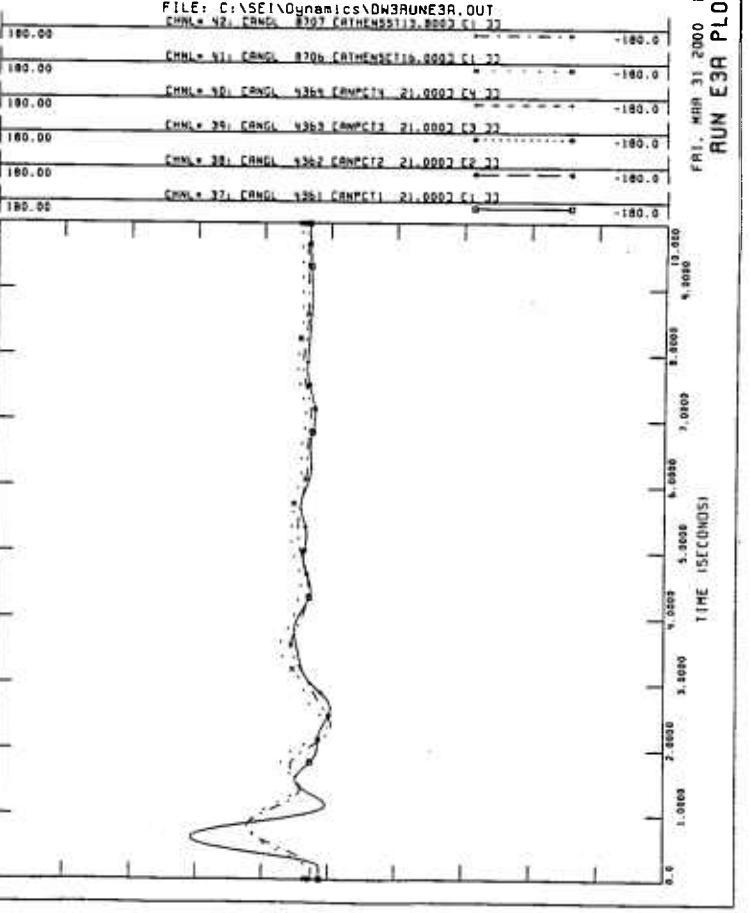
FRI, MAR 31 2000 16:46
RUN E3A PLOT 8

CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



FRI, MAR 31 2000 16:46
RUN E3A PLOT 5

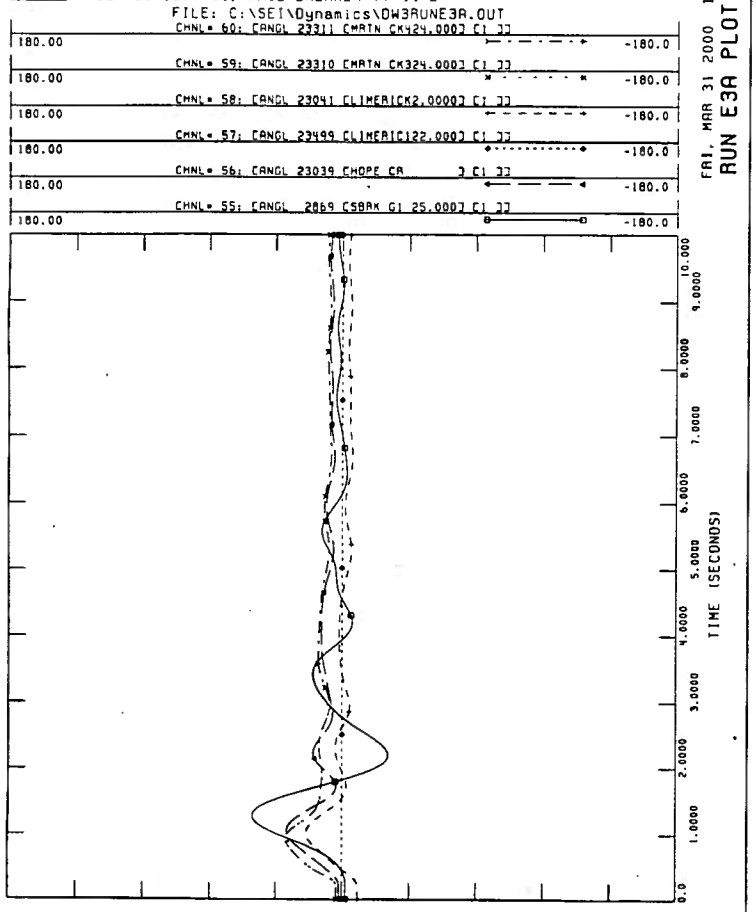
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT



FRI, MAR 31 2000 16:46
RUN E3A PLOT 7

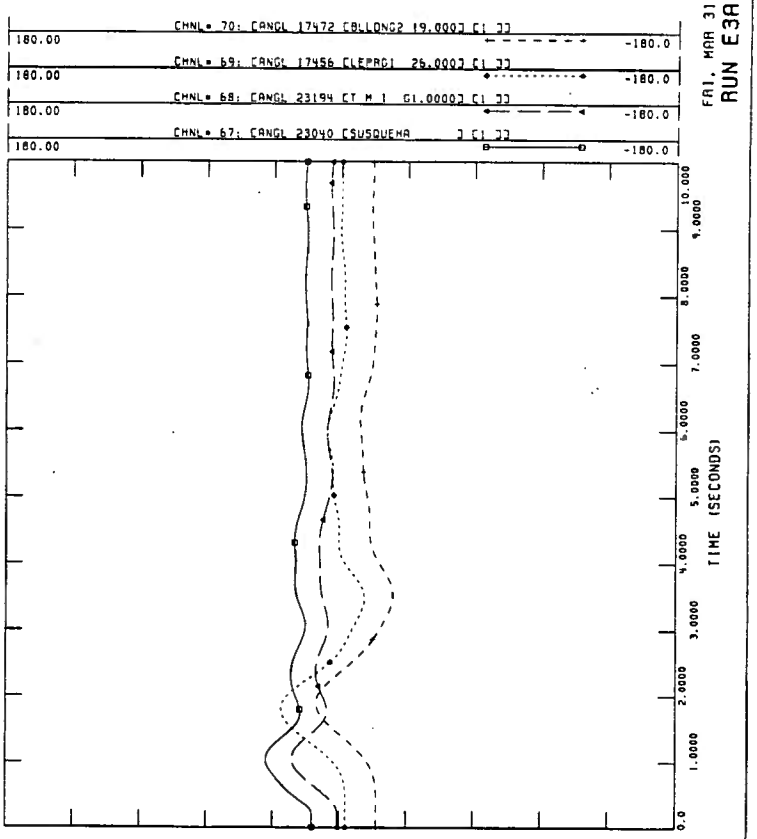
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT

FRI, MAR 31 2000 16:46
RUN E3A PLOT 10



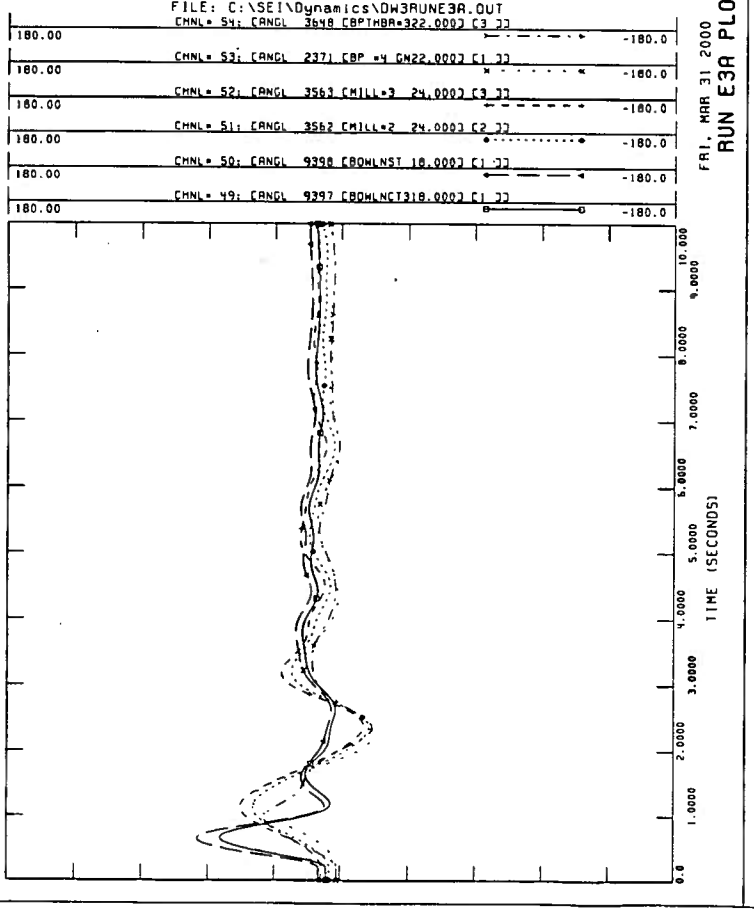
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT

FRI, MAR 31 2000 16:46
RUN E3A PLOT 12



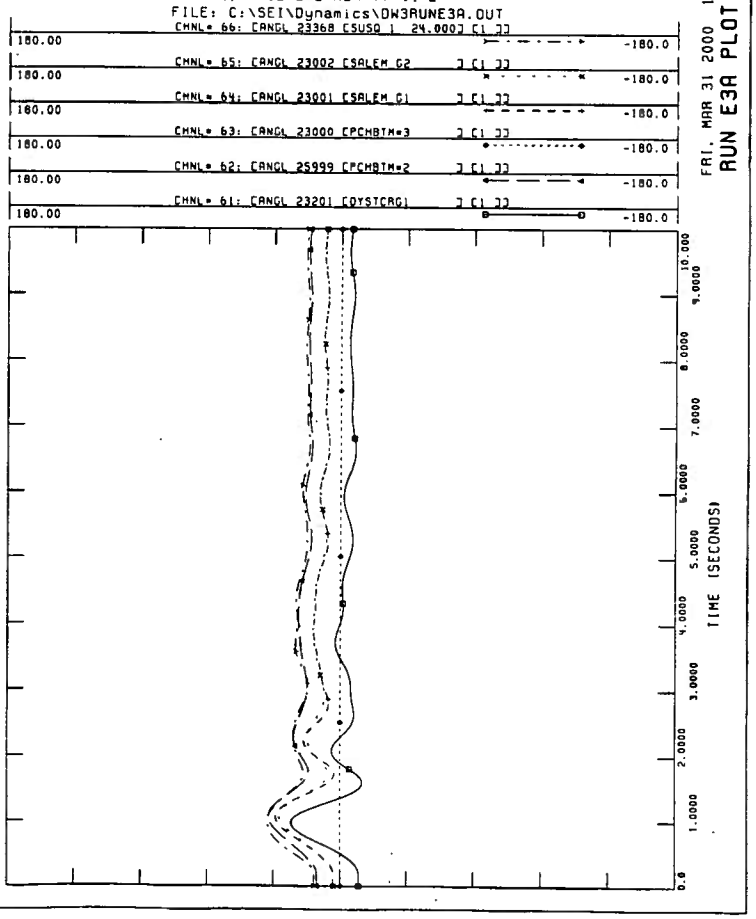
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT

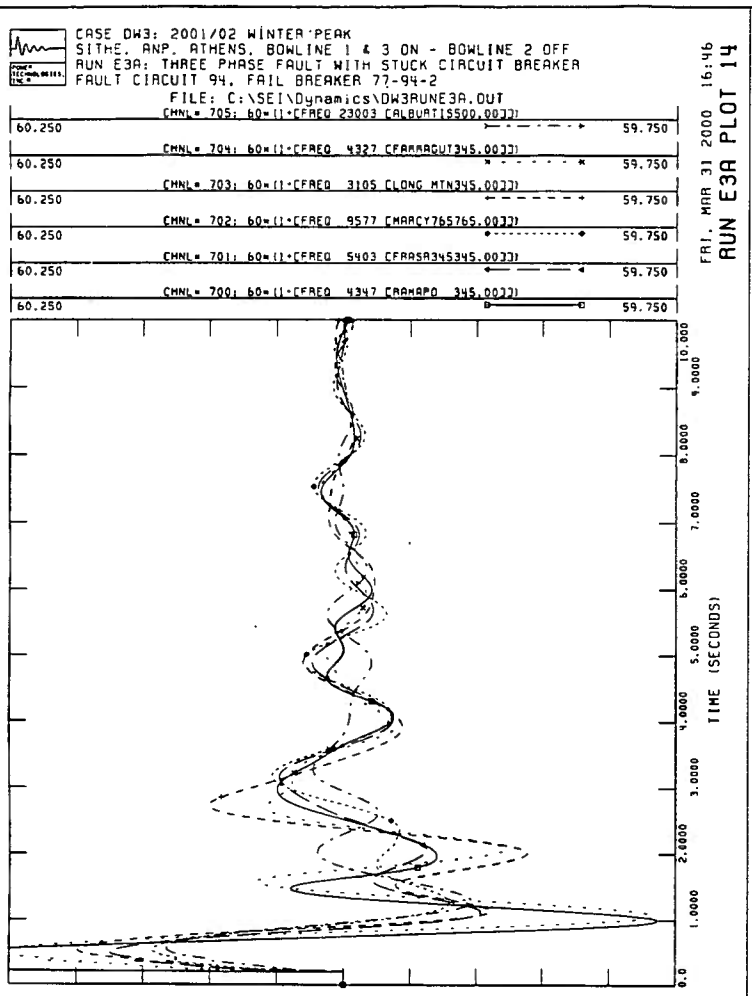
FRI, MAR 31 2000 16:46
RUN E3A PLOT 9

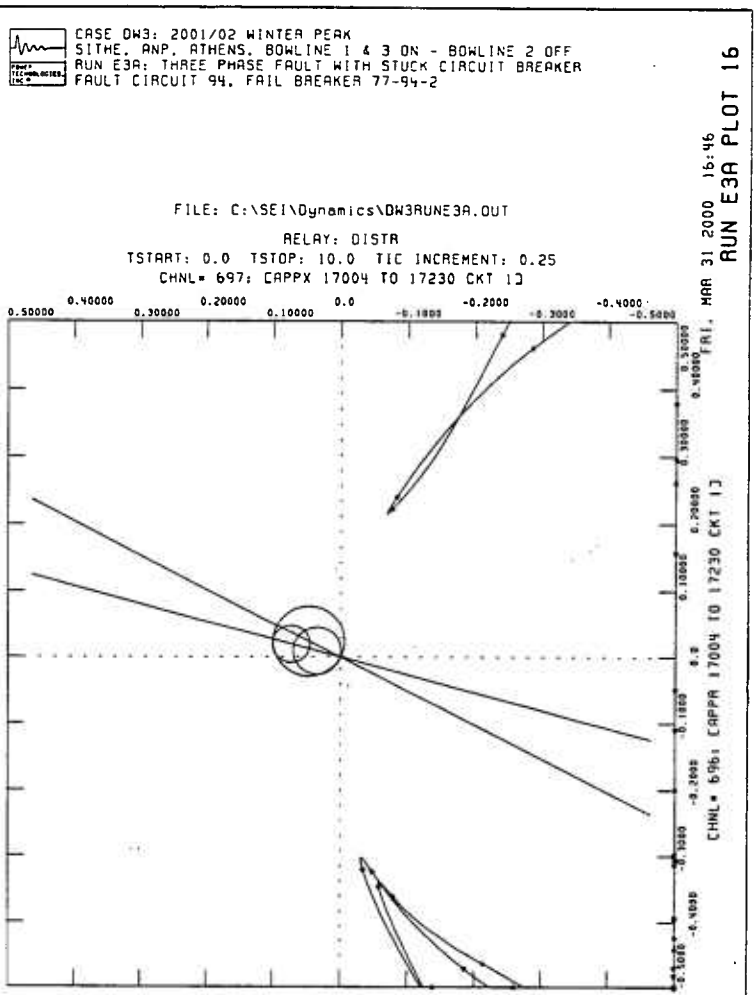


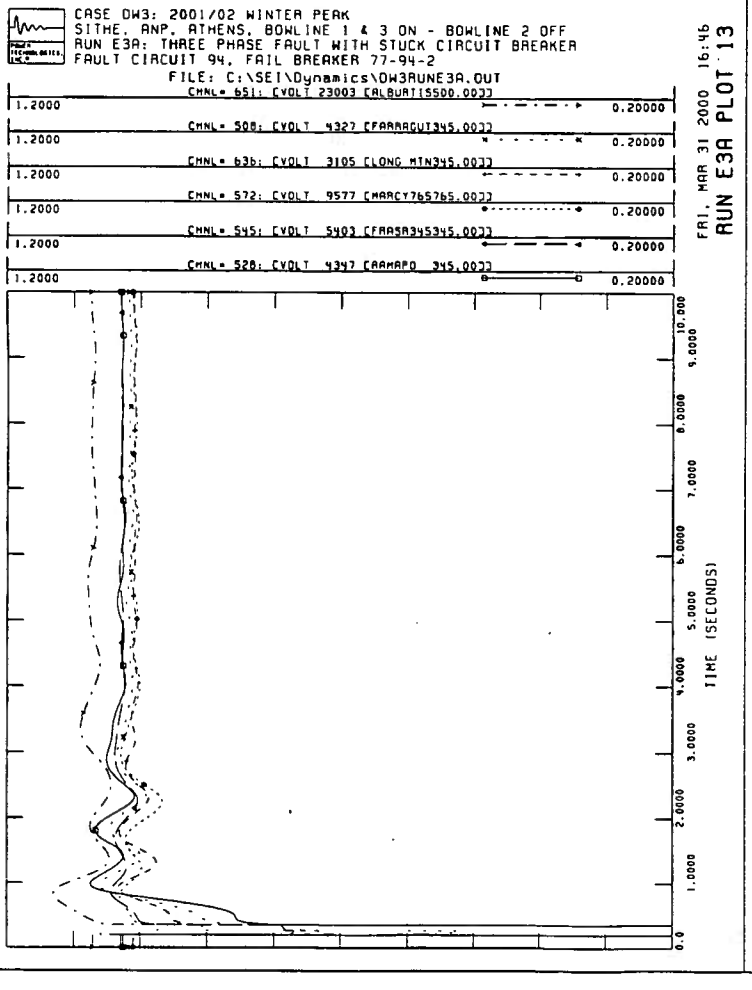
CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT

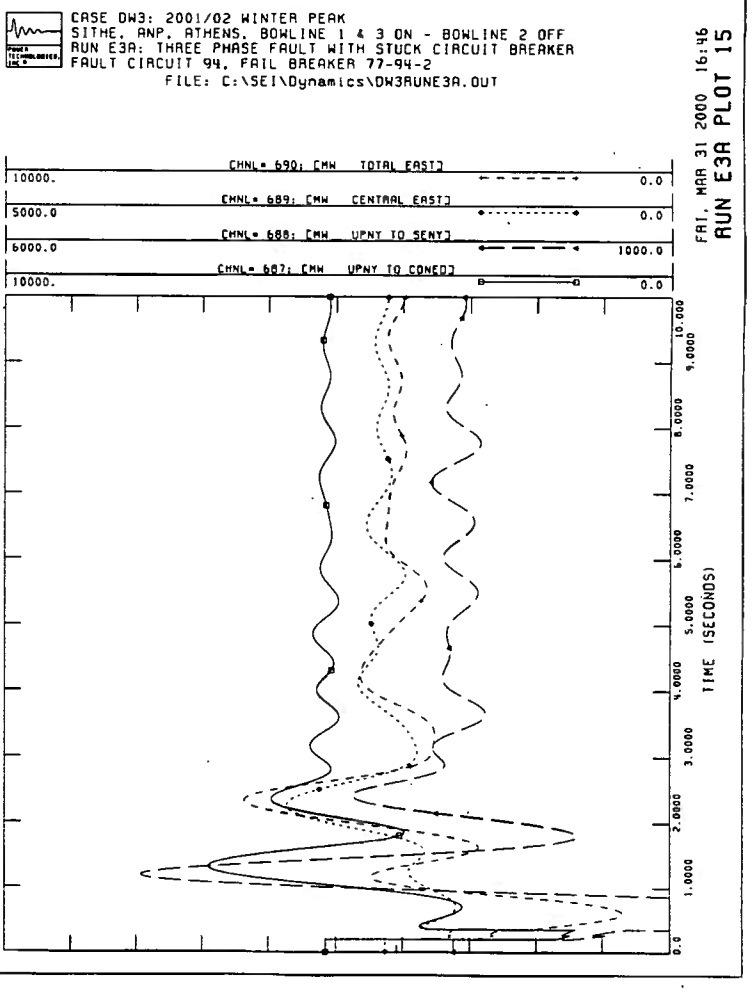
FRI, MAR 31 2000 16:46
RUN E3A PLOT 11




CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT
CHNL= 705; 60=()*CFREQ 23003 CALBUAT[5500.00]]
CHNL= 704; 60=()*CFREQ 4327 CFARRAGUT345.00]]
CHNL= 703; 60=()*CFREQ 3105 CLONG MTN345.00]]
CHNL= 702; 60=()*CFREQ 9577 CMARCY765765.00]]
CHNL= 701; 60=()*CFREQ 5403 CFRASR345345.00]]
CHNL= 700; 60=()*CFREQ 4347 CRAMAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E3A PLOT 14


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697; CAPPX 17004 TO 17230 CKT 1]
CHNL= 696; CAPPA 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 16:46
RUN E3A PLOT 16


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT
CHNL= 651; CVOLT 23003 [ALBUAT[5500.00]]
CHNL= 508; CVOLT 4327 [FARRAGUT345.00]]
CHNL= 636; CVOLT 3105 CLONG MTN345.00]]
CHNL= 572; CVOLT 9577 [MARCY765765.00]]
CHNL= 545; CVOLT 5403 [FRASR345345.00]]
CHNL= 528; CVOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E3A PLOT 13


CASE DW3: 2001/02 WINTER PEAK
SITHE, ANP, ATHENS, BOWLINE 1 & 3 ON - BOWLINE 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW3RUNE3A.OUT
CHNL= 690; CMW TOTAL EAST]
CHNL= 689; CMW CENTRAL EAST]
CHNL= 688; CMW UPNY TO SENY]
CHNL= 687; CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 16:46
RUN E3A PLOT 15

APPENDIX F.8 - Summer Peak Case DW4

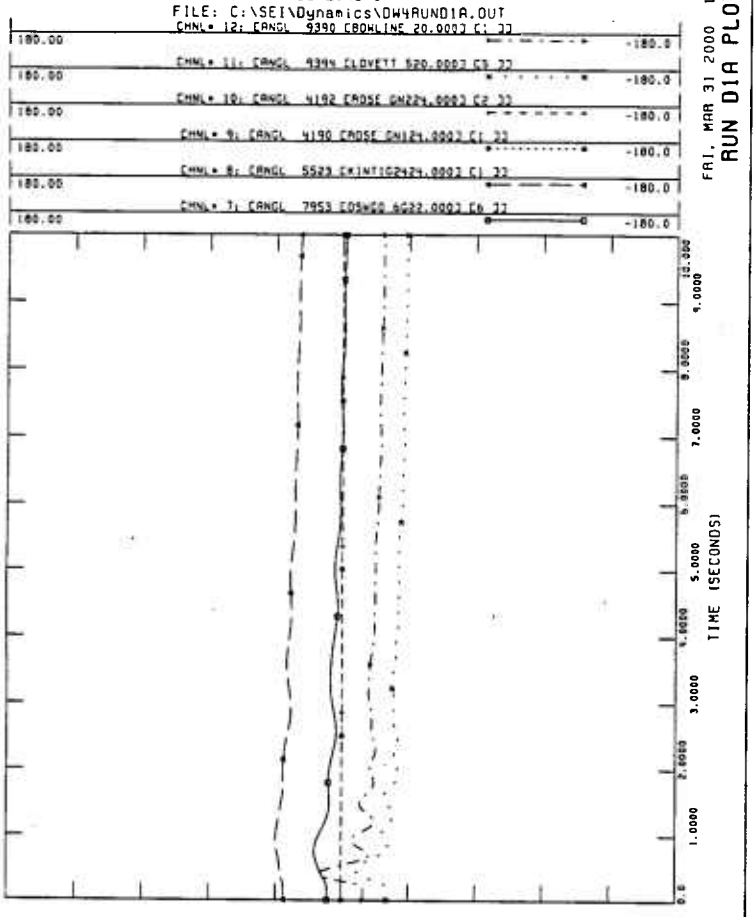
Bowline 1, 2 and 3, Athens, ANP and Sithe On-Line

Bowline 3 Displacing Indian Point 2

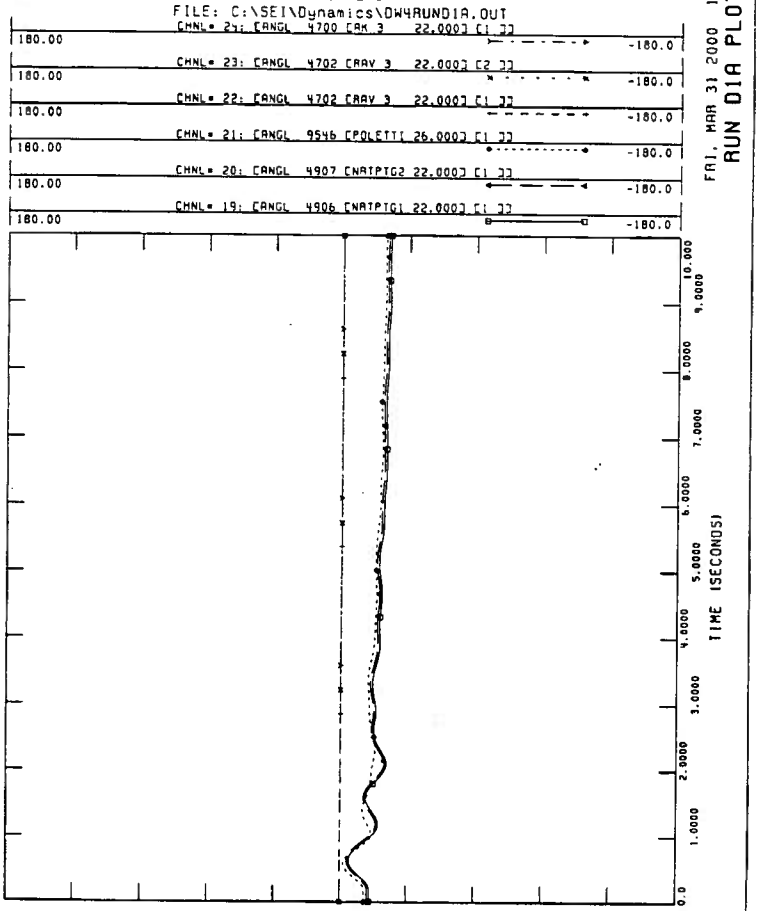
CONTINGENCY D1A

```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4310 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BOWLINE
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9398                           / TRIP BOWLINE 3 ST
TRIP BRANCH FROM BUS 9398 TO BUS 4311 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

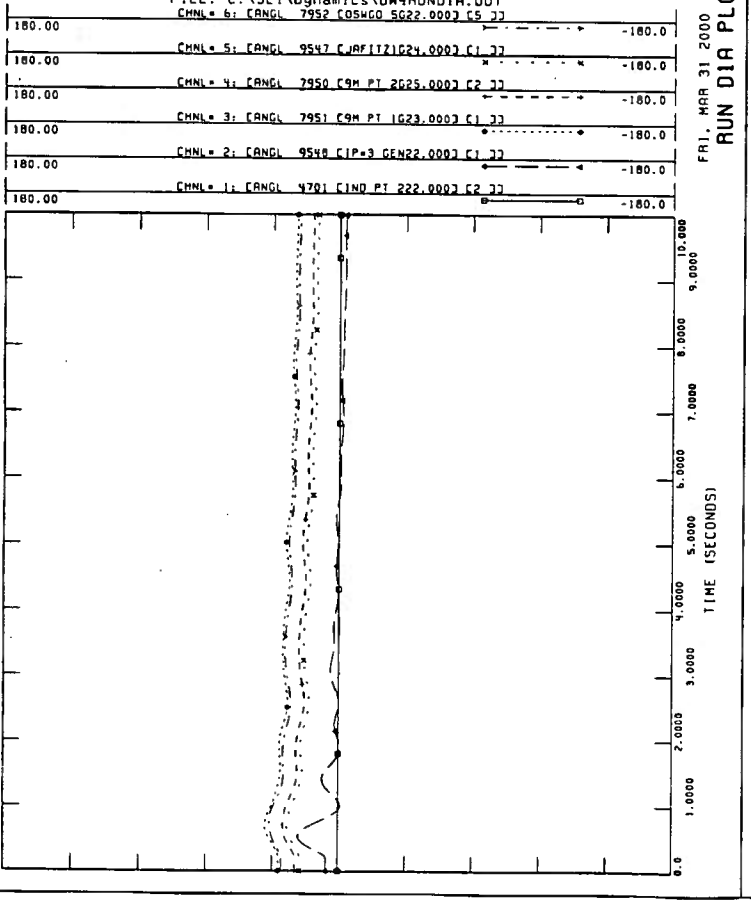
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT



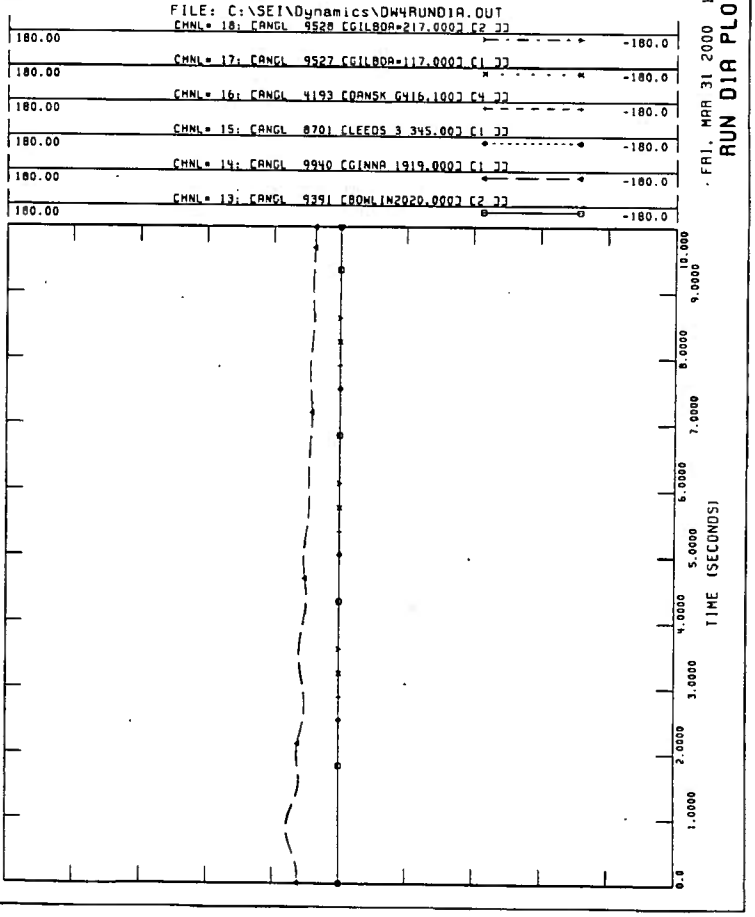
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT



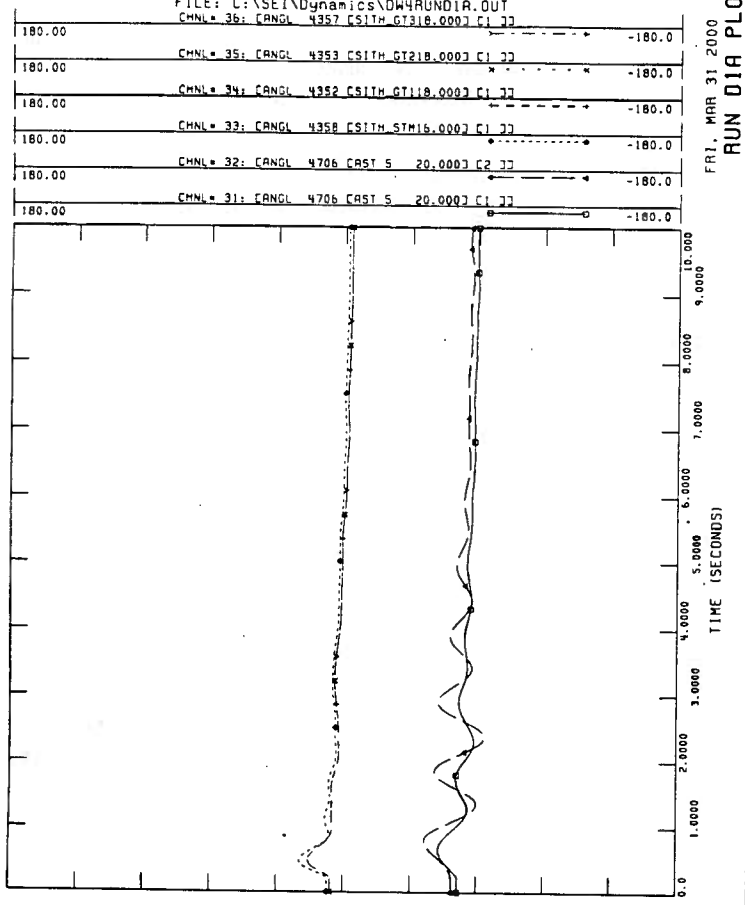
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT



CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT

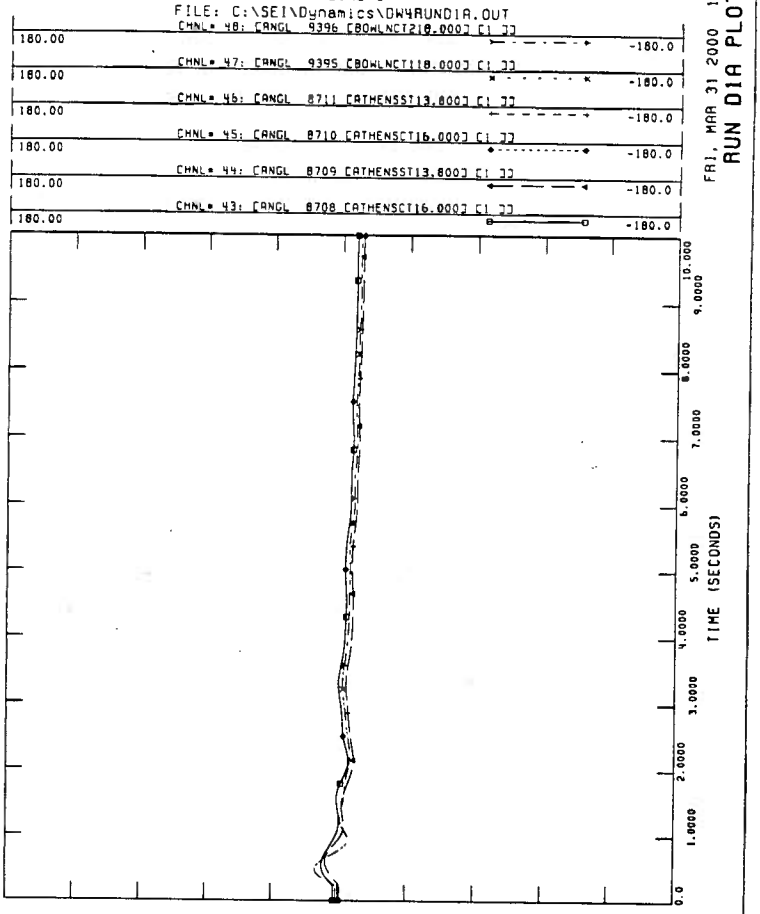


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT



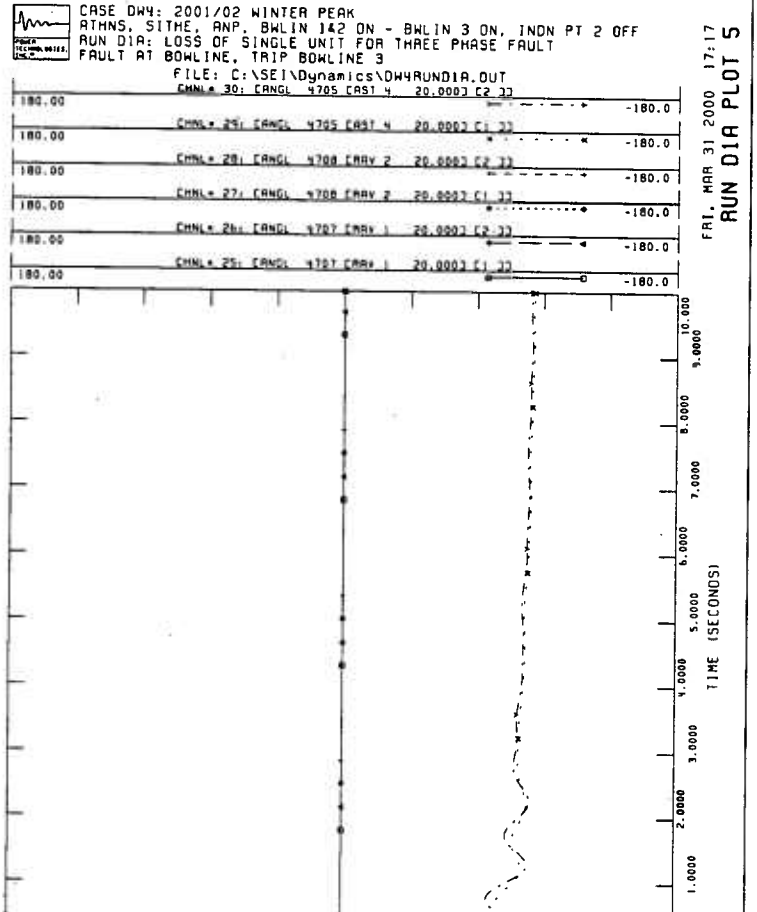
FRI, MAR 31 2000 17:17
RUN D1A PLOT 6

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT



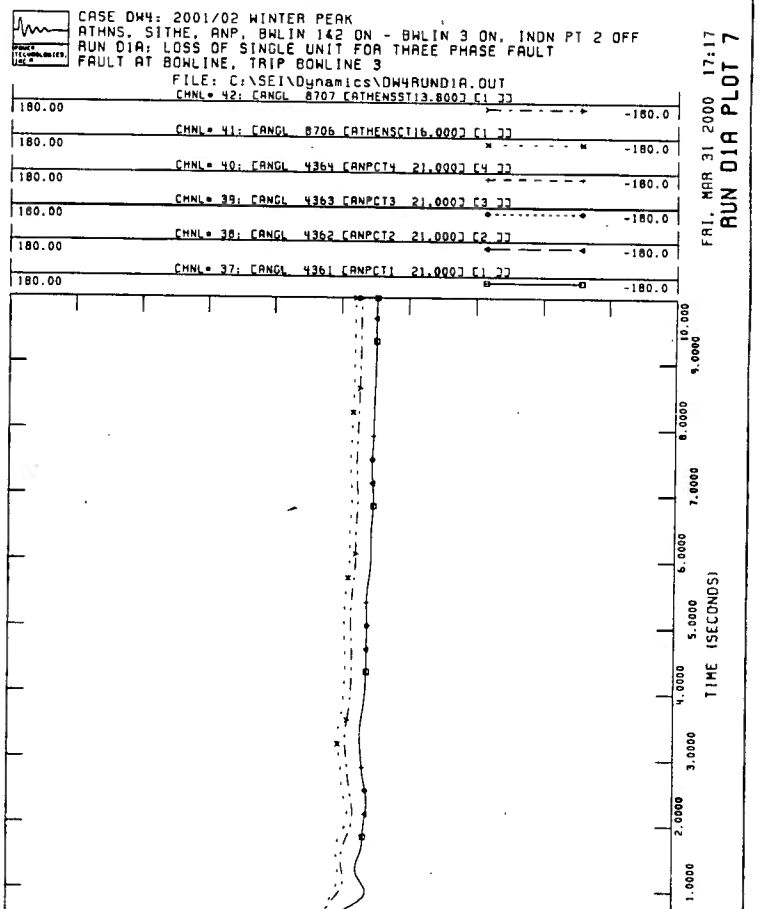
FRI, MAR 31 2000 17:17
RUN D1A PLOT 8

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT

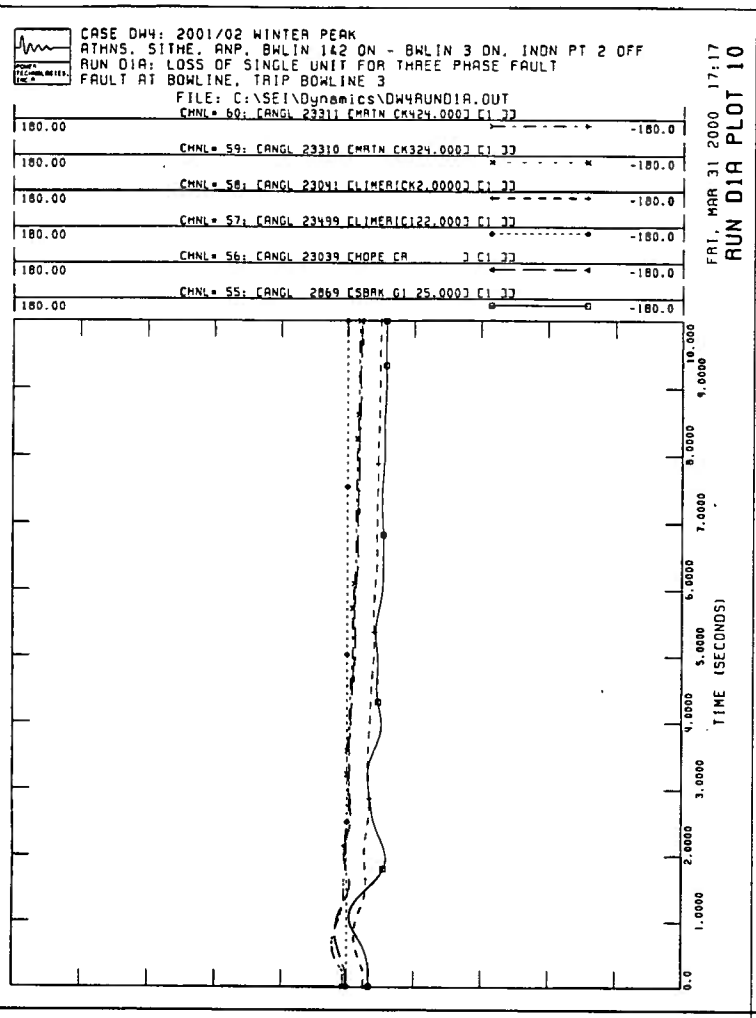


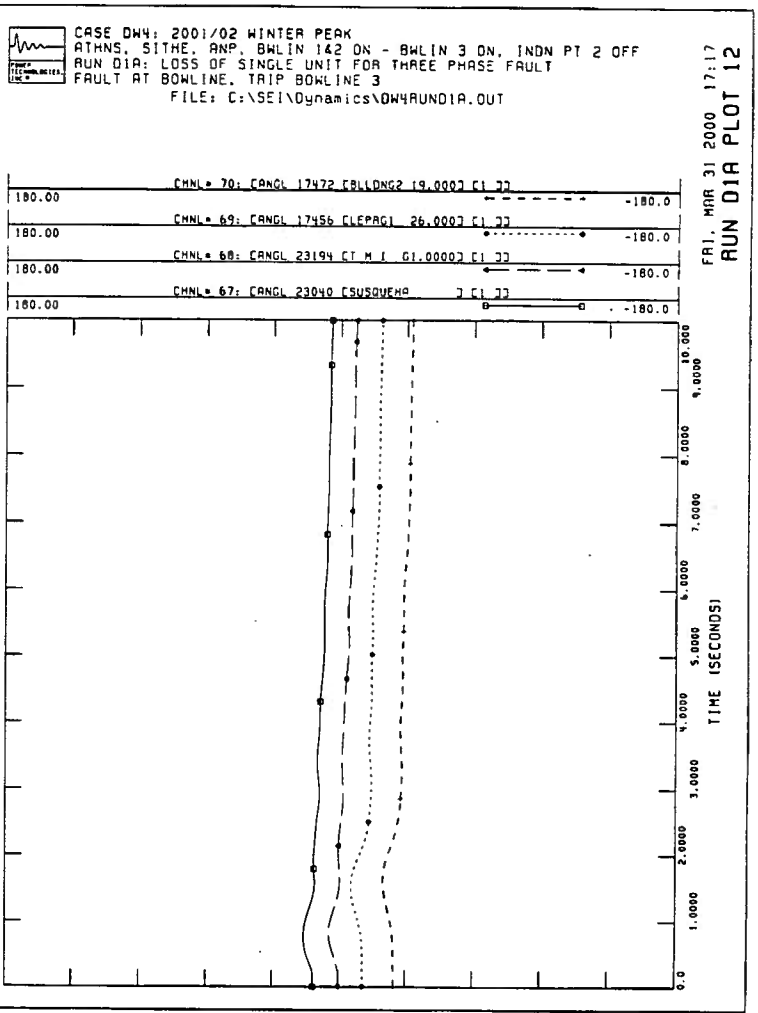
FRI, MAR 31 2000 17:17
RUN D1A PLOT 5

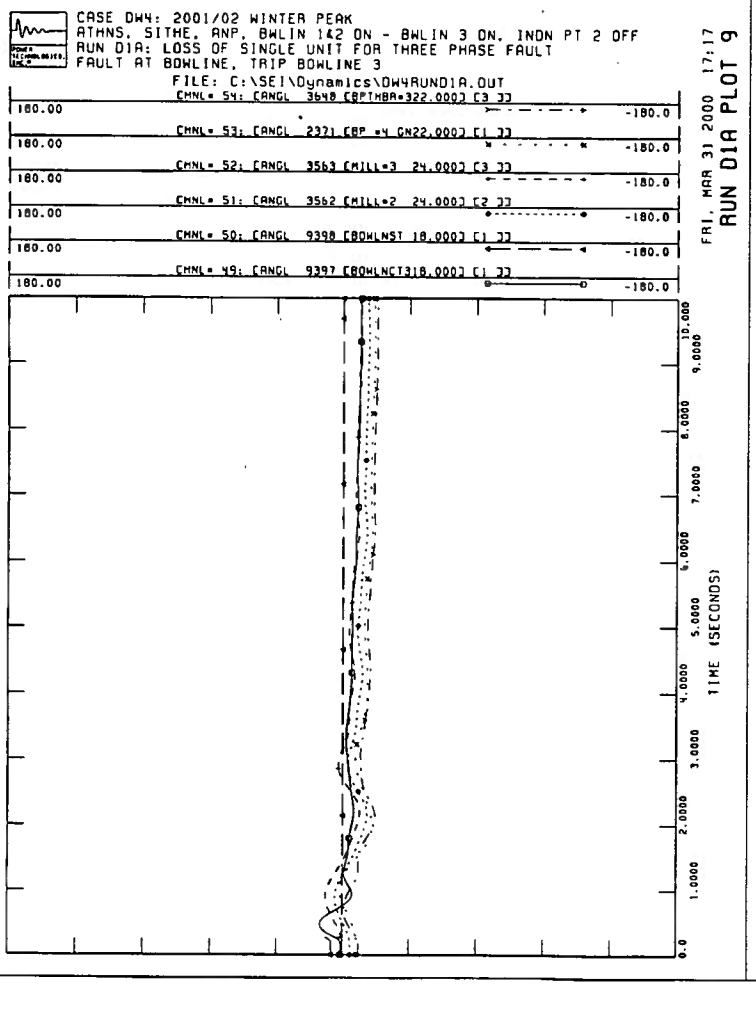
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT

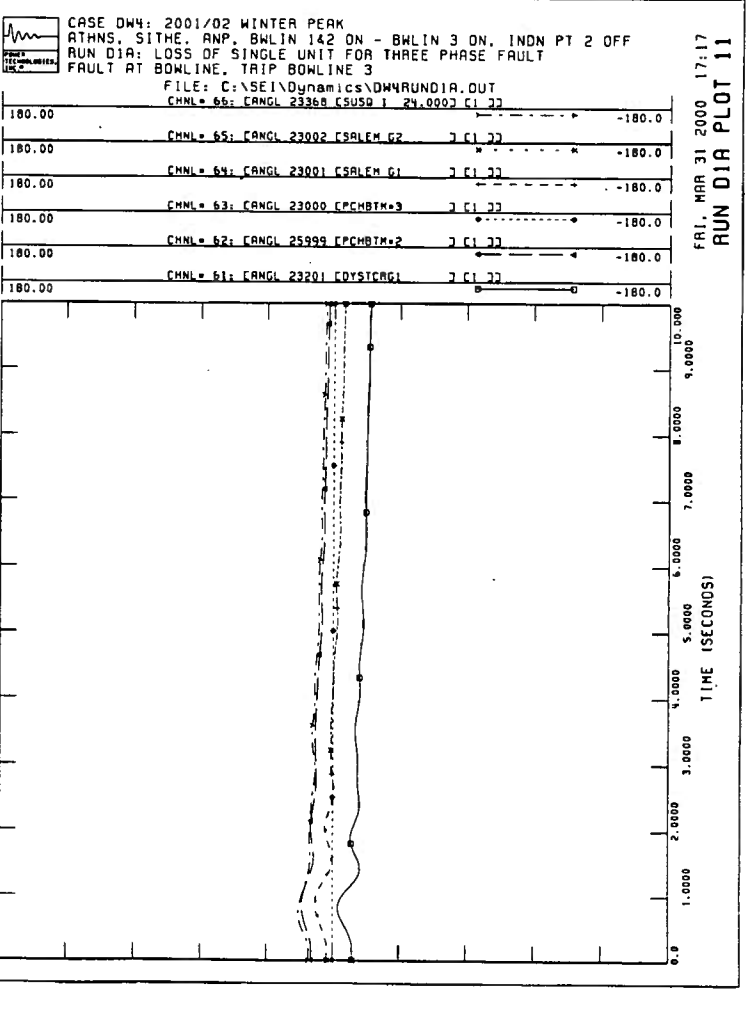


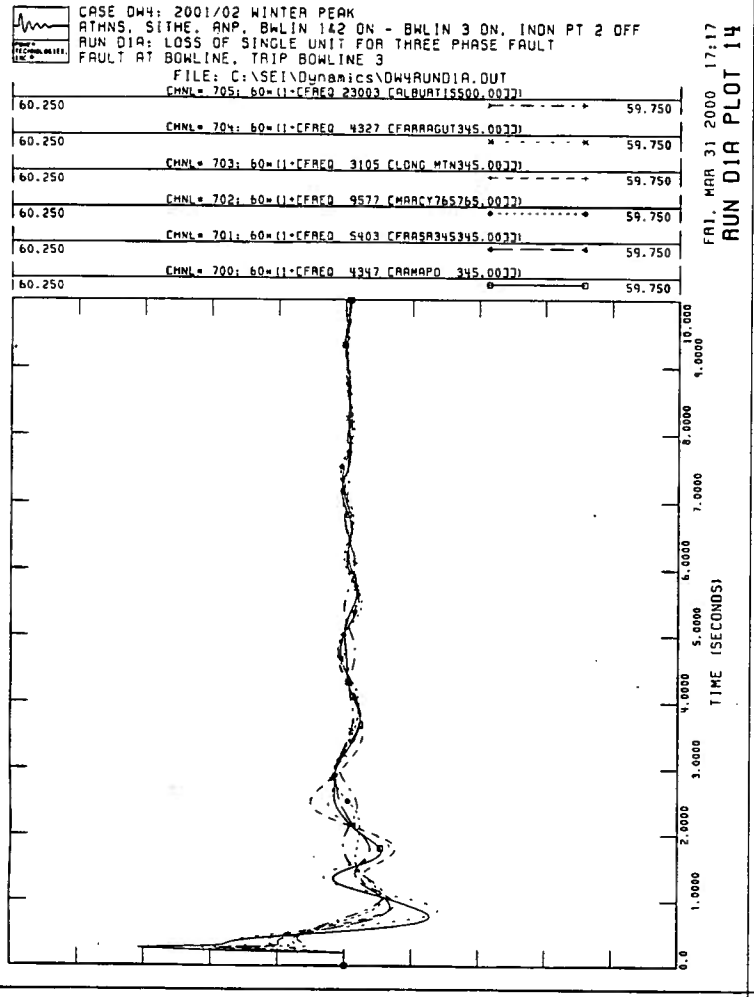
FRI, MAR 31 2000 17:17
RUN D1A PLOT 7

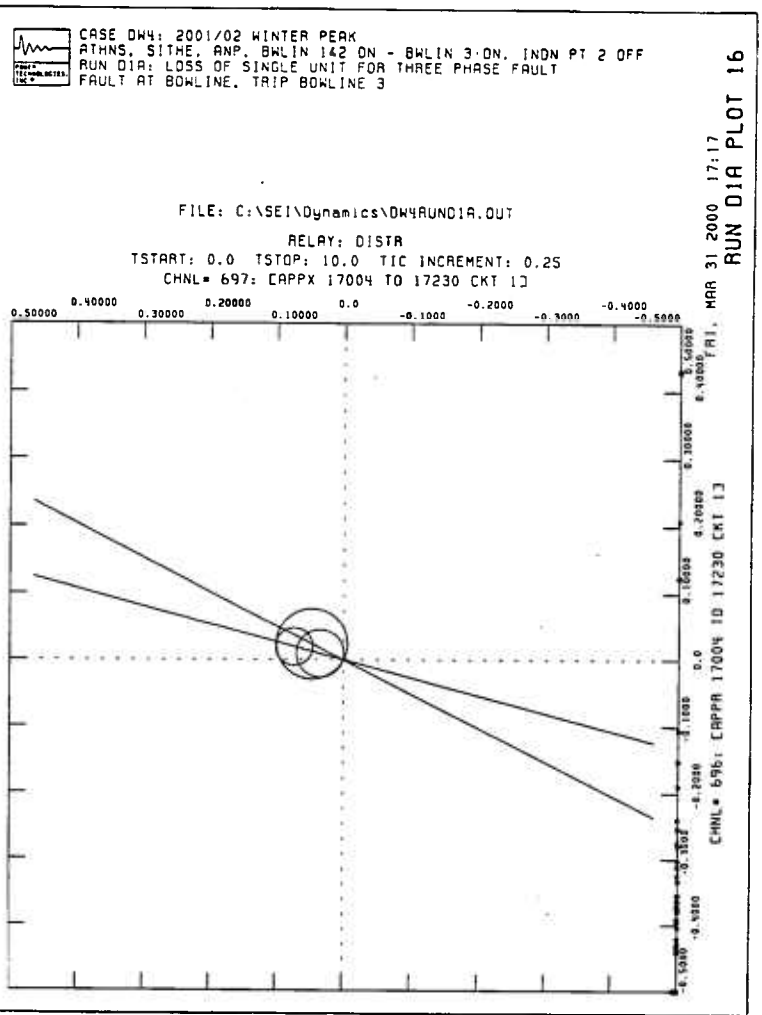

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 60: CANGL 23311 CMAIN CK324.000] C1 J1
CHNL= 59: CANGL 23310 CMAIN CK324.000] C1 J1
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1 J1
CHNL= 57: CANGL 23499 CLIMERIC122.000] C1 J1
CHNL= 56: CANGL 23039 CHOPE CR J C1 J1
CHNL= 55: CANGL 2869 CSBRK G1 25.0000] C1 J1
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D1A PLOT 10

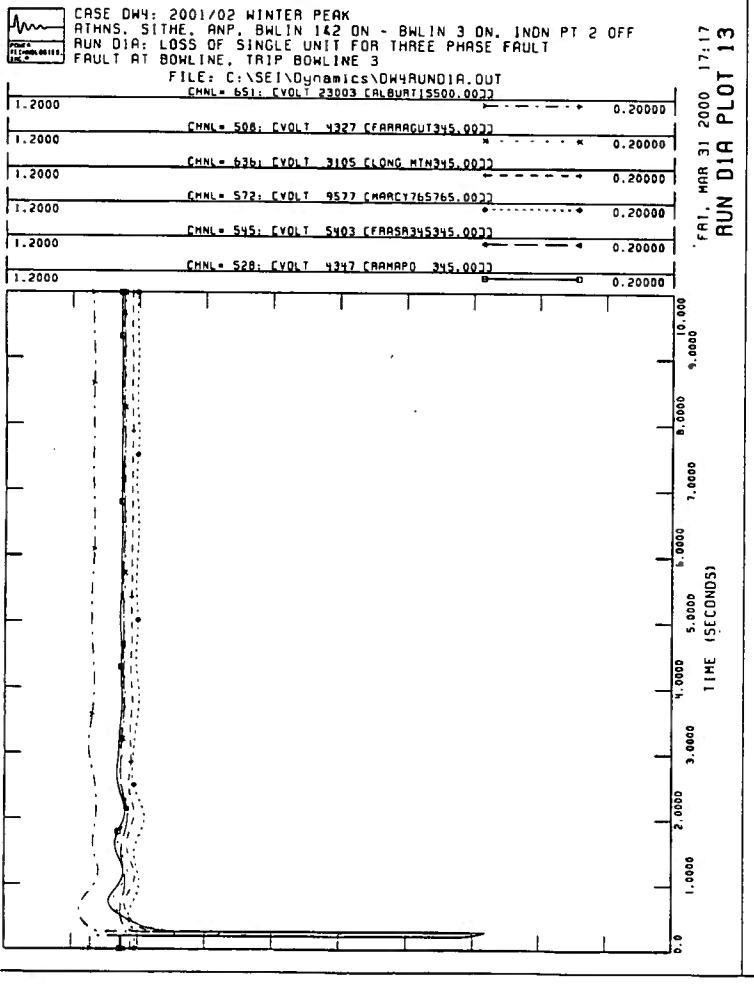

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1 J1
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1 J1
CHNL= 68: CANGL 23194 CT M I G1.0000] C1 J1
CHNL= 67: CANGL 23040 CSUSQUEHA J C1 J1
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D1A PLOT 12

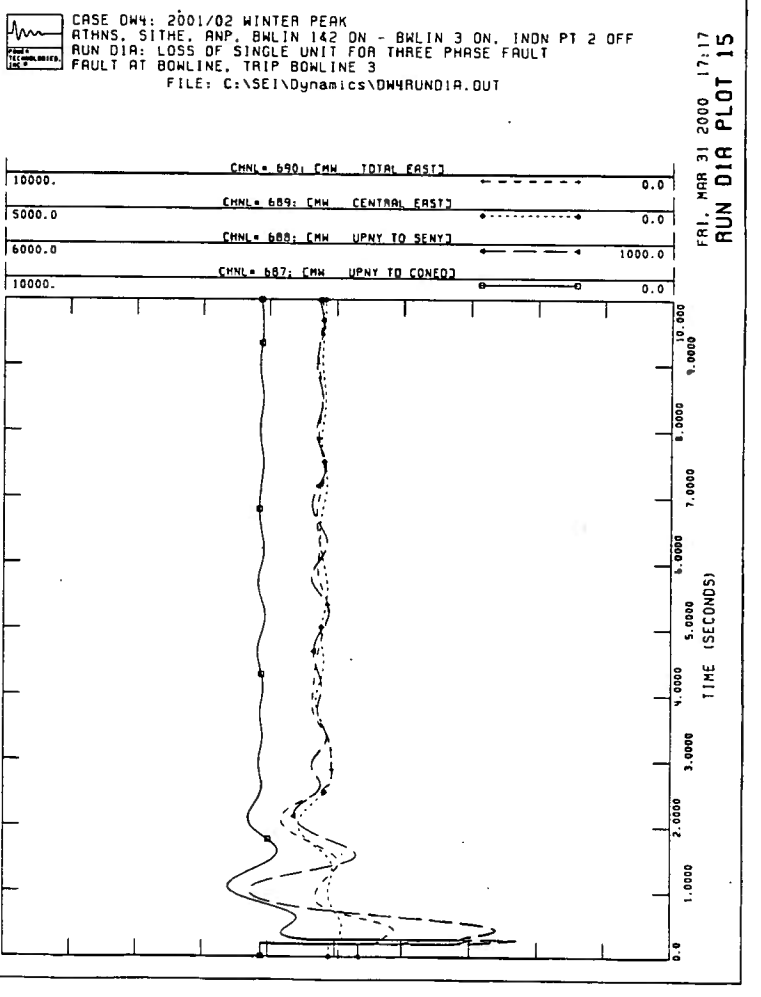

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.000] C3 J1
CHNL= 53: CANGL 2371 CBP #4 GN22.000] C1 J1
CHNL= 52: CANGL 3563 CMILL#3 24.000] C3 J1
CHNL= 51: CANGL 3562 CMILL#2 24.000] C2 J1
CHNL= 50: CANGL 9398 CBOWLNST 18.000] C1 J1
CHNL= 49: CANGL 9397 CBOWLNCT318.000] C1 J1
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D1A PLOT 9


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1 J1
CHNL= 65: CANGL 23002 CSALEM G2 J C1 J1
CHNL= 64: CANGL 23001 CSALEM G1 J C1 J1
CHNL= 63: CANGL 23000 CPCHBTM#3 J C1 J1
CHNL= 62: CANGL 25999 CPCHBTM#2 J C1 J1
CHNL= 61: CANGL 23201 CDYSTCRG1 J C1 J1
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D1A PLOT 11


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 705: 60*(1+[FREQ 23003 [ALBURT15500.00]])
60.250
59.750
CHNL= 704: 60*(1+[FREQ 4327 [FARRAGUT345.00]])
60.250
59.750
CHNL= 703: 60*(1+[FREQ 3105 [LONG MTN345.00]])
60.250
59.750
CHNL= 702: 60*(1+[FREQ 9577 [MARCY765765.00]])
60.250
59.750
CHNL= 701: 60*(1+[FREQ 5403 [FRASR345345.00]])
60.250
59.750
CHNL= 700: 60*(1+[FREQ 4347 [RAMAPO 345.00]])
60.250
59.750
FRI, MAR 31 2000 17:17
RUN D1A PLOT 14
TIME (SECONDS)

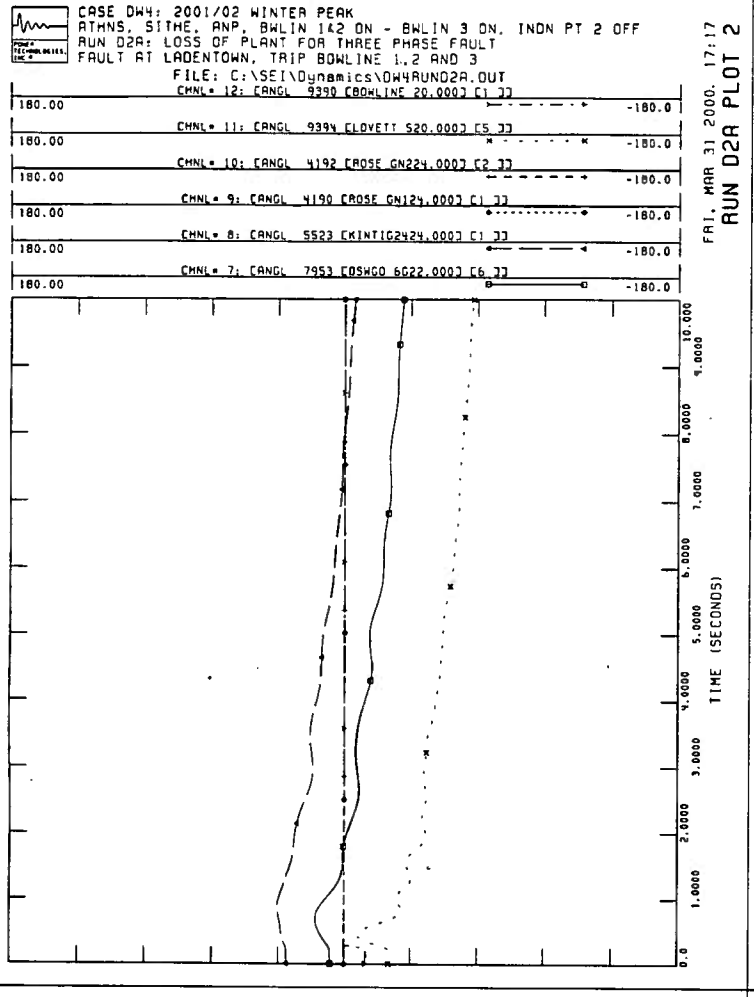

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
0.50000
0.40000
0.30000
0.20000
0.10000
0.0
-0.1000
-0.2000
-0.3000
-0.4000
-0.5000
FRI, MAR 31 2000 17:17
RUN D1A PLOT 16
CHNL= 696: [APPR 17004 TO 17230 CKT 1]

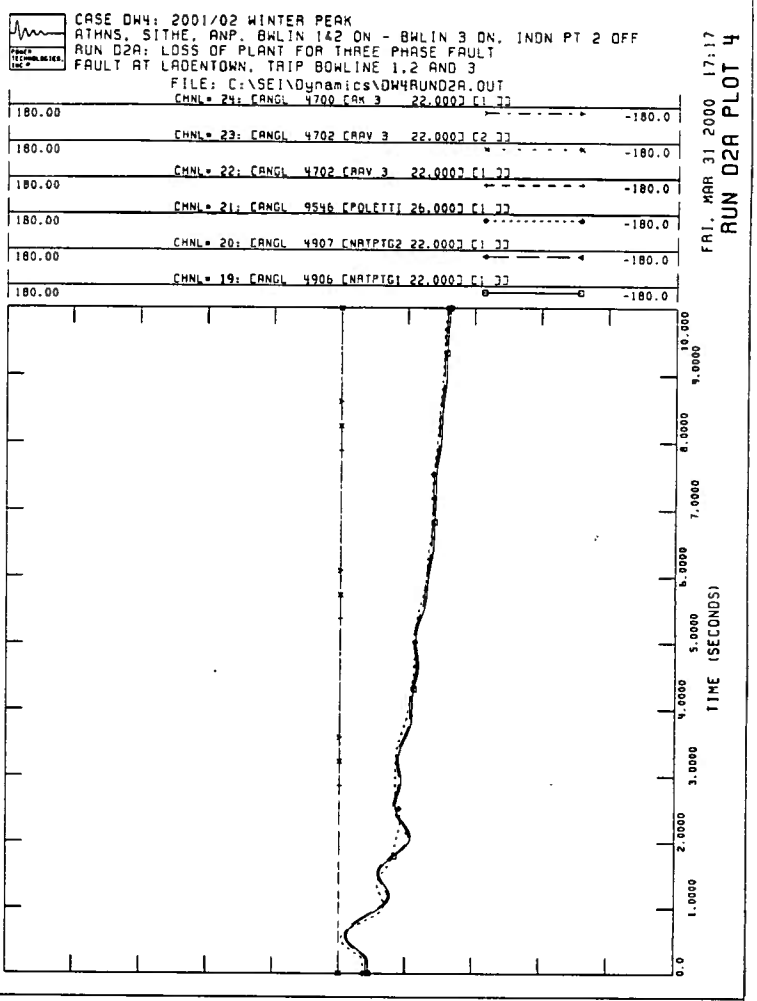

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 651: [VOLT 23003 [ALBURT15500.00]]
1.2000
0.20000
CHNL= 508: [VOLT 4327 [FARRAGUT345.00]]
1.2000
0.20000
CHNL= 636: [VOLT 3105 [LONG MTN345.00]]
1.2000
0.20000
CHNL= 572: [VOLT 9577 [MARCY765765.00]]
1.2000
0.20000
CHNL= 545: [VOLT 5403 [FRASR345345.00]]
1.2000
0.20000
CHNL= 528: [VOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
FRI, MAR 31 2000 17:17
RUN D1A PLOT 13
TIME (SECONDS)

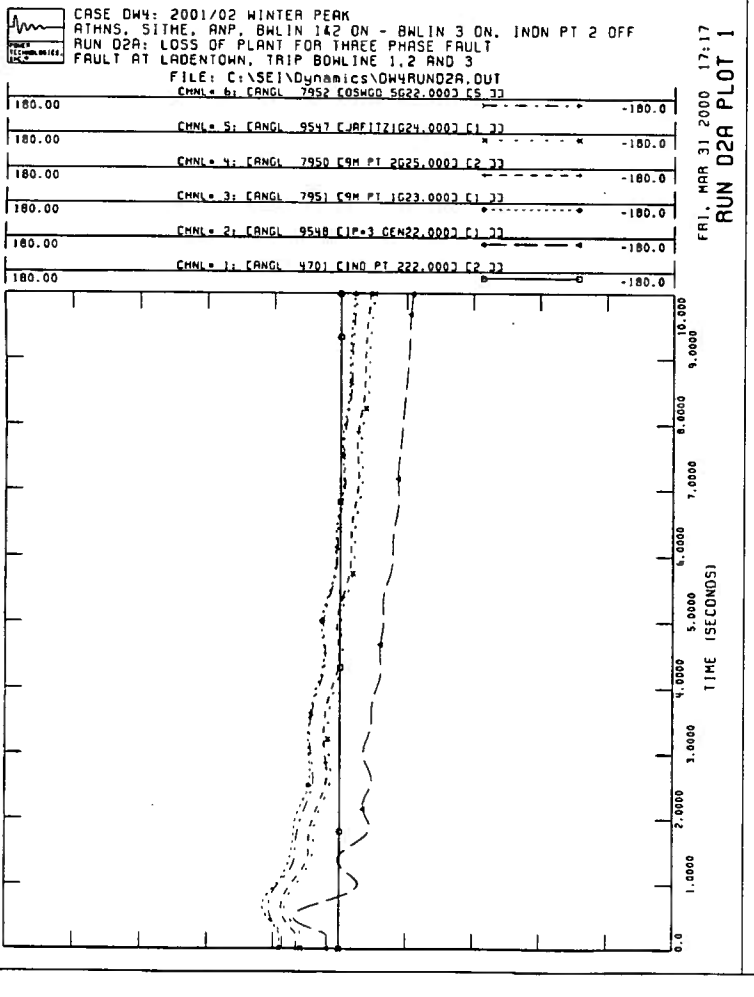

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D1A: LOSS OF SINGLE UNIT FOR THREE PHASE FAULT
FAULT AT BOWLINE, TRIP BOWLINE 3
FILE: C:\SEI\Dynamics\DW4RUND1A.OUT
CHNL= 690: [MW TOTAL EAST]
10000.
0.0
CHNL= 689: [MW CENTRAL EAST]
5000.0
0.0
CHNL= 688: [MW UPNY TO SENY]
6000.0
1000.0
CHNL= 687: [MW UPNY TO CONED]
10000.
0.0
FRI, MAR 31 2000 17:17
RUN D1A PLOT 15
TIME (SECONDS)

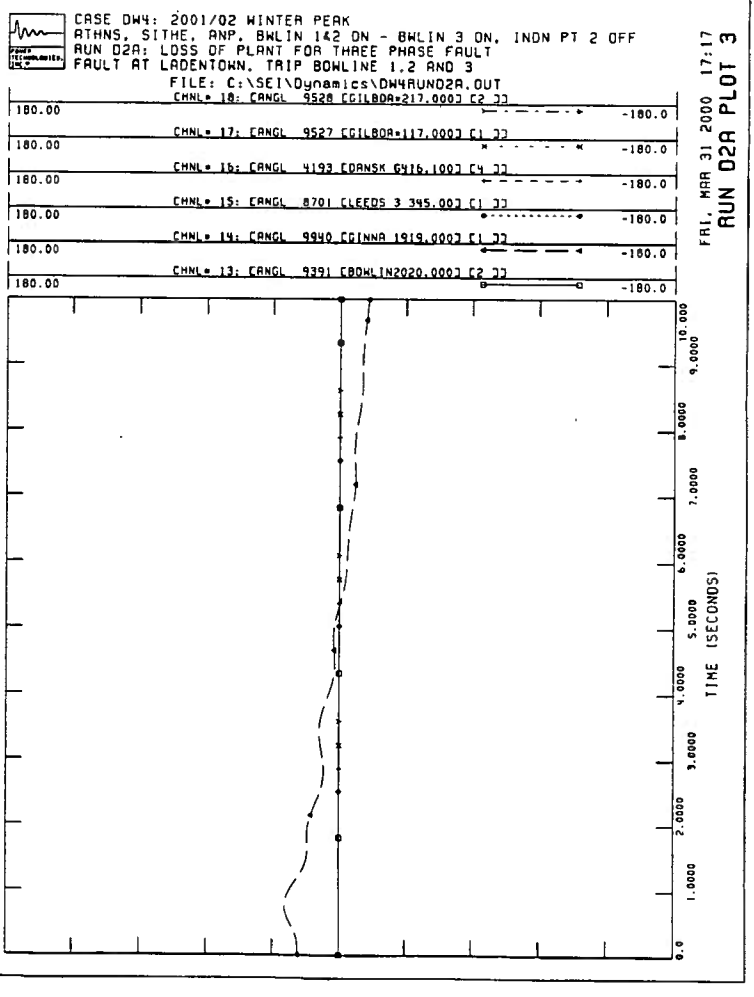
CONTINGENCY D2A

```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9390                          / TRIP BOWLINE 1
DROP GENERATOR 2 AT BUS 9391                          / TRIP BOWLINE 2
DROP GENERATOR 1 AT BUS 9395                          / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9396                          / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9397                          / TRIP BOWLINE 3 CT
DROP GENERATOR 1 AT BUS 9398                          / TRIP BOWLINE 3 ST
DISCONNECT BUS 9300                                   /
DISCONNECT BUS 9301                                   /
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D2A PLOT 2


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [ARV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [ARV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETT] 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D2A PLOT 4


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZIG24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D2A PLOT 1


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK 6416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D2A PLOT 3

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT

FRI, MAR 31 2000 17:17
RUN D2A PLOT 6

CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT

FRI, MAR 31 2000 17:17
RUN D2A PLOT 8

CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT

FRI, MAR 31 2000 17:17
RUN D2A PLOT 5

CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CRAV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CRAV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CRAV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CRAV 1 20.000] C1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

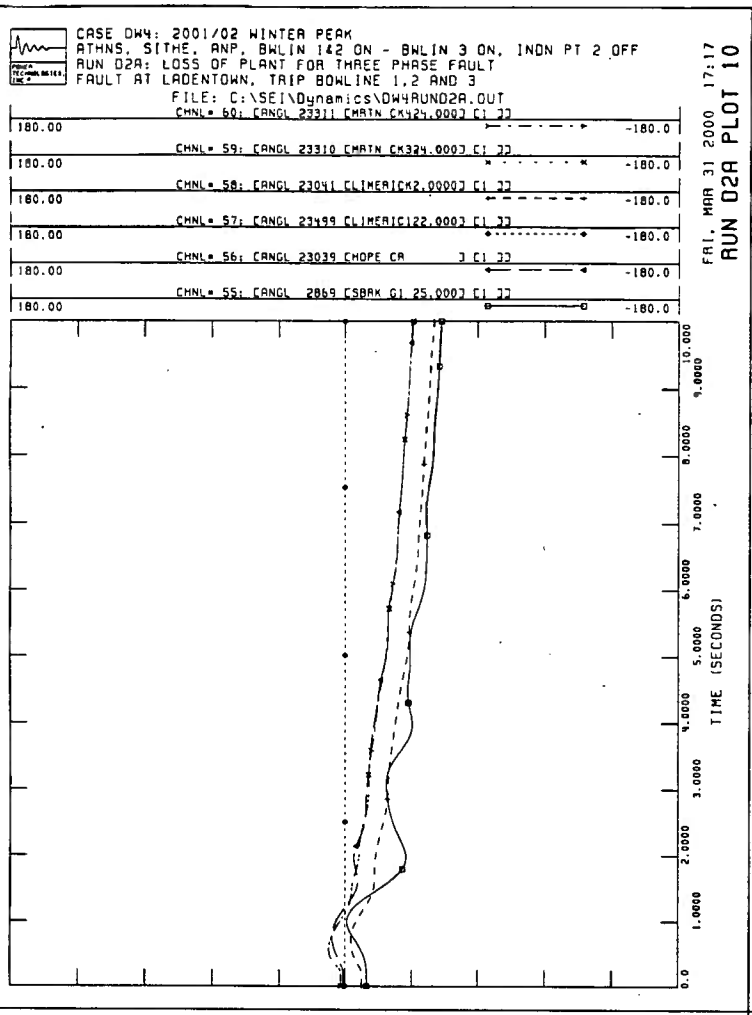
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT

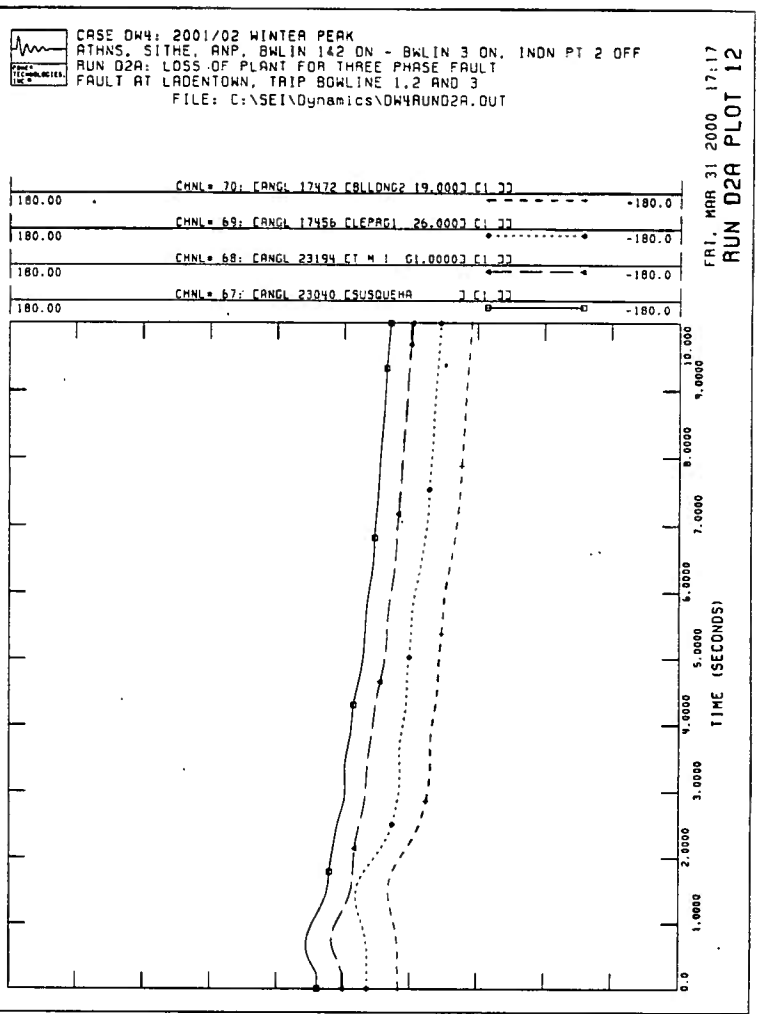
FRI, MAR 31 2000 17:17
RUN D2A PLOT 7

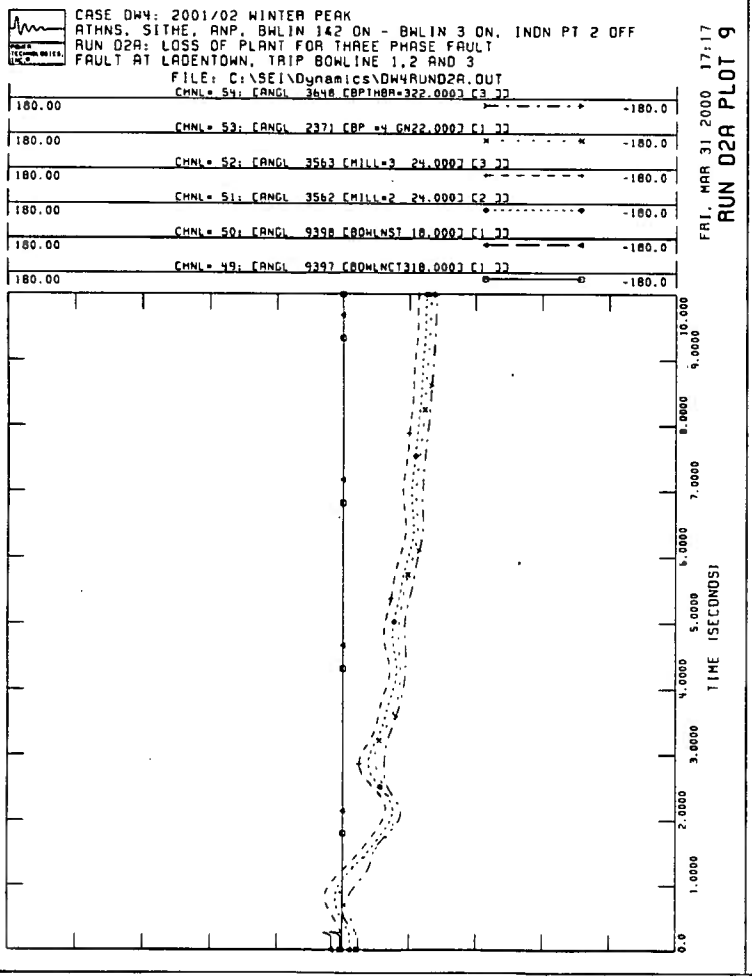
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]

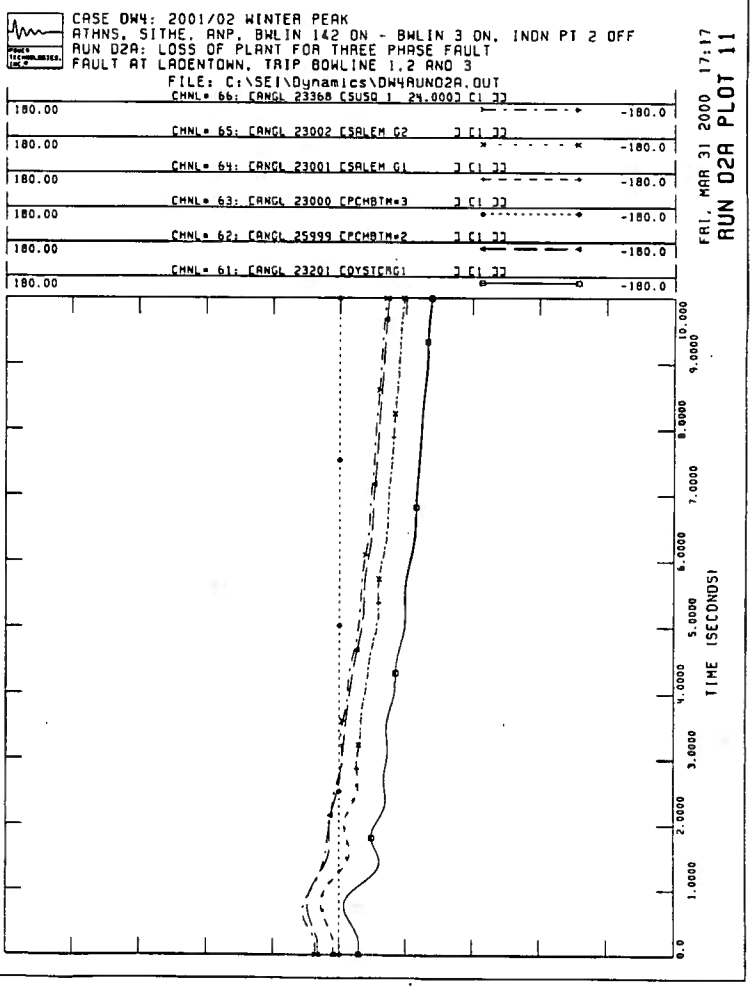
180.00 / -180.0

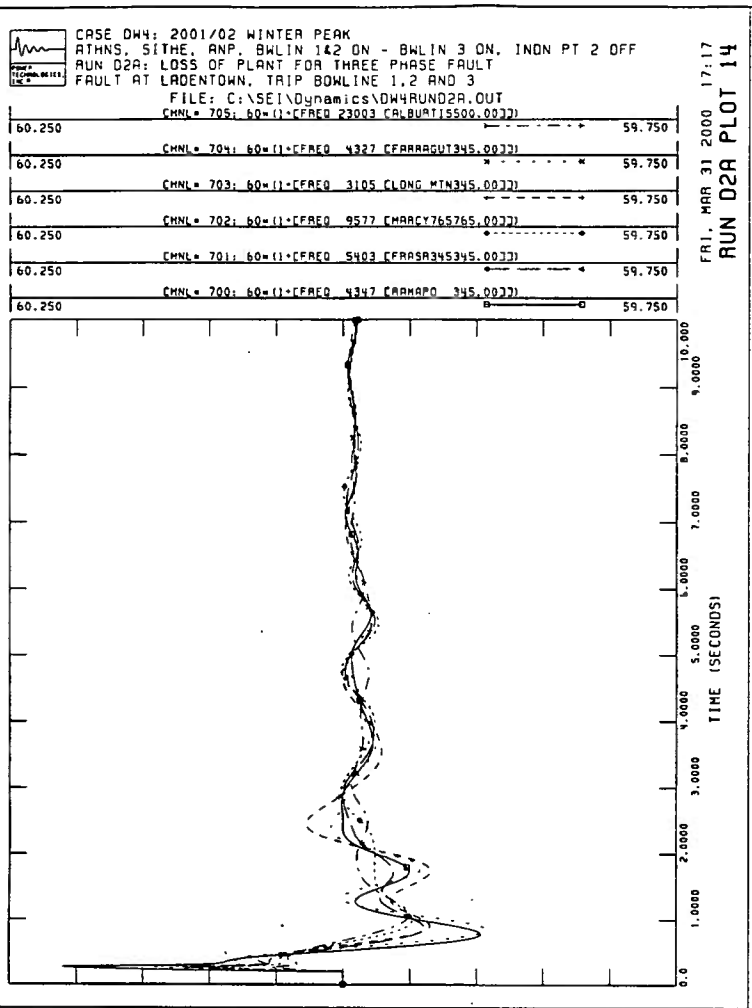
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

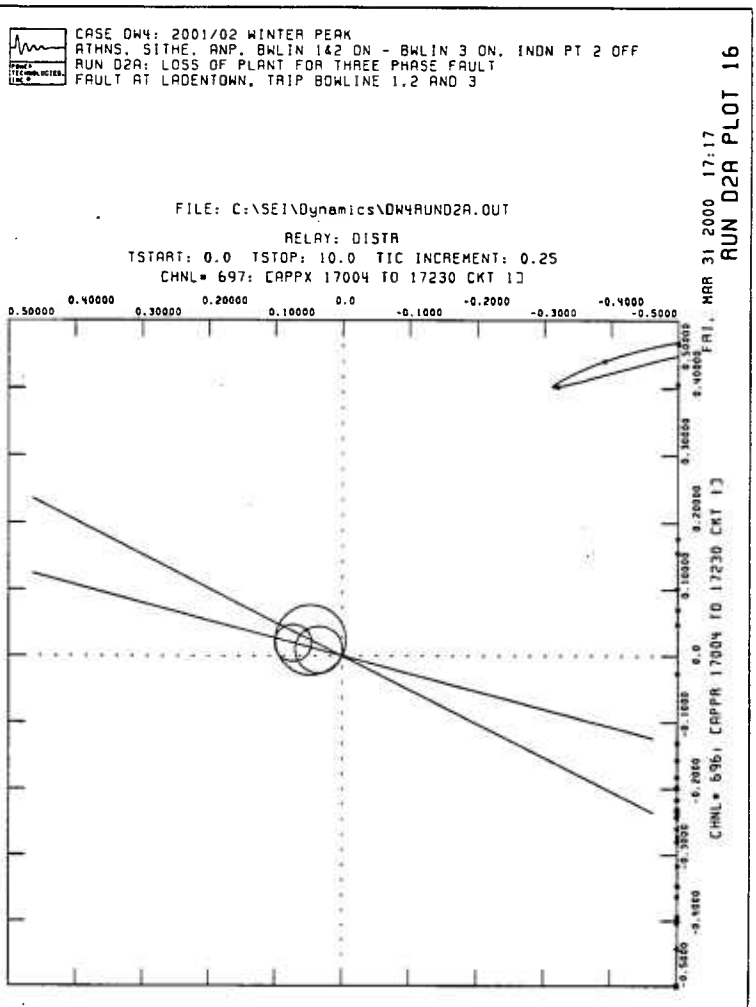

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 60: [ANGL 23311 [MAIN CK324.0000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.0000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.0000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SBRK G] 25.0000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 10

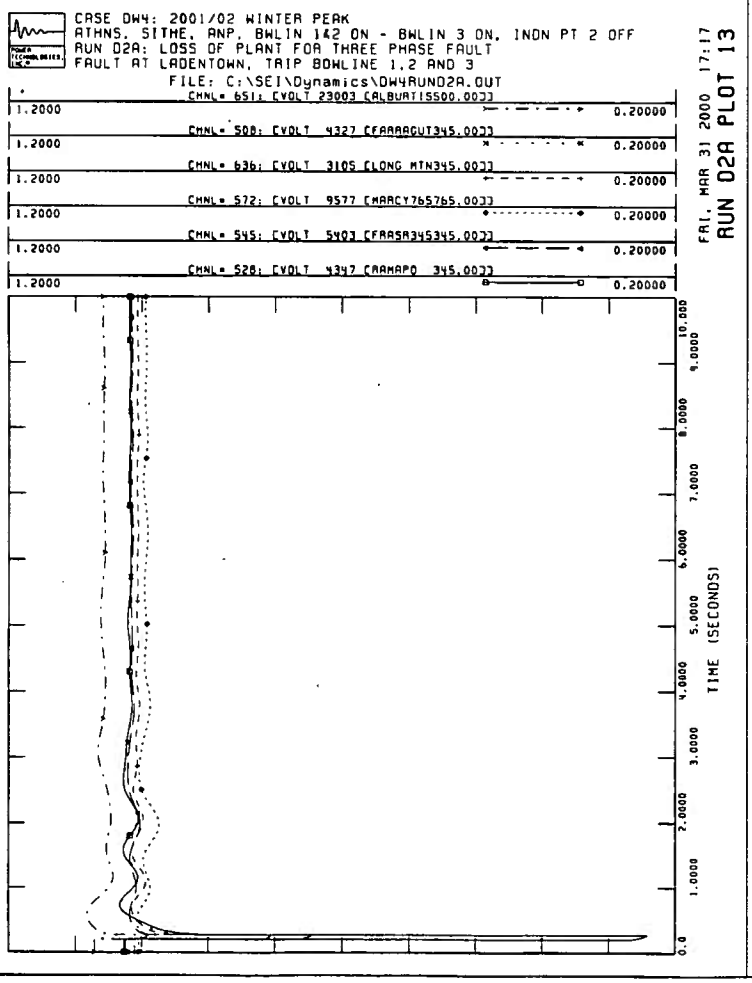

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 70: [ANGL 17472 [BLLDNG2 19.000] [1]]
CHNL= 69: [ANGL 17456 [LEPRG1 26.000] [1]]
CHNL= 68: [ANGL 23194 [T M 1 G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 12

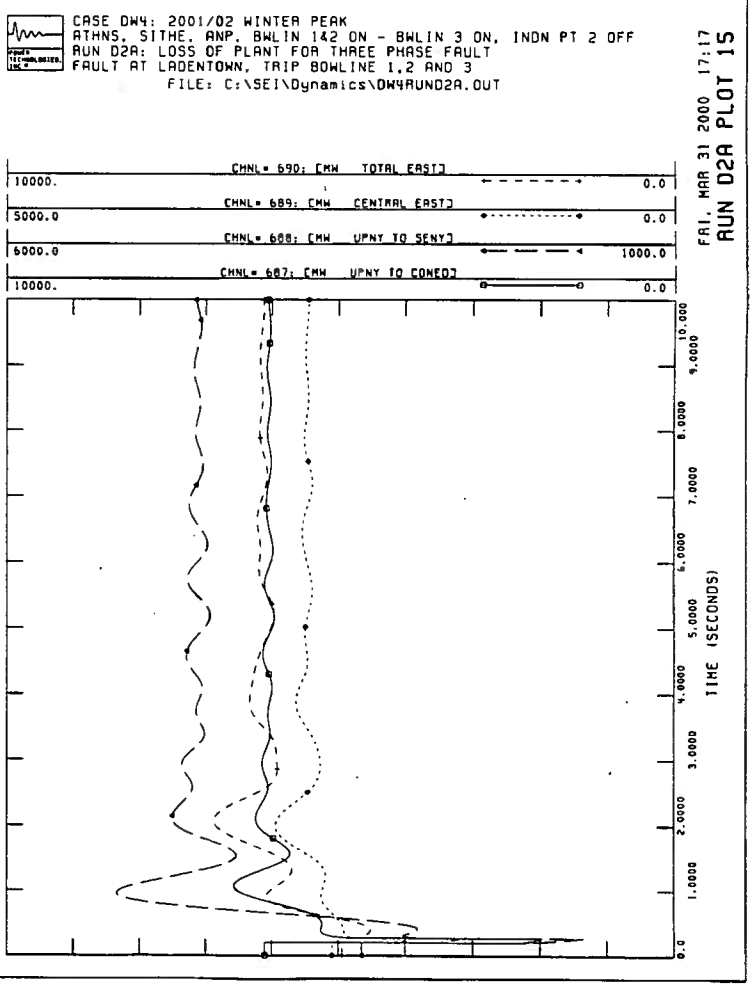

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 54: [ANGL 3648 [BPTH8A=322.0000] [3]]
CHNL= 53: [ANGL 237] [BP =4 GN22.0000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.0000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.0000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNST 18.0000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNCT318.0000] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 9


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 66: [ANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCMBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCMBTM=2] [1]]
CHNL= 61: [ANGL 23201 [CONSTEG1] [1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 11


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 705: 60=()*CFREQ 23003 CALBUAT15500.00]]
CHNL= 704: 60=()*CFREQ 4327 CFARRAGUT345.00]]
CHNL= 703: 60=()*CFREQ 3105 CLONG MTN345.00]]
CHNL= 702: 60=()*CFREQ 9577 CMARCY765765.00]]
CHNL= 701: 60=()*CFREQ 5403 CFRASR345345.00]]
CHNL= 700: 60=()*CFREQ 4347 CRAMAPO 345.00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 14


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 17:17
RUN D2A PLOT 16

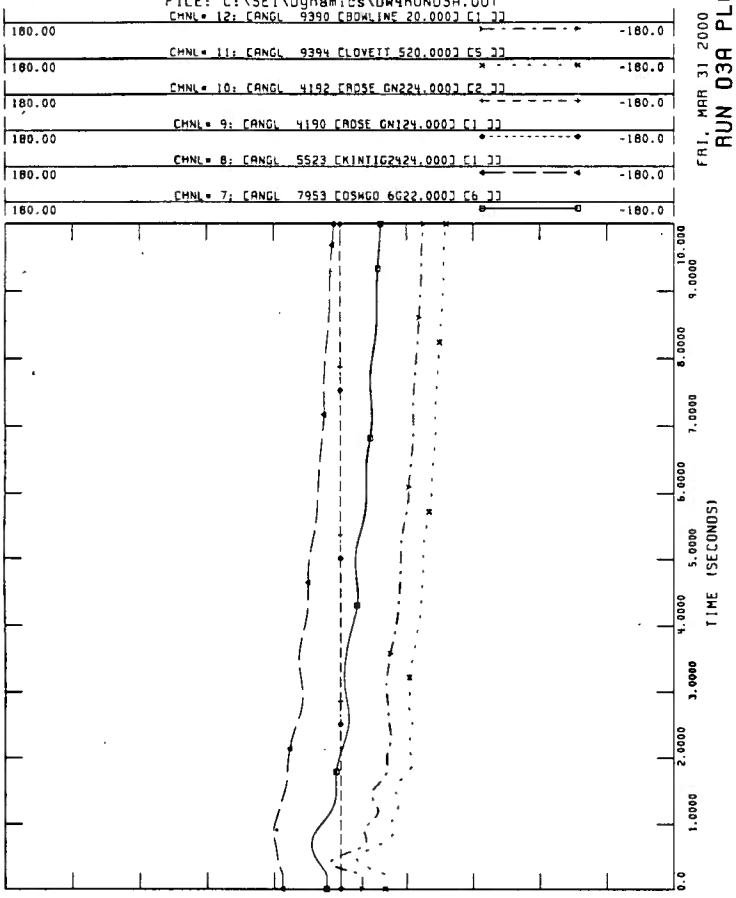

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 651: CVOLT 23003 CALBUAT15500.00]]
CHNL= 508: CVOLT 4327 CFARRAGUT345.00]]
CHNL= 636: CVOLT 3105 CLONG MTN345.00]]
CHNL= 572: CVOLT 9577 CMARCY765765.00]]
CHNL= 545: CVOLT 5403 CFRASR345345.00]]
CHNL= 528: CVOLT 4347 CRAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 13


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D2A: LOSS OF PLANT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP BOWLINE 1,2 AND 3
FILE: C:\SEI\Dynamics\DW4RUND2A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D2A PLOT 15

CONTINGENCY D3A

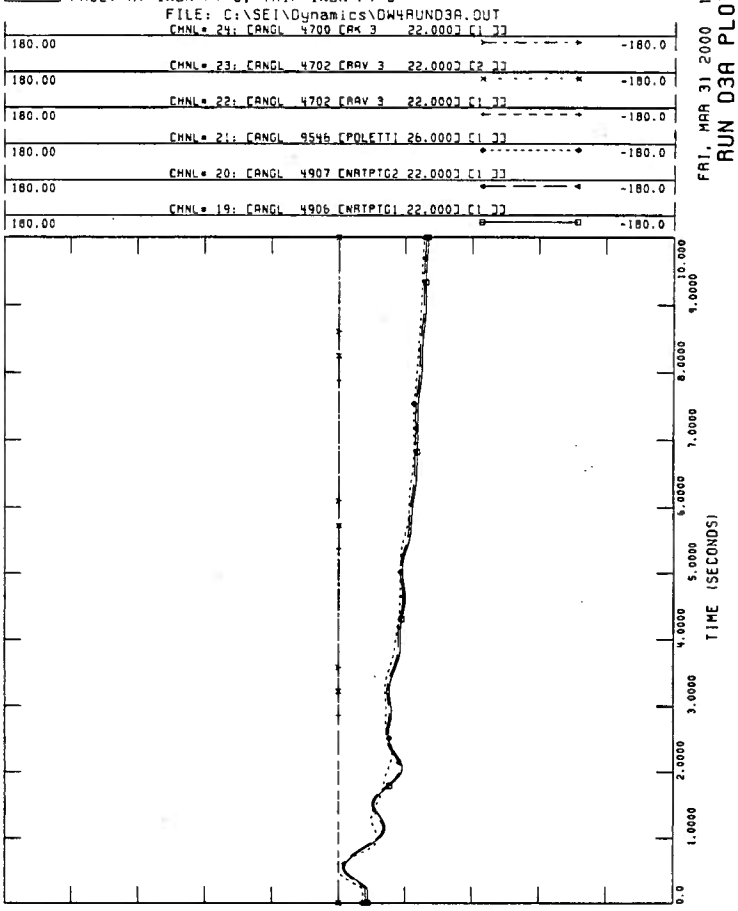
```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 9582 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT INDN PT 3
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DROP GENERATOR 1 AT BUS 9548                          / TRIP INDN PT 3
TRIP LINE FROM BUS 4313 TO BUS 9582 CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT



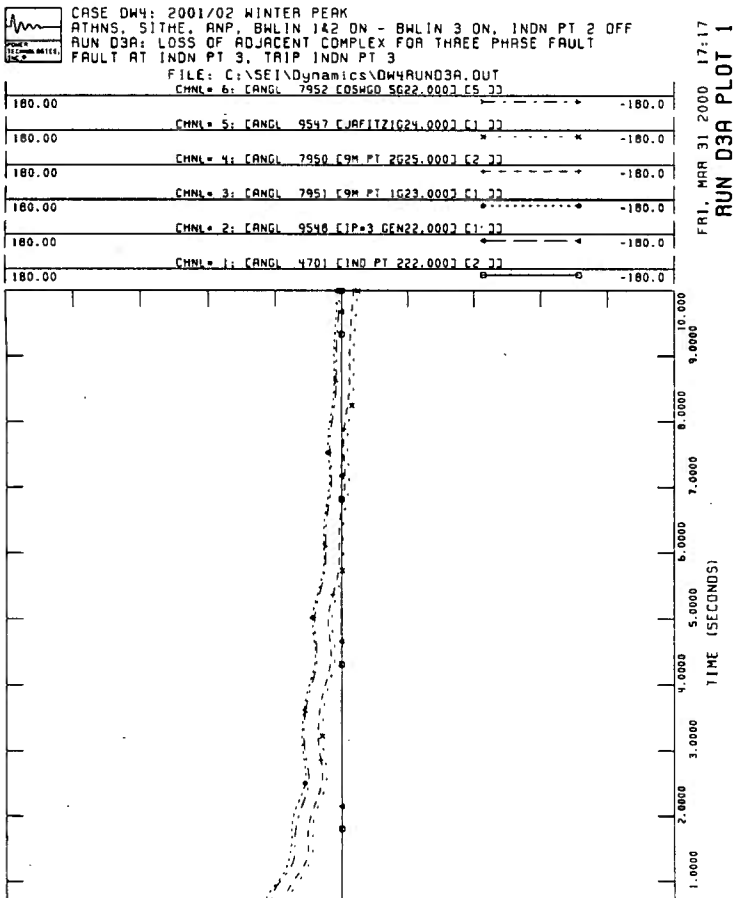
FRI, MAR 31 2000 17:17
RUN D3A PLOT 2

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT



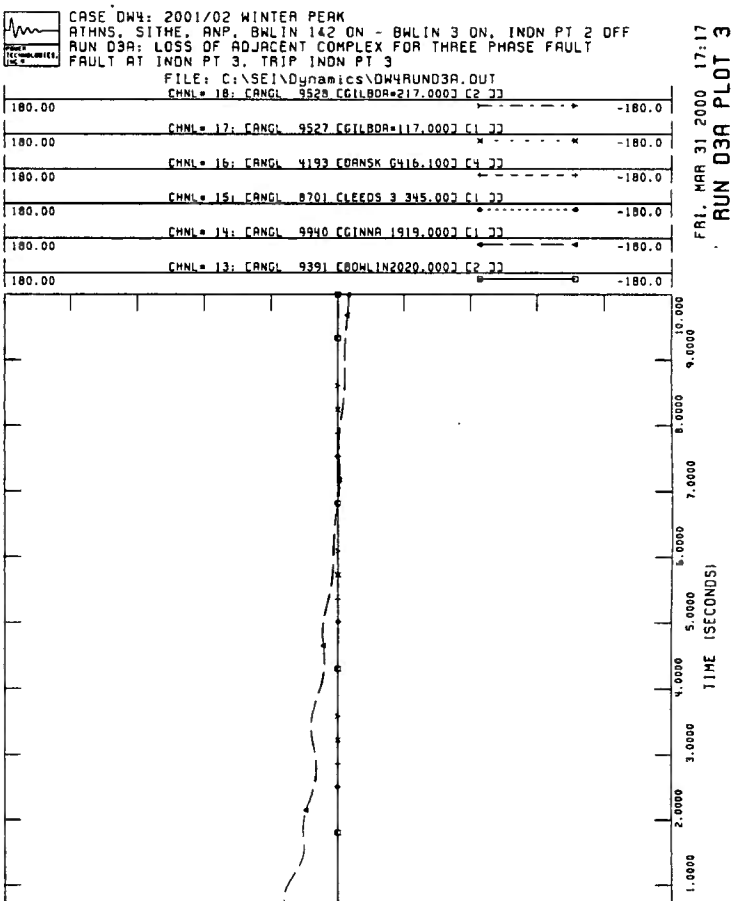
FRI, MAR 31 2000 17:17
RUN D3A PLOT 4

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT



FRI, MAR 31 2000 17:17
RUN D3A PLOT 1

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT



FRI, MAR 31 2000 17:17
RUN D3A PLOT 3

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT

FRI, MAR 31 2000 17:17
RUN D3A PLOT 6

CHNL= 36: [ANGL 4357 [SITH_GT318.000] [1]]
CHNL= 35: [ANGL 4353 [SITH_GT218.000] [1]]
CHNL= 34: [ANGL 4352 [SITH_GT118.000] [1]]
CHNL= 33: [ANGL 4358 [SITH_STM16.000] [1]]
CHNL= 32: [ANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: [ANGL 4706 [AST 5 20.000] [1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT

FRI, MAR 31 2000 17:17
RUN D3A PLOT 8

CHNL= 48: [ANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: [ANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: [ANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: [ANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: [ANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: [ANGL 8708 [ATHENSCT16.000] [1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT

FRI, MAR 31 2000 17:17
RUN D3A PLOT 5

CHNL= 30: [ANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: [ANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: [ANGL 4708 [ARV 2 20.000] [2]]
CHNL= 27: [ANGL 4708 [ARV 2 20.000] [1]]
CHNL= 26: [ANGL 4707 [ARV 1 20.000] [2]]
CHNL= 25: [ANGL 4707 [ARV 1 20.000] [1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

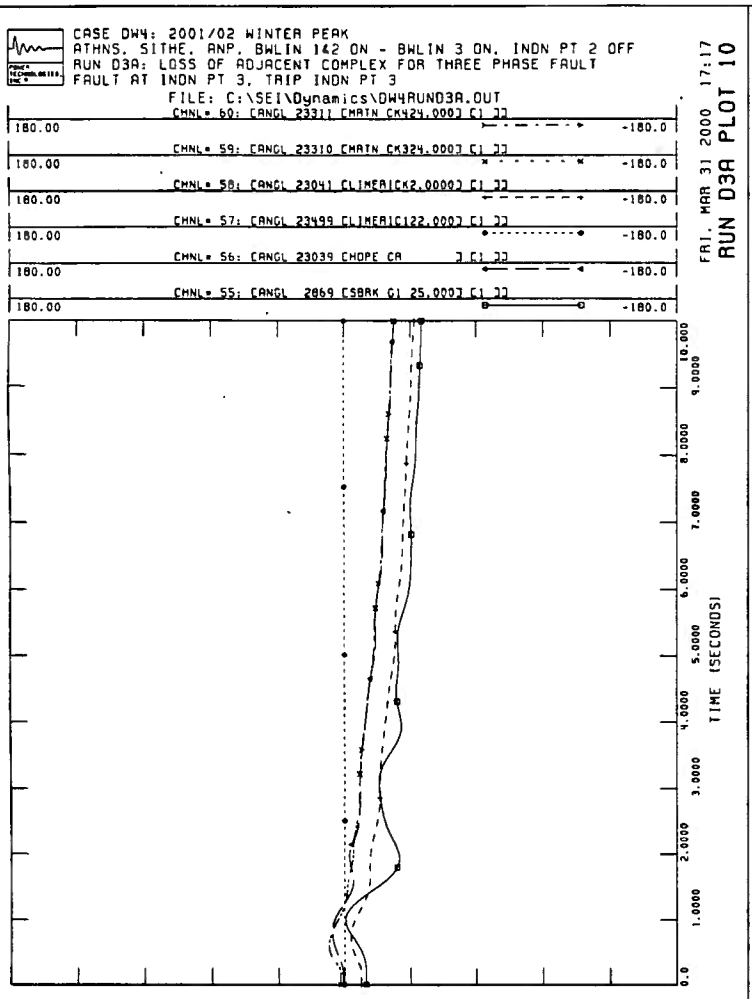
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INON PT 3, TRIP INON PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT

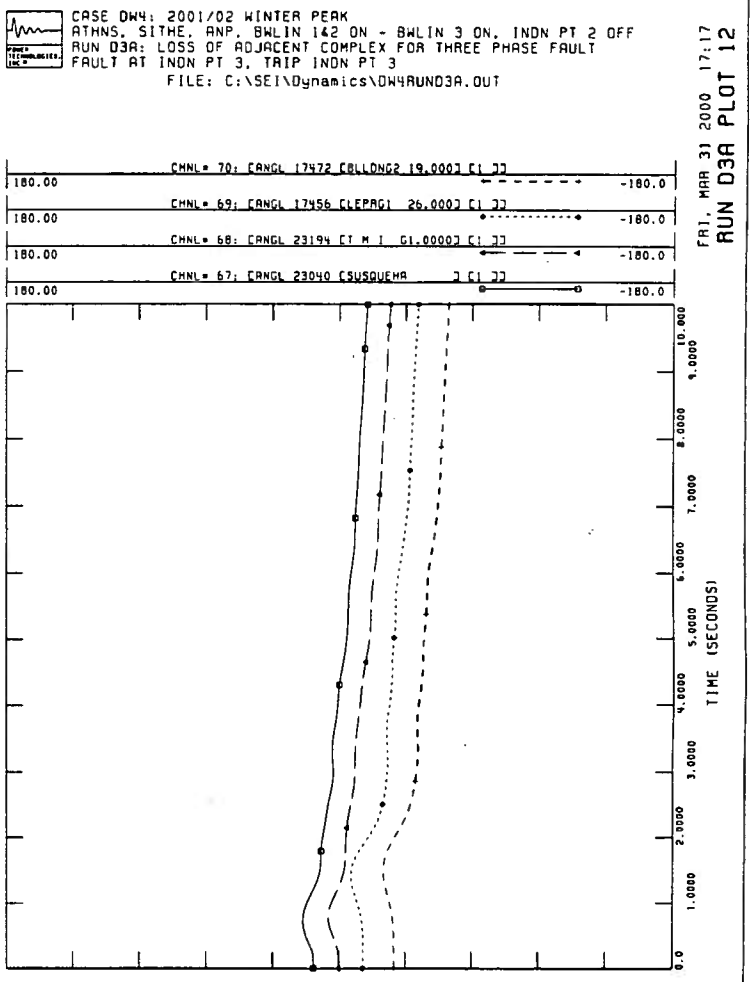
FRI, MAR 31 2000 17:17
RUN D3A PLOT 7

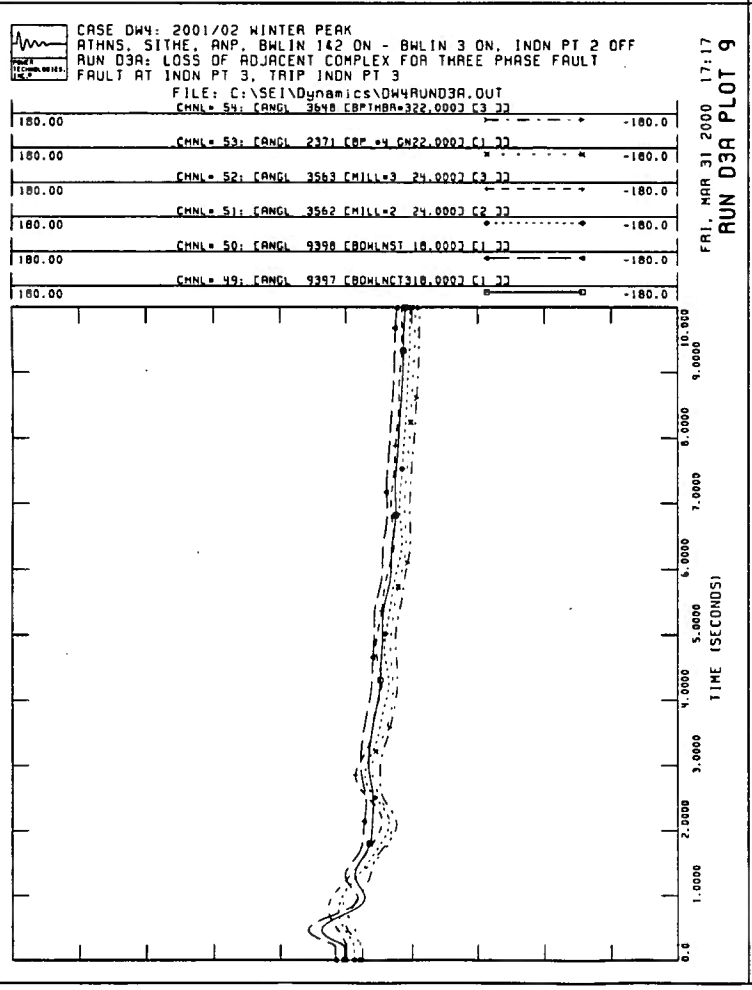
CHNL= 42: [ANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: [ANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: [ANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: [ANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: [ANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: [ANGL 4361 [ANPCT1 21.000] [1]]

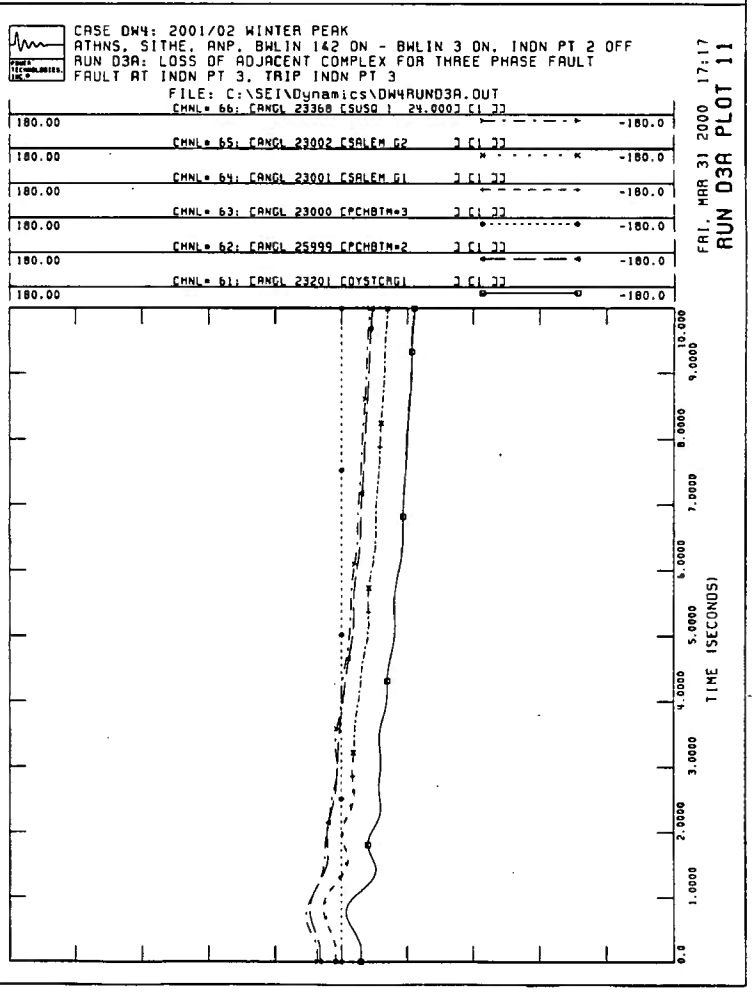
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

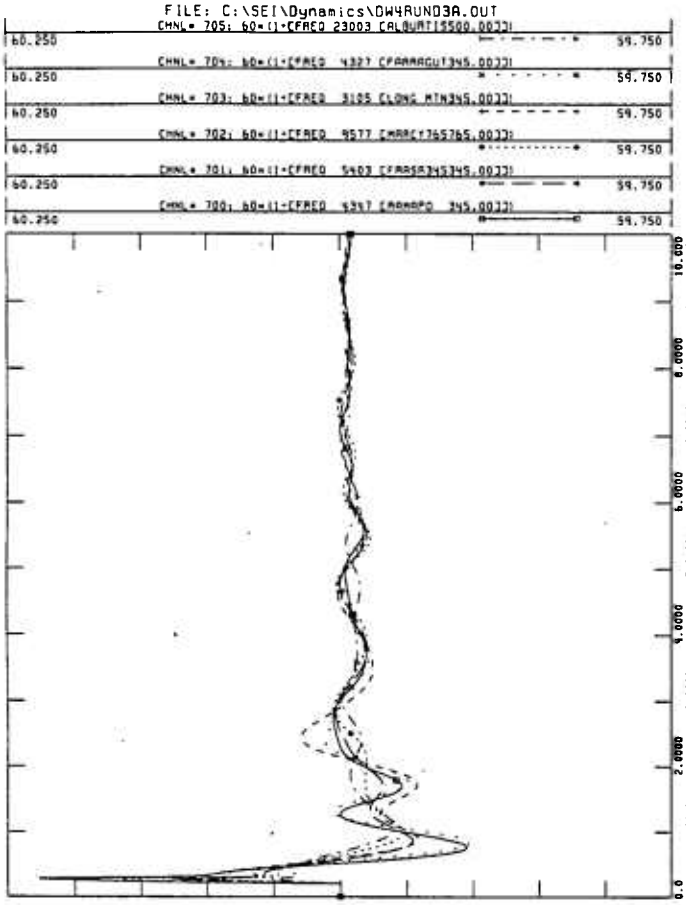

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT
CHNL= 60: CANGL 23311[CMAIN CK424.0000] C1]]
CHNL= 59: CANGL 23310 CMAIN CK324.0000] C1]]
CHNL= 58: CANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: CANGL 23499 CLIMERIC122.0000] C1]]
CHNL= 56: CANGL 23039 CHOPE CR] C1]]
CHNL= 55: CANGL 2869 CSBRK G1 25.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D3A PLOT 10


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT
CHNL= 70: CANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: CANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: CANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67: CANGL 23040 CSWSQUEHA] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D3A PLOT 12


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT
CHNL= 54: CANGL 3648 CBPTHBA=322.0000] C3]]
CHNL= 53: CANGL 2371 CBP #4 CN22.0000] C1]]
CHNL= 52: CANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: CANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: CANGL 9398 CBOWLNS1 18.000] C1]]
CHNL= 49: CANGL 9397 CBOWLNCT318.0000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D3A PLOT 9


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT
CHNL= 66: CANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: CANGL 23002 CSALEM G2] C1]]
CHNL= 64: CANGL 23001 CSALEM G1] C1]]
CHNL= 63: CANGL 23000 CPCHBTM=3] C1]]
CHNL= 62: CANGL 25999 CPCHBTM=2] C1]]
CHNL= 61: CANGL 23201 COYSTCMG1] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:17
RUN D3A PLOT 11

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT

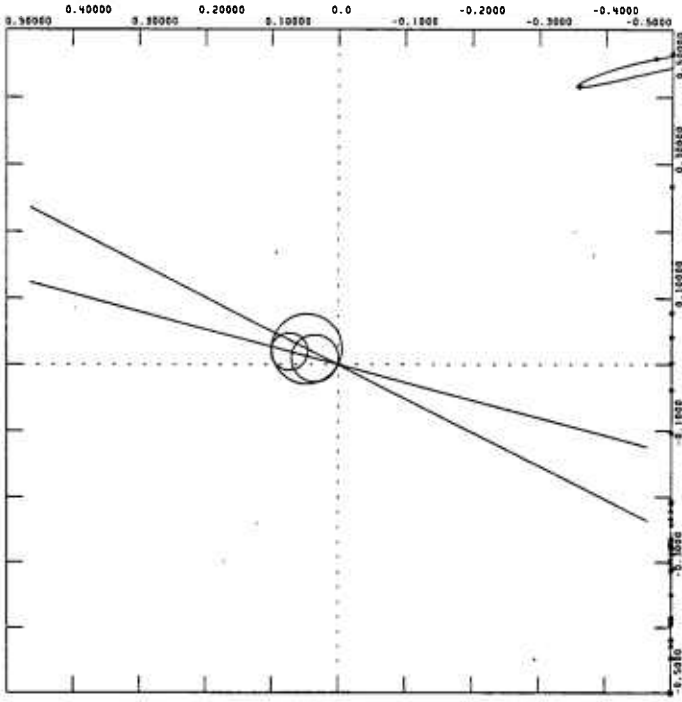


FRI, MAR 31 2000 17:17
RUN D3A PLOT 14

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3

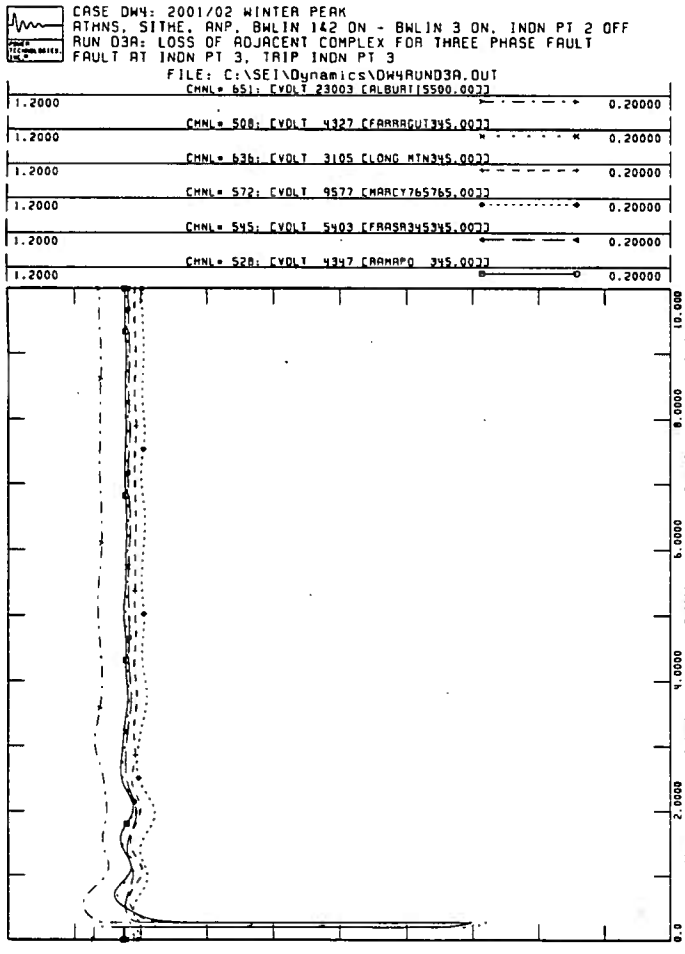
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT

RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]



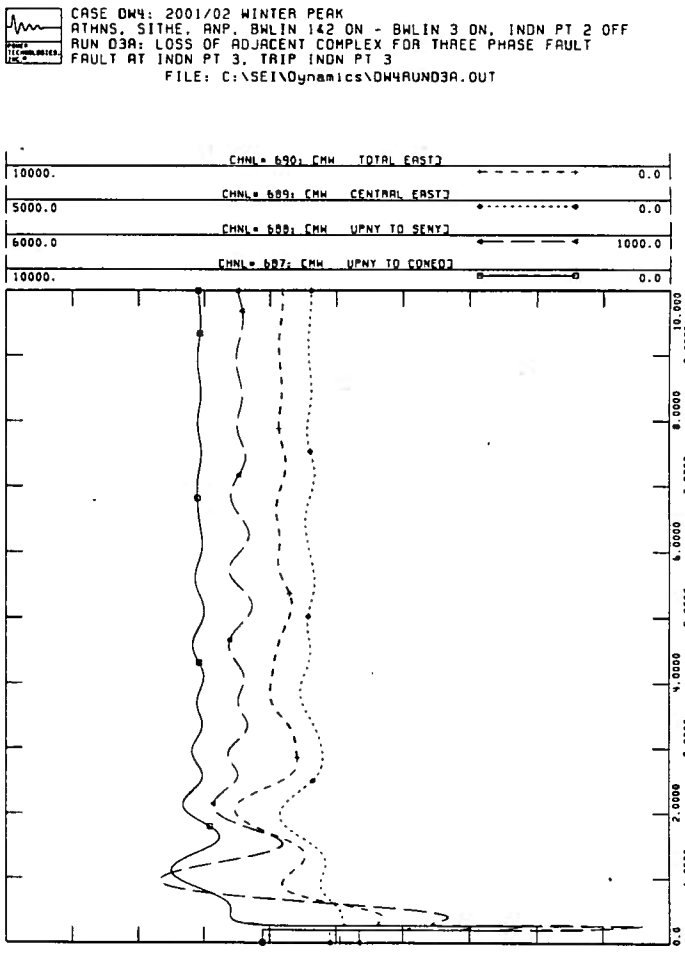
FRI, MAR 31 2000 17:17
RUN D3A PLOT 16

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT



FRI, MAR 31 2000 17:17
RUN D3A PLOT 13

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D3A: LOSS OF ADJACENT COMPLEX FOR THREE PHASE FAULT
FAULT AT INDN PT 3, TRIP INDN PT 3
FILE: C:\SEI\Dynamics\DW4RUND3A.OUT



FRI, MAR 31 2000 17:17
RUN D3A PLOT 15

CONTINGENCY D4A

```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND4A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4347 CKT 1             / TRIP LADENTOWN-RAMAPO
CLEAR FAULT
RUN FOR 31 CYCLES PRINT 0 PLOT 3
APPLY FAULT BUS 4347 IMPEDANCE 0.119 2.642 OHMS BASEKV 345  / RECLOSE AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 2

CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 4

CHNL= 24: CANGL 4700 [RK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [RAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [RAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 1

CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP*3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 3

CHNL= 18: CANGL 9528 [GILBOA*217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA*117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.000] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]

180.00 / -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 6

CHNL= 36: CANGL 4357 [SITH_GT318.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT218.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT118.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 8

CHNL= 48: CANGL 9395 [BOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 5

CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARV 1 20.000] [1]]
180.00 -180.0

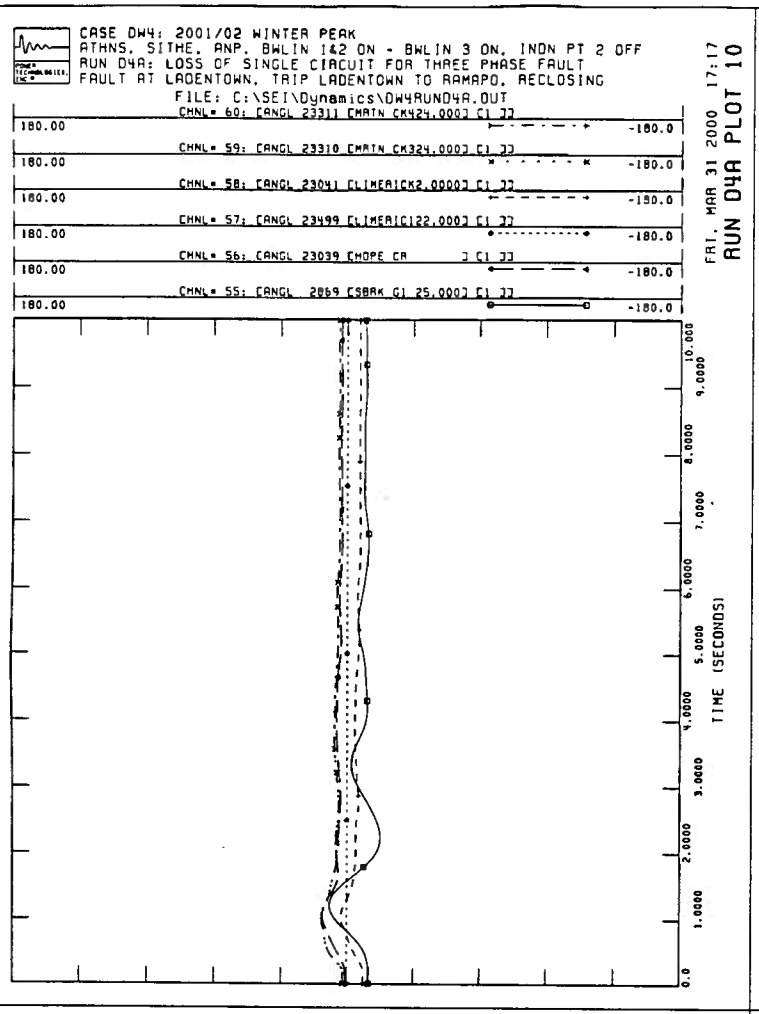
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

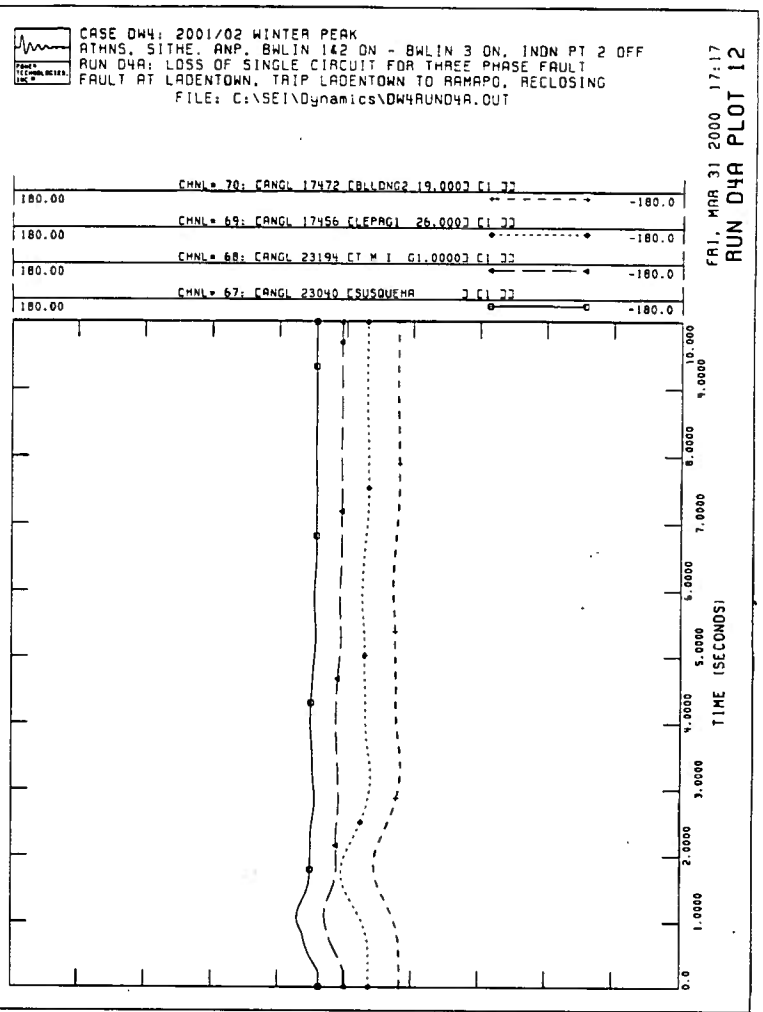
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

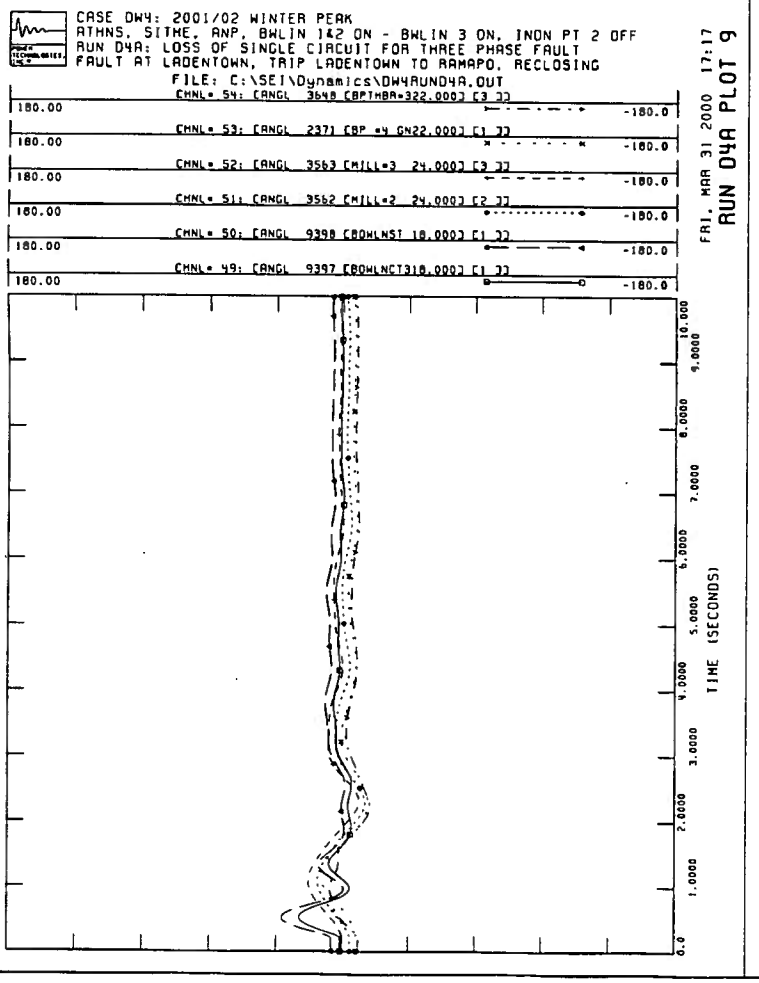
FRI, MAR 31 2000 17:17
RUN D4A PLOT 7

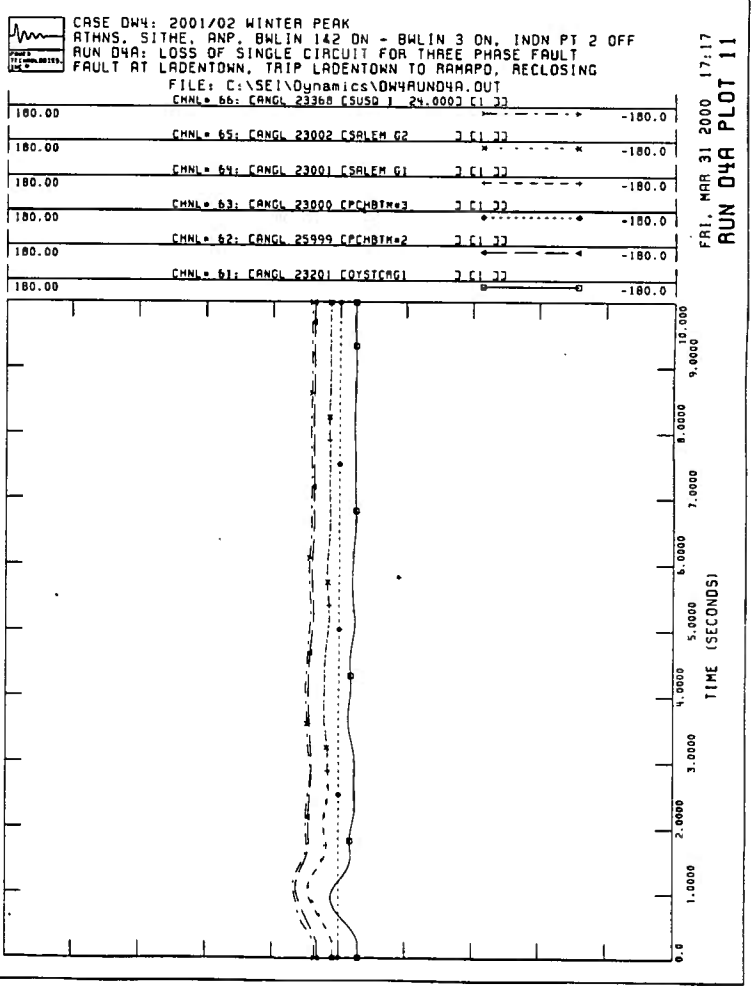
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [ANPCT1 21.000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT
CHNL= 60: [ANGL 23311 [MAIN CK424.000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.00000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SBRK G1 25.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D4A PLOT 10

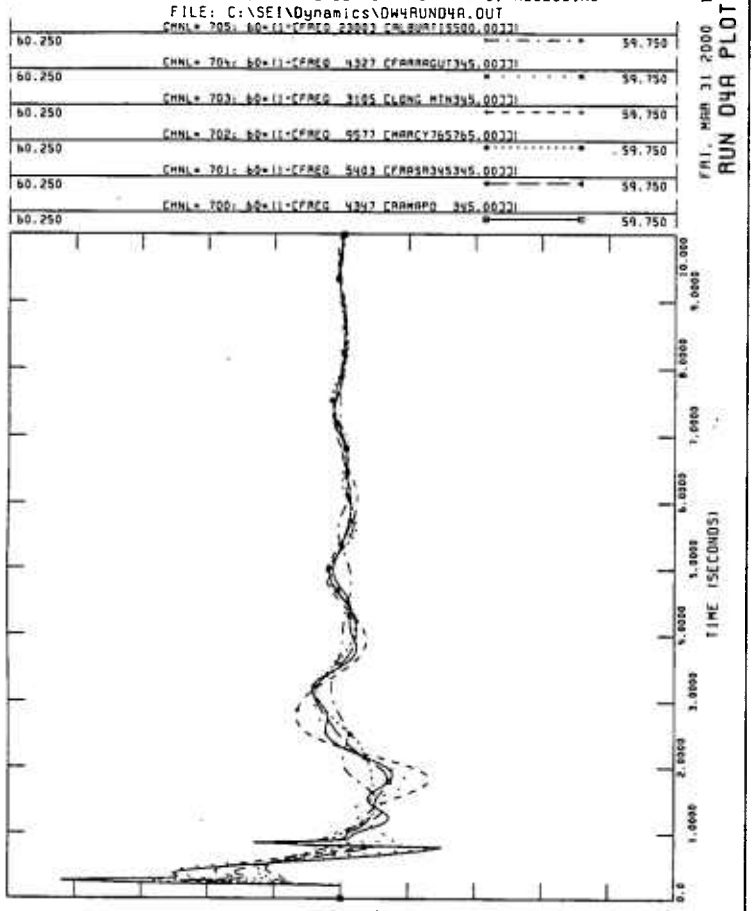

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT
CHNL= 70: [ANGL 17472 [BLLDNG2 19.000] [1]]
CHNL= 69: [ANGL 17456 [LEPAG1 26.000] [1]]
CHNL= 68: [ANGL 23194 [T M I G1.00000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D4A PLOT 12


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT
CHNL= 54: [ANGL 3648 [BPTHBA=322.000] [3]]
CHNL= 53: [ANGL 2371 [BP =4 GN22.000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNS1 18.000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNCT318.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D4A PLOT 9


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT
CHNL= 66: [ANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 2300] [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: [ANGL 2320] [OYSTCRG1] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:17
RUN D4A PLOT 11

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 14

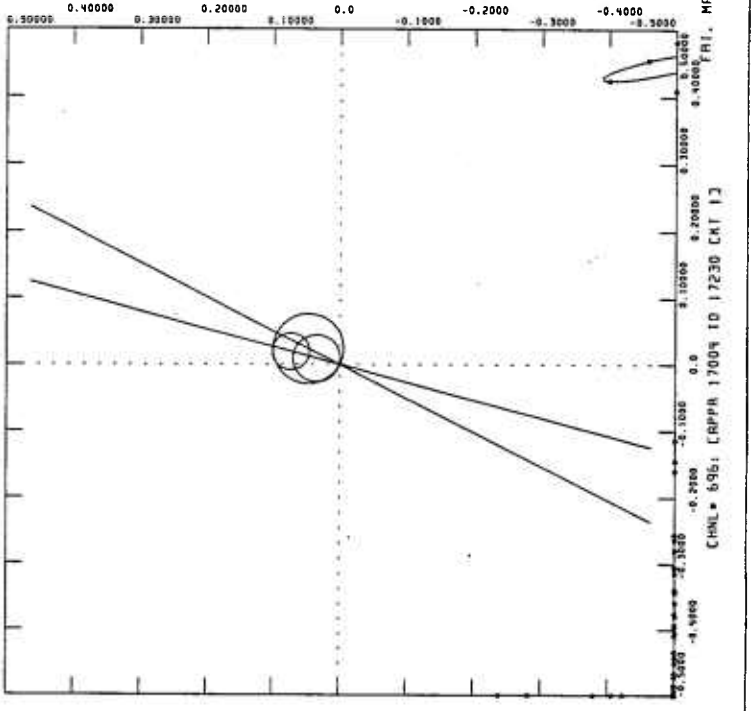


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING

FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

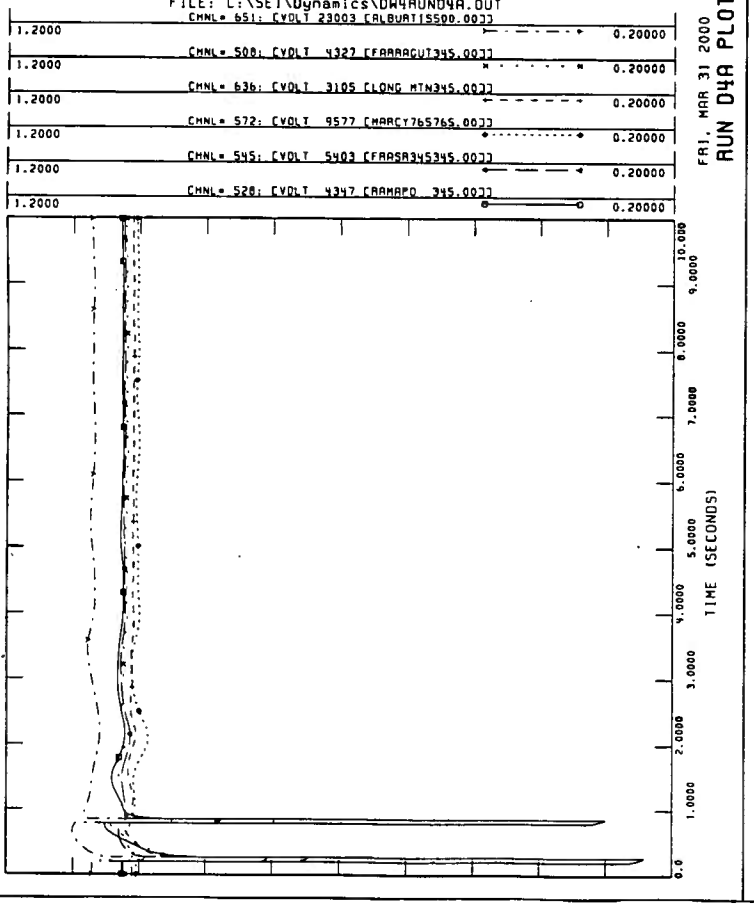
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]

FRI, MAR 31 2000 17:17
RUN D4A PLOT 16



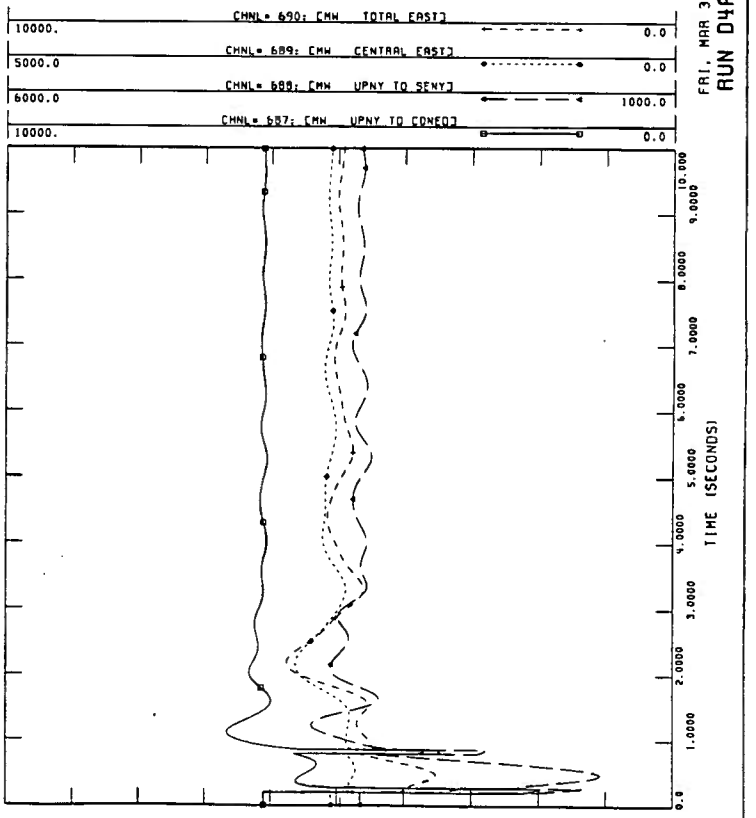
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 13



CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4A: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO RAMAPO, RECLOSING
FILE: C:\SEI\Dynamics\DW4RUND4A.OUT

FRI, MAR 31 2000 17:17
RUN D4A PLOT 15



CONTINGENCY D4B

```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND4B.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1              / TRIP LADENTOWN-BUCHANAN S
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND48.OUT

FRI, MAR 31 2000 17:22
RUN D48 PLOT 2

CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]

180.00 ... -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND48.OUT

FRI, MAR 31 2000 17:22
RUN D48 PLOT 4

CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [AAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [AAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [COLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]

180.00 ... -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND48.OUT

FRI, MAR 31 2000 17:22
RUN D48 PLOT 1

CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]

180.00 ... -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

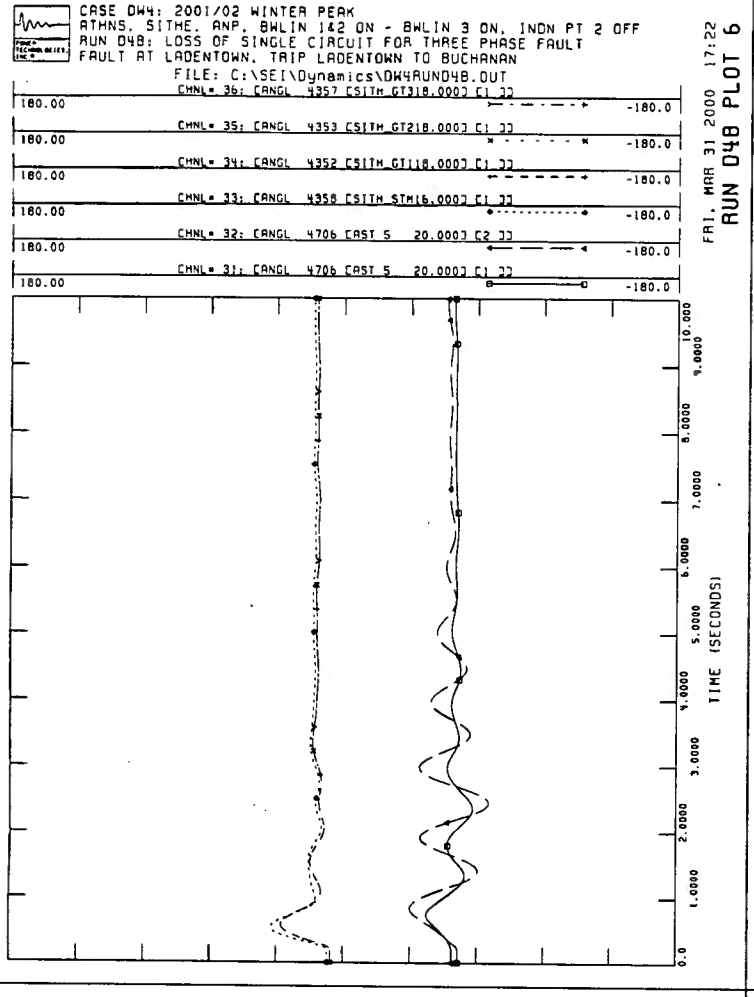
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D48: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND48.OUT

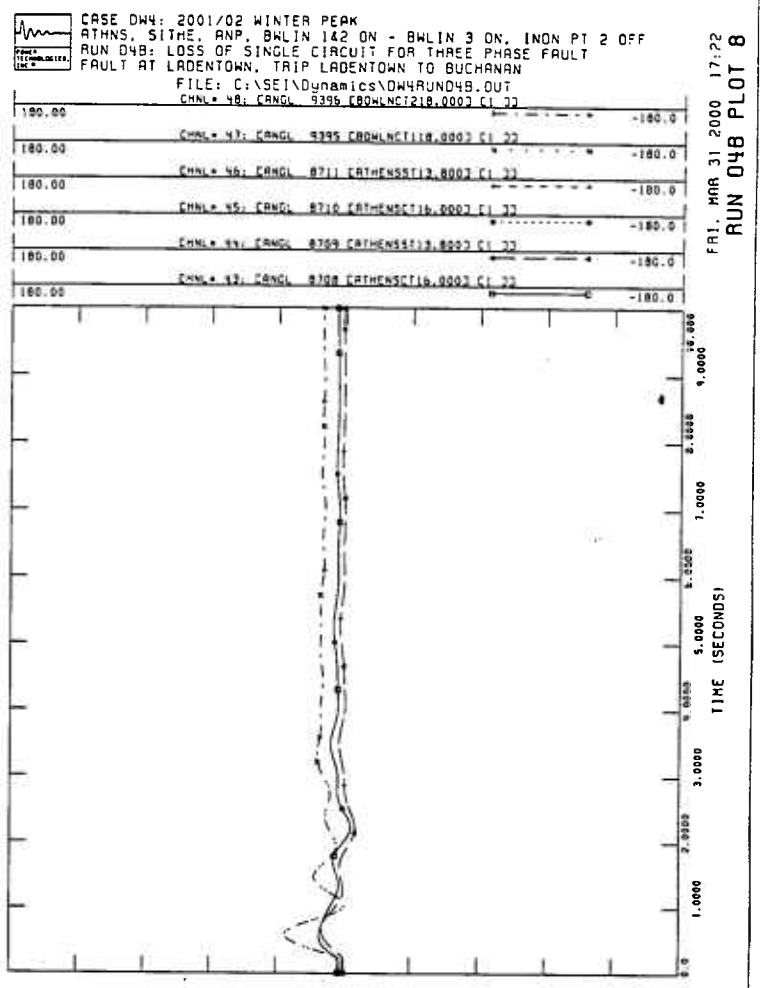
FRI, MAR 31 2000 17:22
RUN D48 PLOT 3

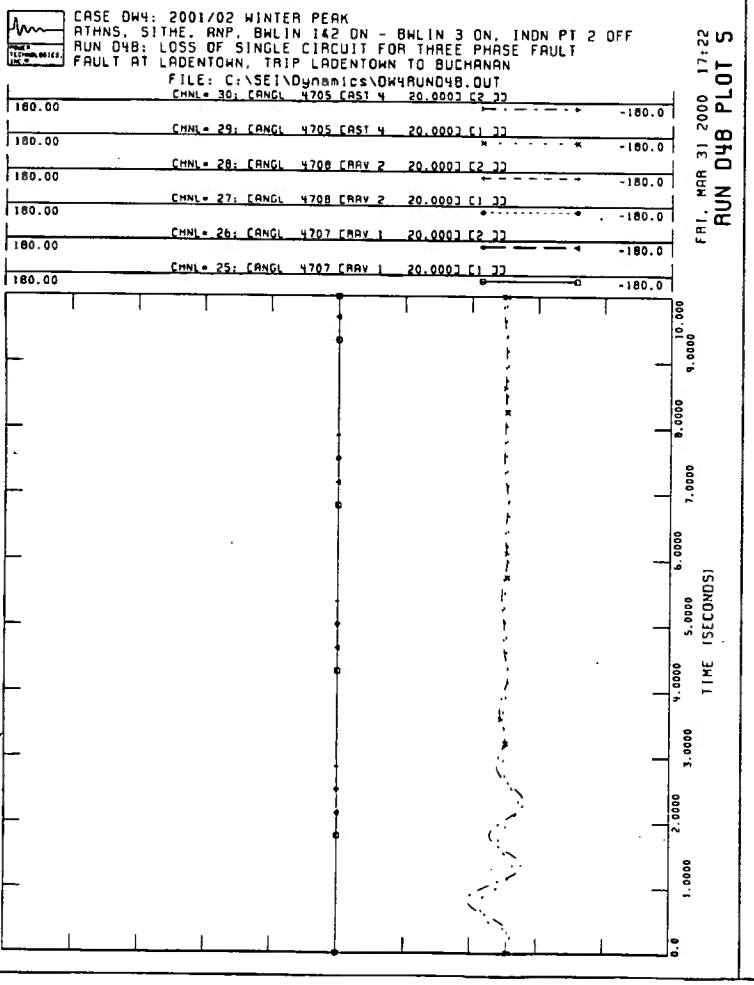
CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]

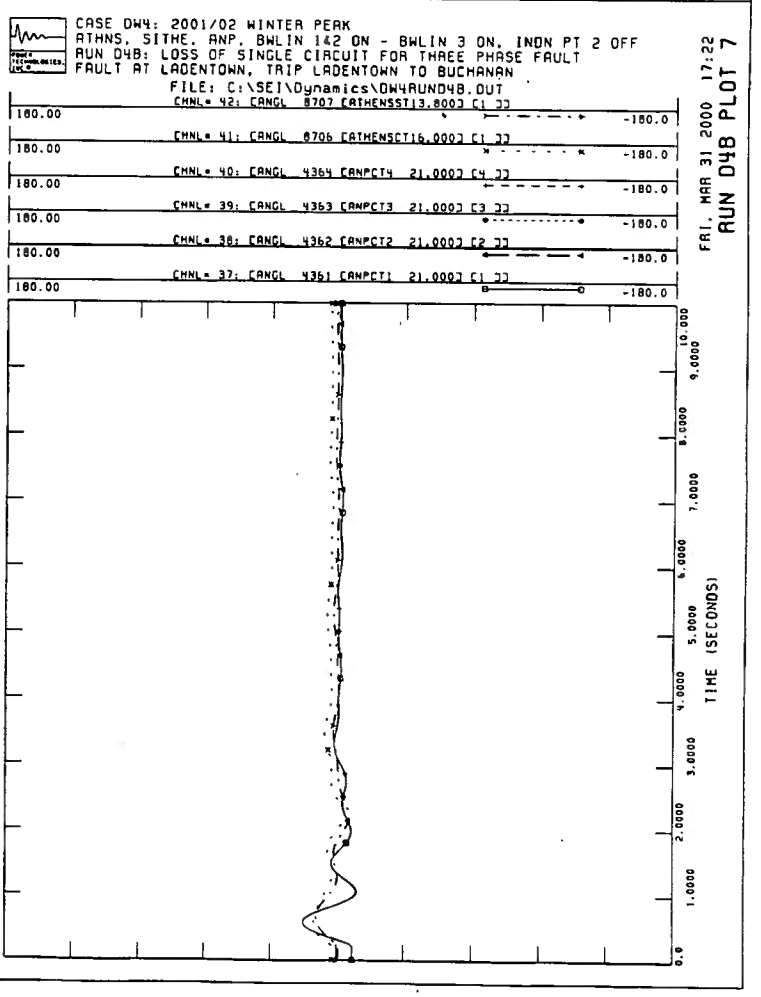
180.00 ... -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT
CHNL= 36: CANGL 4357 CSITH_GT318.000] C1]]
CHNL= 35: CANGL 4353 CSITH_GT218.000] C1]]
CHNL= 34: CANGL 4352 CSITH_GT118.000] C1]]
CHNL= 33: CANGL 4358 CSITH_STM16.000] C1]]
CHNL= 32: CANGL 4706 CAST 5 20.000] C2]]
CHNL= 31: CANGL 4706 CAST 5 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 6


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT
CHNL= 48: CANGL 9396 CBOWLNCT218.000] C1]]
CHNL= 47: CANGL 9395 CBOWLNCT118.000] C1]]
CHNL= 46: CANGL 8711 CATHENSST13.800] C1]]
CHNL= 45: CANGL 8710 CATHENSCT16.000] C1]]
CHNL= 44: CANGL 8709 CATHENSST13.800] C1]]
CHNL= 43: CANGL 8708 CATHENSCT16.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 8


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT
CHNL= 30: CANGL 4705 CAST 4 20.000] C2]]
CHNL= 29: CANGL 4705 CAST 4 20.000] C1]]
CHNL= 28: CANGL 4708 CARV 2 20.000] C2]]
CHNL= 27: CANGL 4708 CARV 2 20.000] C1]]
CHNL= 26: CANGL 4707 CARV 1 20.000] C2]]
CHNL= 25: CANGL 4707 CARV 1 20.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 5


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT
CHNL= 42: CANGL 8707 CATHENSST13.800] C1]]
CHNL= 41: CANGL 8706 CATHENSCT16.000] C1]]
CHNL= 40: CANGL 4364 CANPCT4 21.000] C4]]
CHNL= 39: CANGL 4363 CANPCT3 21.000] C3]]
CHNL= 38: CANGL 4362 CANPCT2 21.000] C2]]
CHNL= 37: CANGL 4361 CANPCT1 21.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 7

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT

FRI, MAR 31 2000 17:22
RUN D4B PLOT 10

CHNL= 60: [ANGL 23311 [MAIN CK424.0000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.0000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.000] [1]]
CHNL= 56: [ANGL 23039 [MOPE CA] [1]]
CHNL= 55: [ANGL 2869 [SBRK G1 25.000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT

FRI, MAR 31 2000 17:22
RUN D4B PLOT 12

CHNL= 70: [ANGL 17472 [BLLONG2 19.000] [1]]
CHNL= 69: [ANGL 17456 [LEPAG1 26.000] [1]]
CHNL= 68: [ANGL 23194 [T M] G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT

FRI, MAR 31 2000 17:22
RUN D4B PLOT 9

CHNL= 54: [ANGL 3648 [BPTMBR=322.000] [3]]
CHNL= 53: [ANGL 2371 [BP =4 GN22.000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNS1 18.000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNCT318.000] [1]]
180.00 -180.0

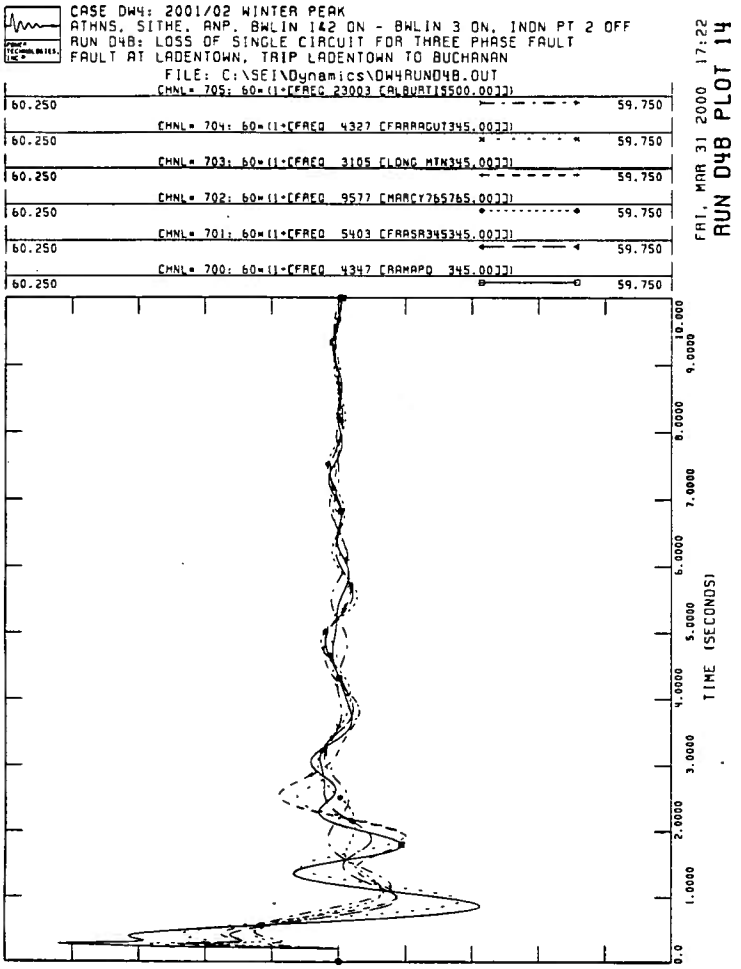
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

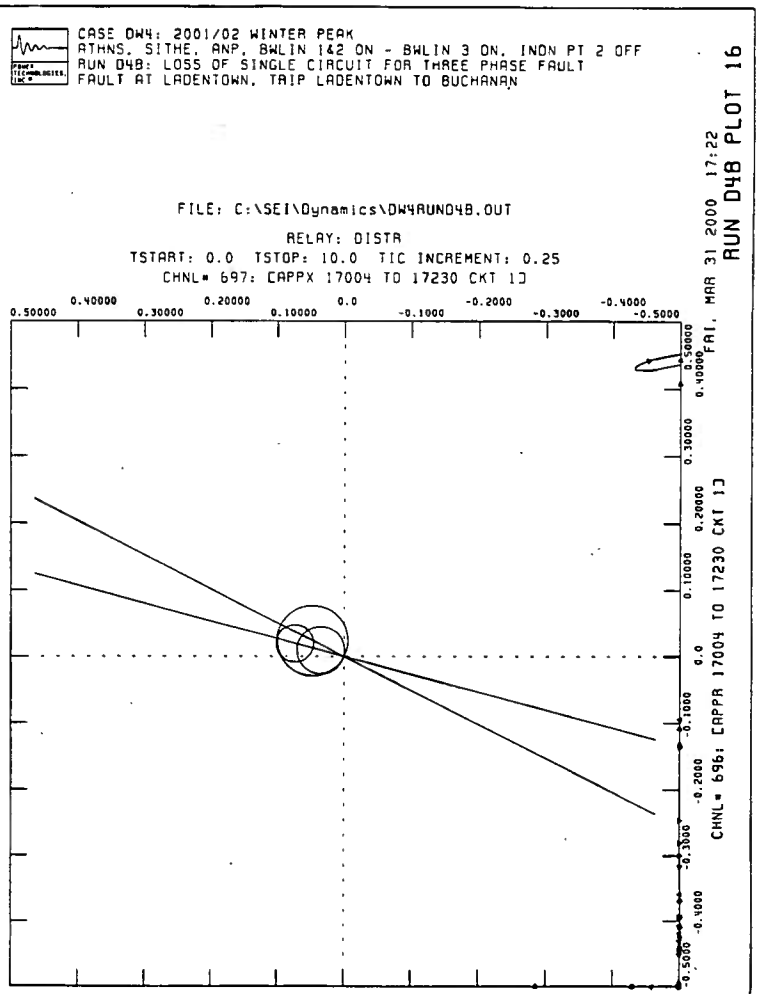
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUND4B.OUT

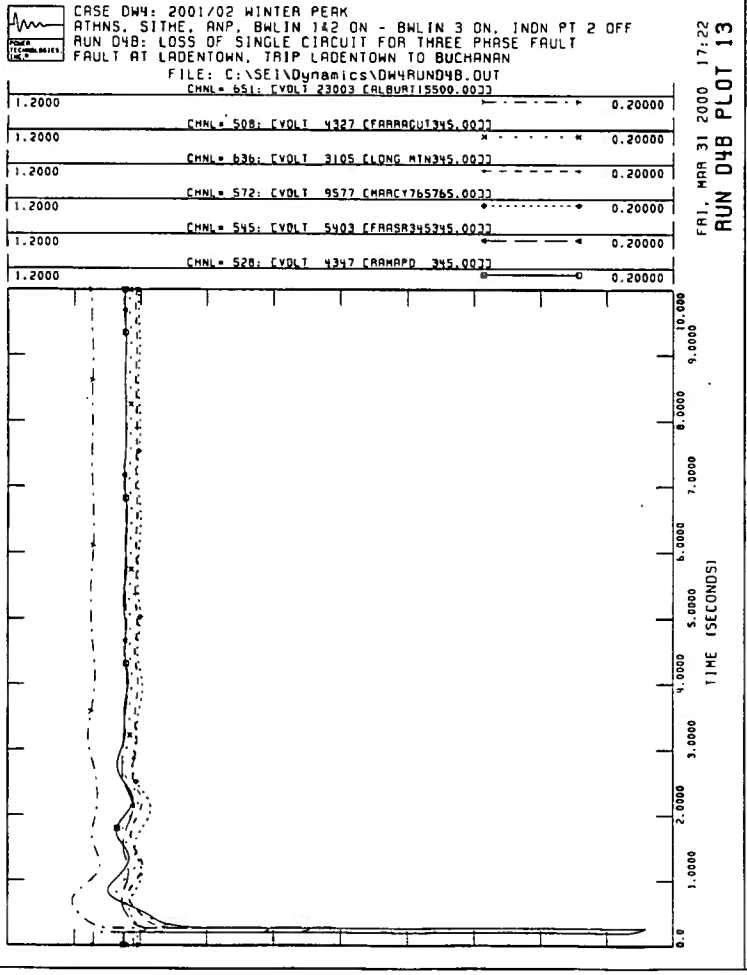
FRI, MAR 31 2000 17:22
RUN D4B PLOT 11

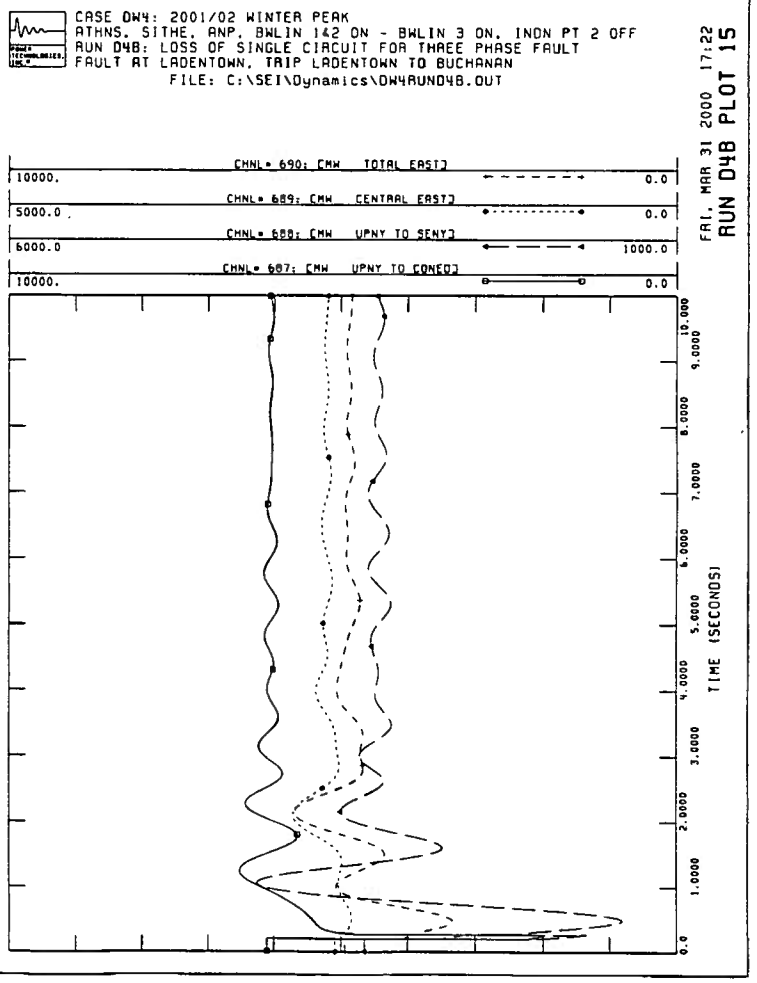
CHNL= 66: [ANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: [ANGL 23201 [CONSTCAG1] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUN04B.OUT
CHNL= 705: 60*(1+CFREQ 23003 [ALBURT15500.00]])
CHNL= 704: 60*(1+CFREQ 4327 [FARRAGUT345.00]])
CHNL= 703: 60*(1+CFREQ 3105 [LONG MTN345.00]])
CHNL= 702: 60*(1+CFREQ 9577 [MARCY765765.00]])
CHNL= 701: 60*(1+CFREQ 5403 [FRASR345345.00]])
CHNL= 700: 60*(1+CFREQ 4347 [RAMAPO 345.00]])
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 14

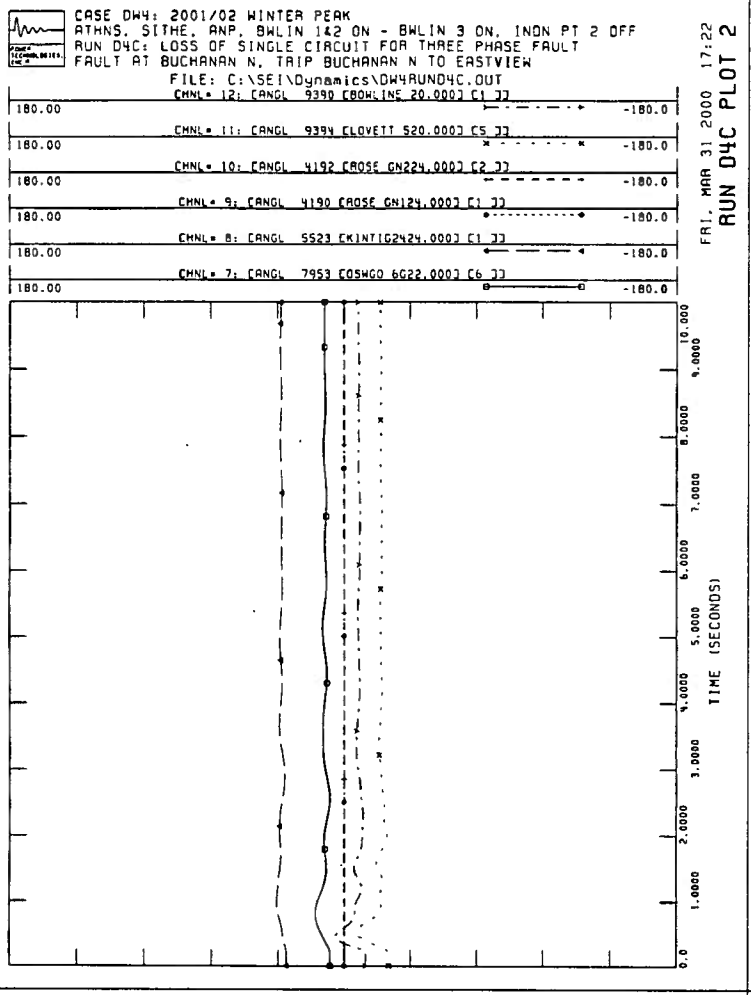

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUN04B.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 696: CAPPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 17:22
RUN D4B PLOT 16

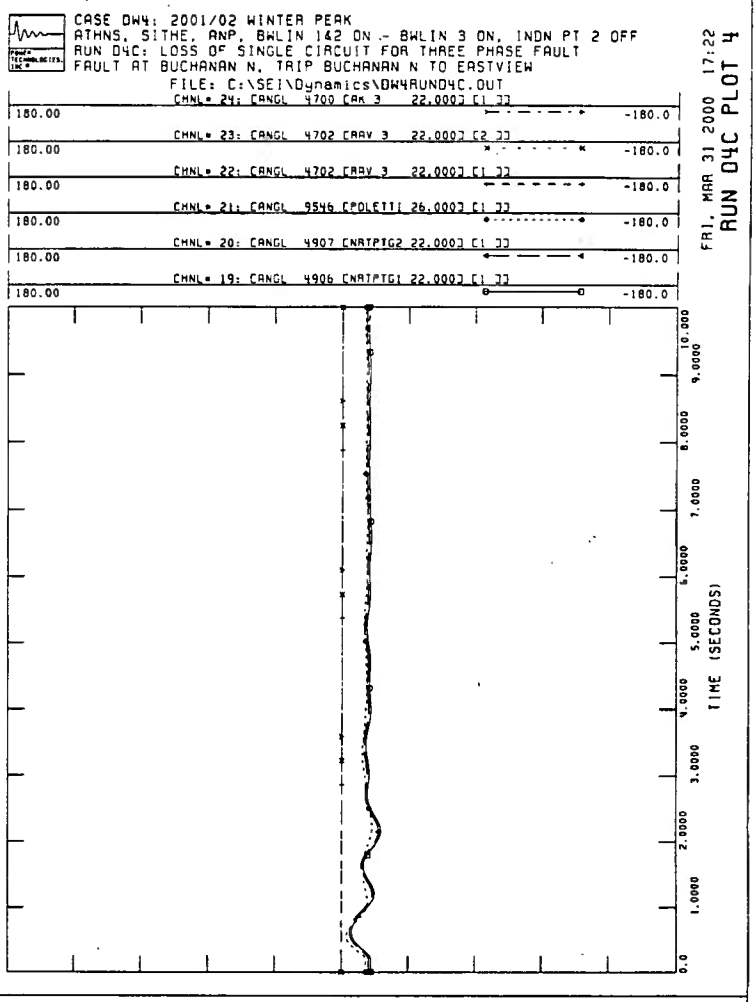

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUN04B.OUT
CHNL= 651: CVOLT 23003 [ALBURT15500.00]]
CHNL= 508: CVOLT 4327 [FARRAGUT345.00]]
CHNL= 636: CVOLT 3105 [LONG MTN345.00]]
CHNL= 572: CVOLT 9577 [MARCY765765.00]]
CHNL= 545: CVOLT 5403 [FRASR345345.00]]
CHNL= 528: CVOLT 4347 [RAMAPO 345.00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 13

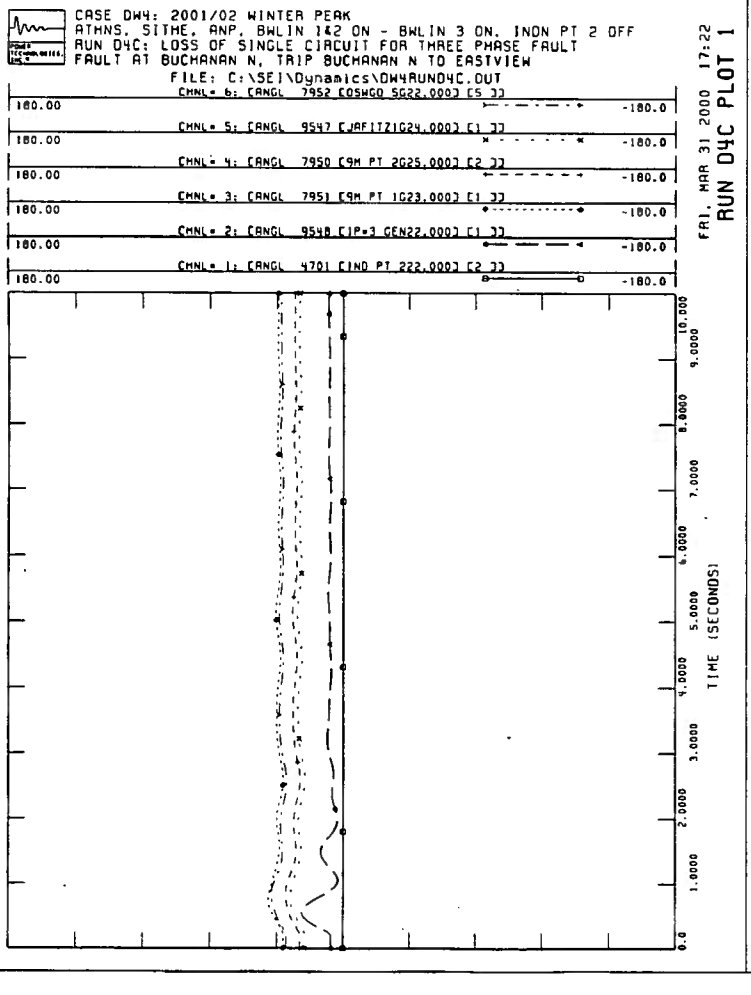

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4B: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT LADENTOWN, TRIP LADENTOWN TO BUCHANAN
FILE: C:\SEI\Dynamics\DW4RUN04B.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4B PLOT 15

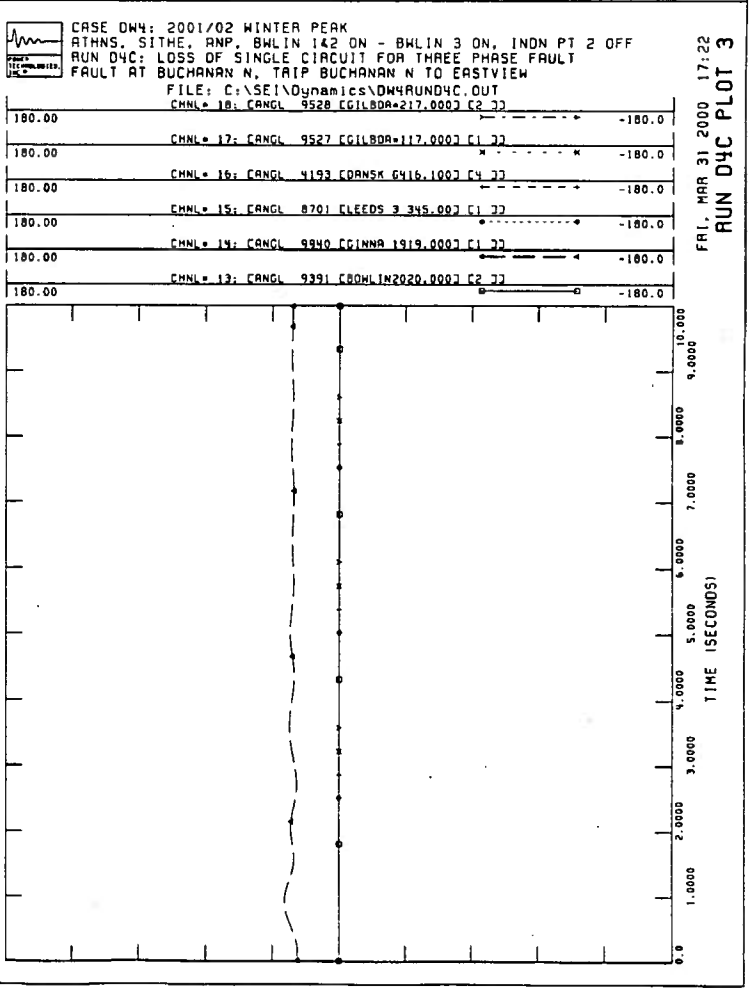
CONTINGENCY D4C

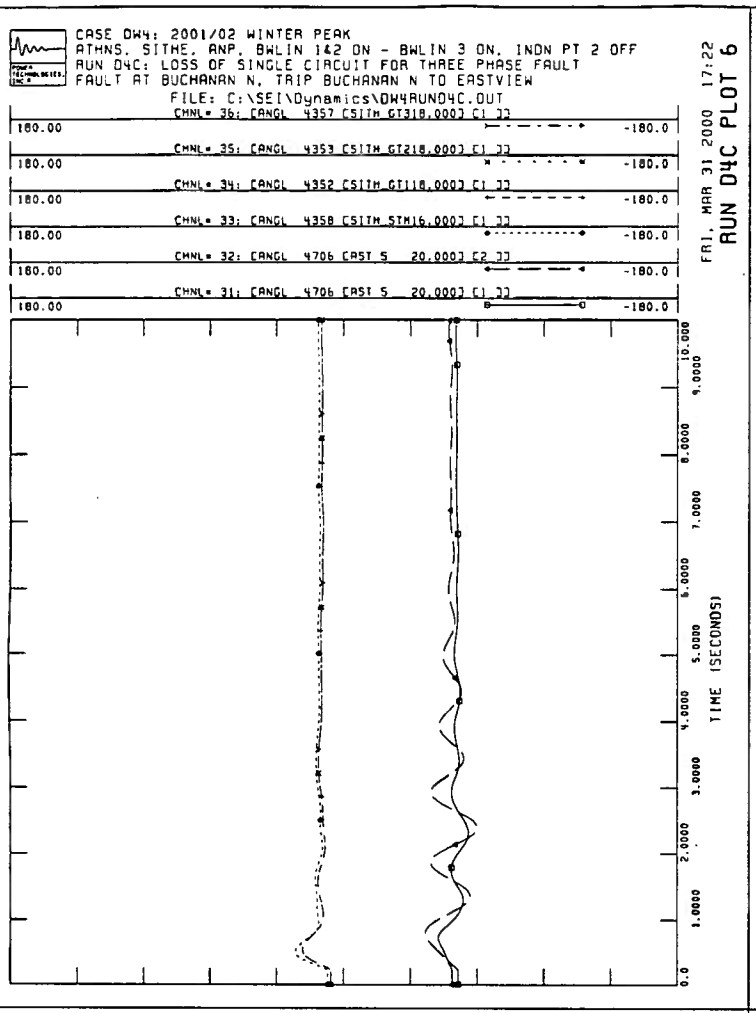
```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND4C.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4312 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN N
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4312 TO BUS 4317 CKT 1              / TRIP BUCHANAN-EASTVIEW
TRIP BRANCH FROM BUS 4317 TO BUS 4428 CKT 1            / TRIP EASTVIEW XFMR
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

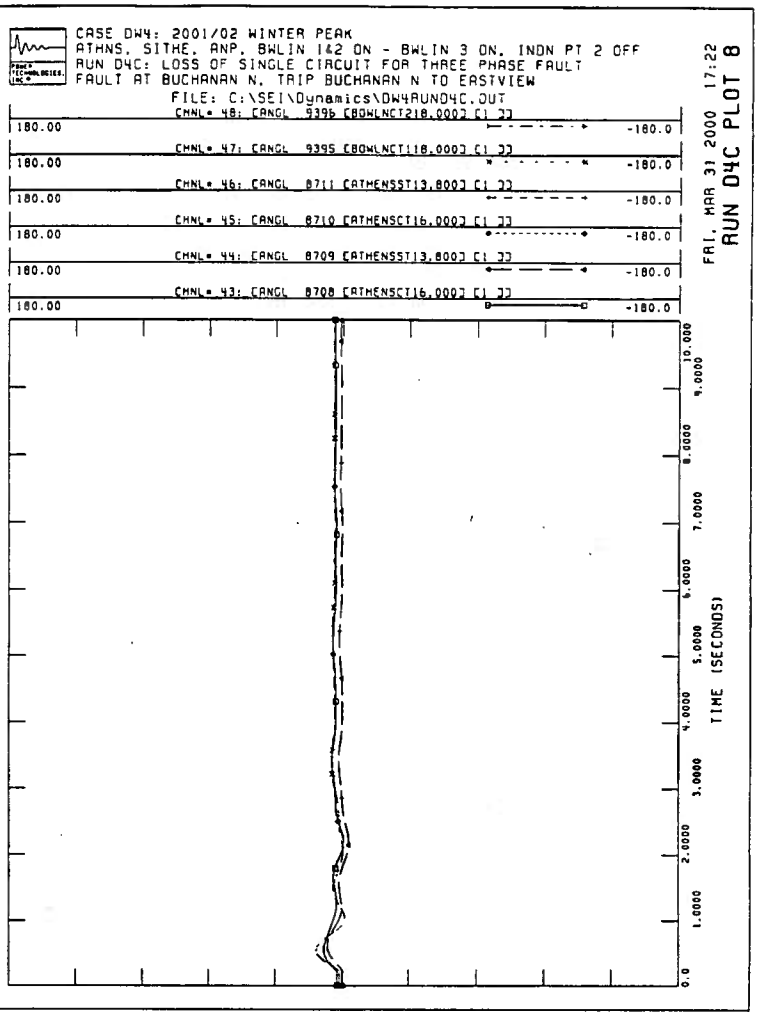

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:22
RUN D4C PLOT 2

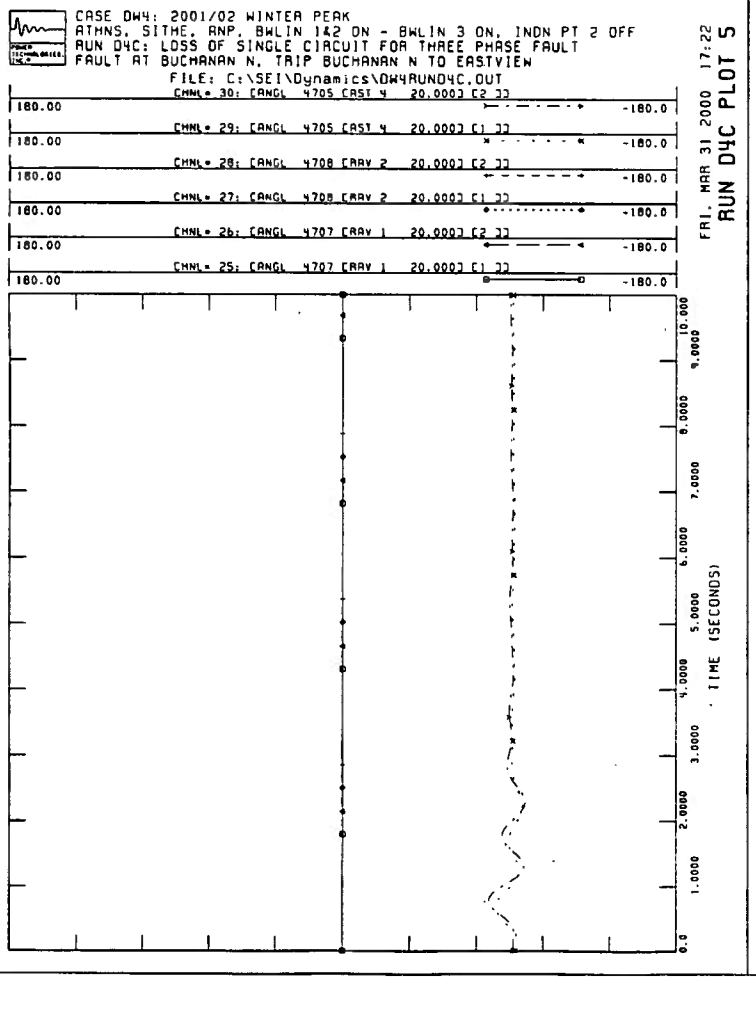

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 24: CANGL 4700 [AR 3 22.000] [1]]
CHNL= 23: CANGL 4702 [ARAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [ARAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETT[26.000] [1]]
CHNL= 20: CANGL 4907 [NATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [NATPTG1 22.000] [1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:22
RUN D4C PLOT 4

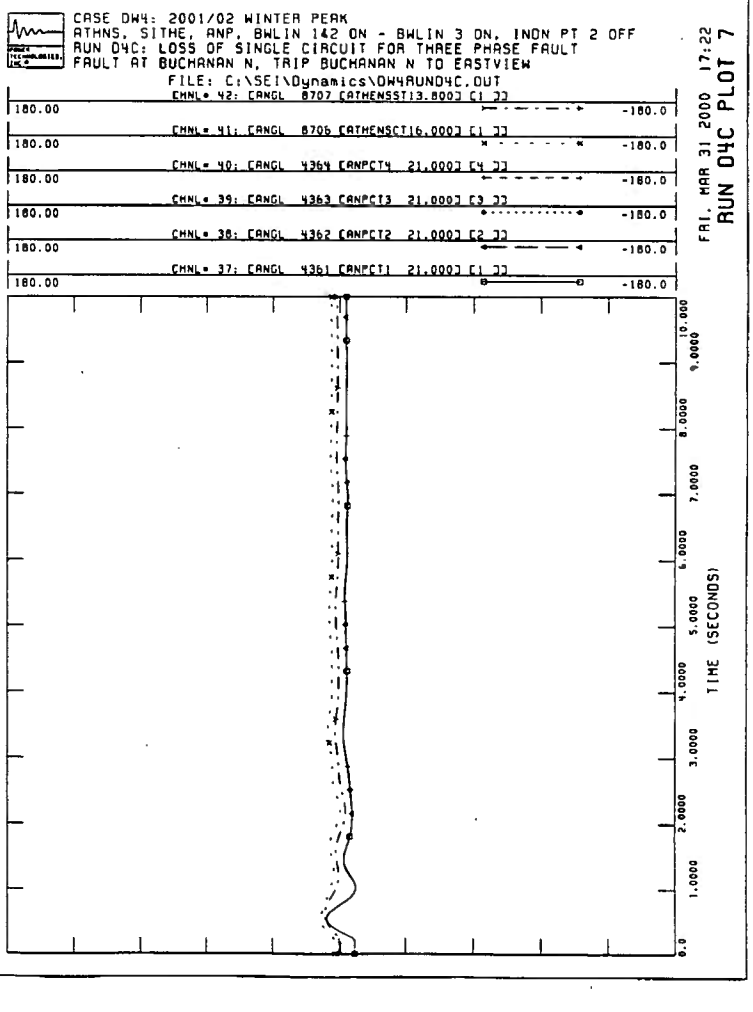

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZ1G24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP#3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:22
RUN D4C PLOT 1

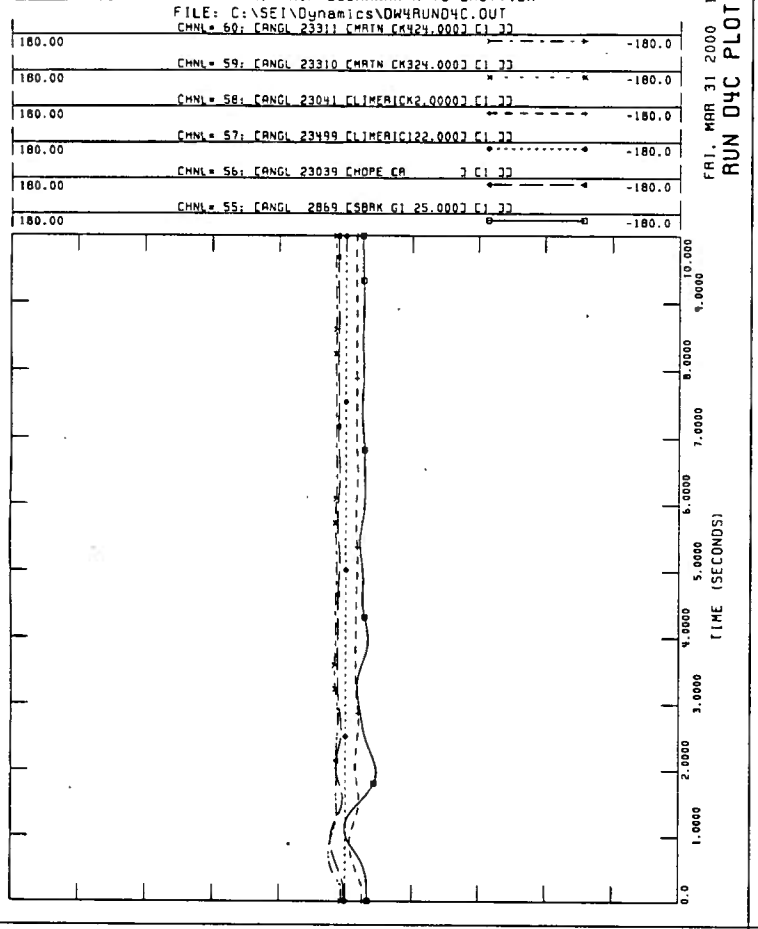

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 18: CANGL 9528 [GILBOA#217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA#117.000] [1]]
CHNL= 16: CANGL 4193 [DANSK 6416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:22
RUN D4C PLOT 3

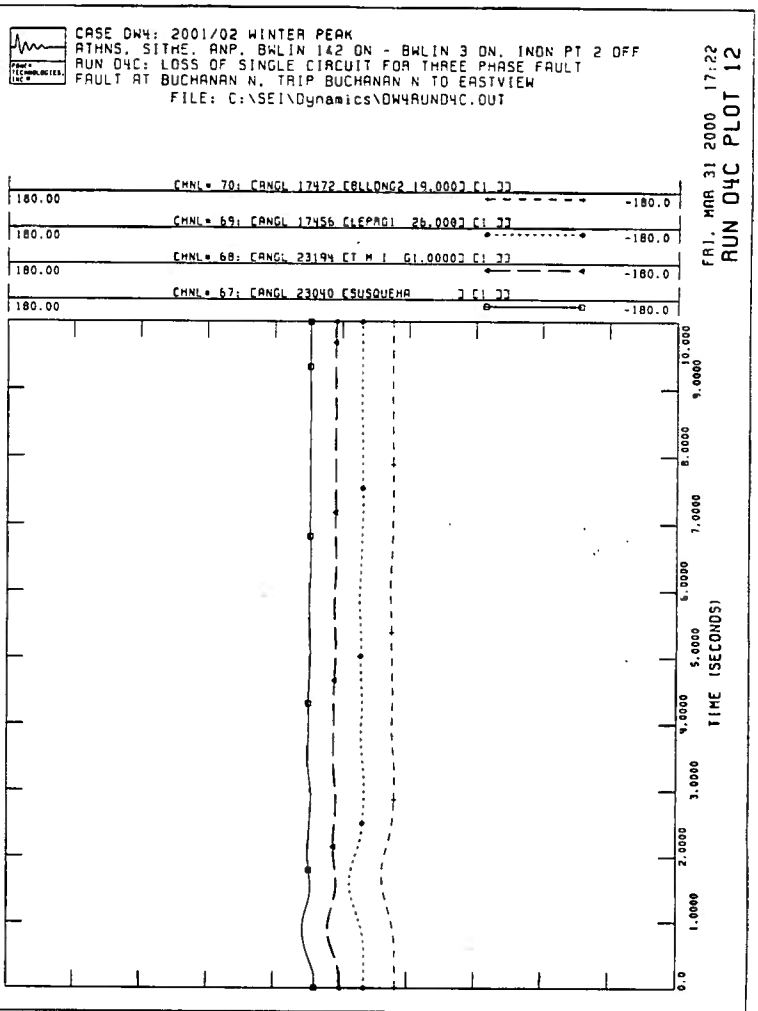

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 6
TIME (SECONDS)

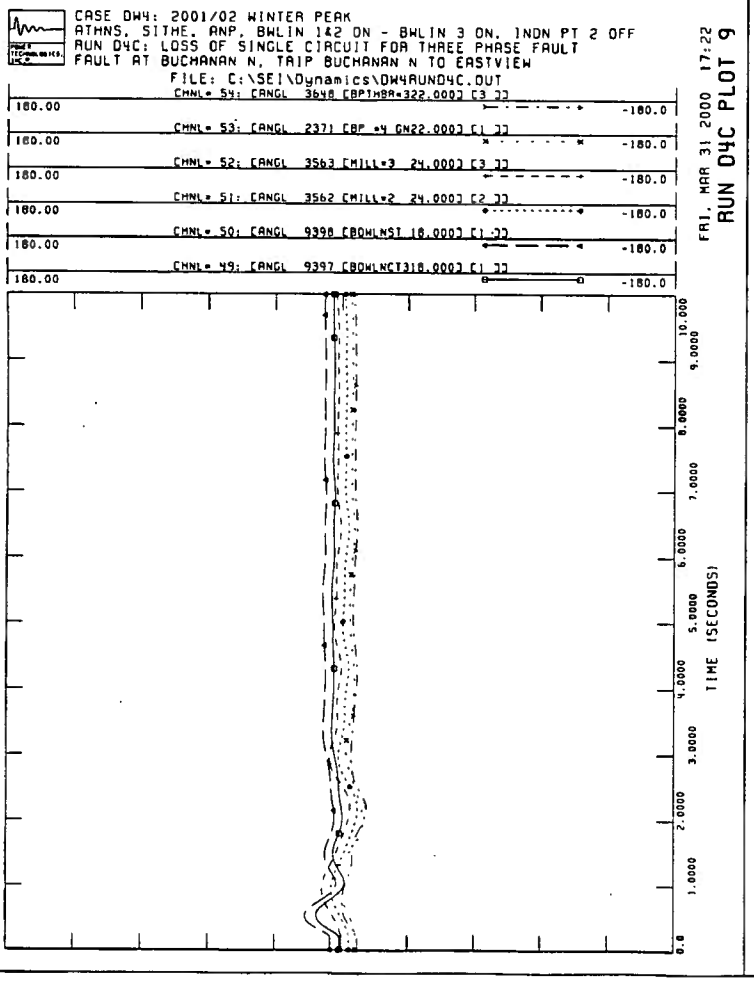

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 8
TIME (SECONDS)

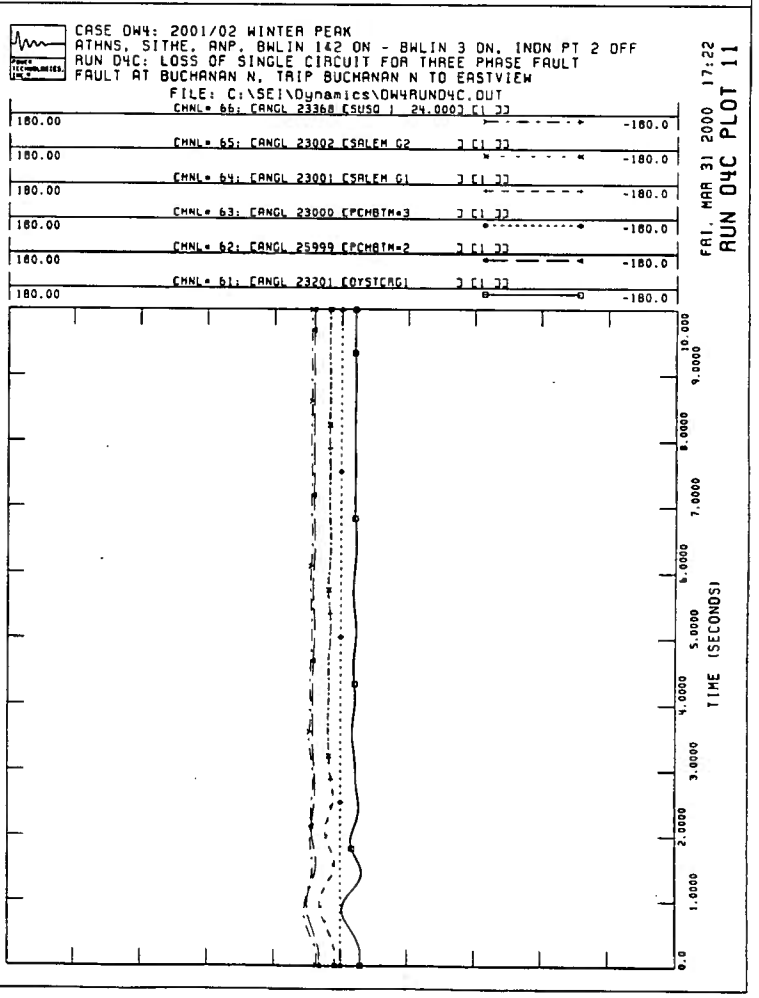

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 5
TIME (SECONDS)

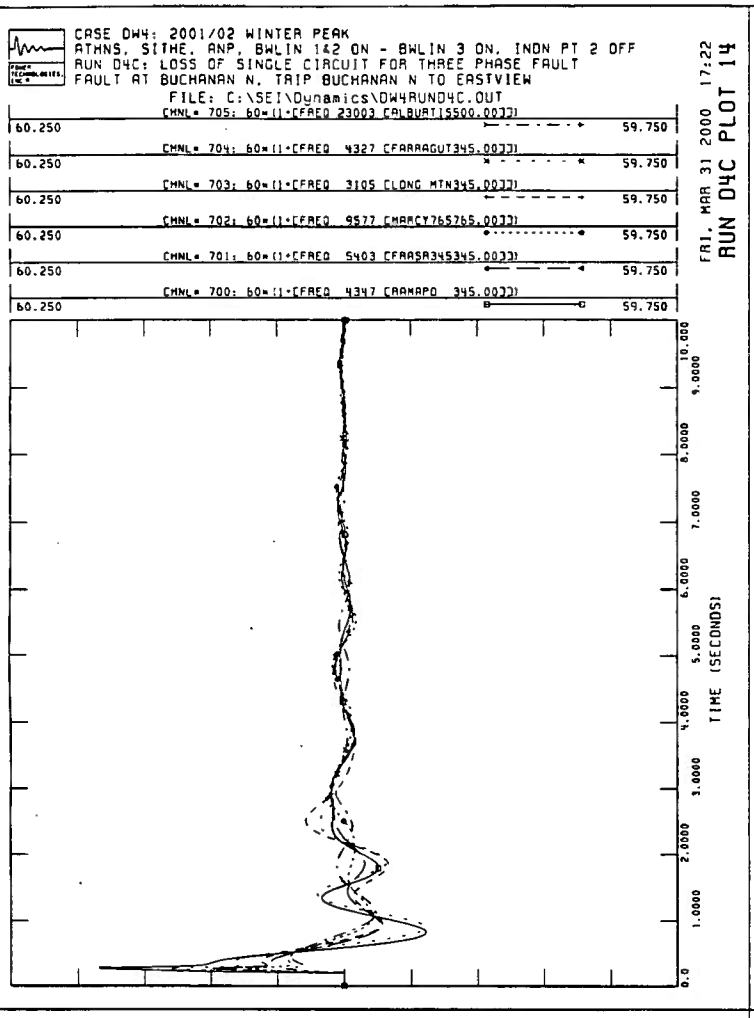

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 7
TIME (SECONDS)

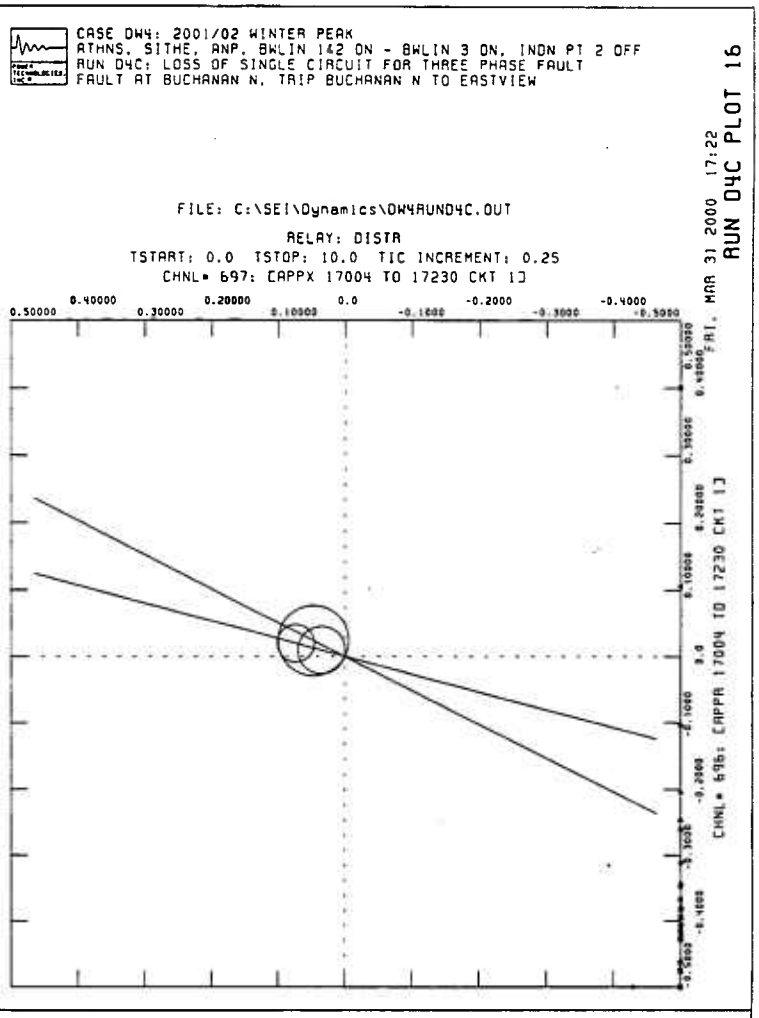

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 10
TIME (SECONDS)

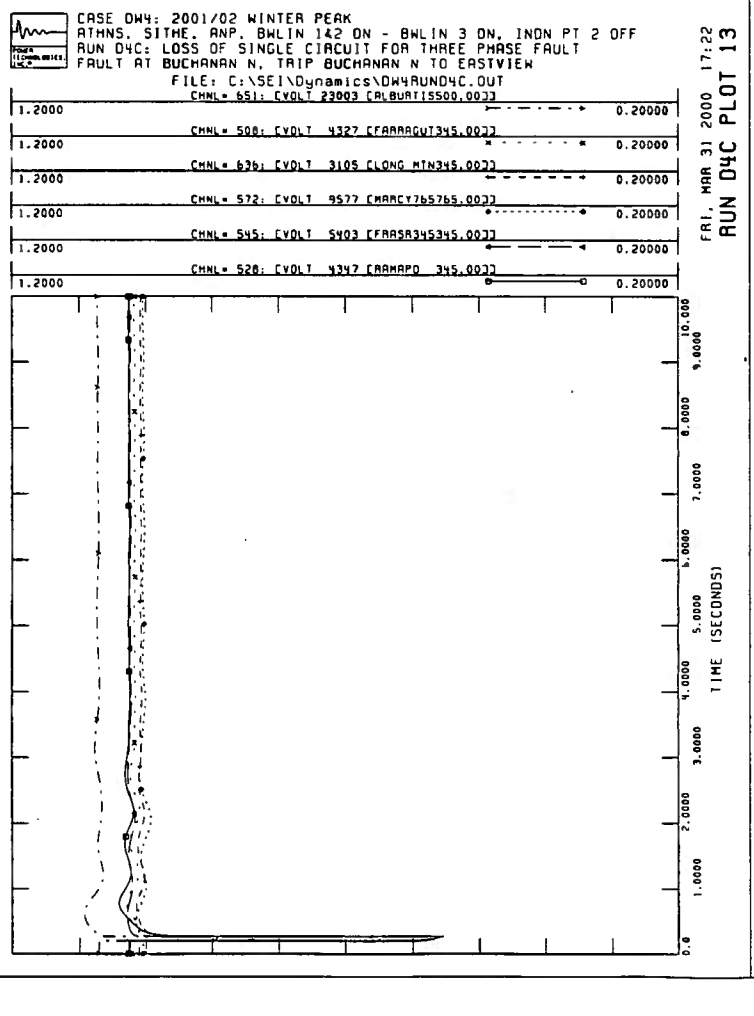

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 12
TIME (SECONDS)

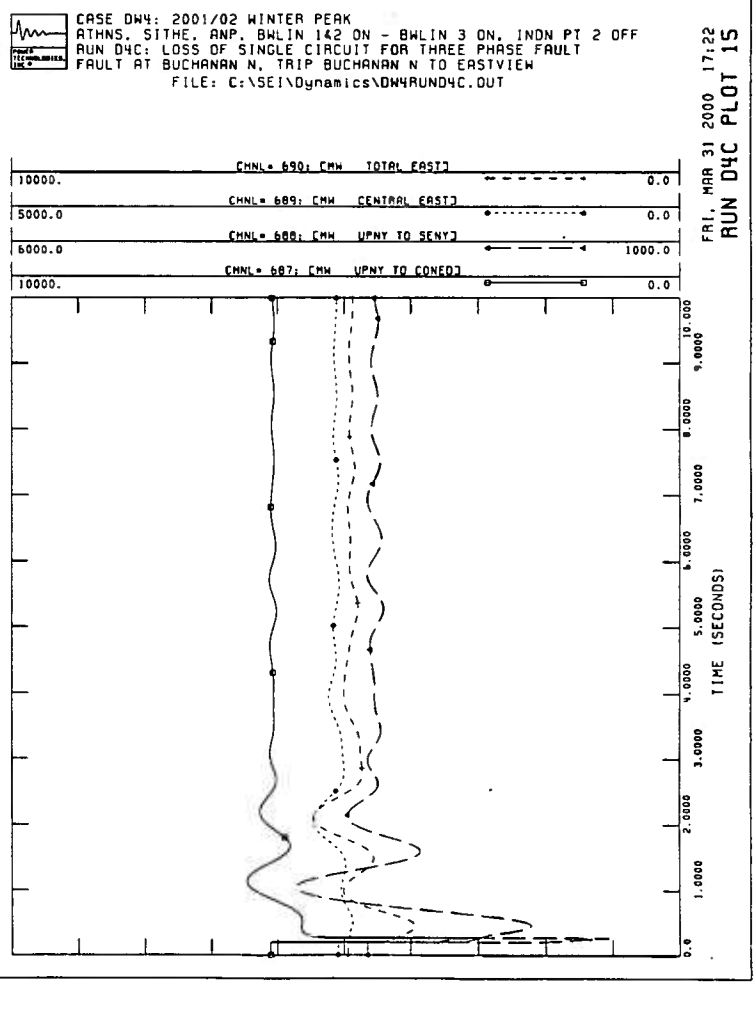

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 9
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
FRI, MAR 31 2000 17:22
RUN D4C PLOT 11
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 705: 60*(1+CFREQ 23003 CALBUAT15500.00])
CHNL= 704: 60*(1+CFREQ 4327 CFARRAGUT345.00])
CHNL= 703: 60*(1+CFREQ 3105 CLONG MTN345.00])
CHNL= 702: 60*(1+CFREQ 9577 CMARCY765765.00])
CHNL= 701: 60*(1+CFREQ 5403 CFRASR345345.00])
CHNL= 700: 60*(1+CFREQ 4347 CRAMAPO 345.00])
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4C PLOT 14

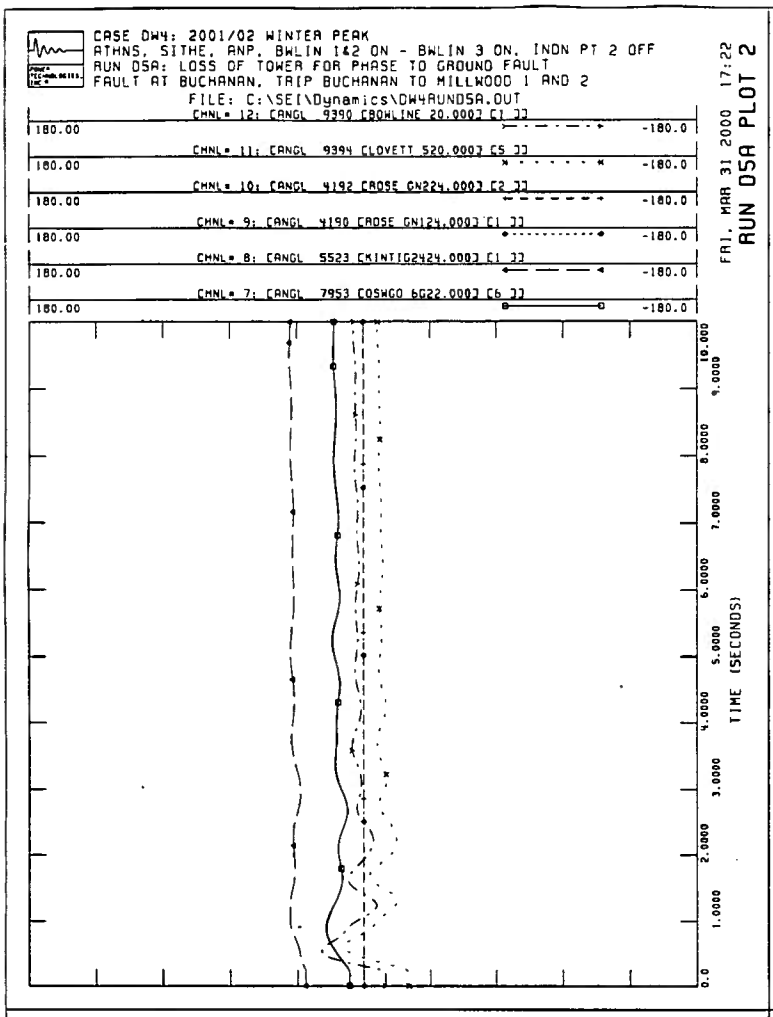

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: CAPPX 17004 TO 17230 CKT 1]
CHNL= 695: CAPPA 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 17:22
RUN D4C PLOT 16

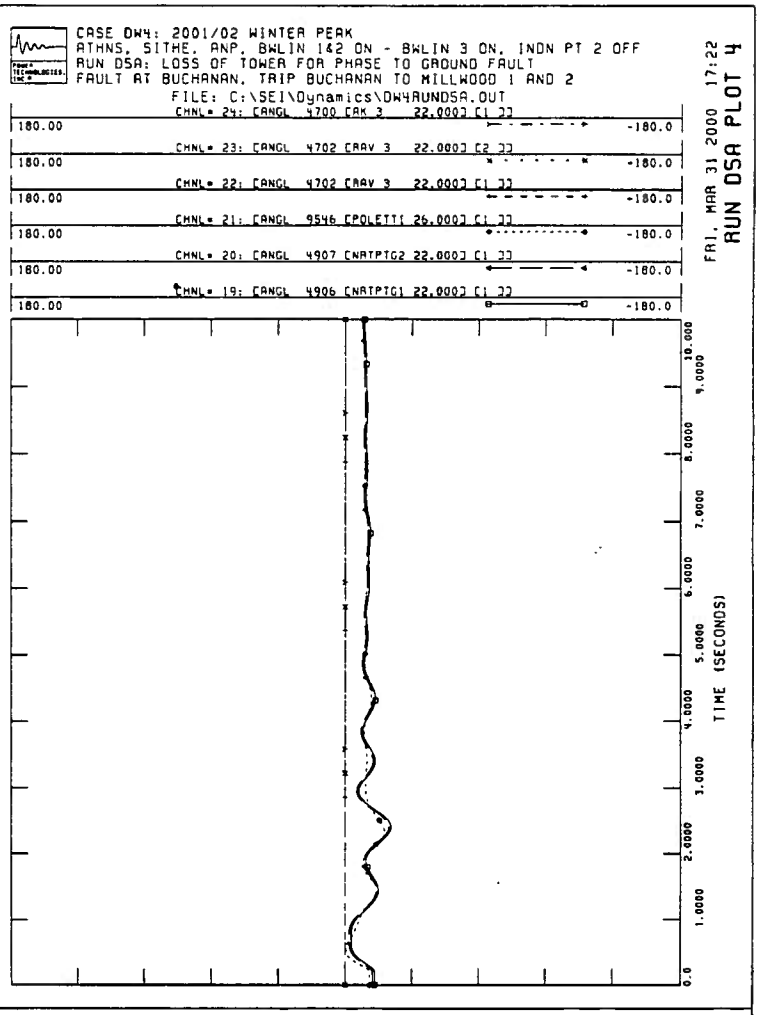

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 651: CVOLT 23003 CALBUAT15500.00])
CHNL= 508: CVOLT 4327 CFARRAGUT345.00])
CHNL= 636: CVOLT 3105 CLONG MTN345.00])
CHNL= 572: CVOLT 9577 CMARCY765765.00])
CHNL= 545: CVOLT 5403 CFRASR345345.00])
CHNL= 528: CVOLT 4347 CRAMAPO 345.00])
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4C PLOT 13

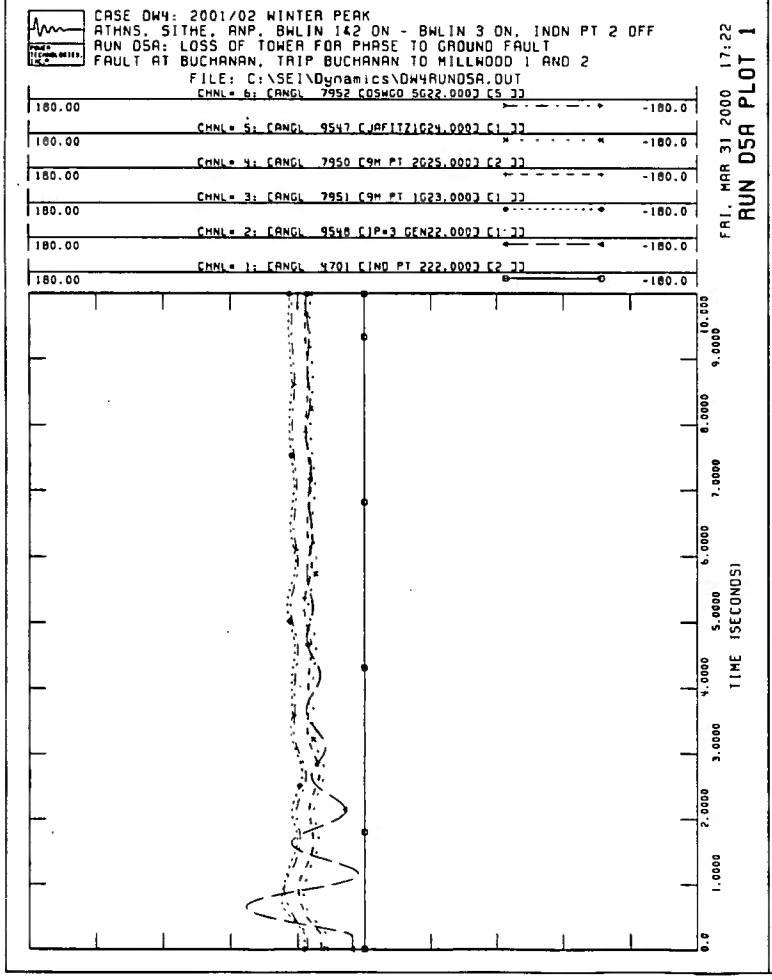

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN D4C: LOSS OF SINGLE CIRCUIT FOR THREE PHASE FAULT
FAULT AT BUCHANAN N, TRIP BUCHANAN N TO EASTVIEW
FILE: C:\SEI\Dynamics\DW4RUND4C.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
0.0
5000.0
6000.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN D4C PLOT 15

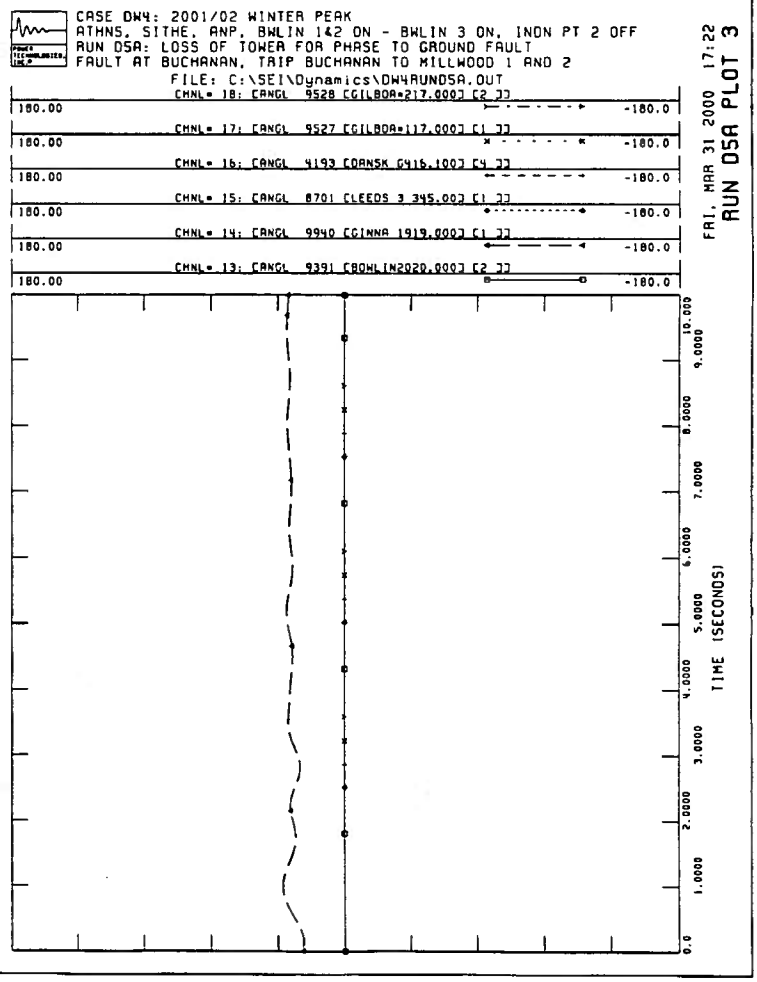
CONTINGENCY D5A

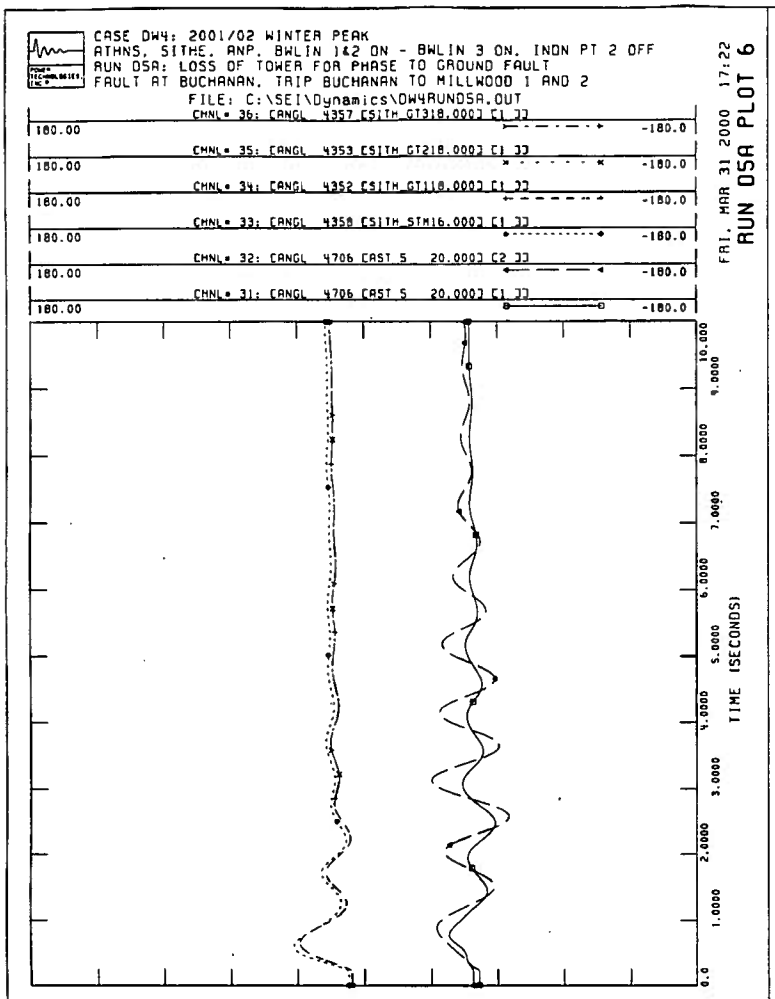
```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUND5A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4313 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT BUCHANAN S
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 1             / TRIP BUCHANAN S-MILLWOOD 1
TRIP LINE FROM BUS 4313 TO BUS 4341 CKT 2             / TRIP BUCHANAN S-MILLWOOD 2
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

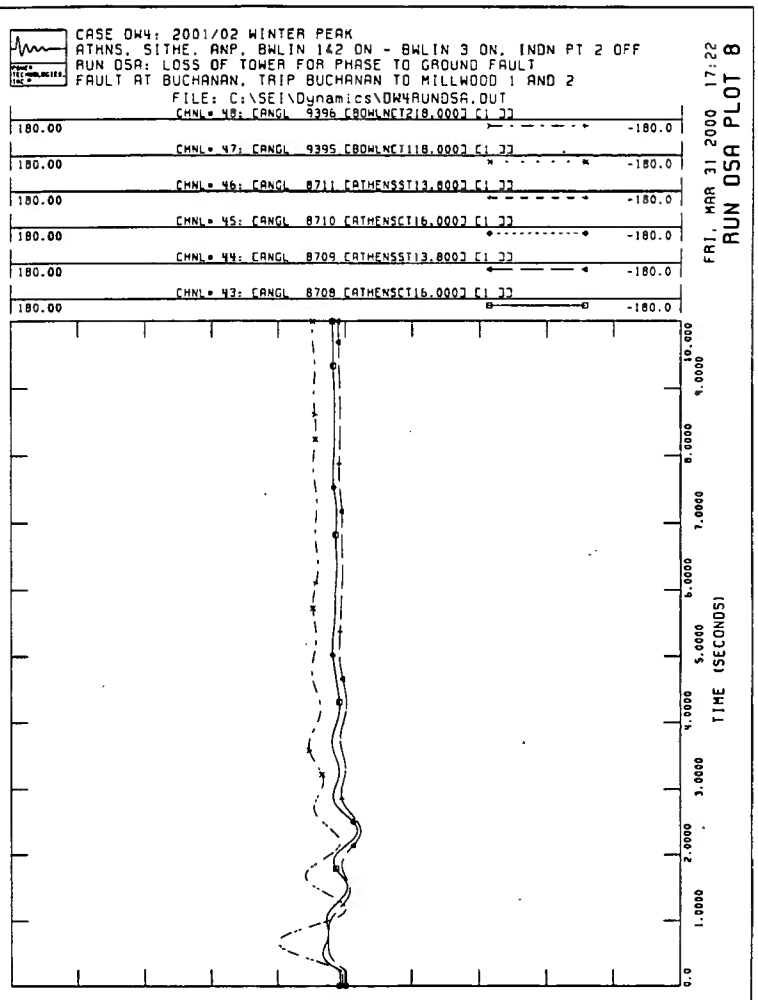

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN DSA PLOT 2

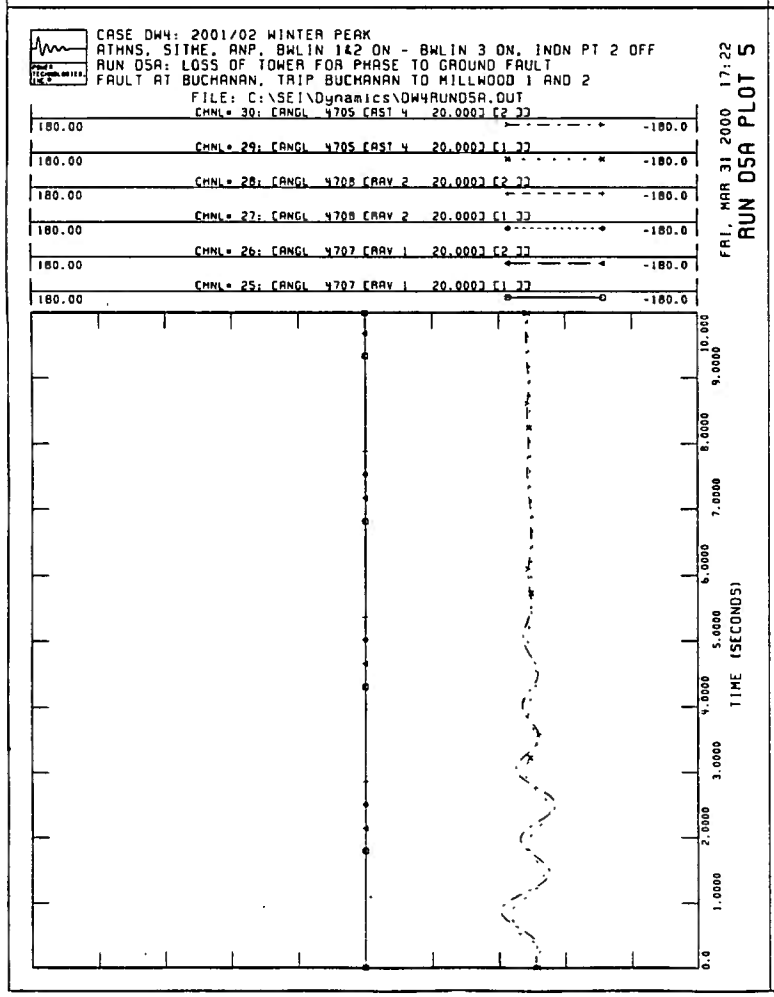

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 24: CANGL 4700 CRK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT[26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN DSA PLOT 4

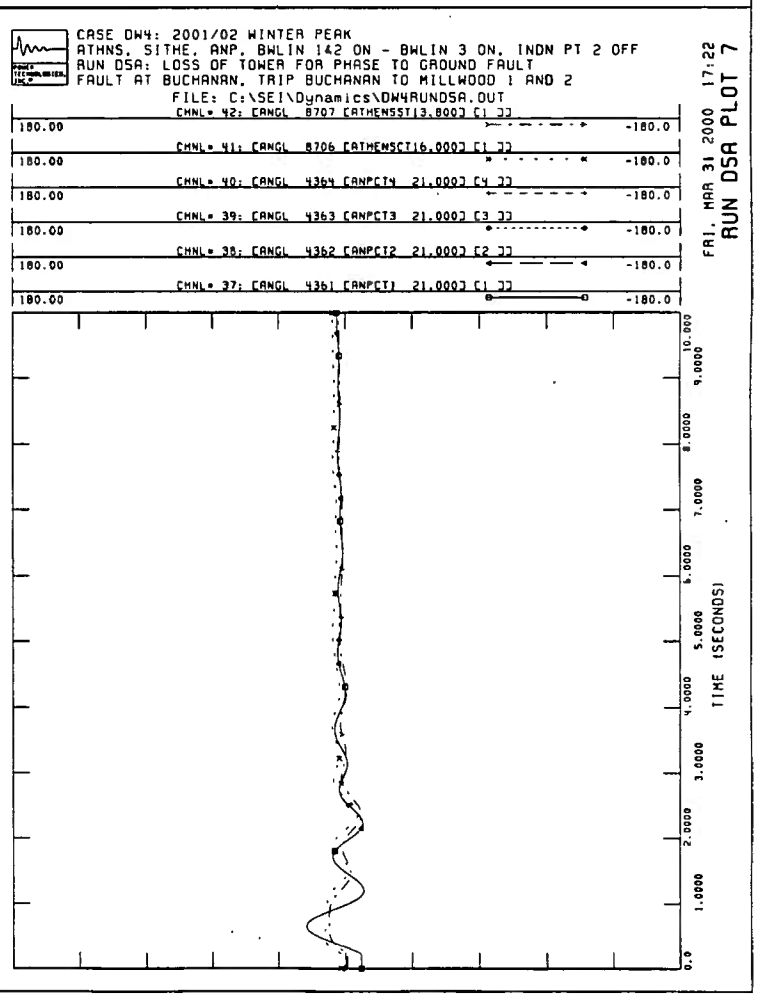

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CJP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN DSA PLOT 1


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)
FRI, MAR 31 2000 17:22
RUN DSA PLOT 3


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 36: CANGL 4357 [SITH_GT318.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT218.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT118.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 17:22
RUN DSA PLOT 6
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 48: CANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 17:22
RUN DSA PLOT 8
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARV 1 20.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 17:22
RUN DSA PLOT 5
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 17:22
RUN DSA PLOT 7
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
0.0
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 10

CHNL= 60: CANGL 23311 [MAIN CK424.000] C1
CHNL= 59: CANGL 23310 [MAIN CK324.000] C1
CHNL= 58: CANGL 23041 [LIMERICK2.0000] C1
CHNL= 57: CANGL 23499 [LIMERICK22.000] C1
CHNL= 56: CANGL 23039 [HOPE CR] C1
CHNL= 55: CANGL 2869 [SBRK G1 25.000] C1

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 12

CHNL= 70: CANGL 17472 [BLLONG2 19.000] C1
CHNL= 69: CANGL 17456 [LEPAG1 26.000] C1
CHNL= 68: CANGL 23194 [T M 1 G1.0000] C1
CHNL= 67: CANGL 23040 [SUSQUEHA] C1

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 9

CHNL= 54: CANGL 3648 [BPTMBA=322.000] C3
CHNL= 53: CANGL 2371 [BP =4 GN22.000] C1
CHNL= 52: CANGL 3563 [MILL=3 24.000] C3
CHNL= 51: CANGL 3562 [MILL=2 24.000] C2
CHNL= 50: CANGL 9398 [BDWLNGT 18.000] C1
CHNL= 49: CANGL 9397 [BDWLNGT318.000] C1

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 11

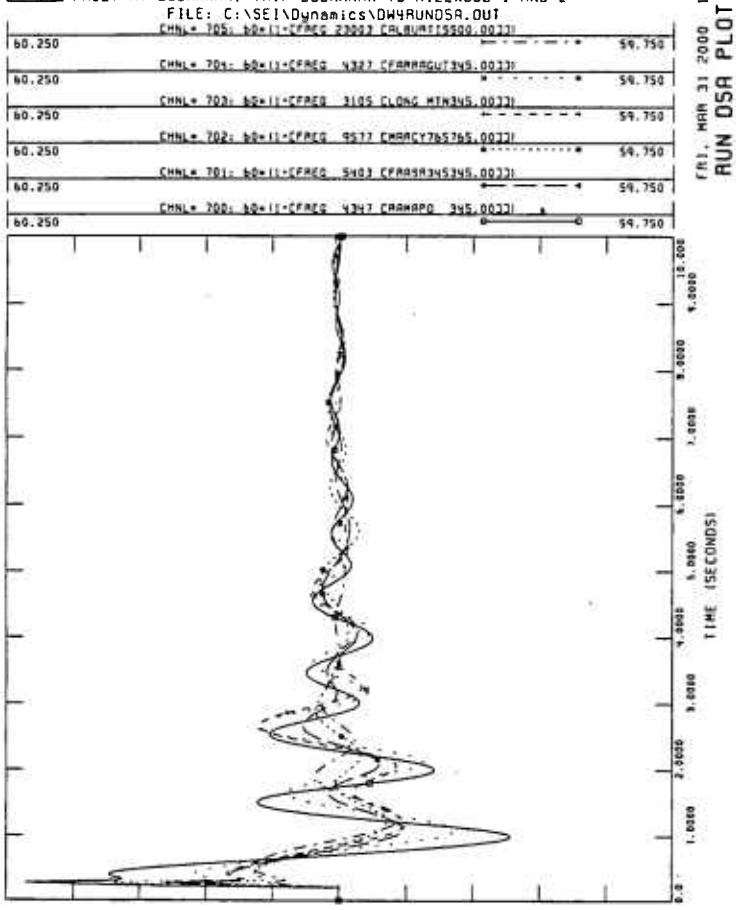
CHNL= 66: CANGL 23368 [SUSQ 1 24.000] C1
CHNL= 65: CANGL 23002 [SALEM G2] C1
CHNL= 64: CANGL 23001 [SALEM G1] C1
CHNL= 63: CANGL 23000 [PCHBTM=3] C1
CHNL= 62: CANGL 25999 [PCHBTM=2] C1
CHNL= 61: CANGL 23201 [CRYSTCAG1] C1

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 14

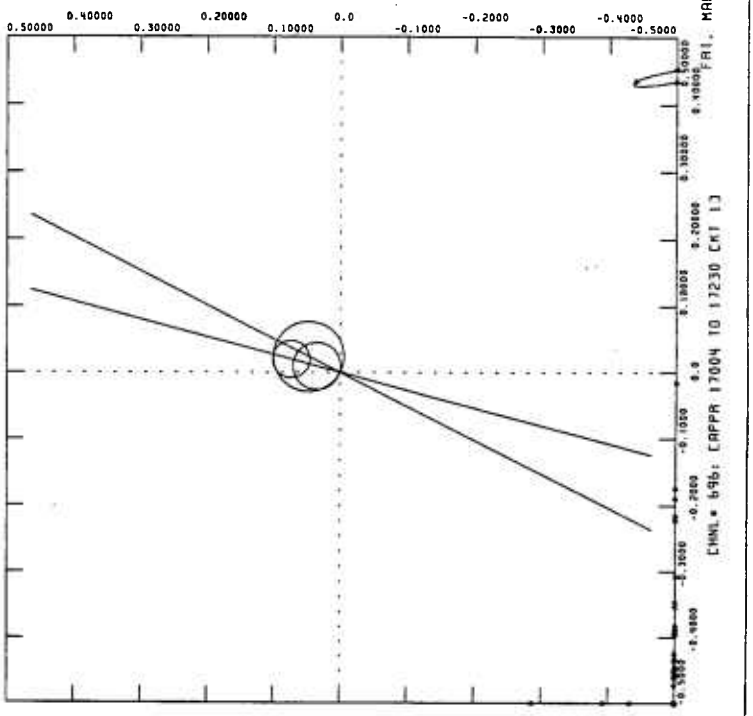


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2

FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

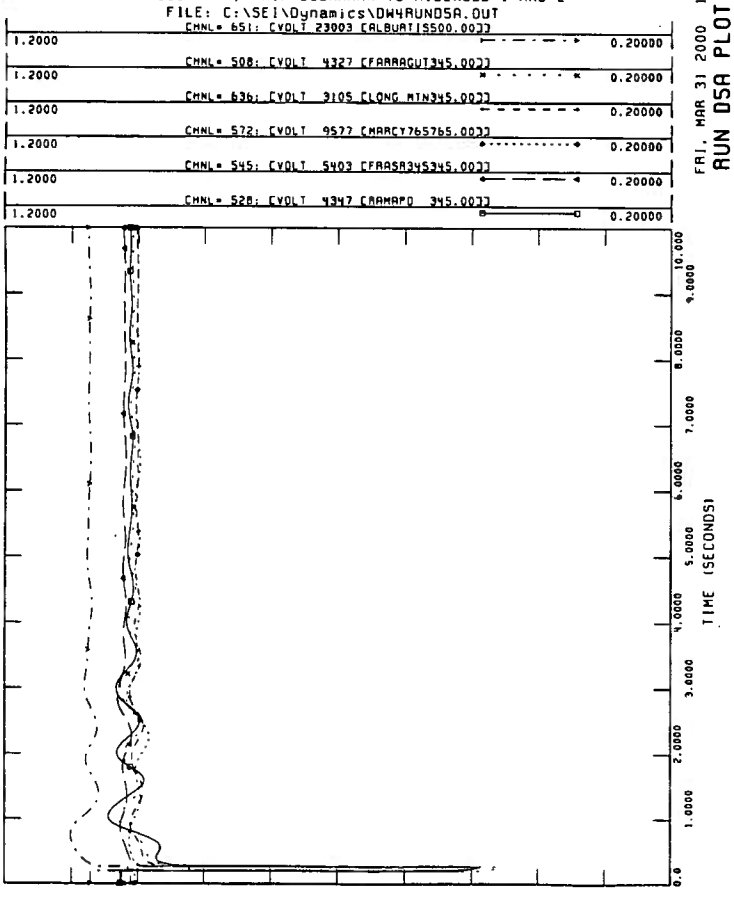
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]

FRI, MAR 31 2000 17:22
RUN DSA PLOT 16



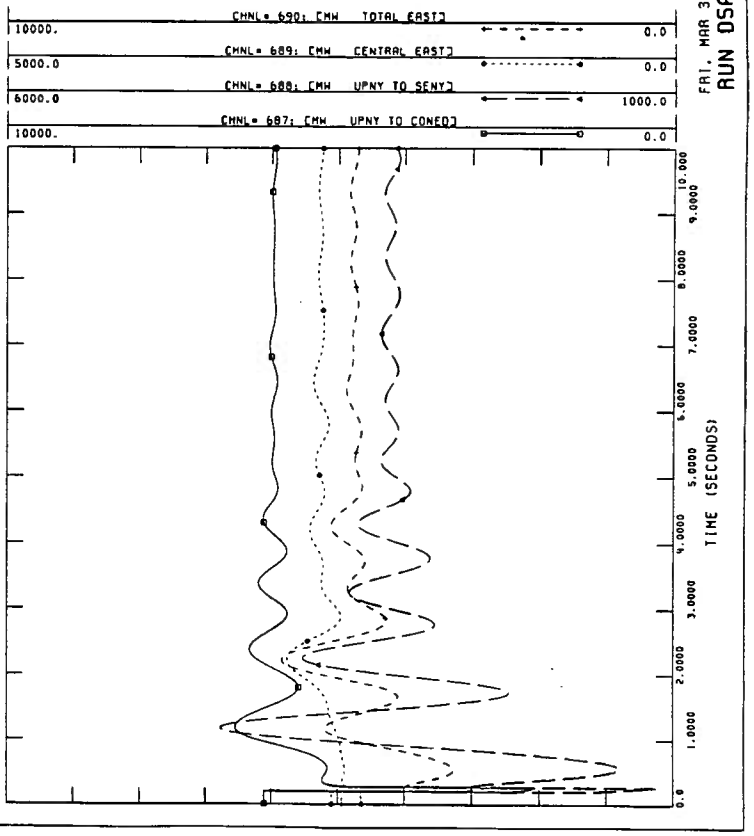
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 13



CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN DSA: LOSS OF TOWER FOR PHASE TO GROUND FAULT
FAULT AT BUCHANAN, TRIP BUCHANAN TO MILLWOOD 1 AND 2
FILE: C:\SEI\Dynamics\DW4RUNDSA.OUT

FRI, MAR 31 2000 17:22
RUN DSA PLOT 15



CONTINGENCY E1A

```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUNE1A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4340 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT LADENTOWN
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4340 TO BUS 4313 CKT 1             / TRIP LADENTOWN-BUCHANAN S
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1             / TRIP RAMAPO-BUCHANAN N
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

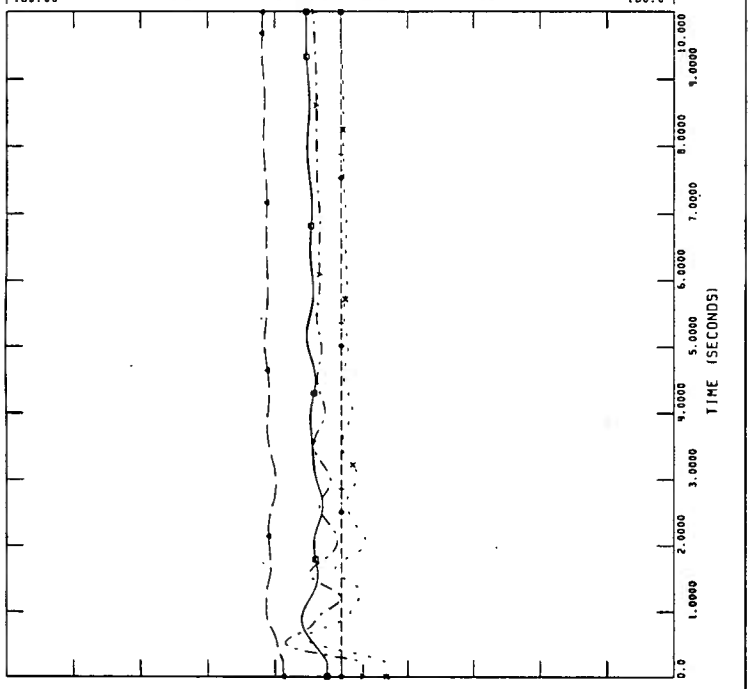
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 2

CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



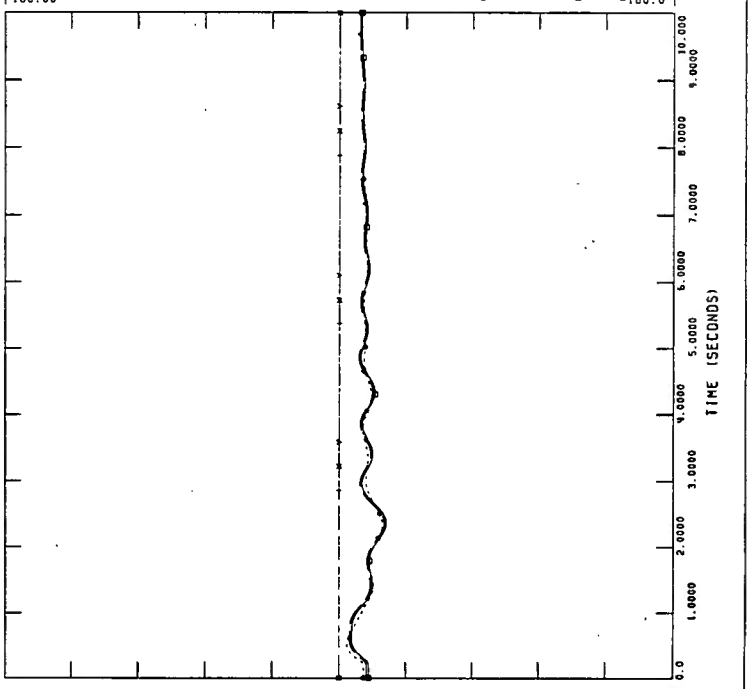
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 4

CHNL= 24: CANGL 4700 CRK 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRRV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRRV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CROLETTI 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



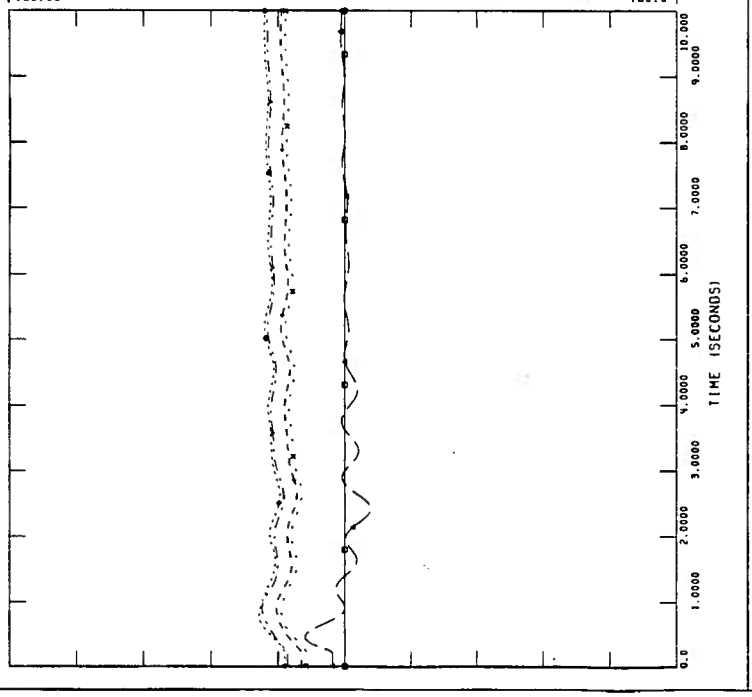
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 1

CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CIND PT 222.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



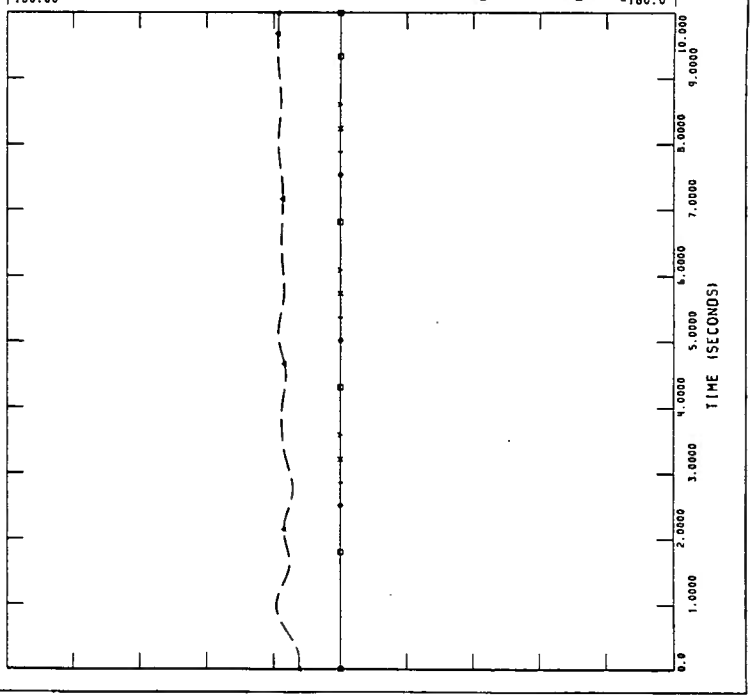
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 3

CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]

180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000



CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 6

CHNL= 36: CANGL 4357 [SITH_GT3 18.000] [1]]
CHNL= 35: CANGL 4353 [SITH_GT2 18.000] [1]]
CHNL= 34: CANGL 4352 [SITH_GT1 18.000] [1]]
CHNL= 33: CANGL 4358 [SITH_STM 16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 8

CHNL= 48: CANGL 9396 [BOWLNCT2 18.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT1 18.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST3 13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT1 6.0000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST3 13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT1 6.0000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 5

CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARAY 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARAY 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARAY 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARAY 1 20.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LAONTWN, TRIP BUCH-LAONTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 7

CHNL= 42: CANGL 8707 [ATHENSST3 13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT1 6.0000] [1]]
CHNL= 40: CANGL 4364 [CANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [CANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [CANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [CANPCT1 21.000] [1]]

180.00 -180.0

0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000
TIME (SECONDS)

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 10

CHNL= 60: CANGL 23311 [MATN CK324.0000] [1]]
CHNL= 59: CANGL 23310 [MATN CK324.0000] [1]]
CHNL= 58: CANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: CANGL 23499 [LIMERIC122.0000] [1]]
CHNL= 56: CANGL 23039 [HOPE CR] [1]]
CHNL= 55: CANGL 2869 [SBRK G1 25.0000] [1]]

180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 12

CHNL= 70: CANGL 17472 [BLLONG2 19.000] [1]]
CHNL= 69: CANGL 17456 [LEPAG1 26.000] [1]]
CHNL= 68: CANGL 23194 [T M I G1.0000] [1]]
CHNL= 67: CANGL 23040 [SUSQUEHA] [1]]

180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

FRI, MAR 31 2000 17:25
RUN E1A PLOT 9

CHNL= 54: CANGL 3648 [BPTHBA=322.000] [3]]
CHNL= 53: CANGL 2371 [BP =4 GN22.000] [1]]
CHNL= 52: CANGL 3563 [MILL=3 24.000] [3]]
CHNL= 51: CANGL 3562 [MILL=2 24.000] [2]]
CHNL= 50: CANGL 9398 [BOWLNST 18.000] [1]]
CHNL= 49: CANGL 9397 [BOWLNCT318.000] [1]]

180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

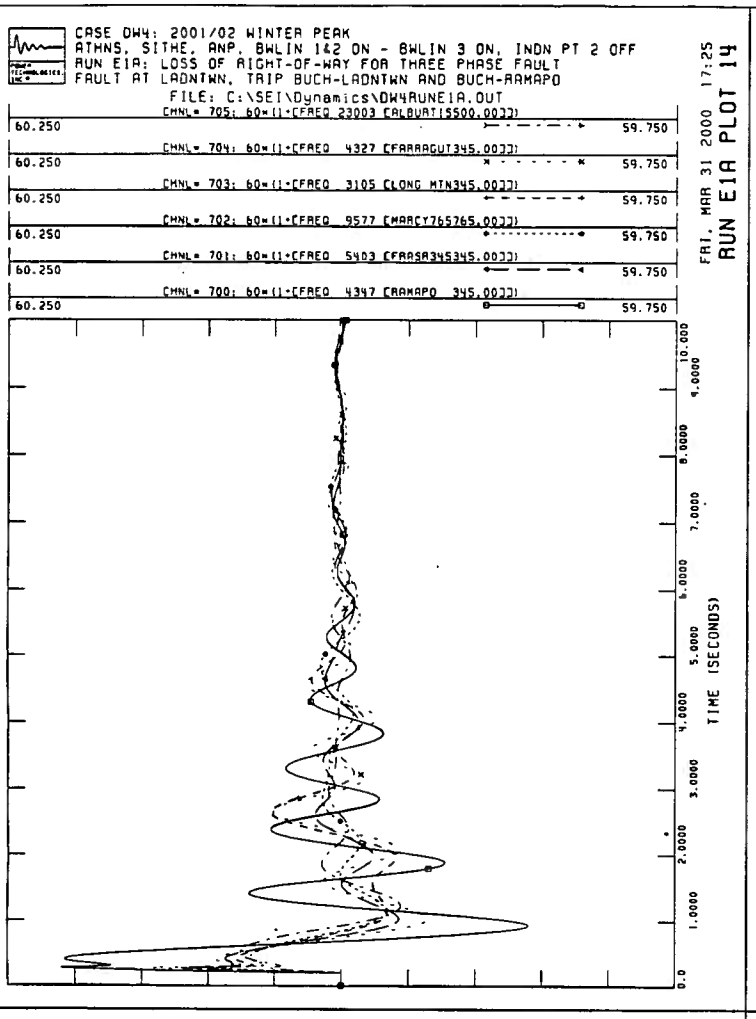
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT

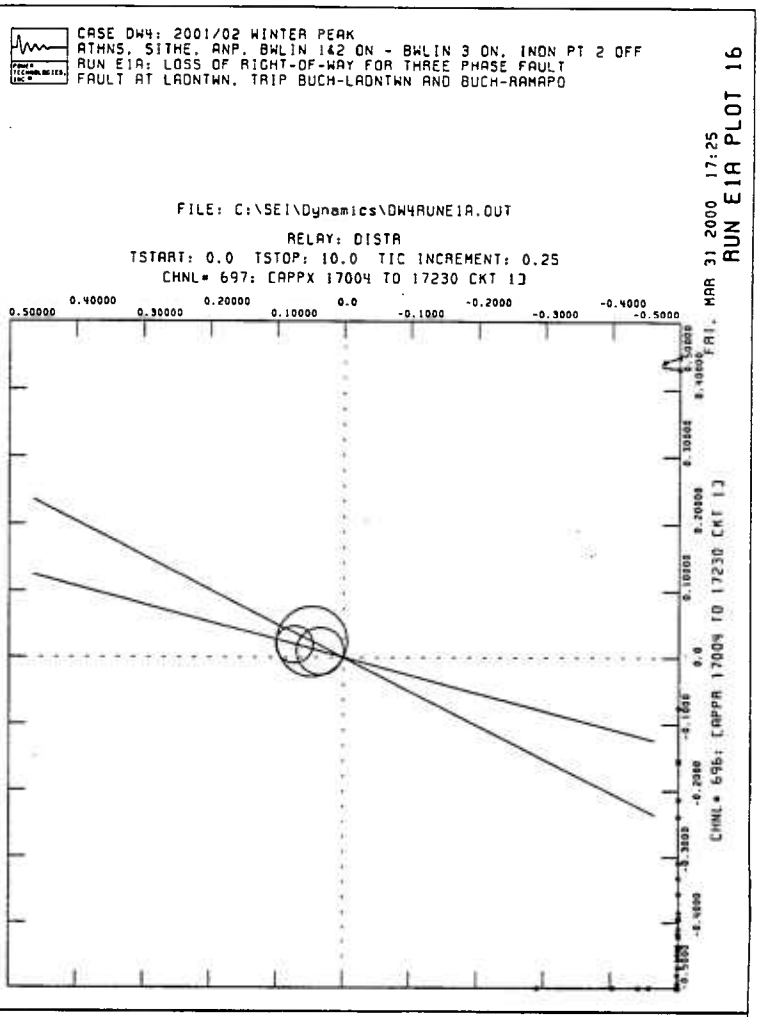
FRI, MAR 31 2000 17:25
RUN E1A PLOT 11

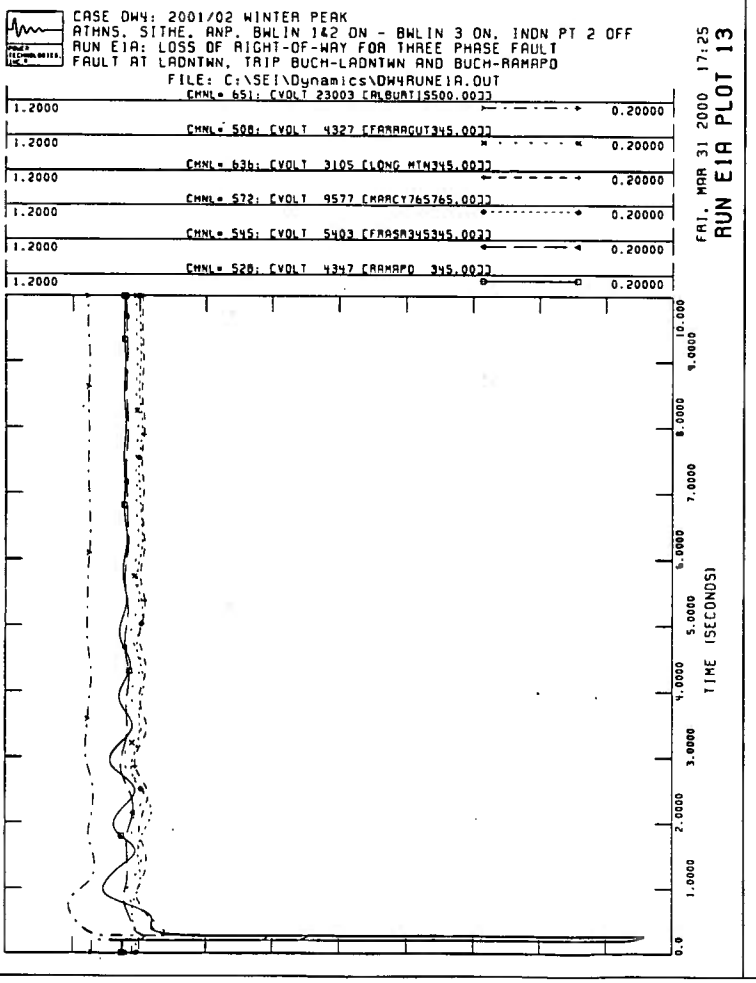
CHNL= 66: CANGL 23368 [SUSQ 1 24.000] [1]]
CHNL= 65: CANGL 23002 [SALEM G2] [1]]
CHNL= 64: CANGL 23001 [SALEM G1] [1]]
CHNL= 63: CANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: CANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: CANGL 23201 [COYSTCAG1] [1]]

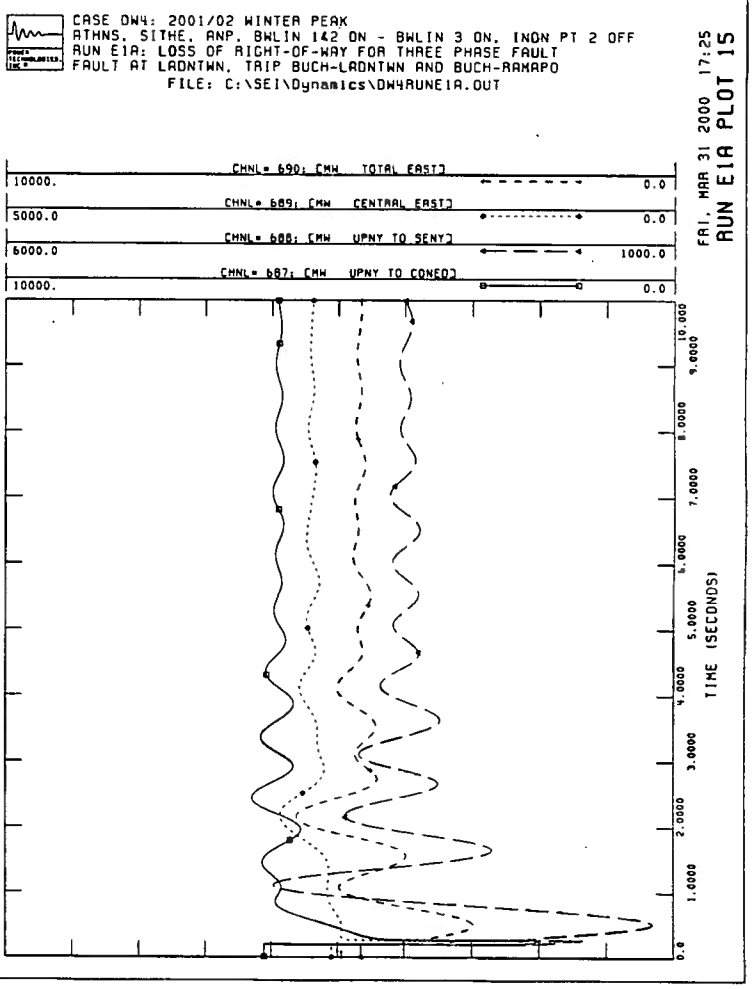
180.00 ... -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT
CHNL= 705: 60=(1+CFREQ 23003 [ALBUAT]5500.00])
CHNL= 704: 60=(1+CFREQ 4327 [FARRAGUT345.00])
CHNL= 703: 60=(1+CFREQ 3105 [LONG MTN345.00])
CHNL= 702: 60=(1+CFREQ 9577 [MARCY765765.00])
CHNL= 701: 60=(1+CFREQ 5403 [FRASR345345.00])
CHNL= 700: 60=(1+CFREQ 4347 [RAMAPO 345.00])
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E1A PLOT 14

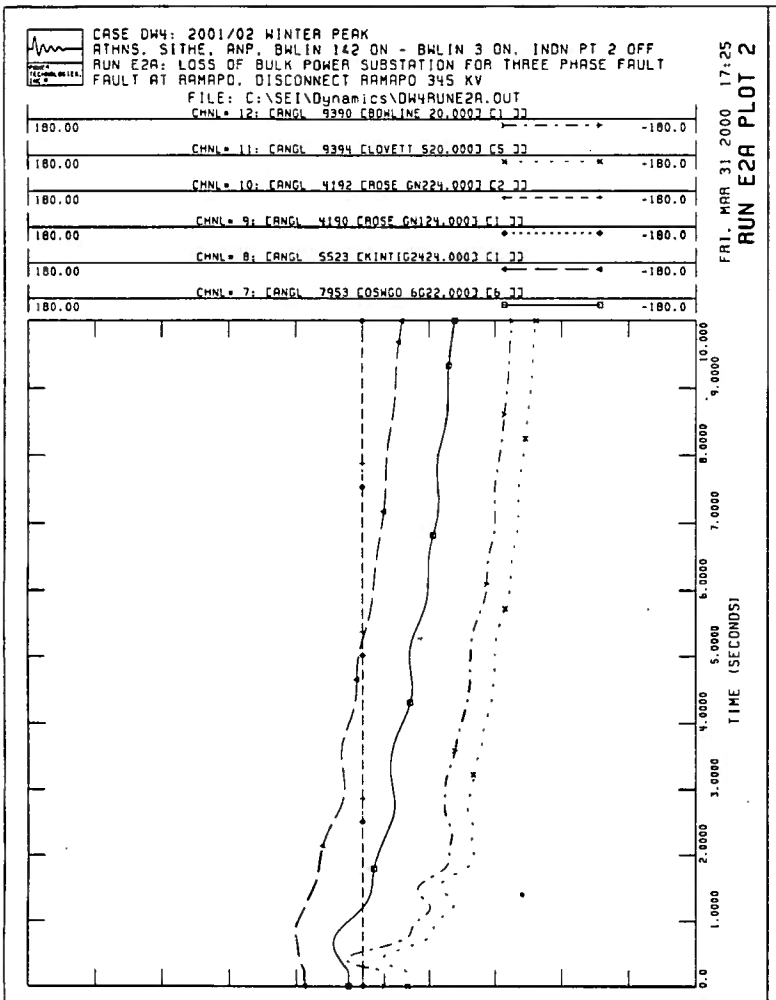

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT
RELAY: DISTA
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
0.40000
0.30000
0.20000
0.10000
0.0
-0.1000
-0.2000
-0.3000
-0.4000
-0.5000
FRI, MAR 31 2000 17:25
RUN E1A PLOT 16

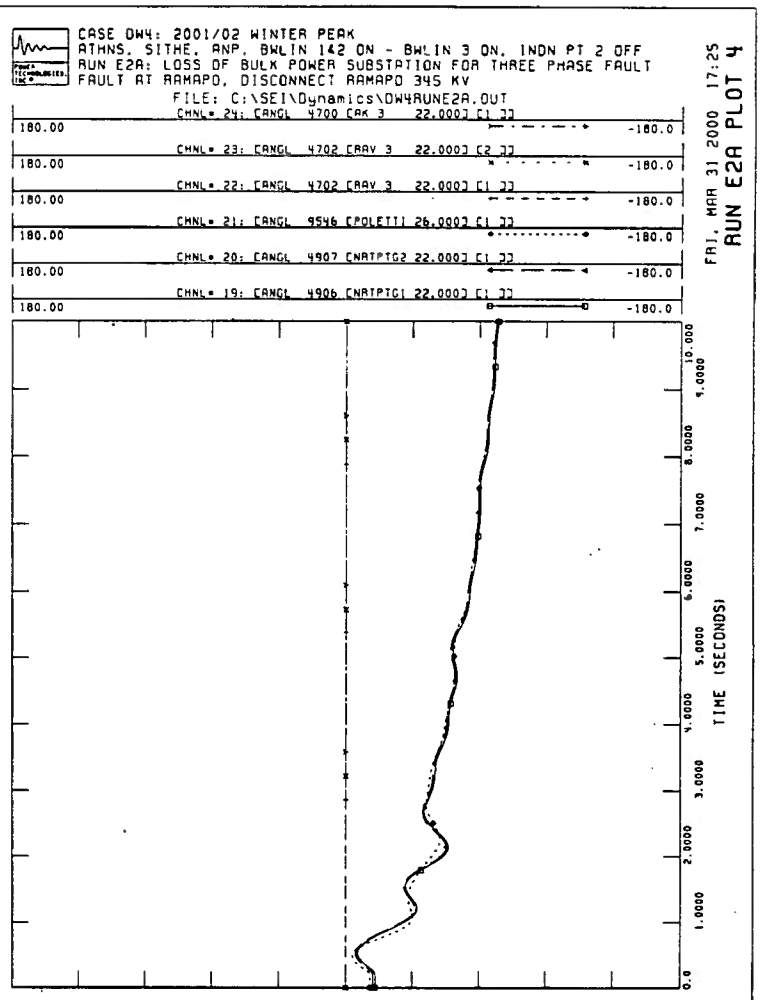

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT
CHNL= 651: CVOLT 23003 [ALBUAT]5500.00])
CHNL= 508: CVOLT 4327 [FARRAGUT345.00])
CHNL= 636: CVOLT 3105 [LONG MTN345.00])
CHNL= 572: CVOLT 9577 [MARCY765765.00])
CHNL= 545: CVOLT 5403 [FRASR345345.00])
CHNL= 528: CVOLT 4347 [RAMAPO 345.00])
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E1A PLOT 13

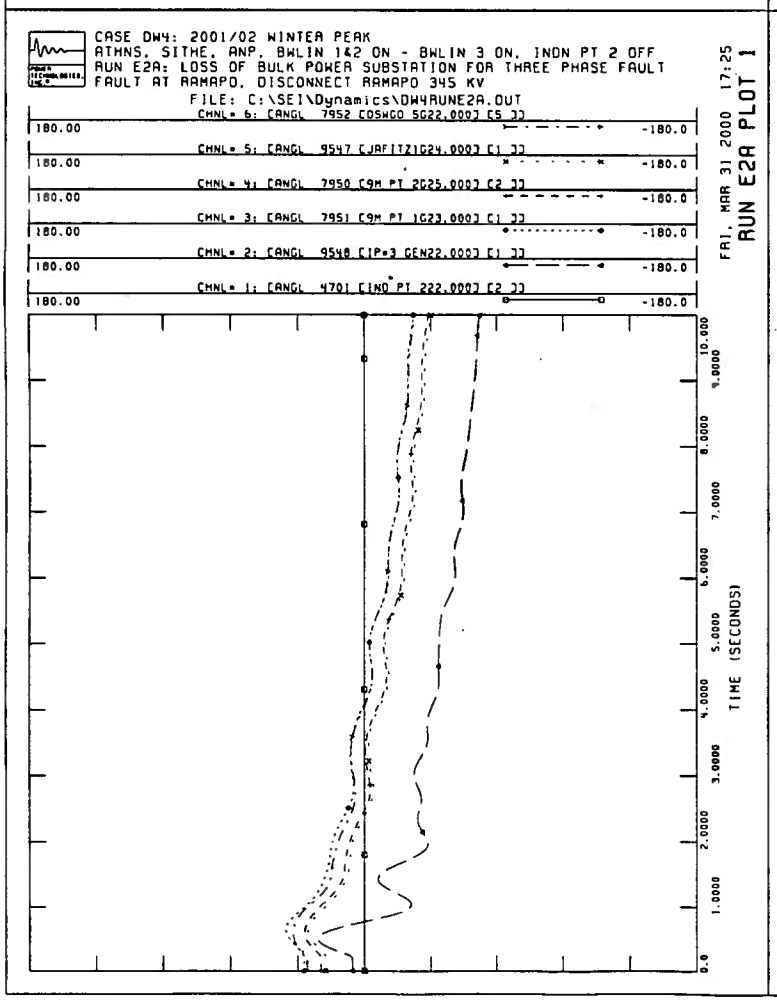

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E1A: LOSS OF RIGHT-OF-WAY FOR THREE PHASE FAULT
FAULT AT LADNTWN, TRIP BUCH-LADNTWN AND BUCH-RAMAPO
FILE: C:\SEI\Dynamics\DW4RUNE1A.OUT
CHNL= 690: CMW TOTAL EAST]
CHNL= 689: CMW CENTRAL EAST]
CHNL= 688: CMW UPNY TO SENY]
CHNL= 687: CMW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E1A PLOT 15

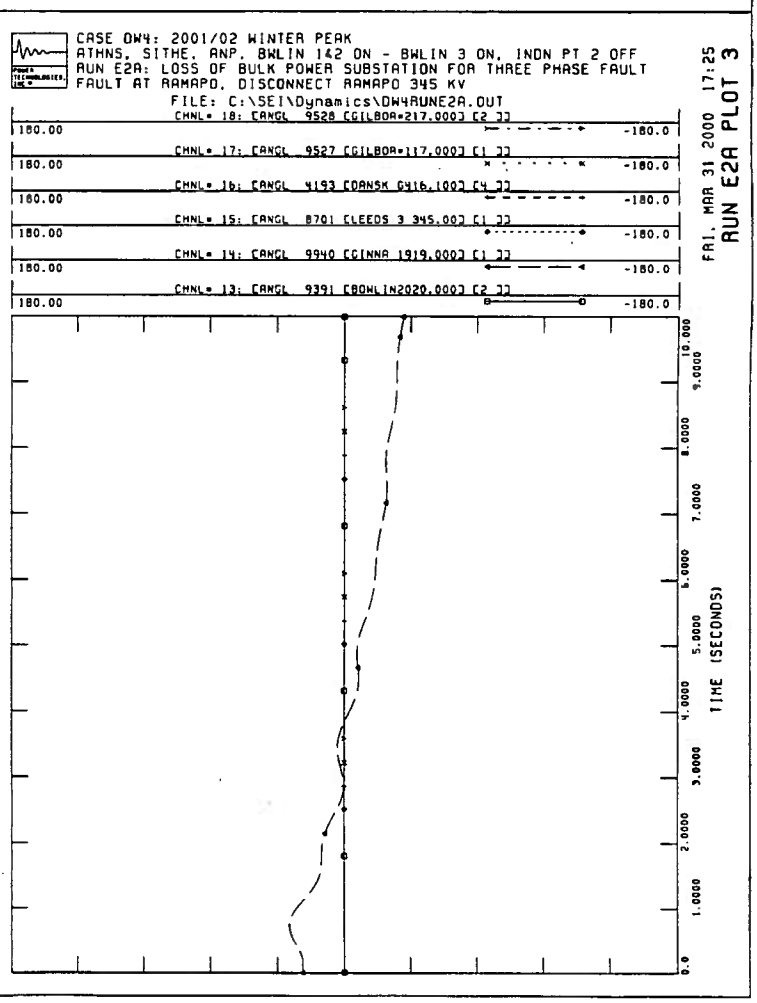
CONTINGENCY E2A

```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUNE2A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0   -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
DISCONNECT BUS 4347                              / DISCONNECT RAMAPO SUBSTATION
DROP GENERATOR 1 AT BUS 4352                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4353                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4357                           / TRIP SITHE CT
DROP GENERATOR 1 AT BUS 4358                           / TRIP SITHE ST
DROP GENERATOR 1 AT BUS 4361                           / TRIP ANP CT
DROP GENERATOR 2 AT BUS 4362                           / TRIP ANP CT
DROP GENERATOR 3 AT BUS 4363                           / TRIP ANP CT
DROP GENERATOR 4 AT BUS 4364                           / TRIP ANP ST
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

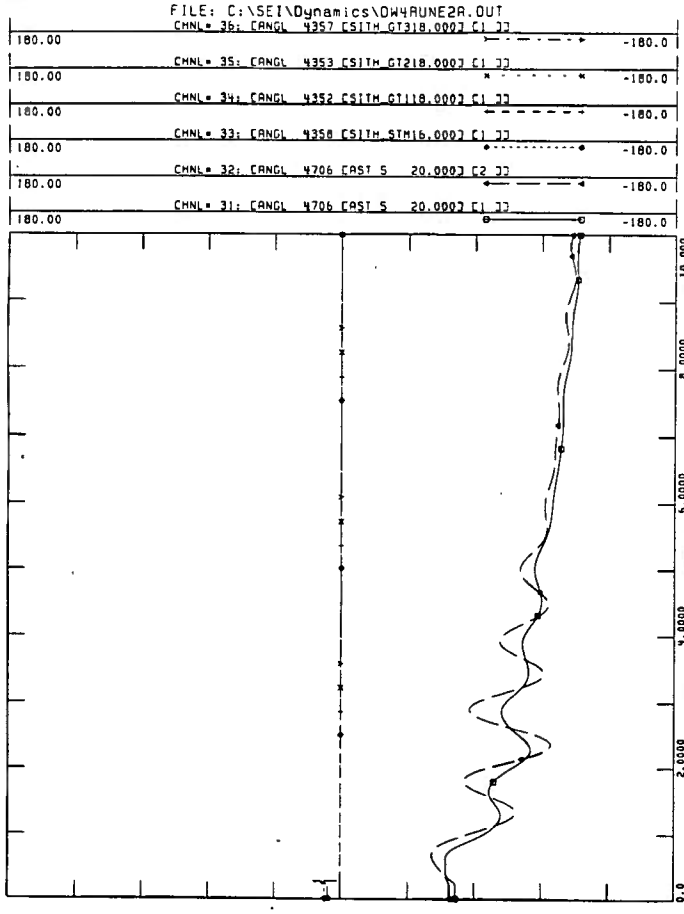

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 12: CANGL 9390 CBOWLINE 20.000] C1]]
CHNL= 11: CANGL 9394 CLOVETT 520.000] C5]]
CHNL= 10: CANGL 4192 CROSE GN224.000] C2]]
CHNL= 9: CANGL 4190 CROSE GN124.000] C1]]
CHNL= 8: CANGL 5523 CKINTIG2424.000] C1]]
CHNL= 7: CANGL 7953 COSWGO 6G22.000] C6]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:25
RUN E2A PLOT 2


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 24: CANGL 4700 CAR 3 22.000] C1]]
CHNL= 23: CANGL 4702 CRAV 3 22.000] C2]]
CHNL= 22: CANGL 4702 CRAV 3 22.000] C1]]
CHNL= 21: CANGL 9546 CPOLETT1 26.000] C1]]
CHNL= 20: CANGL 4907 CNATPTG2 22.000] C1]]
CHNL= 19: CANGL 4906 CNATPTG1 22.000] C1]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:25
RUN E2A PLOT 4


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 6: CANGL 7952 COSWGO 5G22.000] C5]]
CHNL= 5: CANGL 9547 CJAFITZ1G24.000] C1]]
CHNL= 4: CANGL 7950 C9M PT 2G25.000] C2]]
CHNL= 3: CANGL 7951 C9M PT 1G23.000] C1]]
CHNL= 2: CANGL 9548 CIP=3 GEN22.000] C1]]
CHNL= 1: CANGL 4701 CINO PT 222.000] C2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:25
RUN E2A PLOT 1

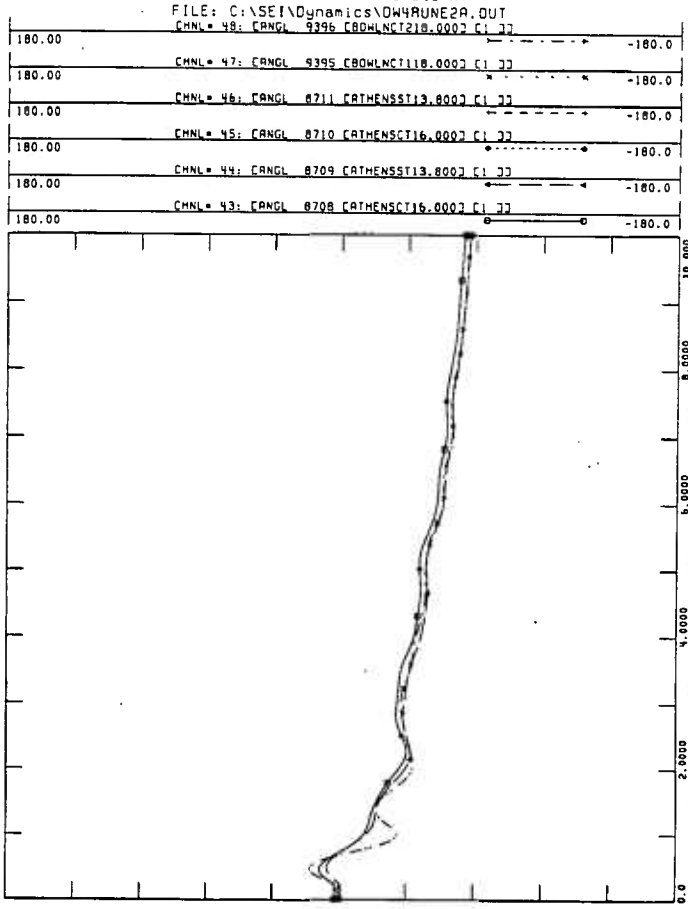

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 18: CANGL 9528 CGILBOA=217.000] C2]]
CHNL= 17: CANGL 9527 CGILBOA=117.000] C1]]
CHNL= 16: CANGL 4193 CDANSK G416.100] C4]]
CHNL= 15: CANGL 8701 CLEEDS 3 345.00] C1]]
CHNL= 14: CANGL 9940 CGINNA 1919.000] C1]]
CHNL= 13: CANGL 9391 CBOWLIN2020.000] C2]]
180.00
-180.0
TIME (SECONDS)
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
FRI, MAR 31 2000 17:25
RUN E2A PLOT 3

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT



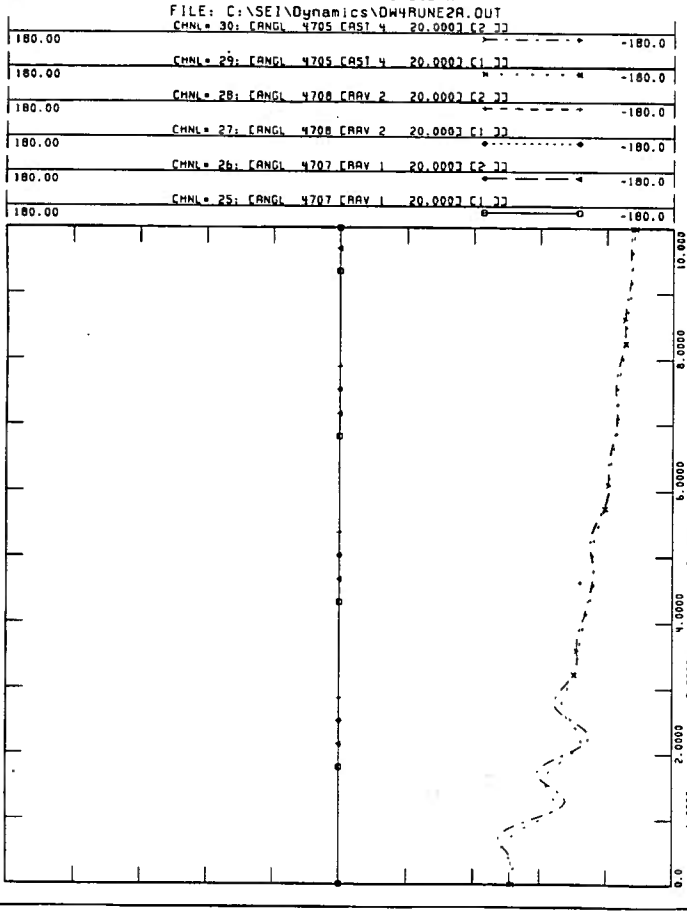
FRI, MAR 31 2000 17:25
RUN E2A PLOT 6

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT



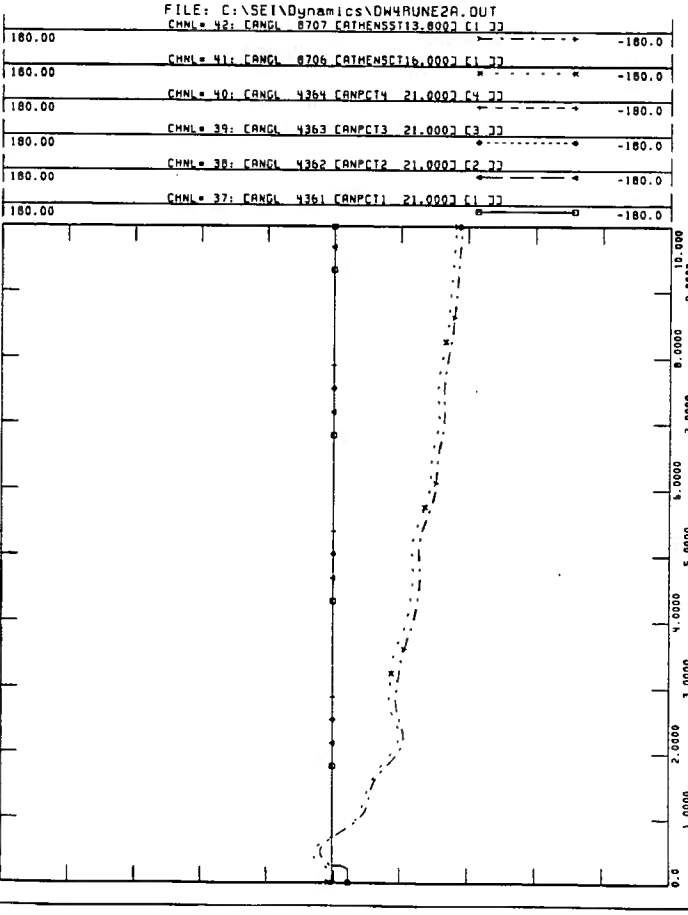
FRI, MAR 31 2000 17:25
RUN E2A PLOT 8

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT



FRI, MAR 31 2000 17:25
RUN E2A PLOT 5

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT



FRI, MAR 31 2000 17:25
RUN E2A PLOT 7

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT

FRI, MAR 31 2000 17:25
RUN E2A PLOT 10

CHNL= 60: [ANGL 23311 [MAIN CK324.0000] C1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.0000] C1]]
CHNL= 58: [ANGL 23041 CLIMERICK2.0000] C1]]
CHNL= 57: [ANGL 23499 CLIMERIC122.000] C1]]
CHNL= 56: [ANGL 23039 CHOPE CR] C1]]
CHNL= 55: [ANGL 2869 CSBRK G1 25.000] C1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT

FRI, MAR 31 2000 17:25
RUN E2A PLOT 12

CHNL= 70: [ANGL 17472 CBLLDNG2 19.000] C1]]
CHNL= 69: [ANGL 17456 CLEPAG1 26.000] C1]]
CHNL= 68: [ANGL 23194 CT M 1 G1.0000] C1]]
CHNL= 67: [ANGL 23040 CSUSQUEHA] C1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT

FRI, MAR 31 2000 17:25
RUN E2A PLOT 9

CHNL= 54: [ANGL 3648 CBPTMBA=322.000] C3]]
CHNL= 53: [ANGL 2371 CBP =4 CK22.000] C1]]
CHNL= 52: [ANGL 3563 CMILL=3 24.000] C3]]
CHNL= 51: [ANGL 3562 CMILL=2 24.000] C2]]
CHNL= 50: [ANGL 9398 CBOWLNST 18.000] C1]]
CHNL= 49: [ANGL 9397 CBOWLNGT318.000] C1]]
180.00 -180.0

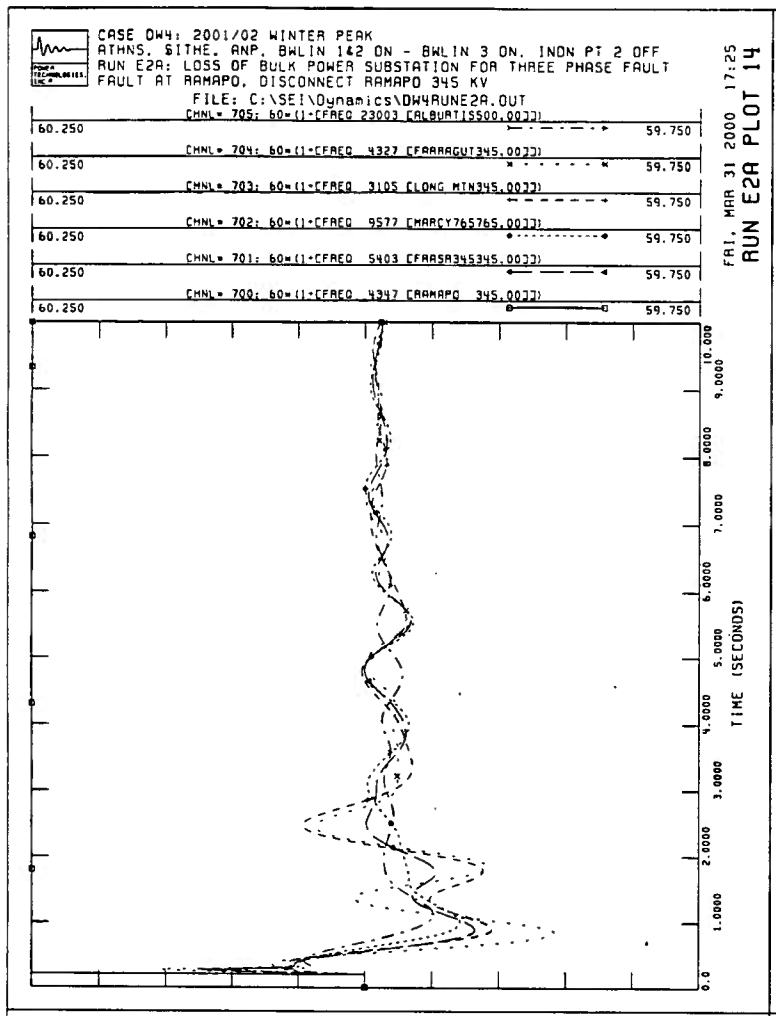
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

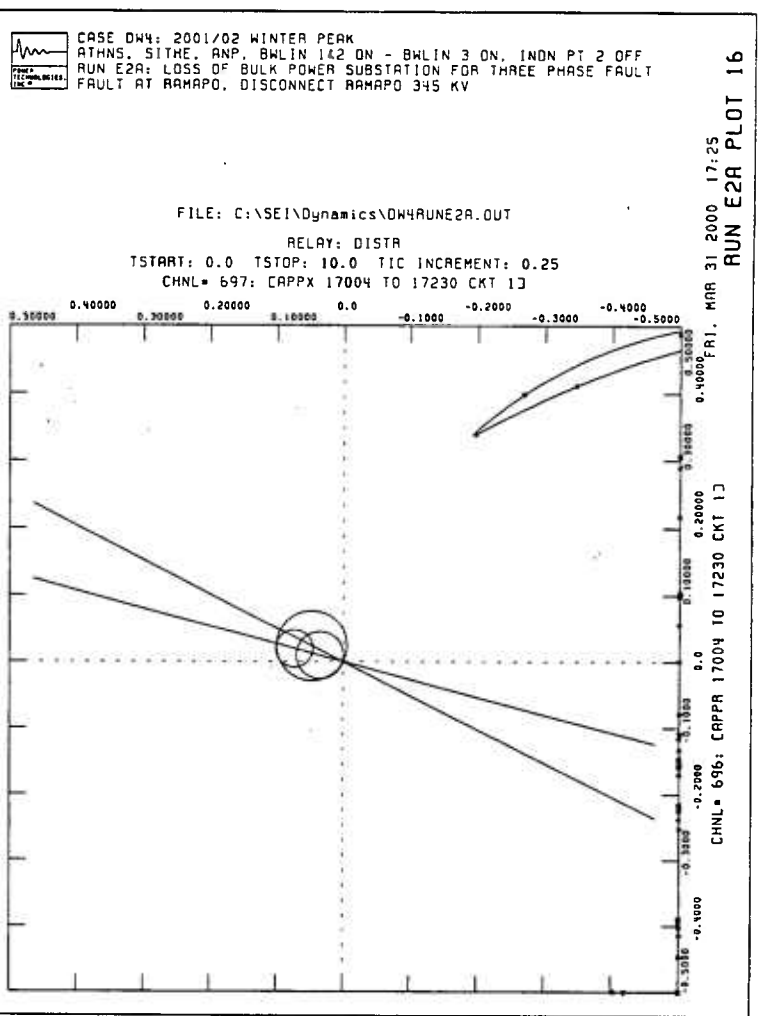
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT

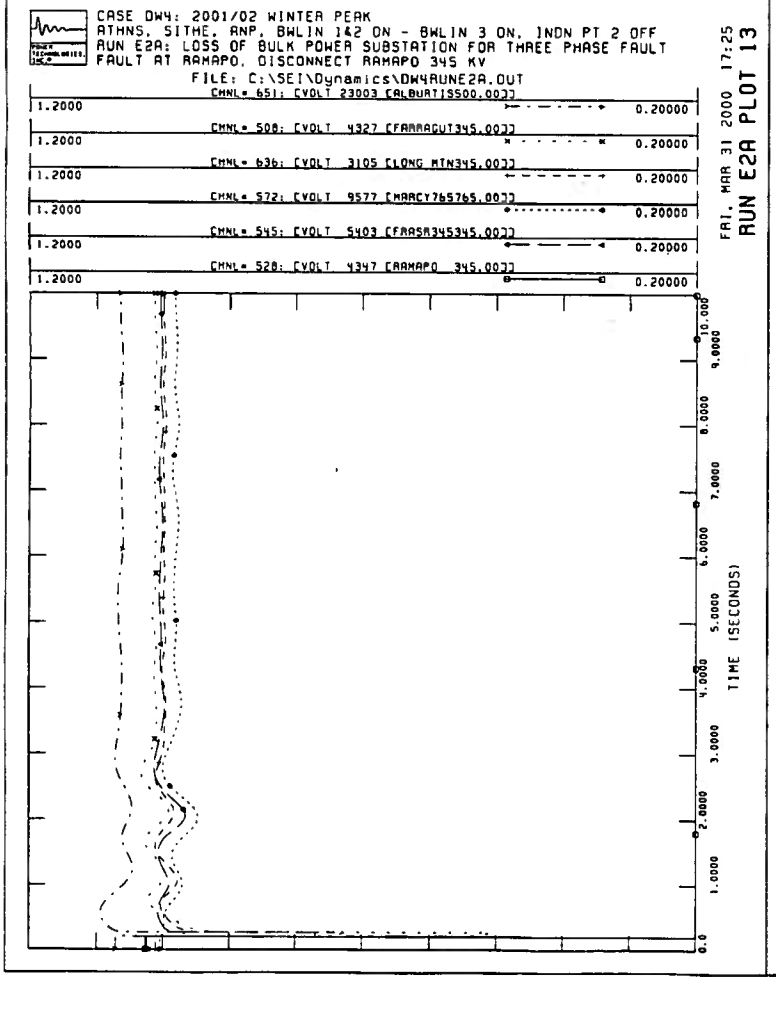
FRI, MAR 31 2000 17:25
RUN E2A PLOT 11

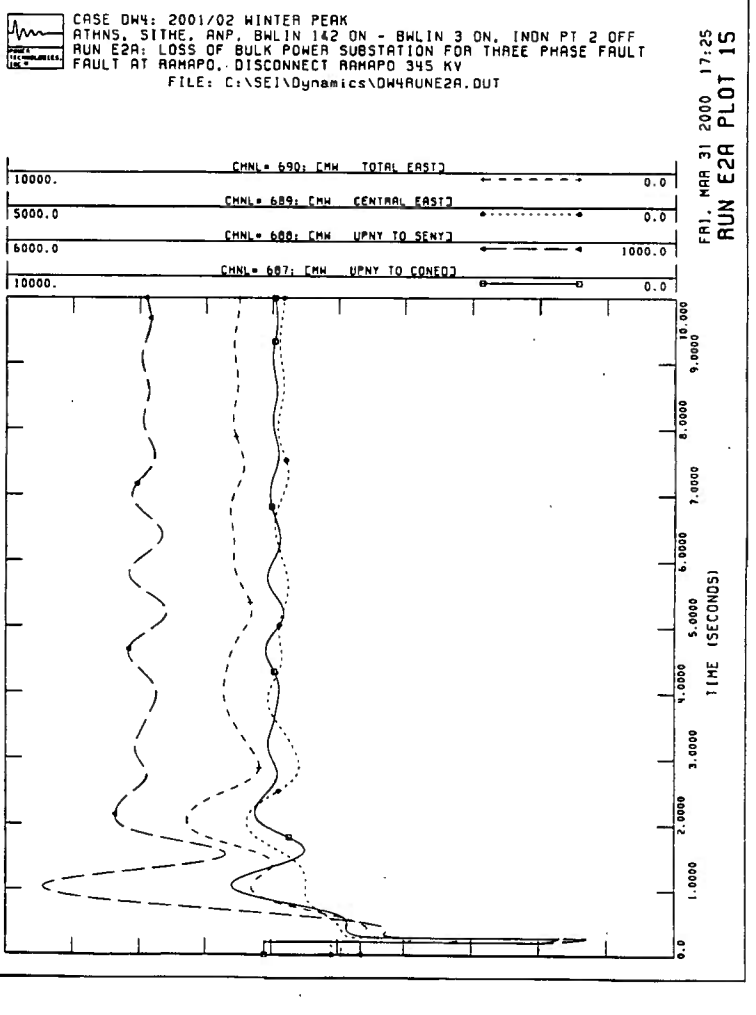
CHNL= 66: [ANGL 23368 CSUSQ 1 24.000] C1]]
CHNL= 65: [ANGL 23002 CSALEM G2] C1]]
CHNL= 64: [ANGL 23001 CSALEM G1] C1]]
CHNL= 63: [ANGL 23000 CPCMBTM=3] C1]]
CHNL= 62: [ANGL 25999 CPCMBTM=2] C1]]
CHNL= 61: [ANGL 23201 COYSTCAG1] C1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 705; 60=(1*CFREQ 23003 [ALBURTIS500,00]]
CHNL= 704; 60=(1*CFREQ 4327 [FARRAGUT345,00]]
CHNL= 703; 60=(1*CFREQ 3105 [LONG MTN345,00]]
CHNL= 702; 60=(1*CFREQ 9577 [MARCY765765,00]]
CHNL= 701; 60=(1*CFREQ 5403 [FRASR345345,00]]
CHNL= 700; 60=(1*CFREQ 4347 [RAMAPO 345,00]]
60.250
59.750
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E2A PLOT 14

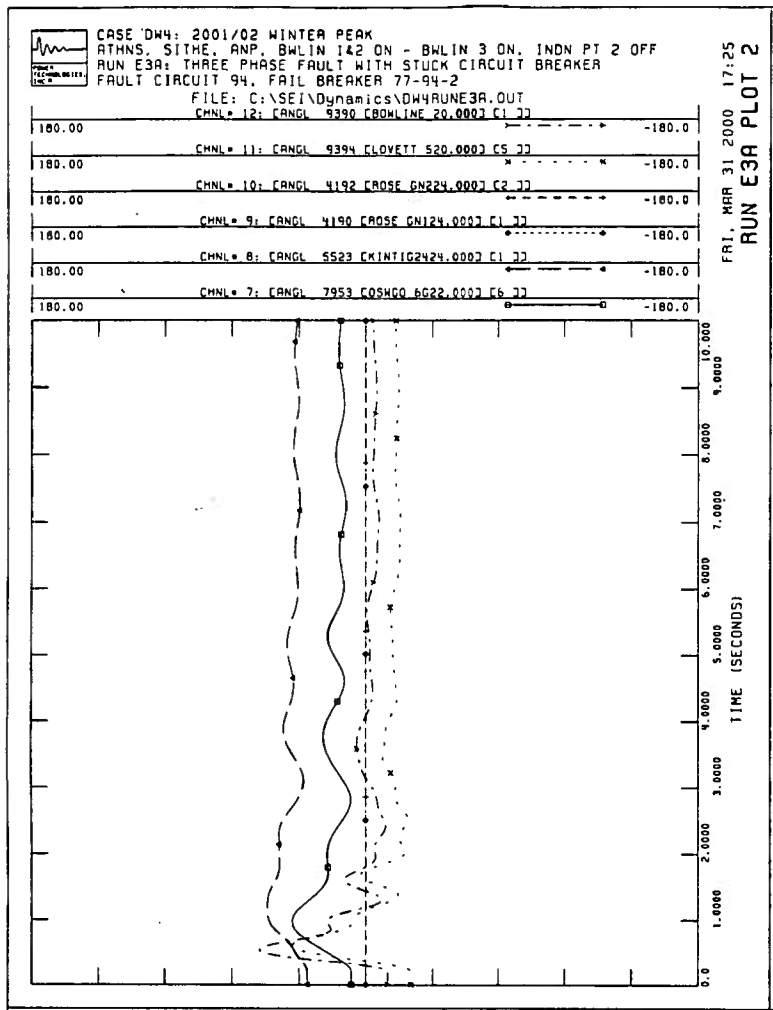

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
RELAY: DISTR
TSTART: 0.0 TSTOP: 10.0 TIC INCREMENT: 0.25
CHNL= 697: [APPX 17004 TO 17230 CKT 1]
CHNL= 696: [APPR 17004 TO 17230 CKT 1]
FRI, MAR 31 2000 17:25
RUN E2A PLOT 16

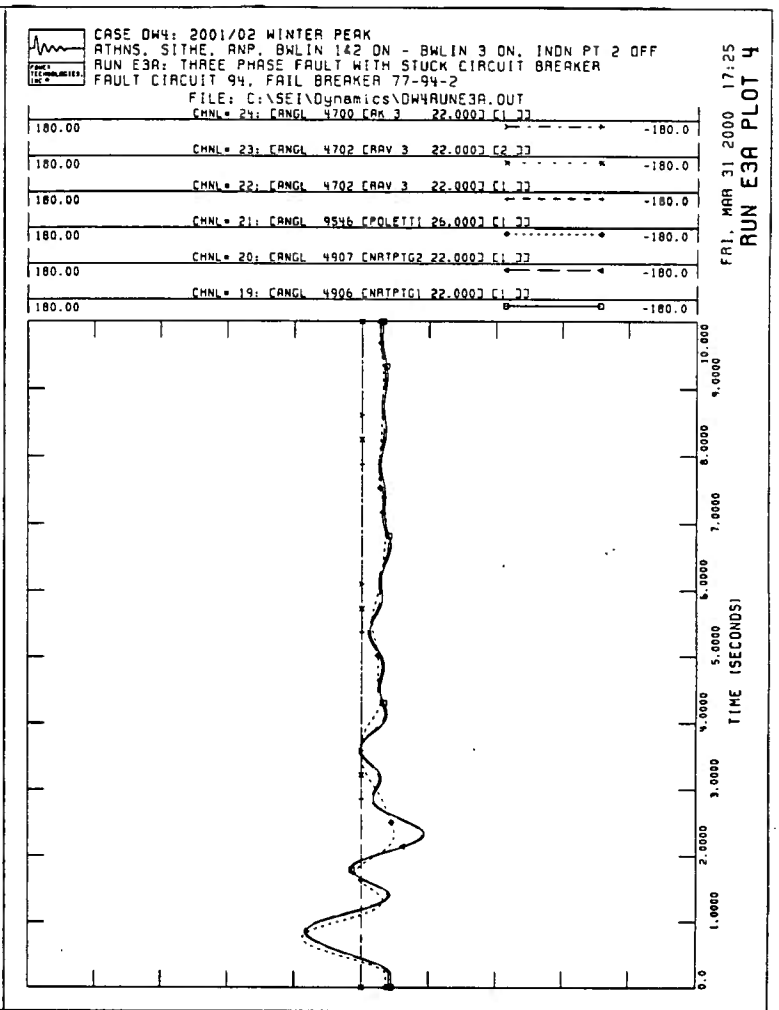

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 651; CVOLT 23003 [ALBURTIS500,00]]
CHNL= 508; CVOLT 4327 [FARRAGUT345,00]]
CHNL= 636; CVOLT 3105 [LONG MTN345,00]]
CHNL= 572; CVOLT 9577 [MARCY765765,00]]
CHNL= 545; CVOLT 5403 [FRASR345345,00]]
CHNL= 528; CVOLT 4347 [RAMAPO 345,00]]
1.2000
0.20000
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E2A PLOT 13

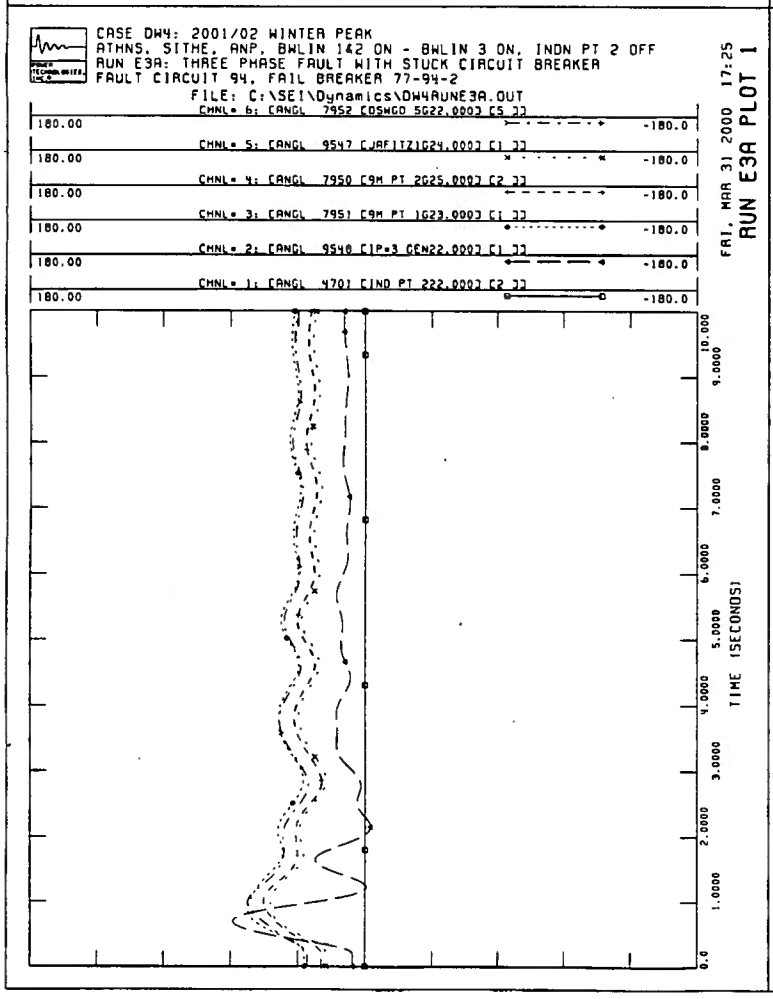

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E2A: LOSS OF BULK POWER SUBSTATION FOR THREE PHASE FAULT
FAULT AT RAMAPO, DISCONNECT RAMAPO 345 KV
FILE: C:\SEI\Dynamics\DW4RUNE2A.OUT
CHNL= 690: [MW TOTAL EAST]
CHNL= 689: [MW CENTRAL EAST]
CHNL= 688: [MW UPNY TO SENY]
CHNL= 687: [MW UPNY TO CONED]
10000.
5000.0
6000.0
0.0
1000.0
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E2A PLOT 15

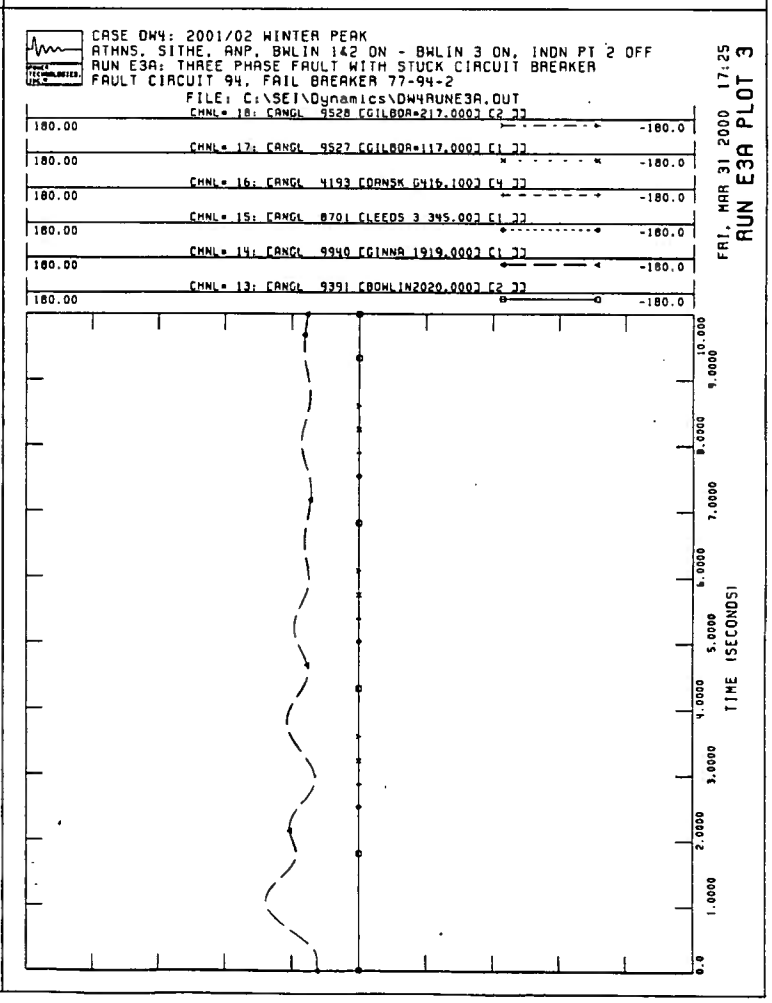
CONTINGENCY E3A

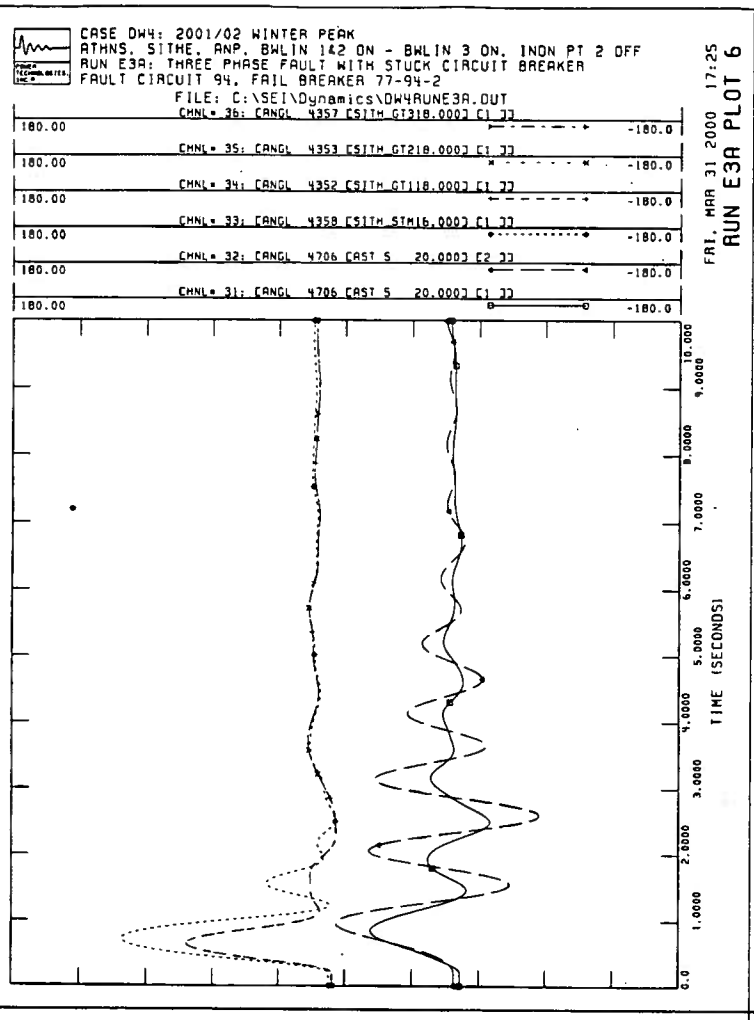
```
RECOVER FROM D1.SNP AND DW4.CNV
START OUTPUT DW4RUNE3A.OUT
RUN TO 0.2 SECONDS PRINT 0 PLOT 3
APPLY FAULT BUS 4347 ADMITTANCE 0.0    -2e+009 MVA     / 3-PHASE FAULT AT RAMAPO
RUN FOR 4 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4312 CKT 1              / TRIP RAMAPO-BUCHANAN N
RUN FOR 5.75 CYCLES PRINT 0 PLOT 3
TRIP LINE FROM BUS 4347 TO BUS 4360 CKT 1              / TRIP RAMAPO-ANP CKT 1
CLEAR FAULT
RUN TO 10 SECONDS PRINT 0 PLOT 3
```

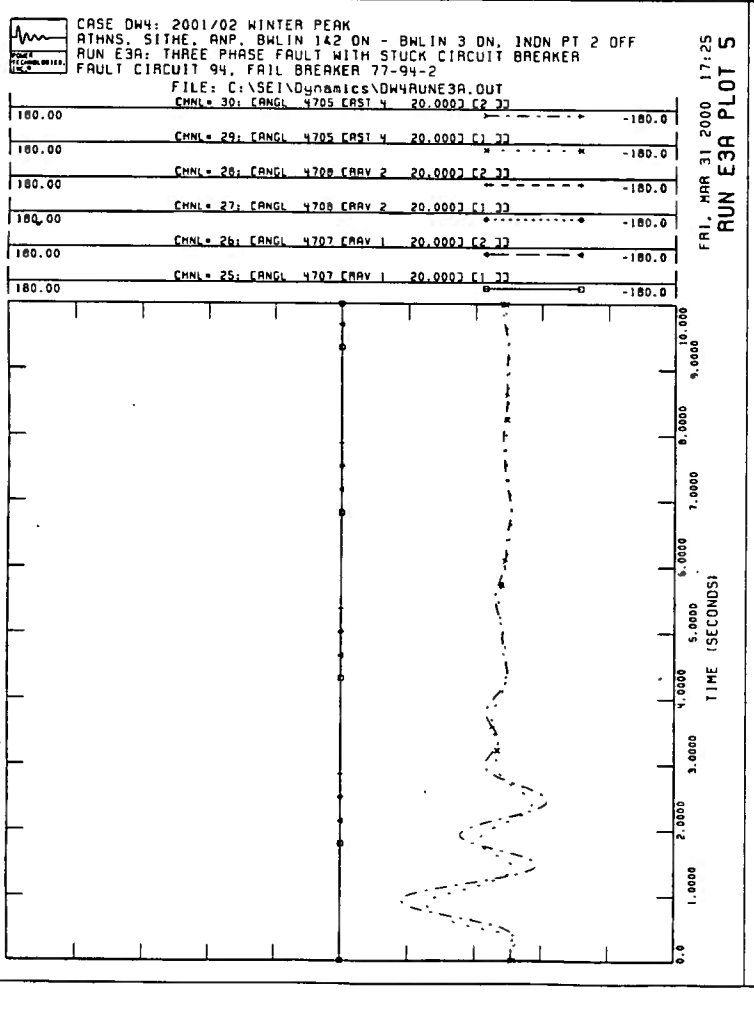

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 12: CANGL 9390 [BOWLINE 20.000] [1]]
CHNL= 11: CANGL 9394 [LOVETT 520.000] [5]]
CHNL= 10: CANGL 4192 [ROSE GN224.000] [2]]
CHNL= 9: CANGL 4190 [ROSE GN124.000] [1]]
CHNL= 8: CANGL 5523 [KINTIG2424.000] [1]]
CHNL= 7: CANGL 7953 [OSWGO 6G22.000] [6]]
180.00
-180.0
FRI, MAR 31 2000 17:25
RUN E3A PLOT 2
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

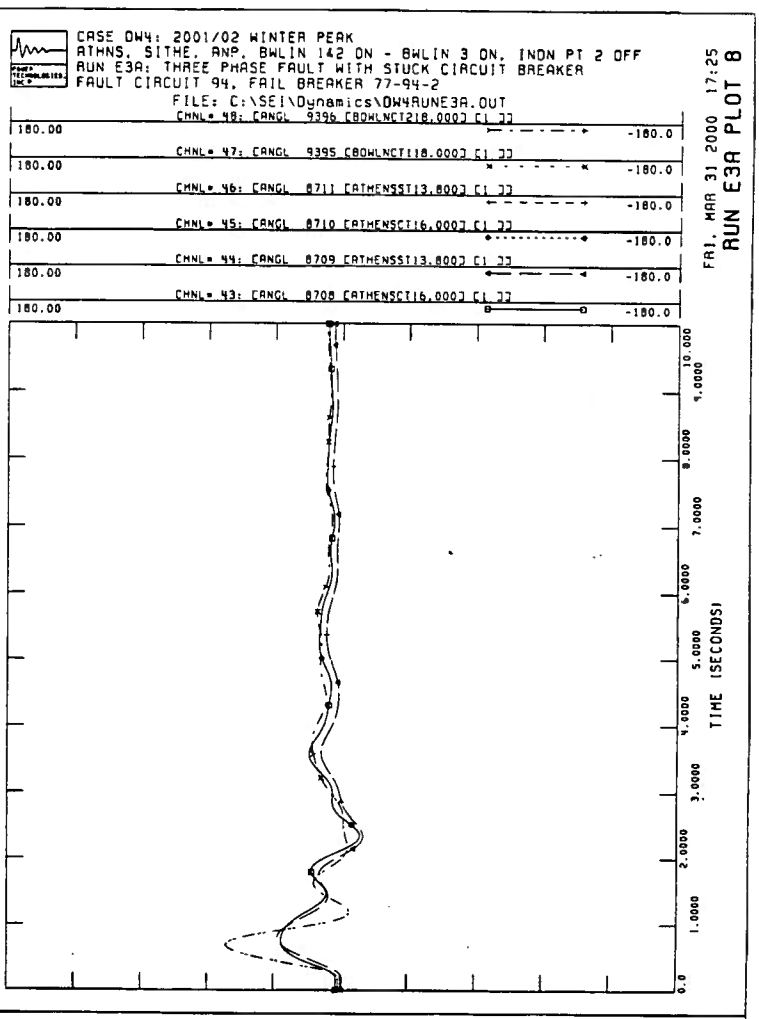

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 24: CANGL 4700 [AK 3 22.000] [1]]
CHNL= 23: CANGL 4702 [AAV 3 22.000] [2]]
CHNL= 22: CANGL 4702 [AAV 3 22.000] [1]]
CHNL= 21: CANGL 9546 [POLETTI 26.000] [1]]
CHNL= 20: CANGL 4907 [WATPTG2 22.000] [1]]
CHNL= 19: CANGL 4906 [WATPTG1 22.000] [1]]
180.00
-180.0
FRI, MAR 31 2000 17:25
RUN E3A PLOT 4
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)

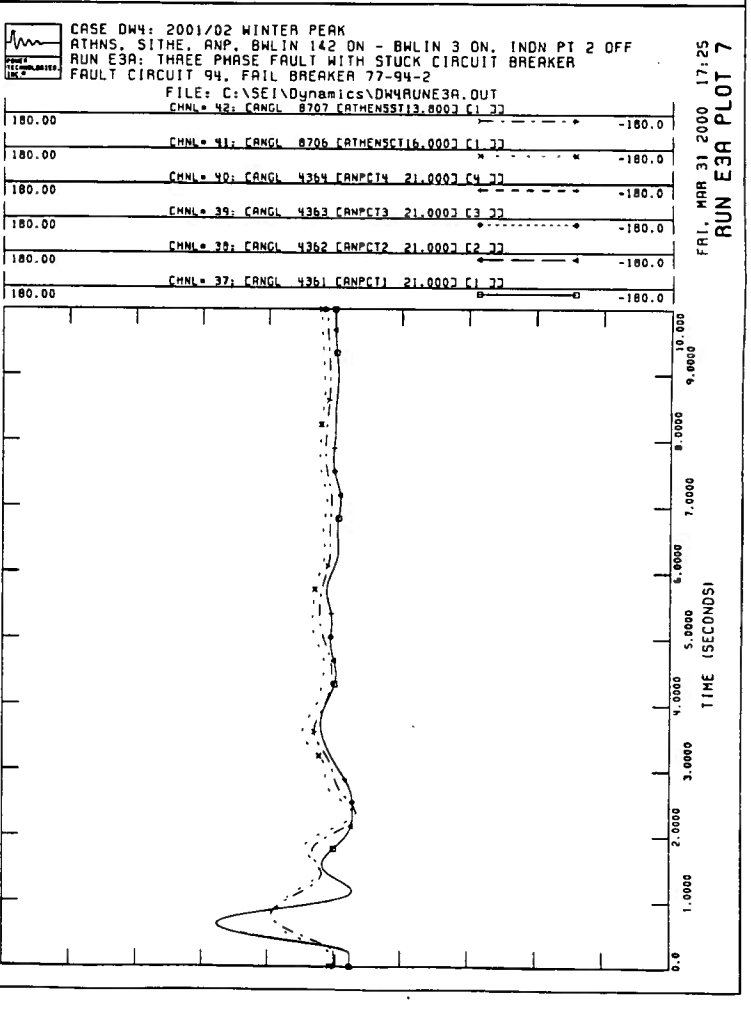

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 6: CANGL 7952 [OSWGO 5G22.000] [5]]
CHNL= 5: CANGL 9547 [JAFITZIG24.000] [1]]
CHNL= 4: CANGL 7950 [9M PT 2G25.000] [2]]
CHNL= 3: CANGL 7951 [9M PT 1G23.000] [1]]
CHNL= 2: CANGL 9548 [IP=3 GEN22.000] [1]]
CHNL= 1: CANGL 4701 [IND PT 222.000] [2]]
180.00
-180.0
FRI, MAR 31 2000 17:25
RUN E3A PLOT 1
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 18: CANGL 9528 [GILBOA=217.000] [2]]
CHNL= 17: CANGL 9527 [GILBOA=117.000] [1]]
CHNL= 16: CANGL 4193 [OAN5K G416.100] [4]]
CHNL= 15: CANGL 8701 [LEEDS 3 345.00] [1]]
CHNL= 14: CANGL 9940 [GINNA 1919.000] [1]]
CHNL= 13: CANGL 9391 [BOWLIN2020.000] [2]]
180.00
-180.0
FRI, MAR 31 2000 17:25
RUN E3A PLOT 3
0.0
1.0000
2.0000
3.0000
4.0000
5.0000
6.0000
7.0000
8.0000
9.0000
10.000
TIME (SECONDS)


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 36: CANGL 4357 [SITH GT318.000] [1]]
CHNL= 35: CANGL 4353 [SITH GT218.000] [1]]
CHNL= 34: CANGL 4352 [SITH GT118.000] [1]]
CHNL= 33: CANGL 4358 [SITH STM16.000] [1]]
CHNL= 32: CANGL 4706 [AST 5 20.000] [2]]
CHNL= 31: CANGL 4706 [AST 5 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E3A PLOT 6


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 30: CANGL 4705 [AST 4 20.000] [2]]
CHNL= 29: CANGL 4705 [AST 4 20.000] [1]]
CHNL= 28: CANGL 4708 [ARAV 2 20.000] [2]]
CHNL= 27: CANGL 4708 [ARAV 2 20.000] [1]]
CHNL= 26: CANGL 4707 [ARAV 1 20.000] [2]]
CHNL= 25: CANGL 4707 [ARAV 1 20.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E3A PLOT 5


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 48: CANGL 9396 [BOWLNCT218.000] [1]]
CHNL= 47: CANGL 9395 [BOWLNCT118.000] [1]]
CHNL= 46: CANGL 8711 [ATHENSST13.800] [1]]
CHNL= 45: CANGL 8710 [ATHENSCT16.000] [1]]
CHNL= 44: CANGL 8709 [ATHENSST13.800] [1]]
CHNL= 43: CANGL 8708 [ATHENSCT16.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E3A PLOT 8


CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT
CHNL= 42: CANGL 8707 [ATHENSST13.800] [1]]
CHNL= 41: CANGL 8706 [ATHENSCT16.000] [1]]
CHNL= 40: CANGL 4364 [ANPCT4 21.000] [4]]
CHNL= 39: CANGL 4363 [ANPCT3 21.000] [3]]
CHNL= 38: CANGL 4362 [ANPCT2 21.000] [2]]
CHNL= 37: CANGL 4361 [ANPCT1 21.000] [1]]
180.00
-180.0
TIME (SECONDS)
FRI, MAR 31 2000 17:25
RUN E3A PLOT 7

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT

FRI, MAR 31 2000 17:25
RUN E3A PLOT 10

CHNL= 60: [ANGL 23311 [MAIN CK424.0000] [1]]
CHNL= 59: [ANGL 23310 [MAIN CK324.0000] [1]]
CHNL= 58: [ANGL 23041 [LIMERICK2.0000] [1]]
CHNL= 57: [ANGL 23499 [LIMERIC122.0000] [1]]
CHNL= 56: [ANGL 23039 [HOPE CR] [1]]
CHNL= 55: [ANGL 2869 [SBAK G1 25.0000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT

FRI, MAR 31 2000 17:25
RUN E3A PLOT 12

CHNL= 70: [ANGL 17472 [BLLDNG2 19.0000] [1]]
CHNL= 69: [ANGL 17456 [LEPAGE 26.0000] [1]]
CHNL= 68: [ANGL 23194 [T M] G1.0000] [1]]
CHNL= 67: [ANGL 23040 [SUSQUEHA] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT

FRI, MAR 31 2000 17:25
RUN E3A PLOT 9

CHNL= 54: [ANGL 3648 [BPTHBR=322.0000] [3]]
CHNL= 53: [ANGL 2371 [BP =4 GN22.0000] [1]]
CHNL= 52: [ANGL 3563 [MILL=3 24.0000] [3]]
CHNL= 51: [ANGL 3562 [MILL=2 24.0000] [2]]
CHNL= 50: [ANGL 9398 [BOWLNS1 18.0000] [1]]
CHNL= 49: [ANGL 9397 [BOWLNCT318.0000] [1]]
180.00 -180.0

TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

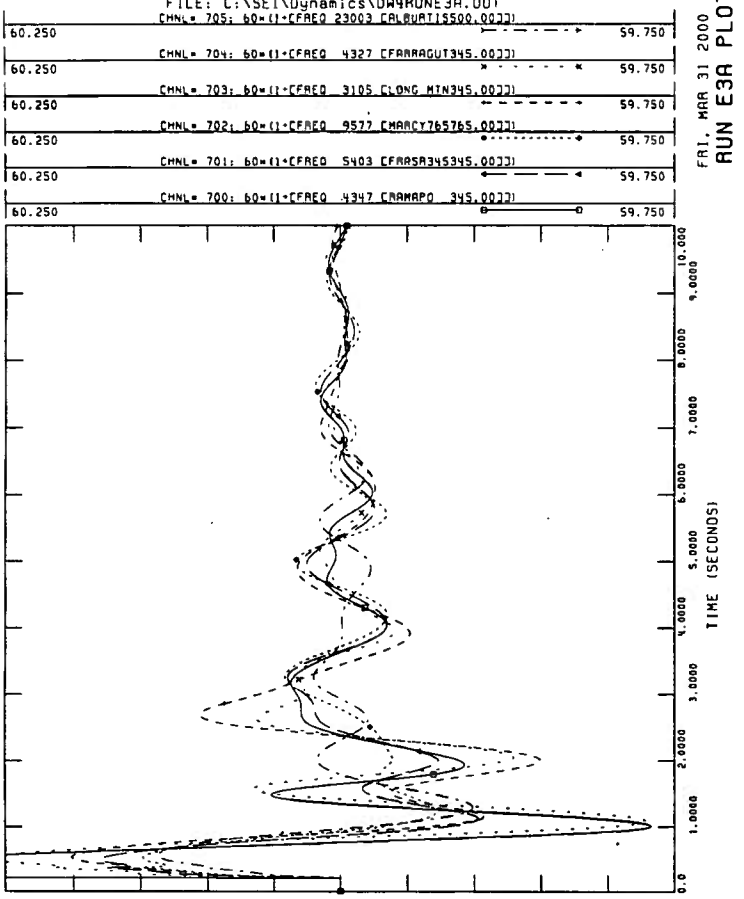
CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 1&2 ON - BWLIN 3 ON, INDN PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT

FRI, MAR 31 2000 17:25
RUN E3A PLOT 11

CHNL= 66: [ANGL 23368 [SUSQ 1 24.0000] [1]]
CHNL= 65: [ANGL 23002 [SALEM G2] [1]]
CHNL= 64: [ANGL 23001 [SALEM G1] [1]]
CHNL= 63: [ANGL 23000 [PCHBTM=3] [1]]
CHNL= 62: [ANGL 25999 [PCHBTM=2] [1]]
CHNL= 61: [ANGL 23201 [COYSTCAG1] [1]]
180.00 -180.0

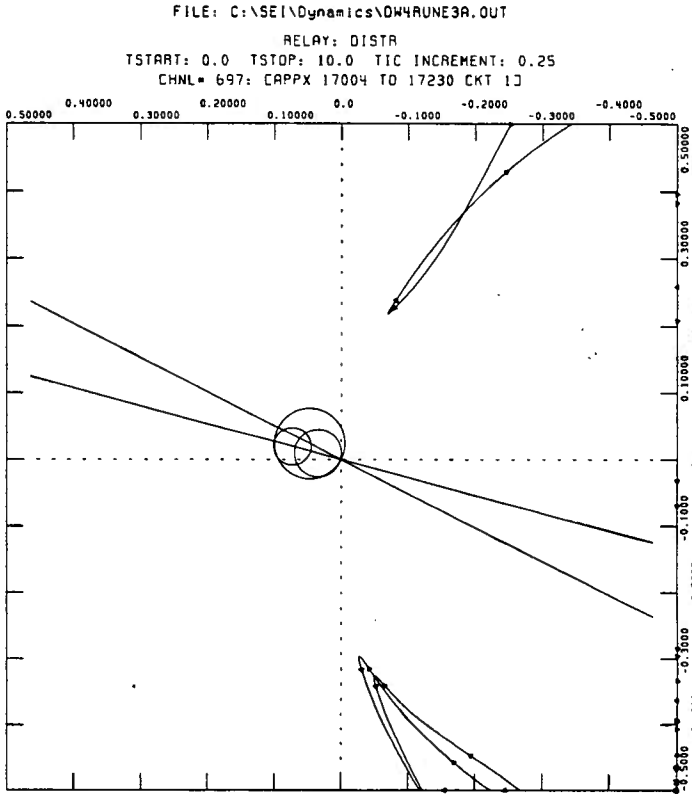
TIME (SECONDS)
0.0 1.0000 2.0000 3.0000 4.0000 5.0000 6.0000 7.0000 8.0000 9.0000 10.000

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT



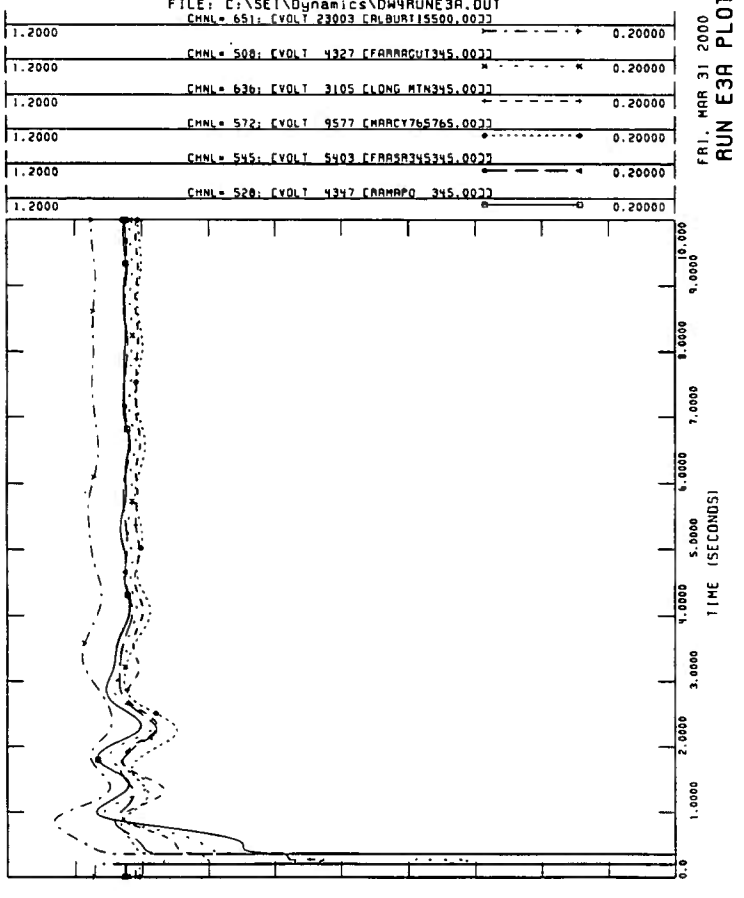
FRI, MAR 31 2000 17:25
RUN E3A PLOT 14

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2



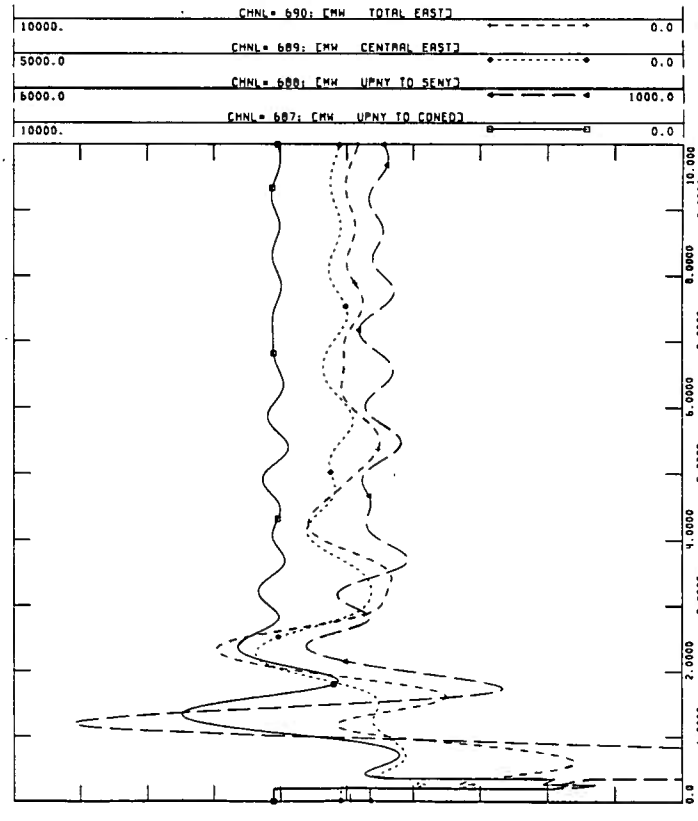
FRI, MAR 31 2000 17:25
RUN E3A PLOT 16

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT



FRI, MAR 31 2000 17:25
RUN E3A PLOT 13

CASE DW4: 2001/02 WINTER PEAK
ATHNS, SITHE, ANP, BWLIN 142 ON - BWLIN 3 ON, INON PT 2 OFF
RUN E3A: THREE PHASE FAULT WITH STUCK CIRCUIT BREAKER
FAULT CIRCUIT 94, FAIL BREAKER 77-94-2
FILE: C:\SEI\Dynamics\DW4RUNE3A.OUT



FRI, MAR 31 2000 17:25
RUN E3A PLOT 15