216 B

Spar Model Test
Joint Industry Project
Final Report
Volume I
Project Summary

PROJECT 216

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Spar Model Test
Joint Industry Project

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Test	Type	Hs	Tp	Current	Wind	Environment
			Volume II			
ASO_060-70	Static Offset	-	-	-	-	
AD1_001	Surge Damping	-	-	-	-	
AD2_004	Sway Damping	-	-	-	-	
AD3_001	Heave Damping	-	-	-	-	
AD4_001	Roll Damping	-	-	-	-	
AD5_001	Pitch Damping	-	-	-	-	
AD6_001	Yaw Damping	-	-	-	-	
ARAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested
ARAN2_002	Random Sea	21.0	10.5	-	-	10 Year Storm
ARAN3_003	Random Sea	43.0	14.0	-	-	GOM1
ARAN4_003	Random Sea	43.0	14.0	-	-	GOM2
ARAN5_002	Random Sea	45.9	16.3	-	-	North Sea
ARAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested
AWIN2_001	Wind	-	-	-	43	10 Year Storm
AWIN5_001	Wind	-	-	-	59	North Sea
AWIN3_003	Wind	-	-	-	85	GOM1
AWIN4_002	Wind	-	-	-	85	GOM2
			Volume III			
ACUR3_002	Current	-	-	4.3	-	GOM
ARC3_002	Random Sea	43.0	14.0	4.3	-	GOM1
ARC4_002	Random Sea	43.0	14.0	4.3	-	GOM2
ARCW3_002	Random Sea	43.0	14.0	4.3	85	GOM1
ARCW4_002	Random Sea	43.0	14.0	4.3	85	GOM2
			Volume IV			
ACUR5_002	Current	-	-	5.3	-	North Sea
ARC5_002	Random Sea	45.9	16.3	5.3	-	North Sea
ARCW5_002	Random Sea	45.9	16.3	5.3	58.7	North Sea
ACUR2_002	Current	-	-	6.3	-	10 Year Storm
ARC2_003	Random Sea	21.0	10.5	6.3	-	10 Year Storm
ARCW2_002	Random Sea	21.0	10.5	6.3	43	10 Year Storm
			Volume V			
ARAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM
ARC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM
ARCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM
			Volume VI			
ARG3_002	Regular Wave	15.0	8.0	-	-	
ARG5_002	Regular Wave	20.0	10.0	-	-	
ARG6_002	Regular Wave	20.0	12.0	-	-	
ARG7_002	Regular Wave	20.0	14.0	-	-	
ARG8_002	Regular Wave	20.0	16.0	-	-	
ARG10_002	Regular Wave	20.0	21.0	-	-	
ARAN7_001	Random Sea	12.1	16.0	-	-	W. Africa
ACUR7_001	Current	-	-	4.3	-	W. Africa
ARC7_001	Random Sea	12.1	16.0	4.3	-	W. Africa
ARCW7_001	Random Sea	12.1	16.0	4.3	38	W. Africa
ARAN3_100	Random Sea	43.0	14.0	-	-	GOM1

Test	Type	Hs	Tp	Current	Wind	Environment
			Volume VII			
BSO_013 -23	Static Offset	-	-	-	-	
BD1_001	Surge Damping	-	-	-	-	
BD2_001	Sway Damping	-	-	-	-	
BD3_001	Heave Damping	-	-	-	-	
BD4_001	Roll Damping	-	-	-	-	
BD5_001	Pitch Damping	-	-	-	-	
BPRE_017	Pretension	-	-	-	-	
BPRE_021	Pretension	-	-	-	-	
BRG2_003	Regular Wave	12.0	7.0	-	-	
BRG4_002	Regular Wave	18.0	9.0	-	-	
BRG6_001	Regular Wave	20.0	12.0	-	-	
BRG8_001	Regular Wave	20.0	16.0	-	-	
BBC3_001	Bi-Chromatic Wave	20/20	14/15.11	-	-	
BBC5_001	Bi-Chromatic Wave	20/20	16/17.47	-	-	
BBC8_001	Bi-Chromatic Wave	20/20	12/14.29	-	-	
BBC10_001	Bi-Chromatic Wave	20/20	14/17.21	-	-	
BBC12_001	Bi-Chromatic Wave	20/20	16/20.34	-	-	
BRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm
BRAN3_001	Random Sea	43.0	14.0	-	-	GOM1
BRAN4_001	Random Sea	43.0	14.0	-	-	GOM2
BRAN5_001	Random Sea	45.9	16.3	-	-	North Atlantic
BWIN2_001	Wind	-	-	-	43	10 Year Storm
BWIN5_001	Wind	-	-	-	58.7	North Atlantic
BWIN3_001	Wind	-	-	-	85	GOM1
BWIN4_001	Wind	-	-	-	85	GOM2
			Volume VIII			
BCUR3_002	Current	-	-	4.3	-	GOM
BRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
BRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
BRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
BRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
BCUR5_001	Current	-	-	5.3	-	North Atlantic
BRC5_001	Random Sea	45.9	16.3	5.3	-	North Atlantic
BRCW5_002	Random Sea	45.9	16.3	5.3	58.7	North Atlantic
			Volume IX			
BCUR2_001	Current	-	-	6.3	-	10 Year Storm
BRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
BRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm
BRAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM
BRC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM
BRCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM

Test	Type	Hs	Tp	Current	Wind	Environment
			Volume X			
CD1_003	Surge Damping	-	-	-	-	
CD2_001	Sway Damping	-	-	-	-	
CD3_001	Heave Damping	-	-	-	-	
CD4_001	Roll Damping	-	-	-	-	
CD5_001	Pitch Damping	-	-	-	-	
CRG1_002	Regular Wave	6.0	6.0	-	-	
CRG2_001	Regular Wave	12.0	7.0	-	-	
CRG3_001	Regular Wave	15.0	8.0	-	-	
CRG4_001	Regular Wave	18.0	9.0	-	-	
CRG5_001	Regular Wave	20.0	10.0	-	-	
CRG6_001	Regular Wave	20.0	12.0	-	-	
CRG7_001	Regular Wave	20.0	14.0	-	-	
CRG8_001	Regular Wave	20.0	16.0	-	-	
CRG9_001	Regular Wave	20.0	17.0	-	-	
CRG10_002	Regular Wave	20.0	21.0	-	-	
CBC2_001	Bi-Chromatic Wave	20/20	12/12.81	-	-	
CBC3_001	Bi-Chromatic Wave	20/20	14/15.11	-	-	
CBC4_001	Bi-Chromatic Wave	10/10	14/15.11	-	-	
CBC5_001	Bi-Chromatic Wave	20/20	16/17.47	-	-	
CBC6_001	Bi-Chromatic Wave	20/20	17/18.67	-	-	
CBC7_001	Bi-Chromatic Wave	20/20	10/11.54	-	-	
CBC8_001	Bi-Chromatic Wave	20/20	12/14.29	-	-	
CBC9_001	Bi-Chromatic Wave	20/20	13/15.73	-	-	
CBC10_001	Bi-Chromatic Wave	20/20	14/17.21	-	-	
CBC11_001	Bi-Chromatic Wave	10/10	14/17.21	-	-	
CBC12_001	Bi-Chromatic Wave	20/20	16/20.34	-	-	
CBC13_001	Bi-Chromatic Wave	20/20	17/21.98	-	-	
CBC14_001	Bi-Chromatic Wave	20/15	13/8.96			
CRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm
			Volume XI			
DD1_001	Surge Damping	-	-	-	-	
DD2_001	Sway Damping	-	-	-	-	
DD3_001	Heave Damping	-	-	-	-	
DD4_001	Roll Damping	-	-	-	-	
DD5_001	Pitch Damping	-	-	-	-	
DCUR3_001	Current	-	-	4.3	-	GOM
DRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
DRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
DCUR5_001	Current	-	-	5.3	-	North Sea
DRC5_001	Random Sea	45.9	16.3	5.3	-	North Sea
DCUR2_001	Current	-	-	6.3	-	10 Year Storm
DRC2_002	Random Sea	21.0	10.5	6.3	-	10 Year Storm
DRC34	Random Sea	43.0	14.0	4.3	-	GOM1&GOM2

Test	Type	Hs	Tp	Current	Wind	Environment
			Volume XII			
FD1_001	Surge Damping	-	-	-	-	
FD2_001	Sway Damping	-	-	-	-	
FD3_001	Heave Damping	-	-	-	-	
FD4_001	Roll Damping	-	-	-	-	
FD5_001	Pitch Damping	-	-	-	-	
FD6_001	Yaw Damping	-	-	-	-	
FRG9_001	Regular Wave	20.0	17.0	-	-	
FRG10_001	Regular Wave	20.0	21.0	-	-	
FRAN1_002	Random Sea	8.0	7.7	-	-	Operating Long-Crested
FRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm
FRAN3_001	Random Sea	43.0	14.0	-	-	GOM1
FRAN6_001	Random Sea	12.1	16.0	-	-	GOM1
			Volume XIII			
FCUR3_001	Current	-	-	4.3	-	GOM
FRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
FRC6_001	Random Sea	12.1	16.0	4.3	-	W. AFRICA
			Volume XIV			
FRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
FRCW6_001	Random Sea	12.1	16.0	4.3		W. AFRICA
			Volume XV			
FCUR2_001	Current	-	-	6.3	-	10 Year Storm
FRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
FRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm
			Volume XVI			
FSO2-10	Static Offset	-	-	-	-	
F1D1_001	Surge Damping	-	-	-	-	
F1D2_001	Sway Damping	-	-	-	-	
F1D3_001	Heave Damping	-	-	-	-	
F1D4_001	Roll Damping	-	-	-	-	
F1D5_001	Pitch Damping	-	-	-	-	
F1D6_001	Yaw Damping	-	-	-	-	
F1RAN3_001	Random Sea	43.0	14.0	-	-	GOM1
F1RAN5_001	Random Sea	45.9	16.3	-	-	North Sea
F2RAN3_001	Random Sea	43.0	14.0	-	-	GOM1
F1CUR3_001	Current	-	-	4.3	-	GOM
F1RC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
F1RCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
			Volume XVII			
F1CUR5_001	Current	-	-	5.3	-	North Sea
F1RC5_001	Random Sea	45.9	16.3	5.3	-	North Sea
F1RCW5_001	Random Sea	45.9	16.3	5.3	58.7	North Sea
			Volume XVIII			
F2CUR3_001	Current	-	-	4.3	-	GOM
F2RC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
F2RCW3_003	Random Sea	43.0	14.0	4.3	85	GOM1

Test	Type	Hs	Tp	Current	Wind	Environment
			Volume XIX			
HD1_001	Surge Damping	-	-	-	-	
HD2_002	Sway Damping	-	-	-	-	
HD3_001	Heave Damping	-	-	-	-	
HD4_001	Roll Damping	-	-	-	-	
HD5_001	Pitch Damping	-	-	-	-	
HPRE_005	Pretension	-	-	-	-	HWIN
HPRE_006	Pretension	-	-	-	-	HRAN
HPRE_017	Pretension	-	-	-	-	H*C*5
HWIN2_001	Wind	-	-	-	43	10 Year Storm
HWIN5_001	Wind	-	-	-	59	North Atlantic
HWIN3_001	Wind	-	-	-	85	GOM1
HWIN4_001	Wind	-	-	-	85	GOM2
HRAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested
HRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm
HRAN3_001	Random Sea	43.0	14.0	-	-	GOM1
HRAN4_001	Random Sea	43.0	14.0	-	-	GOM2
HRAN5_001	Random Sea	45.9	16.3	-	-	North Atlantic
HRAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested
			Volume XX			
HCUR3_002	Current	-	-	4.3	-	GOM
HRC3_002	Random Sea	43.0	14.0	4.3	-	GOM1
HRC4_002	Random Sea	43.0	14.0	4.3	-	GOM2
HRCW3_002	Random Sea	43.0	14.0	4.3	85	GOM1
HRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
			Volume XXI			
HCUR5_001	Current	-	-	5.3	-	North Atlantic
HRC5_001	Random Sea	45.9	16.3	5.3	-	North Atlantic
HRCW5_001	Random Sea	45.9	16.3	5.3	58.7	North Atlantic
HCUR2_001	Current	-	-	6.3	-	10 Year Storm
HRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
HRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm
			Volume XXII			
HRAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM
HRC3&4		43.0	14.0	4.3	-	Combined GOM
HRCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM

Test	Type	Hs	Tp	Current	Wind	Environment
			Volume XXIII			
LSO_1-10	Static Offset	-	-	-	-	
LSO_11-18	Static Offset	-	-	-	-	
LD1_001	Surge Damping	-	-	-	-	
LD7_001	Surge Damping	-	-	-	-	
LD8_001	Surge Damping	-	-	-	-	
LD2_001	Sway Damping	-	-	-	-	
LD3_001	Heave Damping	-	-	-	-	
LD4_001	Roll Damping	-	-	-	-	
LD5_001	Pitch Damping	-	-	-	-	
LD6_001	Yaw Damping	-	-	-	-	
LRAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested
LRAN3_001	Random Sea	43.0	14.0	-	-	GOM1
LRAN4_001	Random Sea	43.0	14.0	-	-	GOM2
LRAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested
LWIN2_002	Wind	-	-	-	43	10 Year Storm
LWIN3_001	Wind	-	-	-	85	GOM1
LWIN4_001	Wind	-	-	-	85	GOM2
LRG1_001	Regular Wave	6.0	6.0	-	-	
LRG2_001	Regular Wave	12.0	7.0	-	-	
LRG3_001	Regular Wave	15.0	8.0	-	-	
LRG4_001	Regular Wave	18.0	9.0	-	-	
LRG5_001	Regular Wave	20.0	10.0	-	-	
LRG6_001	Regular Wave	20.0	12.0	-	-	
LRG7_001	Regular Wave	20.0	14.0	-	-	
LRG8_001	Regular Wave	20.0	16.0	-	-	
			Volume XXIV			
LCUR3_001	Current	-	-	4.3	-	GOM
LRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
LRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
LRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
LRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
			Volume XXV			
LRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
LRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm
LRAN34	Random Sea	43.0	14.0	-	-	GOM1 & GOM2
LRC34	Random Sea	43.0	14.0	4.3	-	GOM1 & GOM2
LRCW34	Random Sea	43.0	14.0	4.3	85	GOM1 & GOM2

Test	Type	Hs	Tp	Current	Wind	Environment
			Volume XXVI			
MSO_2-8	Static Offset	-	-	-	-	
MD1_001	Surge Damping	-	-	-	-	
MD2_001	Sway Damping	-	-	-	-	
MD3_001	Heave Damping	-	-	-	-	
MD4_001	Roll Damping	-	-	-	-	
MD5_001	Pitch Damping	-	-	-	-	
MWIN3_001	Wind	-	-	-	85	GOM1
MWIN4_001	Wind	-	-	-	85	GOM2
MCUR3_001	Current	-	-	4.3	-	GOM
MRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
MRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
MRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
MRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
			Volume XXVII			
MCUR2_001	Current	-	-	6.3	-	10 Year Storm
MRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
MRC3-4	Random Sea	43.0	14.0	4.3	85	GOM1
MRCW3-4	Random Sea	43.0	14.0	4.3	85	GOM2
			Volume XXVIII			
JPRE_002	Pretension	-	-	-	-	
J1_001	Current	-	-	3.0	-	
J2_001	Current & Wind	-	-	3.0	20	Variable Wind
J3_001	Random Sea	10.0	10.5	3.0	20	Steady Wind
J4_001	Current & Wind	-	-	3.0	20	Steady Wind
J5_001	Current & Wind	-	-	3.0	20	Steady Wind
J6_001	Random Sea	10.0	10.5	3.0	20	Steady Wind
J7_001	Current	-	-	3.0	-	
J8_001	Current & Wind	-	-	3.0	20	Steady Wind
J9_001	Random Sea	10.0	10.5	3.0	20	Steady Wind
J10_001	Waves & Wind	10.0	10.5	-	20	Steady Wind
J11_001	Waves Alone	10.0	10.5	-	-	
J12_001	Waves Alone	10.0	10.5	-	-	
J13_001	Waves & Wind	10.0	10.5	-	20	Steady Wind
J14_001	Waves & Wind	8.0	7.7	-	20	Short-Crested Sea
J14_002	Waves & Wind	8.0	7.7	-	20	Short-Crested Sea
J15_001	Waves Alone	8.0	7.7	-	-	Short-Crested Sea
J16_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea
J17_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea
J18_001	Current & Wind	-	-	3.0	43	Variable Wind
J19_001	Random Sea	21.0	10.5		43	Variable Wind
J20_001	Current Alone	-	-	3.0	-	
J21_001	Current & Wind	-	-	3.0	20	
J22_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea

Volume XXVIII (continued)

Test	Type	Hs	Tp	Current	Wind	Environment
ND3	Heave Damping	-	-	-	-	
ND4	Roll Damping	-	-	-	-	
ND5	Pitch Damping	-	-	-	-	
NRAN8	Random Sea	4	7.7	-	-	Short-Crested
NRAN1	Random Sea	8.0	7.7	-	-	Long-Crested
NRAN6	Random Sea	8.0	7.7	-	-	Short-Crested
NRAN9	Random Sea	2.0	7.7	-	-	Short_Crested
OD3	Heave Damping	-	-	-	-	
OD4	Roll Damping	-	-	-	-	
OD5	Pitch Damping	-	-	-	-	
ORAN8	Random Sea	4	7.7	-	-	Short-Crested
ORAN1	Random Sea	8.0	7.7	-	-	Long-Crested
ORAN6	Random Sea	8.0	7.7	-	-	Short-Crested

Volume XXIX

Test	Hs	Tp	Current	Wind	Activity
		4 Winches Float On			
PRAN6_003	4.0	7.7	-	-	Broke 1 Line
PRAN7_001	6.0	7.7	-	-	
PRC6_001	4.0	7.7	1.5	-	
PRC7_001	6.0	7.7	1.5	-	
PUMP_001	4.0	7.7	1.5	-	Deballasting
PUMP_002	4.0	7.7	1.5	-	Deballasting
PUMP_003	4.0	7.7	1.5	-	Deballasting
		2 Winches Slide On			
PRAN_010	2.0	7.7	-	-	
PRAN_011	2.0	7.7	-	-	
PRAN_012	2.0	7.7	-	-	Broke 1 Line
PRAN_013	2.0	7.7	-	-	Deballasting
PRAN_014	2.0	7.7	-	-	Deballasting
PRAN_016	2.0	7.7	-	-	Deballasting
PRAN_017	2.0	7.7	-	-	Deballasting
PRAN_018	2.0	7.7	-	-	Deballasting
PRAN_020	6.0	7.7	-	-	
PRAN_021	6.0	7.7	-	-	
PRAN_022	6.0	7.7	-	-	Deballasting
PRAN_023	6.0	7.7	-	-	Deballasting
PRAN_024	6.0	7.7	-	-	Deballasting
PRAN_025	6.0	7.7	-	-	Deballasting
PRAN_026	6.0	7.7	-	-	Deballasting

1.0 Summary

Fourteen different configurations involving two different models of spar concepts for offshore production platforms were tested at the Offshore Technology Research Center between March and June, 1994. This joint industry project, formulated and managed by Deep Oil Technology, Inc., had 12 sponsors. Spar platform designs were provided by Deep Oil Technology and Shell Development Company. The two spar models were fabricated by Amoco Production Company.

The different model configurations are listed in Table 1.1. The scale ratio for all experiments was 1:55. Configurations A through J and N through P examined various aspects of the performance and installation of the large, 133 foot diameter, 650 foot draft, spar concept. Configurations L and M dealt with the small, 52.5 foot diameter, 443 foot draft, spar model.

Configuration A was the basic large spar in a simulated, non-linear, taut mooring using four piece-wise linear model mooring legs. The basic configuration had the deck in place on top of the spar hull but did not have vortex suppression devices or risers. Configuration F added risers and buoyancy cans to the basic model. Configuration H added strakes to the basic model for vortex suppression. Configuration F1 combined the basic model with both risers and strakes. Configuration F2 added a catenary riser to the keel of Configuration F1.

Configurations B, C and D examined the basic large spar model in various restraints in order to provide estimates of the longitudinal and lateral forces acting on the spar.

Configurations J, O and P examined various operational and installation scenarios for the large spar, including:

- a tanker moored to the deck or to a sliding bridle, Configuration J, shown in Figure 1.1,
- a flooded spar hull without the deck, Configuration O, and
- deck mating to the spar hull by floating on or sliding on from a launch barge.

A less extensive set of experiments was conducted with the small spar model. Configuration L, shown in Figure 1.2, was the basic small spar in a six leg, linear mooring with a vertical tether at the keel. Configuration M added restraints to the small model in order to examine the lateral loads imposed by waves, current and wind. The small spar was not tested with vortex suppression devices, risers or in simulated installation scenarios.

Table 1.1 Summary of Spar Configurations Tested

	Spar Diameter	Spar Draft	Mooring	Vortex Suppression	Lateral Restraints	In-Line Restraints	Comments
A	133	650	4 Lines	None	None	None	
B	133	650	2 Lines	None	Yes	None	
C	133	650	None	None	Yes	Yes	
D	133	650	2 Lines	None	None	Yes	
F	133	650	4 Lines	None	None	None	Vertical Risers
F1	133	650	4 Lines	Strakes	None	None	Vertical Risers
F2	133	650	4 Lines	Strakes	None	None	Vertical Risers & Catenary Riser
H	133	650	4 Lines	Strakes	None	None	
J	133	650	4 Lines	Strakes	None	None	Moored Tanker
L	52.5	443	6 Lines	None	None	None	
M	52.5	443	6 Lines	None	Yes	None	
N	-	-	-	-	-	-	Floating Deck Alone
O	133	700	4 Lines	Strakes	None	None	Flooded Hull Alone
P	133	700	4 Lines	Strakes	None	None	Float-On & Slide-On Deck

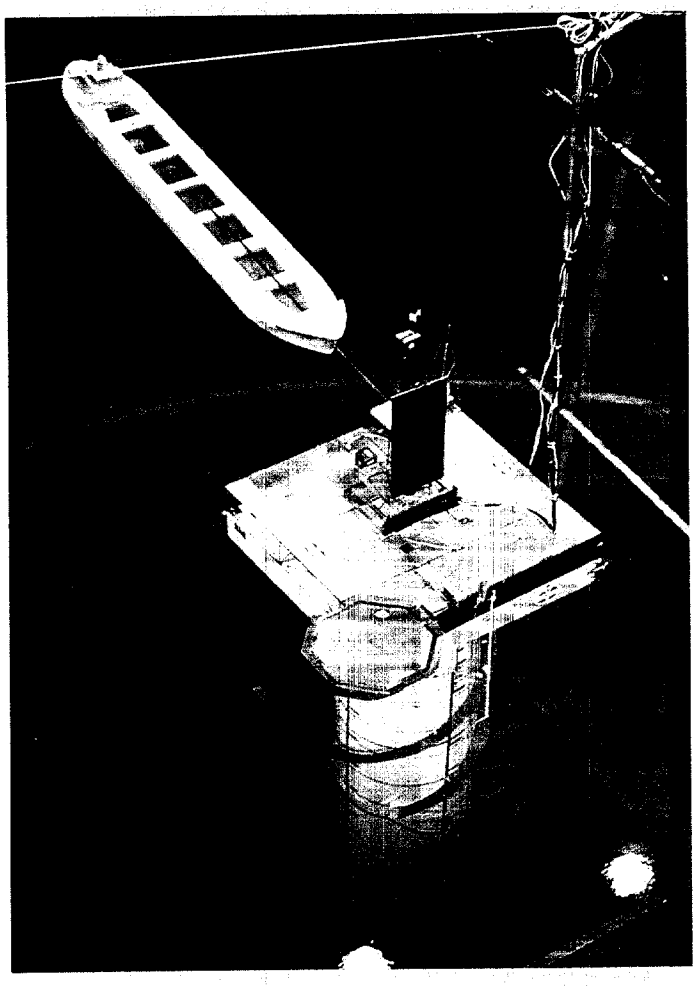


Figure 1.1 Large Spar Model

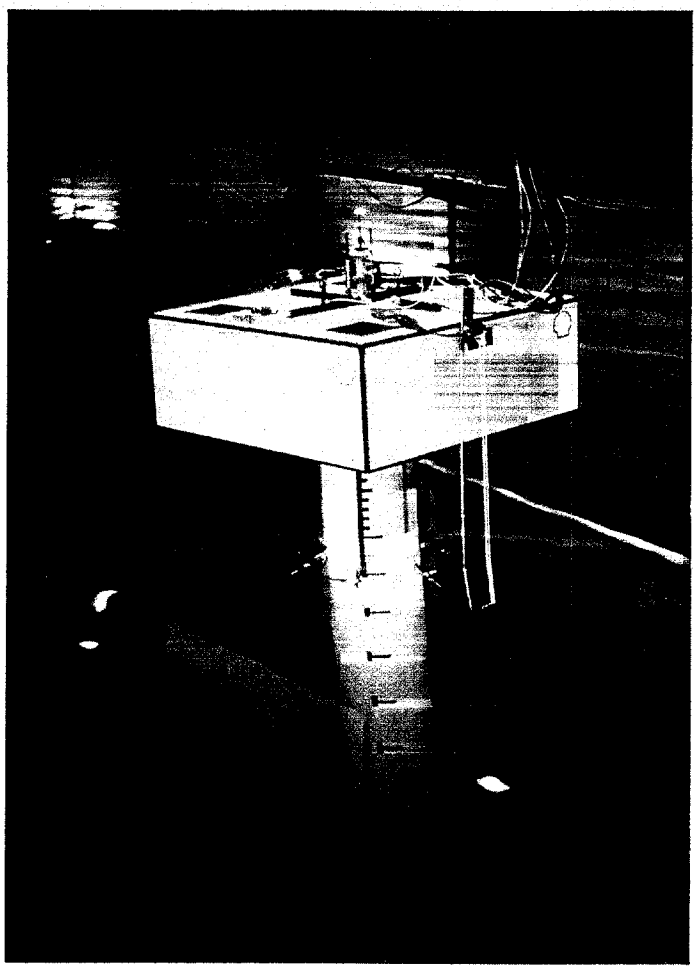


Figure 1.2 Small Spar Model

The spar models were tested in a variety of environments, including:

- 12 different regular waves,
- 14 different combinations of bi-chromatic waves,
- 4 different random wave sea states,
- 3 different currents,
- 3 different variable winds, including the gust spectra,
- various combined random waves & currents, and
- various combined random waves, currents & variable winds.

The random wave environments simulated different types of storms:

- operational and installation sea states, both long-crested and short-crested,
- a 10 year Gulf of Mexico storm,
- a 100 year Gulf of Mexico hurricane,
- a North Atlantic storm,and
- a west Africa storm.

Acquired and computed data included:

- spar motions, surge, sway, heave, roll, pitch, yaw,
- mooring line loads,
- lateral and in-line loads,
- riser tensions and side loads at the keel joint,
- buoyancy can motions,
- wave runup on the hull, waves in the moonpool and relative wave height beneath the deck, and
- environmental variables, wave height, current and wind speed.

Data analysis products provided in this report include:

- simple statistics, spectral statistics, zero-crossing statistics for unfiltered, low pass and high pass filtered data,
- time series plots,
- power spectral density plots,
- linear transfer functions plots for both amplitude and phase,
- extremal analysis (Weibull) plots for unfiltered, low pass and high pass filtered data.

Volume I of this report presents the model test environments; summarizes the model properties, moorings and fixtures; describes the instruments, test procedures, and data analysis; and lists the various configurations and experiments. Volumes II through XXIX present the data. Accompanying this report is a set of magnetic cartridge tapes containing the summary data tables and individual channel time series in ASCII format that can be used for independent analysis. A list of these files is included in Appendix D of this volume.

2.0 Environments

2.1 Waves

2.1.1 Wave Generation

Waves are generated at one end of the model basin and absorbed at the other end. There are no side wave absorbers. Waves are generated by 48 independent, hydraulically actuated, servo-controlled, hinged flaps. Long-crested regular and random waves are created by moving all the waveboards in phase. Oblique and short-crested waves are created by varying the phase in the command signal downloaded to each waveboard.

Plan and profile views of the model basin are presented in Figure 2.1.

Drive signals for the wavemaker were created in the set up phase of the project prior to placement of the models in the basin. A wave probe was placed at the anticipated mean offset location of the model, 18 inches downwave of the model neutral location. This probe was removed when the spar models were installed. Probes were also placed upwave and to the side of the model. These probes remained in place during the experiments with the spar. During the setup phase, wavemaker drive signals were calibrated to obtain the wave heights, periods and spectral distributions that were required.

2.1.2 Regular Waves

Table 2.1 summarizes the regular, mono-chromatic, sinusoidal waves that were created for this project. Target and achieved wave height, H, and period, T, are listed. Drive signals labeled "BCL" are the individual regular wave components that were used to create bi-chromatic waves.

Data collection for these tests commenced when the wavemaker started making waves. Therefore, these data include an initial interval when the waves are in transition from calm to fully developed. Data collection for the regular wave tests with the spar models also commenced when the wavemaker started.

Time series and summary statistics for the tests in which the regular waves were created are provided in digital format on the data tape that accompanies this report.

2.1.3 Bi-Chromatic Waves

Table 2.2 summarizes the bi-chromatic waves that were created for this project. These waves were created by adding together the drive signals for two regular waves. Table 2.2 summarizes the achieved wave heights, H, and periods, T, for the individual wave components.

Data collection for these tests commenced when the wavemaker started

Figure 2.1 OTRC Model Basin Plan and Profile

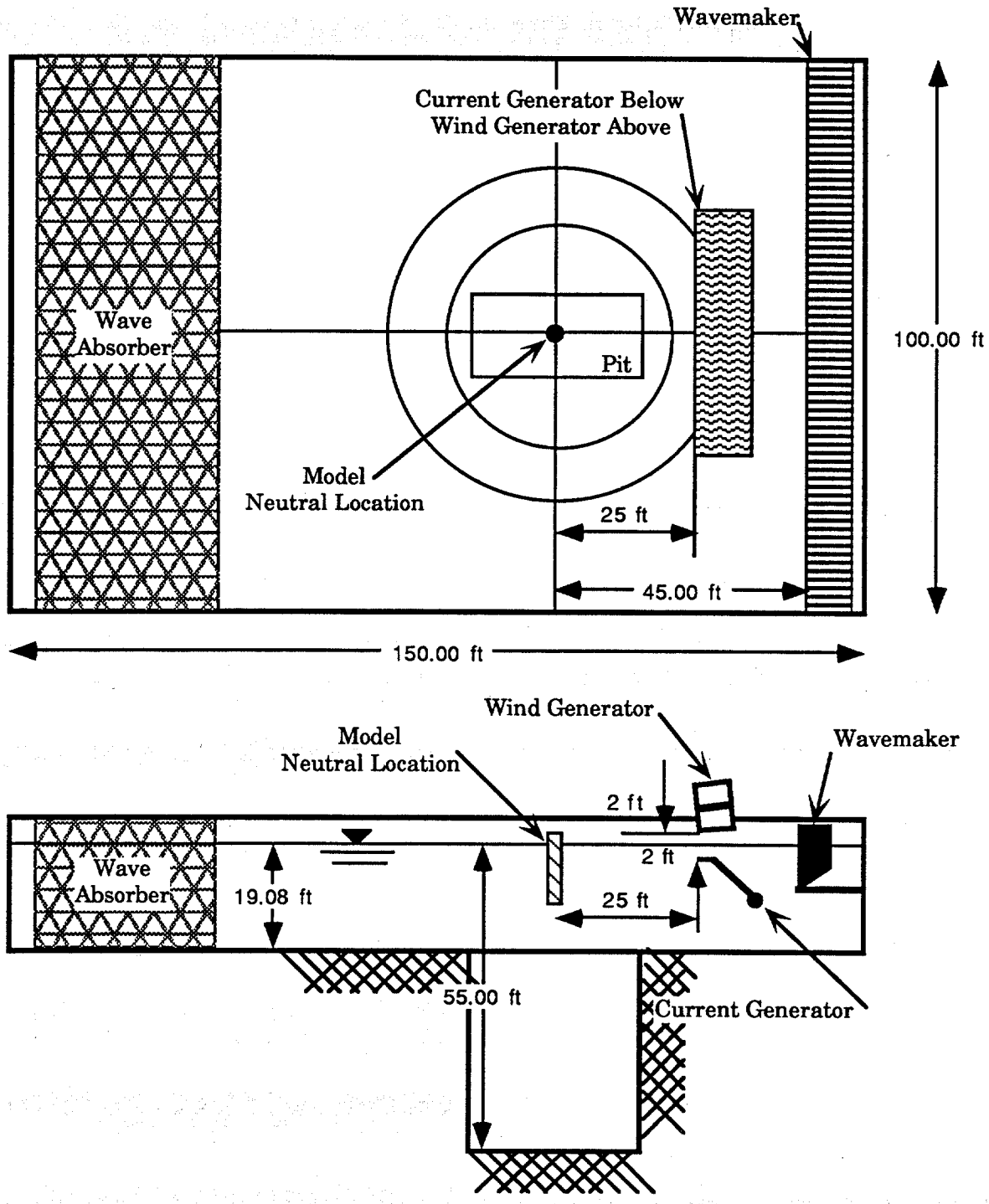


Table 2.1 Regular Waves

Drive Signal	H Target (Feet)	T Target (Seconds)	H Measured (Feet)	T Measured (Seconds)
RG3	6	6	6.03	6.00
RG4	12	7	11.85	7.01
RG5	15	8	15.32	8.01
RG6	18	9	17.80	9.00
RG7	20	10	20.57	10.00
RG8	20	12	19.47	12.00
RG9	20	14	19.98	14.01
RG10	20	16	20.55	15.99
RG11	20	17	20.94	17.00
RG12	20	21	19.86	21.00
RG13	10	14	10.95	14.00
RG14	20	13	20.59	13.00
BCL1	15	8.96	14.69	8.95
BCL2	20	12.81	20.38	12.82
BCL3	20	15.11	19.51	15.10
BCL4	10	15.11	9.86	15.10
BCL5	20	17.47	20.28	17.47
BCL6	20	18.67	20.94	18.62
BCL7	20	11.54	19.72	11.52
BCL8	20	14.29	19.53	14.29
BCL9	20	15.73	20.87	15.76
BCL10	20	17.21	20.37	17.21
BCL11	10	17.21	10.24	17.20
BCL12	20	20.34	20.29	20.33
BCL13	20	21.98	20.51	22.06

Table 2.2 Bi-Chromatic Waves

Drive Signal	H Target (Feet)	T Target (Seconds)	H Measured (Feet)	T Measured (Seconds)
BC1	15 / 15	8.0 / 8.96	15.32 / 14.69	8.009 / 8.95
BC2	20 / 20	12.0 / 12.81	19.47 / 20.38	12.00 / 12.82
BC3	20 / 20	14.0 / 15.11	19.98 / 19.51	14.01 / 15.10
BC4	10 / 10	14.0 / 15.11	10.95 / 9.86	14.01 / 15.11
BC5	20 / 20	16.0 / 17.47	20.55 / 20.28	15.99 / 17.46
BC6	20 / 20	17.0 / 18.67	20.94 / 20.94	17.00 / 18.62
BC7	20 / 20	10.0 / 11.54	20.57 / 19.72	9.995 / 11.52
BC8	20 / 20	12.0 / 14.29	19.47 / 19.53	12.00 / 14.29
BC9	20 / 20	13.0 / 15.73	20.59 / 20.87	13.01 / 15.76
BC10	20 / 20	14.0 / 17.21	19.98 / 20.37	14.01 / 17.21
BC11	10 / 10	14.0 / 17.21	10.95 / 10.24	14.01 / 17.20
BC12	20 / 20	16.0 / 20.34	20.55 / 20.29	15.99 / 20.33
BC13	20 / 20	17.0 / 21.98	20.94 / 20.51	17.00 / 22.06
BC14	20 / 15	13.0 / 8.96	20.59 / 14.69	13.01 / 8.95

making waves. Therefore, these data include an initial interval when the waves are in transition from calm to fully developed. Data collection for the bi-chromatic wave tests with the spar models also commenced when the wavemaker started.

Time series and summary statistics for the tests in which the bi-chromatic waves were created are provided in digital format on the data tape that accompanies this report.

2.1.4 Random Waves

Results of the tests in which the random waves were created are listed Table 2.3. All storm spectra were created with a JONSWAP spectral shape with a γ of 2.0. The operational and installation sea states were created with a modified Pierson-Moskowitz spectrum that specified the significant wave height, H_s, and the spectral peak period, T_p.

The North Atlantic storm condition is reported at a scale of 1:55. However, this condition should properly be scaled to 1:63.46 to obtain the wave heights and periods for such a storm in the North Atlantic. At a scale of 1:63.46 the sea state parameters are:

Hs = 53 ft
Tp = 17.5 sec

If these test results are to be used as a direct simulation of a spar in the North Atlantic then the model dimensions and test results must be modified by the factors presented in Section 3.1 of this report.

The current and the wind modified the wavetrains created with by the wavemaker. As indicated in Table 2.3, wavemaker drive signals were created for every combination of wave, current and wind that was tested.

During the setup phase, data collection for the random wave tests commenced 45 seconds, model scale, after the wavemaker started. This allowed sufficient time for the waves to become fully developed at the target location. However, in the random wave tests with the spar it was found that the spar was still in transition from calm to fully developed motion 45 seconds after initiation of the waves. It was judged that a 45 second delay was not sufficient time for the spar to achieve a stationary response. Therefore, the data collection delay interval was increased to 115 seconds for the tests with the spar. The results is that the time series for the random wave setup tests are shifted 70 seconds, model scale, 519.1 seconds, prototype, ahead of the wave tests with the spar.

Power spectral density plots for the waves at the mean offset position of the spar models are presented in Appendix A of this volume. Time series and summary statistics for the tests in which the random waves were created are provided in digital format on the data tape provided with this report.

Table 2.3 Random Waves

Drive Signal	Hs Target (Feet)	Tp Target (Seconds)	Hs Measured (Feet)	Tp Measured (Seconds)	Current	Wind
			100 Year, Gulf of Mexico Hurricane JONSWAP, $\gamma = 2$			
GOM1	43.0	14.0	43.85	14.11	None	None
GOMC1	43.0	14.0	43.58	14.11	4.3	None
GOMCW1	43.0	14.0	43.20	14.11	4.3	85
GOM2	43.0	14.0	44.00	13.84	None	None
GOMC2	43.0	14.0	43.11	13.84	4.3	None
GOMCW2	43.0	14.0	43.38	13.84	4.3	85
			North Atlantic Storm JONSWAP, $\gamma = 2$			
NS	45.9	16.3	46.50	16.21	None	None
NSC	45.9	16.3	45.96	16.21	5.3	None
NSCW	45.9	16.3	46.70	16.51	5.3	58.7
			10 Year, Gulf of Mexico Storm JONSWAP, $\gamma = 2$			
10YR	21.0	10.5	21.28	10.78	None	None
10YRC	21.0	10.5	21.16	10.28	6.3	None
10YRCW	21.0	10.5	21.68	10.17	6.3	43
			West Africa Storm JONSWAP, $\gamma = 2$			
AFR	21.0	10.5	12.29	16.01	None	None
AFRC	21.0	10.5	12.11	16.33	4.3	None
AFRCW	21.0	10.5	12.20	16.33	4.3	38
			Operational and Installation Sea States Modified Pierson-Moskowitz			
OP_4	8.0	7.7	8.36	7.59	None	None
OP _MDS	8.0	7.7	8.03	6.50	None	None
			Short-Crested Installation Sea State Modified Pierson-Moskowitz			
INSTALL_MDS	4.0	7.7	3.95	6.50	None	None

2.2 Current

2.2.1 Current Generation

Current was generated by pumping water through an array of nozzles to obtain a homogeneous flow through the local volume of space likely to be occupied by the model. Water, taken from behind the wave absorber, was pumped through these nozzles to create a jet induced horizontal flow. Current speed was controlled by a variable speed pump.

The current generator was located 25 feet, model scale, upstream from the neutral position of the spar models. The nozzles were standard 2 inch diameter pipe. They were 2 feet, model scale, below the surface. There were a total of 50 nozzles, spaced 9 inches center–to–center. The current generator design locates the large distribution manifolds and hoses deep in the water where there presence has minimal impact on the waves. Experience has shown that, for wave conditions typically used in the model basin, the presence of the current generating hardware has no detectable effect on the waves.

Observations of the waves in the presence of a co-linear current reveal that the crests become bent because of the transversely varying flow velocities. However, in the immediate vicinity of the model the wave crest is straight.

2.2.2 Current Profiles

Currents were created for:

- the 10 year Gulf of Mexico storm,
- the 100 year Gulf of Mexico hurricane,
- the North Atlantic storm, and
- the west Africa environment.

Figures 2.2, 2.3 and 2.4 show the achieved shear current profiles that were measured during the set up phase of the project. These profiles were measured at the estimated mean offset position of the mode, 18 inches downstream from the neutral position. The same pump settings and flow rate were used for both the 100 year Gulf of Mexico hurricane and the west Africa storm. The target current profile associated with the 10 year Gulf of Mexico storm was intended to be a Loop current condition. However, due to limitations of the current generating system the model current was not as deep as desired.

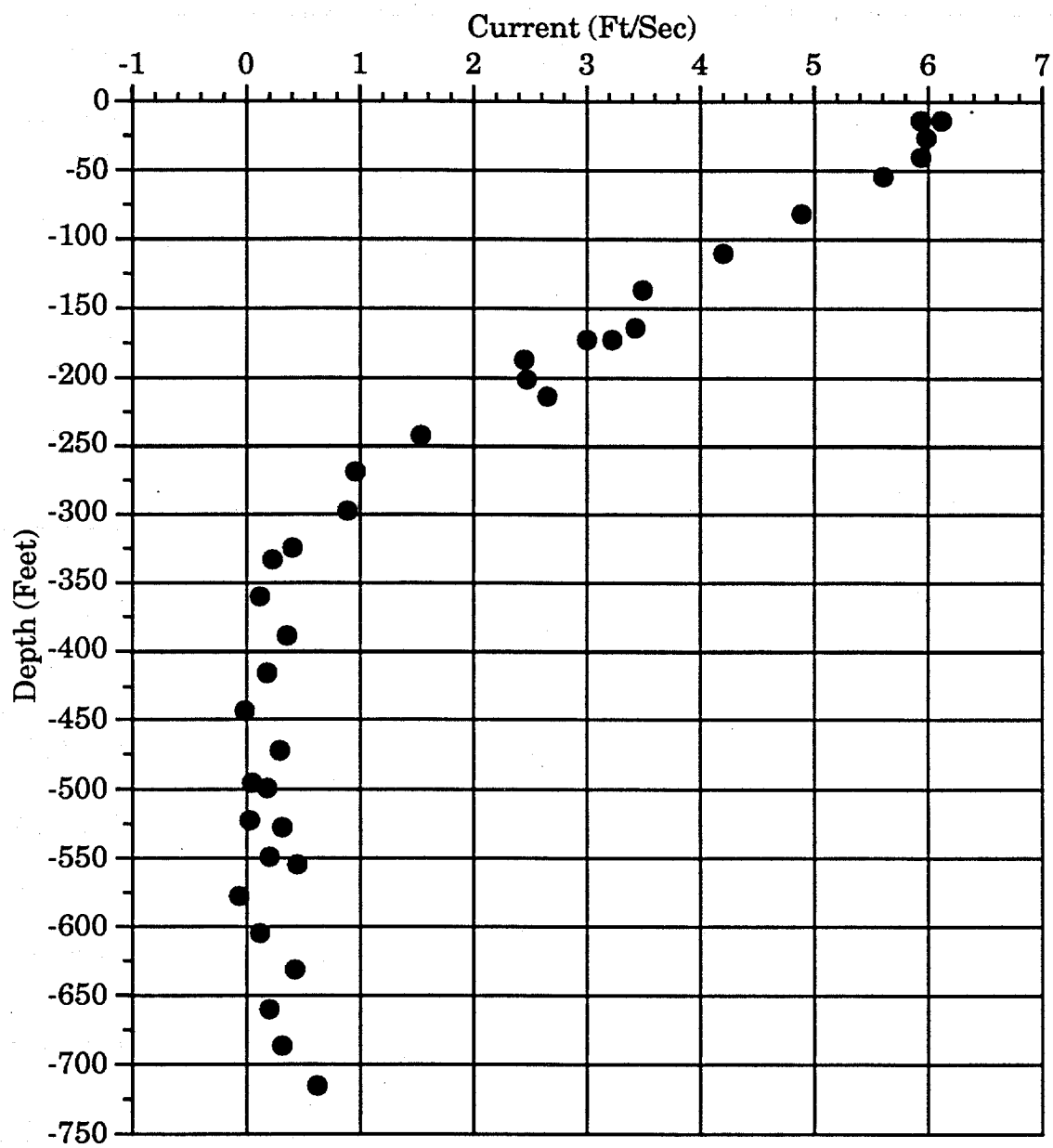
As with the waves, the North Atlantic storm current is reported at a scale of 1:55. However, this condition should properly be scaled to 1:63.46 to obtain the current velocities for such a storm in the North Atlantic. At a scale of 1:63.46 the surface velocity is 5.7 ft/sec. If these test results are to be used as a direct simulation of a spar in the North Atlantic then the model dimensions and test results must be modified by the factors presented in Section 3.1 of this report.

2.2.3 Current Fluctuations

Prior to initiation of the project there was some general discussion among the project sponsors concerning low frequency fluctuations in the current speed. Jet induced currents such as the ones in the OTRC model basin typically are not steady over all time scales. Project sponsors were warned that it would be difficult or impossible to separate low frequency motions of the spar induced by

Figure 2.2 10 Year Storm Current Profile

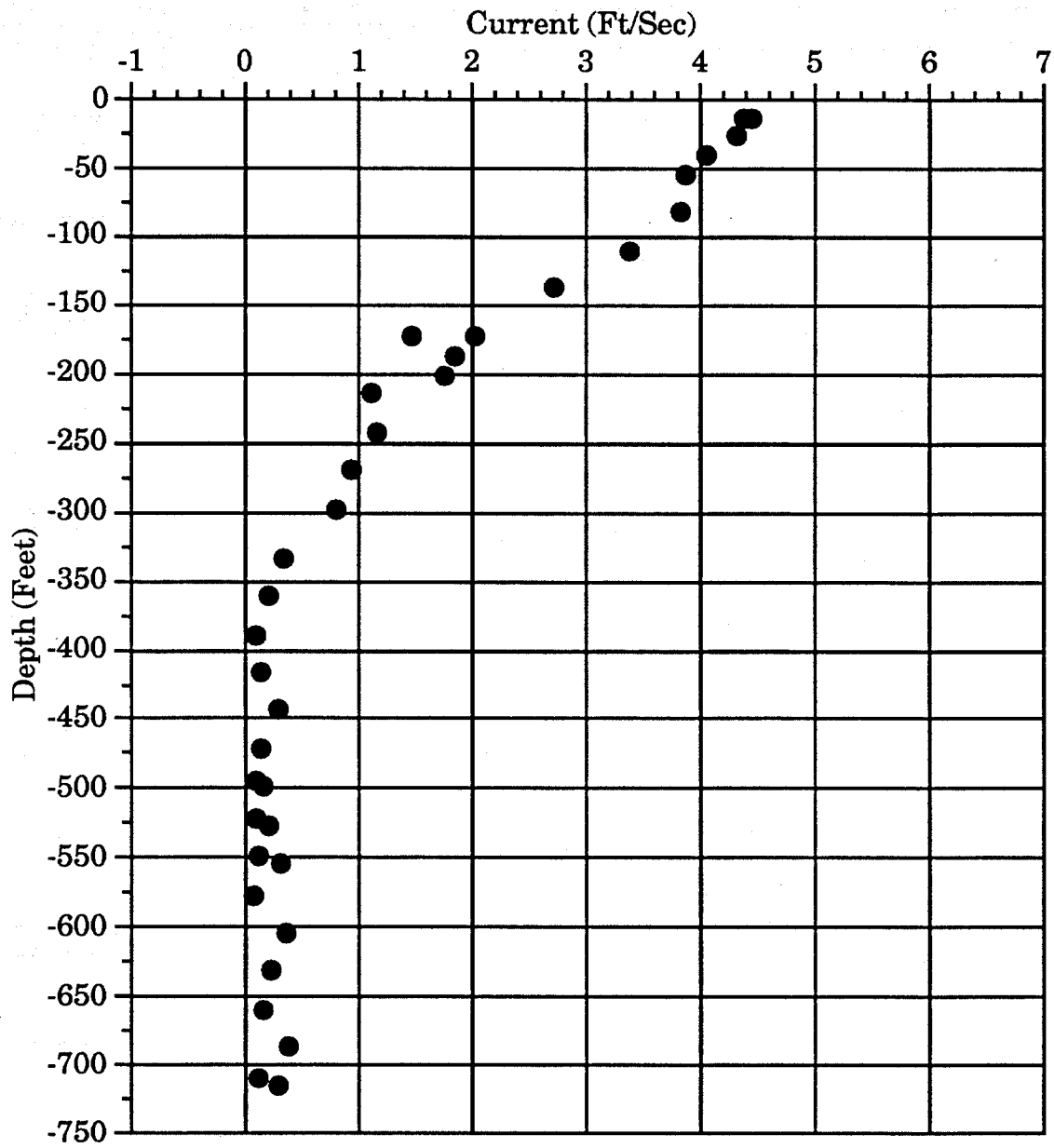
Target = 6.3 Ft/Sec Surface Current



Note: Values are prototype scale.

Figure 2.3 Gulf Of Mexico 100 Year Hurricane & West Africa Current Profile

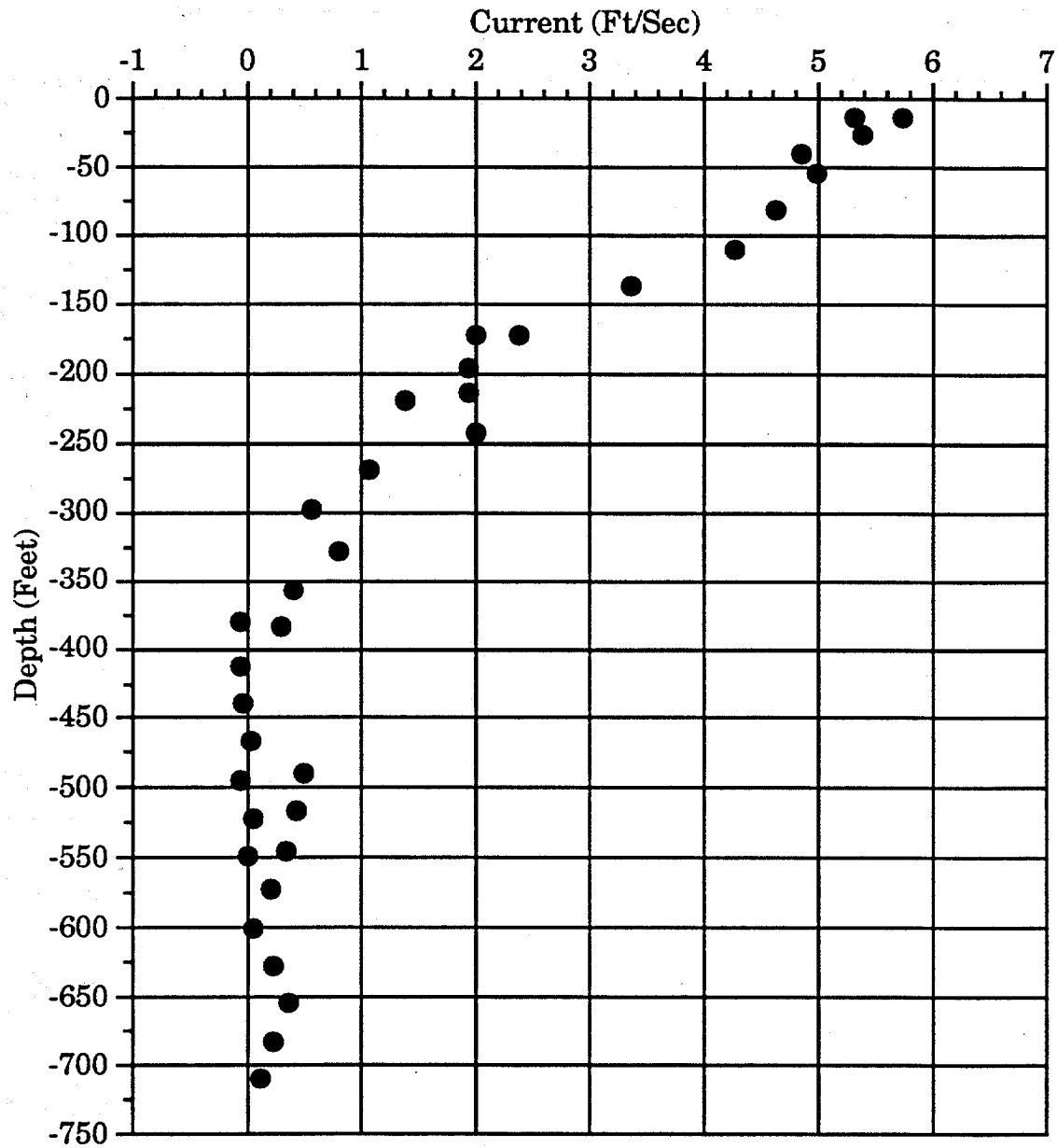
Target = 4.3 Ft/Sec Surface Current



Note: Values are prototype scale.

Figure 2.4 North Atlantic Current Profile

Target = 5.3 Ft/Sec Surface Current



Note: Values are prototype scale.

current fluctuations from low frequency wave drift forces or vortex induced vibrations at surge or sway resonant frequencies.

After the experiments with the spar models were concluded, additional data on the longitudinal and lateral current fluctuations were acquired. These post-project tests are listed in Table 2.4. Figure 2.5 shows the time series for the current near the surface for the 100 year Gulf of Mexico hurricane. Figure 2.6 is typical power spectral density distribution for this current. These two figures show that fluctuations in the current exist at low frequencies that could excite the surge or sway motions of the spar at the resonant frequency.

Time series and summary statistics for the post-project current tests are provided in digital format on the data tape that accompanies this report.

2.3 Wind

2.3.1 Wind Generation

Wind was generated by means of a bank of 16 variable speed fans mounted approximately 25 feet upwind of the model, 2 feet above the still waterline. One bank of 8 fans was placed on top of the other. The fans were tilted down at an angle of 7° from the horizontal to create a shear profile above the water surface in the vicinity of the model.

It is known from previous experience that the height of the boundary layer in the vicinity of the model is approximately 4.5 feet. The width of the area of uniform flow is approximately 20 feet. Wind speeds up to 28 knots, model scale, may be made.

The low frequency part of the offshore wind spectrum was simulated by controlling the rotation speed of the fans to produce a random gust velocity that varies over the duration of the experiment. Spectral matching of the gust spectra was done to replicate the target wind spectra.

2.3.2 Wind Spectra

The wind speed was measured with a spinning 3-cup anemometer located 18 inches, model scale, 82.5 feet, prototype, above the water and 18 inches downwind from the neutral position of the model in the mooring. An API wind spectrum was used as the target spectral shape. The $^1/_8$ power law shear profile was used to translate the target wind speed from from the reference height of 66 feet, prototype.

Nominal wind conditions are listed in Table 2.5. As with the waves and current, the North Atlantic wind is reported at a scale of 1:55. However, this condition should properly be scaled to 1:63.46 to obtain the speeds for such a storm in the North Atlantic. At the reduced scale of 1:63.46 the mean North Atlantic storm wind speed should be 63 knots. If these test results are to be used as a direct simulation of a spar in the North Atlantic then the model dimensions and test results must be modified by the factors presented in Section 3.1 of this report.

Table 2.4 Current Tests

Test Name	Surface Velocity (Ft/Sec)	Current Meter 1 Depth (Ft)	Current Meter 2 Depth (Ft)
	10 Year Gulf of Mexico Storm Current		
C10D6	6.3	27.5	137.5
C10D18	6.3	82.5	192.5
C10D48	6.3	220.0	330.0
	North Atlantic Storm Current		
CNSD6	5.3	27.5	137.5
CNSD18	5.3	82.5	192.5
CNSD48	5.3	220.0	330.0
	100 Year Gulf of Mexico Hurricane and West Africa Storm Current		
CGMD6	4.3	27.5	137.5
CGMD18	4.3	82.5	192.5
CGMD48	4.3	220.0	330.0

FIGURE 2.5 Typical Current Time Series

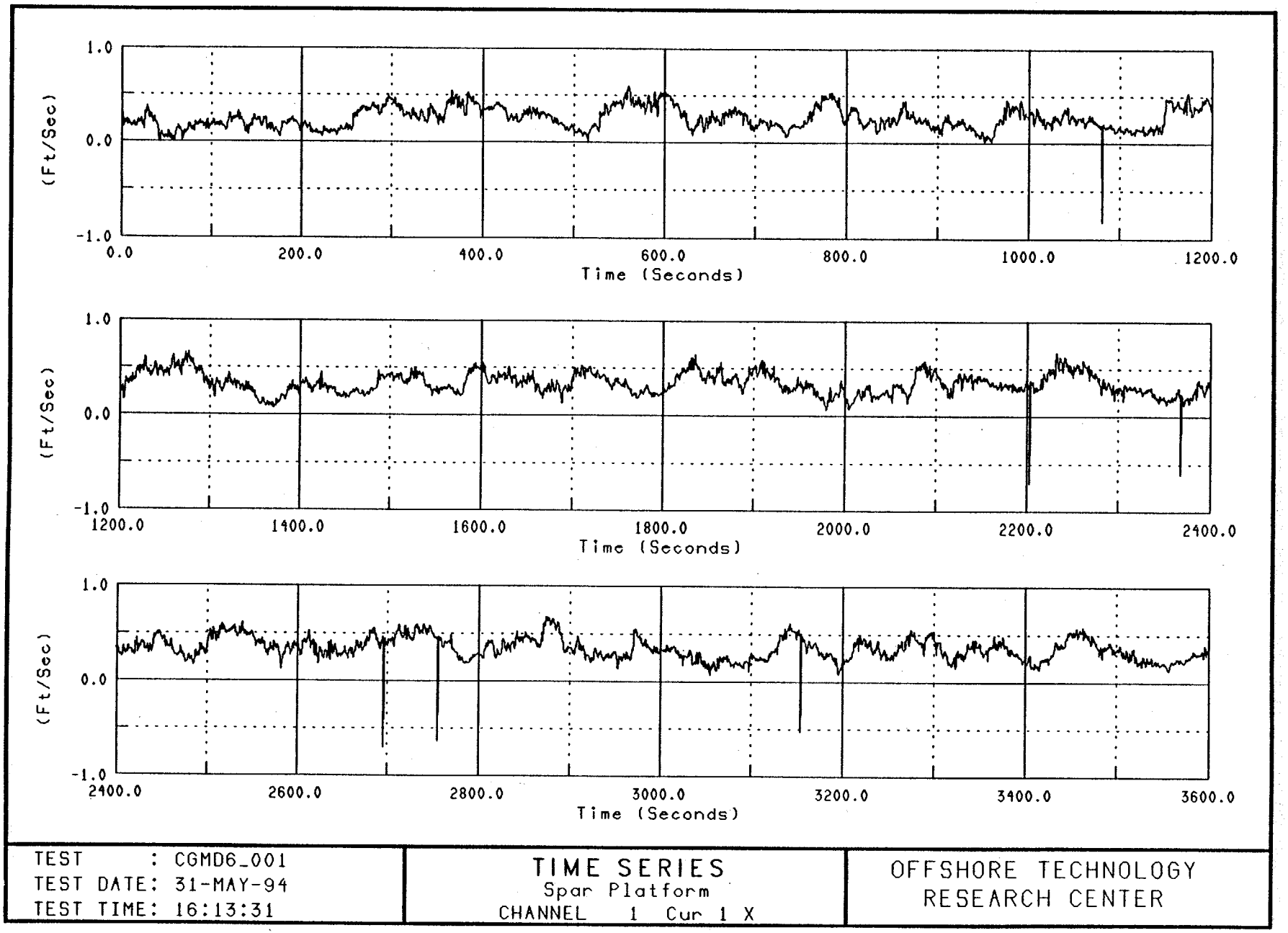


FIGURE 2.6 Typical Current Power Spectrum

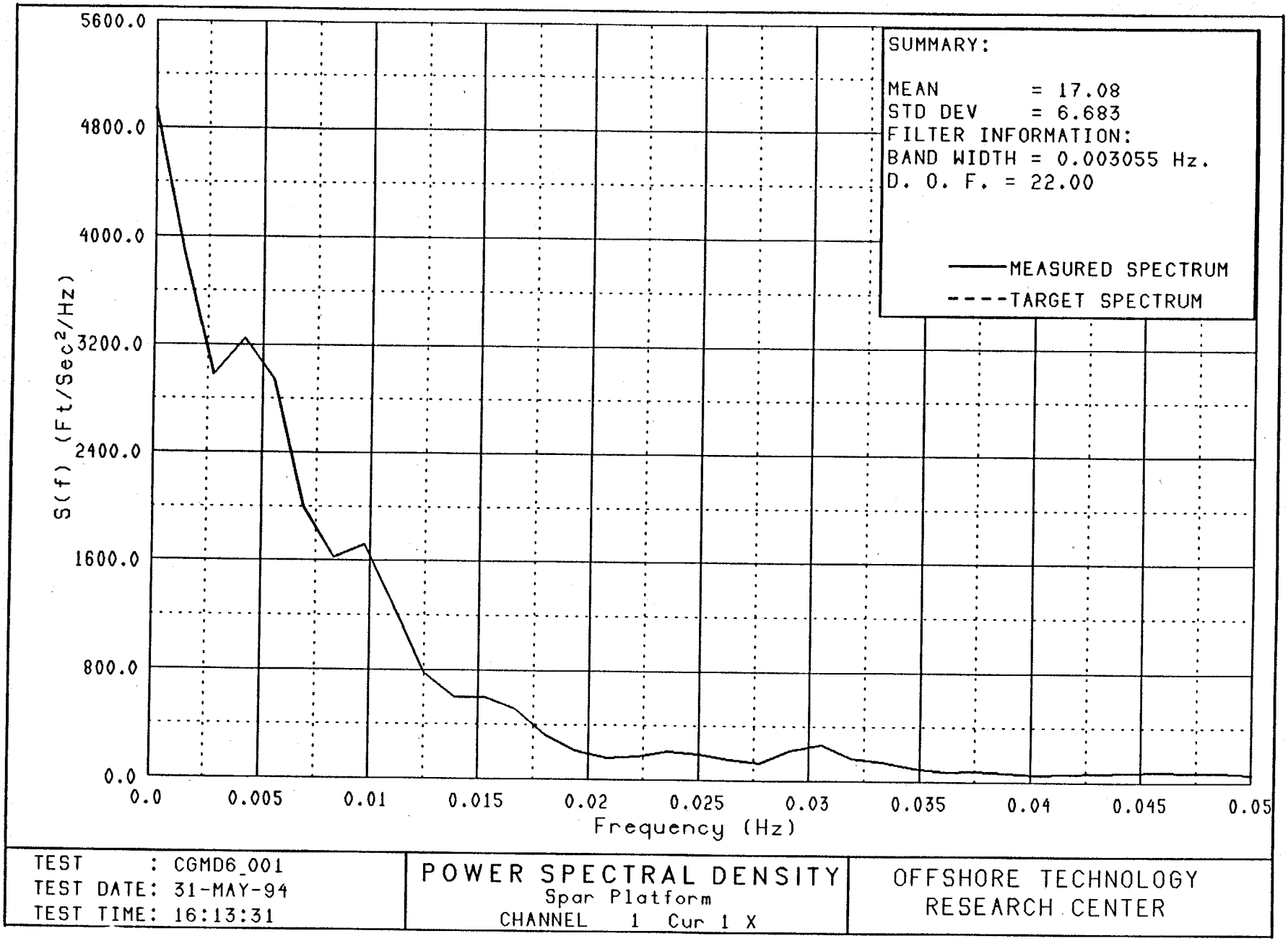


Table 2.5 Nominal Wind Conditions

Test Name	Mean Wind Speed	Environment
43Kt1	43	10 Year Storm
59Kt1	59	North Atlantic Storm
85Kt1	85	10 Year Gulf of Mexico Hurricane
85Kt2	85	10 Year Gulf of Mexico Hurricane
38Kt1	38	West Africa Storm

Note: Reference wind speed is at 66 feet above still water level.

Wind spectrum plots at the mean offset position of the spar models are presented in Appendix A of this volume. Time series and summary statistics for these tests are provided in digital format on the data tape that accompanies this report.

3.0 Models

3.1 Scaling Laws

The spar model tests were conducted using the Froude scaling law. The scale ratio for both the large spar and the small spar was 1:55. The conversion factors for various quantities is shown in Table 3.1. As noted in Section 2, the North Atlantic environment for waves, current and wind calls for larger waves, higher currents and higher winds than were modeled at 1:55 scale. The environments that were generated and used in this test program properly scale to a ratio of 1:63.46 to represent conditions in the North Atlantic. However, all results from this project are reported at 1:55 scale. To apply the North Atlantic test results directly one must increase the dimensions for the spar models and the measured data by the factors listed in Table 3.1.

3.2 Large Spar

3.2.1 Dimensions and Mass Properties

3.2.1.1 Hull

Primary dimensions and mass properties for the large spar were provided by Deep Oil Technology. The large spar model was built out of aluminum by Amoco Production Company. "Hard tanks" located at the top of the spar provide buoyancy. The moonpool and the centerwell space beneath the "hard tanks" floods through the keel. Figure 3.1 is a sketch revealing the primary dimensions and some of the internal structure of the hull model. Table 3.2 lists some of the principal particulars of the large spar design.

For ease of construction and transportation the cylindrical hull was fabricated in two pieces. The upper piece contains the "hard tanks" and the moonpool. The "hard tanks" were plumbed so that they could be flooded and purged for the tests addressing deck installation, Configurations O and P. The lower piece of the hull was mostly hollow, with a guideplate at the keel, another at the bottom of the centerwell and structural stiffener rings.

The model mass properties of the spar hull were adjusted using four ballast tubes. These tubes extend the length of the hull through the "hard tanks" and the lower centerwell to the keel. The ballast tubes displace water in the centerwell. The ballast tubes were sealed at the top of the hull to prevent water from entering. Lead shot was placed in the tubes at the appropriate elevations, separated by foam blocks, to obtain the target mass properties. Table 3.3 lists the target and achieved mass properties for the model in air.

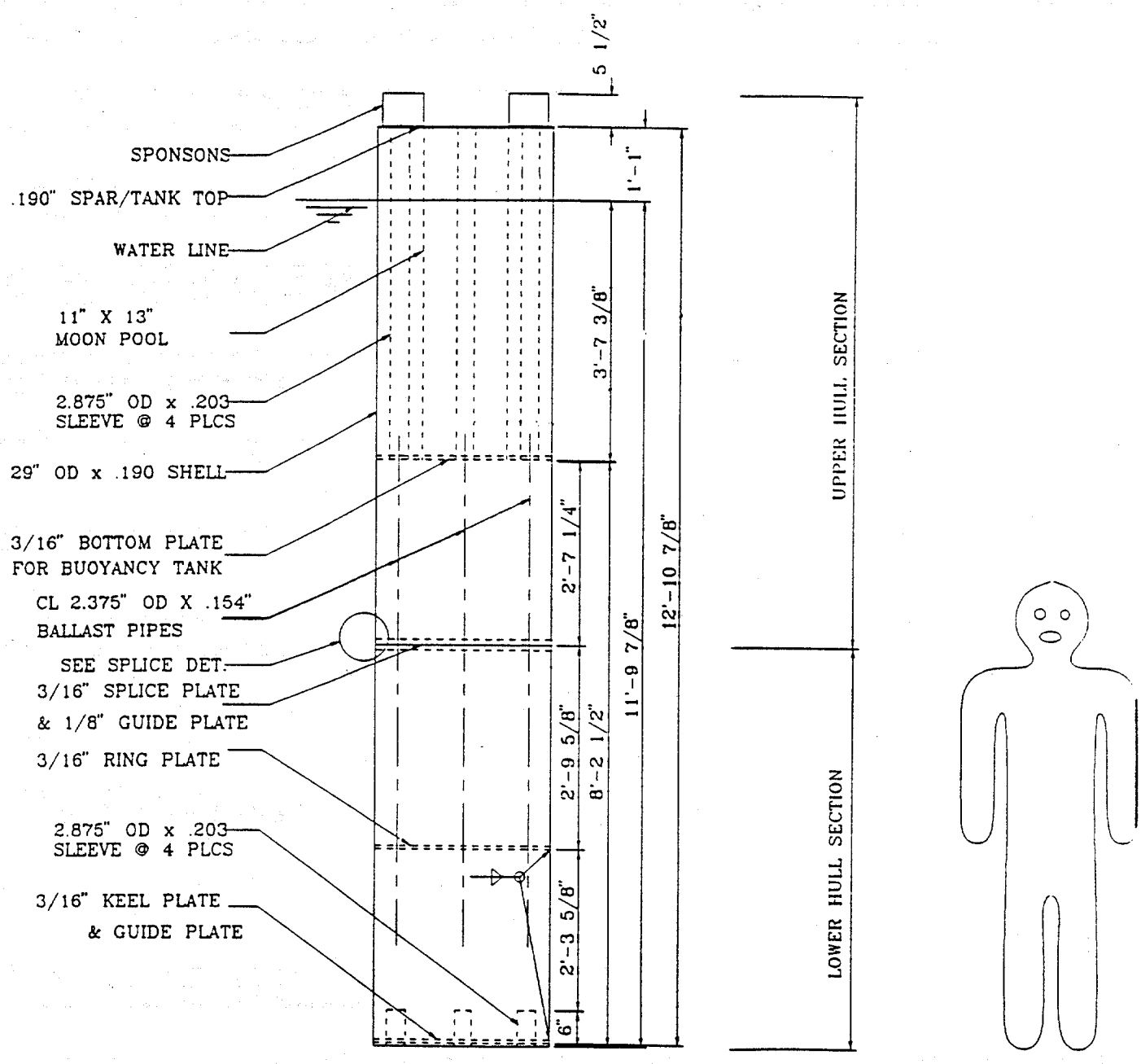
For Configurations F, F1 and F2, 20 risers were installed. The risers were anchored at a depth of 3025 feet, prototype, 55 feet, model scale. They passed through the guide plate at the keel, up through the centerwell. Buoyancy cans in the moonpool held up the risers.

Table 3.1 Froude Scale Relationships

Quantity	Scale Relationship	Scale Value
Length	λ	55.000
Time	$\lambda^{1/2}$	7.416
Velocity	$\lambda^{1/2}$	7.416
Acceleration	1.0	1.000
Rotation	1.0	1.000
Force	$(\rho_s/\rho_f)\lambda^3$	170,641.026
Weight	$(\rho_s/\rho_f)\lambda^3$	170,641.026

Modification Factors for North Atlantic Test Results

Quantity	Modifier Relationship	Modifier Value
Length	63.46/55	1.1538
Time	$(63.46/55)^{1/2}$	1.0742
Velocity	$(63.46/55)^{1/2}$	1.0742
Acceleration	1.0	1.000
Rotation	1.0	1.000
Force	$(63.46/55)^3$	1.5361
Weight	$(63.46/55)^3$	1.5361



Note: Dimensions are model scale

FIGURE 3.1 Large Spar Hull Drawing

Table 3.2 Large Spar Principal Particulars

	Prototype		Model	
Hull				
Diameter	133.0	ft	2.42	ft
Draft	650.0	ft	11.83	ft
Length	710.0	ft	12.91	ft
Hard Tank Depth	192.5	ft	3.50	ft
Fairlead Depth	350.0	ft	6.36	ft
Moonpool Width	50.0	ft	0.91	ft
Moonpool Length	60.0	ft	1.09	ft
Sponson Length	29.79	ft	0.54	ft
Sponson Width	36.67	ft	0.67	ft
Sponson Height	25.21	ft	0.46	ft
Deck				
Length	232.00	ft	4.22	ft
Width	232.00	ft	4.22	ft
Height	1.00	ft	55.00	ft
Slot Length	177.42	ft	3.23	ft
Slot Width	50.42	ft	0.92	ft

Table 3.3 Large Spar Mass Properties in Air

	Prototype Target		Model Achieved (Prototype Units)		Model Achieved (Model Units)	
Hull						
Weight	127,277	kips	127,298	kips	764.00	lbs
KG	375.67	ft	375.56	ft	81.94	in
Pitch Gyradius	231.99	ft	226.69	ft	49.46	in
Roll Gyradius	231.99	ft	226.69	ft	49.46	in
Deck						
Weight	27,041	kips	27,047	kips	158.50	lbs
KG	749.74	ft	749.74	ft	163.58	in
Pitch Gyradius	–		92.90	ft	20.27	in
Roll Gyradius	–		87.73	ft	19.14	in

The mass properties of the spar hull in air are quite different from the mass properties in water due to flooding of the centerwell. The volume of water displaced by the hull and the ballast tubes was determined by dipping the model in the water and weighing it as it was lowered. The change in weight is equal to the water displaced by the structure. This weight does not include the water in the flooded sections. Figure 3.2 presents the hull weight as a function of draft. The data is listed here in tabular form as well.

Eyebolts were placed 5.45 feet, model scale (300 feet, prototype) above the keel to serve as attachment points for the mooring lines. These bolts penetrated the hull in the section of the flooded centerwell below the "hard tanks".

3.2.1.2 Deck

The deck model was constructed from aluminum. It consisted of a lower watertight box and an upper deck mounted on a frame. The lower watertight box had an 11 inch wide x 38.71 inch long slot, 50.4 foot x 177.4 foot, prototype, to allow for the deck to mate with the spar hull. A model derrick was also mounted to the top of the upper frame. The mass properties of the deck model are listed in Table 3.3 with the data for the spar hull. Figure 3.3 is a sketch of the deck model.

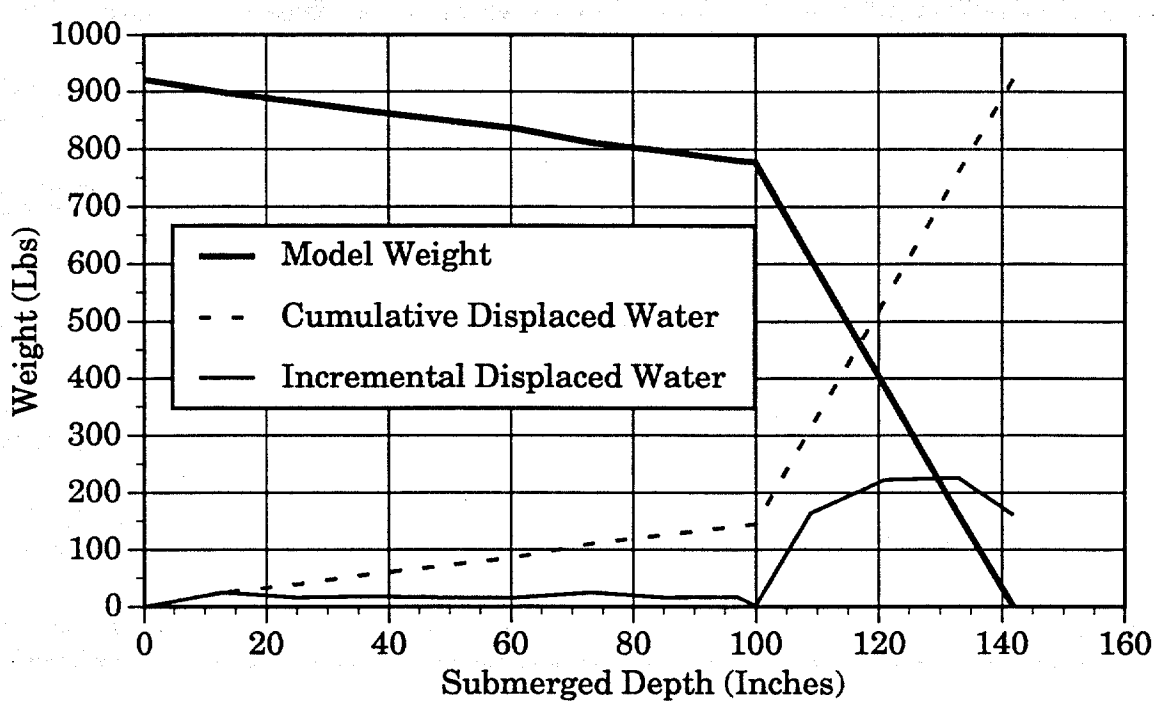
The deck was modified slightly from the delivered configuration to obtain the target wind drag. The upper frame was blocked off with tape on the upwind side and a solid plate was attached to the derrick to provide additional surface area for the wind to work on.

For Configuration N the deck was floating in a soft mooring. For Configuration P the deck was both floating and slid off a barge. Four electric winches were mounted to the deck to pull it onto the top of spar during the Configuration P mating tests. A more complete description of the winch layout is presented in the discussion of the Configuration P tests in section 7.12.

3.2.1.3 Strakes

Configurations F1, F2, H, J, O and P were tested with three evenly spaced helical strakes attached to the hull for vortex suppression. The strakes consisted of 3.0 inch high x 0.0625 inch thick, model scale, 13.75 ft high, prototype scale, PVC strips bent around the hull. The strakes were fixed to the hull with large hose clamps and small pieces of aluminum angle. No holes were drilled into the hull. Due to the mounting method there was a 0.125 inch gap between the hull and the root of the strakes. The strakes started 24 inches, 110 feet, prototype, below the top of the hull and extended clockwise around the hull for a vertical distance of 60 inches, 275 feet, prototype. The screw pitch angle was 57.9°.

Figure 3.2 Large Spar Displacement



Draft (Inches)	Weight Displaced Water (Lbs)	Cumulative Displaced Water (Lbs)	Incremental Displaced Water (Lbs)
141.81	0	921	161
132.94	161	760	225
120.94	386	535	222
108.94	608	313	164
100.25	772	149	5
99.88	777	144	0
99.56	777	144	3
96.94	780	141	16
84.94	796	125	15
73.00	811	110	24
60.88	835	86	15
48.88	850	71	15
36.88	865	56	17
24.88	882	39	15
12.88	897	24	24
0.00	921	0	0

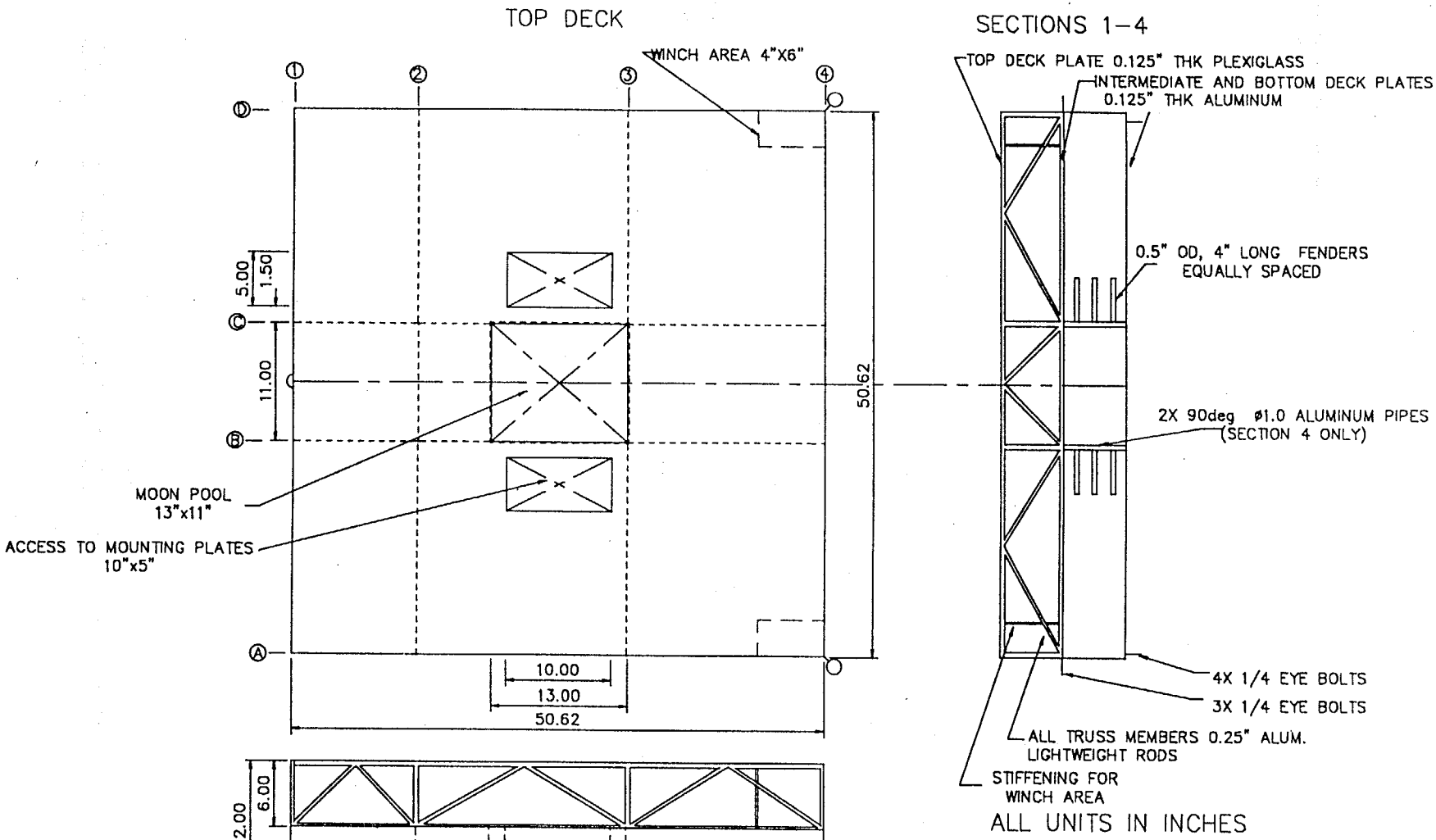


FIGURE 3.3 Large Spar Deck Model

3.2.1.4 Keel Guide Plate

The keel of the spar was open to allow the risers to pass through. A 0.125 inch thick aluminum keel guide plate was fixed to the keel. Figure 3.4 is a sketch of the keel guide plate looking down from above Risers 1, 2, 3 and 4 were on the side of the spar towards the wavemaker, also called the "bow". Risers 1, 5, 9, 13 and 17 were located on the "port" side.

The holes for the risers were 1.00 inch in diameter, 4.58 ft, prototype, spaced 2.75 inches apart, 12.60 feet, prototype, on the transverse axis and 2.5 inches, 11.46 feet, prototype, apart on the longitudinal axis. Nine extra holes, with a diameter of 1.75 inches, were cut in the guide plate to allow a more free flow of water through the keel. The guideplate located in the centerwell was given similar treatment.

Guide Hole 1 was instrumented with x and y shear load cells to measure the side loads imposed by the riser keel joint. The load cells were bolted to the inside of the keel of the model.

3.2.1.5 Risers, Keel Joints and Buoyancy Cans

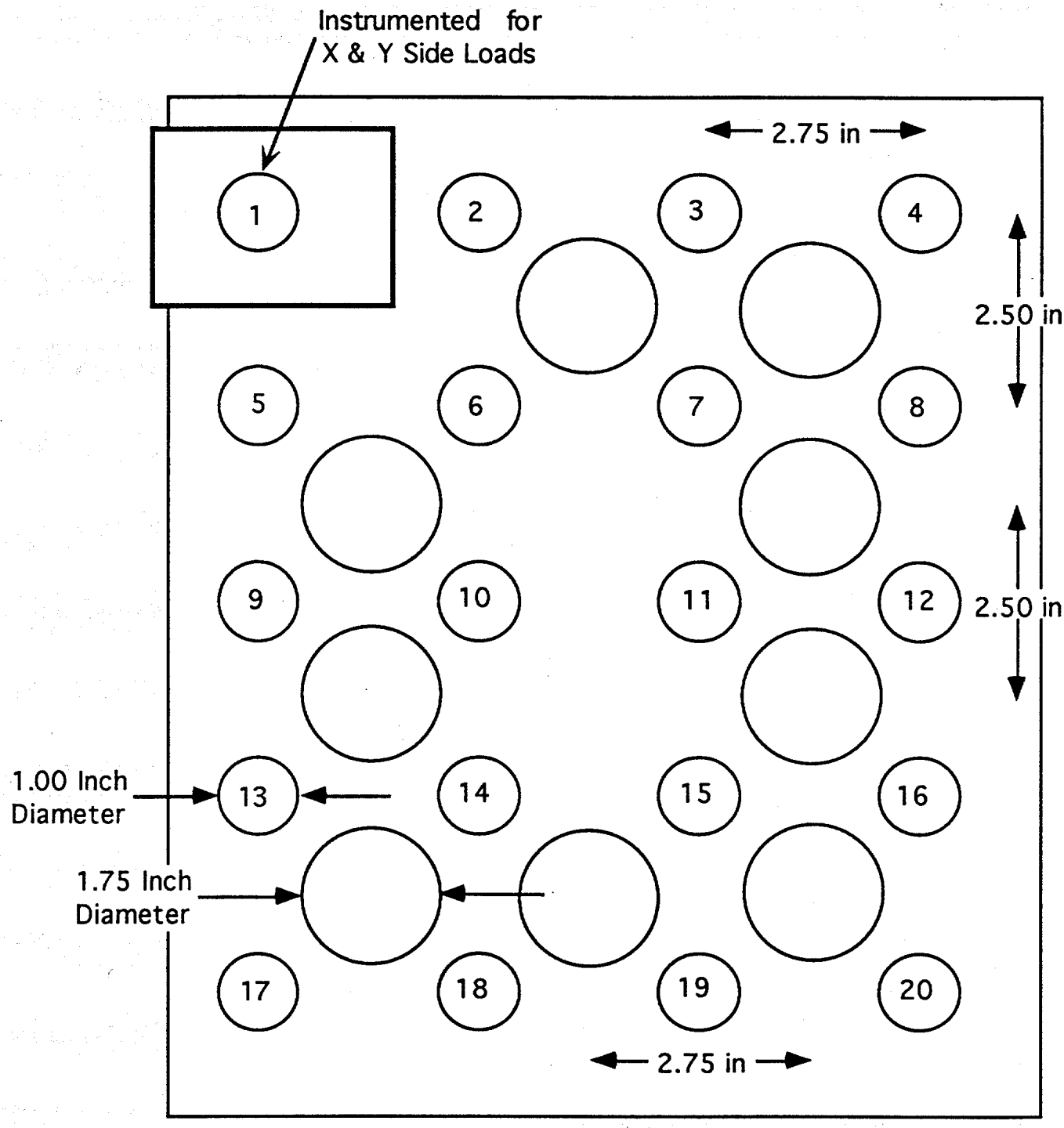
Twenty risers, keel joints and buoyancy cans were fabricated and used in Configurations F, F1 and F2. Figure 3.5 presents a schematic view showing a buoyancy can in the moonpool, a riser passing through the centerwell, the riser keel joint and the riser extending to the floor of the pit. The pattern of the seafloor template was the same spacing as the keel guideplate, shown in Figure 3.4.

The risers were made from 0.125 inch diameter wire rope. The nominal linear weight is 0.024367 lbs/ft, model scale, 75.6.6 lbs/ft, prototype. The length of risers between the buoyancy cans and the riser keel joint was 125.625 inches, model scale, 575.8 feet, prototype. The length between the buoyancy can and the floor of the pit was approximately 518.125 inches, model scale, 2375 feet, prototype.

The riser keel joints pass through the keel at the keel guide plate. These joints provide a stiff tube to rub against the sides of the holes in the guideplate. The model joints were made from 12 long long x 0.125 inch diameter copper tubing. The model joints were allowed to flood. The submerged weight of the joints was 0.07 lbs, model, 12 kips, prototype. A joint is illustrated in Figure 3.6.

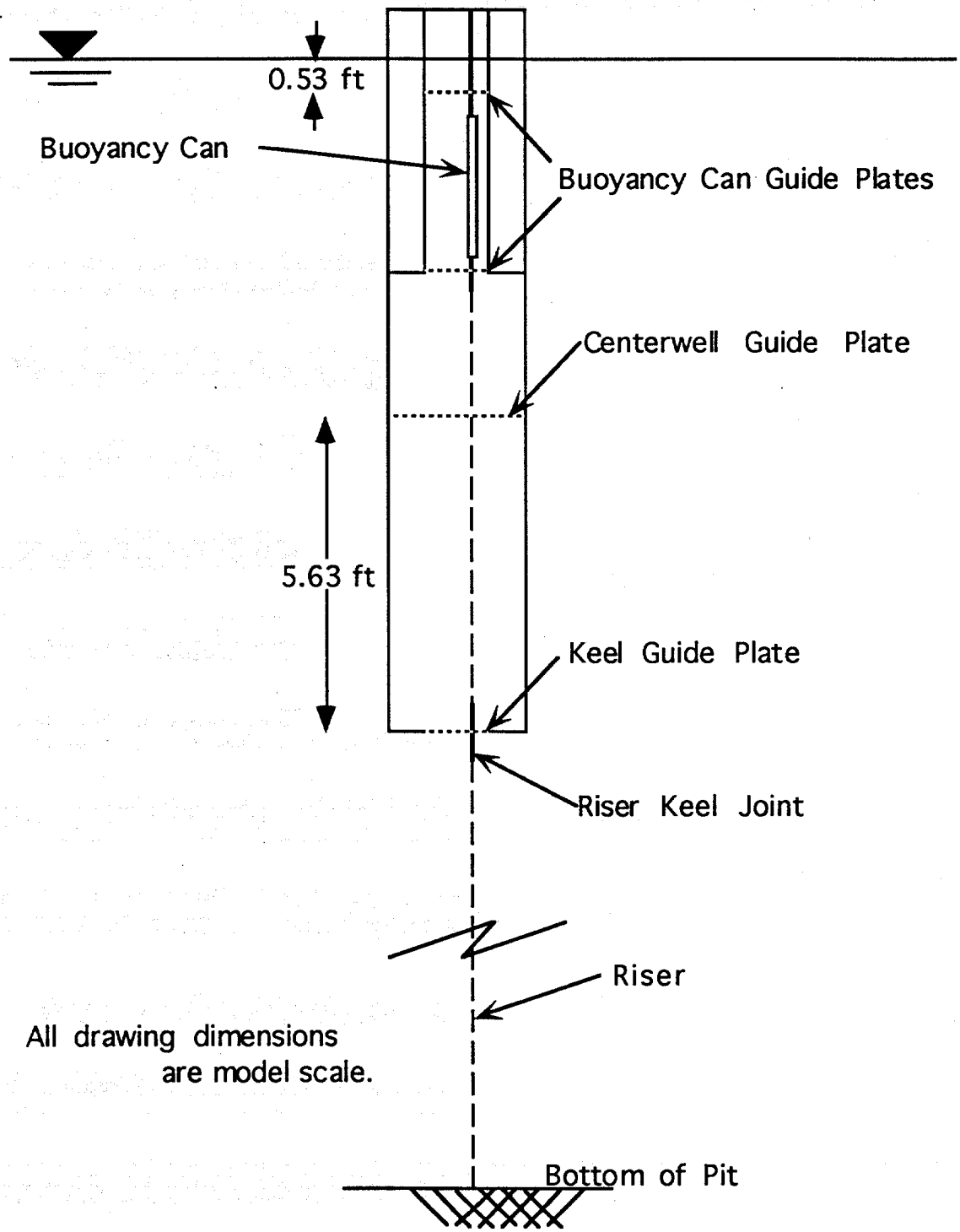
The buoyancy cans were made from PVC pipe. The dimensions are shown in Figure 3.6. Ballast, in the from of lead shot, was added to make the tension at the keel equal the target value of 1.22 lbs, model scale, 207.6 kips, prototype. This resulted in a buoyancy can weight of approximately 2.89 lbs, model, 493 kips, prototype.

Figure 3.4 Keel Guide Plate



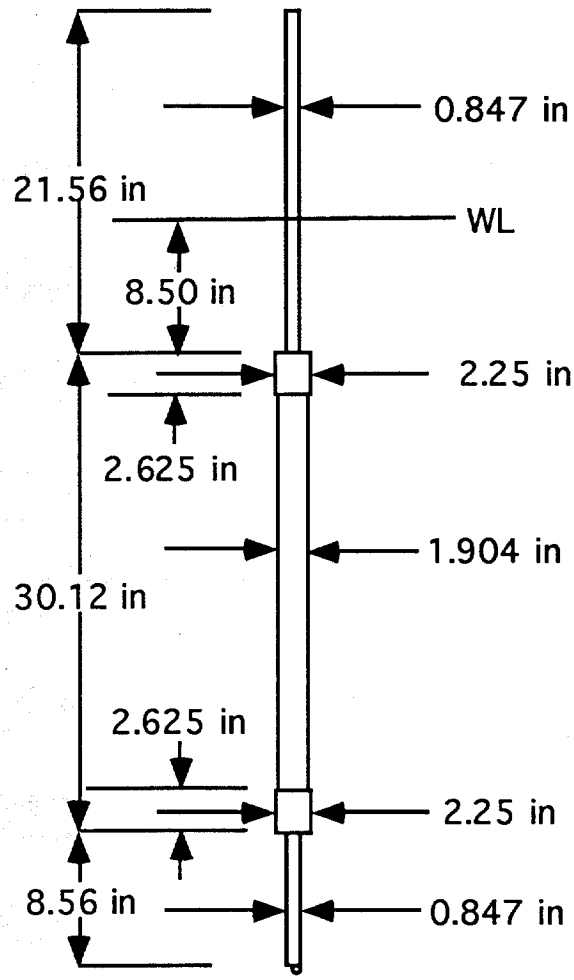
Note: All drawing dimensions are model scale.

Figure 3.5 Buoyancy Can, Riser and Guide Plate Layout



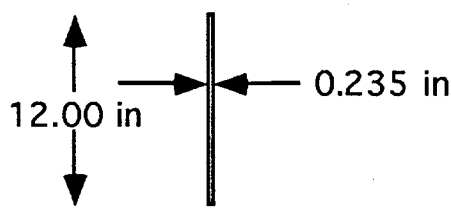
Note: All drawing dimensions are model scale.

Figure 3.6 Buoyancy Can and Riser Joint Dimensions



Buoyancy Can

Material: PVC Pipe



Riser Keel Joint

Material: Copper Tubing

3.2.2 Moorings

3.2.2.1 Simulated Mooring

The large spar mooring system consisted of four mooring legs equally distributed around the hull. The mooring lines for the small spar each contained a series of linear springs. Three sets of springs in series were used. Two sets of springs were tied off with cable to prevent them from stretching beyond a specified length. In this way, a piecewise linear tension–extension curve was constructed to approximate the non-linear restoring function of the prototype taut mooring. The target tension–extension curve for the individual lines in the large spar mooring system is summarized in Figure 3.7.

The weight of the entire multiple spring assembly in air was 1.85 lbs, 316.7 kips, prototype. Small foam floats were attached to each spring to make them neutrally buoyant in water. The springs were fitted to the anchor end of the mooring lines.

The spar model was located over the center of the pit when no environmental loads were imposed to move it from the neutral position Mooring Leg 1, which defines the "bow", was directed towards the wavemaker. The remaining mooring legs were located counter-clockwise at 90° increments when viewed from above. Figure 3.8 presents a plan view of the mooring system. Figures 3.9 and 3.10 show elevation views of the starboard the side and the front.

Mooring line pretension was set by means of deadweights. The model mooring lines passed through pulleys 1.00 inch above the basin floor at the anchor locations back to the surface. Pretension was set to approximately 6.73 lbs, 1148 kips prototype, by hanging a deadweight on each mooring line. Mooring line tensions were measured on each line with strain-gaged tension cells at the connection to the fairleads. After pretensions were measured and confirmed to be within tolerance the lines were clamped to lock the pretension and anchor them. Results of pretension tests showing the actual conditions prior to experiments are included in the data.

The springs under pre-tension were approximately 82 inches long, model scale. The mooring line between the model and the springs was approximately 164 inches long, model scale. The springs were approximately 0.85 inches in diameter and 1.47 lbs in air. The mooring wire was 0.0625 inches in diameter.

The final measure of merit of the model mooring system was the ability to replicate the target static offset curves for the assembled mooring system. The achieved static offset results are presented in Section 7 for each configuration for which these tests were conducted.

3.2.2.2 Restraints

Configurations B, C and D included specially designed horizontal restraints to permit measurement of transverse and in-line loads. These restraints were designed to provide response frequencies in surge, sway, roll and

Figure 3.7 Large Spar Target Stiffness Curve for Individual Mooring Lines

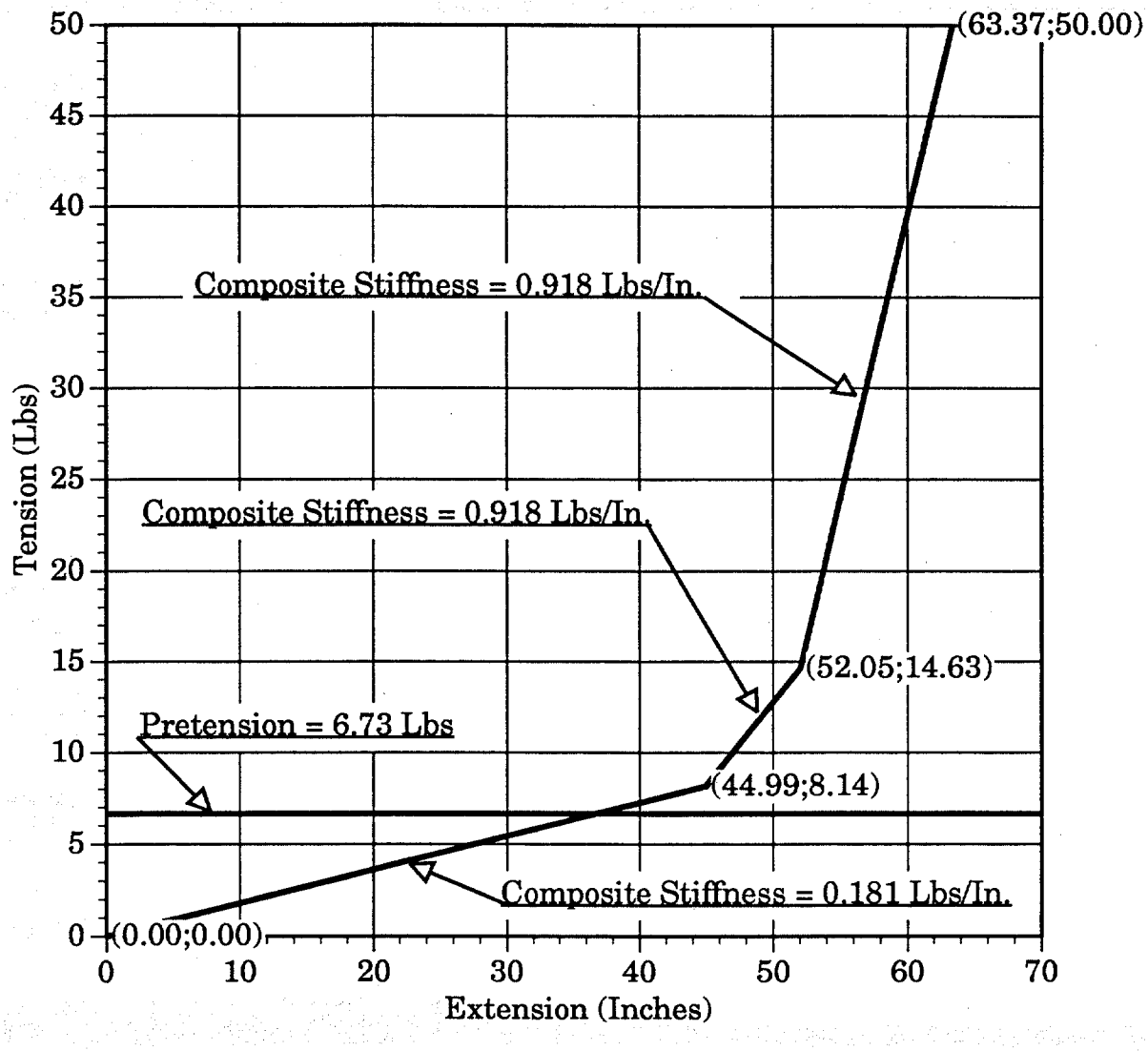


Figure 3.8 Large Spar Mooring Plan

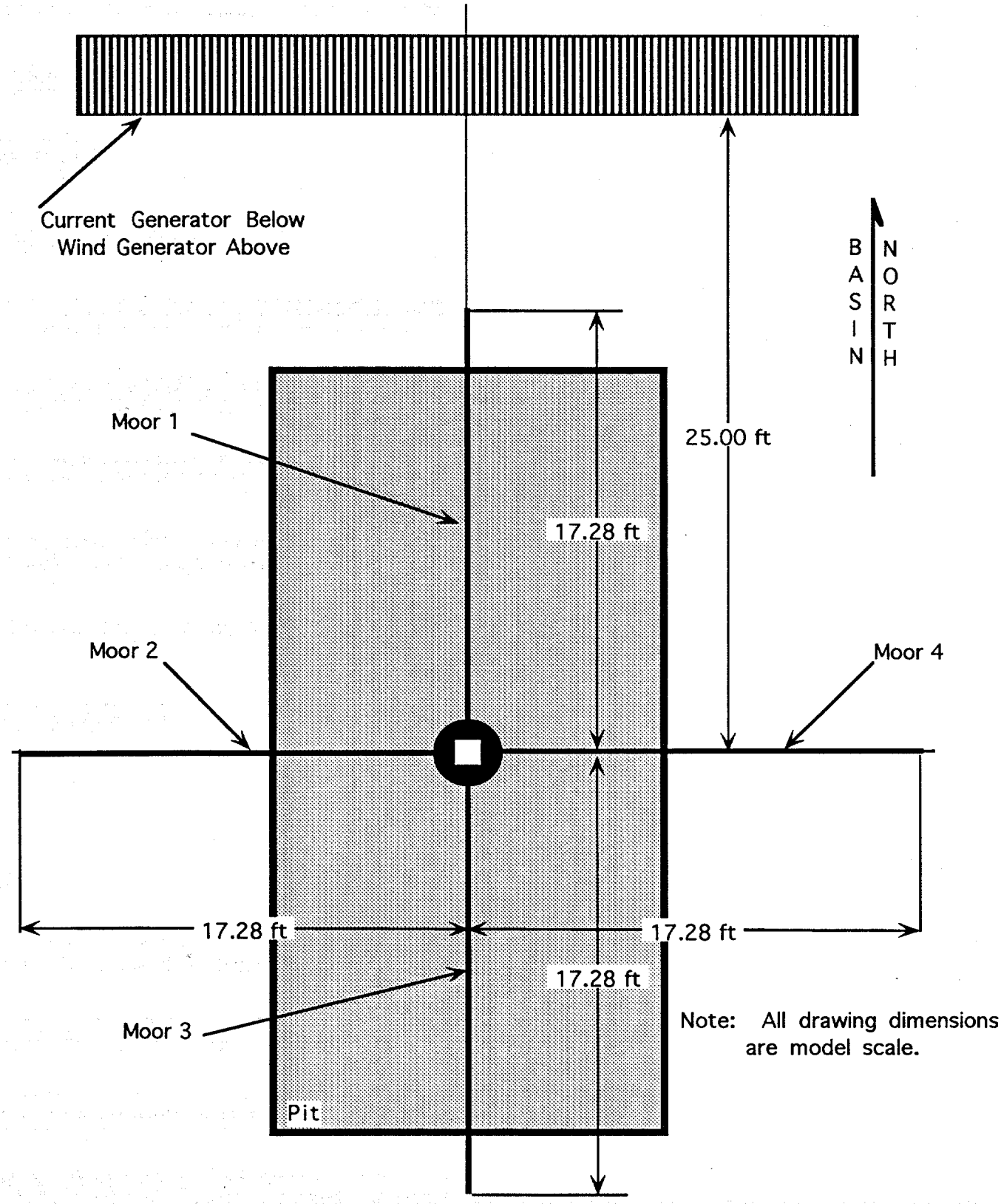
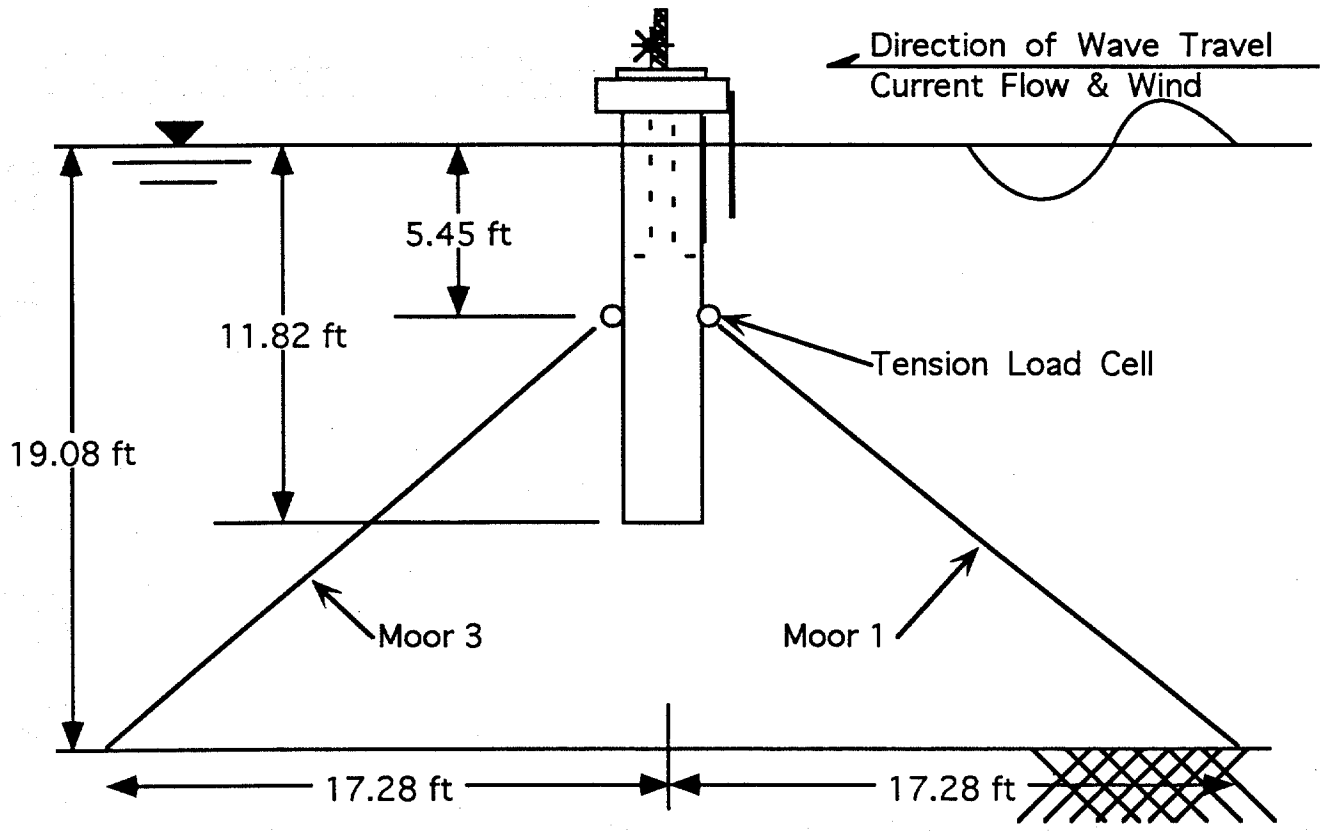


Figure 3.9 Large Spar Mooring Profile

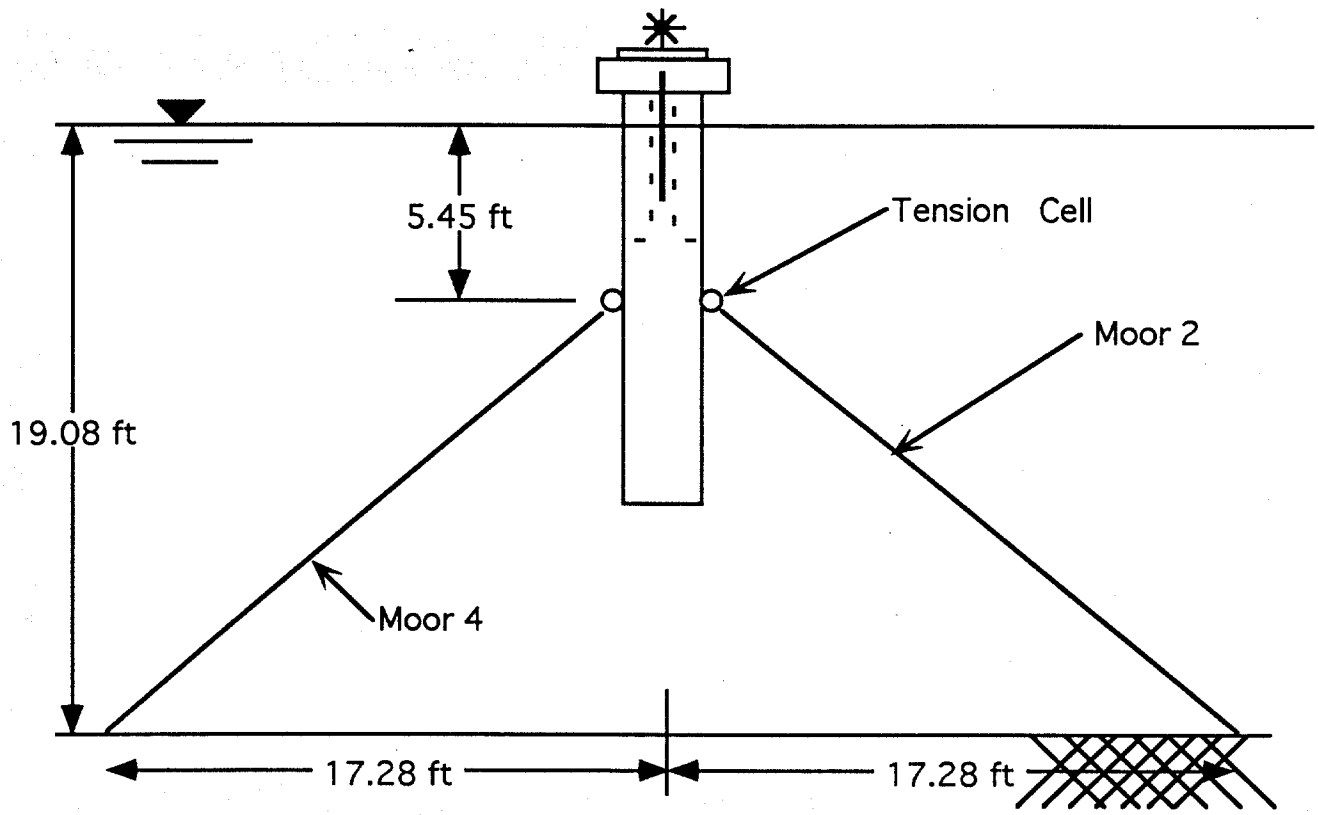


Note: All drawing dimensions are model scale.

Applicable to :

- Configuration A
- Configuration B
- Configuration F
- Configuration F1
- Configuration F2
- Configuration H
- Configuration J
- Configuration O

Figure 3.10 Large Spar Mooring Front Elevation



Note: All drawing dimensions are model scale.

Applicable to :

- Configuration A
- Configuration D
- Configuration F
- Configuration F1
- Configuration F2
- Configuration H
- Configuration J
- Configuration O

pitch that were well below the wave frequencies but above the natural frequencies of the spar in the simulated taut mooring system used in Configurations A, F, H and J.

The lateral restraints were attached to the hull 5.00 feet below the waterline, 275 feet, prototype, and 8.24 inches below the keel, 37.8 feet, prototype. The upper lateral restraint lines were approximately 43.4 feet long. In-line springs in both of these upper lines has a stiffness of approximately 13.9 lbs/inch, model scale. The lower lateral restraint lines were approximately 44.1 feet long. In-line springs in both of the lower lines has a stiffness of approximately 3.5 lbs/inch, model scale.

The longitudinal restraints were also attached to the hull 5.00 feet below the water surface and 8.24 inches below the keel. The upper longitudinal restraint springs had a stiffness of approximately 14.2 lbs/inch. The lower springs has a stiffness of approximately 3.6 lbs/inch. The upper longitudinal restraints were approximately 11.3 feet long. The lower restraints were approximately 12.2 feet long.

The particulars for each configuration are described in the Section 7.

3.3 Small Spar

3.3.1 Dimensions and Mass Properties

Primary dimensions and mass properties for the small spar were provided by Shell Development Company. The small spar model was built out of aluminum by Amoco Production Company. Table 3.4 lists the principal particulars of the small spar. Figure 3.11 is a sketch revealing the primary dimensions of the model. The small spar was not tested with vortex suppression devices. Table 3.5 lists the target and achieved mass properties.

Model mass properties were achieved by placing lead "donuts" in the keel. The elevation of the "donuts" was set to achieve the desired KG and gyradii. The deck model consisted of an simple aluminum box whose size was estimated to provide the appropriate wind drag force during the experiments.

Unlike the large spar, the small spar had no center well. The mass properties measured in air are very close to the mass properties when the model is in the water. Only the hawse-pipe for the vertical tether contains a small amount of water, as well as the tether.

3.3.2 Mooring

3.3.2.1 Simulated Mooring

The small spar mooring system consisted of six mooring legs equally distributed around the hull. The mooring lines for the small spar each contained a single linear spring.

The spar model was located over the center of the pit when no

Table 3.4 Small Spar Principal Particulars

	Prototype	Model
Hull		
Diameter	52.5 ft	0.95 ft
Draft	443 ft	8.05 ft
Length	506 ft	9.20 ft
Fairlead Depth	41.8 ft	0.76 ft
Deck		
Length	165.0 ft	3.0 ft
Width	165 .0 ft	3.0 ft
Height	64.2 ft	1.17 ft

Table 3.5 Small Spar Model Mass Properties

	Prototype Target	Model Achieved (Prototype Units)	Model Achieved (Model Units)
Weight	58,492 kips	58,530 kips	343.00 lbs
KG	203.51 ft	203.50 ft	44.40 in
Pitch Gyradius	201.70 ft	201.07 ft	43.87 in
Roll Gyradius	201.70 ft	196.17 ft	42.80 in

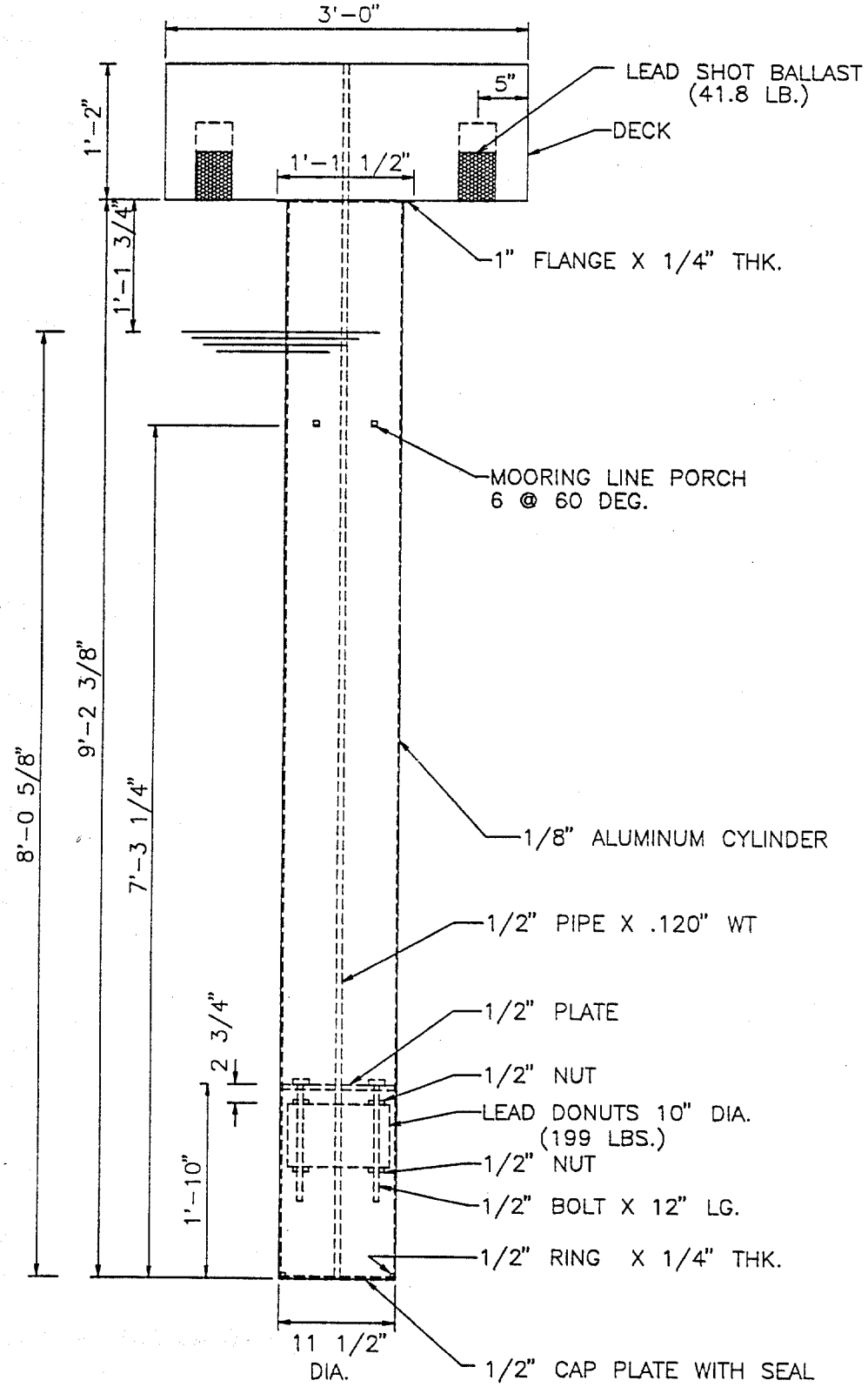


FIGURE 3.11 Small Spar Model Profile Sketch

Table 3.6 Small Spar Mooring System Summary

Target Properties

Tether

	Prototype		Model	
O.D.	0.25	in	13.75	in
Stiffness	27.5	lbs/in.	1025.1	kips/ft
Pretension @ Keel	10.63	lbs	1814	kips
Pretension @ Bottom	3.44	lbs	587	kips

Mooring

	Prototype		Model	
O.D.	0.0625	in	3.44	in
Stiffness	0.0726	lbs/in.	2.7	kips/ft
Pretension	2.60	lbs	444.4	kips

environmental loads were imposed to move from the neutral position Mooring Leg 1 was directed towards the wavemaker. The remaining mooring legs were located counter-clockwise at 60° increments when viewed from above. Figure 3.12 presents a plan view of the mooring system.

The weight in air of the springs was 0.42 lbs, 71.7 kips, prototype. Small foam floats were attached to each spring to make them neutrally buoyant. The length of the springs under pre-tension was approximately 80 inches. The target properties for the small spar mooring system are summarized in Table 3.6.

Mooring line pretension was set by means of deadweights. The model mooring lines passed through pulleys 1.00 inch above the basin floor at the anchor locations back to the surface. Pretension was set by hanging a deadweight on each mooring line. Mooring line tensions were measured on each line with strain-gaged tension cells at the connection to the fairleads. After pretensions were measured and confirmed to be within tolerance the lines were clamped to anchor them.

A vertical mooring line, tether, attached to the keel of the small spar extended to the bottom of the pit. The vertical tether had a single in-line spring at the bottom. The length of tether between the seafloor and the keel weighed 6.55 lbs in air, 1117.7 kips, prototype. A spring was located in this line at the connection to the seafloor. The tether passed through a hawse-pipe from the keel to the top of the hull. Tether pretension was adjusted by a screw mechanism located at the top of the model deck. Tether tension was measured with a tension cell located just below the keel. Figure 3.13 presents a profile schematic viewed from the starboard side.

3.3.2.2 Restraints

Configuration M included specially designed horizontal restraints to permit measurement of transverse loads. These restraints were designed to provide response frequencies in surge, sway, roll and pitch that were well below the wave frequencies.

The lateral restraints were fixed to the small spar model 6.5 inches above the top of the deck and 1.25 inches above the keel. The upper restraints were 49.38 feet long. The lower restraints were 43.38 feet long. The upper spring stiffness was 1.68 lbs/inch. The lower spring stiffness was 2.69 lbs/inch.

3.4 Tanker and Hawser

Table 3.7 list the principal particulars of the model tanker used in Configuration J.

A 21 inch nylon double braided mooring hawser was simulated. Although the stiffness of this line is highly non-linear, it was modeled with a soft linear spring. The model hawser spring stiffness was measured to be 0.05 lbs/inch, 1861 lbs/foot, prototype.

Figure 3.12 Small Spar Mooring Plan

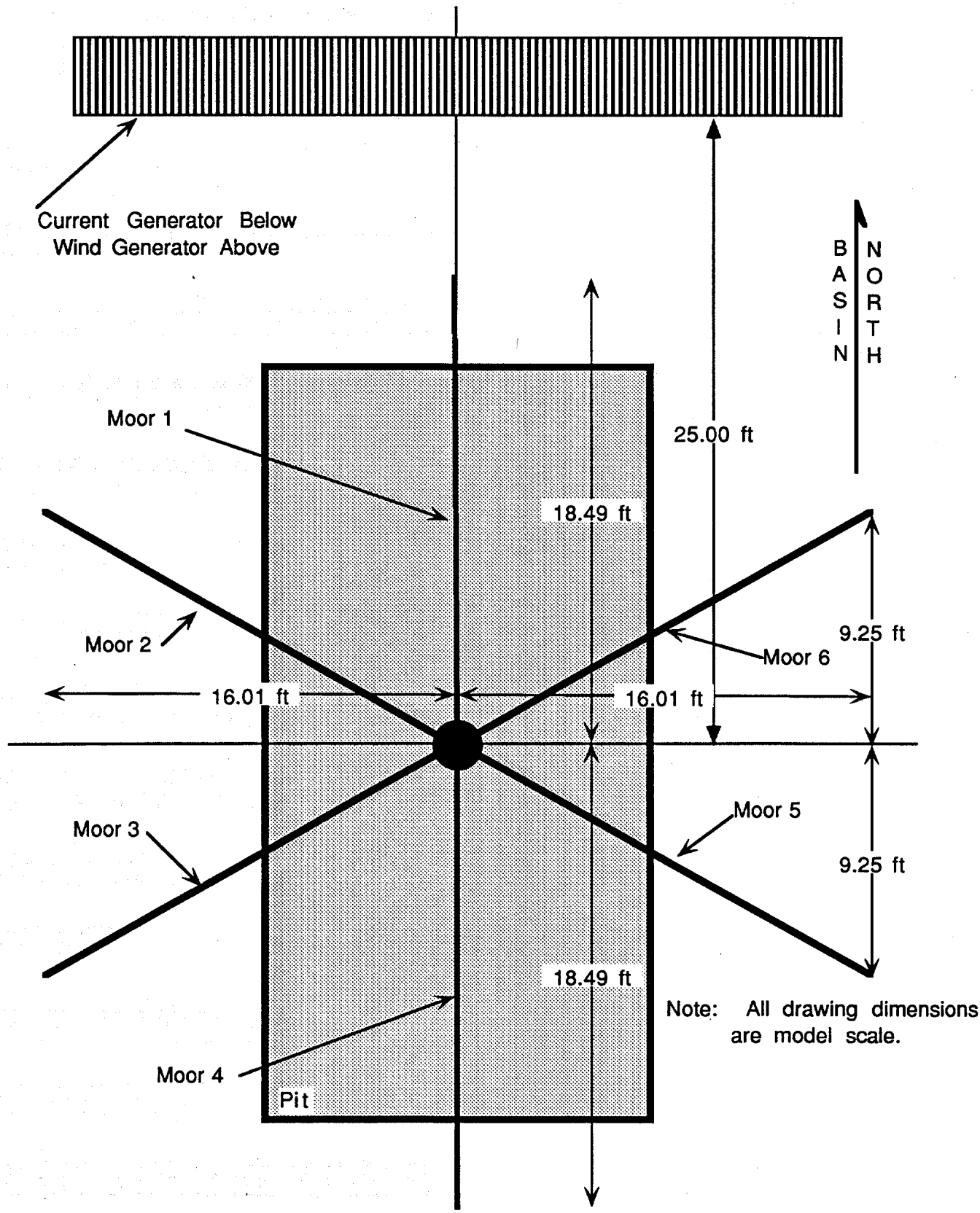
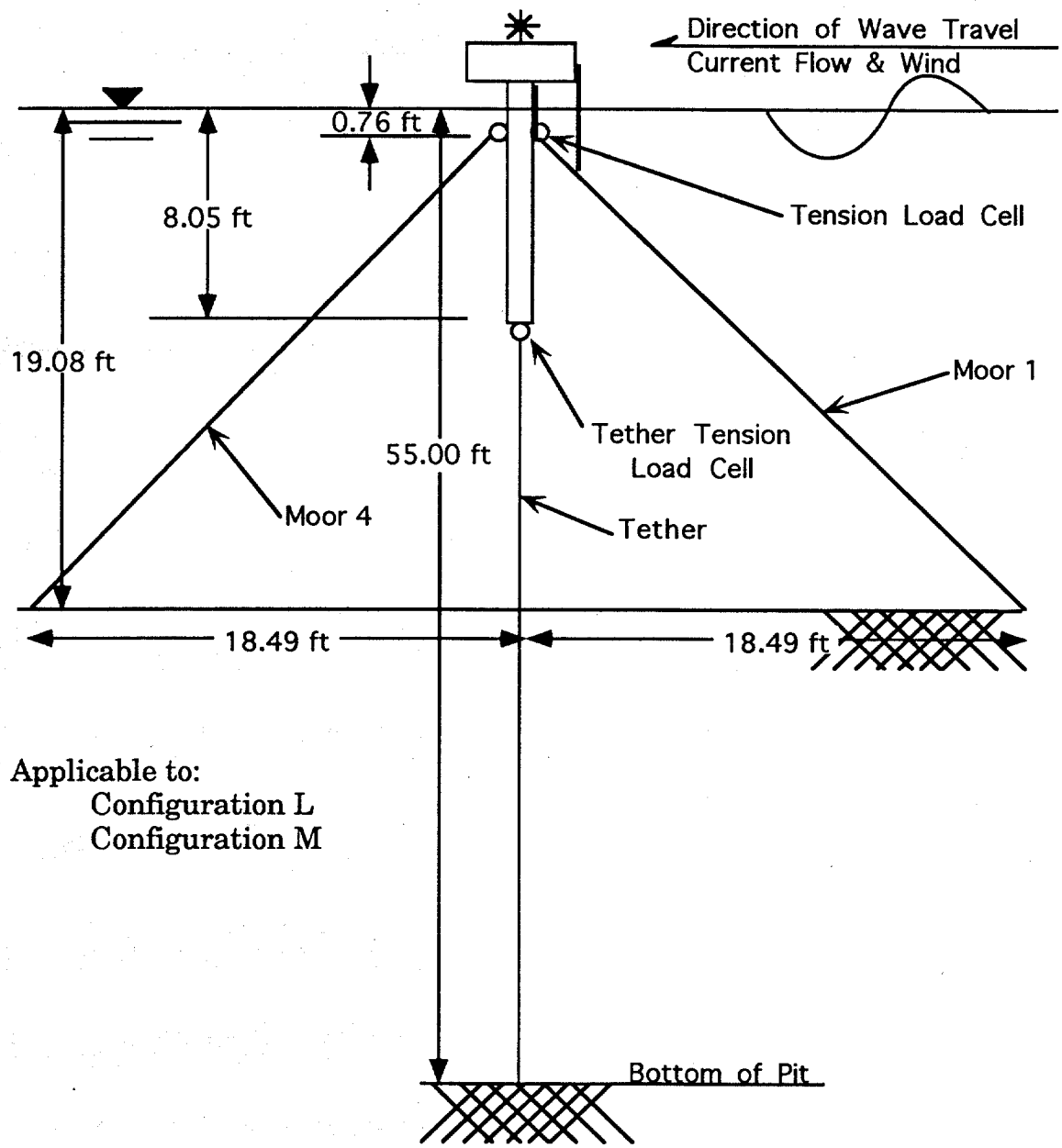


Figure 3.13 Small Spar Mooring Profile



Applicable to:
Configuration L
Configuration M

Note: All drawing dimensions are model scale.

Table 3.7 Tanker Principal Particulars

	Prototype	Model
Length Overall	669.2 ft	12.2 ft
Length Between Perpendiculars	627.9 ft	11.4 ft
Beam	91.7 ft	1.7 ft
Depth	48.4 ft	0.9 ft
Weight	106,650. kips	625.0 lbs
LCG	318.5 ft	5.8 ft from bow
Gyradius	131.1 ft	2.4 ft

Table 3.8 Principal Particulars for Barge in Slide-On Tests

	Prototype	Model
Length Overall	542.0 ft	9.8 ft
Length Between Perpendiculars	375.8 ft	6.8 ft
Beam	183.3 ft	3.3 ft
Depth	28.6 ft	0.5 ft
Weight	36,346.5 kips	213.0 lbs

Hawser lengths of 180 feet, 200 feet and 250 feet were simulated. Hawser attachments to the large spar were at the stern, port corner of the deck and on a sliding bridle at the waterline.

3.5 Barge for Slide-On Tests

A model of a jacket launch barge was donated to the project by Amoco for use in the slide-on tests in Configuration P. The barge dimensions are listed in Table 3.8. Teflon rails were placed on the barge to facilitate sliding off sideways.

4.0 Measurements

All instruments were calibrated to provide results in prototype scale using the Froude scaling law. A scale of 1:55 was used. The scale relationships that were used are listed in Table 3.1 in Section 3.1 of this report.

As noted previously, the tests with the North Atlantic environment should be properly scaled at a ratio of 1:63.46. However, all results are reported at a scale of 1:55. Modification of the North Atlantic results to the smaller scale may be obtained by using the factors listed in Table 3.1.

4.1 Data Acquisition

The OTRC data acquisition system has the capability to acquire up to 64 channels of analog data. All data were acquired from analog signals provided by the instruments. All data were first passed through an analog, passive Butterworth filter with a roll off frequency of 5.0 Hz, model scale. All data were digitally sampled at 20 Hz, model scale. All data were temporarily stored on computer hard disk and permanently archived on re-writeable 128 MB optical disks in binary format.

The coordinate system used was positive x towards the wavemaker, positive y to the right when observed from the wavemaker towards the model, and positive z up. This coordinate system is illustrated in Figure 4.1. It should be noted that current and wind velocity were recorded as positive even though the flow was in the negative x direction.

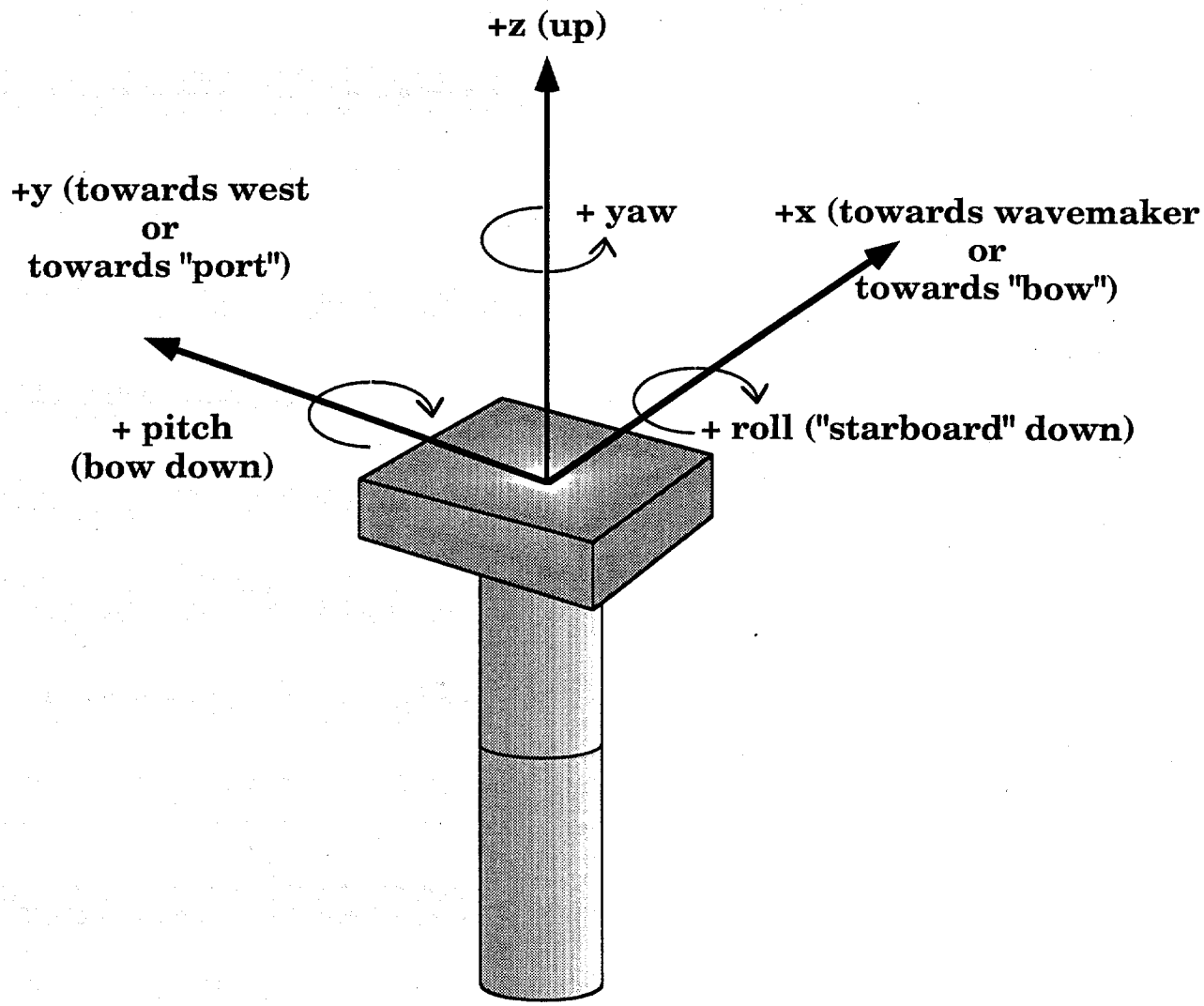
Except for the anemometer and the electronic compass, all instruments were calibrated in the laboratory using the signal cables, amplifiers, filters and signal conditioners that were used during the experiments. All instruments were linear output devices. Factory calibrations were employed for the anemometer and the compass. Sample calibrations of the instruments are presented in Appendix B of this volume of the report.

Different configurations used different instruments to acquire different measurements. Section 7 provides the list of instruments for each configuration tested.

4.2 Environments

Wave, current and wind environments were measured during both the setup tests, in which the environments were created without the spar models, and in the tests with the spar models.

Figure 4.1 Coordinate System



4.2.1 Waves

Waves were measured with capacitance wave probes. The location of these probes is shown in Figure 4.2.

To set the environments prior to the experiments with the spar models, a wave probe was located at the estimated mean offset position of the spar, 18 inches, model scale, downwave of the neutral position. Once the spar models were installed this probe was removed.

Wave probes were also set upwave and to the side of the model. "Wave 1" or "Wave North" was located upwave of the model. For the set up tests this probe was located 3 feet upwave of the spar equilibrium position. For the tests with the spar, it was moved to 7 feet, 10 inches upwave of the spar. "Wave 2" was located 7.5 feet, model scale, to side at the estimated longitudinal mean offset position (surge) of the spar.

The wave probes were calibrated daily by dipping them in the water while simultaneously recording the prototype scale immersion and the output voltage measured at the data acquisition system. Zero was taken as the still water level. Positive measurements were for a rising water surface.

4.2.2 Current

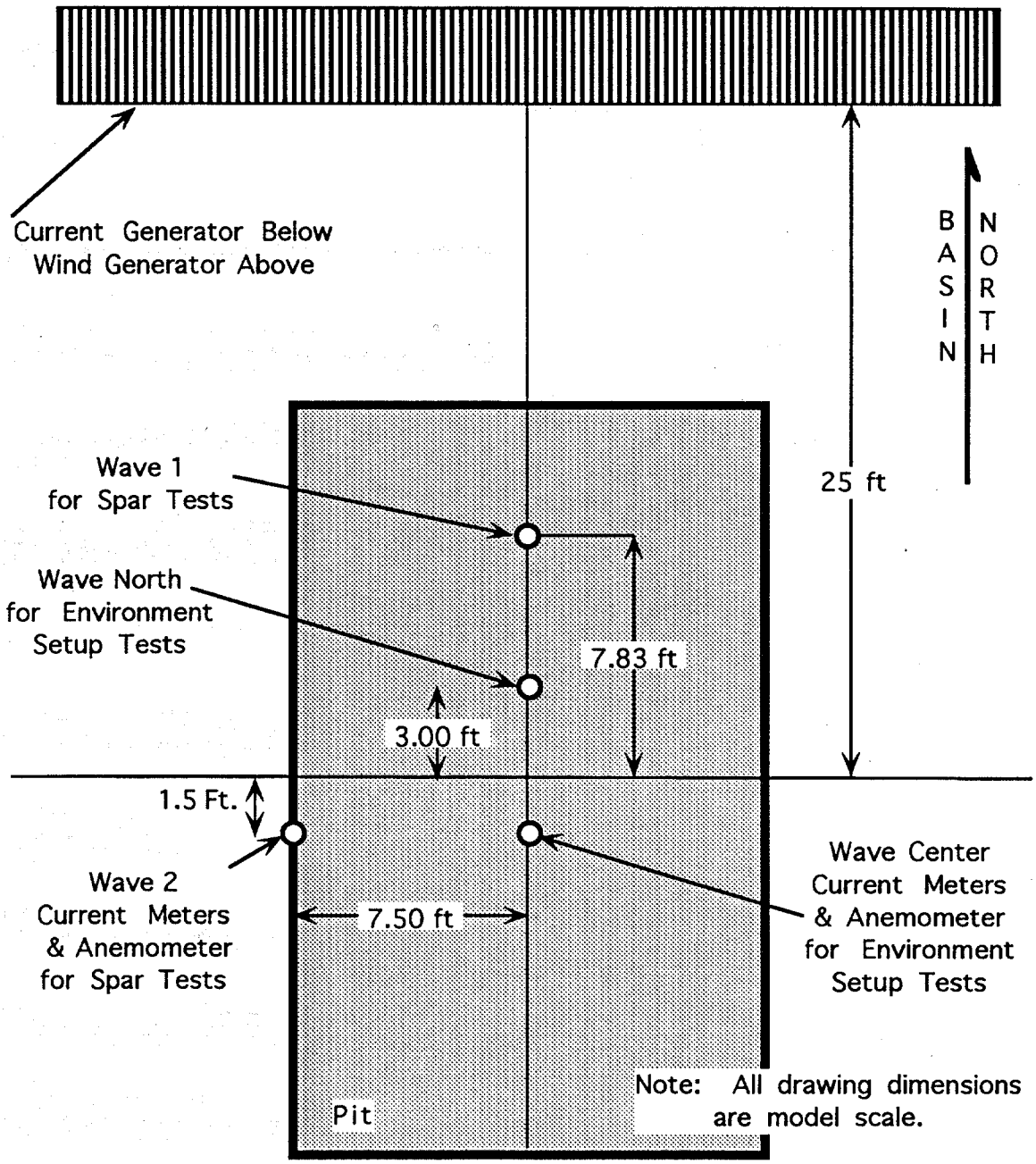
Current in the longitudinal direction was measured during the set up tests with electro-magnetic and acoustic current meters. For the tests with the models only the acoustic meters were used.

During the setup tests the current was profiled vertically 18 inches downwave of the spar neutral position. During the test with the spar the current meters were located 7.5 feet to the side, directly under "Wave 2". "Current 1" measured the longitudinal velocity at a depth of 2.00 feet, model scale, 110 feet, prototype. "Current 2" measured the longitudinal velocity at a depth of 11.00 feet, 605 feet, prototype.

The current meters were calibrated at the beginning of the test program by dragging them through the water at a constant speed while recording the output voltage at the data acquisition system. Speed was determined by measuring the time of travel over a measured distance. Zero velocity was no flow. Positive velocity was for a flow moving in the downwave direction.

It should be noted that the acoustic current meters have the characteristic of recording unrealistically high velocities when air bubbles or dirt pass through the acoustic beam of the sensor. This may be seen as a spike in the current time series. If a bubble sticks to the acoustic transponder surface, an erroneous and continuously high reading may be acquired. It was observed that the deeper current meter suffered less from these errors than the shallower meter.

Figure 4.2 Wave Probes, Current Meter and Anemometer Layout



4.2.3 Wind

Wind speed was measured with a three-cup spinning anemometer. For the environmental set up tests, the anemometer was located at the estimated mean offset position of the spar, 18 inches, model scale, downwave of the neutral position. Once the spar models were installed this probe was moved 7.5 feet to the side, directly over "Wave 2". The elevation of the anemometer was always 18 inches, 82.5 feet, prototype, above still water level.

The factory calibration was used. Since the anemometer was omni-directional, all wind speeds are positive.

4.3 Large and Small Spar Models

4.3.1 Surge, Sway and Heave

Earth fixed linear displacements were measured with three high resolution video cameras feeding into an optical tracking system. Surge was measured with a camera that viewed the models from the starboard side. Sway and heave were measured with two cameras, one for each direction, that viewed the model from the stern. A small halogen bulb was mounted on the models as a tracking target in a location where it was visible from all three cameras. The cameras were equipped with near-infrared band pass filters to eliminate all parts of the video image except the tracking target.

The location of the tracking target is shown for each configuration in Section 7.

All measurements are relative to the neutral position with the spar in the mooring and no environmental loads. Positive surge was towards the wavemaker, upwave. Positive sway was movement to port. Positive heave was up. The optical tracking system was calibrated at the beginning of the test program by moving a tracking target an known distance along each orthogonal axis and recording the voltage at the data acquisition system.

A post-test data reduction program was used to correct for parallax effects due to out-of-plane motions; i.e. surge was corrected for sway, while sway and heave were corrected for surge.

4.3.2 Roll and Pitch

Ship fixed roll and pitch were measured with a bi-axial integrating rate sensor mounted to the upper deck of the model. Positive roll was starboard side down. Positive pitch was bow down. Zero was taken when the model had zero trim and zero roll.

The inclinometer was calibrated statically by rotating it a known amount and recording the voltage at the data acquisition system. Near the end of the

experimental test program it was determined that the dynamic pitch measurements acquired in the experiments were incorrect. This is discussed in detail in Section 4.6 of this report.

4.3.3 Yaw

Yaw was measured with a fluxgate magnetometer. This instrument measures three orthogonal components of the earth's magnetic field. The strength of each vector component is recorded on one channel in the data acquisition system. A post-test data reduction program is used to compute the rotation about the vertical axis, yaw. Zero was taken as the initial heading in the mooring with no imposed loads.

The fluxgate magnetometer is sensitive to magnetic materials. It may be corrupted by the presence of such things as iron and steel. It is necessary to ensure that the instrument is located away from materials such as these. The factory calibration for this instrument was used.

This electronic compass was mounted to the upper deck of the model. Positive yaw was defined to be counter-clockwise rotation when viewed from above.

4.3.4 Mooring Line, Restraint and Riser Tension

Tension components of the spar models included:

- simulated mooring lines for both spar models,
- lateral restraints for both spar models,
- longitudinal restraints for the large spar,
- vertical risers for the large spar,
- a catenary riser for the large spar, and
- a vertical tether for the small spar.

The tension in lines such as the up-wave mooring lines, longitudinal restraints and lateral restraints could, potentially, be very high. Tension in these lines was measured with underwater tension-compression loads cells with a rated capacity of 250 lbs. Other lines, expected to have much small loads, such as the vertical risers and the catenary riser were measured with more delicate and more sensitive underwater ring gages. Mooring line and restraint tensions were measured at the connection to the spar model.

Lower restraint loads on the large spar were measured with and x–y shear load cell stack bolted to the center of the keel. The sum of the "ship-fixed" in–line loads and the sum of the "ship-fixed" lateral loads were measured, rather than the individual line loads.

Riser tension was measured on two vertical risers, Risers 2 and 19 (see Figure 3.4), and the catenary riser. Riser tension was measured with in-line underwater ring gages. The ring gages on the vertical risers were located just below the riser keel joints. The ring gage for the catenary riser was located at the connection of the catenary riser model to the leading edge of the keel.

These instruments were calibrated by hanging a known weight on them and recording the output voltage at the data acquisition system. Positive is increasing tension for the tension-compression cells and the ring gages. Positive longitudinal resultant load on the lower restraints for the large spar was towards the "bow". Positive lateral resultant load on the lower restraints for the large spar was towards the "port".

4.3.5 Airgap and Moonpool Waves

Airgap and waves in the moonpool were measured with capacitance wave probes like those used to measure the waves. Both probes were mounted to the model and moved with it. Both probes measured water surface elevation relative to the model.

The airgap probe was mounted at the center of the upwave leading edge of the deck. The airgap probe measured the relative wave height at the leading edge, not the distance from the instantaneous water surface to the bottom of the deck. The actual airgap distance, from the bottom of the deck to the water surface, could be derived from the difference between the initial distance from the calm water surface to the bottom of the deck minus the airgap probe reading.

Examination of many of the tests with the North Atlantic environment will reveal a repeated event in which a wave crest slapped high up on the side of the deck. This wave overtopped or inundated the airgap probe, including, in some cases, the signal conditioning electronics. In these instances the probe recovered very slowly and failed to record proper readings for a long time after the wave impact event. Care should be exercised when interpreting the airgap results for tests with the North Atlantic waves.

The moonpool probe was mounted to the large spar model in the center of the moonpool. Visual observations confirmed that the moonpool probe measured sloshing of the water surface in the moonpool. The small spar did not have a moonpool.

Zero was defined as the still water level. Positive was defined to be motion of the water surface from the still waterline towards the deck, i.e. up, from the perspective of an observer standing on the spar. The airgap and moonpool probes were calibrated periodically with the wave probes.

4.3.6 Runup

Wave runup on the spar was measured with a resistance wave probe taped to the surface of the hull. The runup probe was mounted on the upwave surface of the spar hull at the waterline spanning the distance from the top of the strakes up to 1 inch, model scale, from the top of the spar. The final inch was covered with tape to hold the probe in place.

The runup probe measured the instantaneous water surface elevation on the upwave side of the spar.

Positive was defined to be motion of the water surface from the still waterline towards the deck, i.e. up, from the perspective of an observer standing on the spar. Zero was taken at the still water level when the model was undisturbed. The runup probe was calibrated periodically by raising and lowering the water level a known amount on the probe while recording the voltage at the data acquisition system.

Visual observations of runup on the spar were not always confirmed by the runup measurements. Clear instances in which spray was observed to overtop the spar or squirt up through the gap between the deck and the spar were not recorded by the probe. The probe was good for measuring "green water", i.e. continuous solid water – not drops or splashes.

4.3.7 Riser Heave

Riser heave was measured on Risers 1 and 20 in Configurations F, F1 and F2. String pots mounted on the deck were connected to the top of the buoyancy cans.

Positive was defined to be motion of the riser towards the deck, i.e. up, from the perspective of an observer standing on the spar. Zero was taken with the buoyancy cans in the neutral position when the model was undisturbed. The string pots were calibrated prior to installation in the model by extending and retracting the string known amount while recording the voltage at the data acquisition system.

Friction was observed in the rotary potentiometers. Since the buoyancy cans had very little waterplane area the vertical stiffness was quite small. Examination of the riser heave time series exhibit unrealistic motion in that the crests and troughs of the motion, especially in small waves, appear to be "clipped". This is attributed to "sticktion" of the rotary pot.

4.3.8 Keel Side Load

On the large spar, the hole in the keel guide plate through which Riser 1 passed was instrumented to measure x and y side loads. These loads were measured with strain-gaged underwater shear load cells bolted to the keel of the large spar.

These instruments were calibrated by hanging a known weight while recording the output voltage at the data acquisition system. Positive x load was force on the ring pushing towards the "bow", i.e. upwave. Positive y load was force pushing on the ring towards "port".

4.3.9 Acceleration

Strain-gaged accelerometers were mounted to the deck of the large spar. In some tests three accelerometers were used to measure the surge, sway and heave acceleration of the model. In other tests, two accelerometers were separated vertically a known amount to measure surge acceleration. By taking the difference, pitch acceleration could be derived. Location of the accelerometers is given in Section 7 for the each configuration in which they were employed.

The accelerometers were calibrated statically by rotating them a known amount in the earth's gravitational field and recording the output voltage at the data acquisition system. Positive surge acceleration was towards the bow. Positive sway acceleration was towards port. Positive heave acceleration was up.

4.4 Tanker Tests

Hawser tension was measured with a ring gage that connected the tanker hawser to the large spar. As with the other tension measurements, positive was increasing tension.

4.5 Mating Tests

Configurations N and P addressed the mating of the deck to the spar. In Configurations N and P a tri-axial accelerometer package was mounted to the upper surface of the float-on deck. In Configuration P winch line tension was measured with ring gages.

4.6 Discussion of Pitch Measurement Correction

Near the end of the project, while testing Configuration A, it was determined that the dynamic pitch measurements were incorrect. Results from two different numerical models indicated that the fluctuation of the pitch signal about the mean was greater than predicted. Two surge accelerometers were mounted on the large spar with a vertical separation of 36.25 inches, model scale, 166.15 feet, prototype. The lower accelerometer was 30 inches, model scale, 137.5 feet, prototype, above the waterline. The difference between the two accelerometer outputs is proportional to the pitch acceleration. Double integration of the computed pitch acceleration time series confirmed the predictions of the numerical models. Subsequent investigation by the instrument manufacturer, after completion of the project, confirmed that the the wrong resistors were placed in the circuit that integrated the rate output.

Additional random and regular wave tests were run with simultaneous pitch measurements with the accelerometer and the malfunctioning inclinometer. The amplitude and phase correction transfer function was computed between the measured pitch from the inclinometer and the derived pitch from the accelerometers. Figures 4.3 and 4.4 present the transfer function to correct the amplitude and phase of the pitch measurements obtained from the

Figure 4.3 Amplitude Correction Transfer Function for Pitch from the Inclinometer

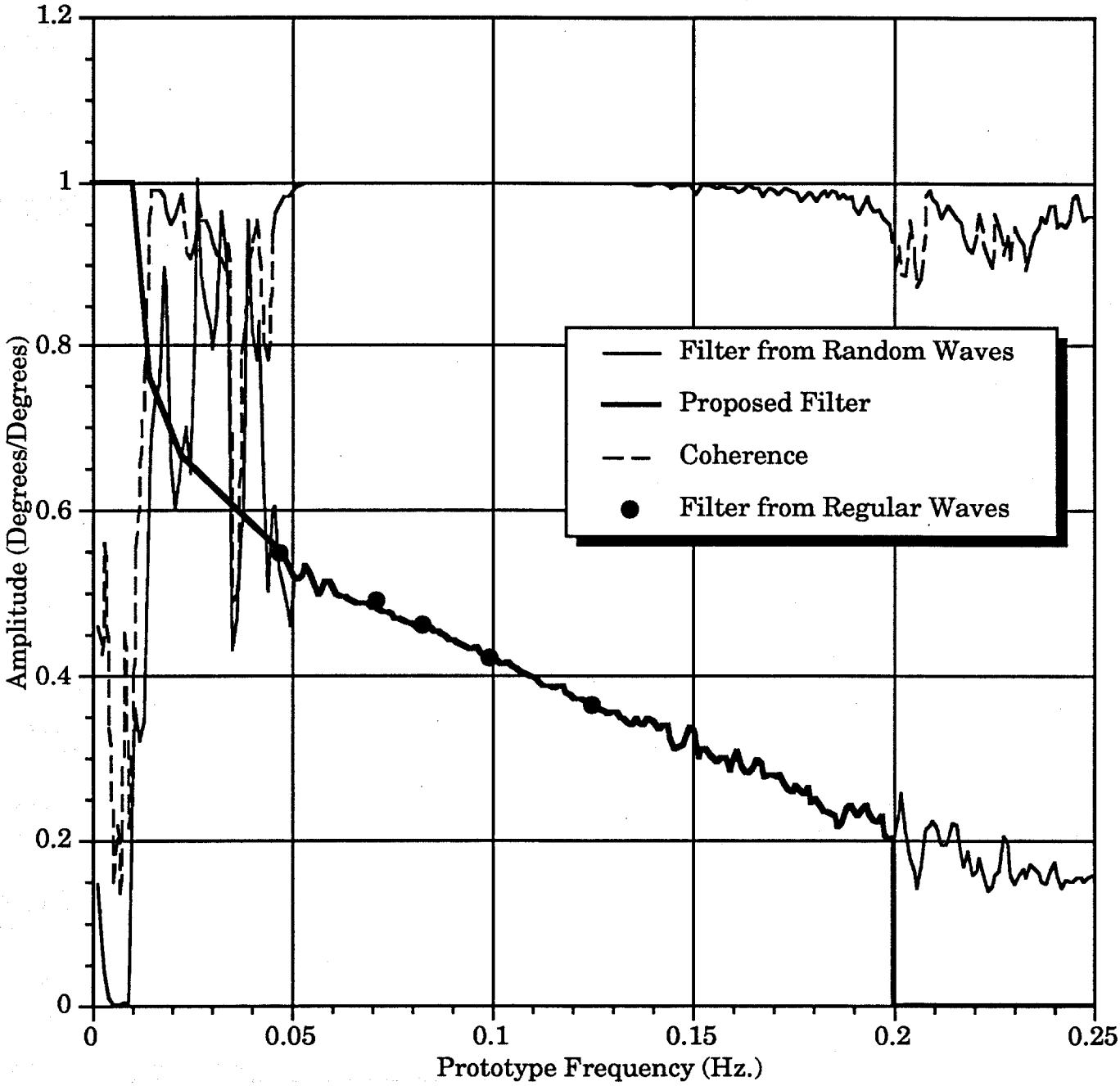
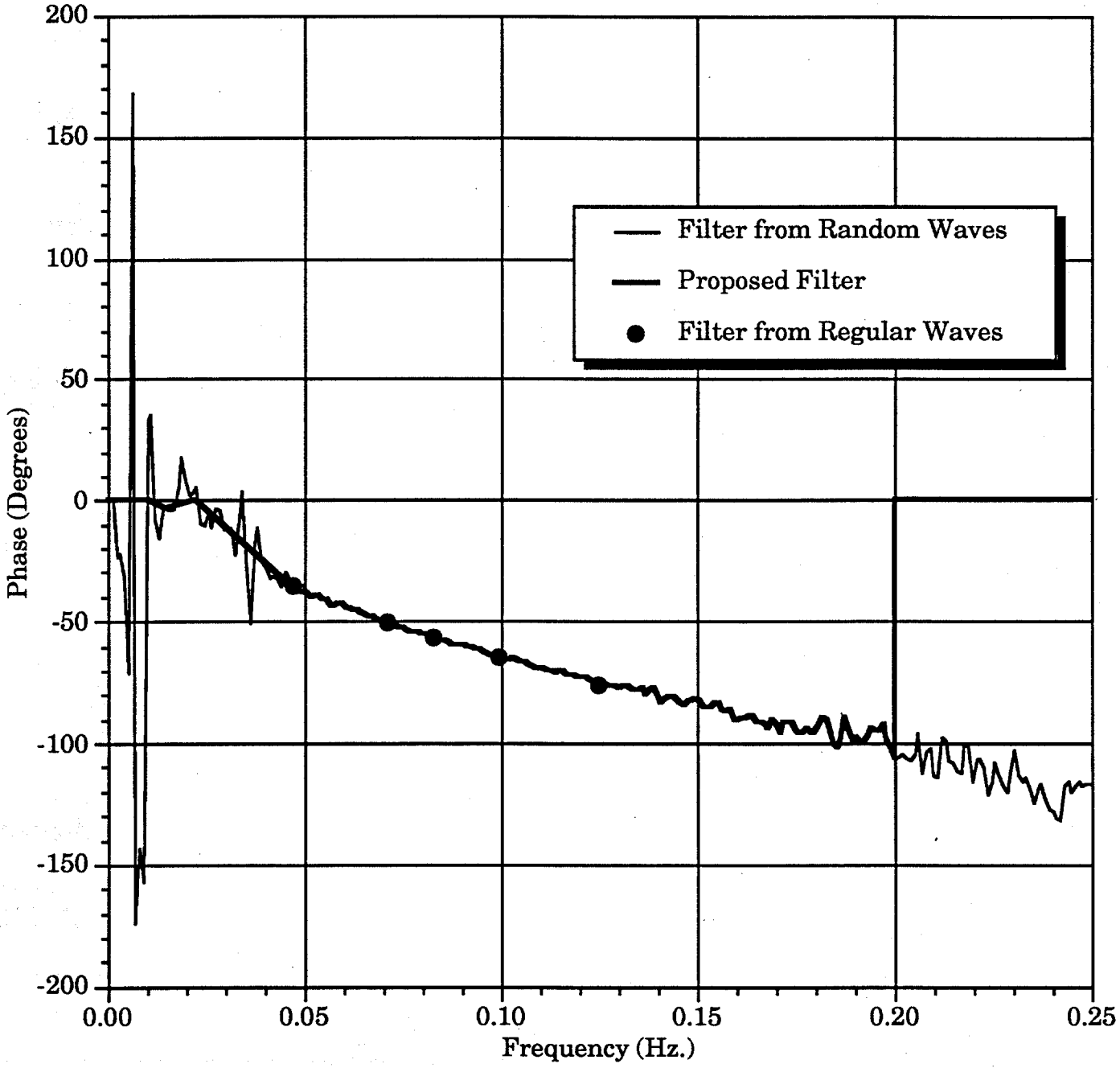


Figure 4.4 Phase Correction Transfer Function for Pitch from the Inclinometer

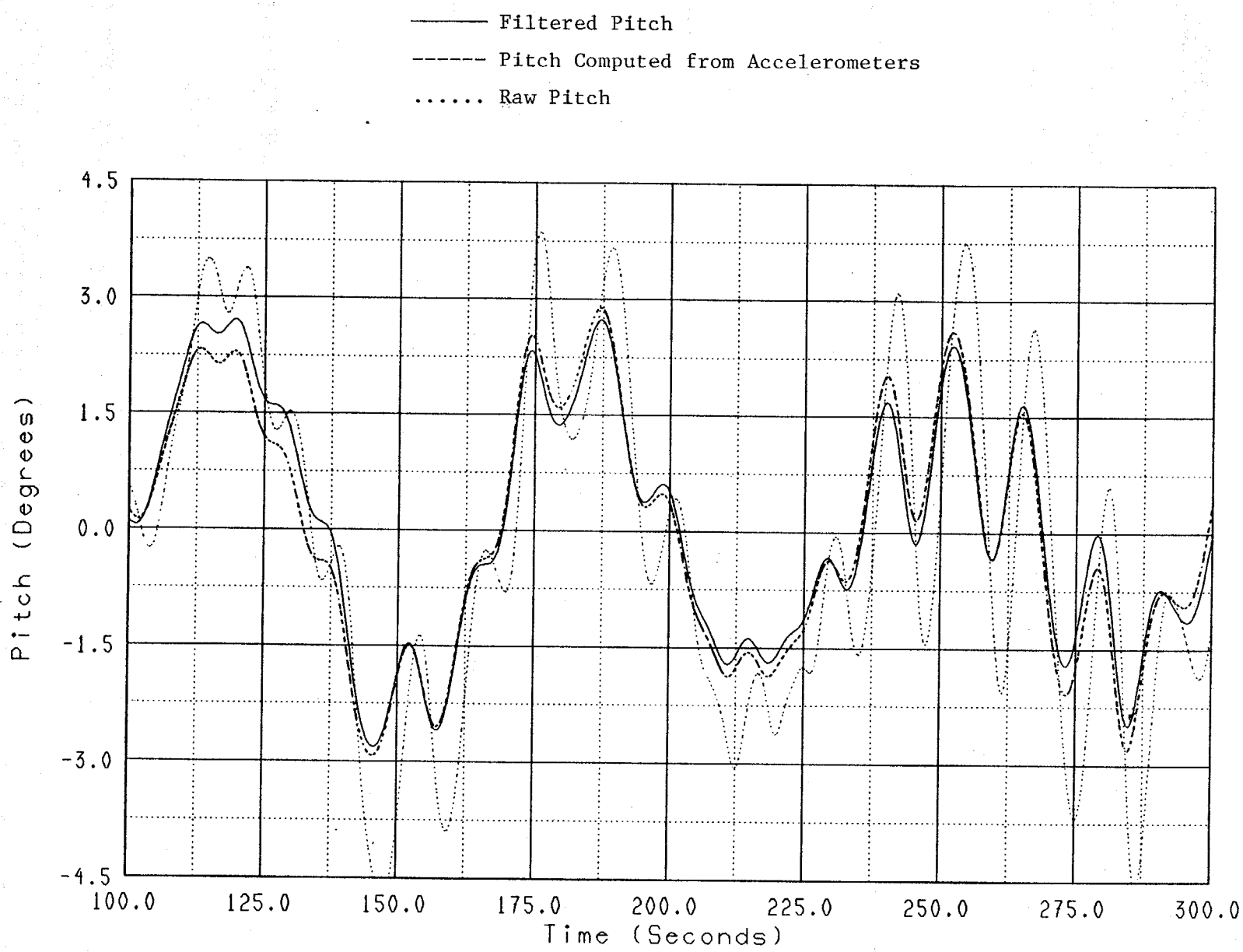


inclinometer in the frequency domain with prototype units. These figures show very good agreement between the continuous filter derived from the random wave test, the thin line, and the discrete points derived from the regular wave tests.

All pitch data was corrected by applying the amplitude and phase transfer functions shown by the heavy solid line in Figures 4.3 and 4.4. Above 0.2 Hz, full scale, the transfer function was set to zero because the coherence between the measured and computed pitch deteriorated due to very little pitch motion above this frequency. Below 0.045 Hz, full scale, it was necessary to approximate the transfer function. Since it was observed that the inclinometer operated well in a static mode, the amplitude transfer function value was set to 1.0 and the phase transfer function value to 0.0 at 0.0 Hz. The transfer function value was set to 1.0 for all frequencies between 0.0 and 0.009. From 0.009 to 0.045 the transfer function was linearly interpolated using two points of high coherence at 0.022331 Hz and 0.01455 Hz. (the pitch natural frequency).

Application of the transfer function to test ARAN3_100 shows that agreement of the filtered pitch measurement is improved over the raw measurement. This may be seen for a short time segment of the test presented in Figure 4.5. This transfer function was applied to all pitch measurements for all tests in this project. All pitch results presented in the tables and plots in Volumes II through XIX of this report and in the digital data files had the transfer function applied.

FIGURE 4.5 Raw, Filtered and Computed Pitch Measurements



5.0 Test Procedures

5.1 Static Offset Tests

Static offset tests were performed whenever a new mooring system was installed. These experiments were conducted to confirm that the mooring system was fabricated, assembled and installed as intended.

In particular, the piecewise linear mooring of the large spar model was checked after installation to ensure that the limits on the springs had been set properly. It was found that, for the first set of experiments in Configuration A, the stopper wires that limited the spring extension slipped. When this was discovered the mooring system was modified, static offset tests were performed again and the experiments were repeated.

Static offset tests were conducted by pulling either in the downstream direction, surge, or across the basin, sway. The model was pulled horizontally from the downstream or side fairleads, as indicated in Figure 5.1. After the spar model was pulled from its neutral position, a waiting period ensued to allow for it to stop oscillating. Readings from all of the instruments were recorded, including the force in the static offset line.

Results from the static offset tests are included in the data volumes and in the data tapes that accompany this report.

5.2 Decay Tests

Natural period and decay tests were conducted by exciting the spar models in one of the six degrees of freedom. The average zero crossing period was used as the estimator for the natural period. The linear damping coefficient, as a percent of critical damping, was computed using the log decrement method.

Surge and sway offsets were imposed by pulling the spar over horizontally with a line attached to the fairlead. The model was held briefly, so that the initial pitch or roll oscillations died away. The model was released while the all channels of data were recorded.

Heave oscillations were imposed by pushing down on the model from overhead. The model was "pumped" by pushing down two or three times. Once the "pumping" stopped the heave decay was recorded.

Initial roll and pitch offsets were induced by pulling on the spar simultaneously in opposite directions at the deck and the keel, as shown in Figure 5.2. A trim angle was imposed and held until the surge and sway oscillations had become small. The model was then released so that the rotational oscillations could be observed and recorded.

Figure 5.1 Static Offset Test Profile

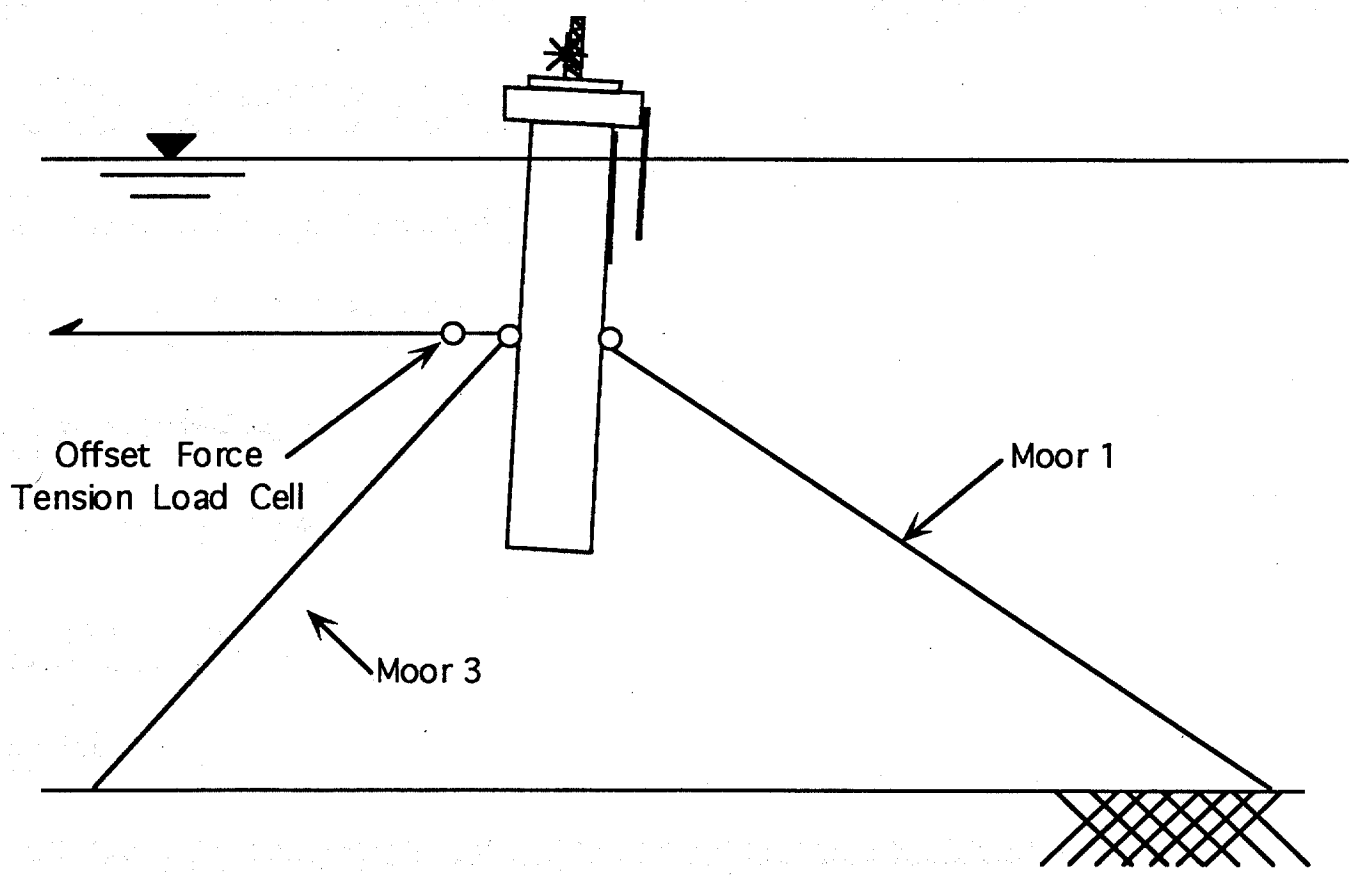
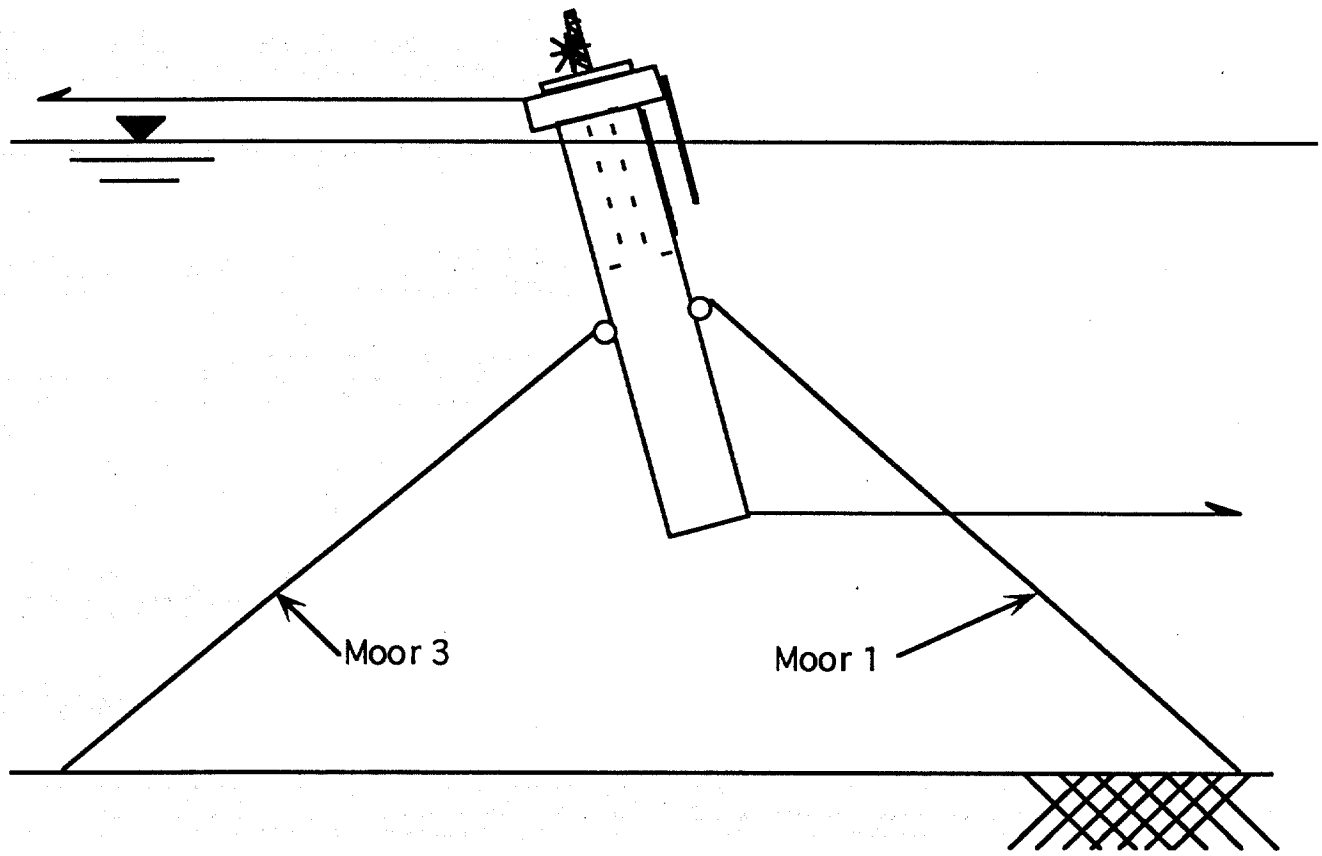


Figure 5.2 Induced Initial Rotation for Pitch/Roll Decay Tests



A yaw offset was induced by pulling simultaneously in opposite directions from diagonal corners of the deck, as shown in Figure 5.3. A yaw offset was imposed and held until the model became still, at which point it was released while the yaw oscillations were observed and recorded.

5.3 Tests in Dynamic Environments

5.3.1 Initial Conditions

Mooring line load cells were zeroed by reading the output voltage with the mooring lines disconnected. Output voltage corresponding to the zero values for instruments such as the wave probes, runup probes, airgap probes, current meters, anemometer, optical tracking system and inclinometer were recorded by the data acquisition system in the absence of waves, current or wind with the model in the neutral position in the mooring.

Prior to experiments in dynamic environments such as regular waves, bi-chromatic waves, random waves, current or wind, a static "pretension" test was conducted to ensure that the model mooring system was properly adjusted to provide the correct line tensions with the model in the neutral position.

5.3.2 Regular and Bi-Chromatic Waves

Regular and bi-chromatic tests were initiated with the spar model in the neutral position. These tests did not include wind or currents in the environment. Data acquisition began at the same time as the wavemaker began operating. The wavemaker took 10 seconds, model scale, to ramp up to full stroke. The initial transient response of the model was recorded as well as the "steady state" or dynamically stationery response of the model.

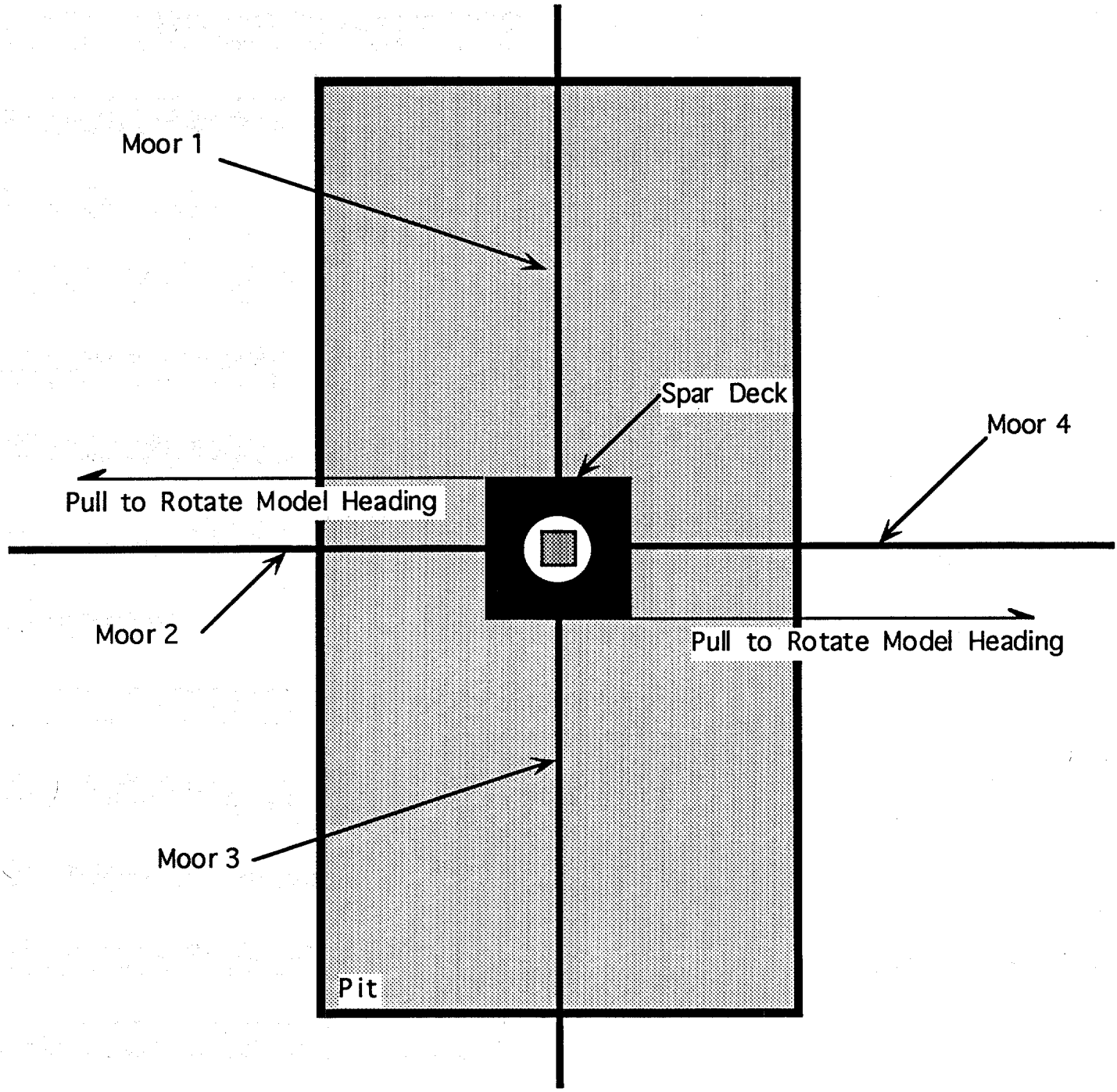
Total duration of regular and bi-chromatic tests was typically 2 minutes, model scale, to minimize the accumulating effects of wave reflections. In this short duration the surge response of the model could not achieve "steady state".

5.3.3 Random Waves, Current and Wind

Data acquisition in random waves alone began 115 seconds, model scale, after the wavemaker commenced. The initial, transitory response of the spar was not recorded. The duration of the tests was 486 seconds, model scale, 1 hour, full scale. Tests in random wave alone began with the model in the neutral position.

Tests with current were conducted after the model current has stabilized. One hour, model scale, was allowed for the shear profile to become fully developed. Data acquisition in current and waves was begun 115 seconds, model scale, after the wavemaker began. Tests in current began with the spar offset from the neutral position.

Figure 5.3 Induced Initial Rotation for Yaw Decay Tests



Tests with wind, or wind/waves/current were conducted after the wind generator went through one full cycle of the drive signal, one hour, full scale. This delay allowed for the model to pass through the initial, transient response to the wind. At the beginning of the second cycle through the drive signal the wavemaker was started. 115 seconds, model sale, after the wavemaker was started, the data acquisition system commenced. This procedure ensured that the wavemaker drive signal and wind drive signal would have the same phase in repeated experiments.

5.3.4 Tanker Tests

Tests with a moored tanker, Configuration J, were conducted following the same procedures used for the random wave tests with current and/or wind. In these tests the tanker was connected to the large spar either at the downweather corner of the deck or on a sliding bridle located at the waterline.

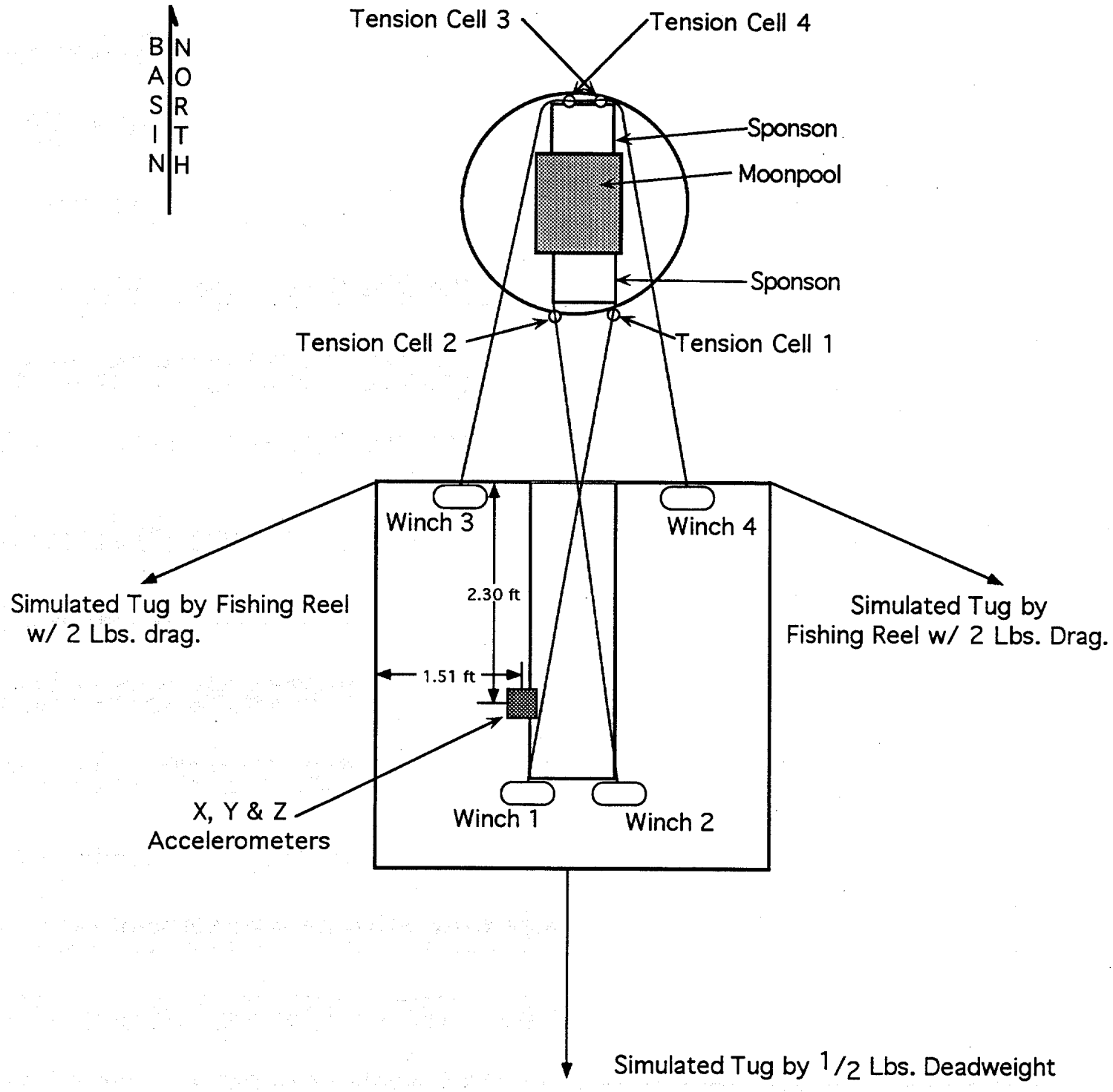
5.4 Float-On and Slide-On Tests

Mating tests in Configuration P were conducted by floating the deck on to the hull of the large spar and by sliding the deck on to the hull directly off a transportation barge. For both sets of tests the large spar was held in the four leg model mooring. The spar was ballasted down so that the barge could either float or slide over it. Guidance for executing these simulations in a realistic manner was provided by representatives from Amoco Production Company.

Winches on the model deck were used to pull the deck into place. Figure 5.4 shows the winch and line arrangement for the float-on simulations. The barge was oriented downweather from spar with the slot facing the sponsons. The winch lines were dead-ended on the sponsons with ring gages to measure the line tensions. A constant tension was applied with a $^1/_2$ lbs, model scale, deadweight, simulating a tug boat, to hold the deck and spar apart. Side guide lines were also attached to help guide the deck and maintain proper alignment with the sponsons. The simulated tug boats were actually fishing reels mounted to the side of the model basin. The "drag" on the fishing reels was set to approximately 2 lbs, model scale, to limit the maximum thrust from the "tugs". The winch operator was located on a platform suspended over the basin close to the models. This proximity provided good visibility for the operator and allowed for excellent control of the simulations. Winch operations were supervised by representatives from Amoco Production Company.

The tests began with the deck and hull approximately 10 feet apart, model scale. The winches were used to pull the two models together. Winches 3 and 4 were required to pull in until the far sponson entered the slot in the deck. At this point these winches were required to pay out again. Once the deck was pulled up against the sponsons, the spar hull was de-ballasted by forcing water out of the hardtanks with a high pressure air hose. Throughout the de-ballasting operation the mooring lines were slackened to allow the hull to rise. Once the deck was raised above the waves the simulation was concluded.

Figure 5.4 Plan for Float-On Mating Tests



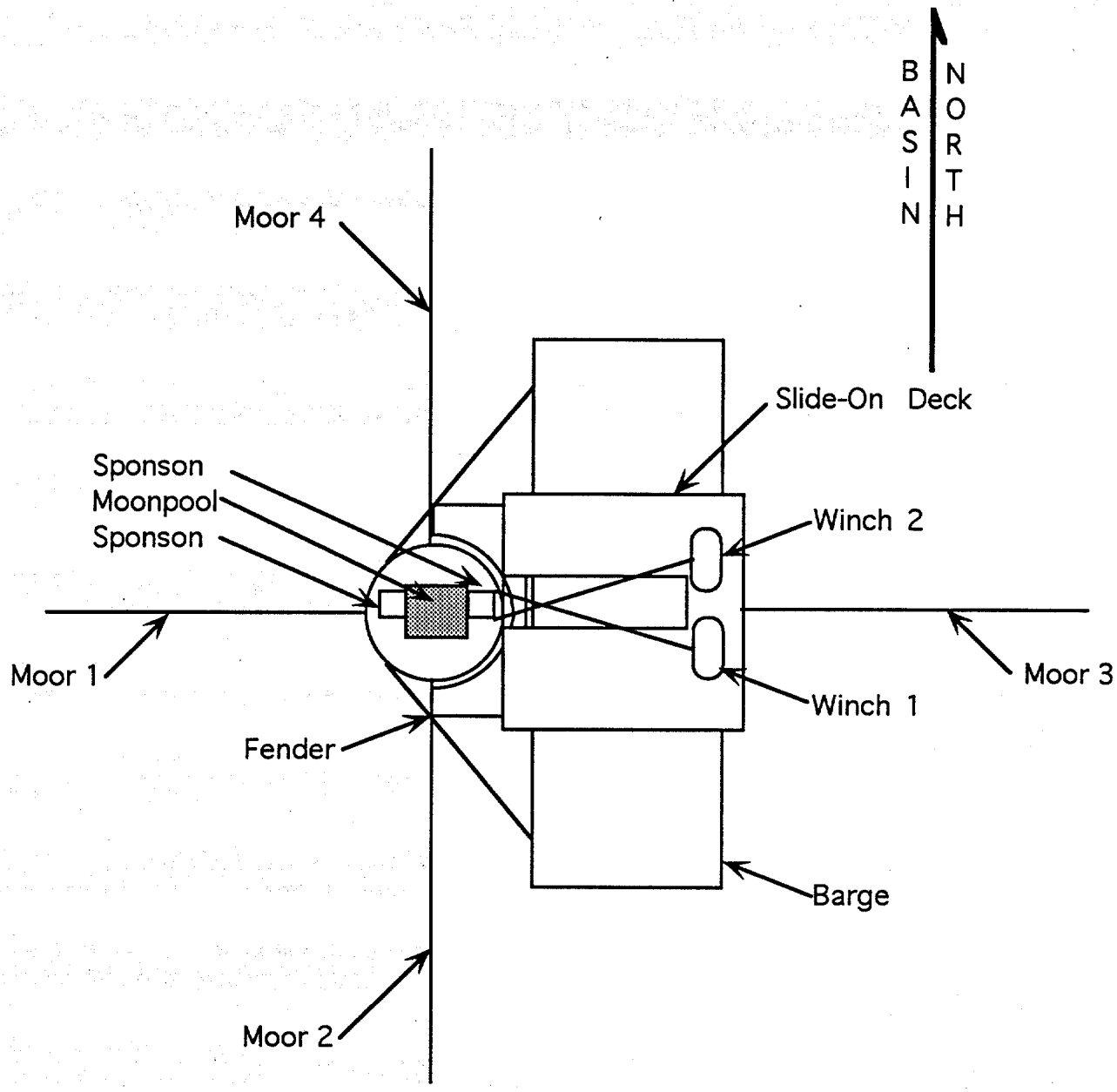
Weak links were placed in the winch lines to protect the ring gages from excessive tension. These weak links typically broke on one or more lines when the deck was brought up hard against the sponsons. This is likely to be a more significant problem in the model than in the prototype.

Figure 5.5 shows the arrangement for the slide-on simulations. The spar hull and the 4 leg mooring system were rotated counterclockwise 90° to place the sponsons parallel to the crest of the waves. The transportation barge was attached to the spar by mooring lines with a foam fender between the two. The bow of the transportation barge was head into the weather. The deck and transportation barge were adjusted so that the the deck slot was aligned with the spar sponsons.

The deck was placed on teflon rails to minimize sliding friction. Hard plastic plates were also placed on the top of the spar to reduce sliding friction when the deck weight was transferred to the spar hull.

Only winches 1 and 2 were used to pull the deck onto the spar. Initially the deck was slid over the spar hull part way, keeping the center of gravity of the deck on the transportation barge. The spar hull was then de-ballasted until contact was established with deck. Once firm contact was made between the bottom of the deck and the top of the spar the winches were used to pull the deck over more. De-ballasting continued while the deck was pulled over. Since de-ballasting raised the spar hull very slowly, the winches were used to pull the deck over only a little at at time in order to avoid transferring the deck weight too quickly to the spar. The lines attaching the transportation barge to the spar and the mooring lines were continuously slackened to allow the spar hull to rise during de-ballasting. The simulation was terminated when the deck was pulled completely over onto the spar and no longer contacted the transportation barge.

Figure 5.5 Plan for Slide-On Mating Tests



6.0 Data Analysis Products

Data analysis products are presented in Volumes II through XXIX of this report. These data are provided in prototype units at 1:55 scale. The data volumes include:

- tabular statistics,
- time series plots,
- power spectral density plots,
- extremal analysis plots on Weibull paper, and
- linear transfer function (response amplitude operator) amplitude and phase plots.

The tables and time series are also provided in ASCII format on the data tapes that accompany this report. Appendix D in this volume contains a list of all of the files on the tapes.

6.1 Tabular Statistics

Tables of summary statistics are provided each experiment. Depending upon the type of test, different statistics were computed. Table 6.1 defines the abbreviations of the statistics listed in the various tables. Tables 6.2 and 6.3 define the acquired and computed data for both the large and small spar models.

Dynamic test results are reported for unfiltered data, low pass filtered data and high pass filtered data. The analog signals from all the instruments were filtered at 5.0 Hz and digitally sampled at 20 Hz. Post test filtering was performed digitally using an FFT with a rectangular filter shape. The frequency range for the digital low pass filter was 0.0 to 0.03 Hz. The frequency range for digital high pass filtered data was 0.03 to 0.50 Hz. These digital filters preserve the signal dynamics over the bandwidth of interest, however, the mean value of the signal becomes zero, or very small.

Random wave tests each had a duration of one hour, prototype. Two different 100 year Gulf of Mexico hurricane tests were conducted for most configurations. These tests had different wave trains and wind gust time series for the same wave and wind spectra. Analysis was performed on the individual one hour tests as well as the concatenated two hour total. The concatenated time series were constructed by simply appending the second time times to the end of the first time series. No attempt was made to "merge" the time series or to begin or end on a zero-crossing.

Regular wave and bi-chromatic wave test data were "windowed" for analysis during the time interval in which the waves and platform response were at steady state. Statistics are reported for both the entire test and the windowed interval.

6.2 Time Series

Time series plots are provided for selected channels of acquired or computed data. Time series plots are not provided for concatenated 100 year Gulf of Mexico hurricane tests.

Table 6.1 Definitions of Abbreviations of Statistics

Name	Definition
STAT_MAX	Maximum value in the record.
STAT_MIN	Minimum value in the record.
STAT_MEAN	Mean (average) value of the record.
STAT_STD_DEV	Standard deviation of the record.
WAV_HM0	Significant wave height (= 4 x standard deviation).
SPEC_TP	Inverse of the frequency at which the power spectrum is a maximum.
SPEC_M1	First moment of the spectrum.
SPEC_M2	Second moment of the spectrum.
WAV_AC_AV	Average crest excursion form the mean.
WAV_AT_AV	Average trough excursion form the mean.
WAV_TAVD	Average wave period from downcrossing analysis, seconds.
ZCA_NWD	Number of wave downcrossings.
SEL_T1	Start time for windowed data.
SEL_T2	End time for windowed data.
RAO	Linear transfer function amplitude derived from regular wave test.
PH12	Linear transfer function phase derived from regular wave test.

Table 6.2 Definitions of Acquired and Computed Data for Large Spar

Name	Definition
	Acquired Data
Surge	Measured surge at the tracking target.
Sway	Measured sway at the tracking target.
Heave	Measured heave at the tracking target.
Roll	Roll about platform x axis.
Pitch	Pitch about platform y axis – corrected after test with filter.
Yaw 1, Yaw 2, Yaw 3	Voltage output from magnetometer.
Acceleration 1	Acceleration in x direction from accelerometer on top of derrick.
Acceleration 2	Acceleration in x direction from accelerometer at bottom of derrick.
Surge Acceleration	Acceleration in platform x direction.
Sway Acceleration	Acceleration in platform y direction.
Heave Acceleration	Acceleration in platform z direction.
Wave 1, Wave 2	Upwave and side wave measurements.
Moonpool	Relative wave height in moonpool with respect to the deck.
Airgap	Relative wave height in under the leading edge of the deck with respect to the deck.
Runup	Wave runup height on the upwave hull.
Current 1, Current 2	Shallow and deep current measurements.
Wind	Anemometer reading.
Stroke	Waveboard displacement.
Moor 1 – 4	Mooring line tensions.
In-Line 1, In-Line 2	Upper up-wave and downwave in-line restraint tensions.
Lateral 1, Lateral 2	Upper port and starboard lateral restraint tensions.
In-Line 3	Total in-line force measured at the keel.
Lateral 3	Total lateral force measured at the keel.
Ris 1 Tension	Tension in riser 1.
Ris 2 Tension	Tension in riser 20.
Ris 3 Tension	Tension in catenary riser.
Ris 2 Heave	Relative heave between buoyancy can 2 and deck.
Ris 19 Heave	Relative heave between buoyancy can 19 and deck.
Keel X	Side load on guide hole 1 in x direction.
Keel Y	Side load in guide hole 1 in y direction.
Hawser	Tension in tanker hawser.
Offset Force	Tension in the offset line for static offset tests.
	Computed Data
Cor_Surge	Surge at the tracking target corrected for parallax.
Cor_Sway	Sway at the tracking target corrected for parallax.
Cor_Heave	Heave at the tracking target corrected for parallax.
Surge_CG	Surge translated to the center of gravity.
Sway_CG	Sway translated to the center of gravity.
Heave_CG	Heave translated to the center of gravity.
In-Line Total	Total in-line force.
Lateral Total	Total lateral force.
In-Line Couple	Total moment about y axis.
Lateral Couple	Total moment about x axis.

Table 6.3 Definitions of Acquired and Computed Data for Small Spar

Name	Definition
	Acquired Data
Surge	Measured surge at the tracking target.
Sway	Measured sway at the tracking target.
Heave	Measured heave at the tracking target.
Roll	Roll about platform x axis.
Pitch	Pitch about platform y axis – corrected after test with transfer function.
Yaw 1, Yaw 2, Yaw 3	Voltage output from magnetometer.
Wave 1, Wave 2	Upweather and side wave measurements.
Airgap	Relative wave elevation at a point directly beneath the leading edge of the deck.
Runup	Wave runup height on the upwave side of the hull.
Current 1, Current 2	Shallow and deep current measurements.
Wind	Anemometer reading.
Stroke	Waveboard displacement.
Moor 1 – 6	Mooring line tensions.
Tether	Vertical tether tension.
In-Line 1	Total in-line force measured at the deck.
Lateral 2	Total lateral force measured at the deck.
Lateral 2, Lateral 3	Keel port and starboard lateral restraint tensions.
Offset Force	Tension in the offset line for static offset tests.
	Computed Data
Cor_Surge	Surge at the tracking target corrected for parallax.
Cor_Sway	Sway at the tracking target corrected for parallax.
Cor_Heave	Heave at the tracking target corrected for parallax.
Surge_CG	Surge translated to the center of gravity.
Sway_CG	Sway translated to the center of gravity.
Heave_CG	Heave translated to the center of gravity.
Lateral Total	Total lateral force.
Lateral Couple	Total moment about x axis.

6.3 Power Spectral Density

Power spectral density plots are provided for selected channels. Figure 6.1 is a sample plot.

The box in the upper right corner of the plot presents selected statistics. HM0 is the significant wave height as defined in Table 6.1. H1/3 is the average height of the one-third highest waves. Hmax is the largest wave height measured from crest to trough. Fpeak is the frequency at which the spectrum has the maximum value. Tpeak is the inverse of Fpeak. M0 – M4 are the spectral moments. Spectral width is defined:

$$\text{Spectral Width} = \sqrt{1 - \frac{m_2^2}{m_0\, m_4}}\,.$$

Bandwidth is the frequency increment between points in the plot. "D.O.F." (degrees of freedom) is the number of data points used to smooth the plot. "# of Upcrossings" is the number of times the dynamic signal crossed the mean value with a positive slope.

6.4 Response Amplitude Operators

6.4.1. Regular Waves

Response amplitude operators were derived from the regular wave tests. The responses were filtered with a bandwidth of 0.10 Hz., prototype, centered about the wave frequency for each test. The average wave height and phase shift were computed in the time domain to determine the RAO.

The input wave records used for this analysis were from the wave only tests without the model.

6.4.2 Random Waves

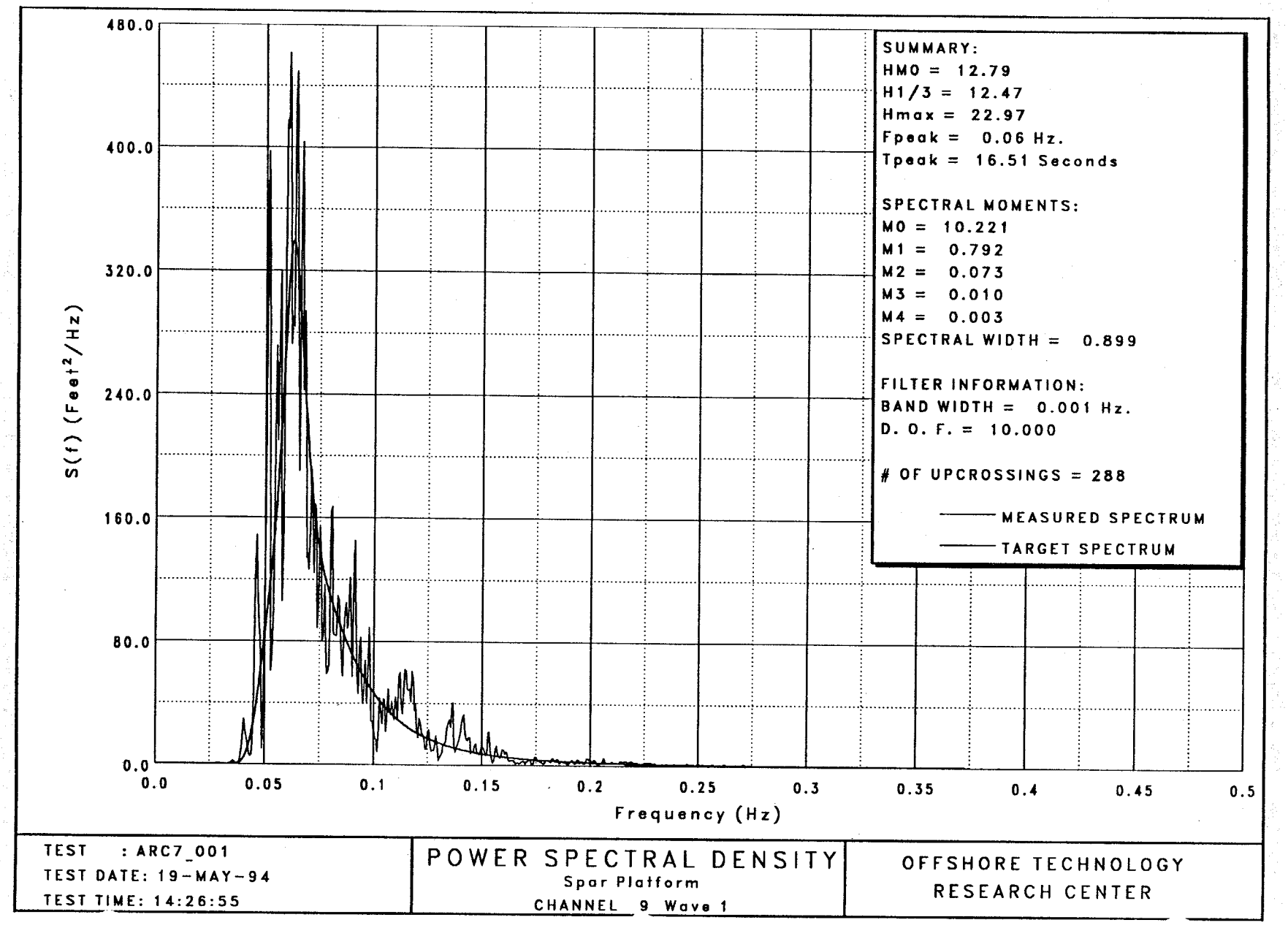
The linear transfer functions between the waves and selected platform responses have been computed for the 10 year Gulf of Mexico storm. Both amplitude and phase functions have been presented in graphical format. Coherence has also been plotted on these graphs.

The linear transfer functions and coherence were computed using the cross spectrum, S_{xy}, the input (wave) spectrum S_{xx}, and the response spectrum, S_{yy}:

$$\text{RAO} = \frac{S_{xy}}{S_{xx}}.$$

$$\text{Coherence} = \frac{|S_{xy}|^2}{S_{xx}\, S_{yy}}.$$

FIGURE 6.1 Sample Power Spectral Density Plot



TEST : ARC7_001
TEST DATE: 19-MAY-94
TEST TIME: 14:26:55

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 9 Wave 1

OFFSHORE TECHNOLOGY RESEARCH CENTER

Because the delay used to start the data acquisition system was different for the wave set up tests and the test with the spar models, the input wave records used for the random wave transfer function analysis were from the actual tests with the model.

6.5 Extremal Analysis

Extremal analysis was performed on selected acquired and computed data channels. Figure 6.2 is a sample plot of data on a Weibull probability scale. All data points are presented as an absolute value of the difference from the mean. Plotting position for each point is determined using the rank order for each point, i, where the largest crest (or trough) has rank order 1. Exceedance probability is computed as:

$$\text{Exceedance Probability} = \frac{i - 1/2}{\#\text{ of Downcrossings}}.$$

The box in the upper right corner provides additional information required to interpret plot. The mean is the average of the unfiltered time series. All values are reported as the difference (excursion) from the mean. The "crest" is the positive excursion from the mean using the sign conversions and polarity for the channel under analysis. The "trough" is the negative excursion from the mean. Whether a "crest" or "trough" analysis is presented is indicated in the label for the x axis. The standard deviation, average excursion and average period are for the filtered data used to prepare the plot.

A line is fit to the 20 most extreme points in the plot. The best fit coefficients, A and B, are listed in the information box. Additional information includes the the high and low cutoff frequencies for the data and well as the number of downcrossings about the mean.

6.6 Data Tape Format

The data tapes that accompany this report contain the tabular summary statistics and time series for each experiment. The tapes are DC2120 Mini Data Cartridges with an uncompressed capacity of 120 mega-bytes and a compressed capacity of 250 megabytes. The tapes were created on a Dell PC computer using a 250 MB Colorado tape drive. The software used was Colorado Backup Lite running under the Windows operating system.

All data is in ASCII format. The data was placed on the tapes in compressed format. Each tape contains one or more volumes. The volume titles indicate which configurations are stored within.

The experiment to which the data applies is indicated by the root file name. The suffixes after the period (".") indicate the content of the file. Table 6.4 explains the meaning of the different file suffixes.

FIGURE 6.2 Sample Weibull Plot

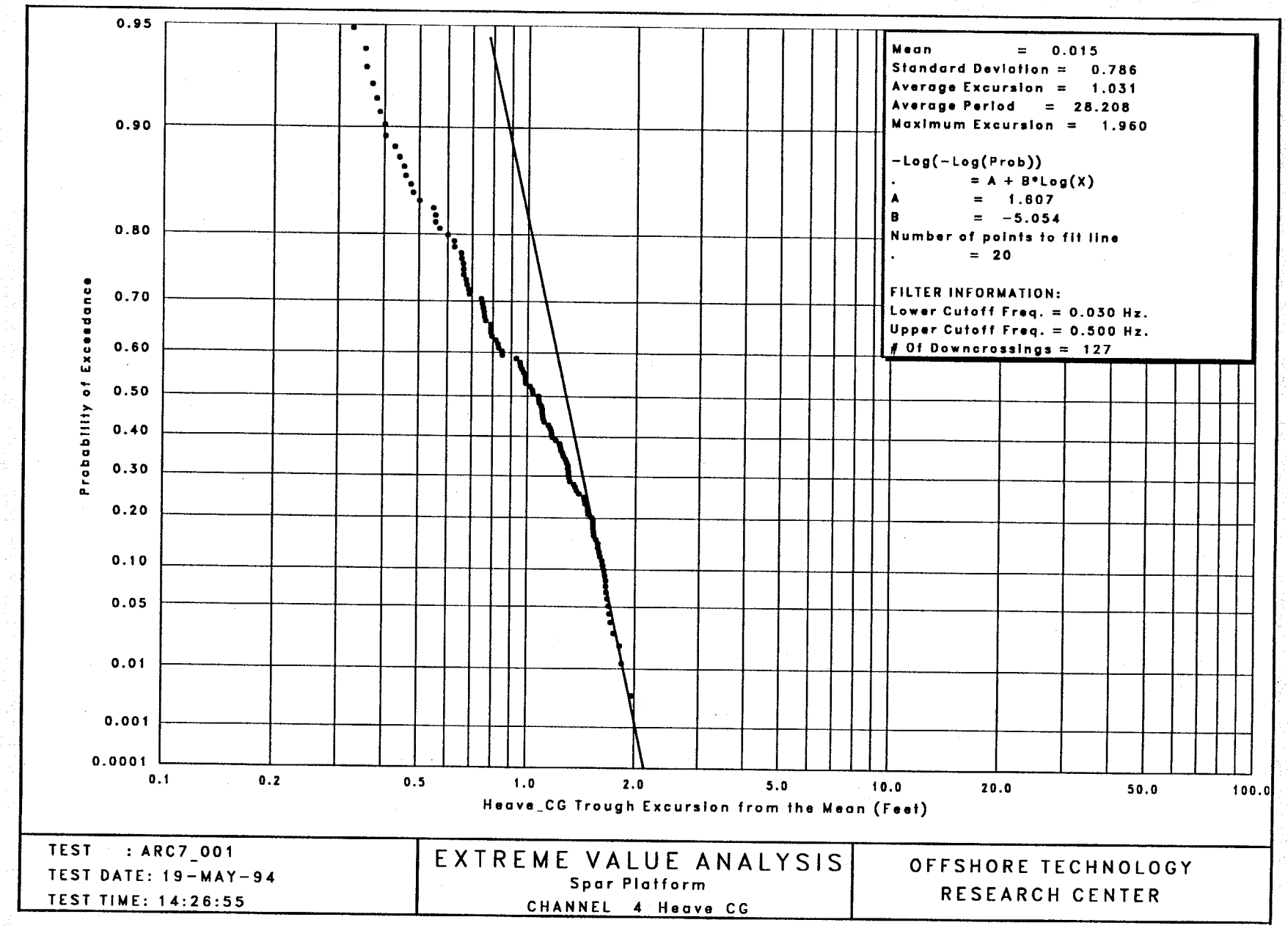


Table 6.4 Data File Suffixes

File Suffix	File Content
*.UFS	Unfiltered temporal statistics summary table.
*.USP	Unfiltered spectral statistics summary table.
*.LFS	Low pass filtered temporal statistics summary table.
*.LSP	Low pass filtered spectral statistics summary table.
*.HFS	High pass filtered temporal statistics summary table.
*.HSP	High pass filtered filtered spectral statistics summary table.
*.RGS	Regular wave test summary table.
*.UFT	Unfiltered temporal statistics summary table for windowed data.
.HD	Header file describing data file *.DT*.
.DT	Data file.

Table 6.5 Sample Header File NRAN8 . HD1

```
-----------------------------------------------------
Test No. NRAN8_001          Project: Spar Platform
Started at 14:39:52 on 24-MAY-94
-----------------------------------------------------
     DATA_CHAN
Ch                  UNITS_CHAN

 1   Surge          Feet
 2   Sway           Feet
 3   Heave          Feet
 4   Roll           Degrees
 5   Pitch          Degrees
30   Cor_Surge      Feet
31   Cor_Sway       Feet
32   Cor_Heave      Feet
40   Surge_CG       Feet
41   Sway_CG        Feet
42   Heave_CG       Feet
```

Table 6.6 Sample Data File NRAN8.DT1

9709	11	0.37081								
-8.82719	1.343881	0.014174	-0.129554	0.096896	-8.80077	1.386516	0.042627	-9.14209	0.930151	0.043442
-8.4638	1.476604	-0.043238	-0.16552	0.097994	-8.43469	1.517259	-0.015878	-8.77989	0.934201	-0.01474
-8.19125	1.609329	-0.071943	-0.1865	0.088367	-8.15947	1.648456	-0.045433	-8.47075	0.991494	-0.044128
-7.82787	1.582784	-0.15806	-0.189497	0.066768	-7.79642	1.620208	-0.132605	-8.03161	0.952688	-0.131363
-7.5099	1.609329	-0.215469	-0.177508	0.034954	-7.47777	1.645188	-0.190975	-7.6009	1.019898	-0.189957
-7.3282	1.609329	-0.33029	-0.153531	-0.005096	-7.29599	1.644316	-0.306236	-7.27804	1.103489	-0.305496
-7.14651	1.476604	-0.358995	-0.111571	-0.050048	-7.11681	1.510907	-0.335494	-6.94051	1.117888	-0.335037
-7.05565	1.343881	-0.416407	-0.066613	-0.096069	-7.02852	1.37793	-0.393122	-6.69011	1.143279	-0.392715
-7.10107	1.158068	-0.416407	-0.015661	-0.139128	-7.07761	1.192599	-0.39296	-6.58752	1.13743	-0.392349
-7.28277	0.998799	-0.44511	0.03529	-0.175467	-7.26249	1.034446	-0.421012	-6.64439	1.15876	-0.420029
-7.55532	0.786441	-0.44511	0.080248	-0.20199	-7.53925	0.823743	-0.420094	-6.82772	1.106422	-0.418625
-7.78244	0.574083	-0.416407	0.1312	-0.216543	-7.77053	0.612835	-0.390664	-7.00774	1.074996	-0.388702
-8.05499	0.467904	-0.301584	0.161171	-0.218071	-8.04516	0.508184	-0.275103	-7.27699	1.075921	-0.272842
-8.2821	0.38827	-0.272879	0.179154	-0.206635	-8.27383	0.429817	-0.245689	-7.54594	1.060901	-0.243378
-8.37295	0.308635	-0.129353	0.176157	-0.183308	-8.36621	0.350769	-0.102082	-7.72049	0.971296	-0.100098
-8.55464	0.308635	0.014174	0.15218	-0.149967	-8.54791	0.351684	0.041809	-8.01964	0.88775	0.043213
-8.64549	0.361725	0.128994	0.11022	-0.10902	-8.63775	0.405141	0.156737	-8.25371	0.7934	0.157486
-8.60007	0.520993	0.27252	0.059268	-0.063137	-8.58928	0.563913	0.299879	-8.36687	0.772689	0.30011
-8.41837	0.680262	0.416046	0.002322	-0.015007	-8.40451	0.72201	0.442593	-8.35165	0.730188	0.442612
-8.32752	0.839531	0.444752	-0.066613	0.032836	-8.31059	0.880568	0.470958	-8.42625	0.645916	0.47113

Tables 6.5 and 6.6 present samples of typical header and data files. The header file NRAN8.HD1 lists the channels of acquired and computed data and the prototype units found in file NRAN8.DT1. In this example, data from 11 channels is stored in the data file. Each column of data is identified in order by the list of items in the header file.

Every data file has a similar structure. The first line in each data file contains three numbers. The first number, 9709, in Table 6.6 represents the number of data points contained in each column. The second number, 11 in this example, is the number of columns, i.e. the number of channels of data. The third number, 0.37081, is the time step, in prototype seconds, between successive scans (rows). Below the first row of three numbers, each column in the data file represents one channel and each row represents a scan of all the channels at one instant in time. Note that in this example, all 11 columns are shown while only the first 20 rows of data are presented. The complete file contains the header row of 3 numbers and 9709 succeeding rows of data in 11 columns.

Tables 6.7a through 6.7p list each experiment and the analysis products that are provided in the data volumes of this report.

Table 6.7a Analysis Products

6/7/95

Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Filtered Weibull Plots	Random Wave RAO Plots
Volume II															
ASO_060-70	Static Offset	-	-	-	-		x								
AD1_001	Surge Damping	-	-	-	-		x								
AD2_004	Sway Damping	-	-	-	-		x								
AD3_002	Heave Damping	-	-	-	-		x								
AD4_001	Roll Damping	-	-	-	-		x								
AD5_001	Pitch Damping	-	-	-	-		x								
AD6_001	Yaw Damping	-	-	-	-		x								
ARAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested	x	x	x		x	x			
ARAN2_002	Random Sea	21.0	10.5	-	-	10 Year Storm	x	x	x		x	x			x
ARAN3_003	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			
ARAN4_003	Random Sea	43.0	14.0	-	-	GOM2	x	x	x		x	x			
ARAN5_002	Random Sea	45.9	16.3	-	-	North Sea	x	x	x		x	x			
ARAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested	x	x	x		x	x			
AWIN2_001	Wind	-	-	-	43	10 Year Storm	x	x	x		x				
AWIN5_001	Wind	-	-	-	59	North Sea	x	x	x		x				
AWIN3_003	Wind	-	-	-	85	GOM1	x	x	x		x				
AWIN4_002	Wind	-	-	-	85	GOM2	x	x	x		x				
Volume III															
ACUR3_002	Current	-	-	4.3	-	GOM	x	x	x		x				
ARC3_002	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x		
ARC4_002	Random Sea	43.0	14.0	4.3	-	GOM2	x	x	x		x	x	x		
ARCW3_002	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x		
ARCW4_002	Random Sea	43.0	14.0	4.3	85	GOM2	x	x	x		x	x	x		
Volume IV															
ACUR5_002	Current	-	-	5.3	-	North Sea	x	x	x		x				
ARC5_002	Random Sea	45.9	16.3	5.3	-	North Sea	x	x	x		x	x	x	x	
ARCW5_002	Random Sea	45.9	16.3	5.3	58.7	North Sea	x	x	x		x	x	x	x	
ACUR2_002	Current	-	-	6.3	-	10 Year Storm	x	x	x		x				
ARC2_003	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x			x
ARCW2_002	Random Sea	21.0	10.5	6.3	43	10 Year Storm	x	x	x		x	x			x
Volume V															
ARAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM	x	x	x			x	x	x	
ARC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM	x	x	x			x	x	x	
ARCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM	x	x	x			x	x	x	
Volume VI															
ARG3_002	Regular Wave	15.0	8.0	-	-		x			x	x				
ARG5_002	Regular Wave	20.0	10.0	-	-		x			x	x				
ARG6_002	Regular Wave	20.0	12.0	-	-		x			x	x				
ARG7_002	Regular Wave	20.0	14.0	-	-		x			x	x				
ARG8_002	Regular Wave	20.0	16.0	-	-		x			x	x				
ARG10_002	Regular Wave	20.0	21.0	-	-		x			x	x				
ARAN7_001	Random Sea	12.1	16.0	-	-	W. Africa	x	x	x		x	x			
ACUR7_001	Current	-	-	4.3	-	W. Africa	x	x	x		x				
ARC7_001	Random Sea	12.1	16.0	4.3	-	W. Africa	x	x	x		x	x	x	x	
ARCW7_001	Random Sea	12.1	16.0	4.3	38	W. Africa	x	x	x		x	x	x	x	
ARAN3_100	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			

Table 6.7b Analysis Products

6/7/95

Test	Test Type	Hs	Tp	Current	Wind		Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Filtered Weibull Plots	Random Wave RAO Plots
Volume VII															
BSO_013 -23	Static Offset	-	-	-	-		x								
BD1_001	Surge Damping	-	-	-	-		x								
BD2_001	Sway Damping	-	-	-	-		x								
BD3_001	Heave Damping	-	-	-	-		x								
BD4_001	Roll Damping	-	-	-	-		x								
BD5_001	Pitch Damping	-	-	-	-		x								
BPRE_017	Pretension	-	-	-	-		x								
BPRE_021	Pretension	-	-	-	-		x								
BRG2_003	Regular Wave	12.0	7.0	-	-		x			x	x				
BRG4_002	Regular Wave	18.0	9.0	-	-		x			x	x				
BRG6_001	Regular Wave	20.0	12.0	-	-		x			x	x				
BRG8_001	Regular Wave	20.0	16.0	-	-		x			x	x				
BBC3_001	Bi-Chromatic Wave	20/20	14/15.11	-	-		x				x				
BBC5_001	Bi-Chromatic Wave	20/20	16/17.47	-	-		x				x				
BBC8_001	Bi-Chromatic Wave	20/20	12/14.29	-	-		x				x				
BBC10_001	Bi-Chromatic Wave	20/20	14/17.21	-	-		x				x				
BBC12_001	Bi-Chromatic Wave	20/20	16/20.34	-	-		x				x				
BRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm	x	x	x		x	x			x
BRAN3_001	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			
BRAN4_001	Random Sea	43.0	14.0	-	-	GOM2	x	x	x		x	x			
BRAN5_001	Random Sea	45.9	16.3	-	-	North Atlantic	x	x	x		x	x			
BWIN2_001	Wind	-	-	-	43	10 Year Storm	x	x	x		x				
BWIN5_001	Wind	-	-	-	58.7	North Atlantic	x	x	x		x				
BWIN3_001	Wind	-	-	-	85	GOM1	x	x	x		x				
BWIN4_001	Wind	-	-	-	85	GOM2	x	x	x		x				
Volume VIII															
BCUR3_002	Current	-	-	4.3	-	GOM	x	x	x		x				
BRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x		
BRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2	x	x	x		x	x	x		
BRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x		
BRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2	x	x	x		x	x	x		
BCUR5_001	Current	-	-	5.3	-	North Atlantic	x	x	x		x				
BRC5_001	Random Sea	45.9	16.3	5.3	-	North Atlantic	x	x	x		x	x	x	x	
BRCW5_002	Random Sea	45.9	16.3	5.3	58.7	North Atlantic	x	x	x		x	x	x	x	
Volume IX															
BCUR2_001	Current	-	-	6.3	-	10 Year Storm	x	x	x		x				
BRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x			x
BRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm	x	x	x		x	x			x
BRAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM	x	x	x			x	x	x	
BRC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM	x	x	x			x	x	x	
BRCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM	x	x	x			x	x	x	

Table 6.7c Analysis Products

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Test	Test Type	Hs	Tp	Current	Wind	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Random Wave RAO Plots
Volume X													
CD1_003	Surge Damping	-	-	-	-	x							
CD2_001	Sway Damping	-	-	-	-	x							
CD3_001	Heave Damping	-	-	-	-	x							
CD4_001	Roll Damping	-	-	-	-	x							
CD5_001	Pitch Damping	-	-	-	-	x							
CRG1_002	Regular Wave	6.0	6.0	-	-	x			x	x			
CRG2_001	Regular Wave	12.0	7.0	-	-	x			x	x			
CRG3_001	Regular Wave	15.0	8.0	-	-	x			x	x			
CRG4_001	Regular Wave	18.0	9.0	-	-	x			x	x			
CRG5_001	Regular Wave	20.0	10.0	-	-	x			x	x			
CRG6_001	Regular Wave	20.0	12.0	-	-	x			x	x			
CRG7_001	Regular Wave	20.0	14.0	-	-	x			x	x			
CRG8_001	Regular Wave	20.0	16.0	-	-	x			x	x			
CRG9_001	Regular Wave	20.0	17.0	-	-	x			x	x			
CRG10_002	Regular Wave	20.0	21.0	-	-	x			x	x			
CBC2_001	Bi-Chromatic Wave	20/20	12/12.81	-	-	x				x			
CBC3_001	Bi-Chromatic Wave	20/20	14/15.11	-	-	x				x			
CBC4_001	Bi-Chromatic Wave	10/10	14/15.11	-	-	x				x			
CBC5_001	Bi-Chromatic Wave	20/20	16/17.47	-	-	x				x			
CBC6_001	Bi-Chromatic Wave	20/20	17/18.67	-	-	x				x			
CBC7_001	Bi-Chromatic Wave	20/20	10/11.54	-	-	x				x			
CBC8_001	Bi-Chromatic Wave	20/20	12/14.29	-	-	x				x			
CBC9_001	Bi-Chromatic Wave	20/20	13/15.73	-	-	x				x			
CBC10_001	Bi-Chromatic Wave	20/20	14/17.21	-	-	x				x			
CBC11_001	Bi-Chromatic Wave	10/10	14/17.21	-	-	x				x			
CBC12_001	Bi-Chromatic Wave	20/20	16/20.34	-	-	x				x			
CBC13_001	Bi-Chromatic Wave	20/20	17/21.98	-	-	x				x			
CBC14_001	Bi-Chromatic Wave	20/15	13/8.96			x				x			
CRAN2_001	Random Sea	21.0	10.5	-	-	x	x	x		x	x		x

Table 6.7d Analysis Products

Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Random Wave RAO Plots
Volume XI														
DD1_001	Surge Damping	-	-	-	-		x							
DD2_001	Sway Damping	-	-	-	-		x							
DD3_001	Heave Damping	-	-	-	-		x							
DD4_001	Roll Damping	-	-	-	-		x							
DD5_001	Pitch Damping	-	-	-	-		x							
DCUR3_001	Current	-	-	4.3	-	GOM	x	x	x		x			
DRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x	
DRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2	x	x	x		x	x	x	
DCUR5_001	Current	-	-	5.3	-	North Sea	x	x	x		x			
DRC5_001	Random Sea	45.9	16.3	5.3	-	North Sea	x	x	x		x	x	x	
DCUR2_001	Current	-	-	6.3	-	10 Year Storm	x	x	x		x			
DRC2_002	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x		x
DRC34	Random Sea	43.0	14.0	4.3	-	GOM1&GOM2	x	x	x			x	x	

Table 6.7f Analysis Products

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Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Filtered Weibull Plots	Random Wave RAO Plots
Volume XII															
FD1_001	Surge Damping	-	-	-	-		x								
FD2_001	Sway Damping	-	-	-	-		x								
FD3_001	Heave Damping	-	-	-	-		x								
FD4_001	Roll Damping	-	-	-	-		x								
FD5_001	Pitch Damping	-	-	-	-		x								
FD6_001	Yaw Damping	-	-	-	-		x								
FRG9_001	Regular Wave	20.0	17.0	-	-		x			x	x				
FRG10_001	Regular Wave	20.0	21.0	-	-		x			x	x				
FRAN1_002	Random Sea	8.0	7.7	-	-	Operating Long-Crested	x	x			x	x			
FRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm	x	x			x	x			
FRAN3_001	Random Sea	43.0	14.0	-	-	GOM1	x	x			x	x			
FRAN6_001	Random Sea	12.1	16.0	-	-	W. Africa	x	x			x	x			
Volume XIII															
FCUR3_001	Current	-	-	4.3	-	GOM	x	x	x		x				
FRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x	x	
FRC6_001	Random Sea	12.1	16.0	4.3	-	W. Africa	x	x	x		x	x	x	x	
Volume XIV															
FRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x	x	
FRCW6_001	Random Sea	12.1	16.0	4.3		W. Africa	x	x	x		x	x	x	x	
Volume XV															
FCUR2_001	Current	-	-	6.3	-	10 Year Storm	x	x	x		x				
FRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x			x
FRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm	x	x	x		x	x			x
Volume XVI															
FSO2-10	Static Offset	-	-	-	-		x								
F1D1_001	Surge Damping	-	-	-	-		x								
F1D2_001	Sway Damping	-	-	-	-		x								
F1D3_001	Heave Damping	-	-	-	-		x								
F1D4_001	Roll Damping	-	-	-	-		x								
F1D5_001	Pitch Damping	-	-	-	-		x								
F1D6_001	Yaw Damping	-	-	-	-		x								
F1RAN3_001	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			
F1RAN5_001	Random Sea	45.9	16.3	-	-	North Sea	x	x	x		x	x			
F2RAN3_001	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			
F1CUR3_001	Current	-	-	4.3	-	GOM	x	x	x		x				
F1RC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x	x	
F1RCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x	x	
Volume XVII															
F1CUR5_001	Current	-	-	5.3	-	North Sea	x	x	x		x				
F1RC5_001	Random Sea	45.9	16.3	5.3	-	North Sea	x	x	x		x	x	x	x	
F1RCW5_001	Random Sea	45.9	16.3	5.3	58.7	North Sea	x	x	x		x	x	x	x	
Volume XVIII															
F2CUR3_001	Current	-	-	4.3	-	GOM	x	x	x		x				
F2RC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x	x	
F2RCW3_003	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x	x	

Table 6.7h Analysis Products

Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Filtered Weibull Plots	Random Wave RAO Plots
Volume XIX															
HD1_001	Surge Damping	-	-	-	-		x								
HD2_002	Sway Damping	-	-	-	-		x								
HD3_001	Heave Damping	-	-	-	-		x								
HD4_001	Roll Damping	-	-	-	-		x								
HD5_001	Pitch Damping	-	-	-	-		x								
HPRE_005	Pretension	-	-	-	-		x								
HPRE_006	Pretension	-	-	-	-		x								
HPRE_017	Pretension	-	-	-	-		x								
HWIN2_001	Wind	-	-	-	43	10 Year Storm	x	x	x		x				
HWIN5_001	Wind	-	-	-	59	North Sea	x	x	x		x				
HWIN3_001	Wind	-	-	-	85	GOM1	x	x	x		x				
HWIN4_001	Wind	-	-	-	85	GOM2	x	x	x		x				
HRAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested	x	x	x		x	x			
HRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm	x	x	x		x	x			x
HRAN3_001	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			
HRAN4_001	Random Sea	43.0	14.0	-	-	GOM2	x	x	x		x	x			
HRAN5_001	Random Sea	45.9	16.3	-	-	North Sea	x	x	x		x	x			
HRAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested	x	x	x		x	x			
Volume XX															
HCUR3_002	Current	-	-	4.3	-	GOM	x	x	x		x				
HRC3_002	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x		
HRC4_002	Random Sea	43.0	14.0	4.3	-	GOM2	x	x	x		x	x	x		
HRCW3_002	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x		
HRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2	x	x	x		x	x	x		
Volume XXI															
HCUR5_001	Current	-	-	5.3	-	North Sea	x	x	x		x				
HRC5_001	Random Sea	45.9	16.3	5.3	-	North Sea	x	x	x		x	x	x	x	
HRCW5_001	Random Sea	45.9	16.3	5.3	58.7	North Sea	x	x	x		x	x	x	x	
HCUR2_001	Current	-	-	6.3	-	10 Year Storm	x	x	x		x				
HRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x			x
HRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm	x	x	x		x	x			x
Volume XXII															
HRAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM	x	x	x			x	x	x	
HRC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM	x	x	x			x	x	x	
HRCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM	x	x	x			x	x	x	

Table 6.7j Analysis Products

Test	Test Type	Hs	Tp	Current	Wind			Unfiltered Statistics Tables
JPRE_002	Pretension	-	-	-	-			x
J1_001	Current	-	-	3.0	-		200 Ft. Hawser on Deck Corner	x
J2_001	Current & Wind	-	-	3.0	20	Variable Wind	200 Ft. Hawser on Deck Corner	x
J3_001	Random Sea	10.0	10.5	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner	x
J4_001	Current & Wind	-	-	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner	x
J5_001	Current & Wind	-	-	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner	x
J6_001	Random Sea	10.0	10.5	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner	x
J7_001	Current	-	-	3.0	-		200 Ft. Hawser on Bridle	x
J8_001	Current & Wind	-	-	3.0	20	Steady Wind	200 Ft. Hawser on Bridle	x
J9_001	Random Sea	10.0	10.5	3.0	20	Steady Wind	200 Ft. Hawser on Bridle	x
JPRE_003	Pretension	-	-	-	-			x
J10_001	Waves & Wind	10.0	10.5	-	20	Steady Wind	250 Ft. Hawser on Bridle	x
J11_001	Waves Alone	10.0	10.5	-	-		250 Ft. Hawser on Bridle	x
J12_001	Waves Alone	10.0	10.5	-	-		250 Ft. Hawser on Deck Corner	x
J13_001	Waves & Wind	10.0	10.5	-	20	Steady Wind	250 Ft. Hawser on Deck Corner	x
J14_001	Waves & Wind	8.0	7.7	-	20	Short-Crested Sea	250 Ft. Hawser on Bridle	x
J14_002	Waves & Wind	8.0	7.7	-	20	Short-Crested Sea	250 Ft. Hawser on Bridle	x
J15_001	Waves Alone	8.0	7.7	-	-	Short-Crested Sea	250 Ft. Hawser on Bridle	x
J16_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea	250 Ft. Hawser on Bridle	x
J17_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea	250 Ft. Hawser on Deck Corner	x
J18_001	Current & Wind	-	-	3.0	43	Variable Wind	250 Ft. Hawser on Deck Corner	x
J19_001	Random Sea	21.0	10.5		43	Variable Wind	250 Ft. Hawser on Deck Corner	x
J20_001	Current Alone	-	-	3.0	-		180 Ft. Hawser on Deck Corner	x
J21_001	Current & Wind	-	-	3.0	20		180 Ft. Hawser on Deck Corner	x
J22_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea	180 Ft. Hawser on Deck Corner	x

Table 6.71 Analysis Products

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Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Filtered Weibull Plots	Random Wave RAO Plots
Volume XXIII															
LSO_1-10	Static Offset	-	-	-	-	Surge	x								
LSO_11-18	Static Offset	-	-	-	-	Sway	x								
LD1_001	Surge Damping	-	-	-	-		x								
LD7_001	Surge Damping	-	-	-	-	2.4# on winch	x								
LD8_001	Surge Damping	-	-	-	-	3.5# on winch	x								
LD2_001	Sway Damping	-	-	-	-		x								
LD3_001	Heave Damping	-	-	-	-		x								
LD4_001	Roll Damping	-	-	-	-		x								
LD5_001	Pitch Damping	-	-	-	-		x								
LD6_001	Yaw Damping	-	-	-	-		x								
LRAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested	x	x	x		x	x			
LRAN3_001	Random Sea	43.0	14.0	-	-	GOM1	x	x	x		x	x			
LRAN4_001	Random Sea	43.0	14.0	-	-	GOM2	x	x	x		x	x			
LRAN6_001	Random Sea	8.0	7.7	-	-	Operating Short Crested	x	x	x		x	x			
LWIN2_002	Wind	-	-	-	43	10 Year Storm	x	x	x		x				
LWIN3_001	Wind	-	-	-	85	GOM1	x	x	x		x				
LWIN4_001	Wind	-	-	-	85	GOM2	x	x	x		x				
LRG1_001	Regular Wave	6.0	6.0	-	-		x			x	x				
LRG2_001	Regular Wave	12.0	7.0	-	-		x			x	x				
LRG3_001	Regular Wave	15.0	8.0	-	-		x			x	x				
LRG4_001	Regular Wave	18.0	9.0	-	-		x			x	x				
LRG5_001	Regular Wave	20.0	10.0	-	-		x			x	x				
LRG6_001	Regular Wave	20.0	12.0	-	-		x			x	x				
LRG7_001	Regular Wave	20.0	14.0	-	-		x			x	x				
LRG8_001	Regular Wave	20.0	16.0	-	-		x			x	x				
Volume XXIV															
LCUR3_001	Current	-	-	4.3	-	GOM	x	x	x		x				
LRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x		
LRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2	x	x	x		x	x	x		
LRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x		
LRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2	x	x	x		x	x	x		
Volume XXV															
LRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x			x
LRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm	x	x	x		x	x			x
LRAN34	Random Sea	43.0	14.0	-	-	GOM1 & GOM2	x	x	x			x	x	x	
LRC34	Random Sea	43.0	14.0	4.3	-	GOM1 & GOM2	x	x	x			x	x	x	
LRCW34	Random Sea	43.0	14.0	4.3	85	GOM1 & GOM2	x	x	x			x	x	x	

Table 6.7m Analysis Products

Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Low Pass Statistics Tables	High Pass Statistics Tables	Regular Wave RAO Tables	Time Series Plots	PSD Plots	Unfiltered Weibull Plots	Random Wave RAO Plots
Volume XXVI														
MSO_1-9	Static Offset	-	-	-	-		x							
MD1_001	Surge Damping	-	-	-	-		x							
MD2_001	Sway Damping	-	-	-	-		x							
MD3_001	Heave Damping	-	-	-	-		x							
MD4_001	Roll Damping	-	-	-	-		x							
MD5_001	Pitch Damping	-	-	-	-		x							
MWIN3_001	Wind	-	-	-	85	GOM1	x	x	x		x			
MWIN4_001	Wind	-	-	-	85	GOM2	x	x	x		x			
MCUR3_001	Current	-	-	4.3	-	GOM	x	x	x		x			
MRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	x	x	x		x	x	x	
MRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2	x	x	x		x	x	x	
MRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x		x	x	x	
MRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2	x	x	x		x	x	x	
Volume XXVII														
MCUR2_001	Current	-	-	6.3	-	10 Year Storm	x	x	x		x			
MRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	x	x	x		x	x		x
MRC3-4	Random Sea	43.0	14.0	4.3	85	GOM1	x	x	x			x	x	
MRCW3-4	Random Sea	43.0	14.0	4.3	85	GOM2	x	x	x			x	x	

Table 6.7n Analysis Products

Test	Test Type	Hs	Tp	Current	Wind		Unfiltered Statistics Tables	Time Series Plots
Volume XXVIII								
ND3	Heave Damping	-	-	-	-		x	
ND4	Roll Damping	-	-	-	-		x	
ND5	Pitch Damping	-	-	-	-		x	
NRAN8	Random Sea	4	7.7	-	-	Short-Crested	x	x
NRAN1	Random Sea	8.0	7.7	-	-	Long-Crested	x	x
NRAN6	Random Sea	8.0	7.7	-	-	Short-Crested	x	x
NRAN9	Random Sea	2.0	7.7	-	-	Short_Crested	x	x

Table 6.7o Analysis Products

Test	Test Type	Hs	Tp	Current	Wind	Description	Unfiltered Statistics Tables	Time Series Plots
Volume XXVIII								
OD3	Heave Damping	-	-	-	-		x	
OD4	Roll Damping	-	-	-	-		x	
OD5	Pitch Damping	-	-	-	-		x	
ORAN8	Random Sea	4	7.7	-	-	Short-Crested	x	x
ORAN1	Random Sea	8.0	7.7	-	-	Long-Crested	x	x
ORAN6	Random Sea	8.0	7.7	-	-	Short-Crested	x	x

Table 6.7p Analysis Products

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Test	Hs	Tp	Current	Wind		Unfiltered Statistics Tables	Time Series Plots
Volume XXIX							
	4 Winches Float On						
PRAN6_003	4.0	7.7	-	-	Broke 1 Line	x	x
PRAN7_001	6.0	7.7	-	-		x	x
PRC6_001	4.0	7.7	1.5	-		x	x
PRC7_001	6.0	7.7	1.5	-		x	x
PUMP_001	4.0	7.7	1.5	-	Deballasting	x	x
PUMP_002	4.0	7.7	1.5	-	Deballasting	x	x
PUMP_003	4.0	7.7	1.5	-	Deballasting	x	x
	2 Winches Slide On						
PRAN_010	2.0	7.7	-	-		x	x
PRAN_011	2.0	7.7	-	-		x	x
PRAN_012	2.0	7.7	-	-	Broke 1 Line	x	x
PRAN_013	2.0	7.7	-	-	Deballasting	x	x
PRAN_014	2.0	7.7	-	-	Deballasting	x	x
PRAN_016	2.0	7.7	-	-	Deballasting	x	x
PRAN_017	2.0	7.7	-	-	Deballasting	x	x
PRAN_018	2.0	7.7	-	-	Deballasting	x	x
PRAN_020	6.0	7.7	-	-		x	x
PRAN_021	6.0	7.7	-	-		x	x
PRAN_022	6.0	7.7	-	-	Deballasting	x	x
PRAN_023	6.0	7.7	-	-	Deballasting	x	x
PRAN_024	6.0	7.7	-	-	Deballasting	x	x
PRAN_025	6.0	7.7	-	-	Deballasting	x	x
PRAN_026	6.0	7.7	-	-	Deballasting	x	x

7.0 Test Setups and Experiments

Table 7.1 summarizes the 12 different configurations tested for the two different spar models. The remainder of this section of this report presents:

- a basic description of each configuration tested,
- a list of acquired data and the instruments used for each configuration,
- a list of computed data and the inputs for each configuration,
- a summary of the natural period and decay tests, if any,
- comments or observations to facilitate interpretation of the data,
- a list of the tests with the associated environments,
- layouts showing mooring/restraints and instrument locations, and
- results of the static offset tests, if any.

7.1 Configuration A

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	4 Piecewise Linear Lines
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	None
Risers:	None

Table 7.1 Summary of Spar Configurations Tested

	Spar Diameter	Spar Draft	Mooring	Vortex Suppression	Lateral Restraints	In-Line Restraints	Comments
A	133	650	4 Lines	None	None	None	
B	133	650	2 Lines	None	Yes	None	
C	133	650	None	None	Yes	Yes	
D	133	650	2 Lines	None	None	Yes	
F	133	650	4 Lines	None	None	None	Vertical Risers
F1	133	650	4 Lines	Strakes	None	None	Vertical Risers
F2	133	650	4 Lines	Strakes	None	None	Vertical Risers & Catenary Riser
H	133	650	4 Lines	Strakes	None	None	
J	133	650	4 Lines	Strakes	None	None	Moored Tanker
L	52.5	443	6 Lines	None	None	None	
M	52.5	443	6 Lines	None	Yes	None	
N	-	-	-	-	-	-	Floating Deck Alone
O	133	700	4 Lines	Strakes	None	None	Flooded Hull Alone
P	133	700	4 Lines	Strakes	None	None	Float-On & Slide-On Deck

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Surge Acceleration High *	Accelerometer
Surge Acceleration Low *	Accelerometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Moonpool	Capacitance Wave Probe
Runup **	Resistance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1, Moor 2, Moor 3, Moor 4	U/W Tension Cells

Note:

* Tests ARG3_002, ARG5_002, ARG6_002, ARG7_002, ARG8_002, ARG10_002, ARAN3_100 only.

** Tests ARG3_002, ARG5_002, ARG6_002, ARG7_002, ARG8_002, ARG10_002, ARAN7_001, ACUR7_001,ARC7_001, ARCW7_001, ARAN3_100 only.

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Surge	331.86	5.26
Sway	309.04	9.05
Heave	29.03	0.53
Roll	66.90	1.12
Pitch	66.77	0.86
Yaw	57.81	2.25

Comments:

All Configuration A tests were repeated when it was discovered that the mooring line stoppers slipped. All reported results are with the good model mooring system.

Airgap probe got wet in North Atlantic tests ARC5_002 and ARCW5_002 due to wave impact on deck. This instrument recovered very slowly from being drenched.

Upper and lower accelerometers located on model derrick, on centerline, 36.25 inches apart, model scale, 166.14 feet, prototype. Upper accelerometer on top of model derrick. Lower accelerometer 30 inches, model scale, 137.5 feet, prototype, above waterline.

Table 7.2 A Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind		
Volume II							
							No Runup Probe
ASO_060-70	Static Offset	-	-	-	-		
AD1_001	Surge Damping	-	-	-	-		
AD2_004	Sway Damping	-	-	-	-		
AD3_001	Heave Damping	-	-	-	-		
AD4_001	Roll Damping	-	-	-	-		
AD5_001	Pitch Damping	-	-	-	-		
AD6_001	Yaw Damping	-	-	-	-		
ARAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested	
ARAN2_002	Random Sea	21.0	10.5	-	-	10 Year Storm	
ARAN3_003	Random Sea	43.0	14.0	-	-	GOM1	
ARAN4_003	Random Sea	43.0	14.0	-	-	GOM2	
ARAN5_002	Random Sea	45.9	16.3	-	-	North Sea	
ARAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested	
AWIN2_001	Wind	-	-	-	43	10 Year Storm	
AWIN5_001	Wind	-	-	-	59	North Sea	
AWIN3_003	Wind	-	-	-	85	GOM1	
AWIN4_002	Wind	-	-	-	85	GOM2	
Volume III							
ACUR3_002	Current	-	-	4.3	-	GOM	
ARC3_002	Random Sea	43.0	14.0	4.3	-	GOM1	
ARC4_002	Random Sea	43.0	14.0	4.3	-	GOM2	
ARCW3_002	Random Sea	43.0	14.0	4.3	85	GOM1	
ARCW4_002	Random Sea	43.0	14.0	4.3	85	GOM2	
Volume IV							
ACUR5_002	Current	-	-	5.3	-	North Sea	
ARC5_002	Random Sea	45.9	16.3	5.3	-	North Sea	Airgap Probe Wet
ARCW5_002	Random Sea	45.9	16.3	5.3	58.7	North Sea	Airgap Probe Wet
ACUR2_002	Current	-	-	6.3	-	10 Year Storm	
ARC2_003	Random Sea	21.0	10.5	6.3	-	10 Year Storm	
ARCW2_002	Random Sea	21.0	10.5	6.3	43	10 Year Storm	
Volume V							
ARAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM	
ARC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM	
ARCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM	
Volume VI							
							Runup Probe
ARG3_002	Regular Wave	15.0	8.0	-	-		Pitch accelerometers
ARG5_002	Regular Wave	20.0	10.0	-	-		Pitch accelerometers
ARG6_002	Regular Wave	20.0	12.0	-	-		Pitch accelerometers
ARG7_002	Regular Wave	20.0	14.0	-	-		Pitch accelerometers
ARG8_002	Regular Wave	20.0	16.0	-	-		Pitch accelerometers
ARG10_002	Regular Wave	20.0	21.0	-	-		Pitch accelerometers
ARAN7_001	Random Sea	12.1	16.0	-	-	W. Africa	
ACUR7_001	Current	-	-	4.3	-	W. Africa	
ARC7_001	Random Sea	12.1	16.0	4.3	-	W. Africa	
ARCW7_001	Random Sea	12.1	16.0	4.3	38	W. Africa	
ARAN3_100	Random Sea	43.0	14.0	-	-	GOM1	Pitch accelerometers

Figure 7.1 Basin Layout for Configuration A

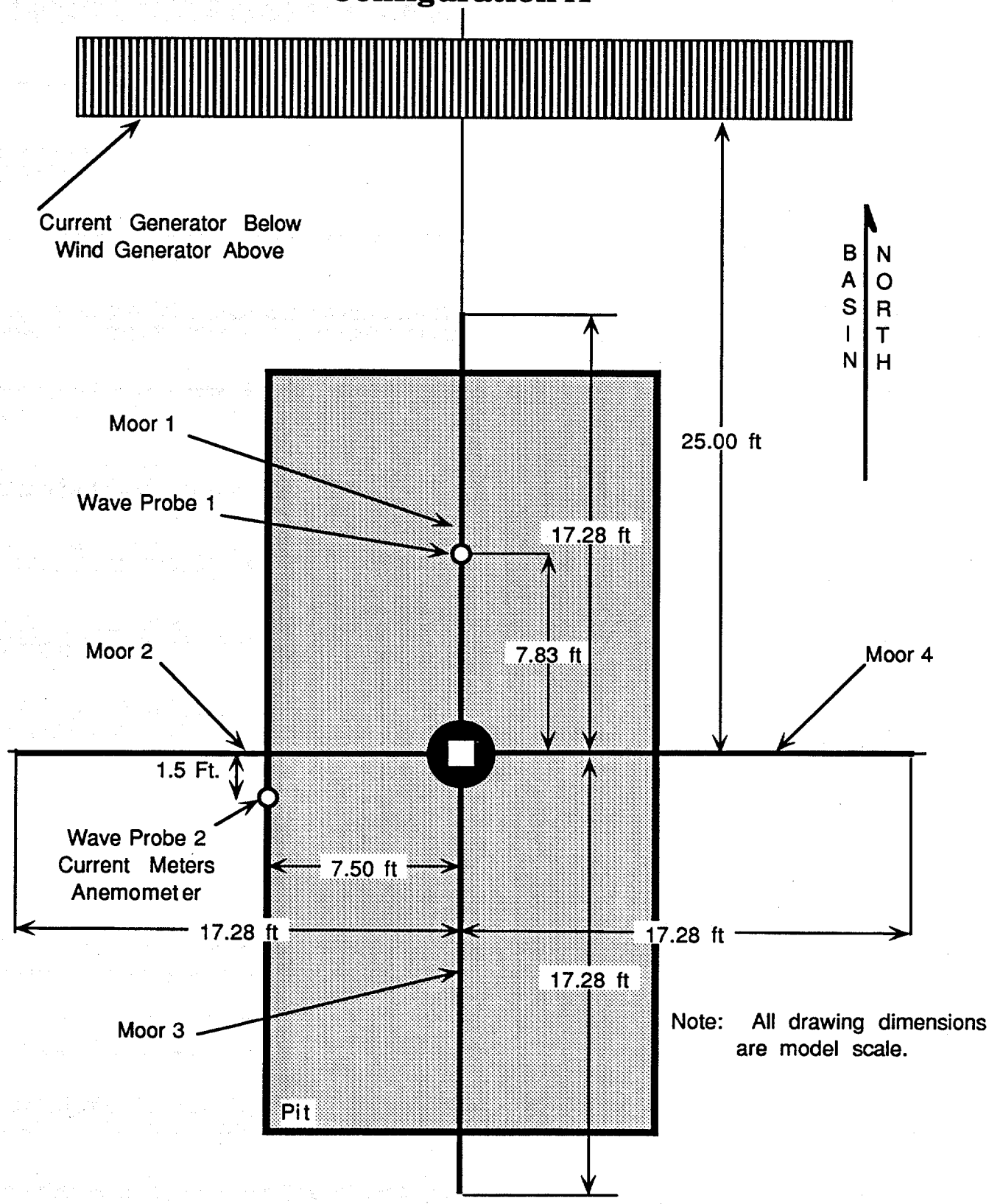
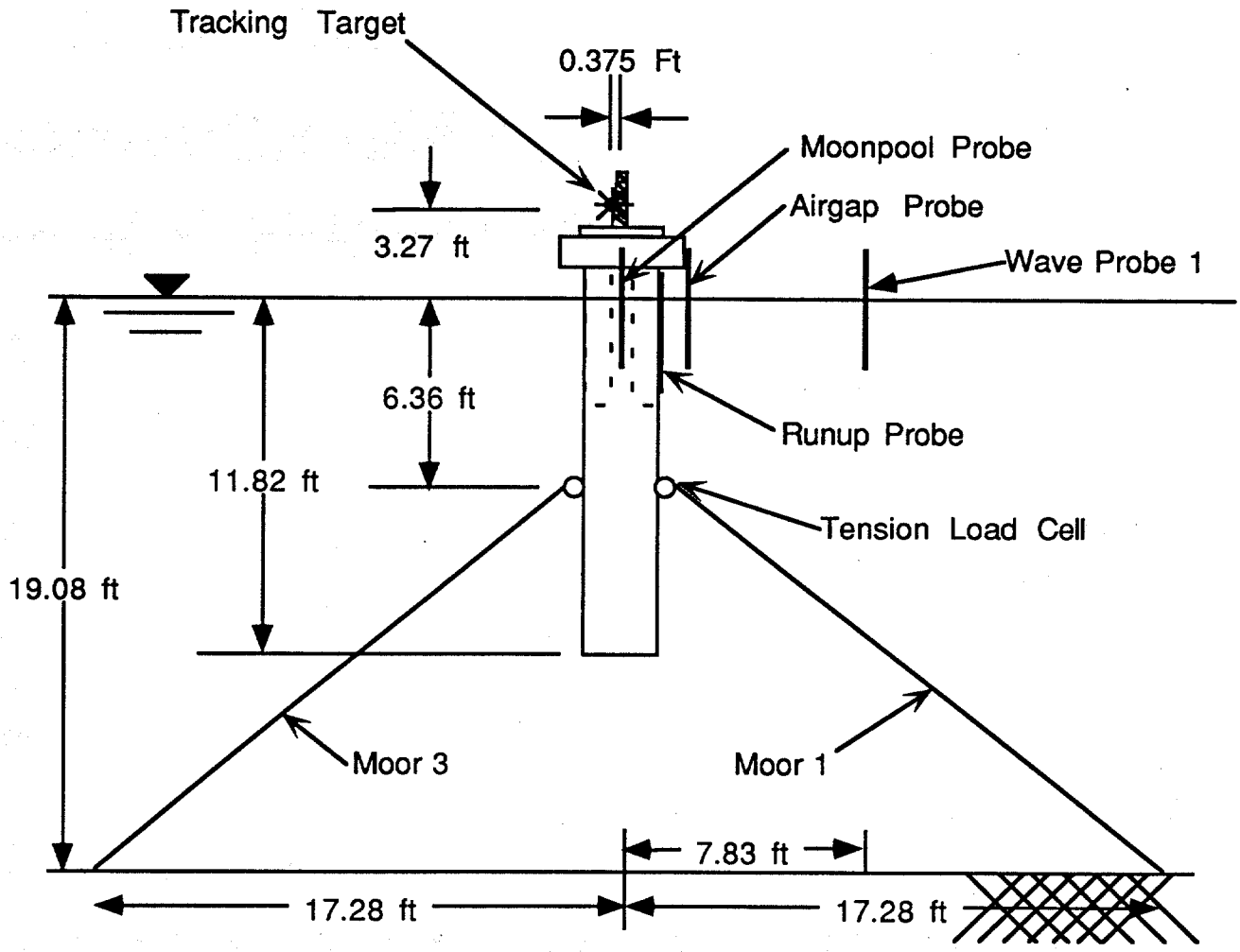


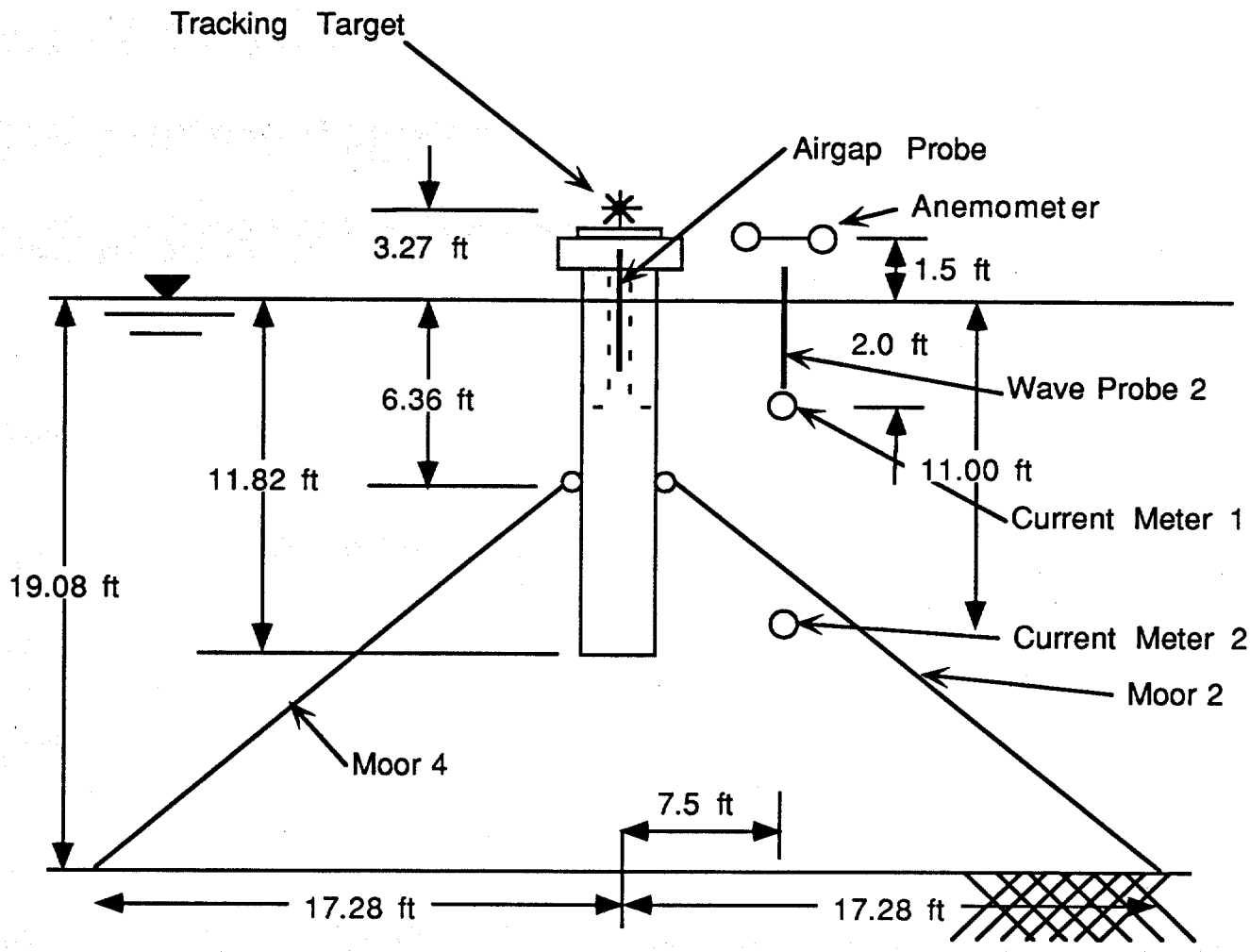
Figure 7.2 Configuration A Side Elevation



Note: All drawing dimensions are model scale.

Configuration A:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	No
Mooring	Taut
Risers	No

Figure 7.3 Configuration A Front Elevation



Note: All drawing dimensions are model scale.

Configuration A:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	No
Mooring	Taut
Risers	No

Figure 7.4 Configuration A
Surge Static Offset Results

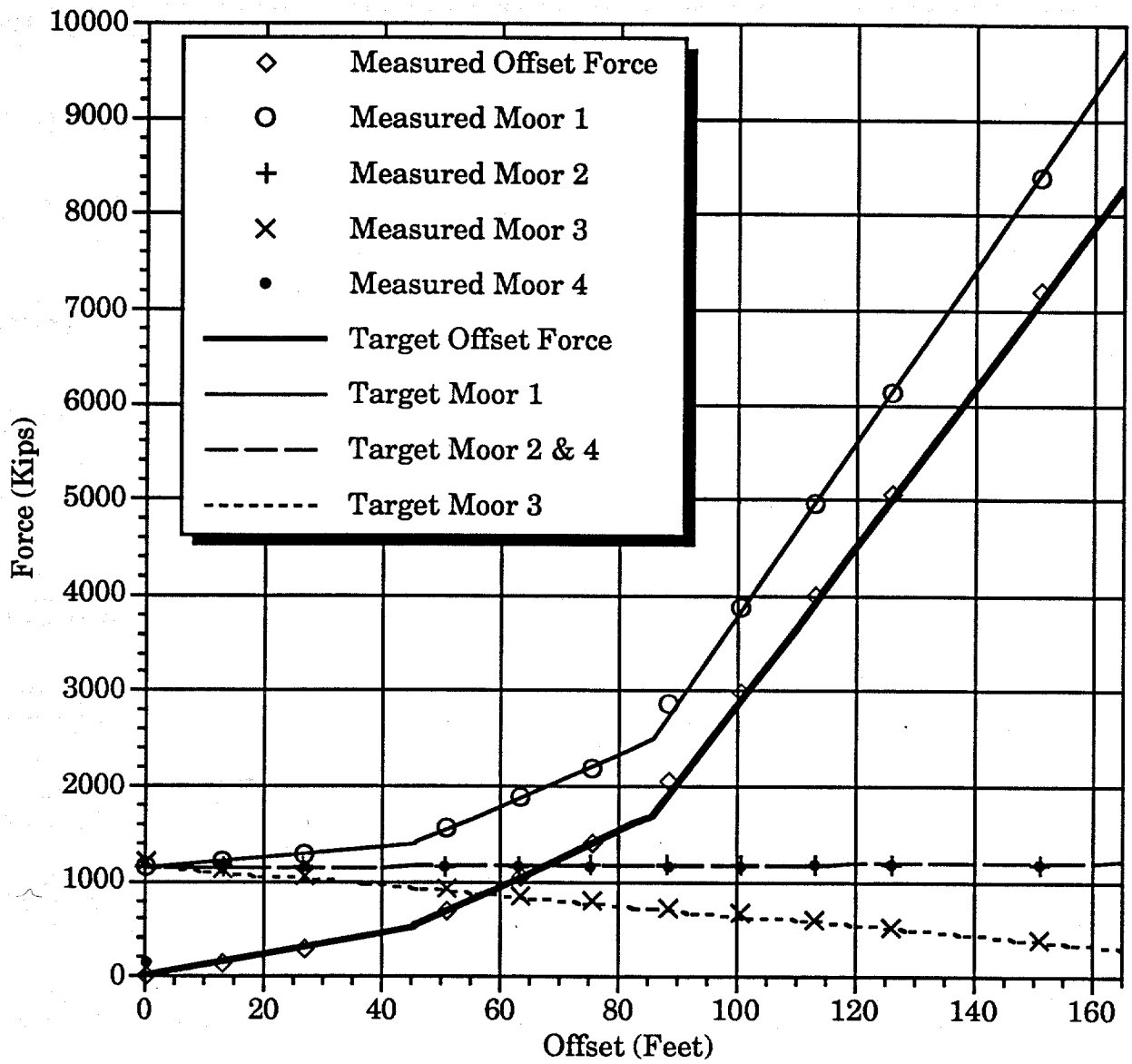
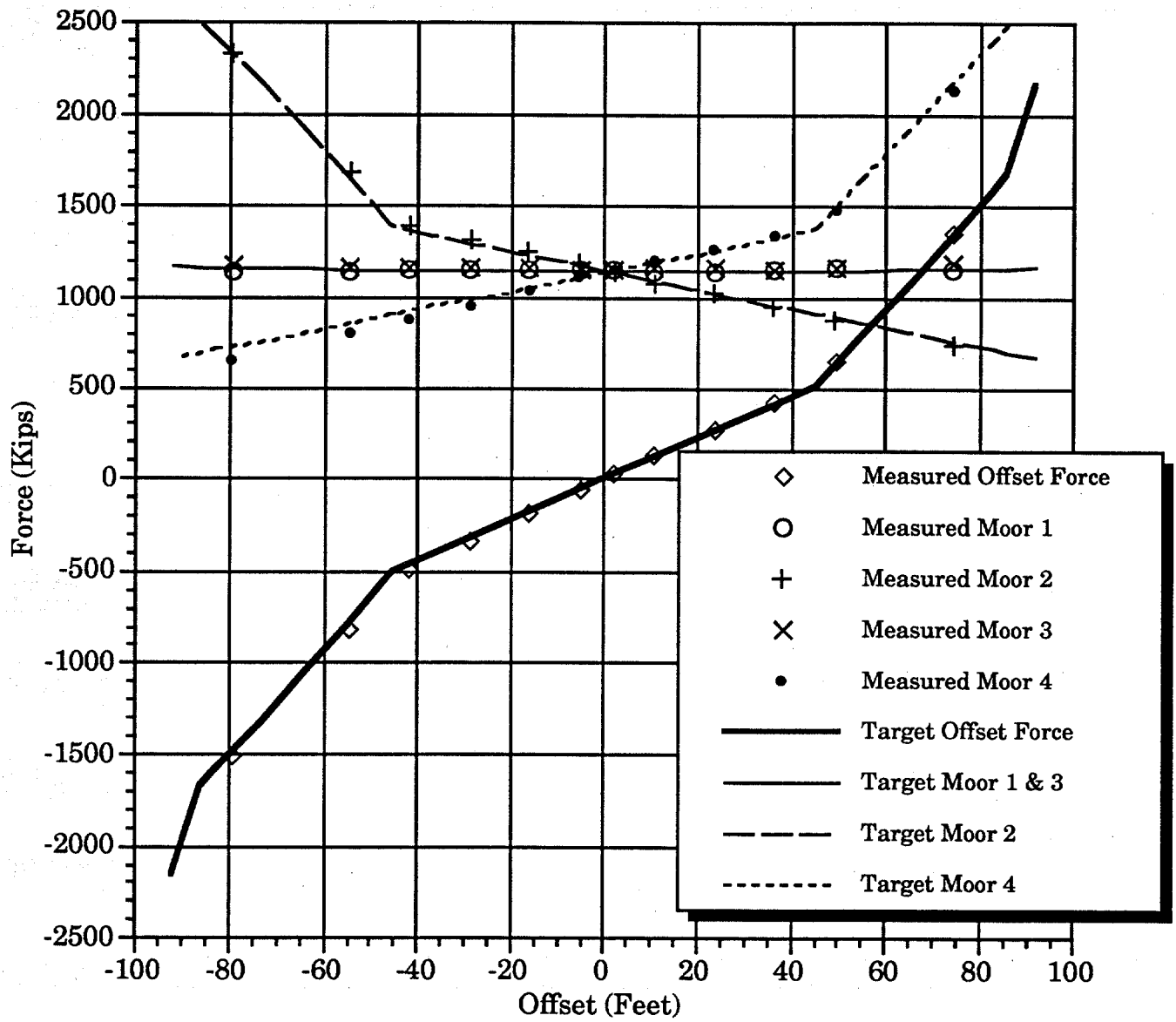


Figure 7.5 Configuration A
Sway Static Offset Results



7.2 Configuration B

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	Moor 1, Moor 3
In-Line Restraints:	None
Lateral Restraints:	Yes
Vortex Suppression:	None
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Moonpool	Capacitance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1, Moor 3	U/W Tension Cells
Top Lateral 1, Top Lateral 2	U/W Tension Cells
Lower Lateral	U/W Shear Load Cell
Lower In-Line	U/W Shear Load Cell

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw
Total Lateral Force	Surge, Pitch, Top Lateral 1, Top Lateral 2, Bottom Lateral, Bottom In-Line
Total Lateral Couple	Surge, Pitch, Top Lateral 1, Top Lateral 2, Bottom Lateral, Bottom In-Line

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Surge	291.42	2.71
Heave	29.00	0.54
Pitch	67.79	1.04

Comments:

Upper Lateral restraint stiffness (each), 13.9 lbs/inch, model scale.
Lower Lateral restraint stiffness (each), 3.5 lbs/inch, model scale.

Sway and roll natural periods and damping coefficients not computed due to strong coupling between modes.

Airgap probe got wet in North Atlantic tests BRAN5_001 and BRC5_001 due to wave impact on deck. This instrument recovered very slowly after being drenched.

Table 7.3 B Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind		
Volume VII							
BSO_013 -23	Static Offset	-	-	-	-		
BD1_001	Surge Damping	-	-	-	-		
BD2_001	Sway Damping	-	-	-	-		
BD3_001	Heave Damping	-	-	-	-		
BD4_001	Roll Damping	-	-	-	-		
BD5_001	Pitch Damping	-	-	-	-		
BPRE_017	Pretension	-	-	-	-		BRG, BBC & BRAN
BPRE_021	Pretension	-	-	-	-		BCUR, BRC,BRCW
BRG2_003	Regular Wave	12.0	7.0	-	-		
BRG4_002	Regular Wave	18.0	9.0	-	-		
BRG6_001	Regular Wave	20.0	12.0	-	-		
BRG8_001	Regular Wave	20.0	16.0	-	-		
BBC3_001	Bi-Chromatic Wave	20/20	14/15.11	-	-		
BBC5_001	Bi-Chromatic Wave	20/20	16/17.47	-	-		
BBC8_001	Bi-Chromatic Wave	20/20	12/14.29	-	-		
BBC10_001	Bi-Chromatic Wave	20/20	14/17.21	-	-		
BBC12_001	Bi-Chromatic Wave	20/20	16/20.34	-	-		
BRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm	
BRAN3_001	Random Sea	43.0	14.0	-	-	GOM1	
BRAN4_001	Random Sea	43.0	14.0	-	-	GOM2	
BRAN5_001	Random Sea	45.9	16.3	-	-	North Atlantic	Airgap Probe Wet
BWIN2_001	Wind	-	-	-	43	10 Year Storm	
BWIN5_001	Wind	-	-	-	58.7	North Atlantic	
BWIN3_001	Wind	-	-	-	85	GOM1	
BWIN4_001	Wind	-	-	-	85	GOM2	
Volume VIII							
BCUR3_002	Current	-	-	4.3	-	GOM	
BRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	
BRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2	
BRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	
BRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2	
BCUR5_001	Current	-	-	5.3	-	North Atlantic	
BRC5_001	Random Sea	45.9	16.3	5.3	-	North Atlantic	Airgap Probe Wet
BRCW5_002	Random Sea	45.9	16.3	5.3	58.7	North Atlantic	
Volume IX							
BCUR2_001	Current	-	-	6.3	-	10 Year Storm	
BRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	
BRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm	
BRAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM	
BRC3&4	Random Sea	43.0	14.0	4.3	-	Combined GOM	
BRCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM	

Figure 7.6 Basin Layout for Configuration B

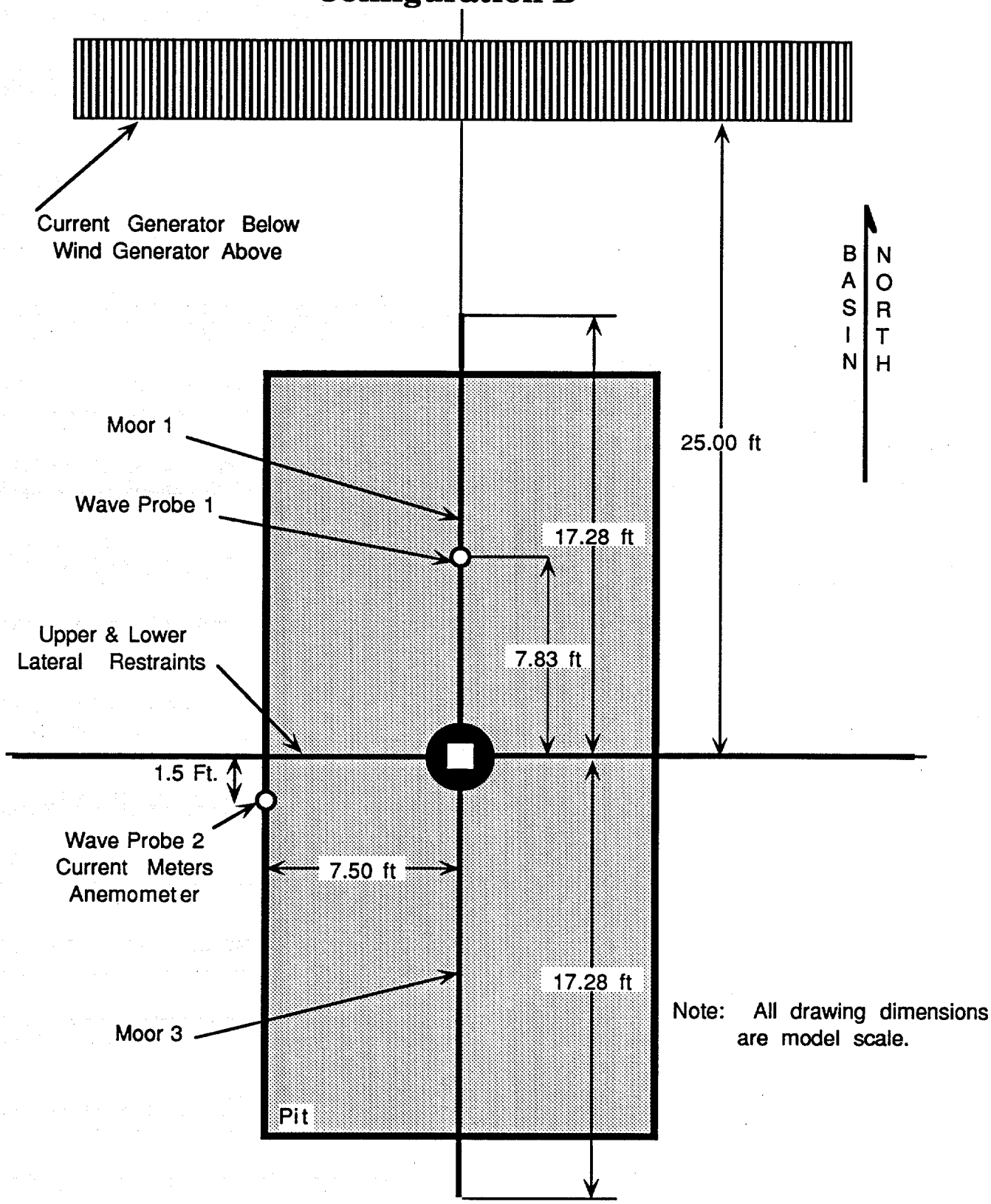
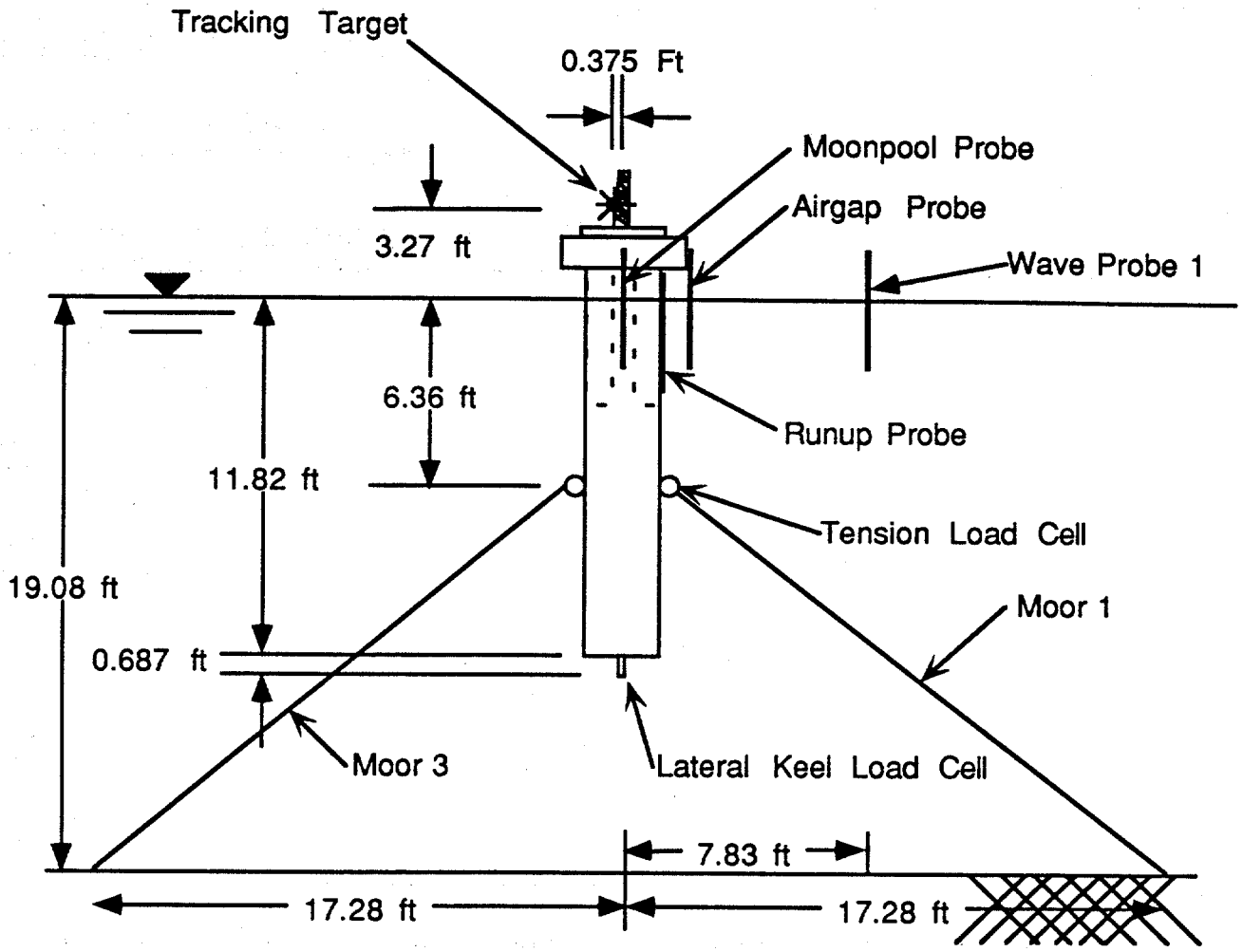


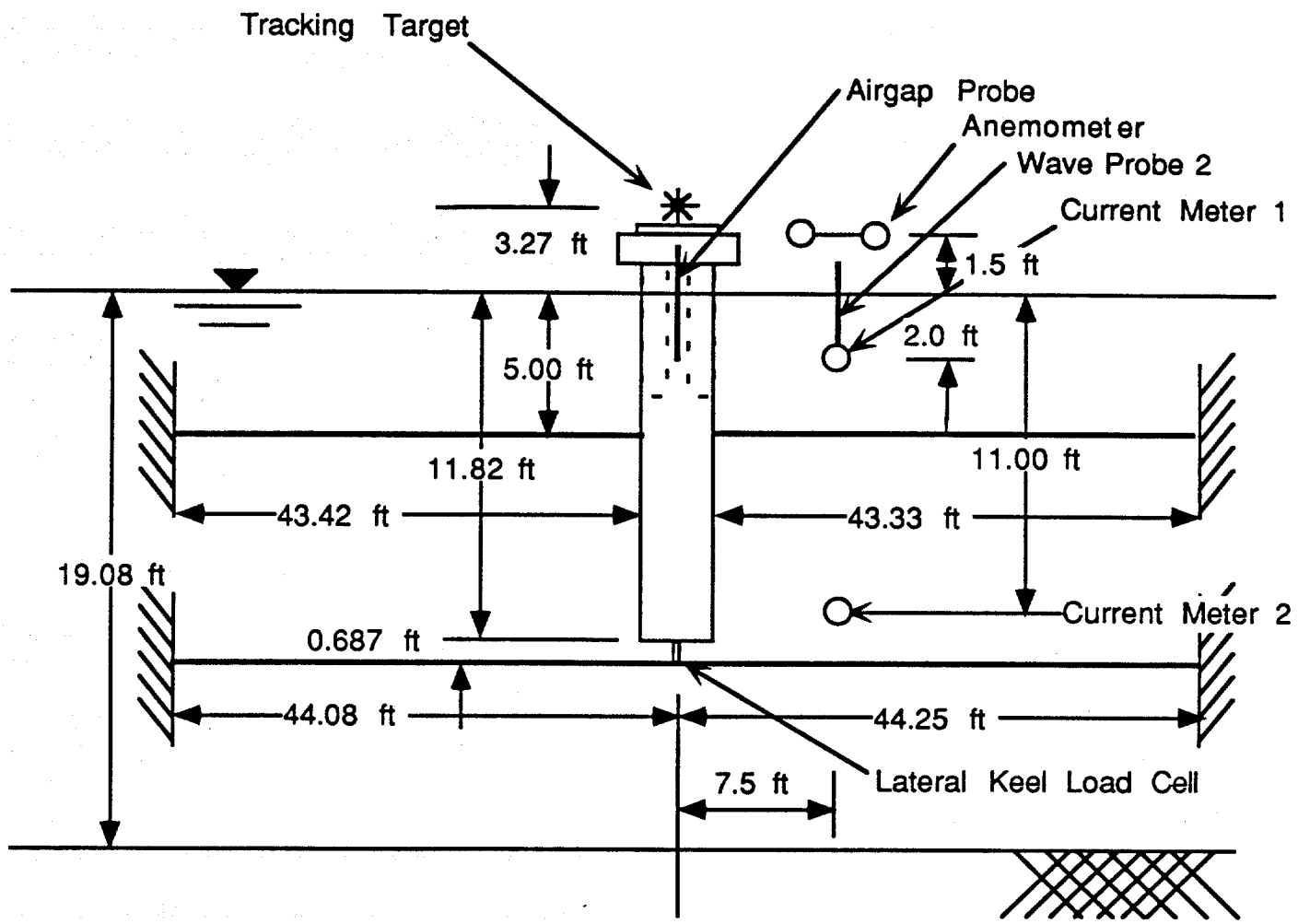
Figure 7.7 Configuration B Side Elevation



Note: All drawing dimensions are model scale.

Configuration B:		
Spar Diameter, full scale	133 Ft	
Spar Draft, full scale	650 Ft	
Vortex Suppression	No	
Mooring	Lateral	Restraints
Risers	No	

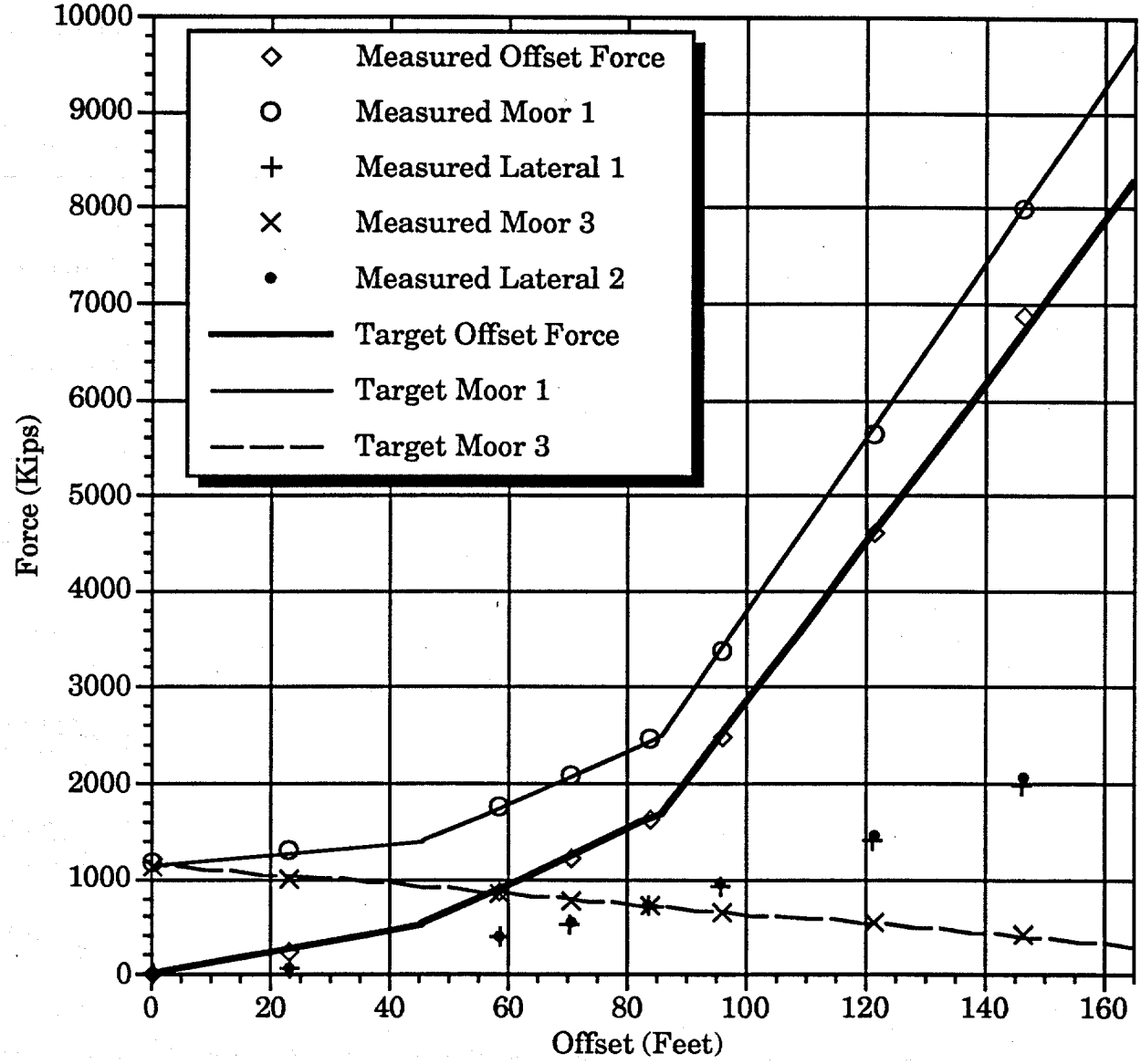
Figure 7.8 Configuration B Front Elevation



Note: All drawing dimensions are model scale.

Configuration B:		
Spar Diameter, full scale	133 Ft	
Spar Draft, full scale	650 Ft	
Vortex Suppression	No	
Mooring	Lateral	Restraints
Risers	No	

Figure 7.9 Configuration B
Surge Static Offset Results



7.3 Configuration C

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	None
In-Line Restraints:	Yes
Lateral Restraints:	Yes
Vortex Suppression:	None
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Moonpool	Capacitance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Top In-Line 1, Top In-Line 2	U/W Tension Cells
Top Lateral 1, Top Lateral 2	U/W Tension Cells
Lower Lateral	U/W Shear Load Cell
Lower In-Line	U/W Shear Load Cell

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw
Total In-Line Force	Surge, Pitch, Top In-Line 1, Top In-Line 2, Top Lateral 1, Top Lateral 2, Bottom Lateral, Bottom In-Line
Total Lateral Force	Surge, Pitch, Top In-Line 1, Top In-Line 2, Top Lateral 1, Top Lateral 2, Bottom Lateral, Bottom In-Line
Total In-Line Couple	Surge, Pitch, Top In-Line 1, Top In-Line 2, Top Lateral 1, Top Lateral 2, Bottom Lateral, Bottom In-Line
Total Lateral Couple	Surge, Pitch, Top In-Line 1, Top In-Line 2, Top Lateral 1, Top Lateral 2, Bottom Lateral, Bottom In-Line

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Surge	36.93	0.38
Heave	28.55	0.57
Pitch	30.51	0.78

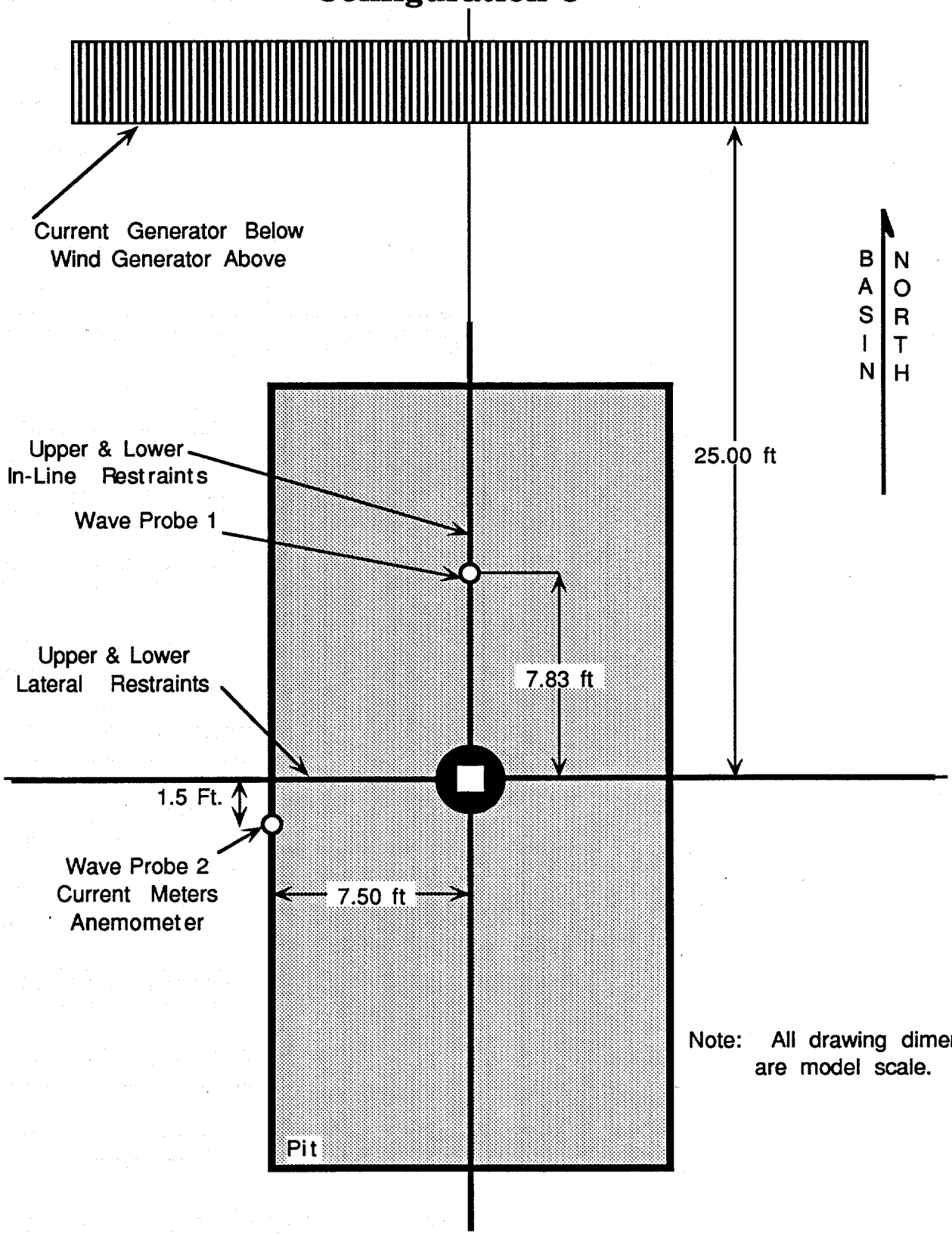
Comments:

No static offset tests.
Upper In-Line restraint stiffness (each), 14.2 lbs/inch, model scale.
Lower In-Line restraints stiffness (each), 3.6 lbs/inch, model scale.
Upper Lateral restraint stiffness (each), 13.9 lbs/inch, model scale.
Lower Lateral restraint stiffness (each), 3.5 lbs/inch, model scale.
Sway and roll natural periods and damping coefficients not computed due to strong coupling between modes.

Table 7.4 C Series Test Matrix

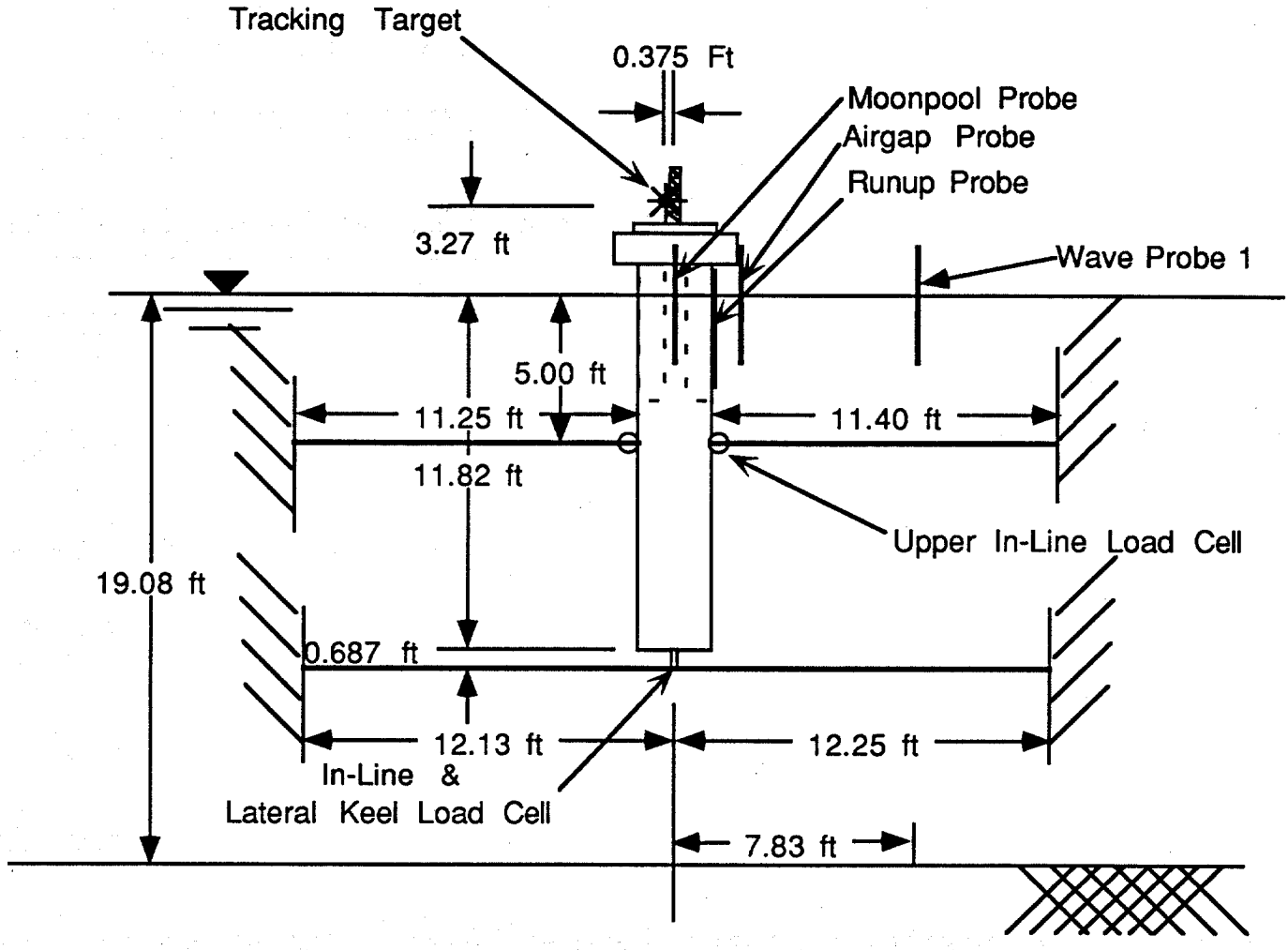
Test	Test Type	Hs	Tp	Current	Wind	
Volume X						
CD1_003	Surge Damping	-	-	-	-	
CD2_001	Sway Damping	-	-	-	-	
CD3_001	Heave Damping	-	-	-	-	
CD4_001	Roll Damping	-	-	-	-	
CD5_001	Pitch Damping	-	-	-	-	
CRG1_002	Regular Wave	6.0	6.0	-	-	
CRG2_001	Regular Wave	12.0	7.0	-	-	
CRG3_001	Regular Wave	15.0	8.0	-	-	
CRG4_001	Regular Wave	18.0	9.0	-	-	
CRG5_001	Regular Wave	20.0	10.0	-	-	
CRG6_001	Regular Wave	20.0	12.0	-	-	
CRG7_001	Regular Wave	20.0	14.0	-	-	
CRG8_001	Regular Wave	20.0	16.0	-	-	
CRG9_001	Regular Wave	20.0	17.0	-	-	
CRG10_002	Regular Wave	20.0	21.0	-	-	
CBC2_001	Bi-Chromatic Wave	20/20	12/12.81	-	-	
CBC3_001	Bi-Chromatic Wave	20/20	14/15.11	-	-	
CBC4_001	Bi-Chromatic Wave	10/10	14/15.11	-	-	
CBC5_001	Bi-Chromatic Wave	20/20	16/17.47	-	-	
CBC6_001	Bi-Chromatic Wave	20/20	17/18.67	-	-	
CBC7_001	Bi-Chromatic Wave	20/20	10/11.54	-	-	
CBC8_001	Bi-Chromatic Wave	20/20	12/14.29	-	-	
CBC9_001	Bi-Chromatic Wave	20/20	13/15.73	-	-	
CBC10_001	Bi-Chromatic Wave	20/20	14/17.21	-	-	
CBC11_001	Bi-Chromatic Wave	10/10	14/17.21	-	-	
CBC12_001	Bi-Chromatic Wave	20/20	16/20.34	-	-	
CBC13_001	Bi-Chromatic Wave	20/20	17/21.98	-	-	
CBC14_001	Bi-Chromatic Wave	20/15	13/8.96			
CRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm

Figure 7.10 Basin Layout for Configuration C



Note: All drawing dimensions are model scale.

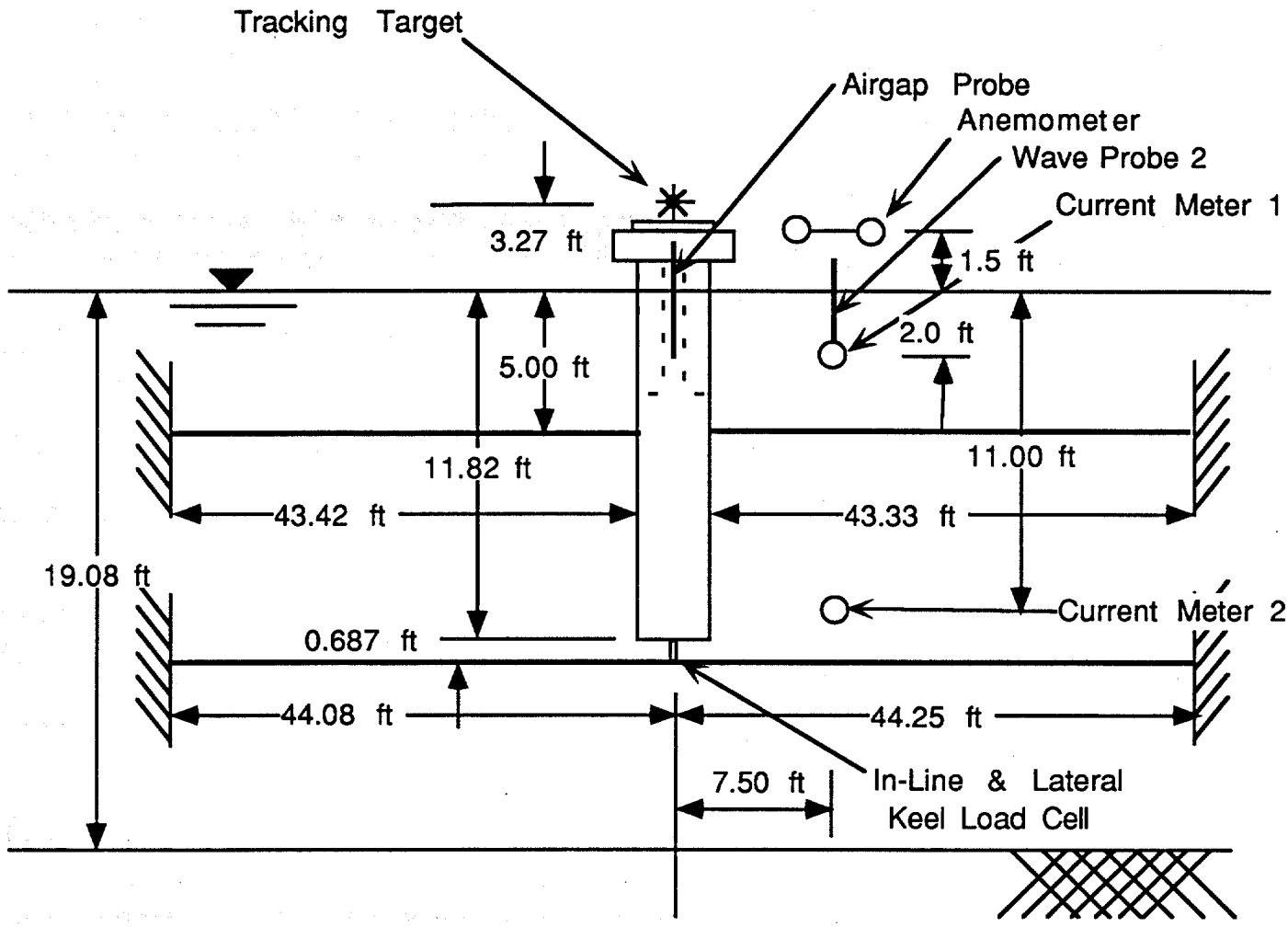
Figure 7.11 Configuration C Side Elevation



Note: All drawing dimensions are model scale.

Configuration C:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	No
Mooring	In-Line & Lateral Restraints
Risers	No

Figure 7.12 Configuration C Front Elevation



Note: All drawing dimensions are model scale.

Configuration C:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	No
Mooring	In-Line & Lateral Restraints
Risers	No

7.4 Configuration D

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	Moor 2, Moor 4
In-Line Restraints:	Yes
Lateral Restraints:	None
Vortex Suppression:	None
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Moonpool	Capacitance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Top In-Line 1, Top In-Line 2	U/W Tension Cells
Top Lateral 1, Top Lateral 2	U/W Tension Cells
Lower Lateral	U/W Shear Load Cell
Lower In-Line	U/W Shear Load Cell

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw
Total In-Line Force	Surge, Pitch, Top In-Line 1, Top In-Line 2, Bottom Lateral, Bottom In-Line
Total In-Line Couple	Surge, Pitch, Top In-Line 1, Top In-Line 2, Bottom Lateral, Bottom In-Line

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Sway	166.42	1.47
Heave	28.48	0.80
Roll	64.32	1.08

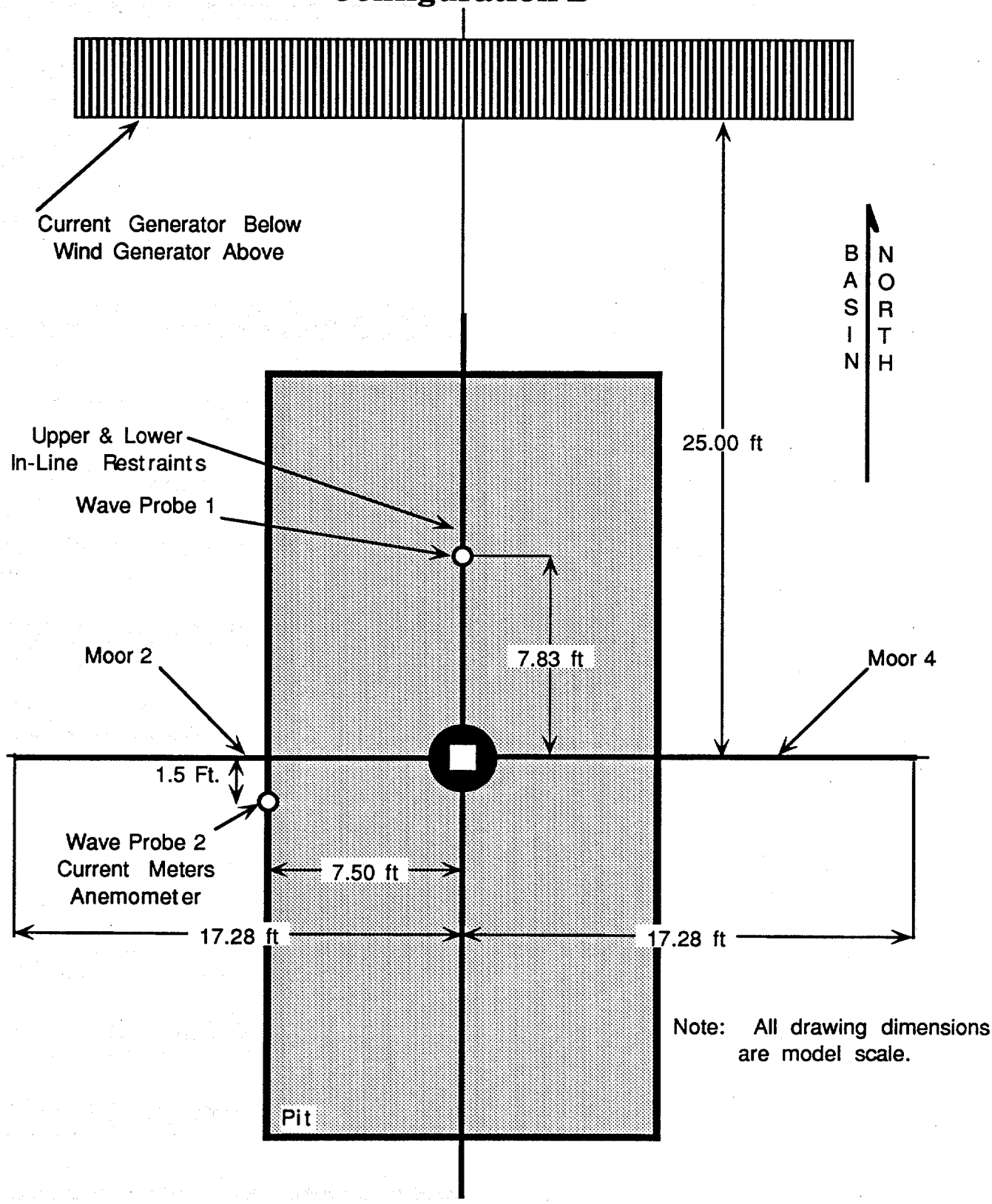
Comments:

No static offset tests.
Upper In-Line restraint stiffness (each), 14.2 lbs/inch, model scale.
Lower In-Line restraints stiffness (each), 3.6 lbs/inch, model scale.
Surge and pitch natural periods and damping coefficients not computed due to strong coupling between modes.

Table 7.5 D Series Test Matrix

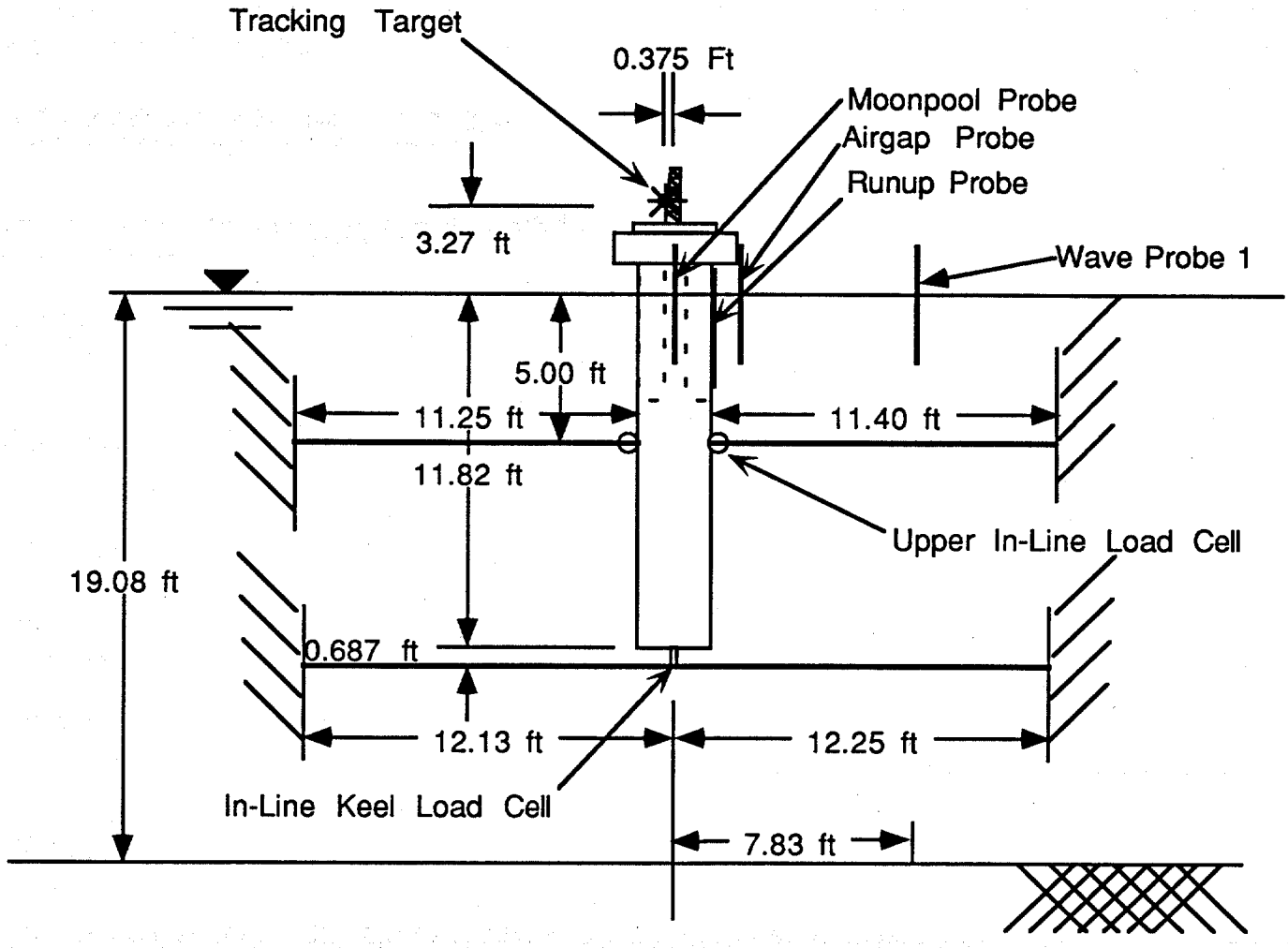
Test	Test Type	Hs	Tp	Current	Wind	
Volume XI						
DD1_001	Surge Damping	-	-	-	-	
DD2_001	Sway Damping	-	-	-	-	
DD3_001	Heave Damping	-	-	-	-	
DD4_001	Roll Damping	-	-	-	-	
DD5_001	Pitch Damping	-	-	-	-	
DCUR3_001	Current	-	-	4.3	-	GOM
DRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
DRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
DCUR5_001	Current	-	-	5.3	-	North Sea
DRC5_001	Random Sea	45.9	16.3	5.3	-	North Sea
DCUR2_001	Current	-	-	6.3	-	10 Year Storm
DRC2_002	Random Sea	21.0	10.5	6.3	-	10 Year Storm
DRC34	Random Sea	43.0	14.0	4.3	-	GOM1&GOM2

Figure 7.13 Basin Layout for Configuration D



Note: All drawing dimensions are model scale.

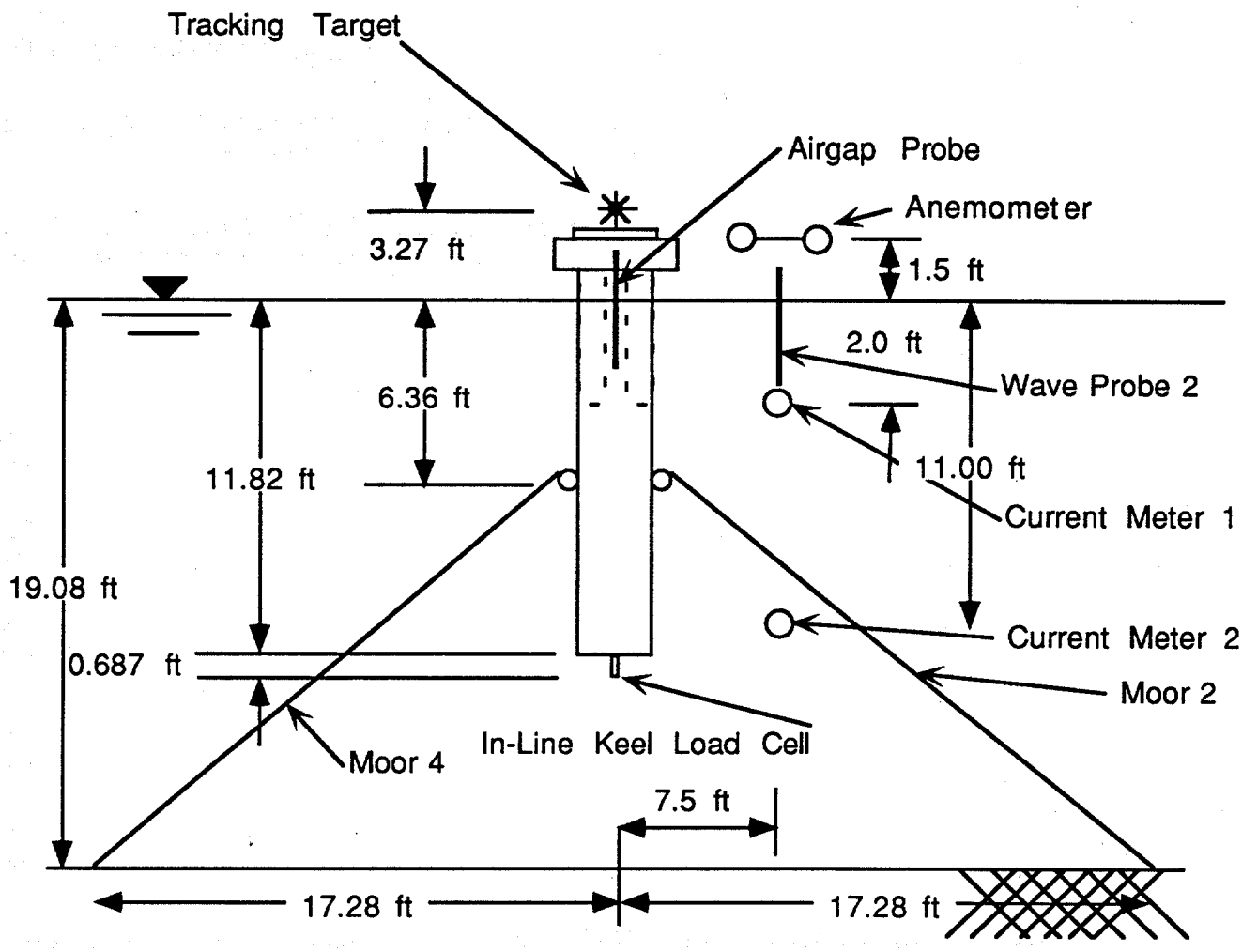
Figure 7.14 Configuration D Side Elevation



Note: All drawing dimensions are model scale.

Configuration D:		
Spar Diameter, full scale	133 Ft	
Spar Draft, full scale	650 Ft	
Vortex Suppression	No	
Mooring	In-Line	Restraints
Risers	No	

Figure 7.15 Configuration D Front Elevation



Note: All drawing dimensions are model scale.

Configuration D:		
Spar Diameter, full scale	133 Ft	
Spar Draft, full scale	650 Ft	
Vortex Suppression	No	
Mooring	In-Line	Restraints
Risers	No	

7.5 Configurations F, F1 and F2

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	4 Piecewise Linear Lines
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	F = None, F1 & F2 = Strakes
Risers:	Yes, F2 + Catenary Riser

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Runup	Resistance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1, Moor 2, Moor 3, Moor 4	U/W Tension Cells
Riser 2 Heave, Riser 19 Heave	String Potentiometers
Riser 1 Tension, Riser 20 Tension	U/W Tension Cells
Riser 3 (Catenary Riser) *	U/W Tension Cells
Keel X, Keel Y	U/W Shear Load Cells
Surge Acceleration	Accelerometer
Sway Acceleration	Accelerometer

Note:

* Configuration F2 only.

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
	Configuration F	
Surge	326.63	2.99
Sway	327.42	3.58
Heave	29.28	2.31
Roll	60.73	2.51
Pitch	60.97	2.45
Yaw	57.58	2.64
	Configuration F1	
Surge	326.02	5.60
Sway	335.98	4.23
Heave	29.60	2.81
Roll	61.15	3.10
Pitch	61.37	2.89
Yaw	59.81	5.67

Comments:

Static offsets apply to all three configurations: F, F1 and F2.
Surge and sway accelerometer locations:

- 2.30 feet, model, 126.5 feet, prototype, forward of deck stern,
- 1.51 feet, model, 83.1 feet, prototype, from starboard side of deck,
- 2.15 feet, model scale, 118.0 feet, prototype, above waterline.

Configuration F2 has a catenary riser attached at the upweather edge of the keel. The catenary riser pretension was set by deadweight to 0.51 lbs, model, 87 kips, prototype.

Table 7.6 F Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind		
Volume XII							
FD1_001	Surge Damping	-	-	-	-		w/o catenary riser
FD2_001	Sway Damping	-	-	-	-		w/o catenary riser
FD3_001	Heave Damping	-	-	-	-		w/o catenary riser
FD4_001	Roll Damping	-	-	-	-		w/o catenary riser
FD5_001	Pitch Damping	-	-	-	-		w/o catenary riser
FD6_001	Yaw Damping	-	-	-	-		w/o catenary riser
FRG9_001	Regular Wave	20.0	17.0	-	-		w/o catenary riser
FRG10_001	Regular Wave	20.0	21.0	-	-		w/o catenary riser
FRAN1_002	Random Sea	8.0	7.7	-	-	Operating Long-Crested	w/o catenary riser
FRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm	w/o catenary riser
FRAN3_001	Random Sea	43.0	14.0	-	-	GOM1	w/o catenary riser
FRAN6_001	Random Sea	12.1	16.0	-	-	GOM1	w/o catenary riser
Volume XIII							
FCUR3_001	Current	-	-	4.3	-	GOM	w/o catenary riser
FRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	w/o catenary riser
FRC6_001	Random Sea	12.1	16.0	4.3	-	W. AFRICA	w/o catenary riser
Volume XIV							
FRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	w/o catenary riser
FRCW6_001	Random Sea	12.1	16.0	4.3		W. AFRICA	w/o catenary riser
Volume XV							
FCUR2_001	Current	-	-	6.3	-	10 Year Storm	w/o catenary riser
FRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm	w/o catenary riser
FRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm	w/o catenary riser
Volume XVI							
FSO2-10	Static Offset	-	-	-	-		w/o catenary riser
F1D1_001	Surge Damping	-	-	-	-		w/o catenary riser
F1D2_001	Sway Damping	-	-	-	-		w/o catenary riser
F1D3_001	Heave Damping	-	-	-	-		w/o catenary riser
F1D4_001	Roll Damping	-	-	-	-		w/o catenary riser
F1D5_001	Pitch Damping	-	-	-	-		w/o catenary riser
F1D6_001	Yaw Damping	-	-	-	-		w/o catenary riser
F1RAN3_001	Random Sea	43.0	14.0	-	-	GOM1	w/o catenary riser
F1RAN5_001	Random Sea	45.9	16.3	-	-	North Sea	w/o catenary riser
F2RAN3_001	Random Sea	43.0	14.0	-	-	GOM1	w/ catenary riser
F1CUR3_001	Current	-	-	4.3	-	GOM	w/o catenary riser
F1RC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	w/o catenary riser
F1RCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1	w/o catenary riser
Volume XVII							
F1CUR5_001	Current	-	-	5.3	-	North Sea	w/o catenary riser
F1RC5_001	Random Sea	45.9	16.3	5.3	-	North Sea	w/o catenary riser
F1RCW5_001	Random Sea	45.9	16.3	5.3	58.7	North Sea	w/o catenary riser
Volume XVIII							
F2CUR3_001	Current	-	-	4.3	-	GOM	w/ catenary riser
F2RC3_001	Random Sea	43.0	14.0	4.3	-	GOM1	w/ catenary riser
F2RCW3_003	Random Sea	43.0	14.0	4.3	85	GOM1	w/ catenary riser

Figure 7.16 Basin Layout for Configurations F, F1 & F2

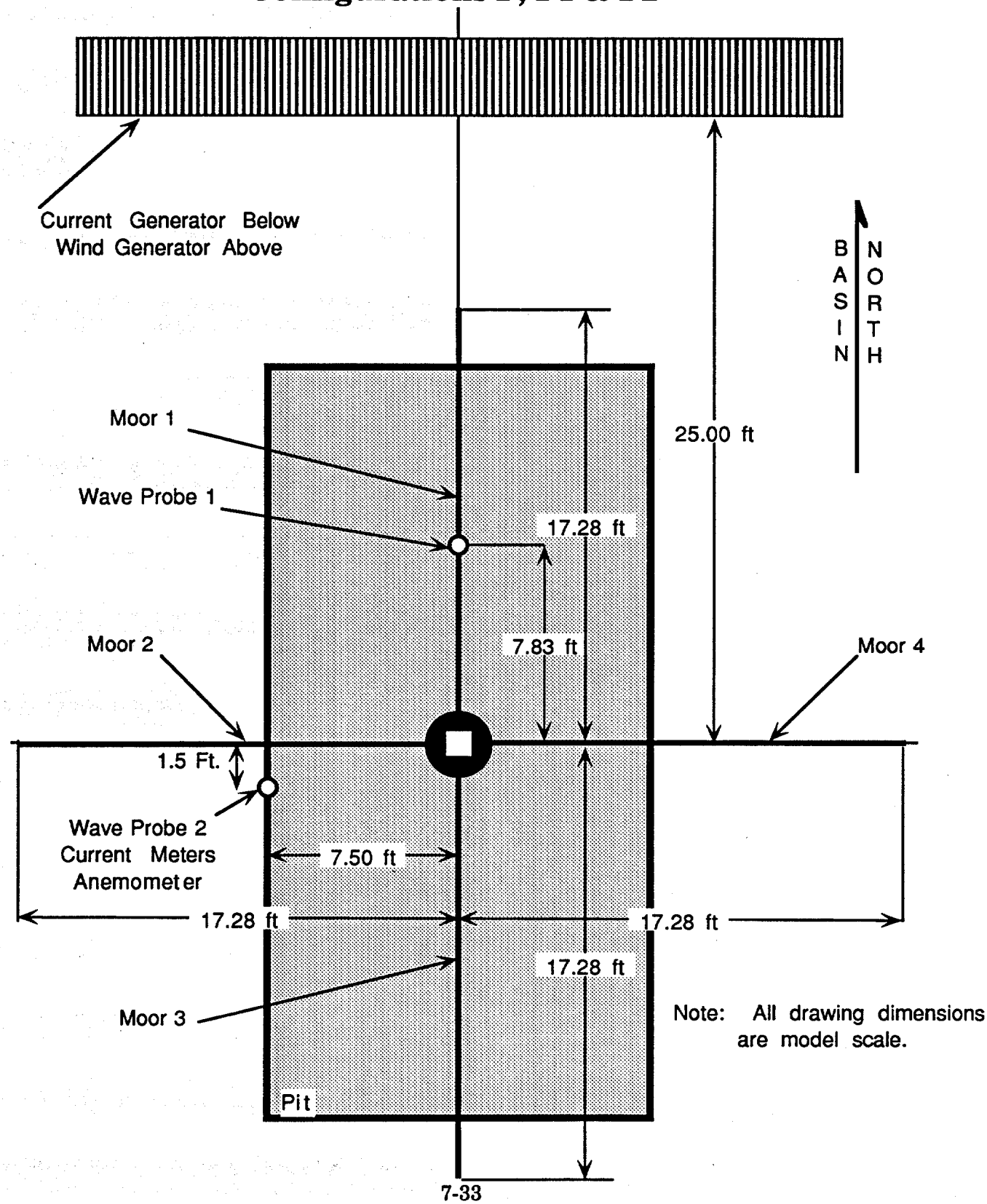
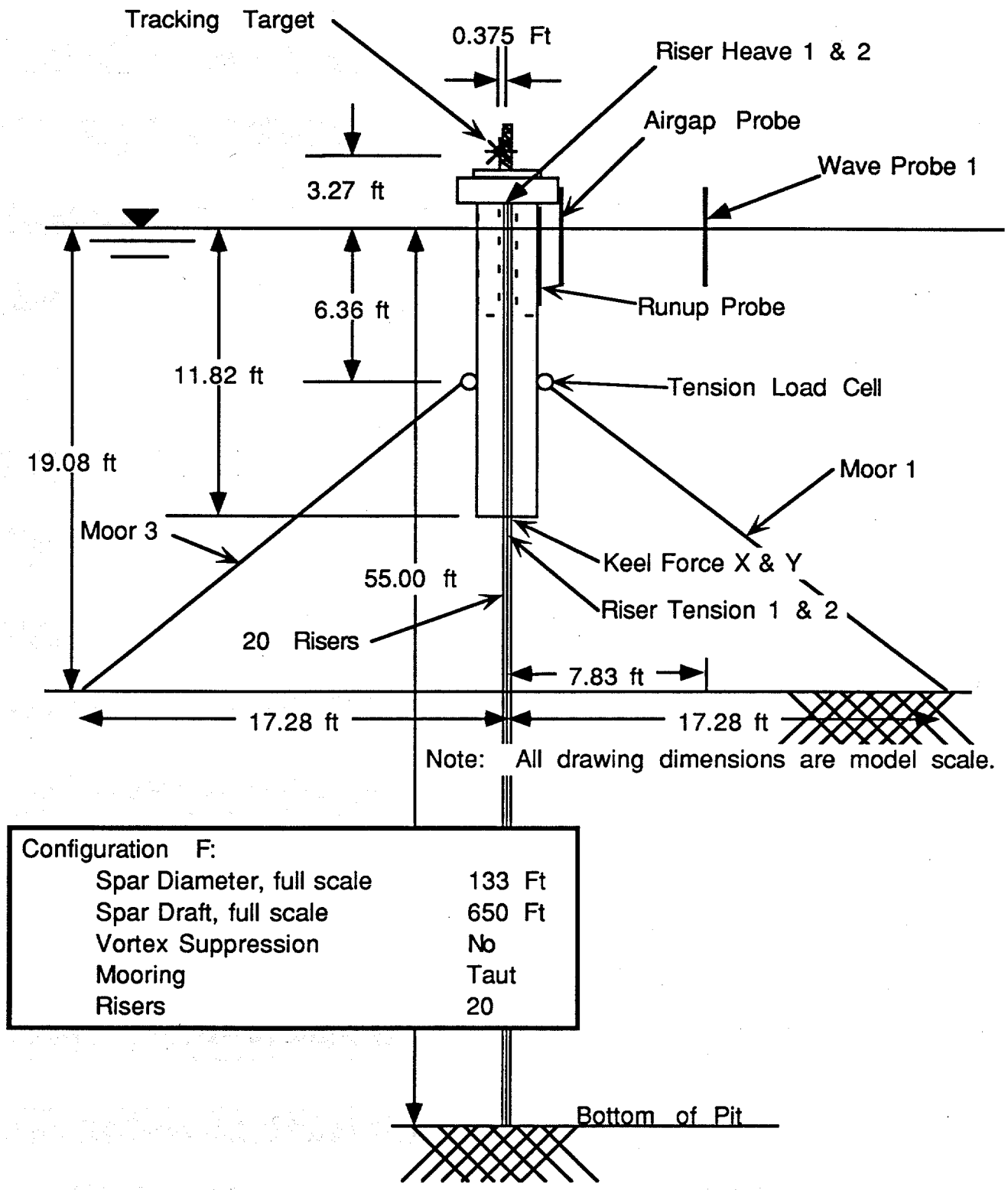
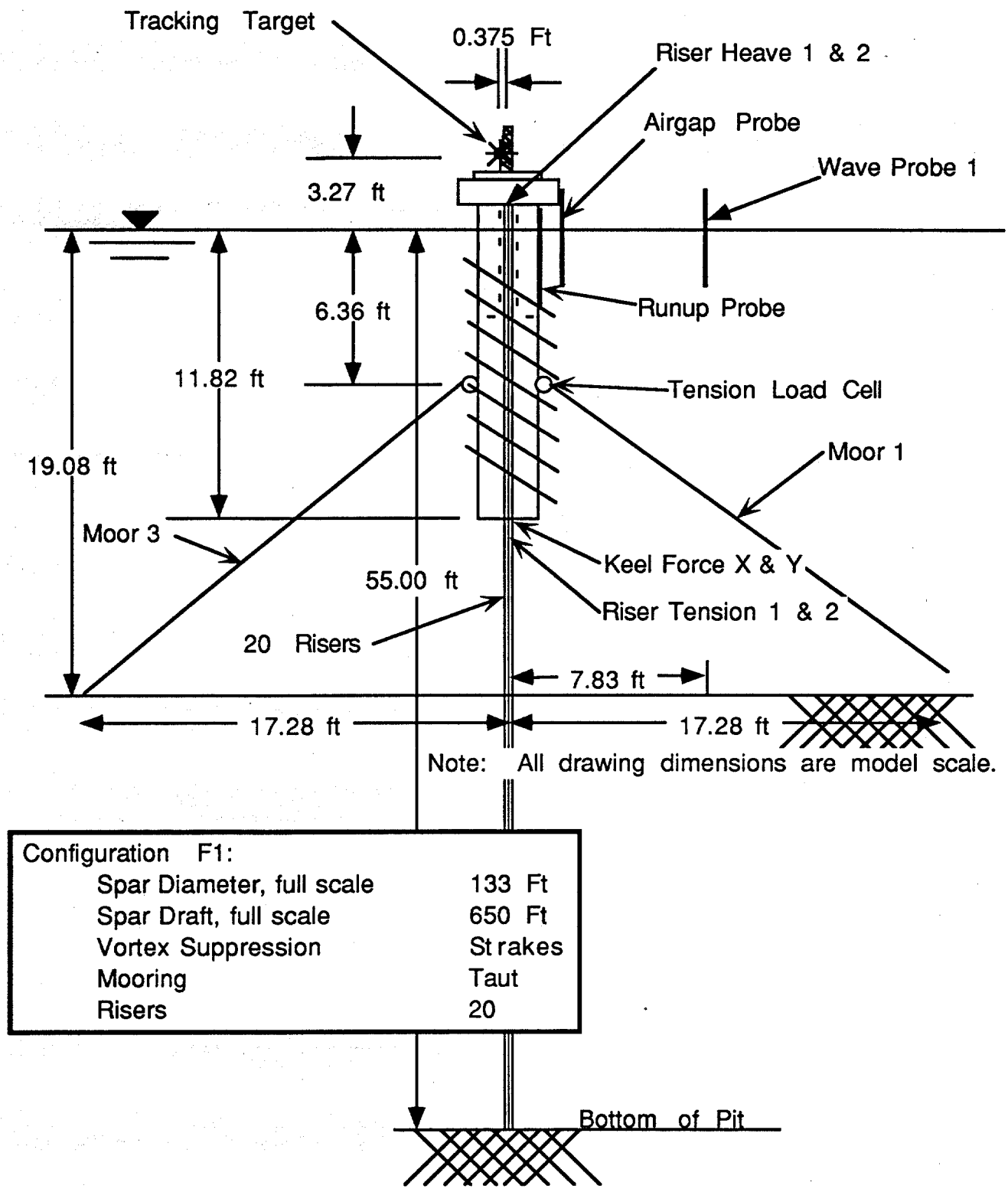


Figure 7.17 Configuration F Side Elevation



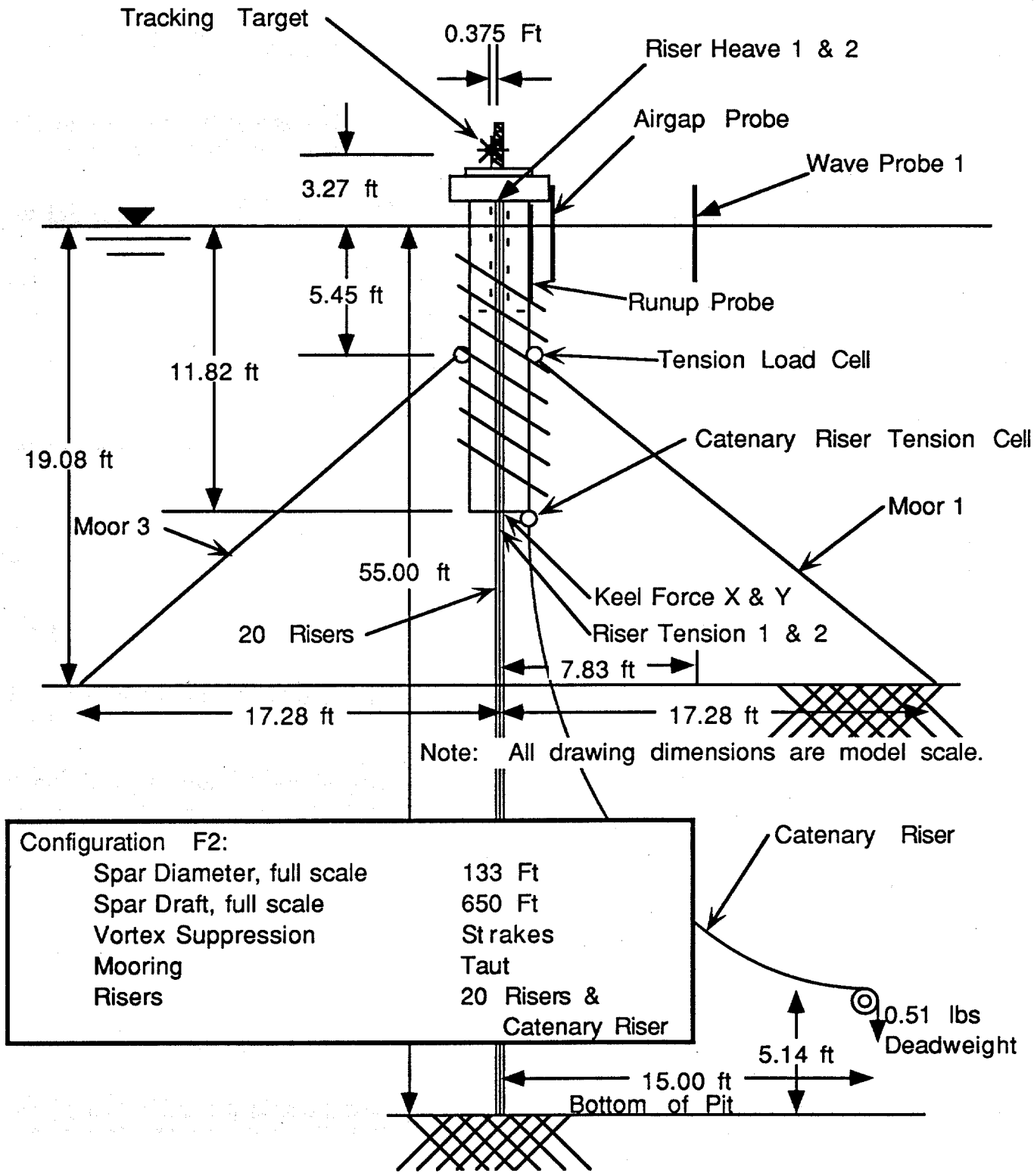
Configuration F:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	No
Mooring	Taut
Risers	20

Figure 7.18 Configuration F1 Side Elevation



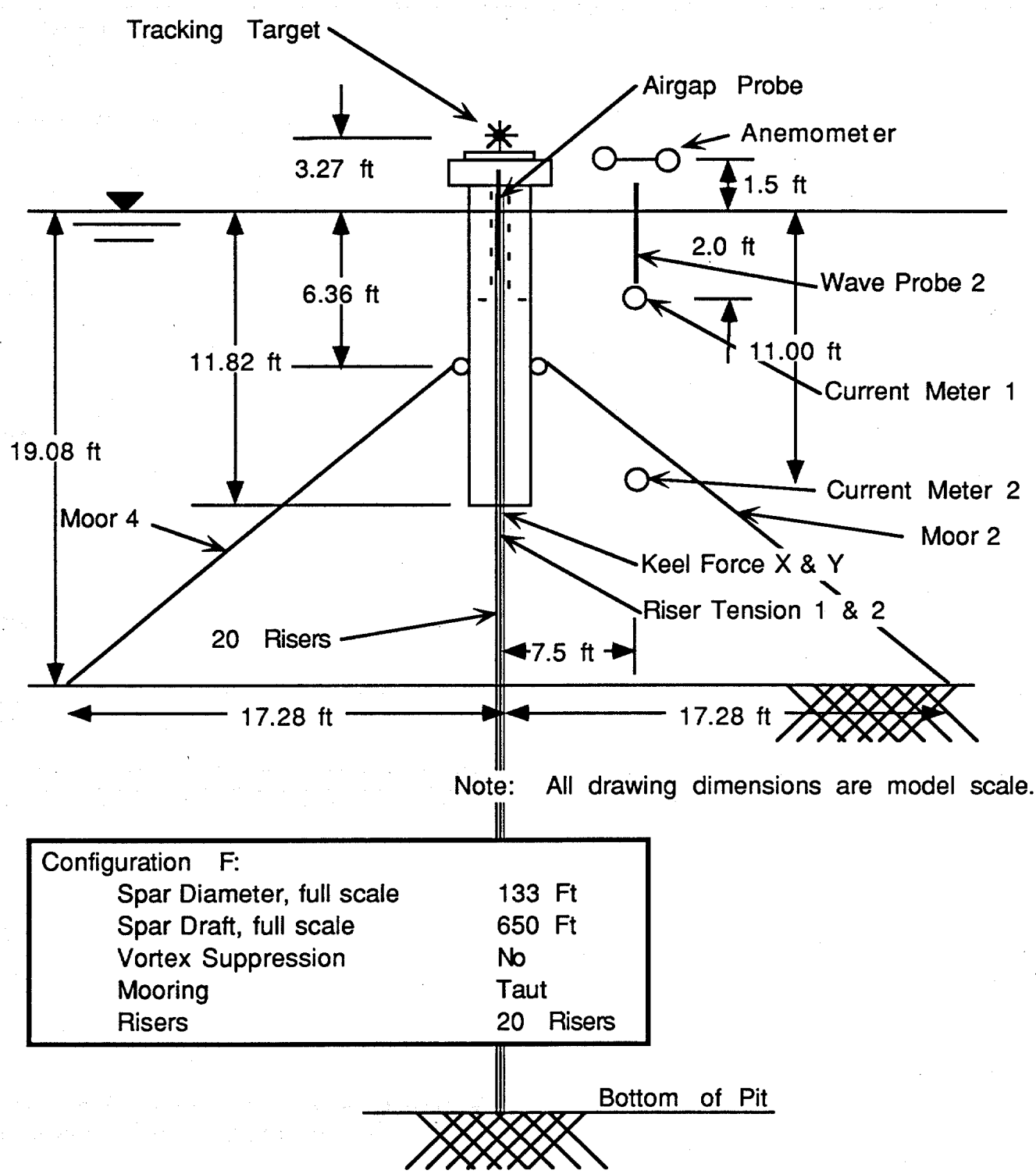
Configuration F1:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	20

Figure 7. 19 Configuration F2 Side Elevation



Configuration F2:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	20 Risers & Catenary Riser

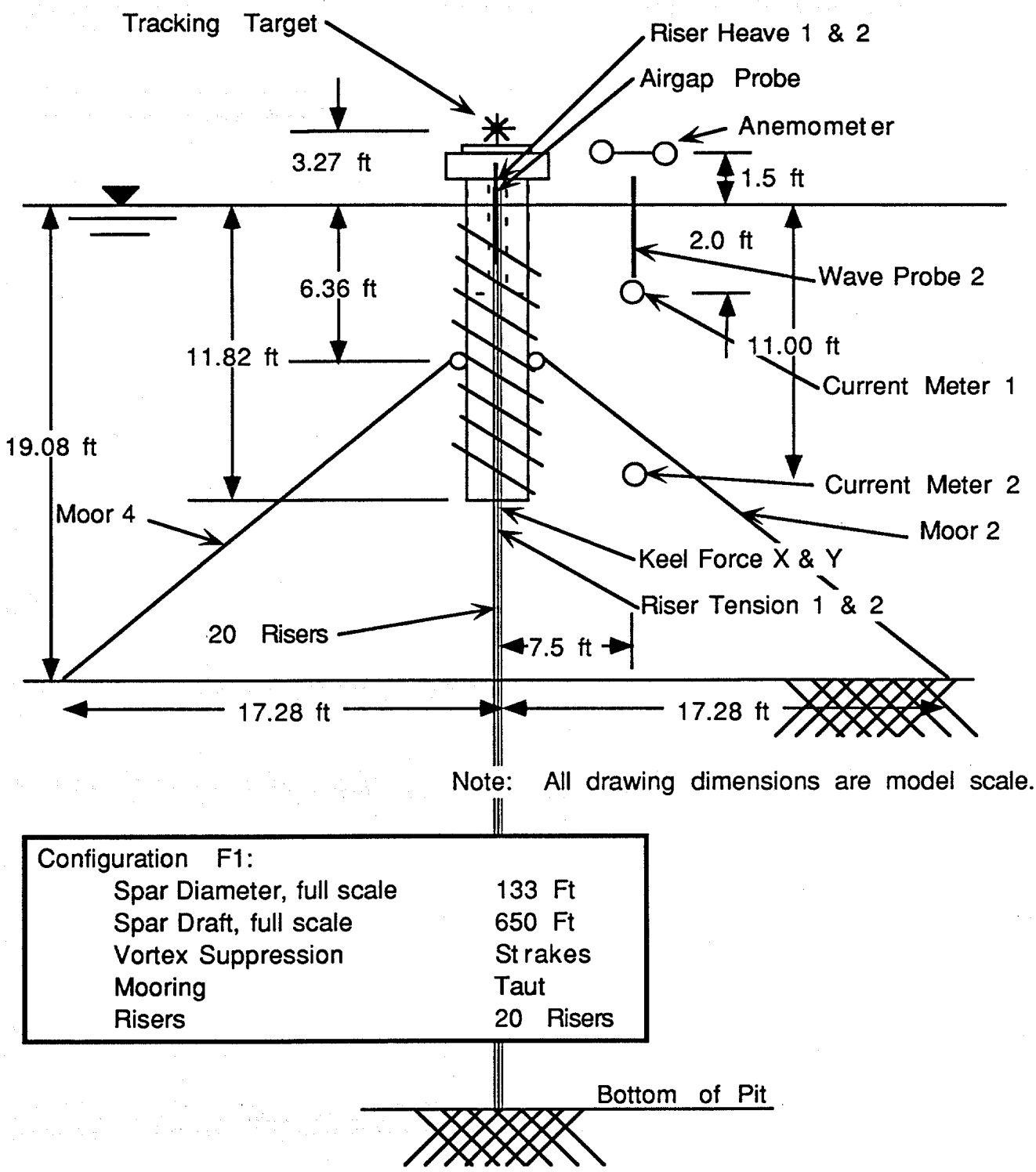
Figure 7.20 Configuration F Front Elevation



Note: All drawing dimensions are model scale.

Configuration F:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	No
Mooring	Taut
Risers	20 Risers

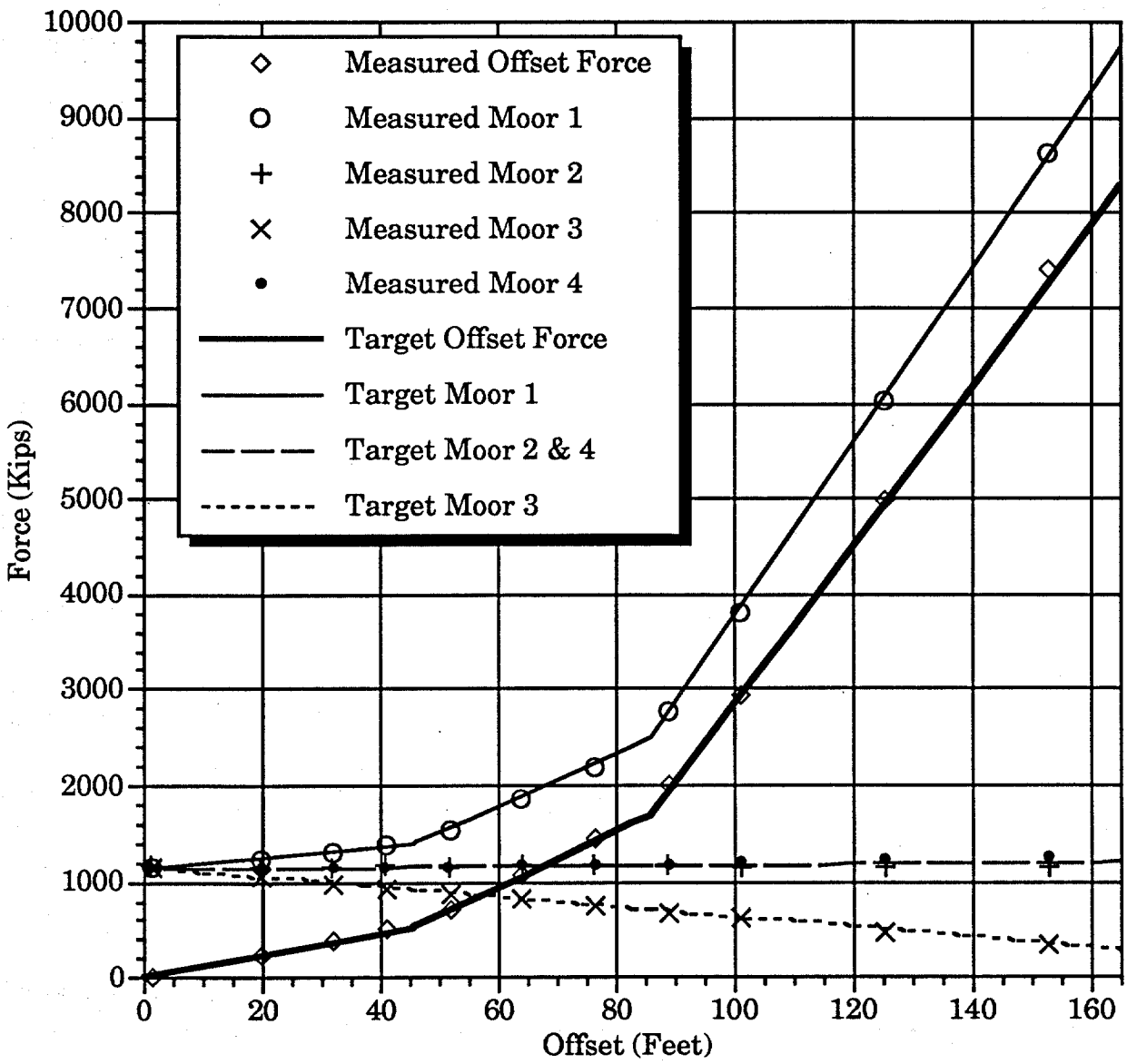
Figure 7.21 Configurations F1 & F2 Front Elevation



Note: All drawing dimensions are model scale.

Configuration F1:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	20 Risers

Figure 7.22 Configurations F, F1 & F2
Surge Static Offset Results



7.6 Configuration H

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	4 Piecewise Linear Lines
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	Strakes
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Moonpool	Capacitance Wave Probe
Runup	Resistance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1, Moor 2, Moor 3, Moor 4	U/W Tension Cells

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Surge	336.60	3.64
Sway	345.84	5.25
Heave	29.18	0.92
Roll	66.07	1.60
Pitch	66.04	1.51

Comments:

Use static offset results from Configuration A.

Table 7. 7 H Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind	
Volume XIX						
HD1_001	Surge Damping	-	-	-	-	
HD2_002	Sway Damping	-	-	-	-	
HD3_001	Heave Damping	-	-	-	-	
HD4_001	Roll Damping	-	-	-	-	
HD5_001	Pitch Damping	-	-	-	-	
HPRE_005	Pretension	-	-	-	-	HWIN
HPRE_006	Pretension	-	-	-	-	HRAN
HPRE_017	Pretension	-	-	-	-	H*C*5
HWIN2_001	Wind	-	-	-	43	10 Year Storm
HWIN5_001	Wind	-	-	-	59	North Atlantic
HWIN3_001	Wind	-	-	-	85	GOM1
HWIN4_001	Wind	-	-	-	85	GOM2
HRAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested
HRAN2_001	Random Sea	21.0	10.5	-	-	10 Year Storm
HRAN3_001	Random Sea	43.0	14.0	-	-	GOM1
HRAN4_001	Random Sea	43.0	14.0	-	-	GOM2
HRAN5_001	Random Sea	45.9	16.3	-	-	North Atlantic
HRAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested
Volume XX						
HCUR3_002	Current	-	-	4.3	-	GOM
HRC3_002	Random Sea	43.0	14.0	4.3	-	GOM1
HRC4_002	Random Sea	43.0	14.0	4.3	-	GOM2
HRCW3_002	Random Sea	43.0	14.0	4.3	85	GOM1
HRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
Volume XXI						
HCUR5_001	Current	-	-	5.3	-	North Atlantic
HRC5_001	Random Sea	45.9	16.3	5.3	-	North Atlantic
HRCW5_001	Random Sea	45.9	16.3	5.3	58.7	North Atlantic
HCUR2_001	Current	-	-	6.3	-	10 Year Storm
HRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
HRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm
Volume XXII						
HRAN3&4	Random Sea	43.0	14.0	-	-	Combined GOM
HRC3&4		43.0	14.0	4.3	-	Combined GOM
HRCW3&4	Random Sea	43.0	14.0	4.3	85	Combined GOM

Figure 7.23 Basin Layout for Configuration H

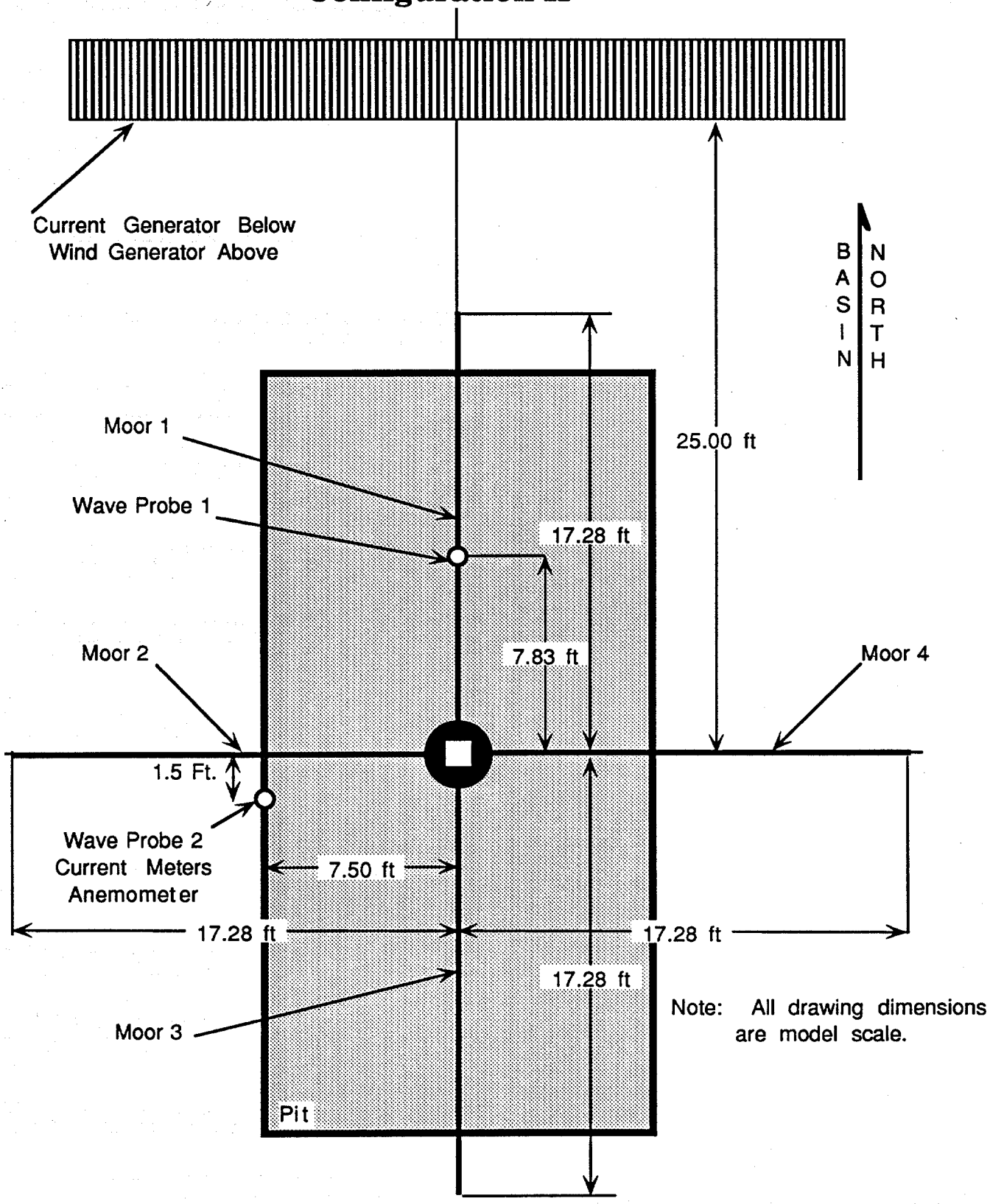
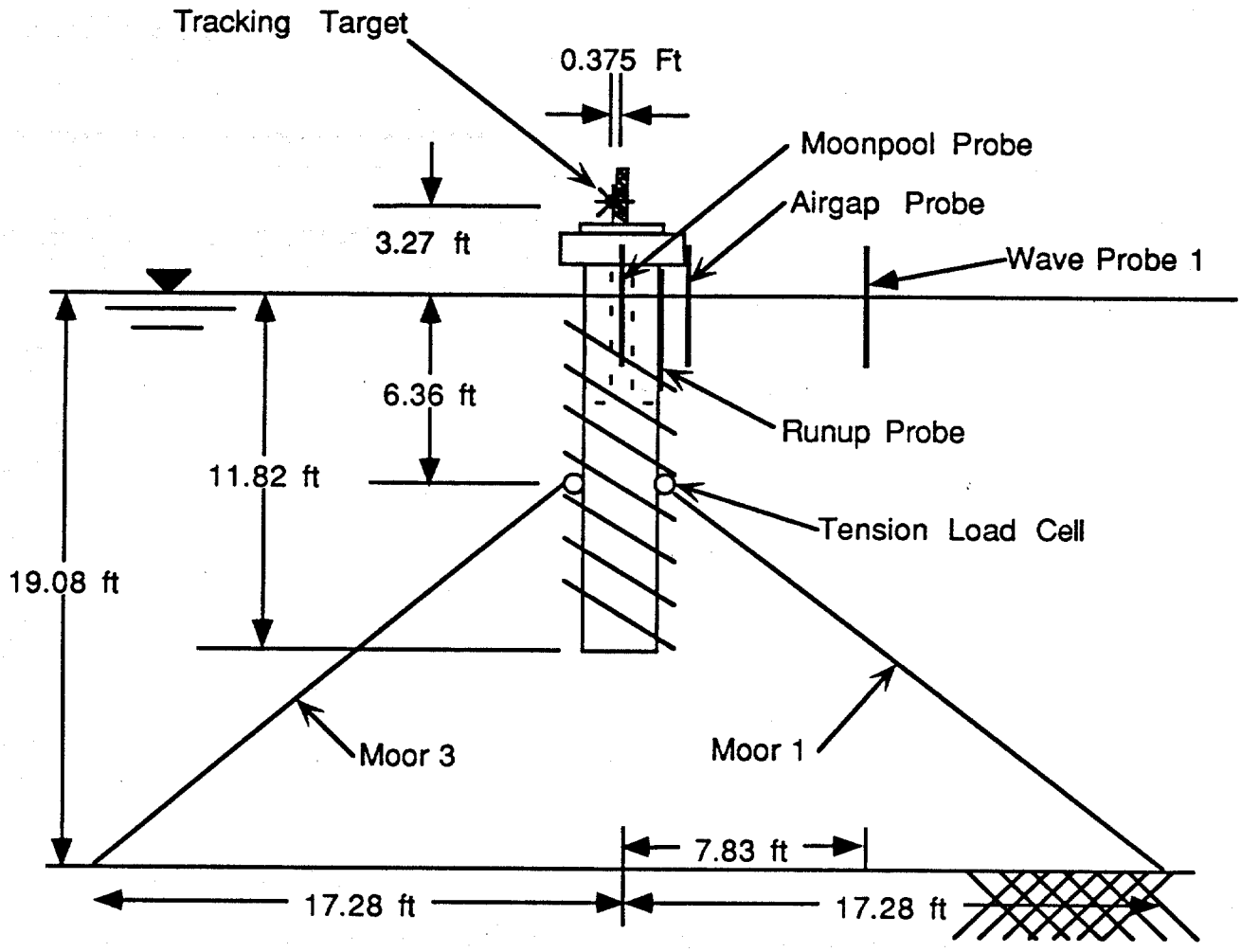


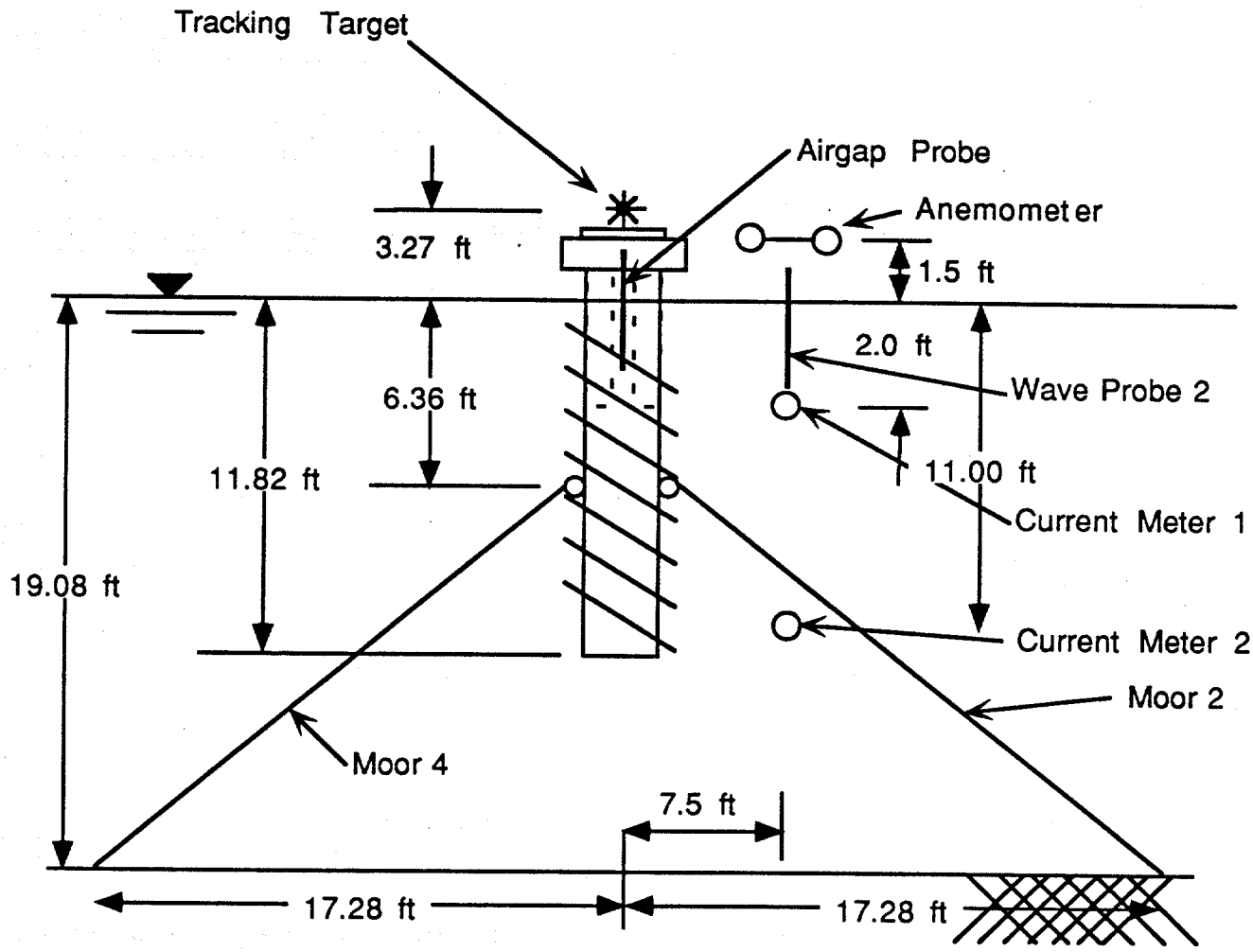
Figure 7.24 Configuration H Side Elevation



Note: All drawing dimensions are model scale.

Configuration H:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	No

Figure 7.25 Configuration H Front Elevation



Note: All drawing dimensions are model scale.

Configuration H:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	No

7.7 Configuration J

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	On spar
Mooring:	4 Piecewise Linear Lines
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	Strakes
Risers:	None
Tanker:	Yes
Hawsers:	180, 200 & 250 feet long
Hawser Attachment;	Stern Port Deck Corner & Sliding Bridle @ waterline

---

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Moonpool	Capacitance Wave Probe
Runup	Resistance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1, Moor 2, Moor 3, Moor 4	U/W Tension Cells
Hawser Tension	Ring Gage

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

Comments:

Use static offset results from Configuration A.
Use spar natural period and damping results from Configuration H.
Hawser stiffness 0.05 lbs/inch, model, 1861 lbs/foot, prototype.
Mooring line data noisy due to electrical interference from slow speed of fan motors.
Hawser frequently observed to be slack.

Table 7.8 J Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind		
Volume XXVIII							
JPRE_002	Pretension	-	-	-	-		Applies to 1 - 9
J1_001	Current	-	-	3.0	-		200 Ft. Hawser on Deck Corner
J2_001	Current & Wind	-	-	3.0	20	Variable Wind	200 Ft. Hawser on Deck Corner
J3_001	Random Sea	10.0	10.5	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner
J4_001	Current & Wind	-	-	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner
J5_001	Current & Wind	-	-	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner
J6_001	Random Sea	10.0	10.5	3.0	20	Steady Wind	200 Ft. Hawser on Deck Corner
J7_001	Current	-	-	3.0	-		200 Ft. Hawser on Bridle
J8_001	Current & Wind	-	-	3.0	20	Steady Wind	200 Ft. Hawser on Bridle
J9_001	Random Sea	10.0	10.5	3.0	20	Steady Wind	200 Ft. Hawser on Bridle
J10_001	Waves & Wind	10.0	10.5	-	20	Steady Wind	250 Ft. Hawser on Bridle
J11_001	Waves Alone	10.0	10.5	-	-		250 Ft. Hawser on Bridle
J12_001	Waves Alone	10.0	10.5	-	-		250 Ft. Hawser on Deck Corner
J13_001	Waves & Wind	10.0	10.5	-	20	Steady Wind	250 Ft. Hawser on Deck Corner
J14_001	Waves & Wind	8.0	7.7	-	20	Short-Crested Sea	250 Ft. Hawser on Bridle
J14_002	Waves & Wind	8.0	7.7	-	20	Short-Crested Sea	250 Ft. Hawser on Bridle
J15_001	Waves Alone	8.0	7.7	-	-	Short-Crested Sea	250 Ft. Hawser on Bridle
J16_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea	250 Ft. Hawser on Bridle
J17_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea	250 Ft. Hawser on Deck Corner
J18_001	Current & Wind	-	-	3.0	43	Variable Wind	250 Ft. Hawser on Deck Corner
J19_001	Random Sea	21.0	10.5		43	Variable Wind	250 Ft. Hawser on Deck Corner
J20_001	Current Alone	-	-	3.0	-		180 Ft. Hawser on Deck Corner
J21_001	Current & Wind	-	-	3.0	20		180 Ft. Hawser on Deck Corner
J22_001	Random Sea	8.0	7.7	3.0	20	Short-Crested Sea	180 Ft. Hawser on Deck Corner

Figure 7.26 Basin Layout for Configuration J

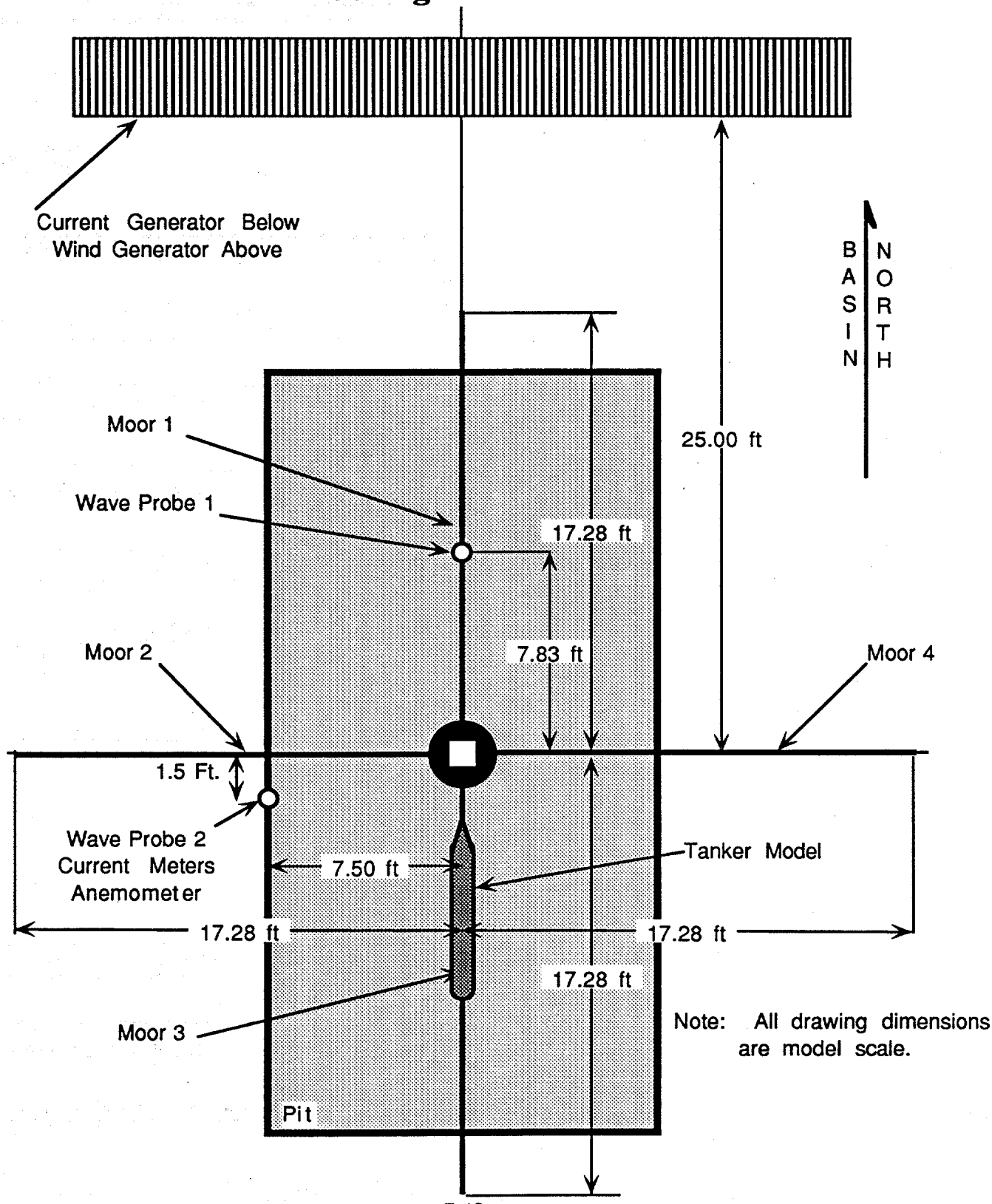
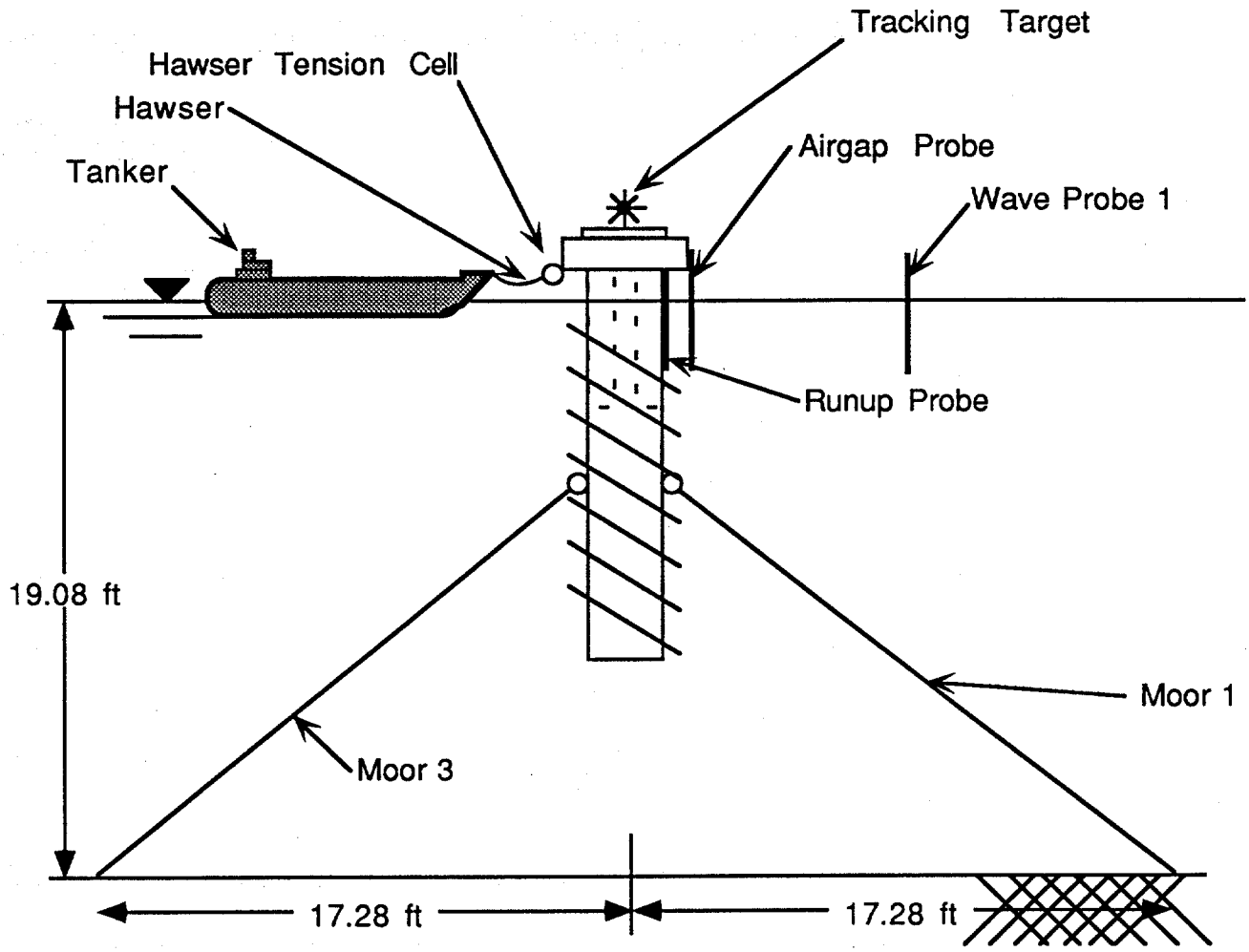


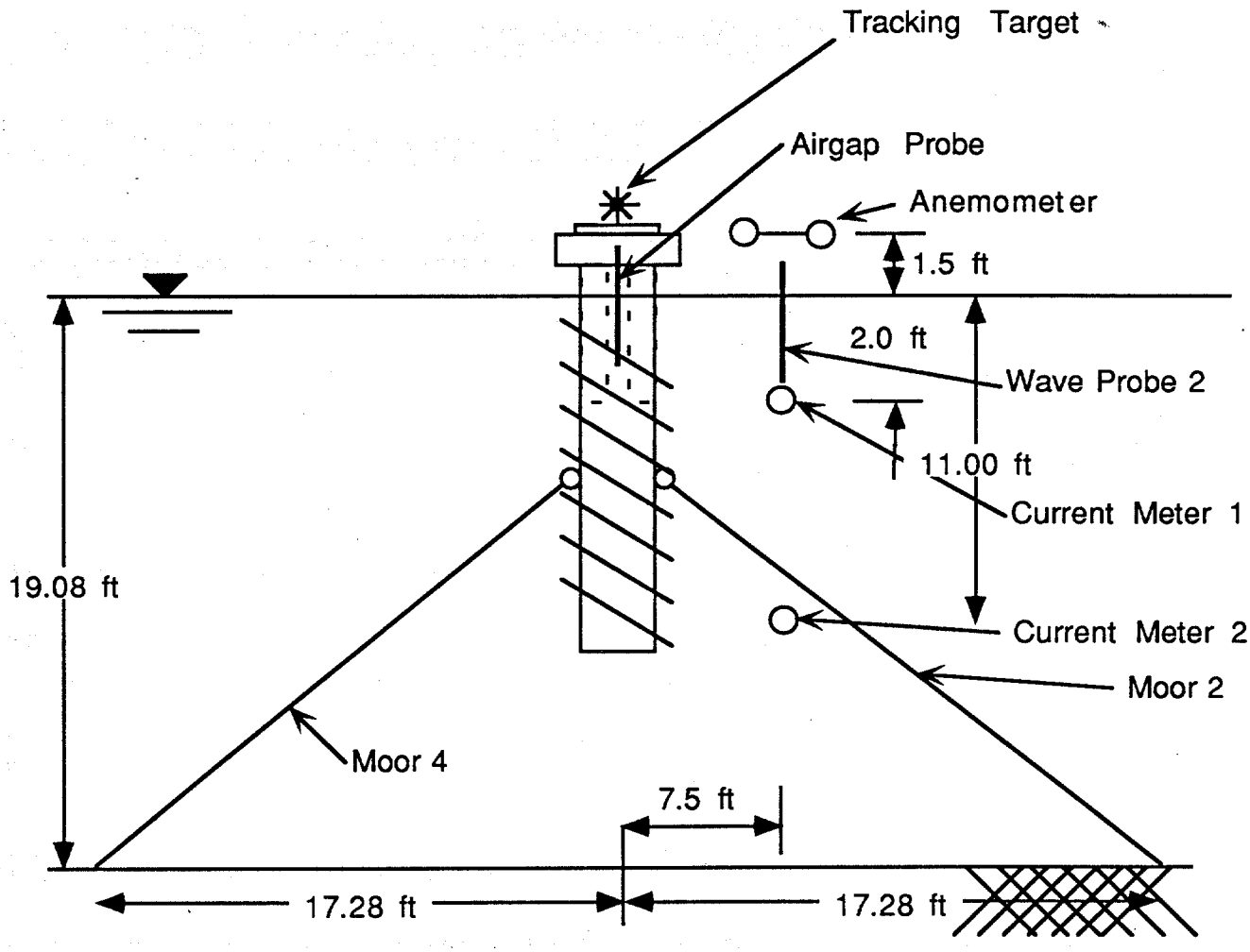
Figure 7.27 Configuration J Side Elevation



Note: All drawing dimensions are model scale.

Configuration J:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	No
Tanker	Yes

Figure 7.28 Configuration J Front Elevation



Note: All drawing dimensions are model scale.

Configuration H:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	650 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	No

7.8 Configuration L

General Description:

Spar Diameter:	52.5 feet
Spar Draft:	443.0 feet
Deck:	On spar
Mooring:	6 Linear Lines & Vertical Tether
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	None
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Runup	Resistance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1 – 6	U/W Tension Cells
Tether Tension	U/W Tension Cell

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

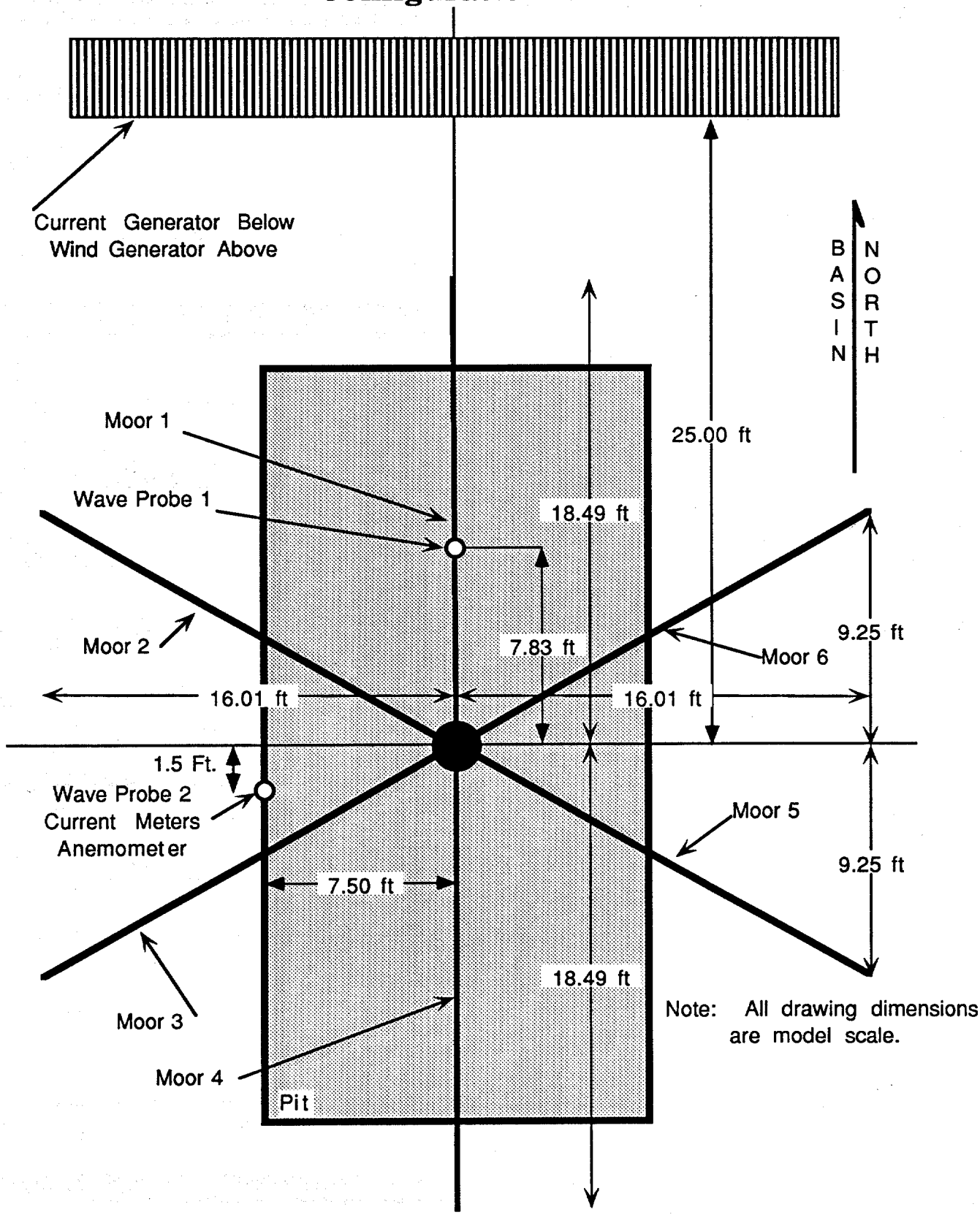
Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Surge	168.48	3.40
Sway	167.01	4.59
Heave	8.74	1.18
Roll	52.93	1.73
Pitch	50.89	2.32
Yaw	32.68	2.78
Surge w/ 2.4 lbs offset force	158.84	6.17
Surge w/ 3.5 lbs offset force	157.87	6.52

Table 7.9 L Series Test Matrix

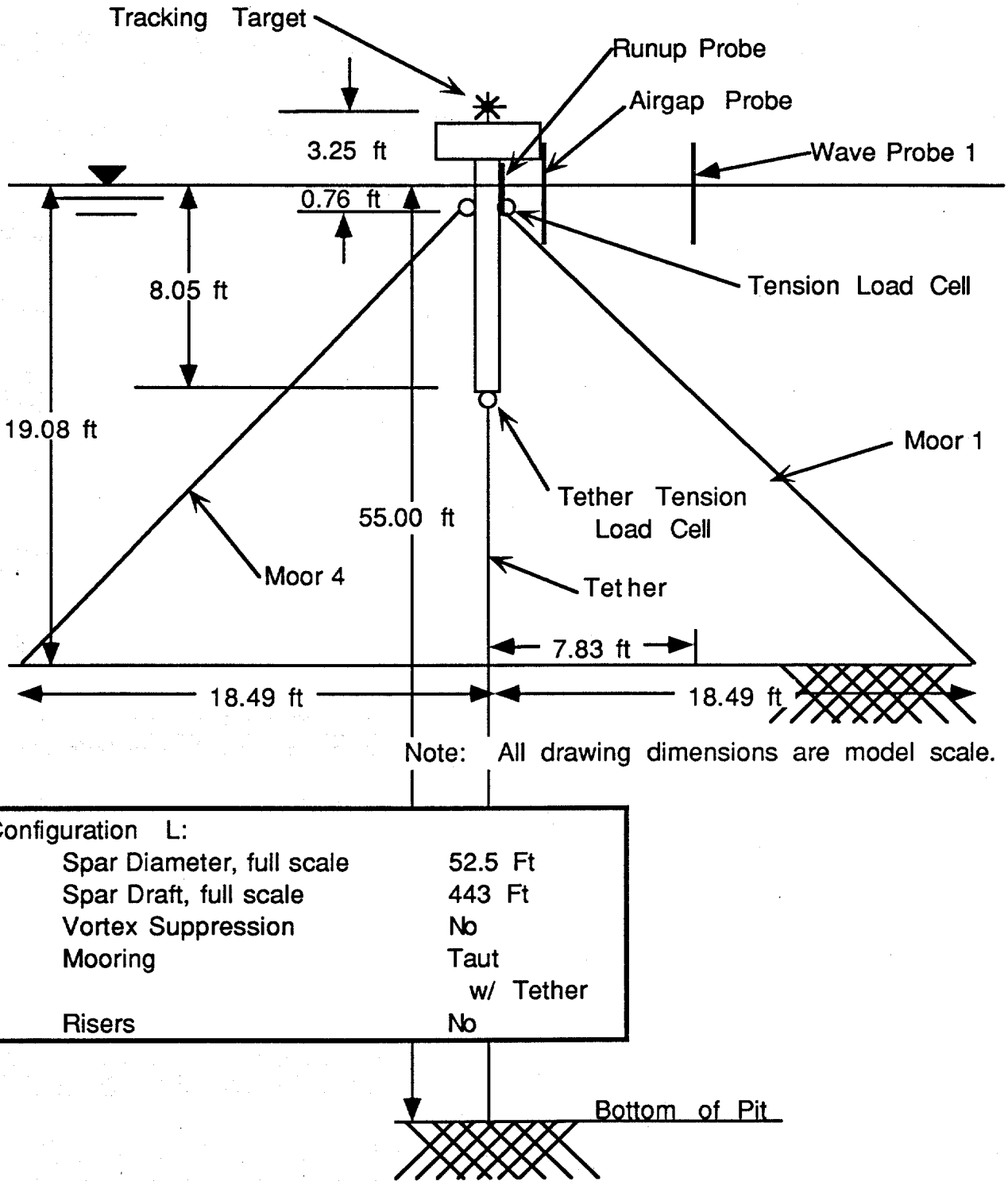
Test	Test Type	Hs	Tp	Current	Wind	
Volume XXIII						
LSO_1-10	Static Offset	-	-	-	-	Surge
LSO_11-18	Static Offset	-	-	-	-	Sway
LD1_001	Surge Damping	-	-	-	-	
LD7_001	Surge Damping	-	-	-	-	2.4# on winch
LD8_001	Surge Damping	-	-	-	-	3.5# on winch
LD2_001	Sway Damping	-	-	-	-	
LD3_001	Heave Damping	-	-	-	-	
LD4_001	Roll Damping	-	-	-	-	
LD5_001	Pitch Damping	-	-	-	-	
LD6_001	Yaw Damping	-	-	-	-	
LRAN1_001	Random Sea	8.0	7.7	-	-	Operating Long-Crested
LRAN3_001	Random Sea	43.0	14.0	-	-	GOM1
LRAN4_001	Random Sea	43.0	14.0	-	-	GOM2
LRAN6_001	Random Sea	8.0	7.7	-	-	Operating Short-Crested
LWIN2_002	Wind	-	-	-	43	10 Year Storm
LWIN3_001	Wind	-	-	-	85	GOM1
LWIN4_001	Wind	-	-	-	85	GOM2
LRG1_001	Regular Wave	6.0	6.0	-	-	
LRG2_001	Regular Wave	12.0	7.0	-	-	
LRG3_001	Regular Wave	15.0	8.0	-	-	
LRG4_001	Regular Wave	18.0	9.0	-	-	
LRG5_001	Regular Wave	20.0	10.0	-	-	
LRG6_001	Regular Wave	20.0	12.0	-	-	
LRG7_001	Regular Wave	20.0	14.0	-	-	
LRG8_001	Regular Wave	20.0	16.0	-	-	
Volume XXIV						
LCUR3_001	Current	-	-	4.3	-	GOM
LRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
LRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
LRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
LRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
Volume XXV						
LRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
LRCW2_001	Random Sea	21.0	10.5	6.3	43	10 Year Storm
LRAN34	Random Sea	43.0	14.0	-	-	GOM1 & GOM2
LRC34	Random Sea	43.0	14.0	4.3	-	GOM1 & GOM2
LRCW34	Random Sea	43.0	14.0	4.3	85	GOM1 & GOM2

Figure 7.29 Basin Layout for Configuration L



Note: All drawing dimensions are model scale.

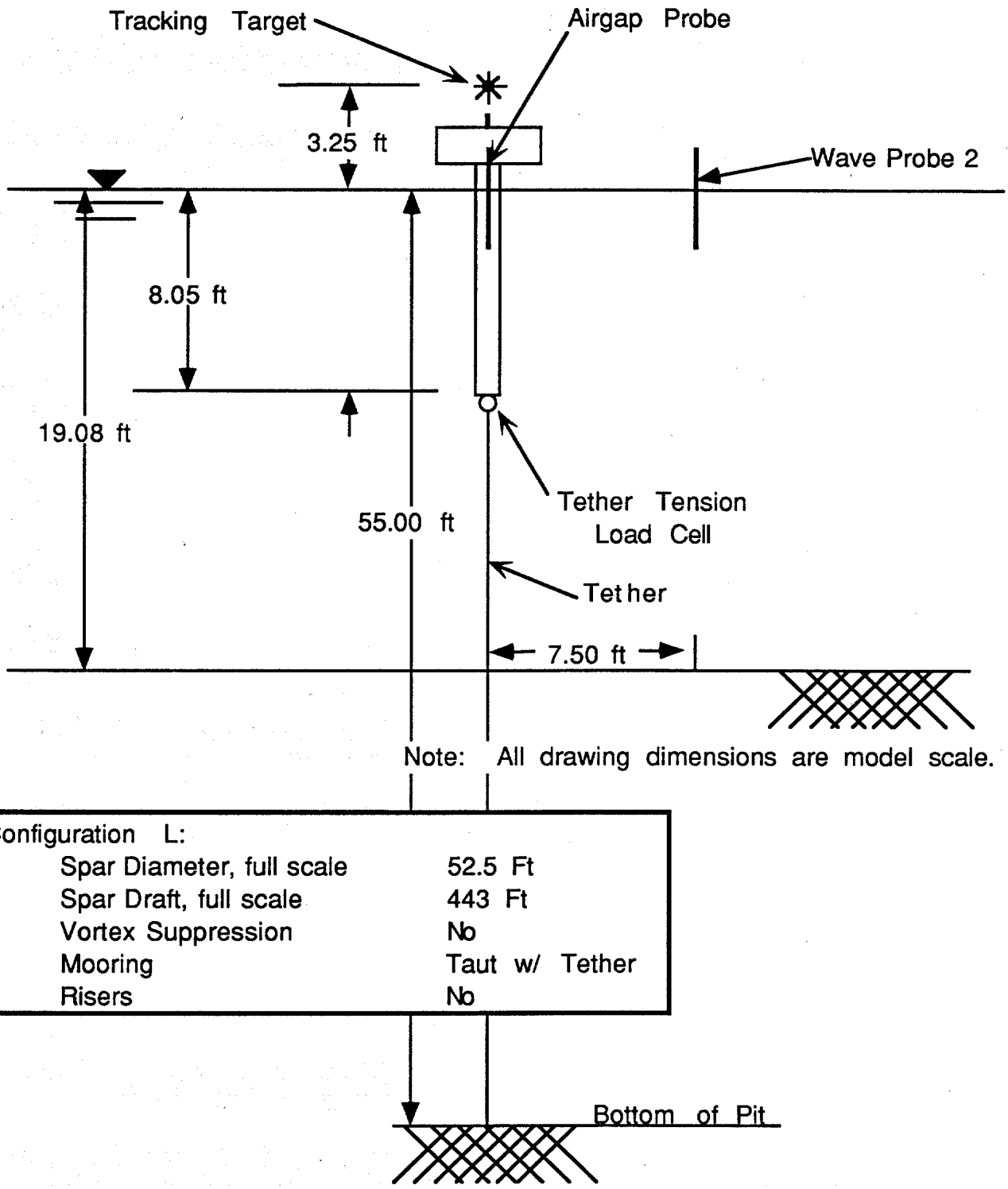
Figure 7.30 Configuration L Side Elevation



Note: All drawing dimensions are model scale.

Configuration L:	
Spar Diameter, full scale	52.5 Ft
Spar Draft, full scale	443 Ft
Vortex Suppression	No
Mooring	Taut w/ Tether
Risers	No

Figure 7.31 Configuration L Front Elevation



Note: All drawing dimensions are model scale.

Configuration L:	
Spar Diameter, full scale	52.5 Ft
Spar Draft, full scale	443 Ft
Vortex Suppression	No
Mooring	Taut w/ Tether
Risers	No

Figure 7.32 Configuration L
Surge Static Offset Results

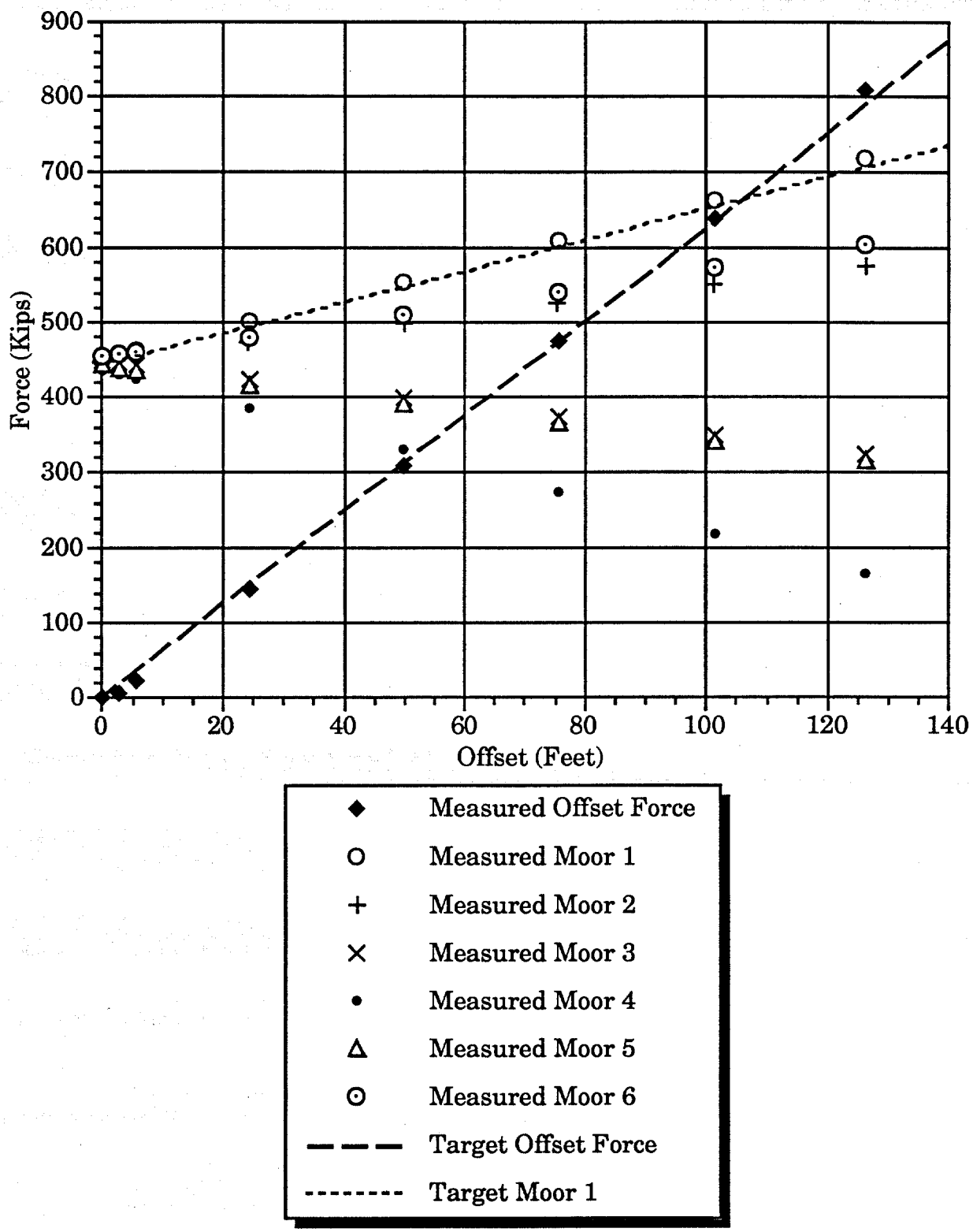
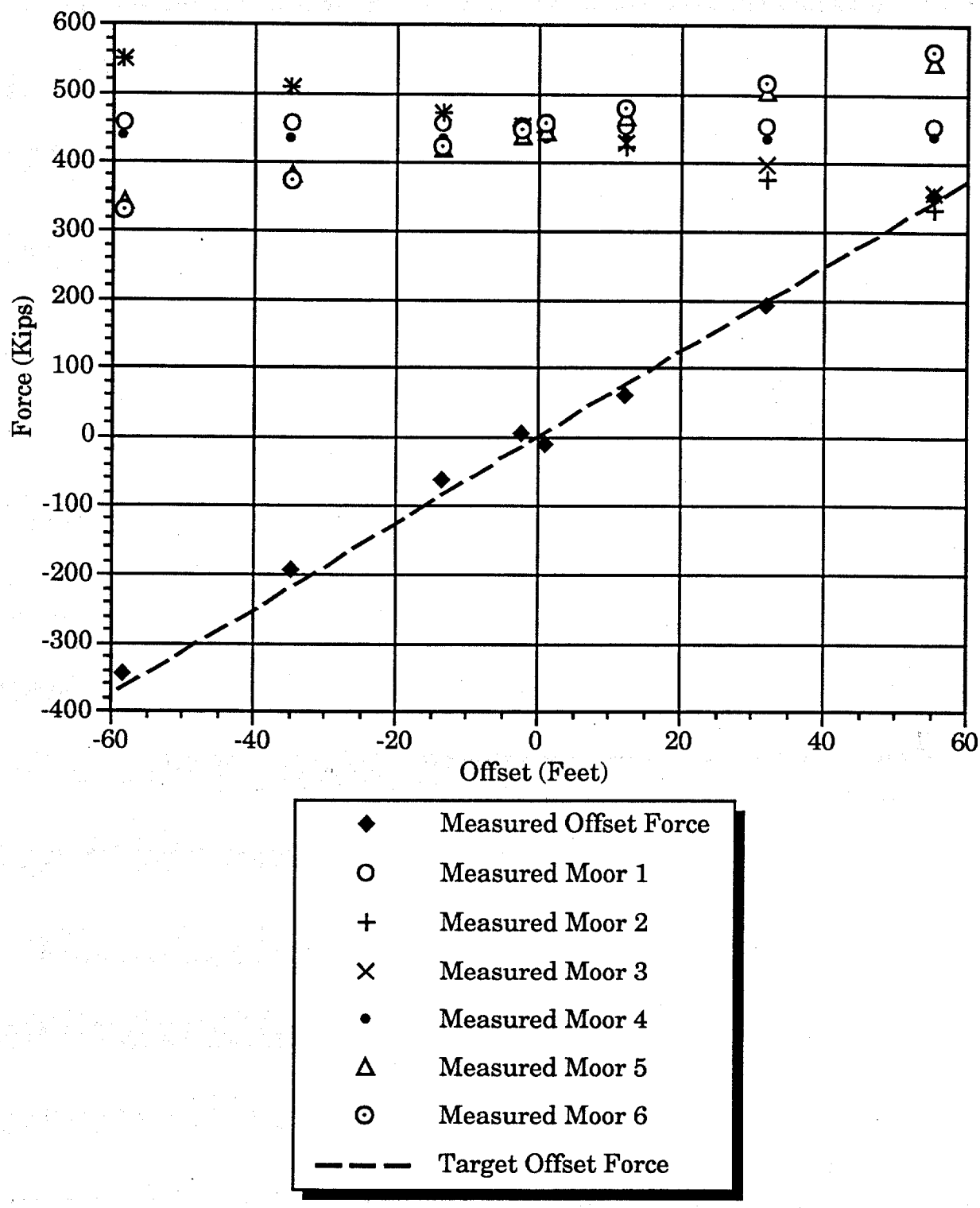


Figure 7.33 Configuration L
Sway Static Offset Results



7.9 Configuration M

General Description:

Spar Diameter:	52.5 feet
Spar Draft:	443.0 feet
Deck:	On spar
Mooring:	6 Linear Lines & Vertical Tether
In-Line Restraints:	None
Lateral Restraints:	Yes
Vortex Suppression:	None
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Airgap	Capacitance Wave Probe
Runup	Resistance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Moor 1 – 6	U/W Tension Cells
Tether Tension	U/W Tension Cell
Upper Lateral Force	Shear Load Cell
Upper In-Line Force	Shear Load Cell
Lower Lateral Force 1	U/W Tension Cell
Lower Lateral Force 2	U/W Tension Cell

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw
Total Lateral Force	Surge, Pitch, Top In-Line, Top Lateral, Bottom Lateral 1, Bottom Lateral 2
Total Lateral Couple	Surge, Pitch, Top In-Line, Top Lateral, Bottom Lateral 1, Bottom Lateral 2

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Surge	153.60	2.44
Sway	25.70	1.76
Heave	9.64	2.58
Roll	11.80	3.28
Pitch	48.75	2.28

Table 7.10 M Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind	
Volume XXVI						
MSO_2-8	Static Offset	-	-	-	-	
MD1_001	Surge Damping	-	-	-	-	
MD2_001	Sway Damping	-	-	-	-	
MD3_001	Heave Damping	-	-	-	-	
MD4_001	Roll Damping	-	-	-	-	
MD5_001	Pitch Damping	-	-	-	-	
MWIN3_001	Wind	-	-	-	85	GOM1
MWIN4_001	Wind	-	-	-	85	GOM2
MCUR3_001	Current	-	-	4.3	-	GOM
MRC3_001	Random Sea	43.0	14.0	4.3	-	GOM1
MRC4_001	Random Sea	43.0	14.0	4.3	-	GOM2
MRCW3_001	Random Sea	43.0	14.0	4.3	85	GOM1
MRCW4_001	Random Sea	43.0	14.0	4.3	85	GOM2
Volume XXVII						
MCUR2_001	Current	-	-	6.3	-	10 Year Storm
MRC2_001	Random Sea	21.0	10.5	6.3	-	10 Year Storm
MRC3-4	Random Sea	43.0	14.0	4.3	85	GOM1
MRCW3-4	Random Sea	43.0	14.0	4.3	85	GOM2

Figure 7.34 Basin Layout for Configuration M

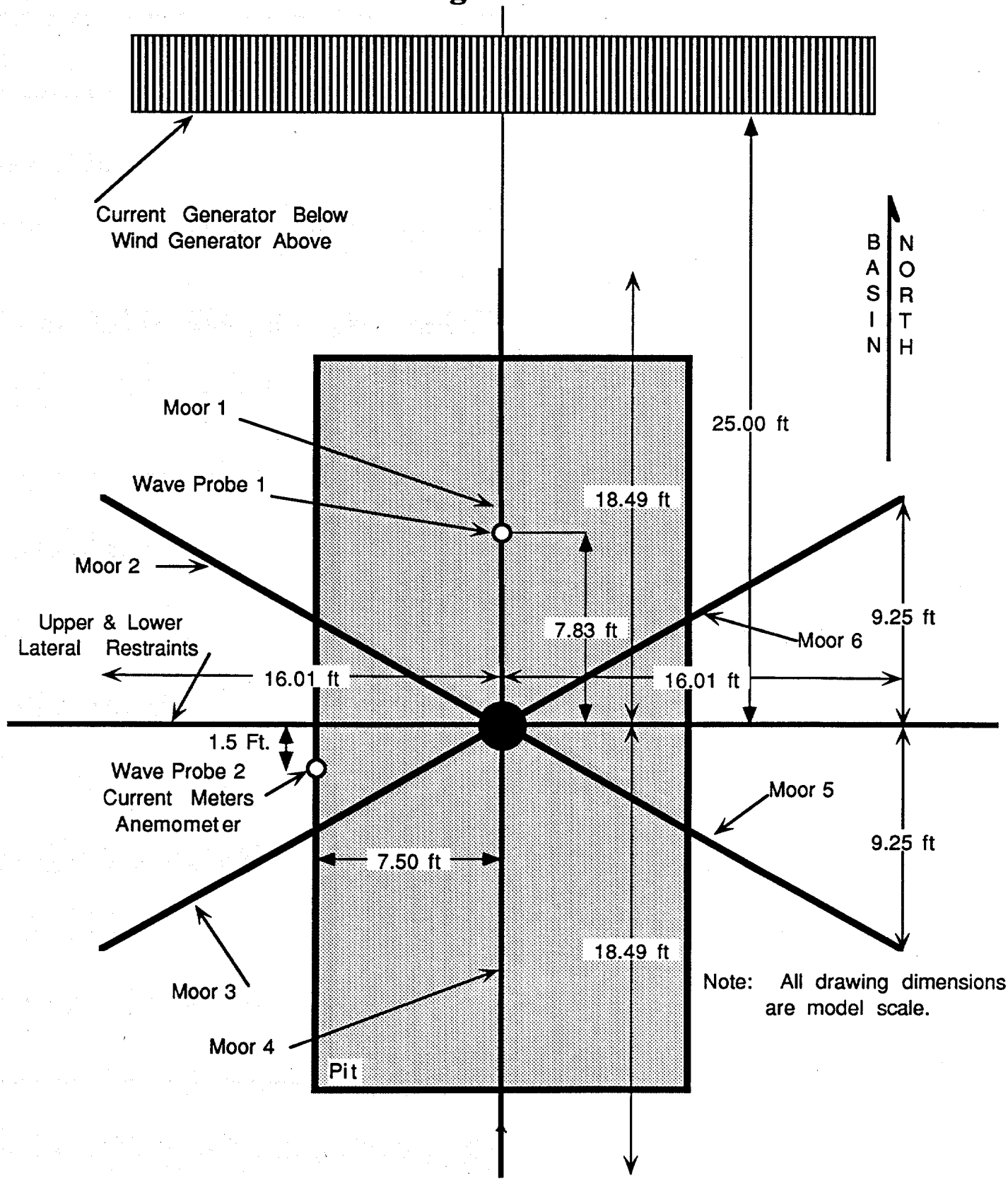
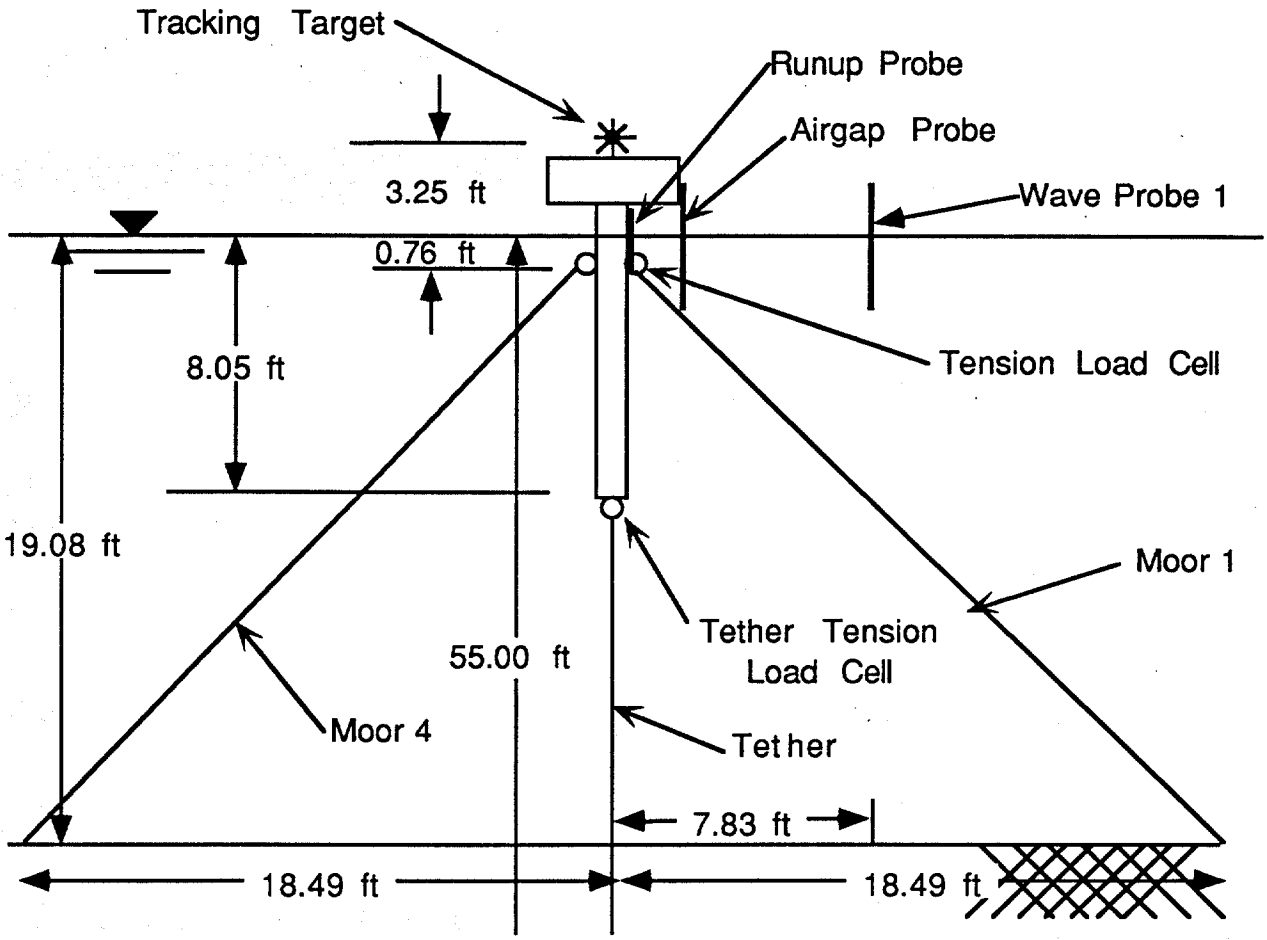


Figure 7.35 Configuration M Side Elevation



Note: All drawing dimensions are model scale.

Configuration M:	
Spar Diameter, full scale	52.5 Ft
Spar Draft, full scale	443 Ft
Vortex Suppression	No
Mooring	Taut w/ Tether & Lateral Restraints
Risers	No

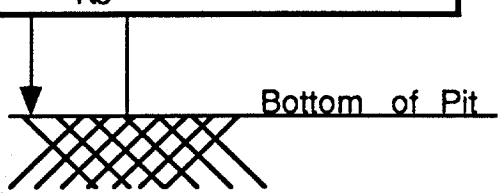
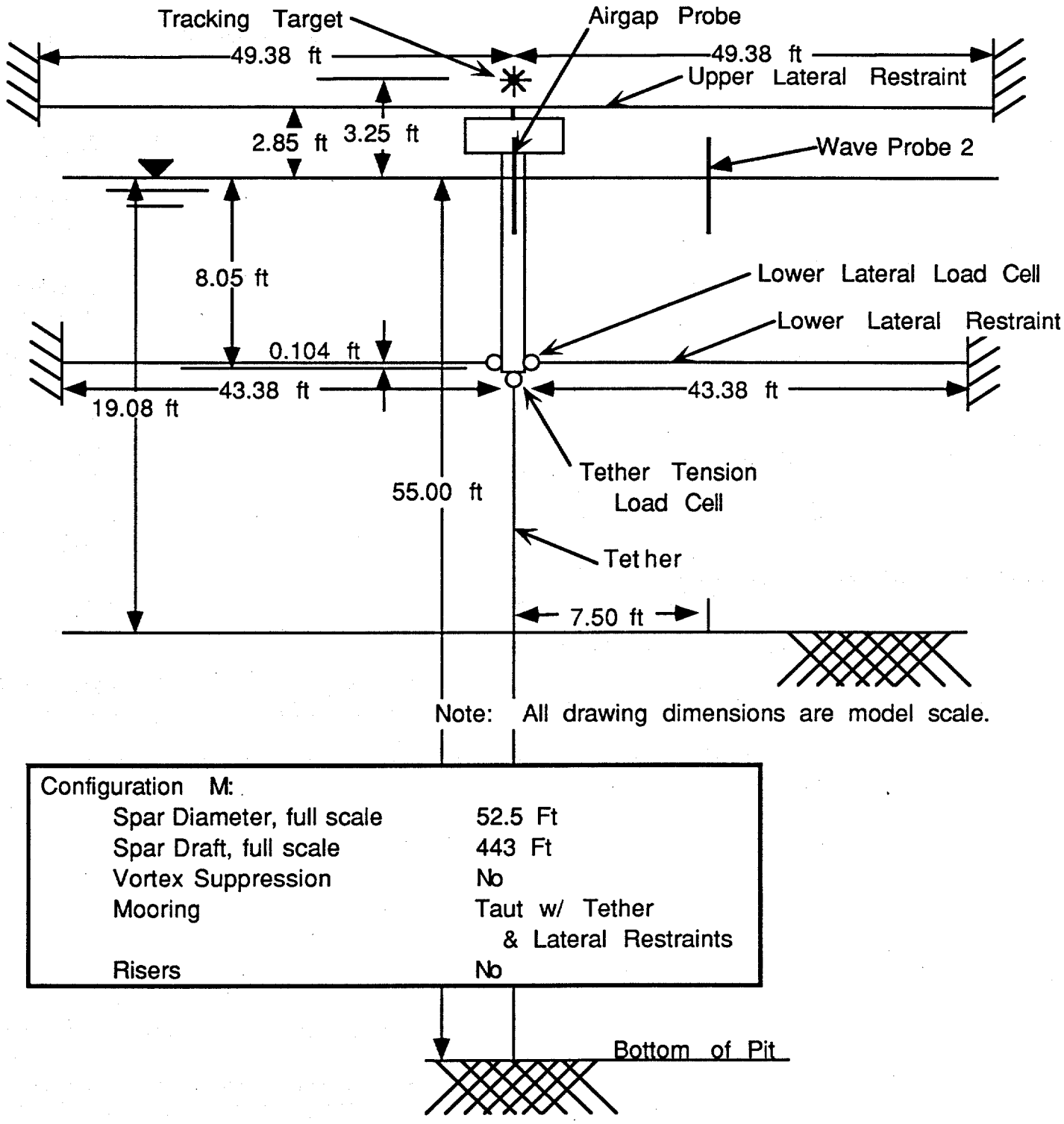


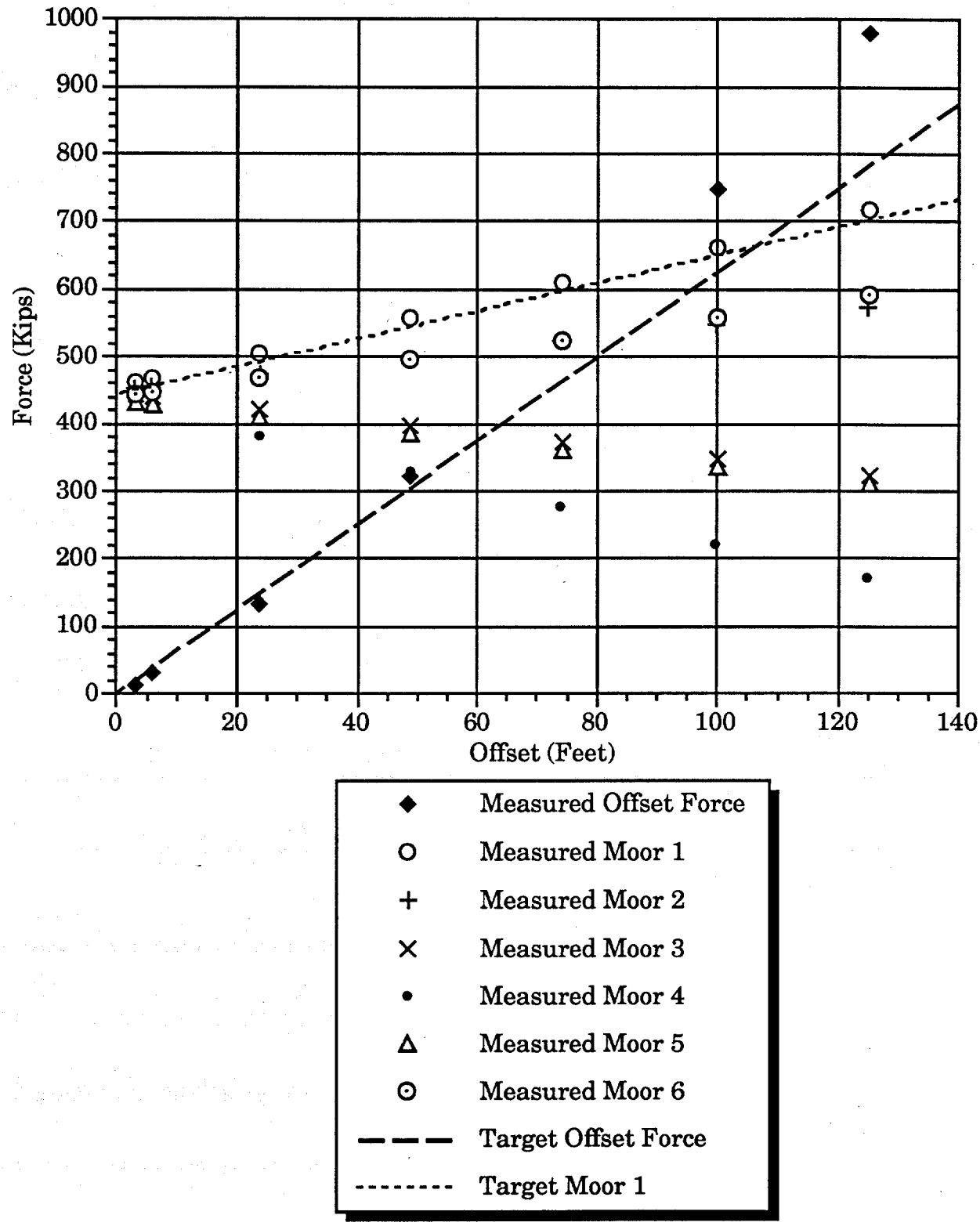
Figure 7.36 Configuration M Front Elevation



Note: All drawing dimensions are model scale.

Configuration M:	
Spar Diameter, full scale	52.5 Ft
Spar Draft, full scale	443 Ft
Vortex Suppression	No
Mooring	Taut w/ Tether & Lateral Restraints
Risers	No

Figure 7.37 Configuration M
Surge Static Offset Results



7.10 Configuration N

General Description:

Deck:	Floating
Mooring:	Soft Horizontal Moor

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Wind	3 Cup Anemometer
Top Surge Acceleration	Accelerometer
Bottom Surge Acceleration	Accelerometer

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Heave	5.99	4.90
Roll	8.03	14.46
Pitch	8.54	17.24

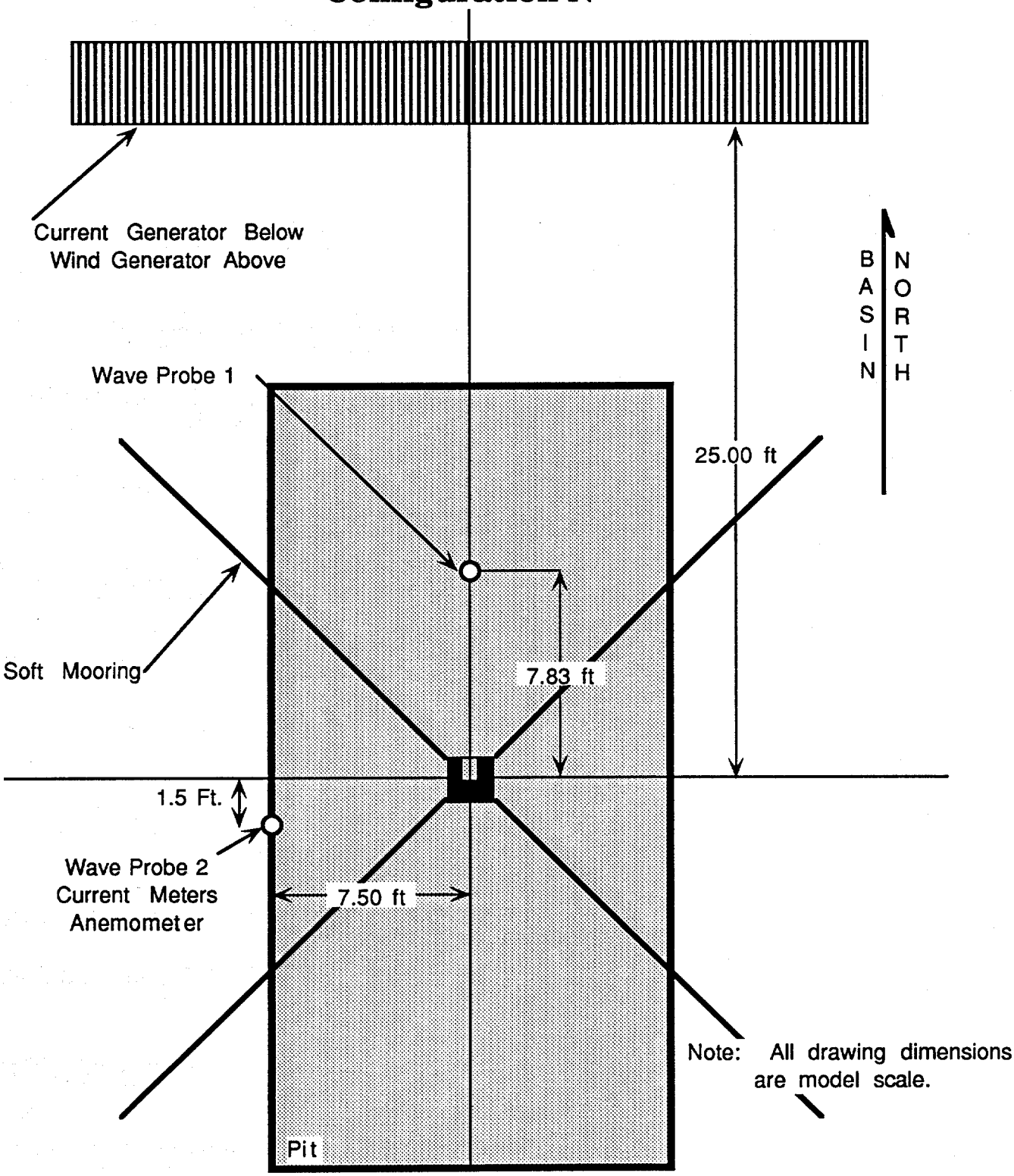
Comments:

Upper and lower accelerometers located on model derrick, on centerline, 36.25 inches apart, model scale, 166.14 feet, prototype. Upper accelerometer on top of model derrick. Lower accelerometer 30 inches, model scale, 137.5 feet, prototype, above waterline.

Table 7.11 N Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind	
Volume XXVIII						
ND3	Heave Damping	-	-	-	-	
ND4	Roll Damping	-	-	-	-	
ND5	Pitch Damping	-	-	-	-	
NRAN8	Random Sea	4	7.7	-	-	Short-Crested
NRAN1	Random Sea	8.0	7.7	-	-	Long-Crested
NRAN6	Random Sea	8.0	7.7	-	-	Short-Crested
NRAN9	Random Sea	2.0	7.7	-	-	Short_Crested

Figure 7.38 Basin Layout for Configuration N



7.11 Configuration O

General Description:

Spar Diameter:	133. feet
Spar Draft:	700. feet (approximately)
Deck:	None
Mooring:	4 Piecewise Linear Lines
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	Strakes
Risers:	None

Acquired Data:

Data	Instrument
Surge	Optical Tracking
Sway	Optical Tracking
Heave	Optical Tracking
Roll	Inclinometer
Pitch	Inclinometer
Yaw 1, Yaw 2, Yaw 3	Fluxgate Magnetometer
Wave 1, Wave 2	Capacitance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Moor 1, Moor 2, Moor 3, Moor 4	U/W Tension Cells

Computed Data:

Computed Data	Input Data
Corrected Surge	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Sway	Surge, Sway, Heave, Roll, Pitch Yaw
Corrected Heave	Surge, Sway, Heave, Roll, Pitch Yaw
Pitch	Post-Test Filtered Pitch
Yaw	Yaw 1, Yaw 2, Yaw 3
Surge CG	Surge, Sway, Heave, Roll, Pitch Yaw
Sway CG	Surge, Sway, Heave, Roll, Pitch Yaw
Heave CG	Surge, Sway, Heave, Roll, Pitch Yaw

Natural Periods and Damping Coefficients:

Mode	Natural Period (Seconds)	Damping (Coefficient) (% Critical)
Heave	56.75	5.88
Roll	48.74	1.49
Pitch	48.76	1.51

Comments:

Spar waterline 2.1875 inches below top of sponson.

Table 7.12 O Series Test Matrix

Test	Test Type	Hs	Tp	Current	Wind	
Volume XXVIII						
OD3	Heave Damping	-	-	-	-	
OD4	Roll Damping	-	-	-	-	
OD5	Pitch Damping	-	-	-	-	
ORAN8	Random Sea	4	7.7	-	-	Short-Crested
ORAN1	Random Sea	8.0	7.7	-	-	Long-Crested
ORAN6	Random Sea	8.0	7.7	-	-	Short-Crested

Figure 7.39 Basin Layout for Configuration O

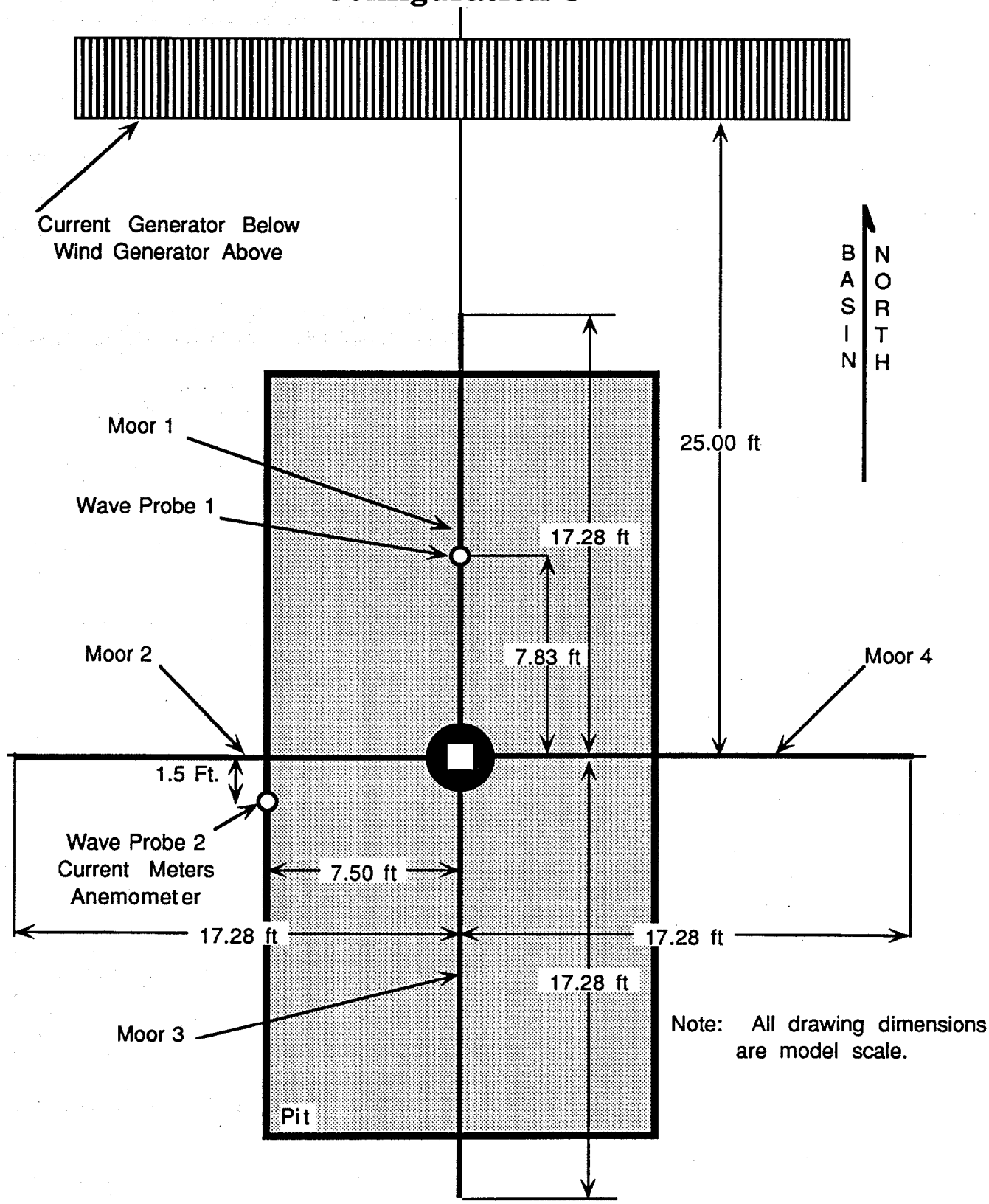
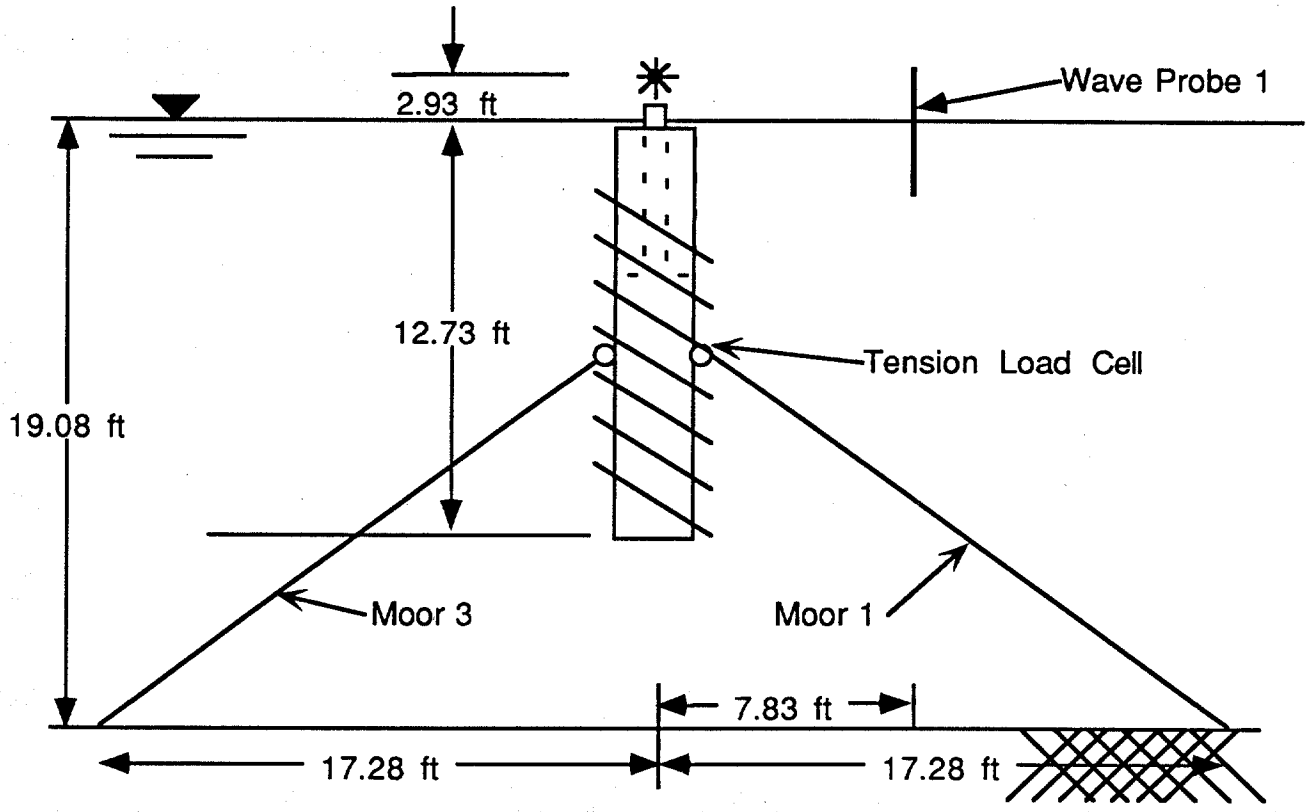


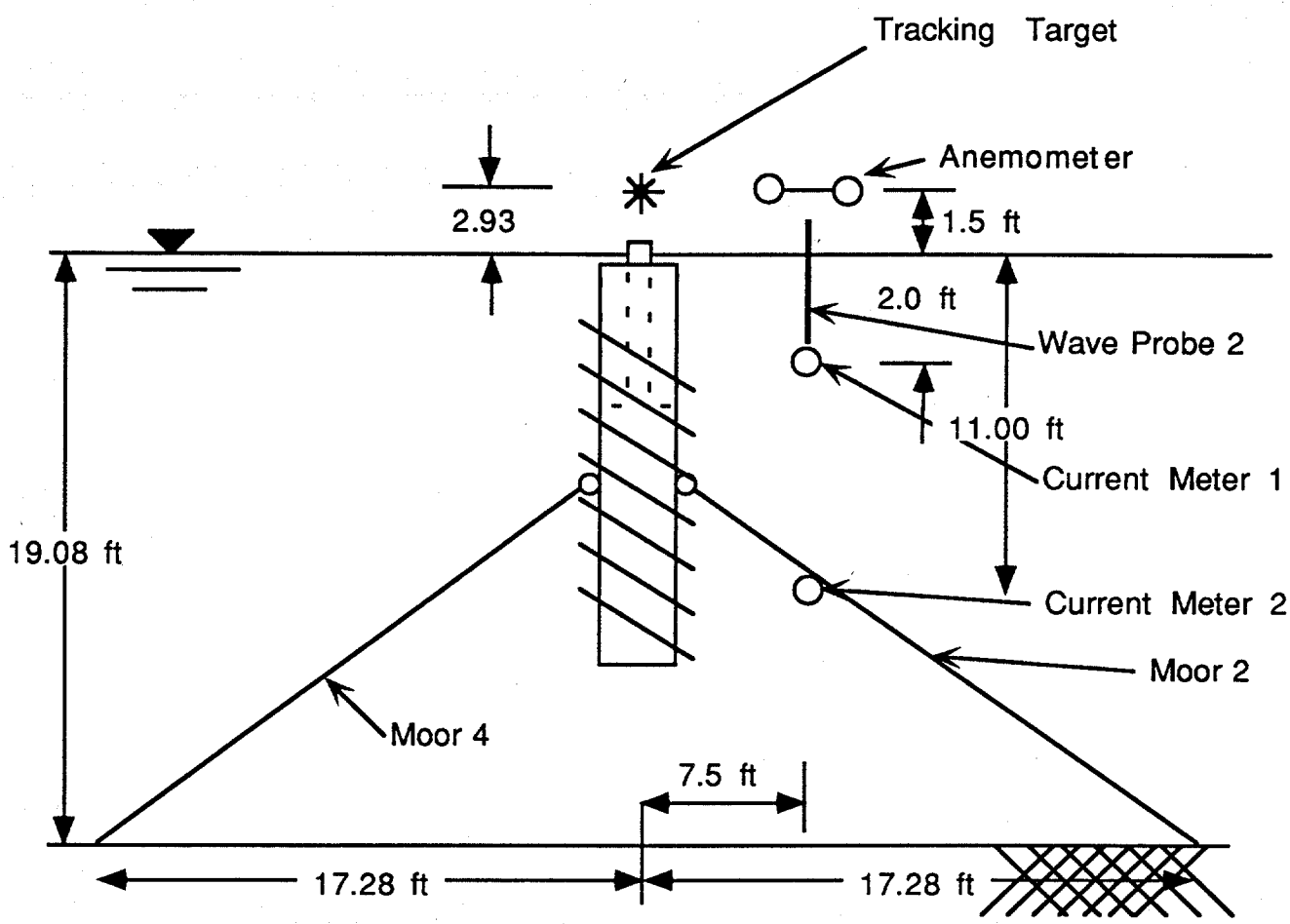
Figure 7.40 Configuration O
Side Elevation



Note: All drawing dimensions are model scale.

Configuration O:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	700 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	No

Figure 7.41 Configuration O Front Elevation



Note: All drawing dimensions are model scale.

Configuration 0:	
Spar Diameter, full scale	133 Ft
Spar Draft, full scale	700 Ft
Vortex Suppression	Strakes
Mooring	Taut
Risers	No

7.12 Configuration P

General Description:

Spar Diameter:	133. feet
Spar Draft:	650. feet
Deck:	Floating or On Launch Barge
Mooring:	4 Piecewise Linear Lines
In-Line Restraints:	None
Lateral Restraints:	None
Vortex Suppression:	Strakes
Risers:	None

Acquired Data:

Data	Instrument
Wave 1, Wave 2	Capacitance Wave Probe
Current 1, Current 2	Acoustic Current Meter
Moor 1, Moor 2, Moor 3, Moor 4	U/W Tension Cells
Winch 1, Winch 2, Winch 3, Winch 4	Ring Gages
Surge Acceleration (X)	Accelerometer
Sway Acceleration (Y)	Accelerometer
Heave Acceleration (Z)	Accelerometer

Computed Data:

None

Table 7.13 P Series Test Matrix

Test	Hs	Tp	Current	Wind	
Volume XXIX					
	4 Winches Float On				
PRAN6_003	4.0	7.7	-	-	Broke 1 Line
PRAN7_001	6.0	7.7	-	-	
PRC6_001	4.0	7.7	1.5	-	
PRC7_001	6.0	7.7	1.5	-	
PUMP_001	4.0	7.7	1.5	-	Deballasting
PUMP_002	4.0	7.7	1.5	-	Deballasting
PUMP_003	4.0	7.7	1.5	-	Deballasting
	2 Winches Slide On				
PRAN_010	2.0	7.7	-	-	
PRAN_011	2.0	7.7	-	-	
PRAN_012	2.0	7.7	-	-	Broke 1 Line
PRAN_013	2.0	7.7	-	-	Deballasting
PRAN_014	2.0	7.7	-	-	Deballasting
PRAN_016	2.0	7.7	-	-	Deballasting
PRAN_017	2.0	7.7	-	-	Deballasting
PRAN_018	2.0	7.7	-	-	Deballasting
PRAN_020	6.0	7.7	-	-	
PRAN_021	6.0	7.7	-	-	
PRAN_022	6.0	7.7	-	-	Deballasting
PRAN_023	6.0	7.7	-	-	Deballasting
PRAN_024	6.0	7.7	-	-	Deballasting
PRAN_025	6.0	7.7	-	-	Deballasting
PRAN_026	6.0	7.7	-	-	Deballasting

Figure 7.42 Layout for Configuration P Float On Tests

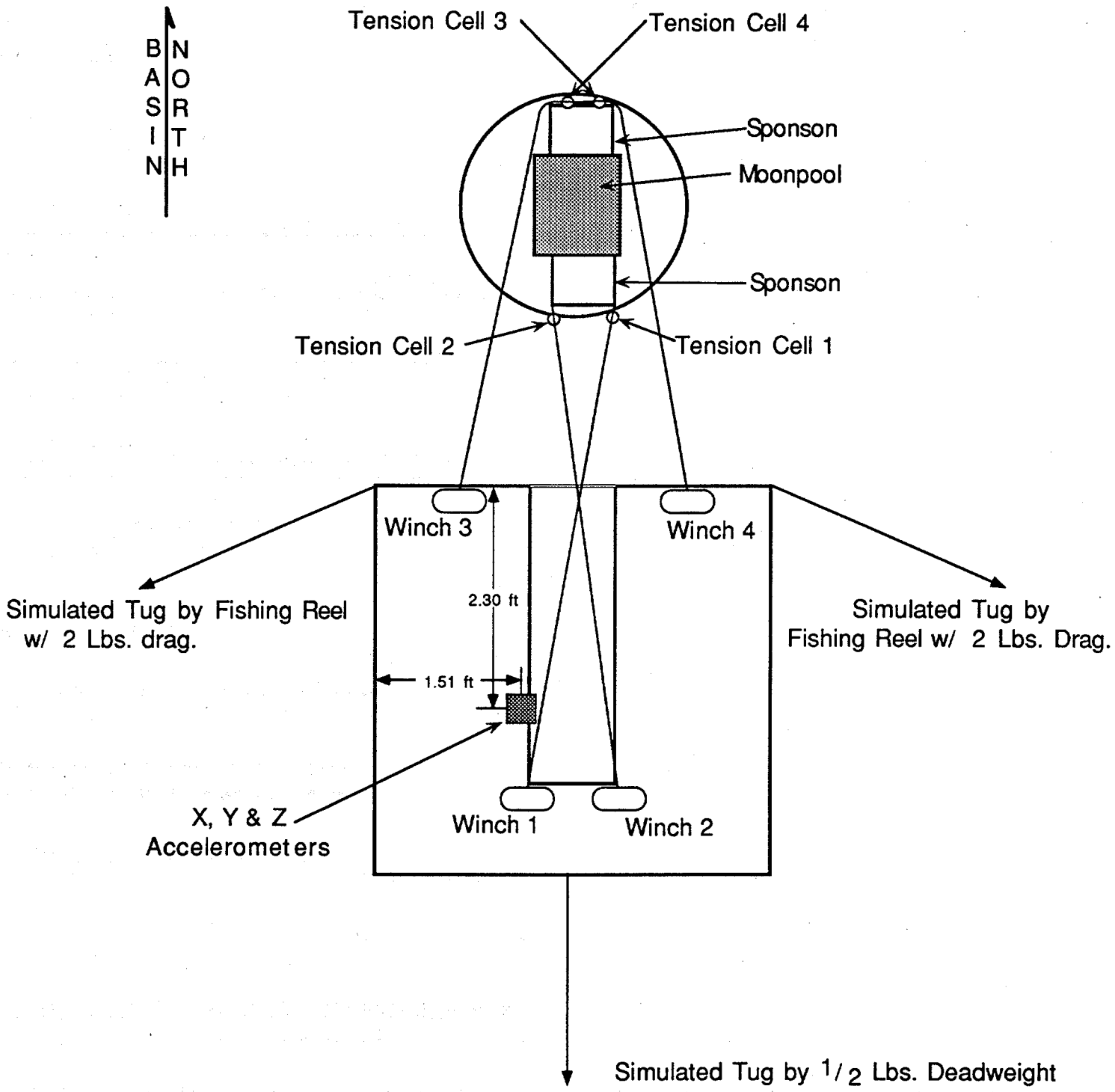
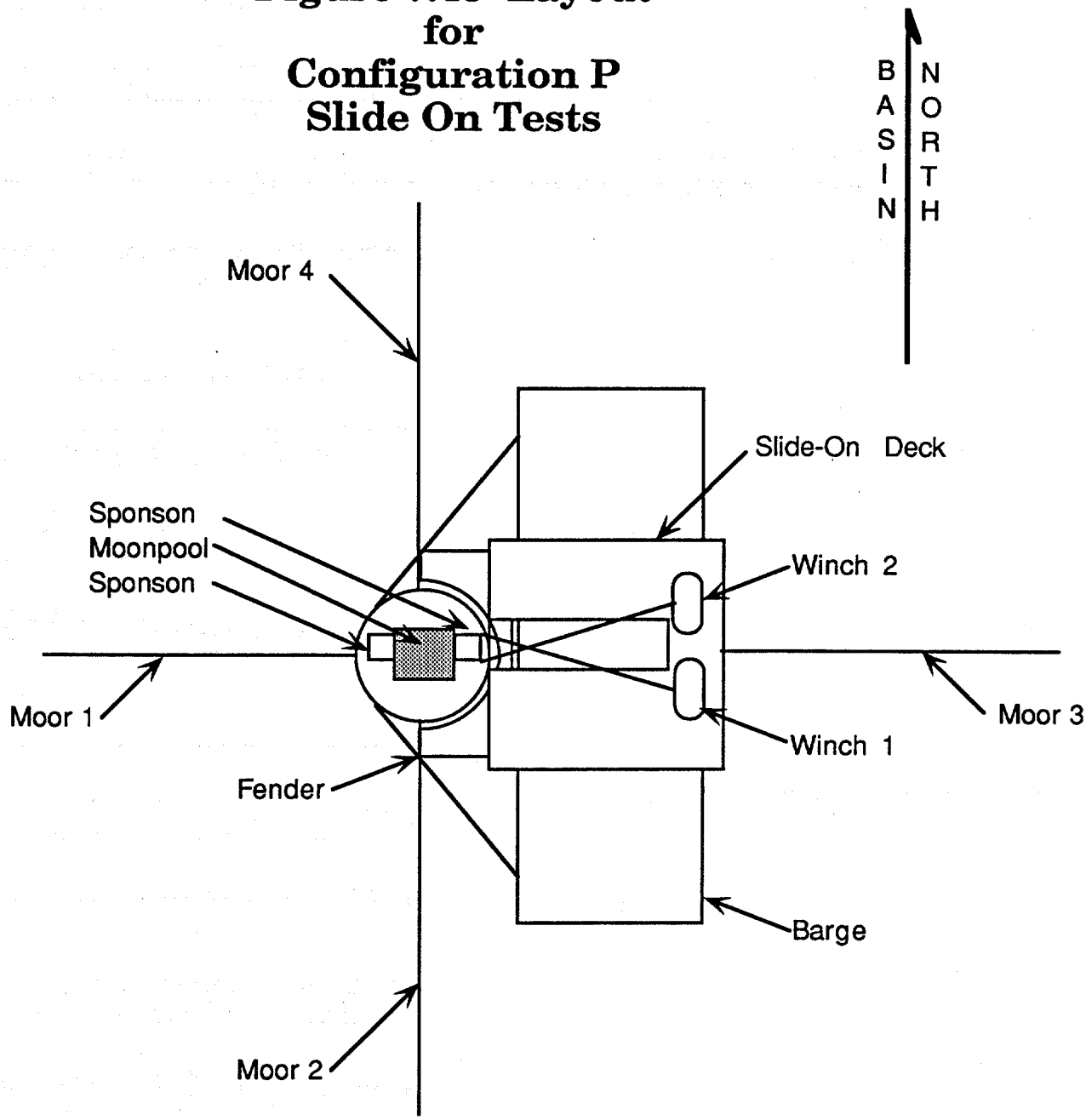


Figure 7.43 Layout for Configuration P Slide On Tests

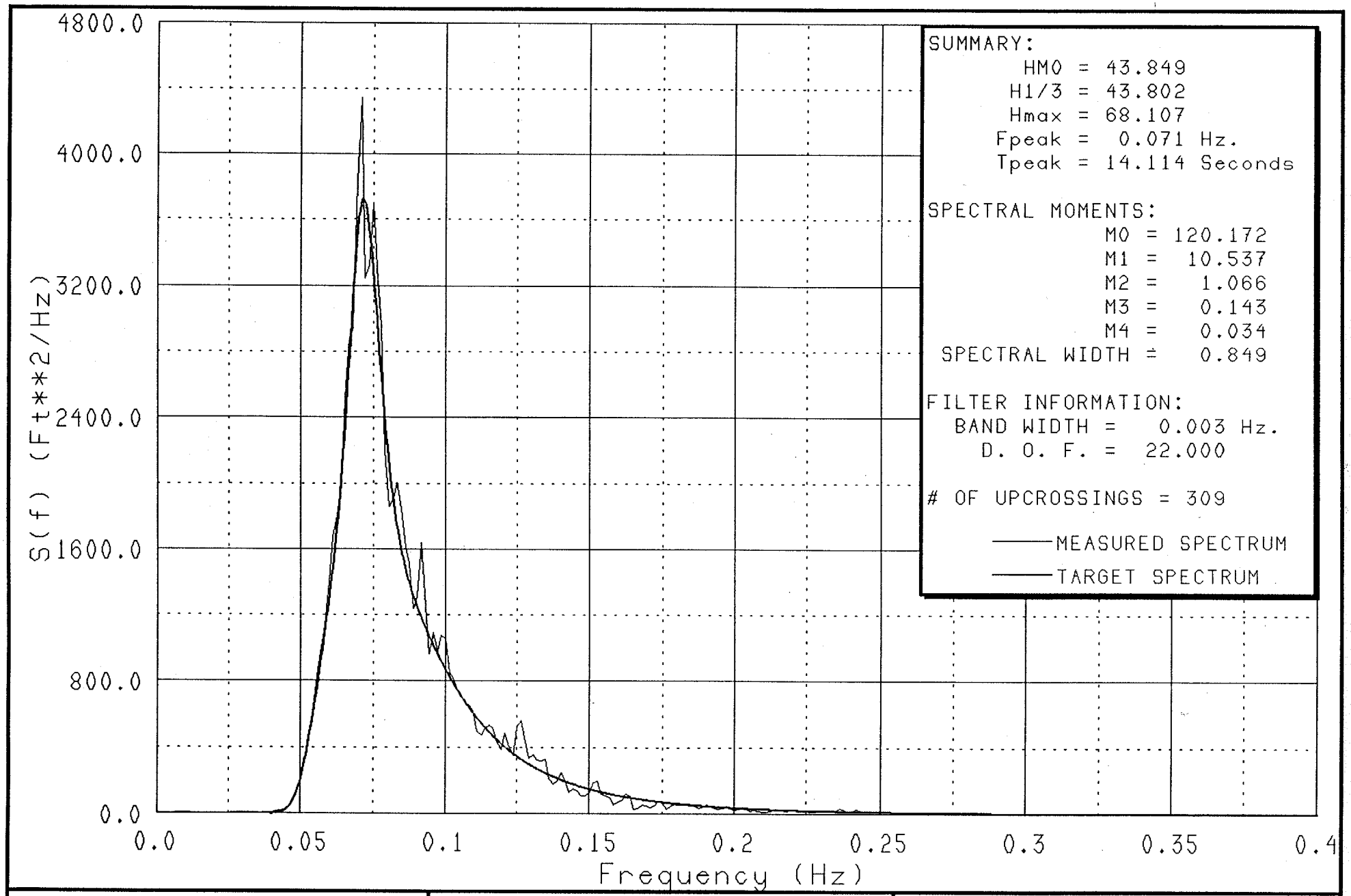


Appendix A: Environments

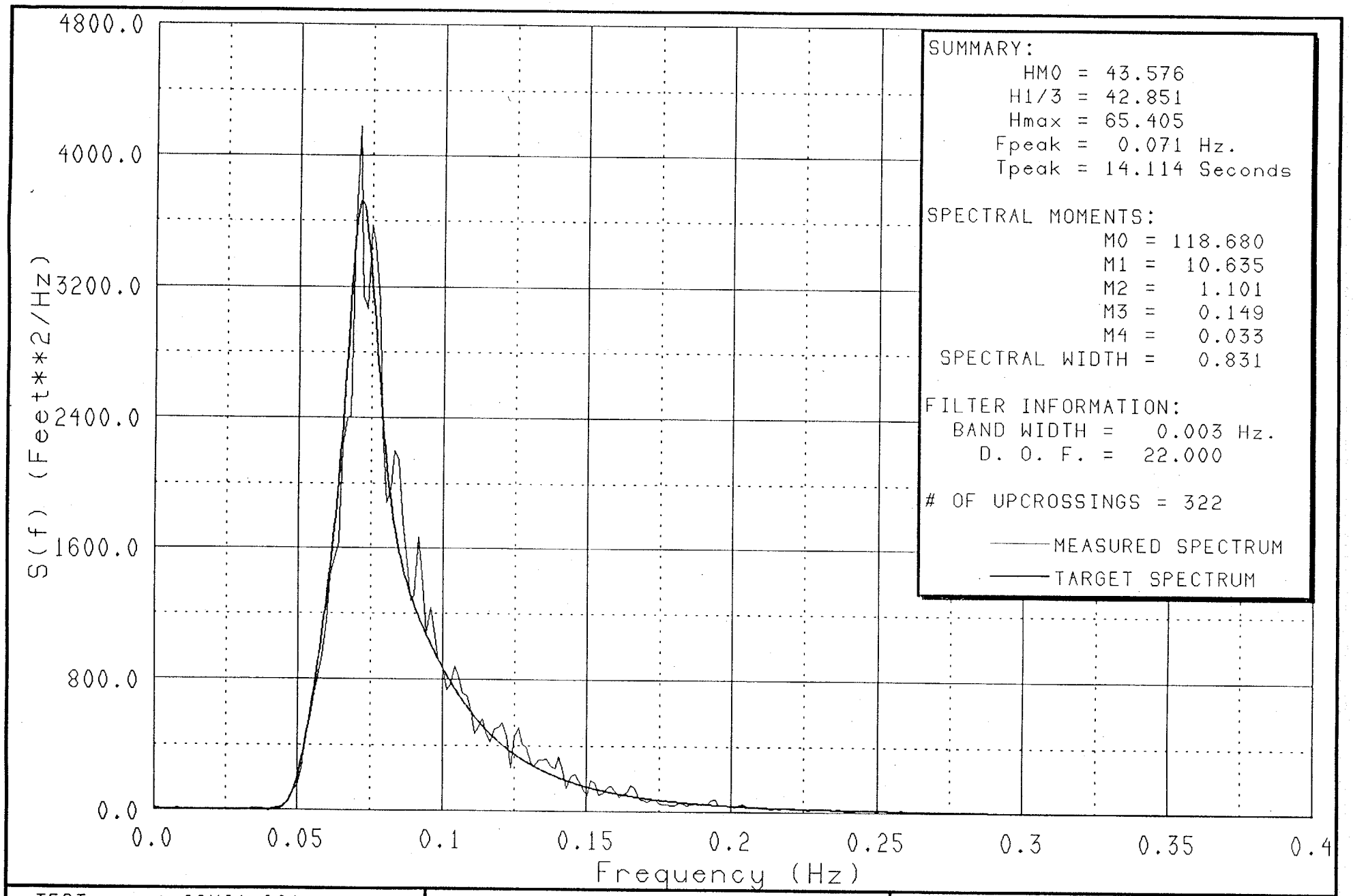
A.1 Wave Spectra

Random Waves

Drive Signal	Hs Target (Feet)	Tp Target (Seconds)	Hs Measured (Feet)	Tp Measured (Seconds)	Current	Wind
100 Year, Gulf of Mexico Hurricane JONSWAP, $\gamma = 2$						
GOM1	43.0	14.0	43.85	14.11	None	None
GOMC1	43.0	14.0	43.58	14.11	4.3	None
GOMCW1	43.0	14.0	43.20	14.11	4.3	85
GOM2	43.0	14.0	44.00	13.84	None	None
GOMC2	43.0	14.0	43.11	13.84	4.3	None
GOMCW2	43.0	14.0	43.38	13.84	4.3	85
North Atlantic Storm JONSWAP, $\gamma = 2$						
NS	45.9	16.3	46.50	16.21	None	None
NSC	45.9	16.3	45.96	16.21	5.3	None
NSCW	45.9	16.3	46.70	16.51	5.3	58.7
10 Year, Gulf of Mexico Storm JONSWAP, $\gamma = 2$						
10YR	21.0	10.5	21.28	10.78	None	None
10YRC	21.0	10.5	21.16	10.28	6.3	None
10YRCW	21.0	10.5	21.68	10.17	6.3	43
West Africa Storm JONSWAP, $\gamma = 2$						
AFR	21.0	10.5	12.29	16.01	None	None
AFRC	21.0	10.5	12.11	16.33	4.3	None
AFRCW	21.0	10.5	12.20	16.33	4.3	38
Operational and Installation Sea States Modified Pierson-Moskowitz						
OP_4	8.0	7.7	8.36	7.59	None	None
OP _MDS	8.0	7.7	8.03	6.50	None	None
Short-Crested Installation Sea State Modified Pierson-Moskowitz						
INSTALL_MDS	4.0	7.7	3.95	6.50	None	None



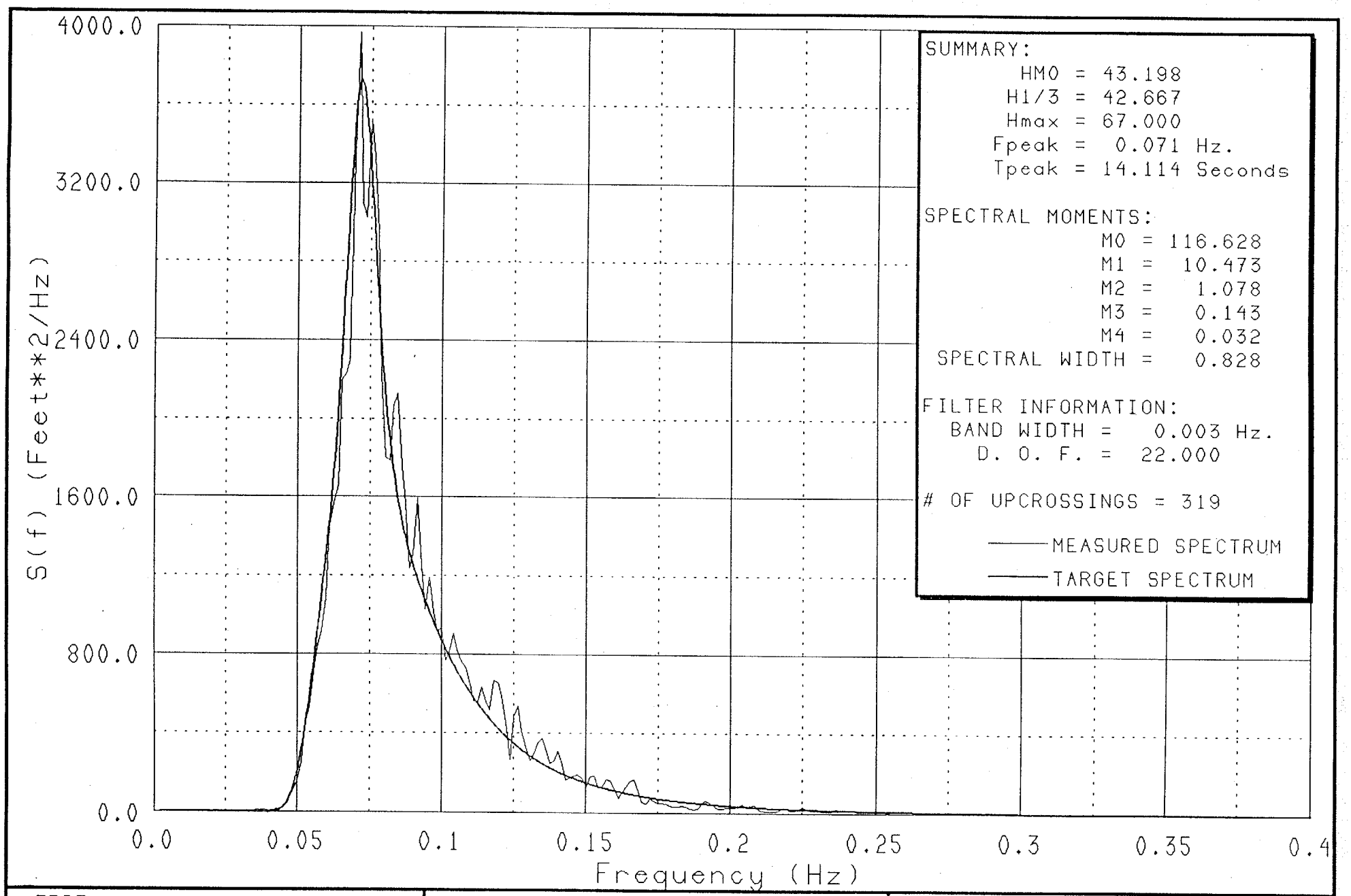
TEST : GOM1_003 TEST DATE: 25-FEB-94 TEST TIME: 15:12:46	POWER SPECTRAL DENSITY Spar Platform CHANNEL 6 Wave Center	OFFSHORE TECHNOLOGY RESEARCH CENTER



TEST : GOMC1_001
TEST DATE: 12-MAR-94
TEST TIME: 12:37:20

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 10 Wave 2

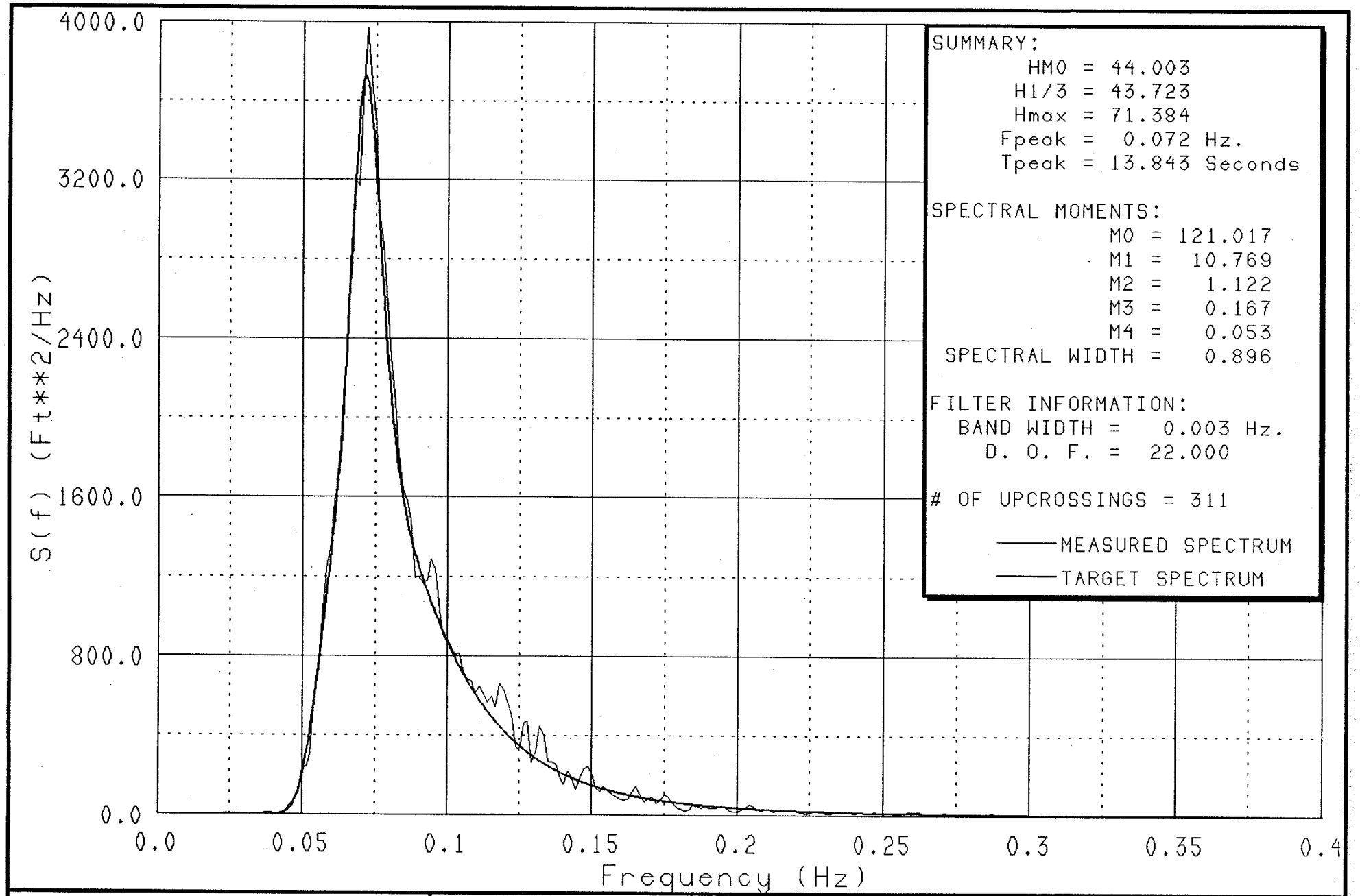
OFFSHORE TECHNOLOGY
RESEARCH CENTER



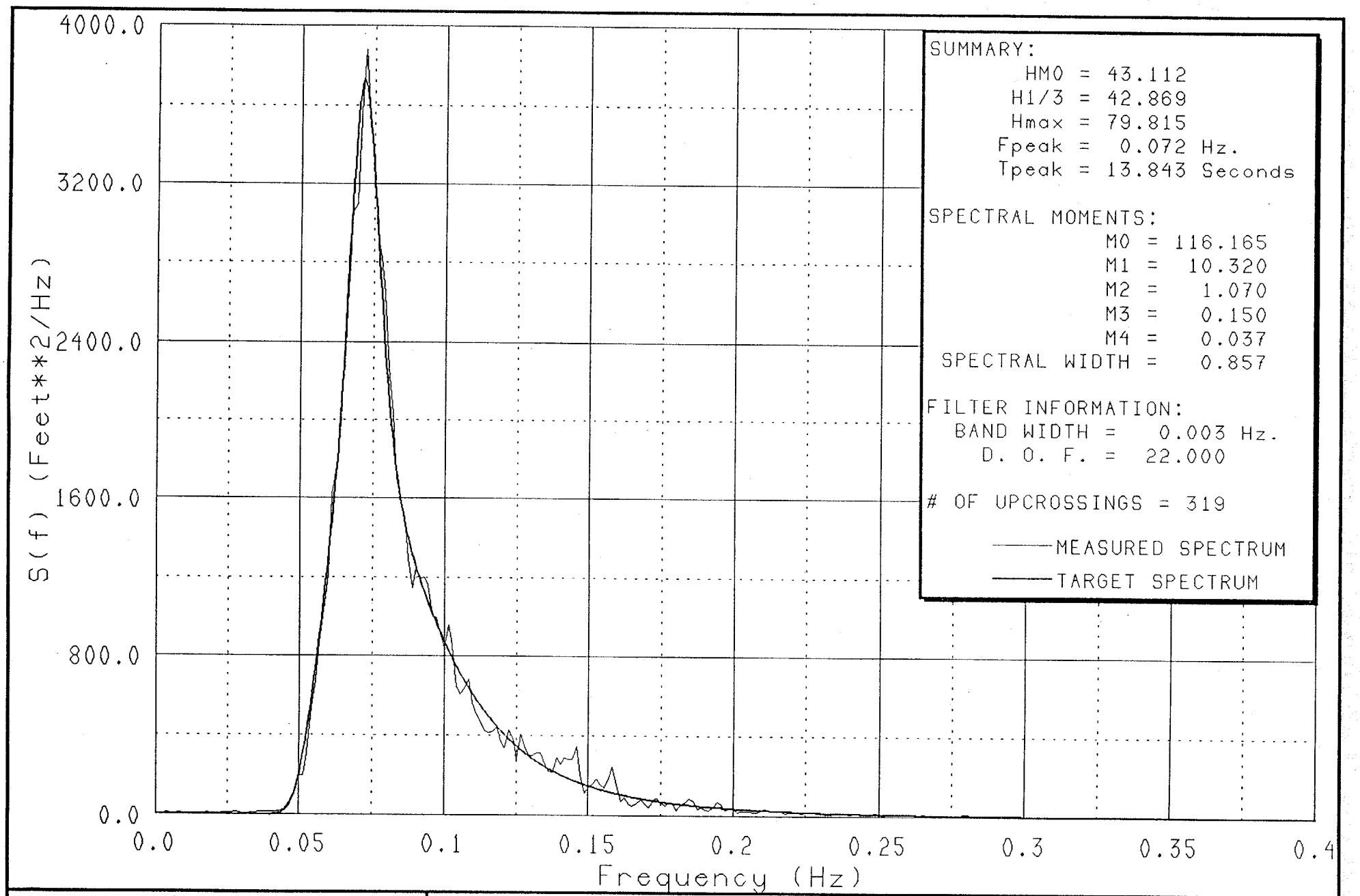
TEST : GOMCW1_001
TEST DATE: 12-MAR-94
TEST TIME: 14:52:47

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 10 Wave 2

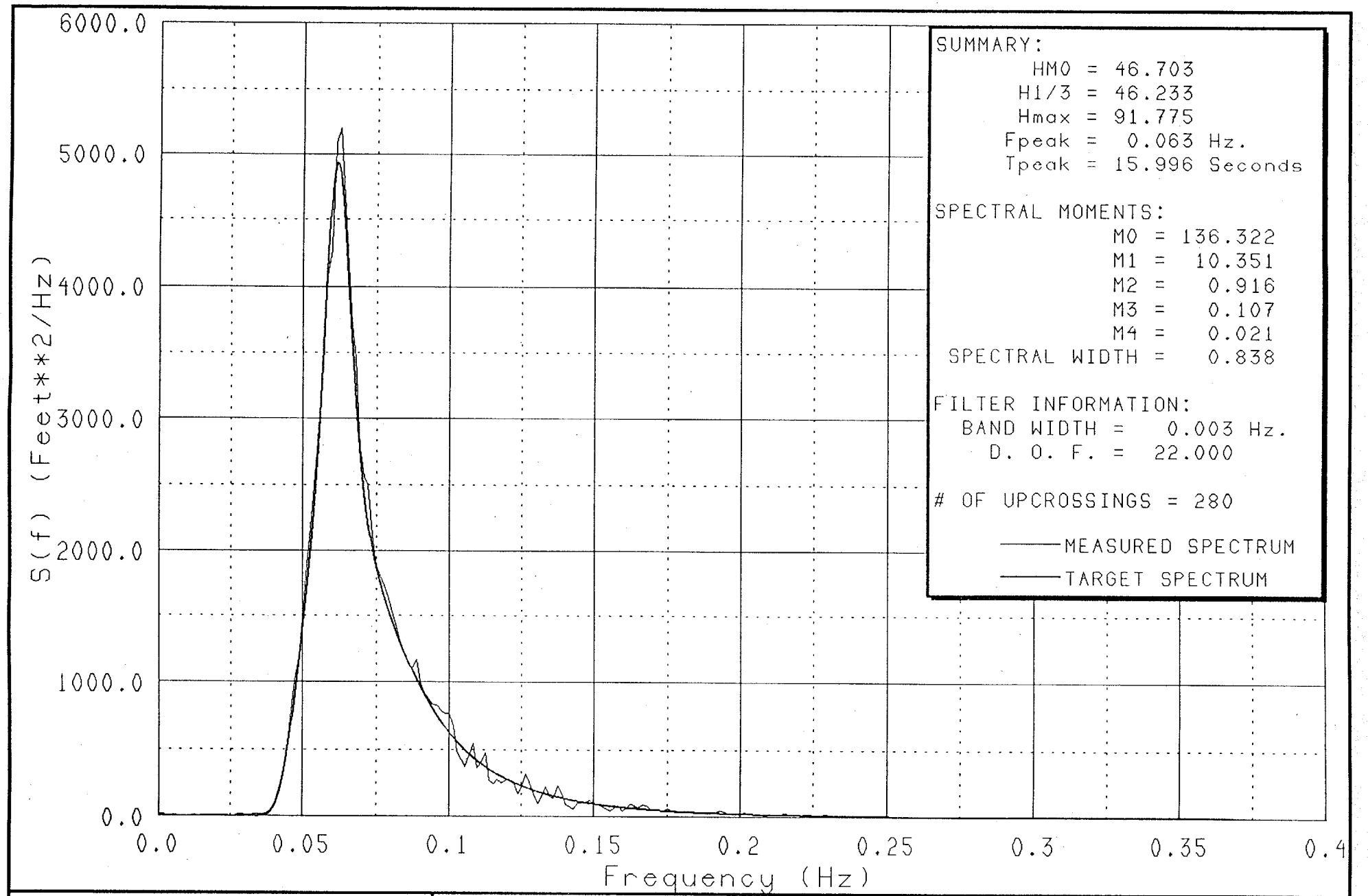
OFFSHORE TECHNOLOGY
RESEARCH CENTER



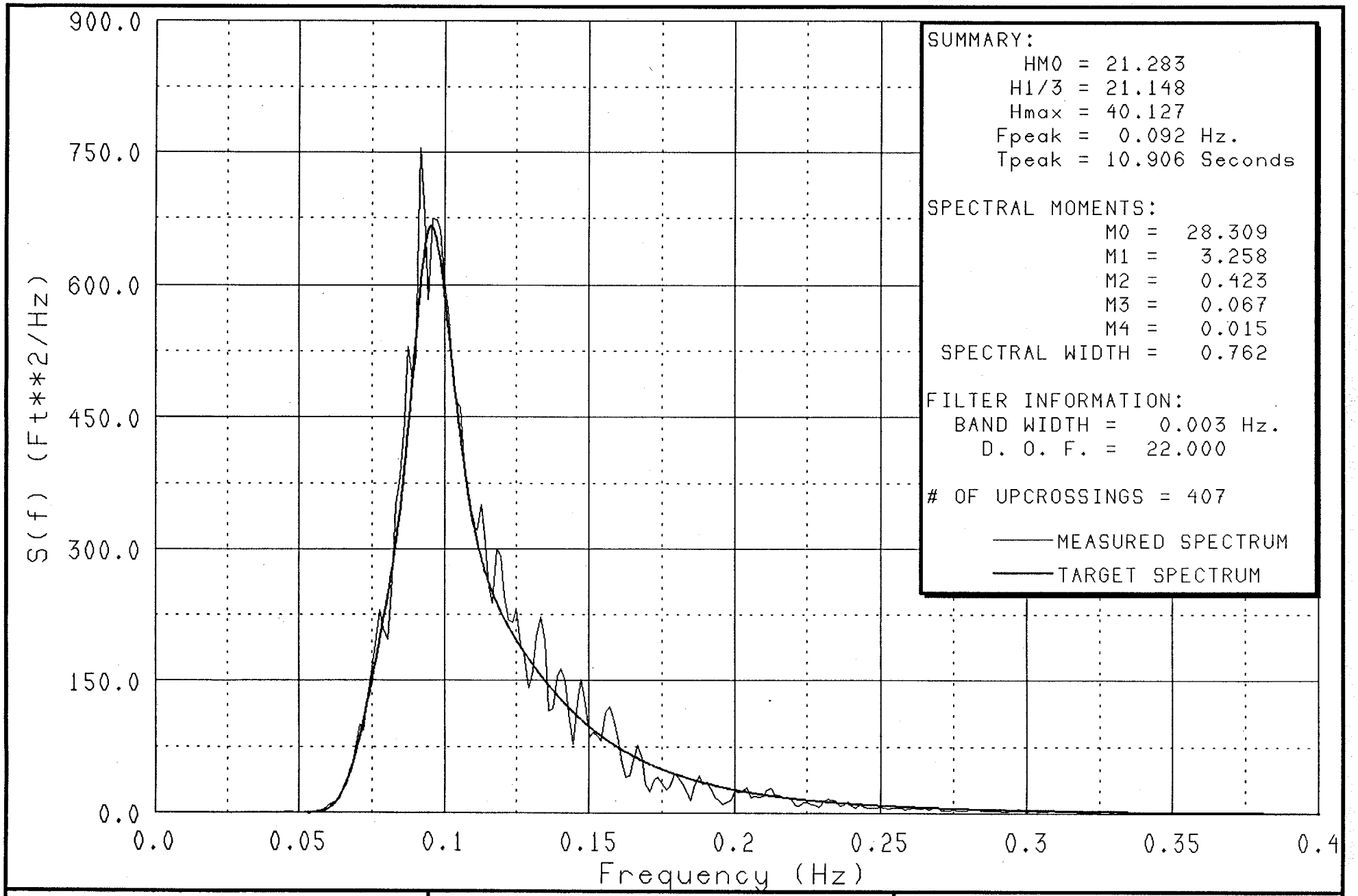
TEST : GOM2_003 TEST DATE: 25-FEB-94 TEST TIME: 16:07:52	POWER SPECTRAL DENSITY Spar Platform CHANNEL 6 Wave Center	OFFSHORE TECHNOLOGY RESEARCH CENTER



TEST : GOMC2_002 TEST DATE: 12-MAR-94 TEST TIME: 13:59:23	POWER SPECTRAL DENSITY Spar Platform CHANNEL 10 Wave 2	OFFSHORE TECHNOLOGY RESEARCH CENTER



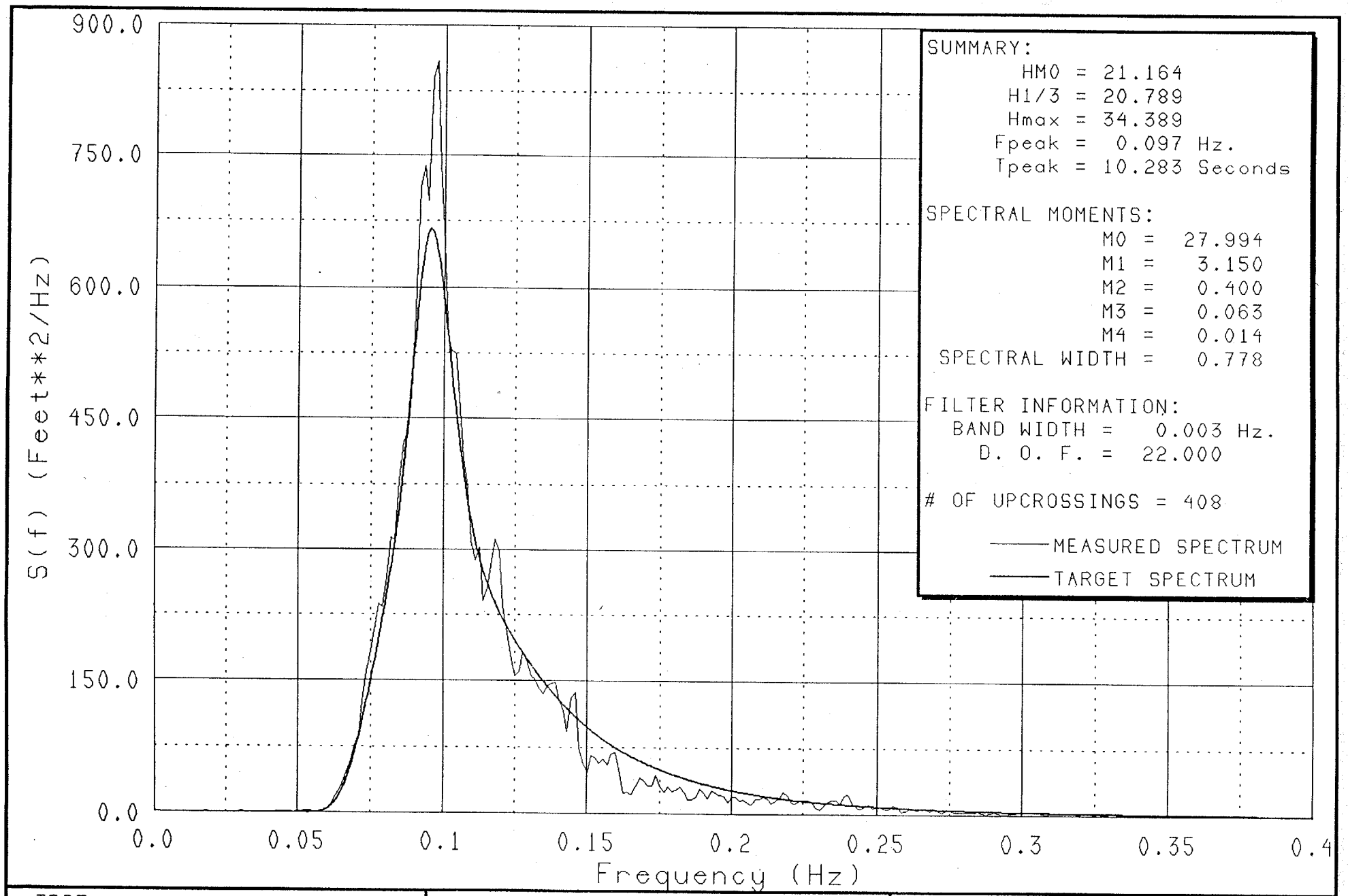
TEST : NSCW_002 TEST DATE: 12-MAR-94 TEST TIME: 17:48:04	POWER SPECTRAL DENSITY Spar Platform CHANNEL 10 Wave 2	OFFSHORE TECHNOLOGY RESEARCH CENTER



TEST : 10YR_002
TEST DATE: 25-FEB-94
TEST TIME: 14:04:02

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 6 Wave Center

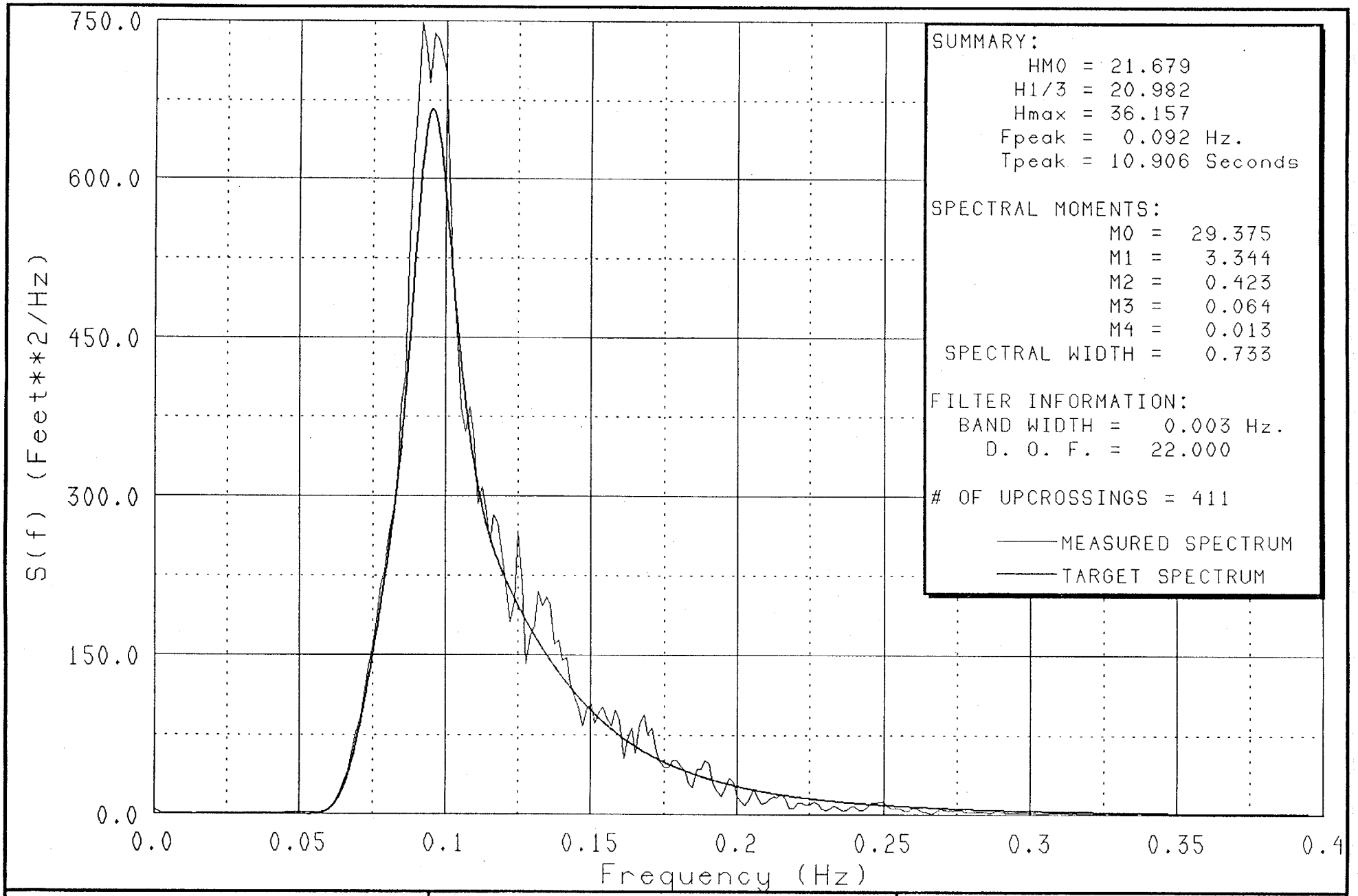
OFFSHORE TECHNOLOGY
RESEARCH CENTER



TEST : 10YRC_009
TEST DATE: 12-MAR-94
TEST TIME: 19:41:43

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 10 Wave 2

OFFSHORE TECHNOLOGY
RESEARCH CENTER

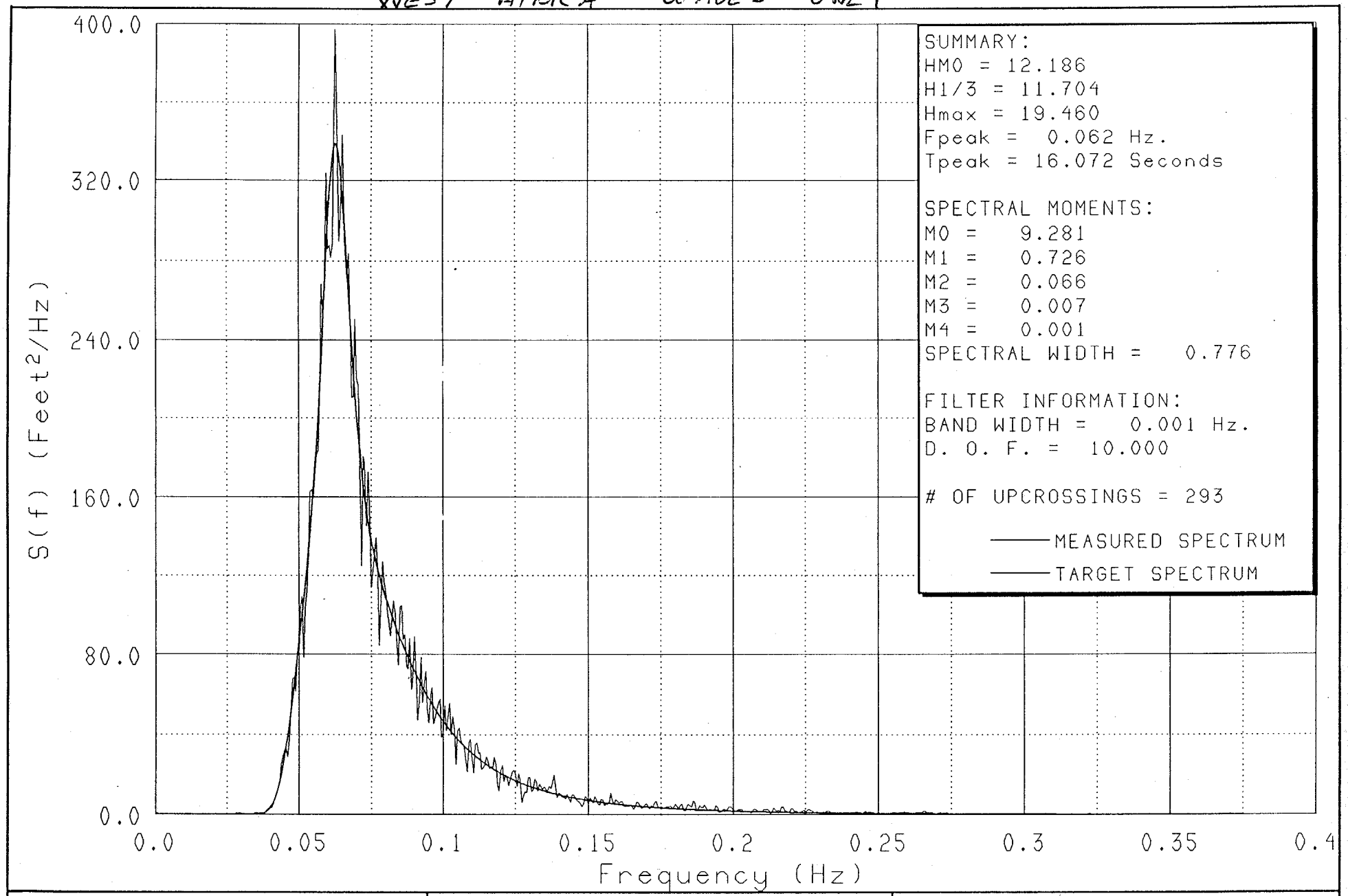


TEST : 10YRCW_006
TEST DATE: 12-MAR-94
TEST TIME: 21:17:11

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 10 Wave 2

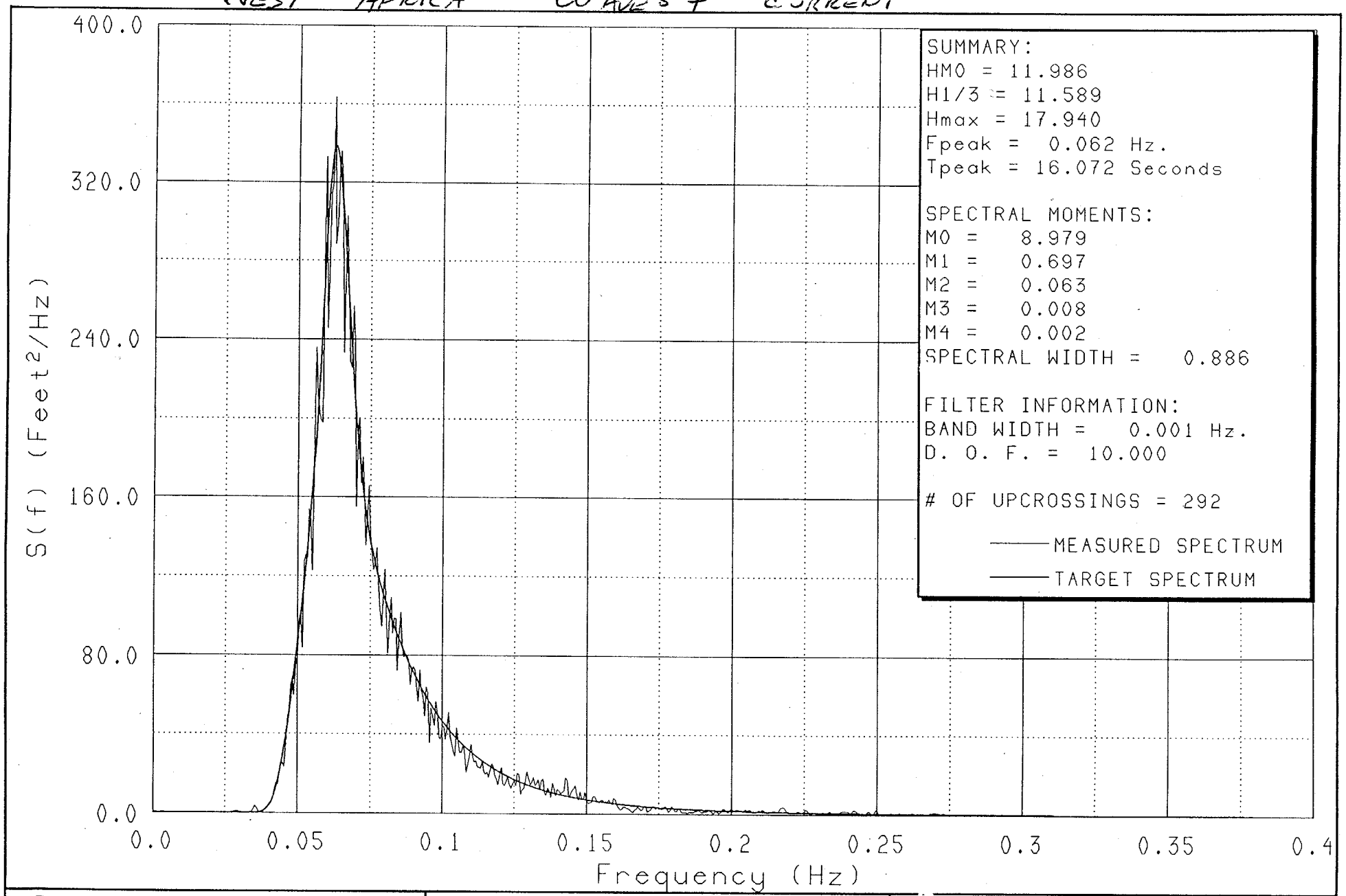
OFFSHORE TECHNOLOGY
RESEARCH CENTER

WEST AFRICA WAVES ONLY



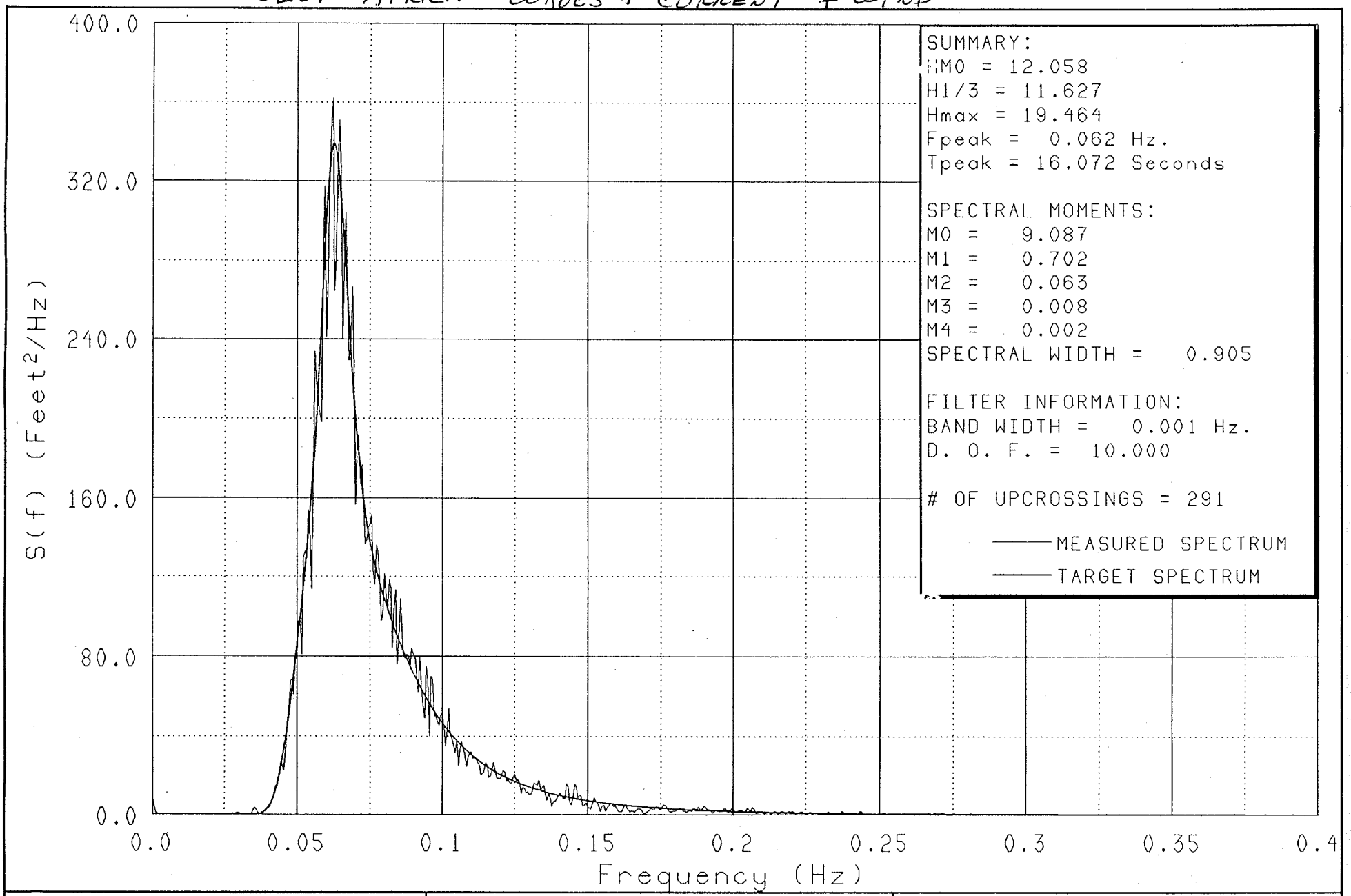
TEST : AFR_002 TEST DATE: 5-MAY-94 TEST TIME: 14:01:21	POWER SPECTRAL DENSITY Spar Platform CHANNEL 9 Wave 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

WEST APRICA WAVES + CURRENT

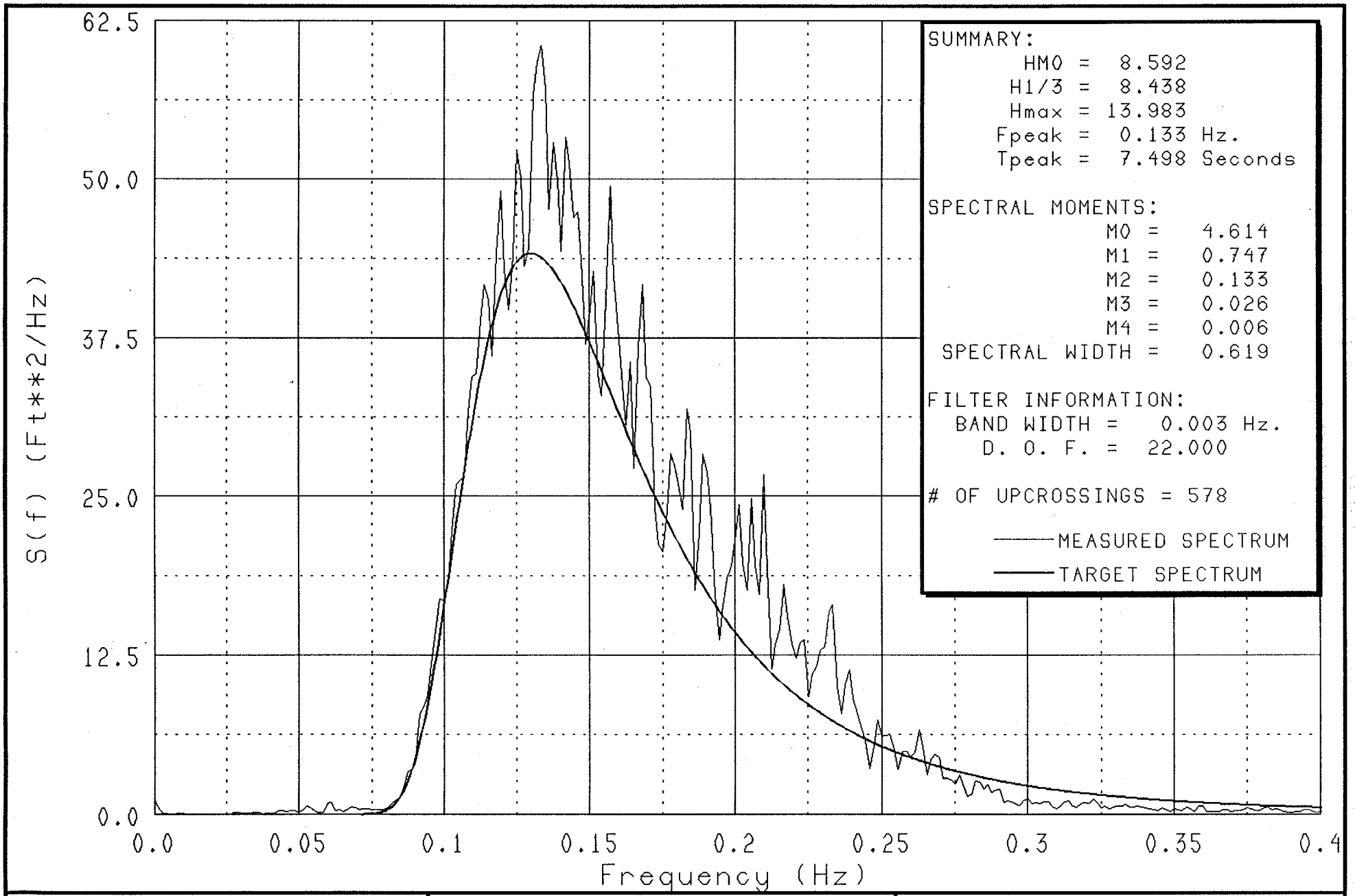


TEST : AFRC_002 TEST DATE: 5-MAY-94 TEST TIME: 16:09:23	POWER SPECTRAL DENSITY Spar Platform CHANNEL 9 Wave 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

WEST AFRICA WAVES + CURRENT + WIND



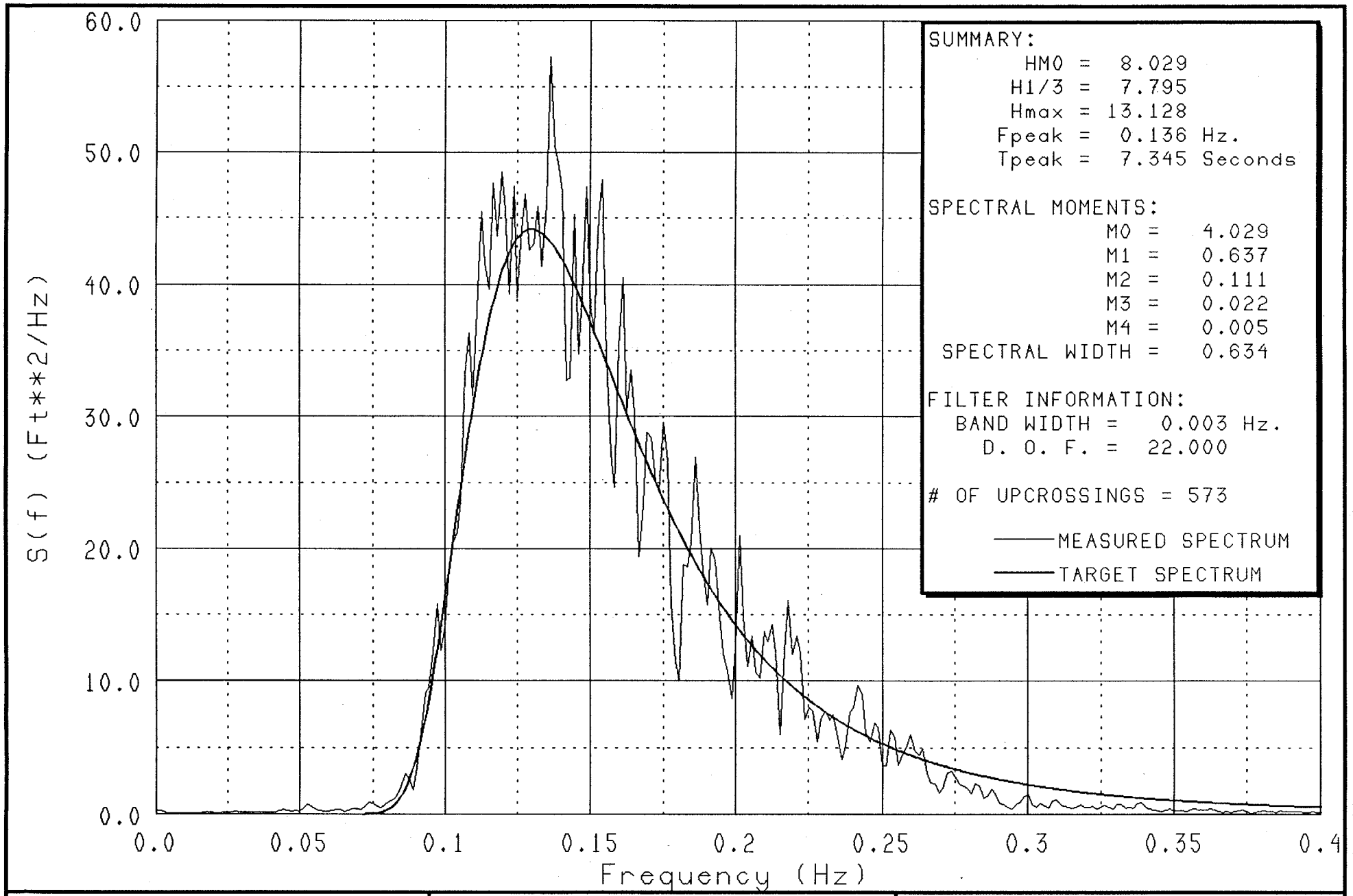
TEST : AFRCW_001 TEST DATE: 5-MAY-94 TEST TIME: 17:03:08	POWER SPECTRAL DENSITY Spar Platform CHANNEL 9 Wave 1	OFFSHORE TECHNOLOGY RESEARCH CENTER



TEST : OP_003
TEST DATE: 25-FEB-94
TEST TIME: 18:12:55

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 6 Wave Center

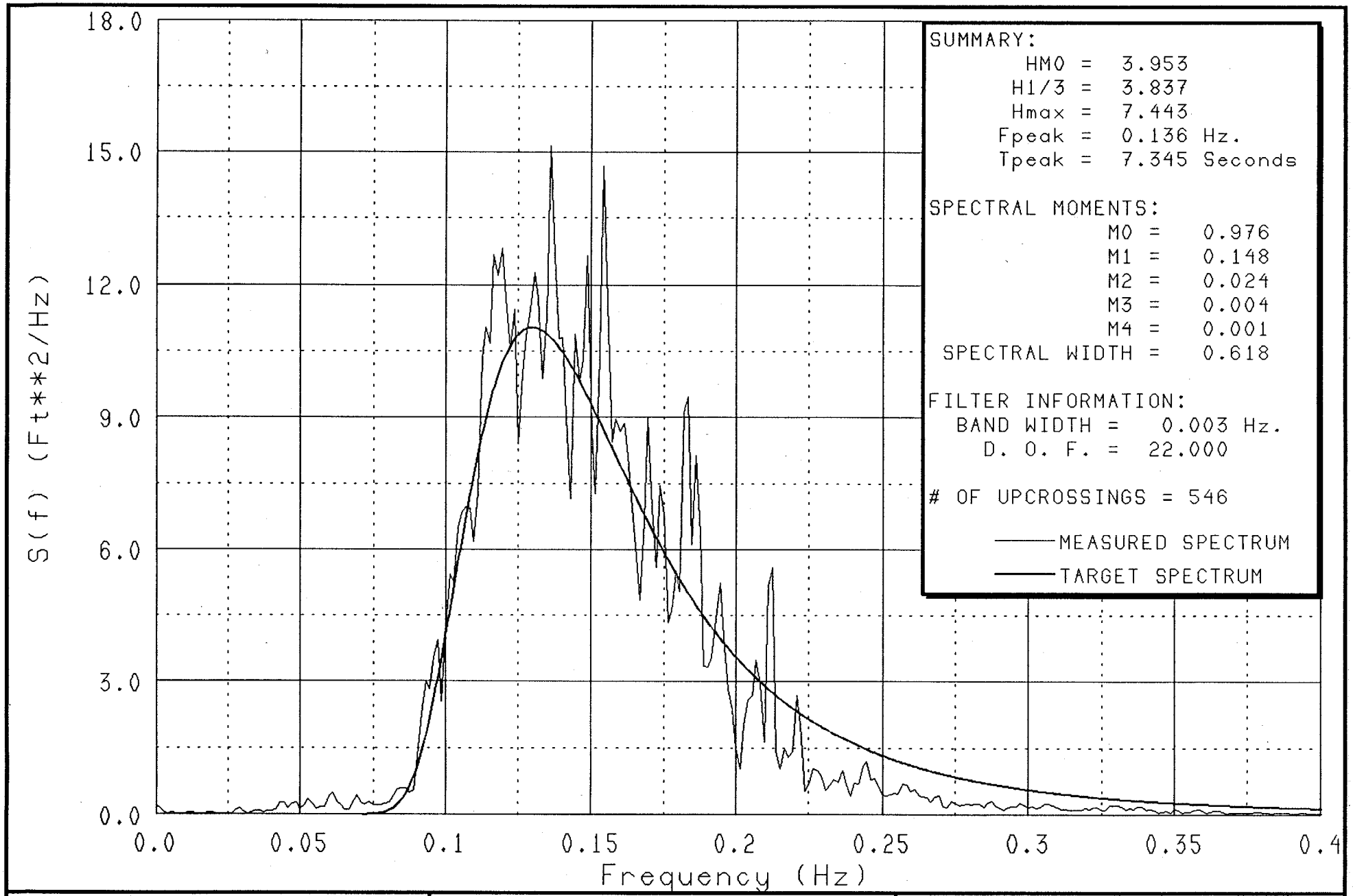
OFFSHORE TECHNOLOGY
RESEARCH CENTER



TEST : OPMDS_002
TEST DATE: 25-FEB-94
TEST TIME: 19:46:18

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 6 Wave Center

OFFSHORE TECHNOLOGY
RESEARCH CENTER



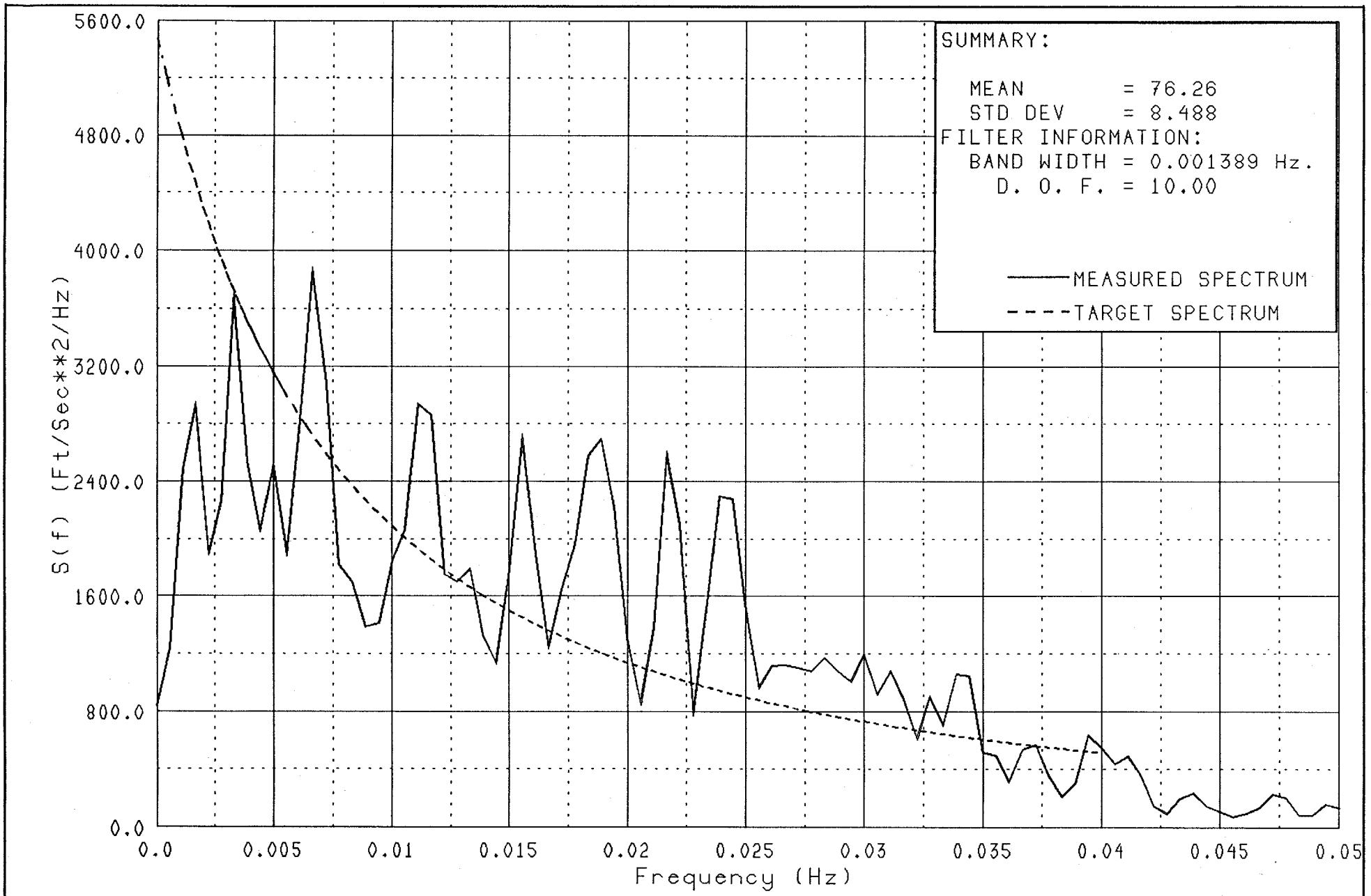
TEST : INSTALL_001 TEST DATE: 25-FEB-94 TEST TIME: 20:21:54	POWER SPECTRAL DENSITY Spar Platform CHANNEL 6 Wave Center	OFFSHORE TECHNOLOGY RESEARCH CENTER

A.2 Wind Spectra

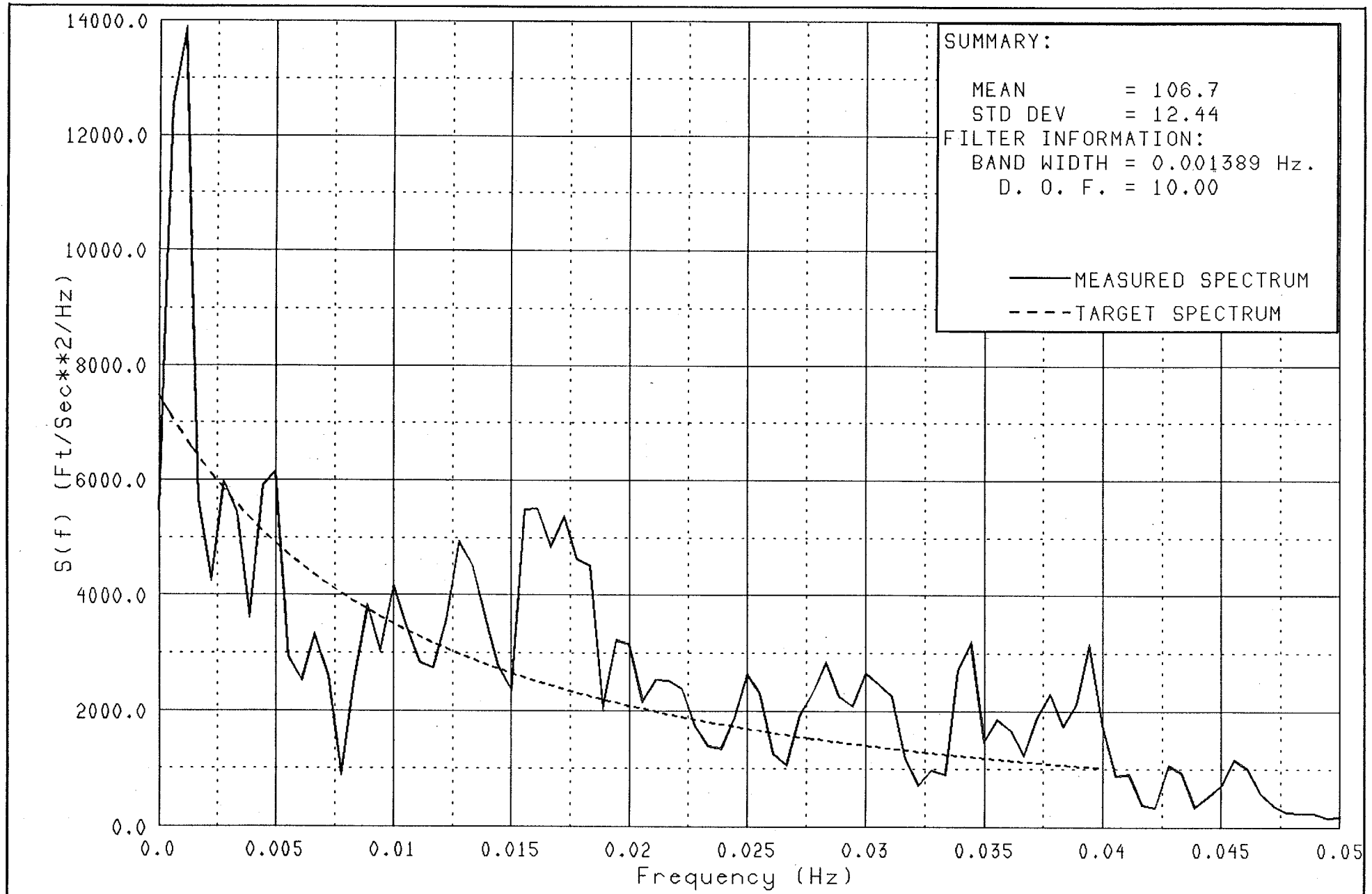
Nominal Wind Conditions

Test Name	Mean Wind Speed	Environment
43Kt1	43	10 Year Storm
59Kt1	59	North Atlantic Storm
85Kt1	85	10 Year Gulf of Mexico Hurricane
85Kt2	85	10 Year Gulf of Mexico Hurricane
38Kt1	38	West Africa Storm

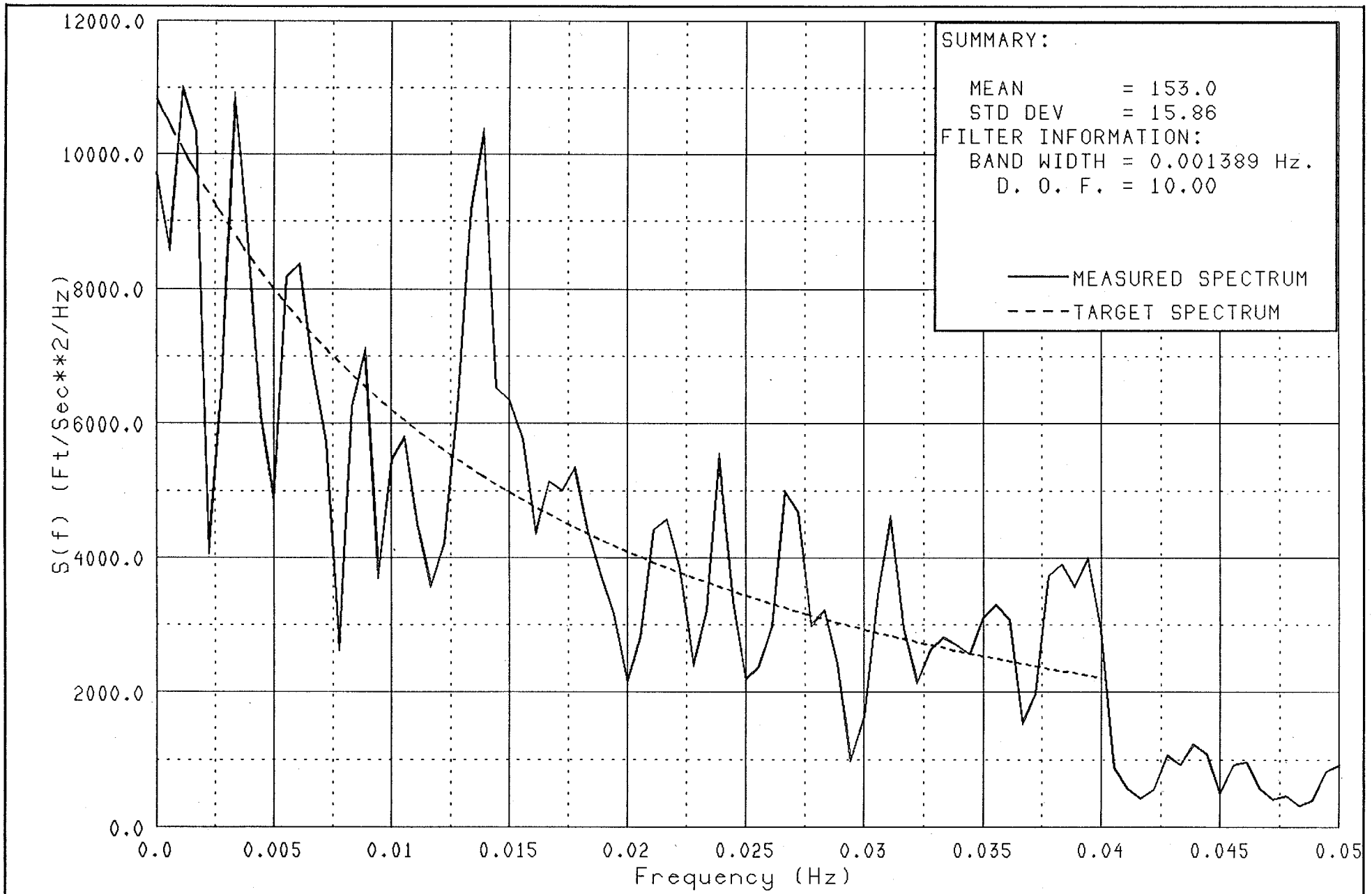
Note: Reference wind speed is at 66 feet above still water level.



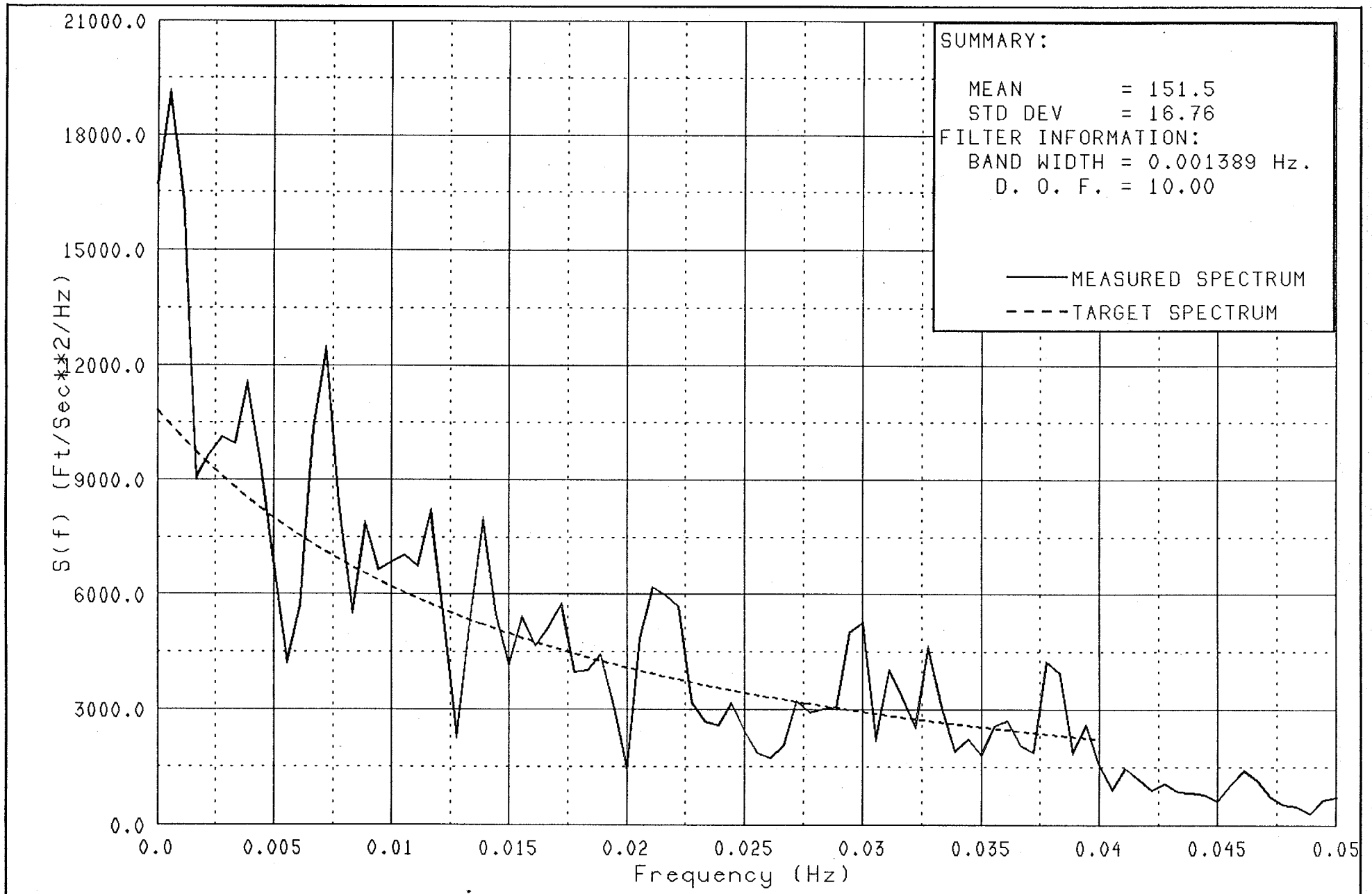
TEST : 43KT_003 TEST DATE: 9-MAR-94 TEST TIME: 14:02:57	POWER SPECTRAL DENSITY Spar Platform CHANNEL 1 Wind	OFFSHORE TECHNOLOGY RESEARCH CENTER



TEST : 59KT_003 TEST DATE: 9-MAR-94 TEST TIME: 13:02:36	POWER SPECTRAL DENSITY Spar Platform CHANNEL 1 Wind	OFFSHORE TECHNOLOGY RESEARCH CENTER

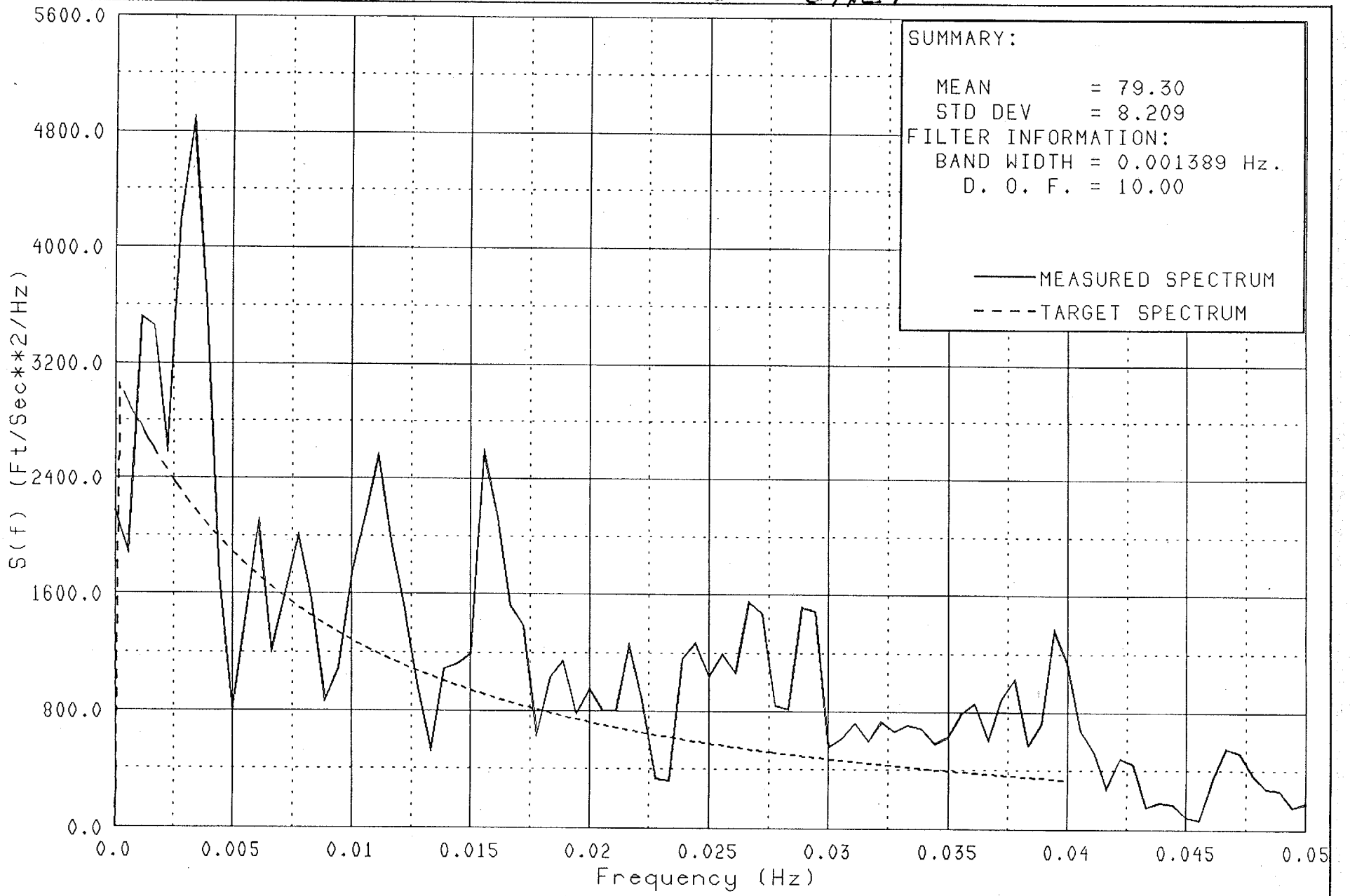


TEST : 85KT_004 TEST DATE: 9-MAR-94 TEST TIME: 10:15:48	POWER SPECTRAL DENSITY Spar Platform CHANNEL 1 Wind	OFFSHORE TECHNOLOGY RESEARCH CENTER



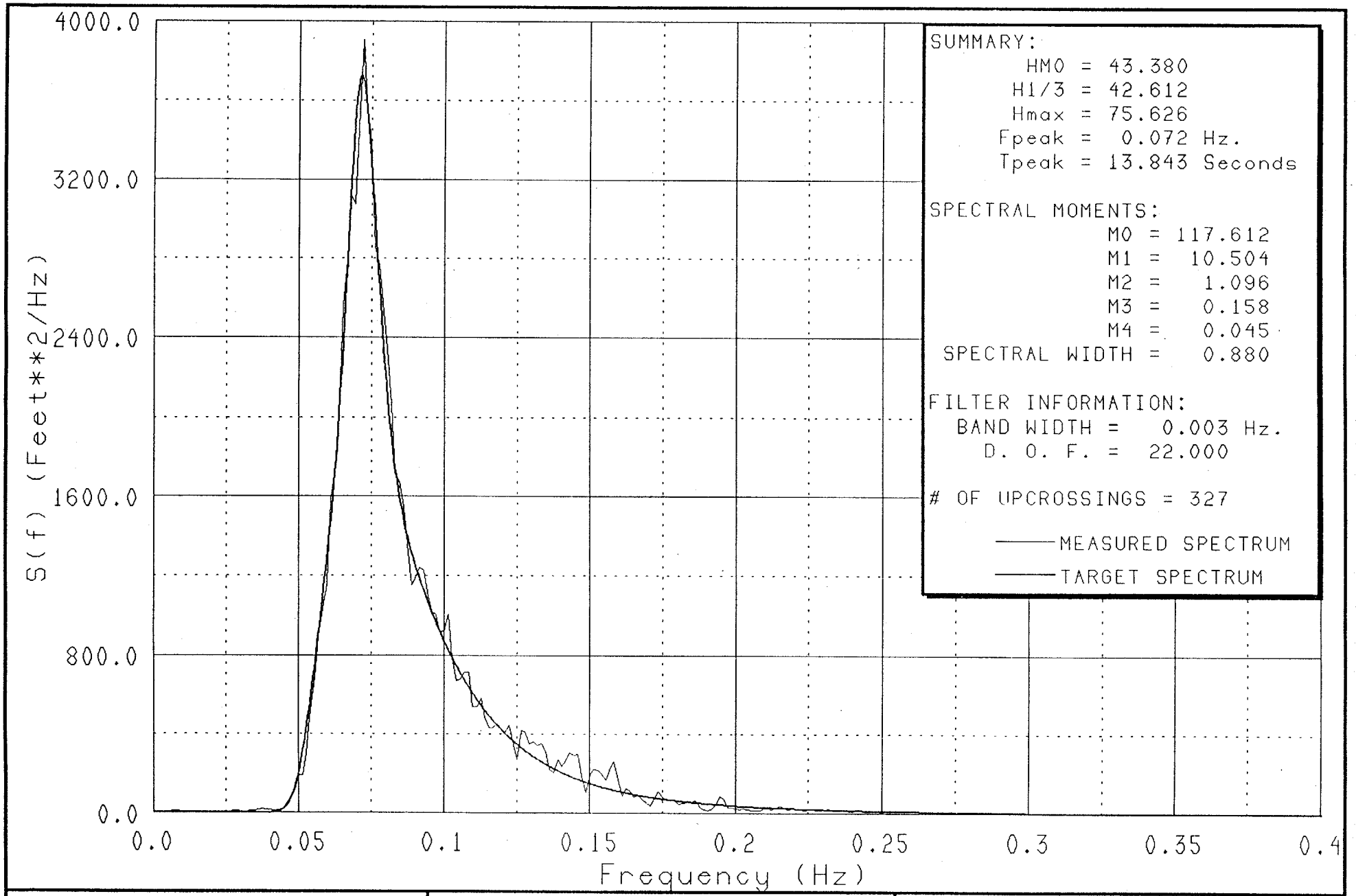
TEST : 85KT_007 TEST DATE: 9-MAR-94 TEST TIME: 11:25:05	POWER SPECTRAL DENSITY Spar Platform CHANNEL 1 Wind	OFFSHORE TECHNOLOGY RESEARCH CENTER

WEST - AFRICA WIND ONLY



TEST : AFRW_001 TEST DATE: 5-MAY-94 TEST TIME: 16:29:47	POWER SPECTRAL DENSITY Spar Platform CHANNEL 15 Wind	OFFSHORE TECHNOLOGY RESEARCH CENTER

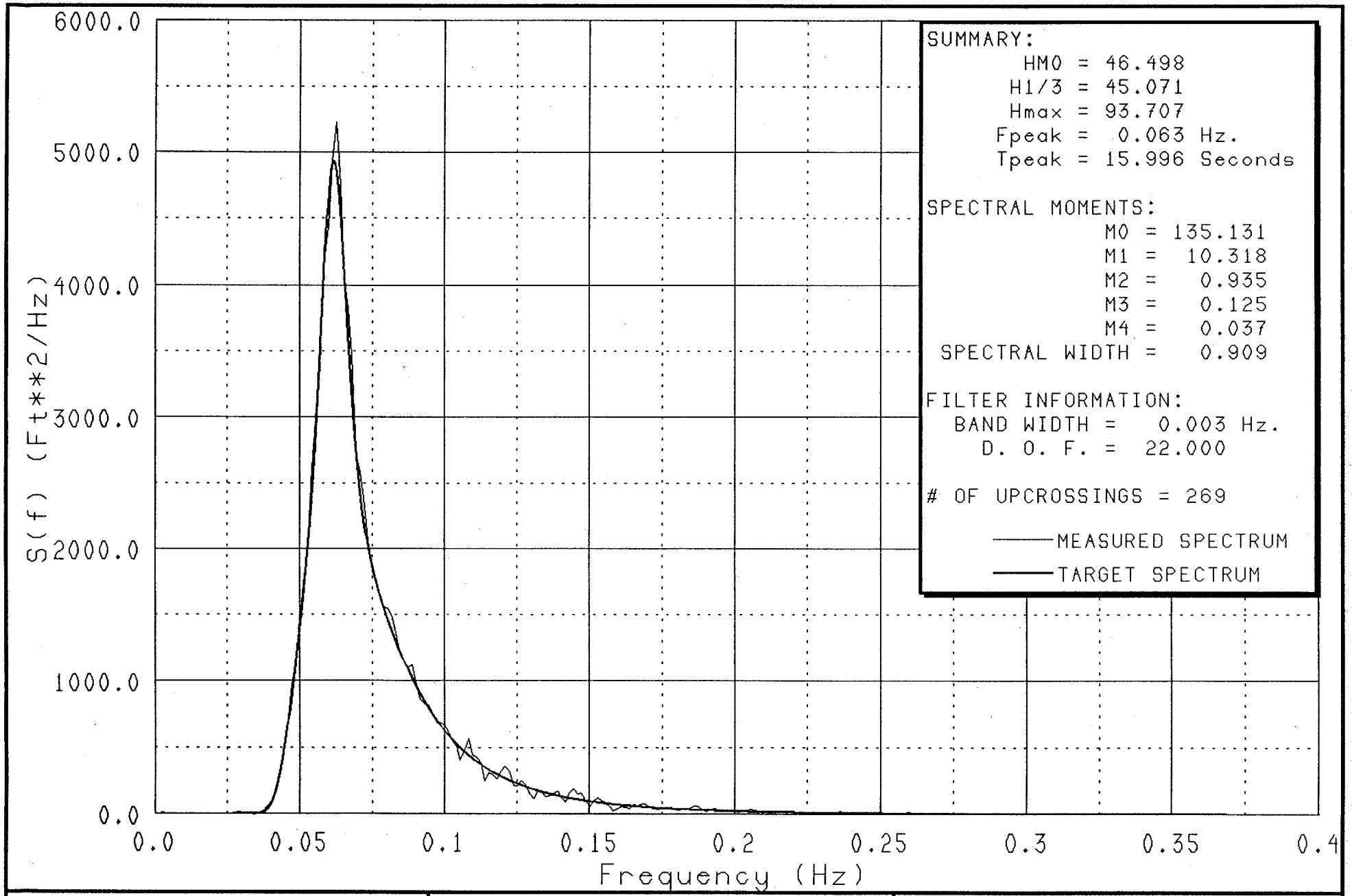
Appendix B: Sample Instrument Calibrations



TEST : GOMCW2_001
TEST DATE: 12-MAR-94
TEST TIME: 15:45:00

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 10 Wave 2

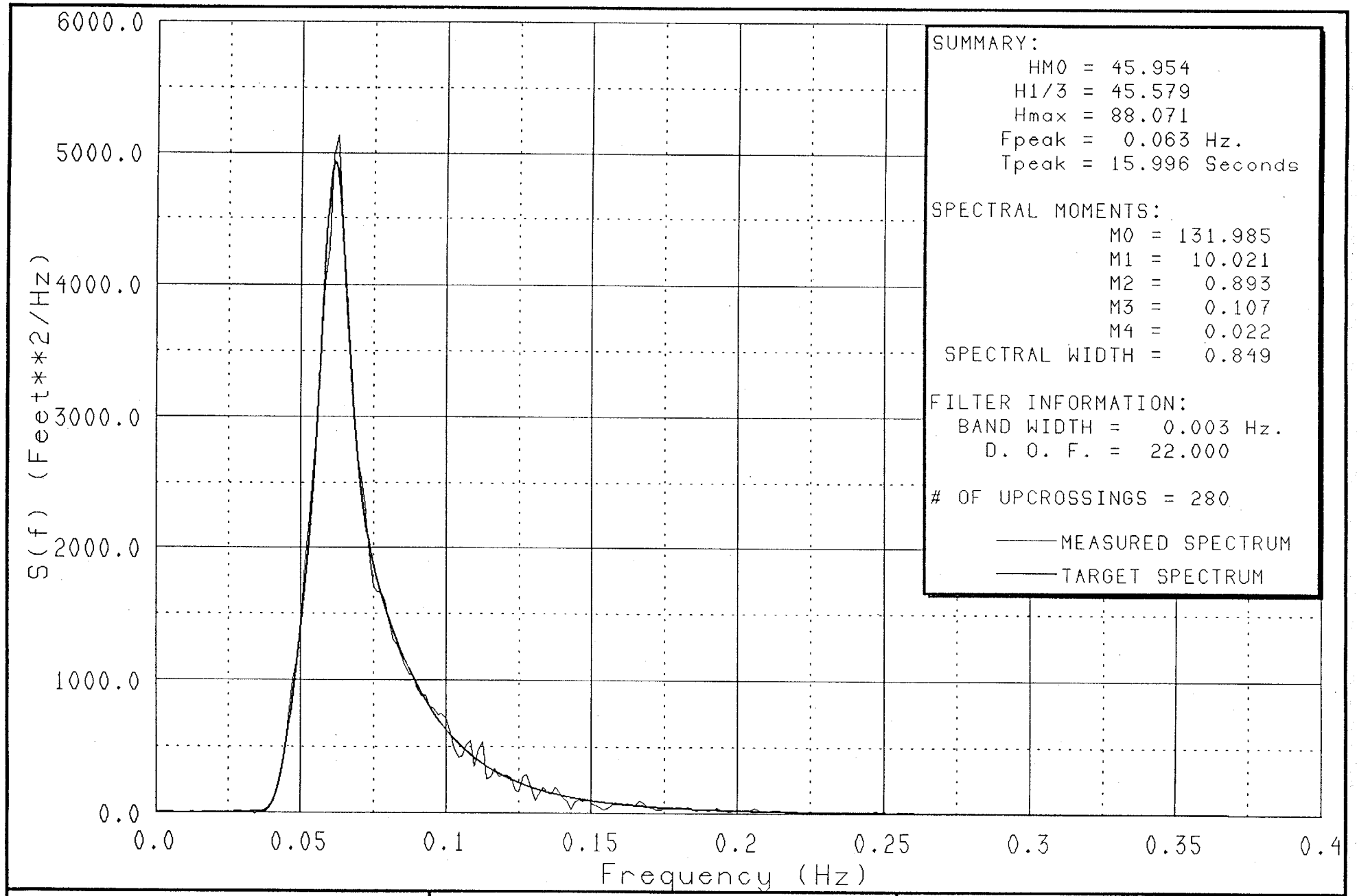
OFFSHORE TECHNOLOGY
RESEARCH CENTER



TEST : NS_003
TEST DATE: 25-FEB-94
TEST TIME: 17:31:03

POWER SPECTRAL DENSITY
Spar Platform
CHANNEL 6 Wave Center

OFFSHORE TECHNOLOGY
RESEARCH CENTER



TEST : NSC_003 TEST DATE: 12-MAR-94 TEST TIME: 17:05:04	POWER SPECTRAL DENSITY Spar Platform CHANNEL 10 Wave 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

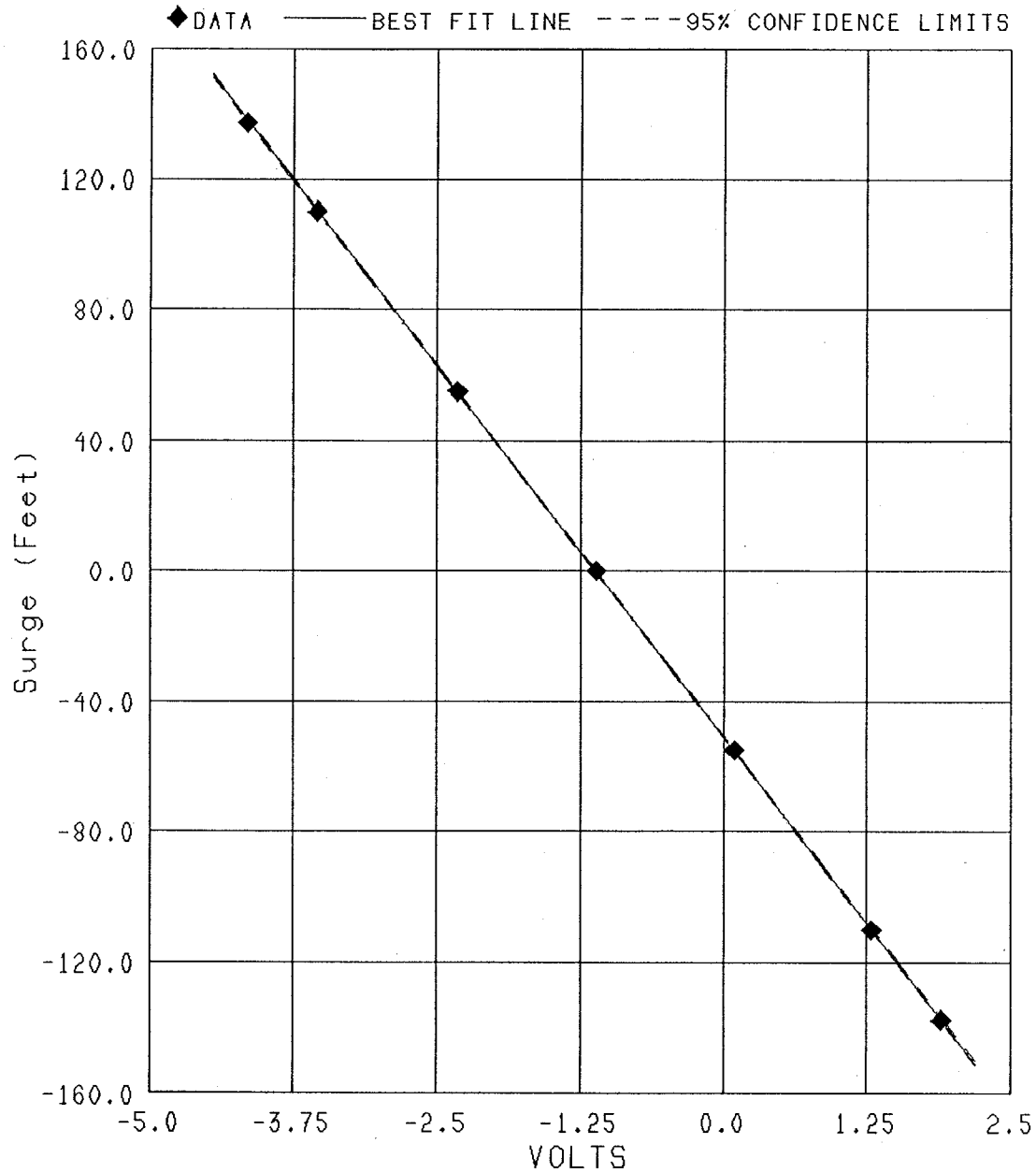
$$Y = -50.93 + (-45.42) * X$$

STANDARD DEVIATION = 0.4008 Feet

STANDARD DEVIATION = 0.146 % OF RANGE

CORR. COEFF. (r^2) = 0.999988

XMEASURED (VOLTS)	YMEASURED (Feet)
-4.159	137.5
-3.544	110.0
-2.322	55.00
-1.111	0.0
0.09206	-55.00
1.297	-110.0
1.900	-137.5



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 11-MAR-94 CALIBRATION TIME 14:37:05	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 1 Surge	OFFSHORE TECHNOLOGY RESEARCH CENTER

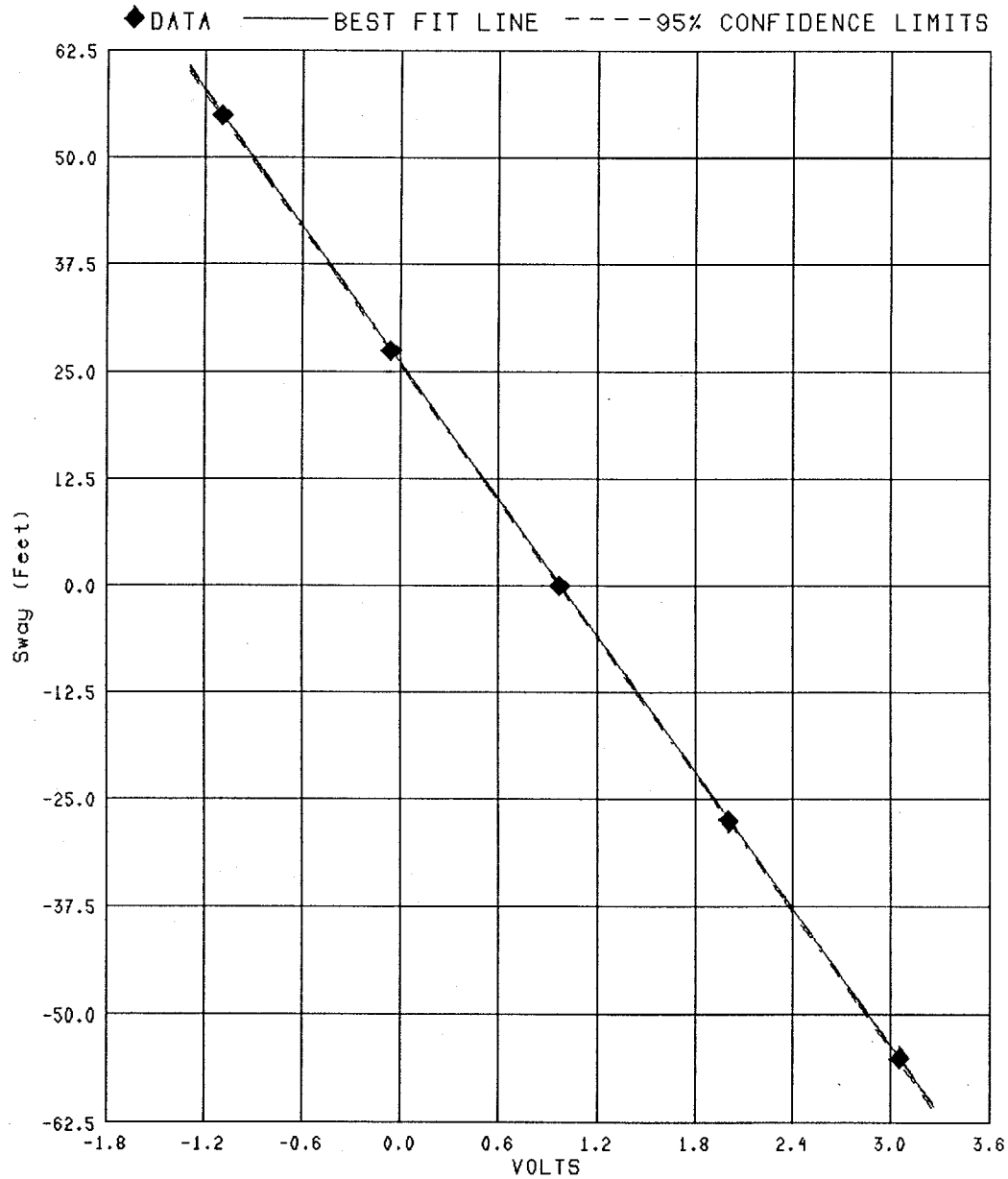
$$Y = 25.90 + (-26.54) * X$$

STANDARD DEVIATION = 0.1303 Feet

STANDARD DEVIATION = 0.118 % OF RANGE

CORR. COEFF. (r^2) = 0.999993

XMEASURED (VOLTS)	YMEASURED (Feet)
-1.094	55.00
-0.06046	27.50
0.9741	0.0
2.006	-27.50
3.053	-55.00



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 11-MAR-94 CALIBRATION TIME 12:02:48	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 2 Sway	OFFSHORE TECHNOLOGY RESEARCH CENTER

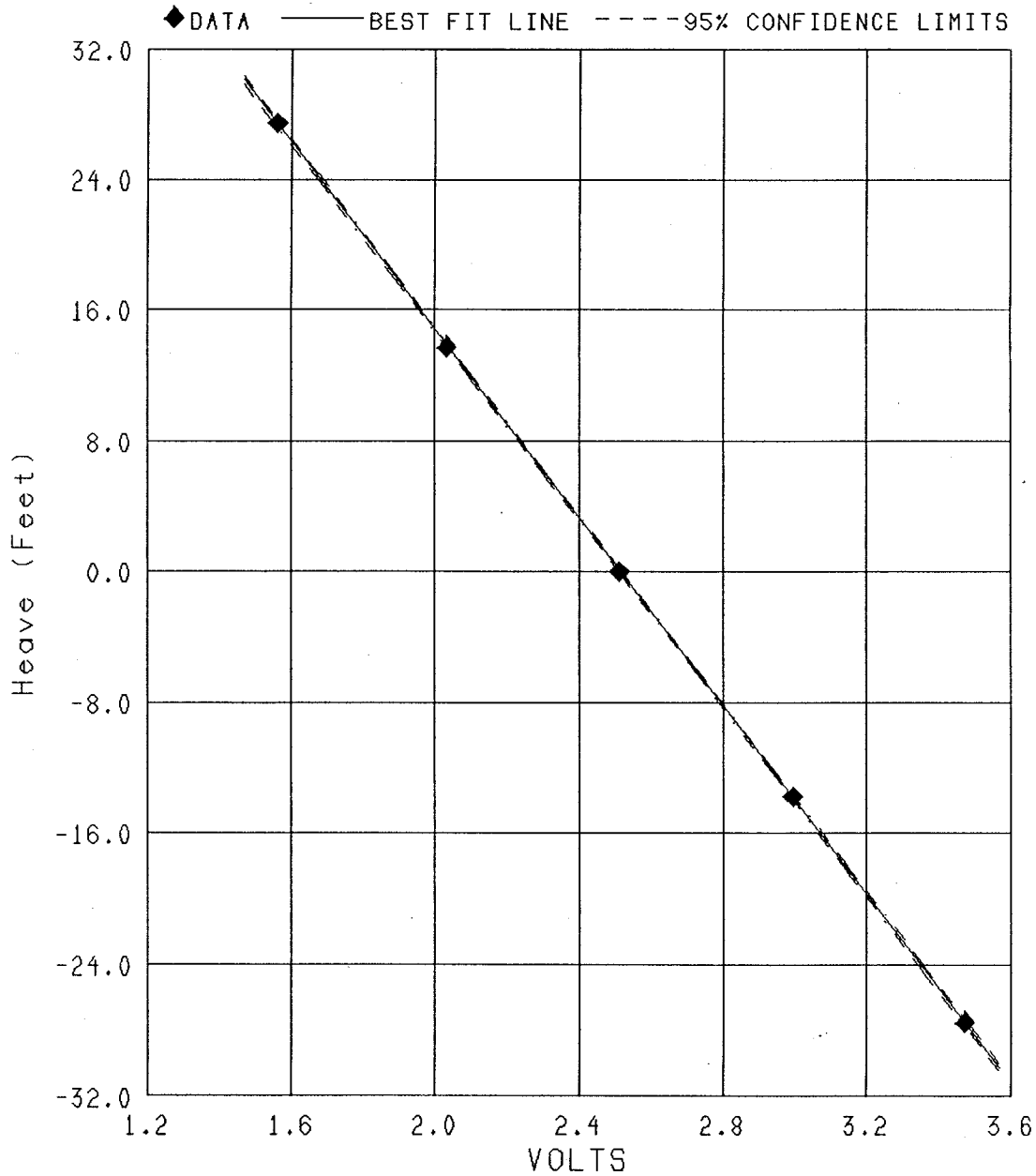
$$Y = 72.19 + (-28.71) * X$$

STANDARD DEVIATION = 0.09838 Feet

STANDARD DEVIATION = 0.179 % OF RANGE

CORR. COEFF. (r^2) = 0.999984

XMEASURED (VOLTS)	YMEASURED (Feet)
1.560	27.50
2.032	13.75
2.513	0.0
2.996	-13.75
3.473	-27.50



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 11-MAR-94 CALIBRATION TIME 11:17:48	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 3 Heave	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

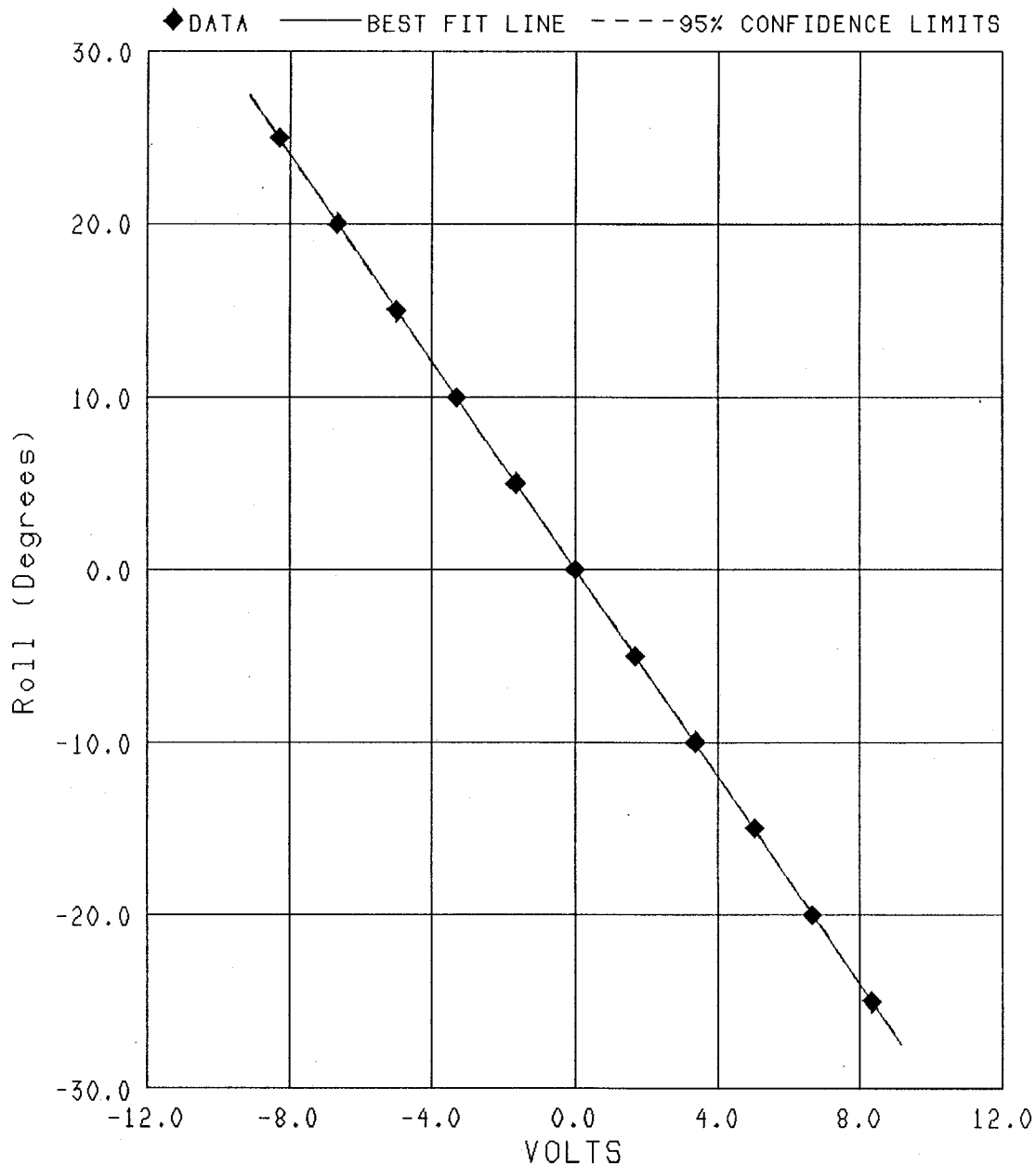
0.03755 + (-2.997) * X

STANDARD DEVIATION = 0.04084 Degrees

STANDARD DEVIATION = 0.0817 % OF RANGE

CORR. COEFF. (r^2) = 0.999995

XMEASURED (VOLTS)	YMEASURED (Degrees)
8.346	-25.00
6.678	-20.00
5.038	-15.00
3.366	-10.00
1.675	-5.000
-0.0004238	0.0
-1.664	5.000
-3.314	10.00
-5.004	15.00
-6.670	20.00
-8.312	25.00



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 4-MAR-94 CALIBRATION TIME 16:06:39	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 4 Roll	OFFSHORE TECHNOLOGY RESEARCH CENTER

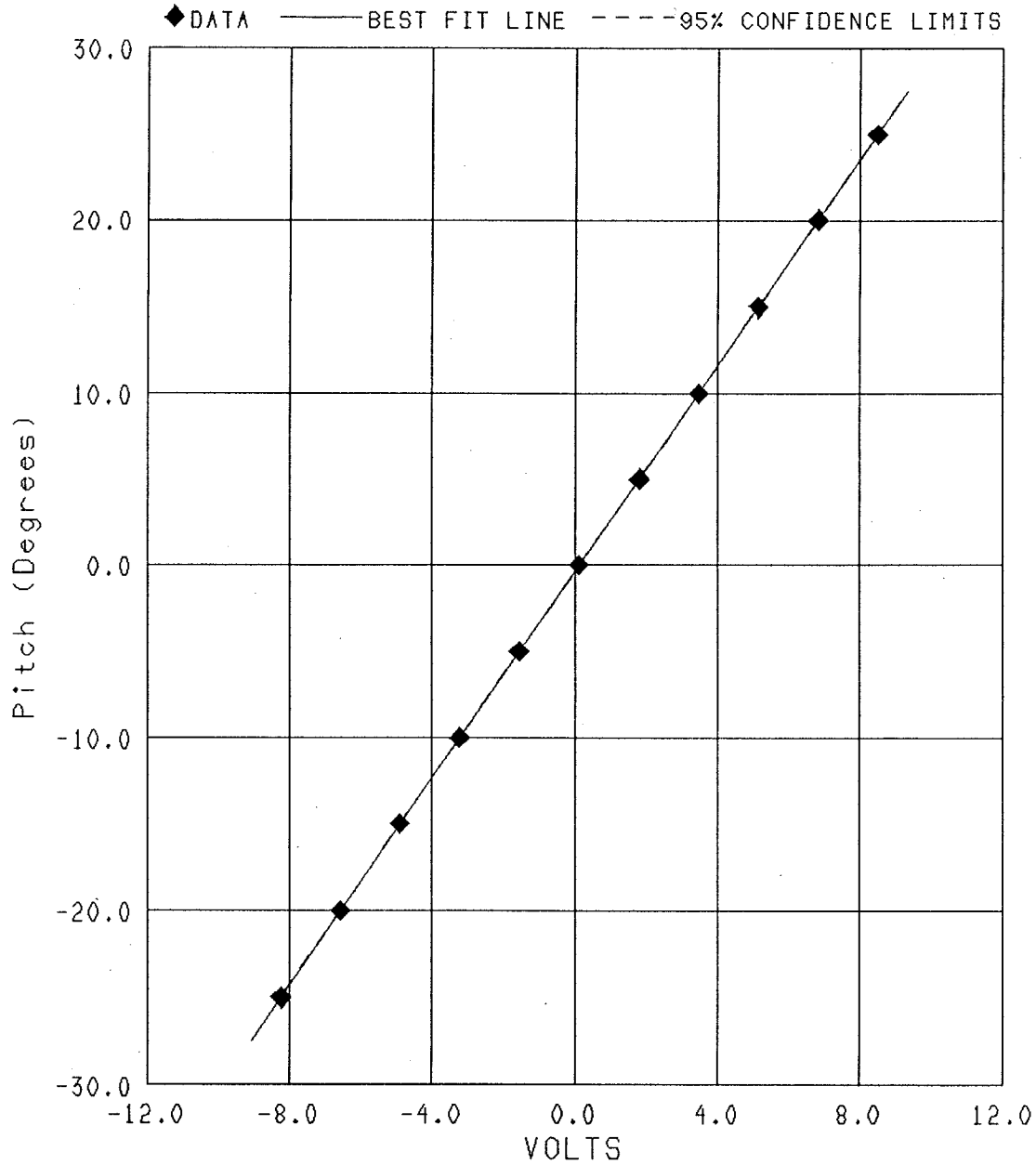
$$Y = -0.3639 + (2.985) * X$$

STANDARD DEVIATION = 0.01856 Degrees

STANDARD DEVIATION = 0.0371 % OF RANGE

CORR. COEFF. (r^2) = 0.999999

XMEASURED (VOLTS)	YMEASURED (Degrees)
8.491	25.00
6.828	20.00
5.147	15.00
3.483	10.00
1.799	5.000
0.1201	0.0
-1.560	-5.000
-3.235	-10.00
-4.909	-15.00
-6.574	-20.00
-8.249	-25.00



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 4-MAR-94 CALIBRATION TIME 16:17:26	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 5 Pitch	OFFSHORE TECHNOLOGY RESEARCH CENTER

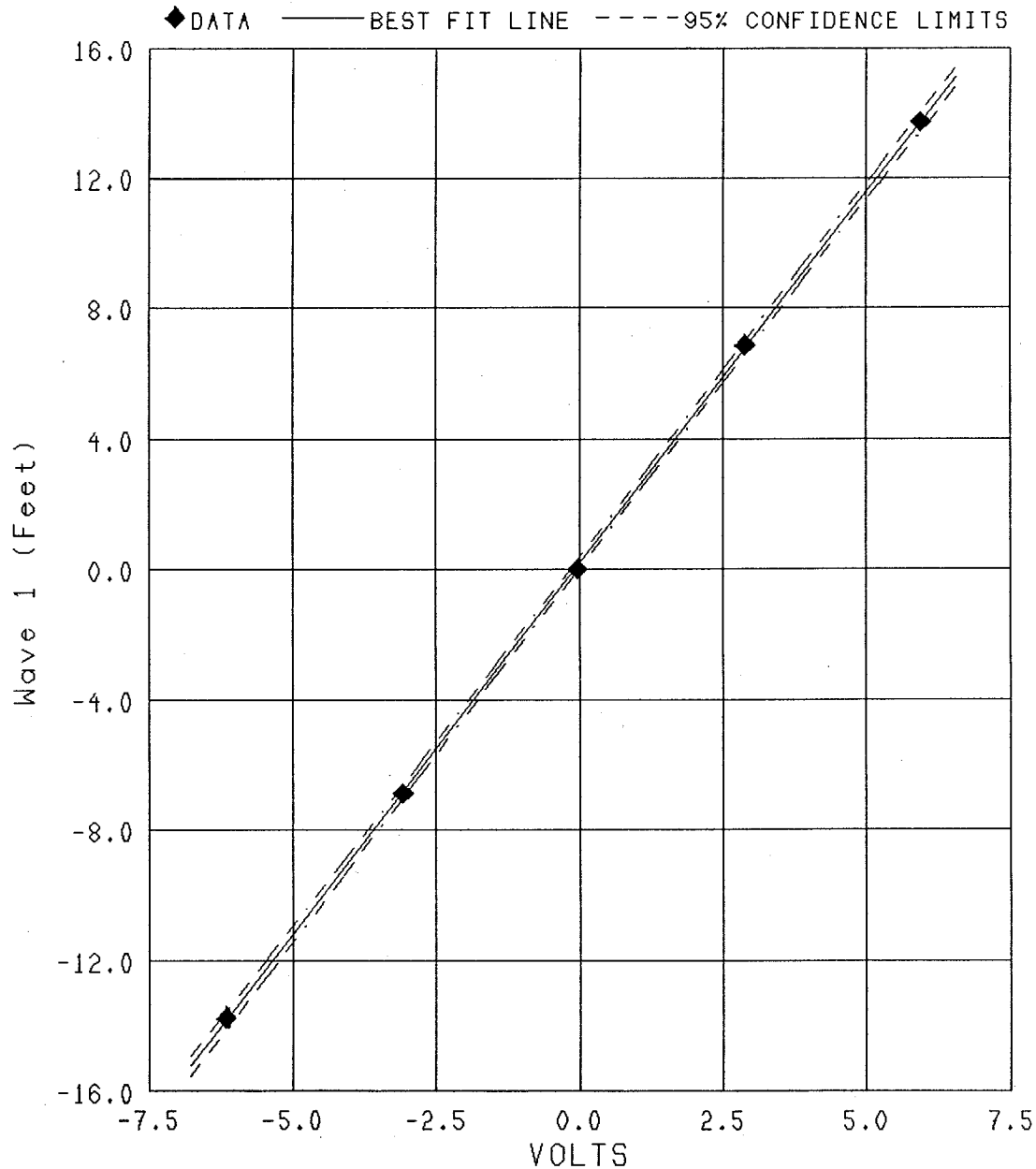
$$Y = 0.2041 + (2.275) * X$$

STANDARD DEVIATION = 0.1191 Feet

STANDARD DEVIATION = 0.433 % OF RANGE

CORR. COEFF. (r^2) = 0.999910

XMEASURED (VOLTS)	YMEASURED (Feet)
-6.173	-13.75
-3.083	-6.875
-0.02891	0.0
2.886	6.875
5.950	13.75



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 5

CALIBRATION DATE 26-MAY-94 CALIBRATION TIME 07:57:54	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 9 Wave 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

2.4555 @

Y =

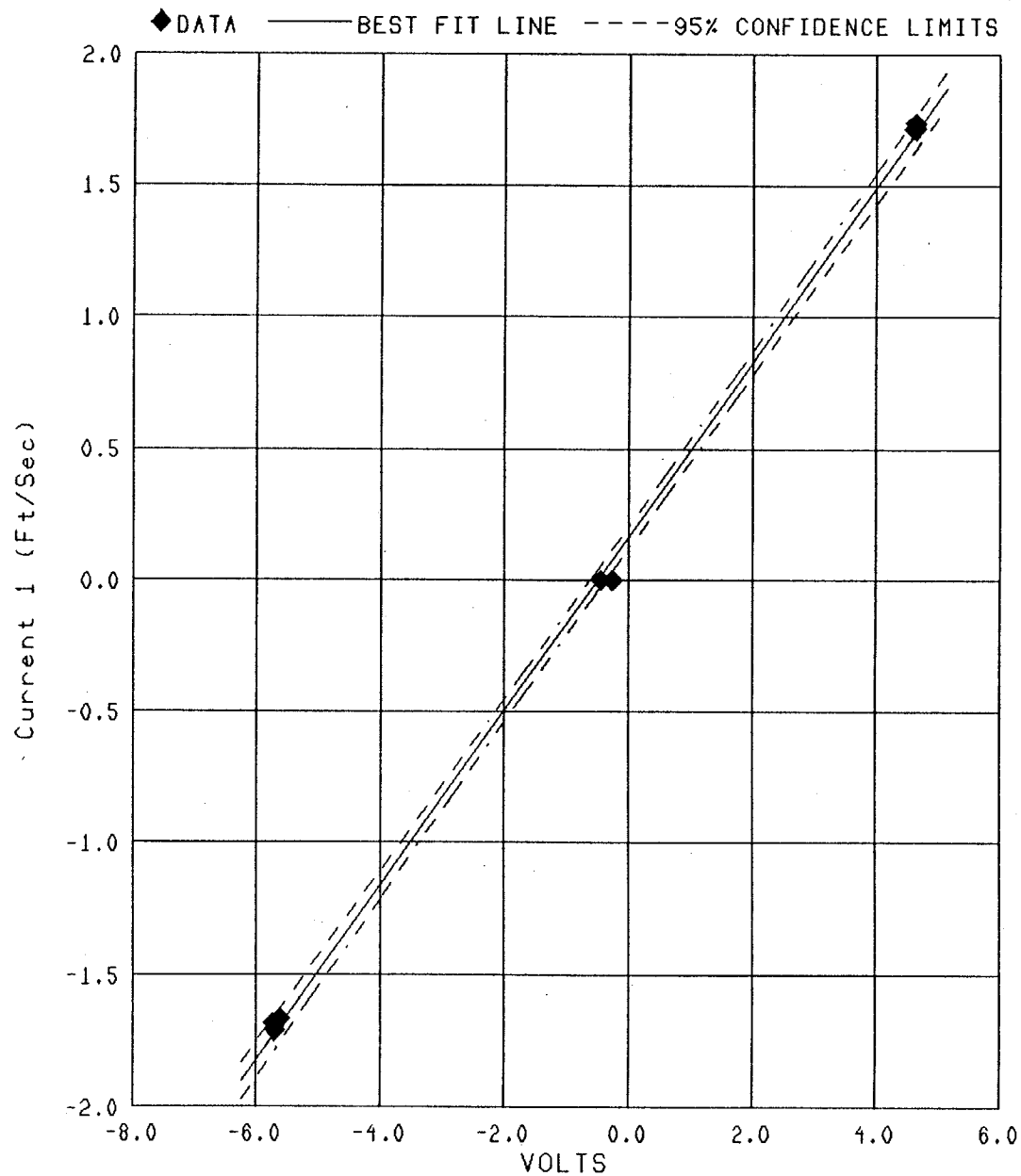
0.1646 + (0.3311) * X

STANDARD DEVIATION = 0.05140 Ft/Sec

STANDARD DEVIATION = 1.49 % OF RANGE

CORR. COEFF. (r^2) = 0.998942

XMEASURED (VOLTS)	YMEASURED (Ft/Sec)
-0.2555	0.0
4.602	1.718
4.636	1.739
4.634	1.721
-0.2681	0.0
-5.609	-1.667
-5.724	-1.684
-5.701	-1.712
-0.4381	0.0



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 8-MAR-94 CALIBRATION TIME 11:20:33	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 13 Current 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

-2.6021

Y =

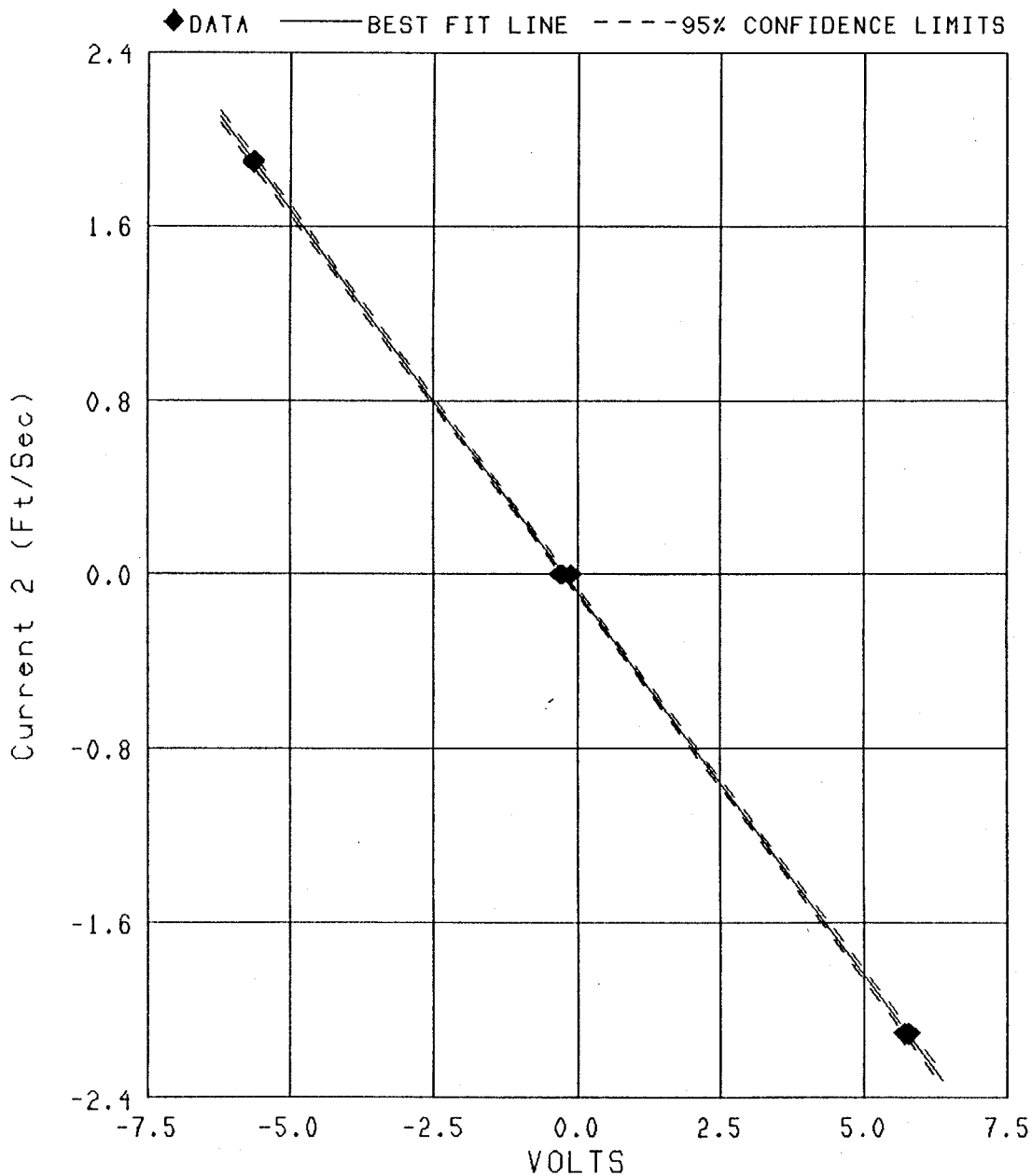
-0.08122 + (-0.3510) * X

STANDARD DEVIATION = 0.02251 Ft/Sec

STANDARD DEVIATION = 0.561 % OF RANGE

CORR. COEFF. (r^2) = 0.999853

XMEASURED (VOLTS)	YMEASURED (Ft/Sec)
-0.1091	0.0
-5.638	1.905
-5.656	1.894
-5.659	1.905
-0.2531	0.0
5.783	-2.105
5.803	-2.105
5.701	-2.105
-0.3106	0.0



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 8-MAR-94 CALIBRATION TIME 11:45:57	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 14 Current 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

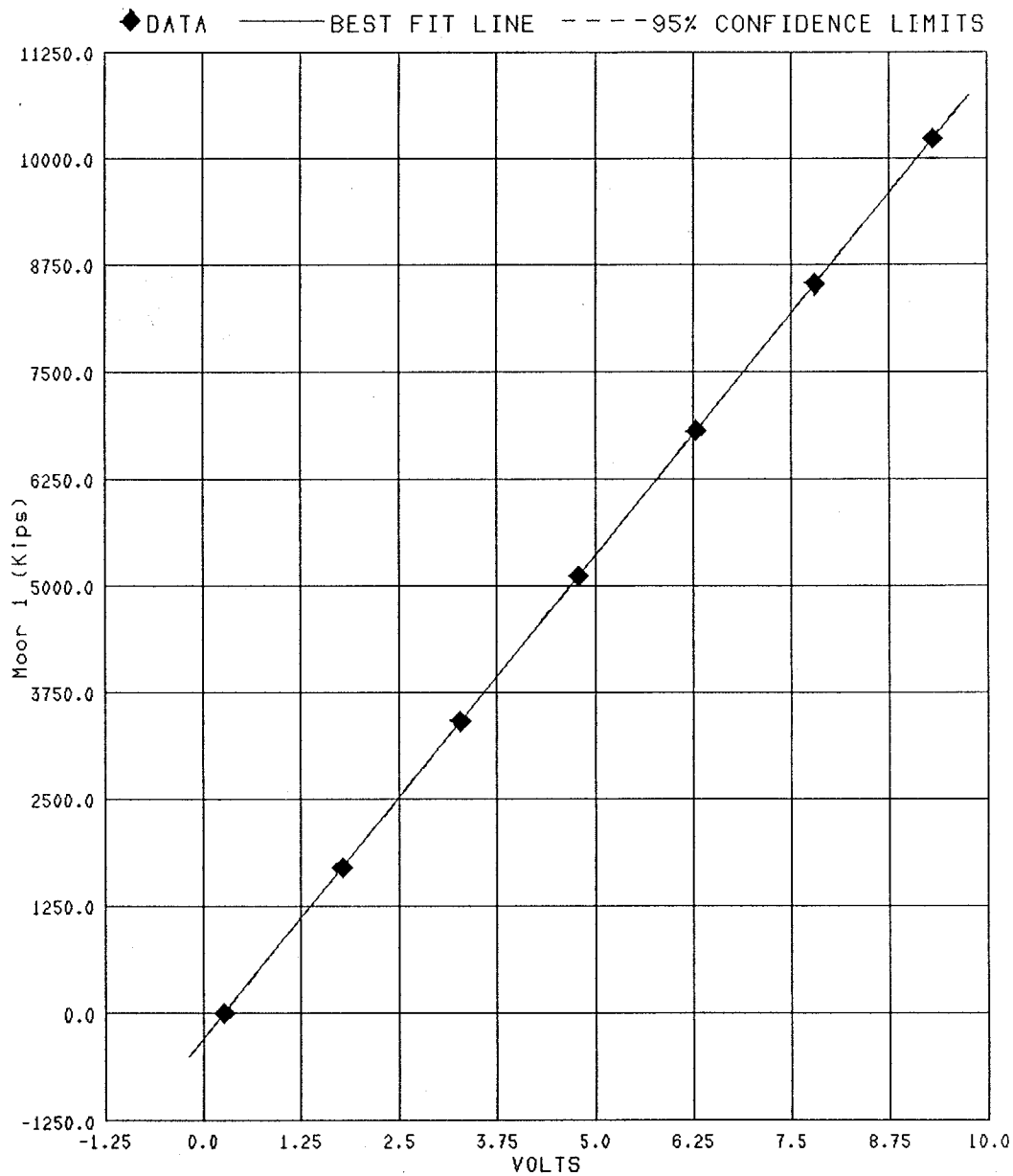
$$Y = -299.1 + (1132.0) * X$$

STANDARD DEVIATION = 1.965 Kips

STANDARD DEVIATION = 0.0192 % OF RANGE

CORR. COEFF. (r^2) = 1.00000

XMEASURED (VOLTS)	YMEASURED (Kips)
9.311	10240.0
7.803	8532.0
6.292	6826.0
4.786	5119.0
3.279	3413.0
1.771	1706.0
0.2664	0.0



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 1000

CALIBRATION DATE 14-MAR-94 CALIBRATION TIME 11:02:15	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 17 Moor 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

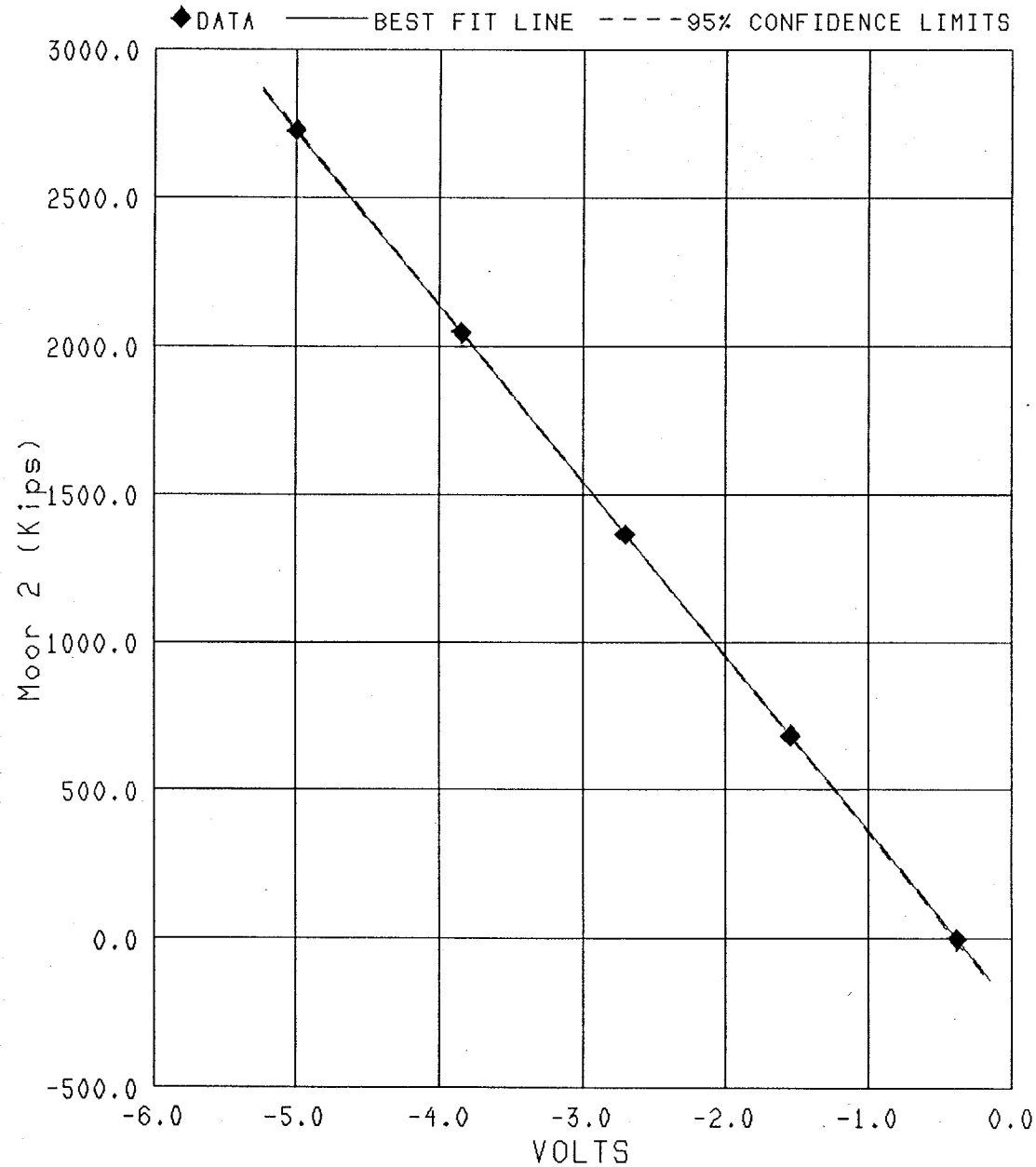
$$Y = -229.0 + (-591.1) * X$$

STANDARD DEVIATION = 2.243 Kips

STANDARD DEVIATION = 0.0821 % OF RANGE

CORR. COEFF. (r^2) = 0.999997

XMEASURED (VOLTS)	YMEASURED (Kips)
-5.002	2730.0
-3.854	2048.0
-2.700	1365.0
-1.543	682.6
-0.3842	0.0



PROGRAMMABLE GAIN = 2 PLUG-IN GAIN = 500

CALIBRATION DATE 14-MAR-94 CALIBRATION TIME 10:08:33	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 18 Moor 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

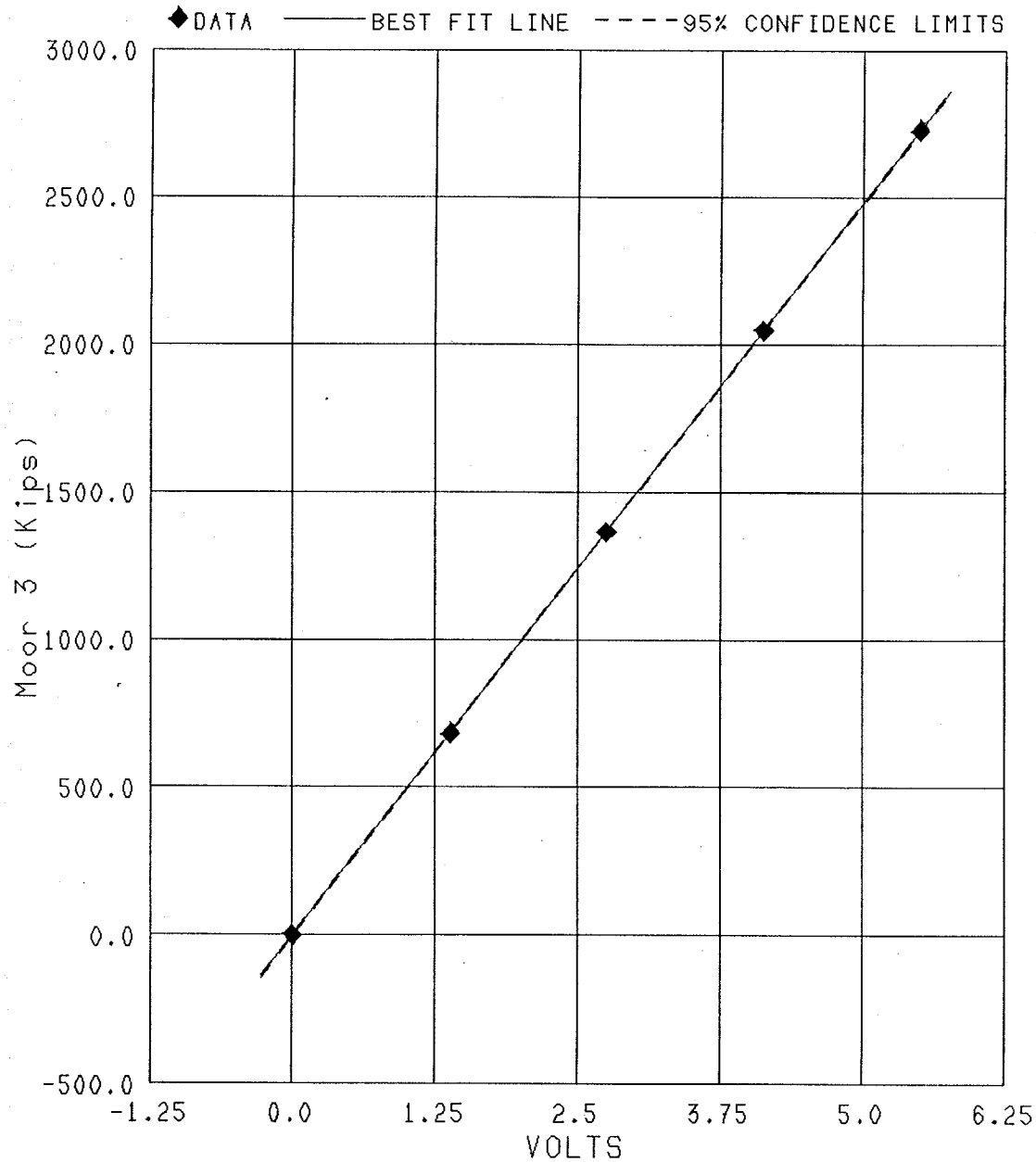
$$Y = -2.527 + (496.4) * X$$

STANDARD DEVIATION = 2.595 Kips

STANDARD DEVIATION = 0.0950 % OF RANGE

CORR. COEFF. (r^2) = 0.999996

XMEASURED (VOLTS)	YMEASURED (Kips)
5.500	2730.0
4.133	2048.0
2.758	1365.0
1.384	682.6
-0.3311E-05	0.0



PROGRAMMABLE GAIN = 2 PLUG-IN GAIN = 500

CALIBRATION DATE 15-MAR-94 CALIBRATION TIME 15:53:18	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 19 Moor 3	OFFSHORE TECHNOLOGY RESEARCH CENTER

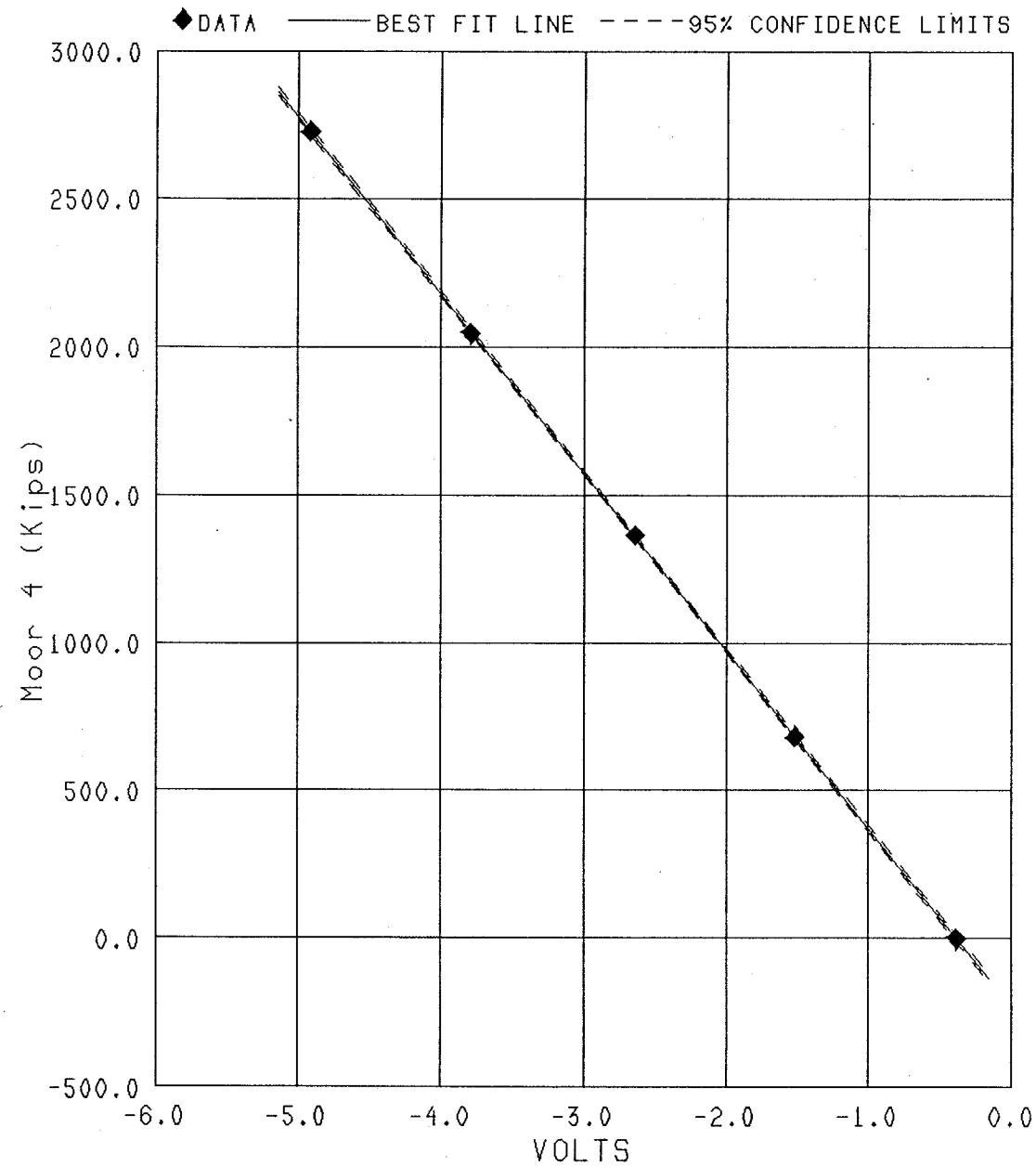
$$Y = -227.7 + (-601.3) * X$$

STANDARD DEVIATION = 5.736 Kips

STANDARD DEVIATION = 0.210 % OF RANGE

CORR. COEFF. (r^2) = 0.999979

XMEASURED (VOLTS)	YMEASURED (Kips)
-4.916	2730.0
-3.796	2048.0
-2.639	1365.0
-1.513	682.6
-0.3812	0.0



PROGRAMMABLE GAIN = 2 PLUG-IN GAIN = 500

CALIBRATION DATE 14-MAR-94 CALIBRATION TIME 10:08:33	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 20 Moor 4	OFFSHORE TECHNOLOGY RESEARCH CENTER

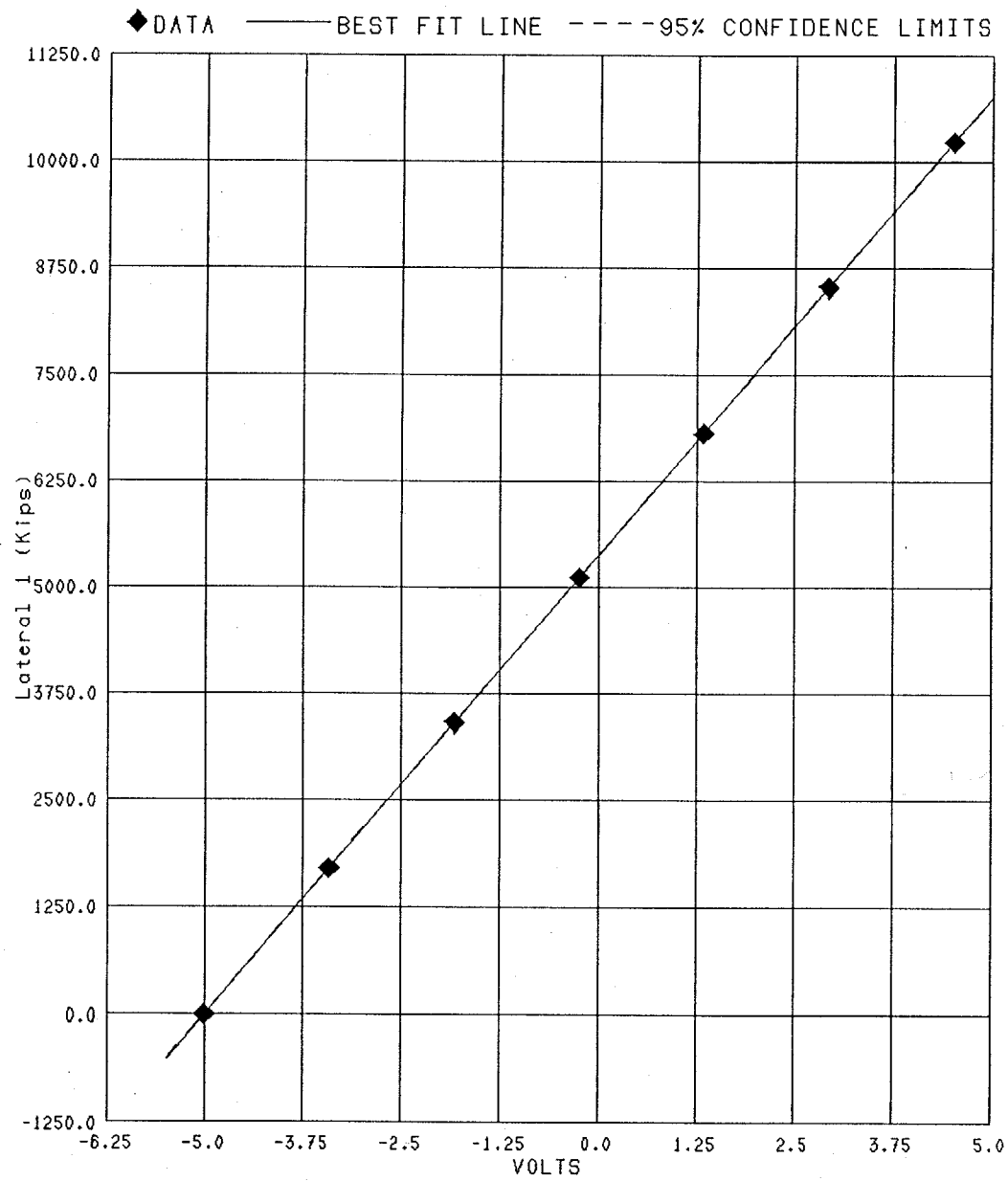
$$Y = 5384.0 + (1075.0) * X$$

STANDARD DEVIATION = 3.598 Kips

STANDARD DEVIATION = 0.0351 % OF RANGE

CORR. COEFF. (r^2) = 0.999999

XMEASURED (VOLTS)	YMEASURED (Kips)
4.514	10240.0
2.927	8532.0
1.340	6826.0
-0.2417	5119.0
-1.832	3413.0
-3.420	1706.0
-5.013	0.0



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 1000

CALIBRATION DATE 23-MAR-94 CALIBRATION TIME 11:41:34	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 23 Lateral 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

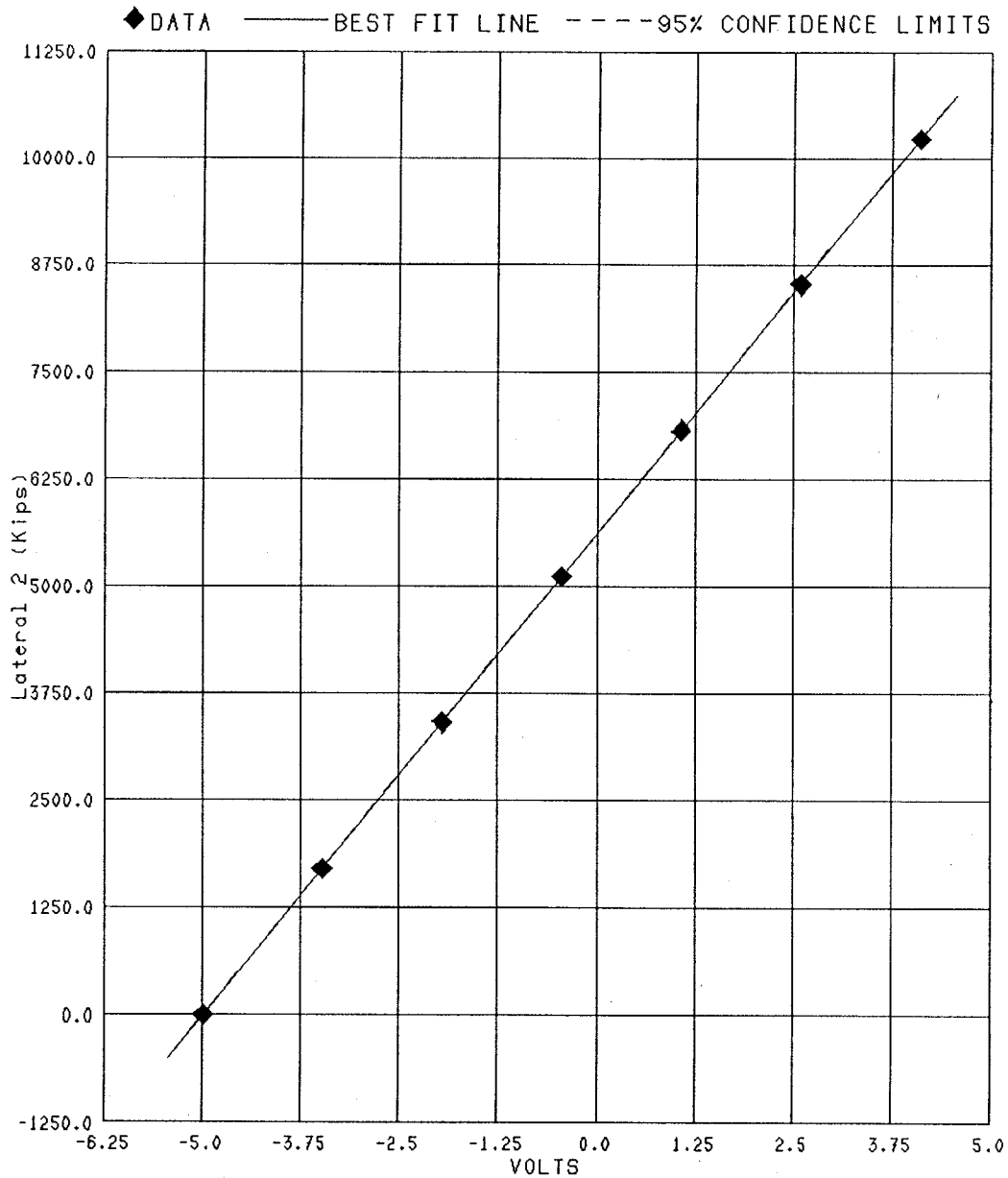
5619.0 + (1125.0) * X

STANDARD DEVIATION = 1.301 Kips

STANDARD DEVIATION = 0.0127 % OF RANGE

CORR. COEFF. (r^2) = 1.00000

XMEASURED (VOLTS)	YMEASURED (Kips)
4.107	10240.0
2.590	8532.0
1.071	6825.0
-0.4441	5119.0
-1.961	3413.0
-3.478	1706.0
-4.992	0.0



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 1000

CALIBRATION DATE 23-MAR-94 CALIBRATION TIME 12:21:11	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 24 Lateral 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

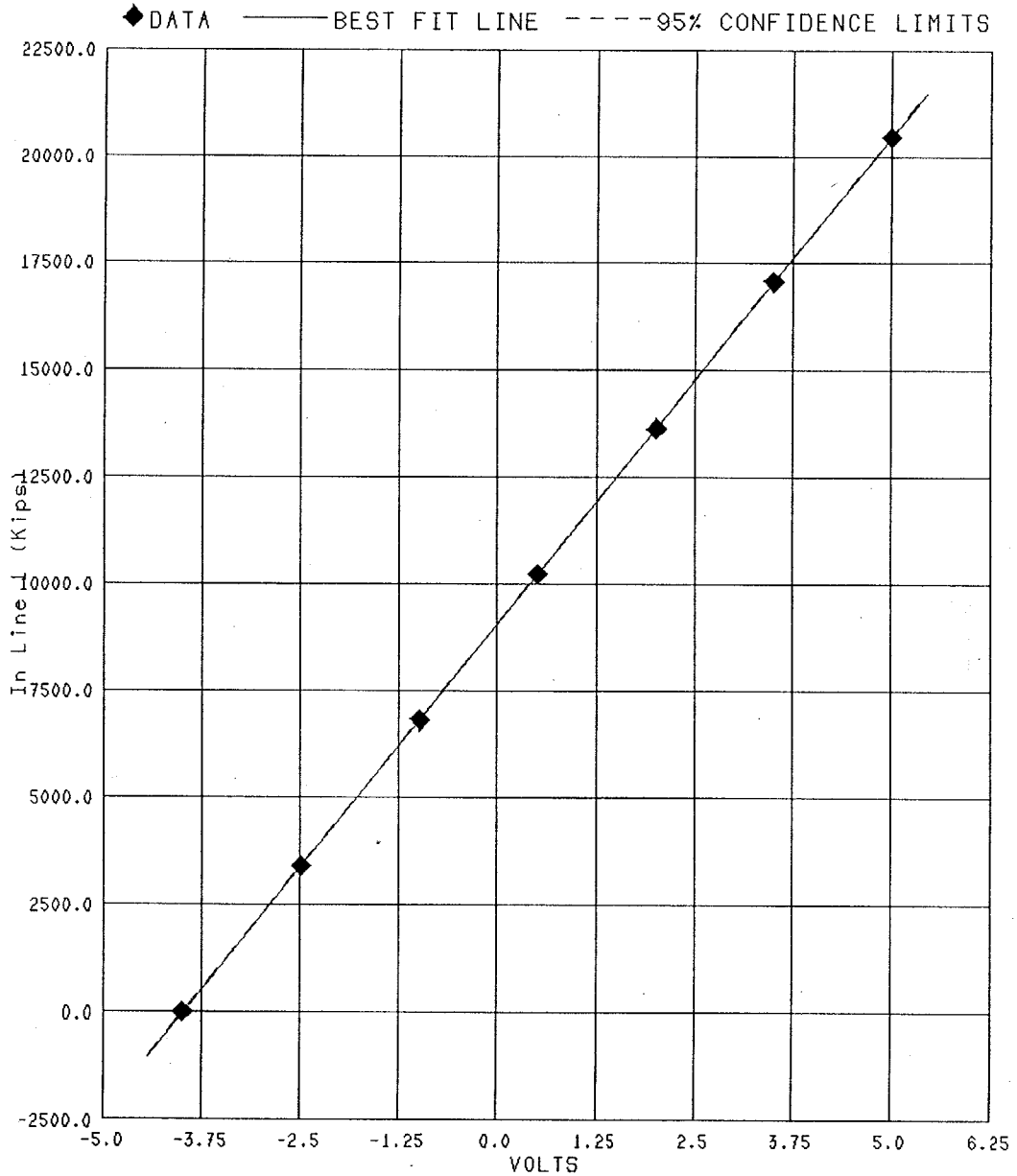
$$Y = 9084.0 + (2276.0) * X$$

STANDARD DEVIATION = 9.706 Kips

STANDARD DEVIATION = 0.0474 % OF RANGE

CORR. COEFF. (r^2) = 0.999999

XMEASURED (VOLTS)	YMEASURED (Kips)
-3.995	0.0
-2.491	3413.0
-0.9888	6826.0
0.5081	10240.0
2.010	13650.0
3.509	17060.0
4.999	20480.0



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 500

CALIBRATION DATE 28-MAR-94 CALIBRATION TIME 14:53:50	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 21 In Line 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

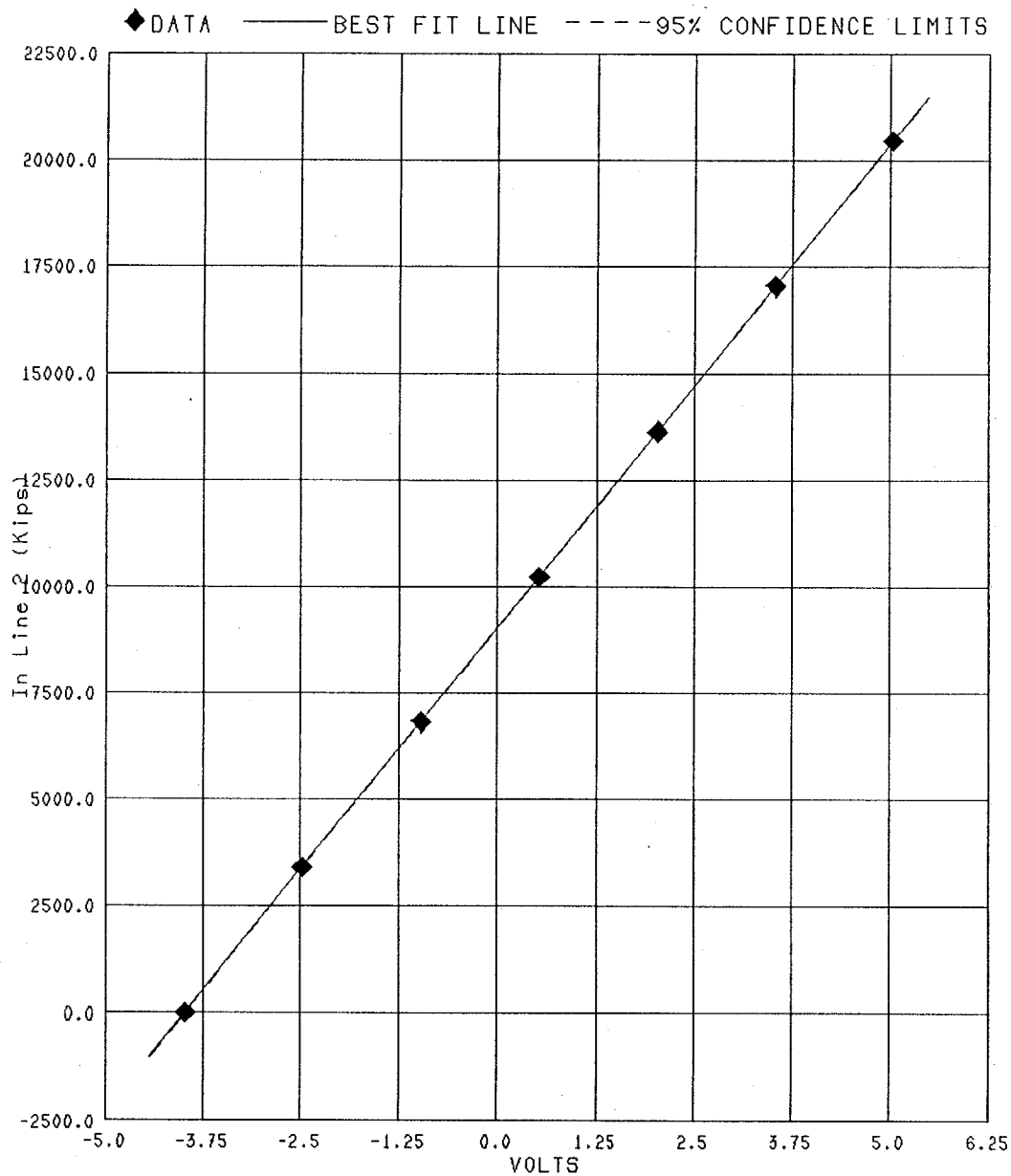
$$Y = 9038.0 + (2271.0) * X$$

STANDARD DEVIATION = 3.846 Kips

STANDARD DEVIATION = 0.0188 % OF RANGE

CORR. COEFF. (r^2) = 1.00000

XMEASURED (VOLTS)	YMEASURED (Kips)
-3.981	0.0
-2.479	3413.0
-0.9720	6826.0
0.5296	10240.0
2.032	13650.0
3.535	17060.0
5.035	20480.0



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 500

CALIBRATION DATE 28-MAR-94 CALIBRATION TIME 14:53:50	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 22 In Line 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

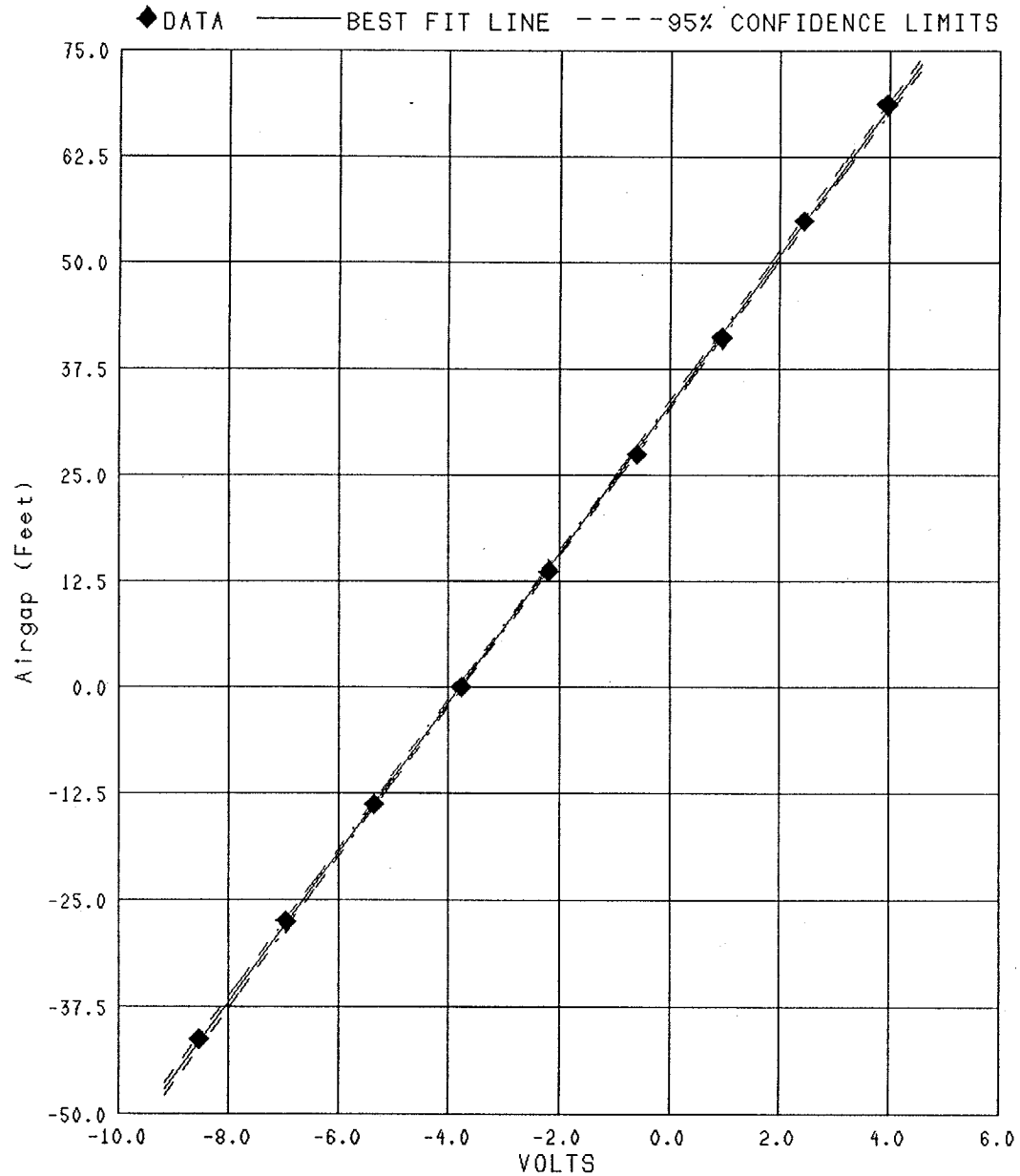
$$Y = 33.30 + (8.776) * X$$

STANDARD DEVIATION = 0.4780 Feet

STANDARD DEVIATION = 0.435 % OF RANGE

CORR. COEFF. (r^2) = 0.999859

XMEASURED (VOLTS)	YMEASURED (Feet)
-8.539	-41.25
-6.958	-27.50
-5.359	-13.75
-3.773	0.0
-2.186	13.75
-0.5927	27.50
0.9541	41.25
2.453	55.00
3.949	68.75



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 5

CALIBRATION DATE 21-MAR-94 CALIBRATION TIME 07:33:37	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 11 Airgap	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

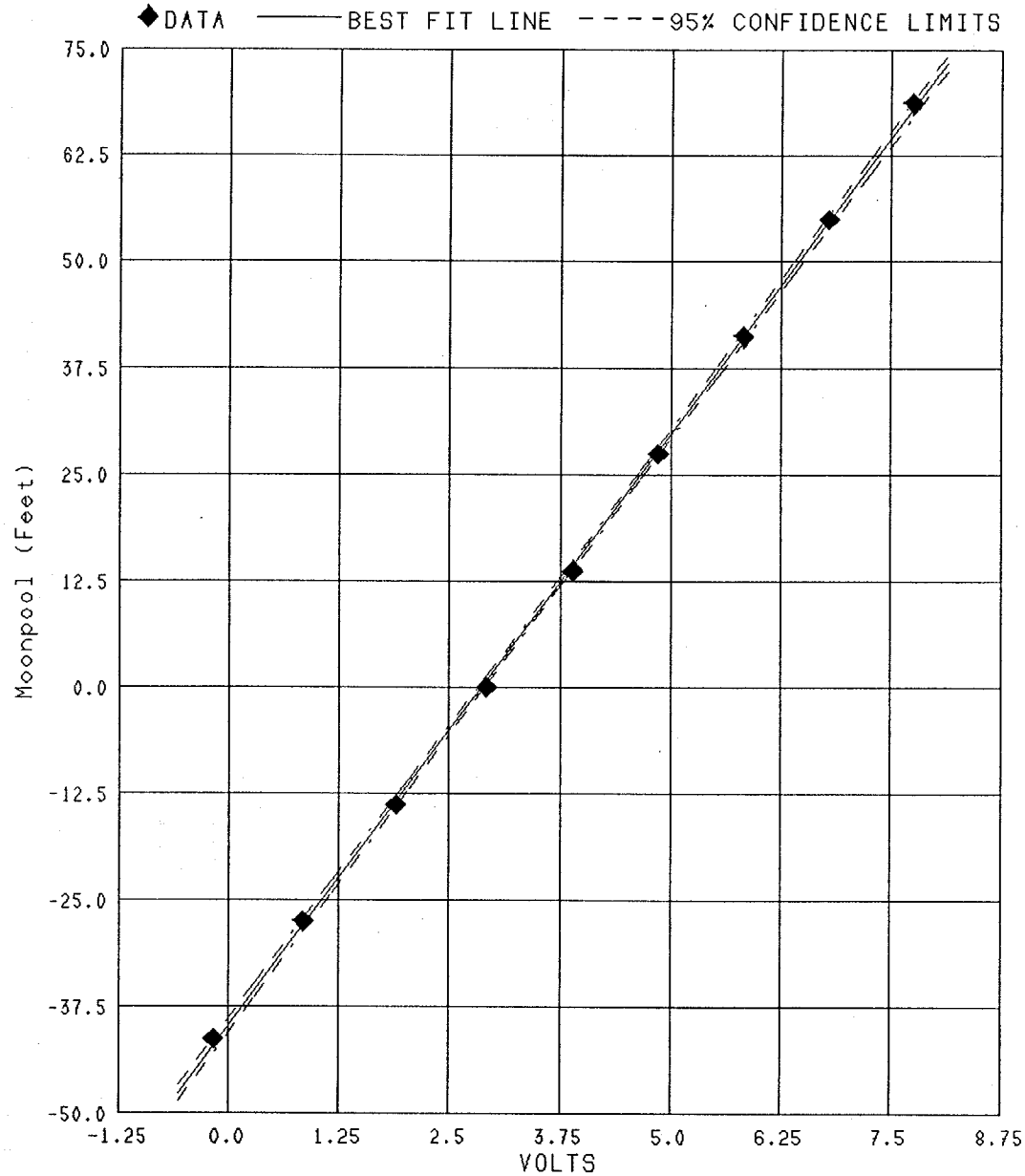
-39.67 + (13.89) * X

STANDARD DEVIATION = 0.6264 Feet

STANDARD DEVIATION = 0.569 % OF RANGE

CORR. COEFF. (r^2) = 0.999758

XMEASURED (VOLTS)	YMEASURED (Feet)
-0.1750	-41.25
0.8490	-27.50
1.891	-13.75
2.916	0.0
3.889	13.75
4.857	27.50
5.825	41.25
6.801	55.00
7.750	68.75



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 21-MAR-94 CALIBRATION TIME 07:33:37	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 12 Moonpool	OFFSHORE TECHNOLOGY RESEARCH CENTER

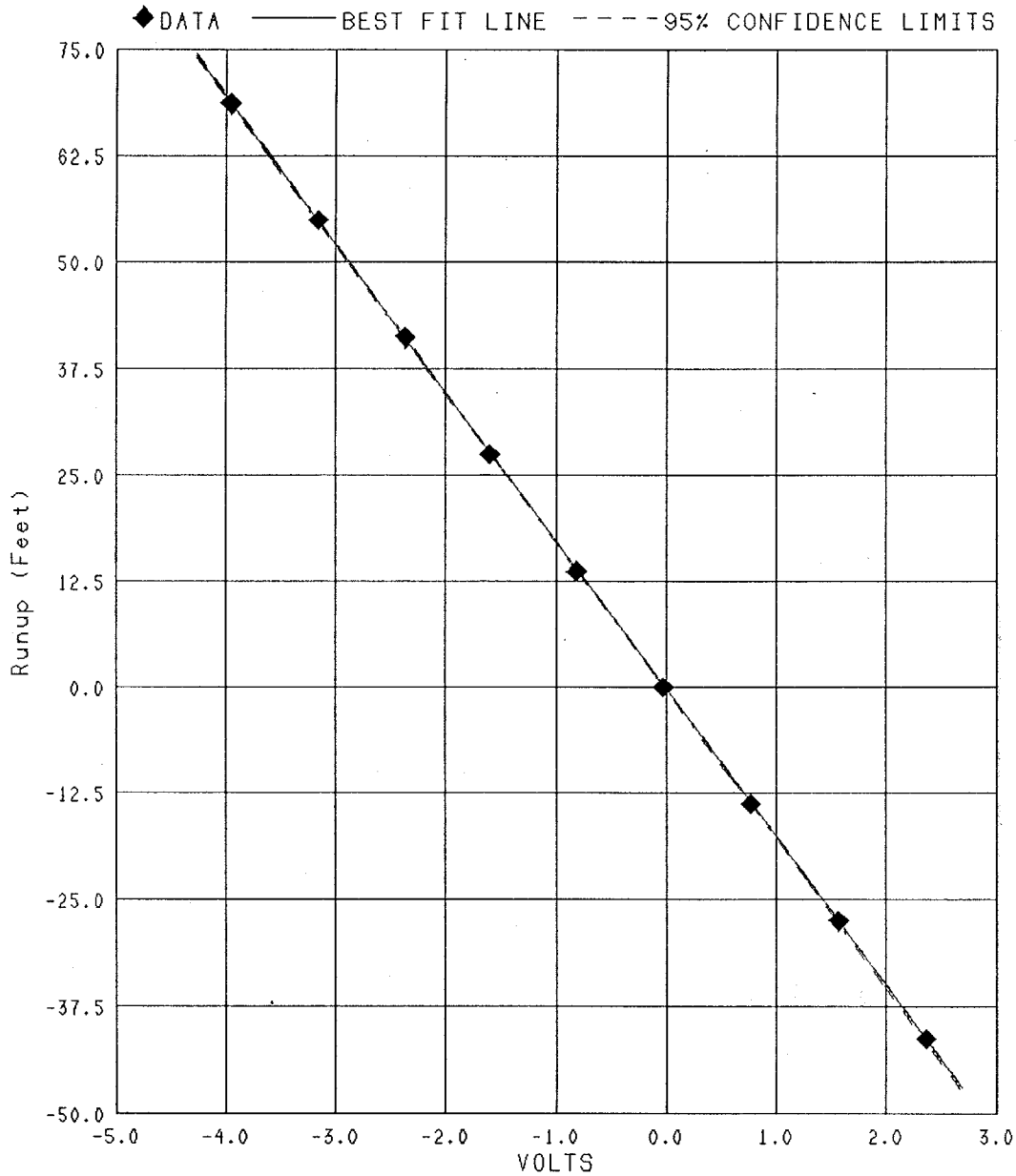
$$Y = -0.2237 + (-17.42) * X$$

STANDARD DEVIATION = 0.1981 Feet

STANDARD DEVIATION = 0.180 % OF RANGE

CORR. COEFF. (r^2) = 0.999976

XMEASURED (VOLTS)	YMEASURED (Feet)
-0.02616	0.0
-0.8143	13.75
-1.600	27.50
-2.371	41.25
-3.158	55.00
-3.961	68.75
2.368	-41.25
1.573	-27.50
0.7691	-13.75



PROGRAMMABLE GAIN = -4096 PLUG-IN GAIN = 0

CALIBRATION DATE 4-APR-94 CALIBRATION TIME 10:13:18	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 29 Runup	OFFSHORE TECHNOLOGY RESEARCH CENTER

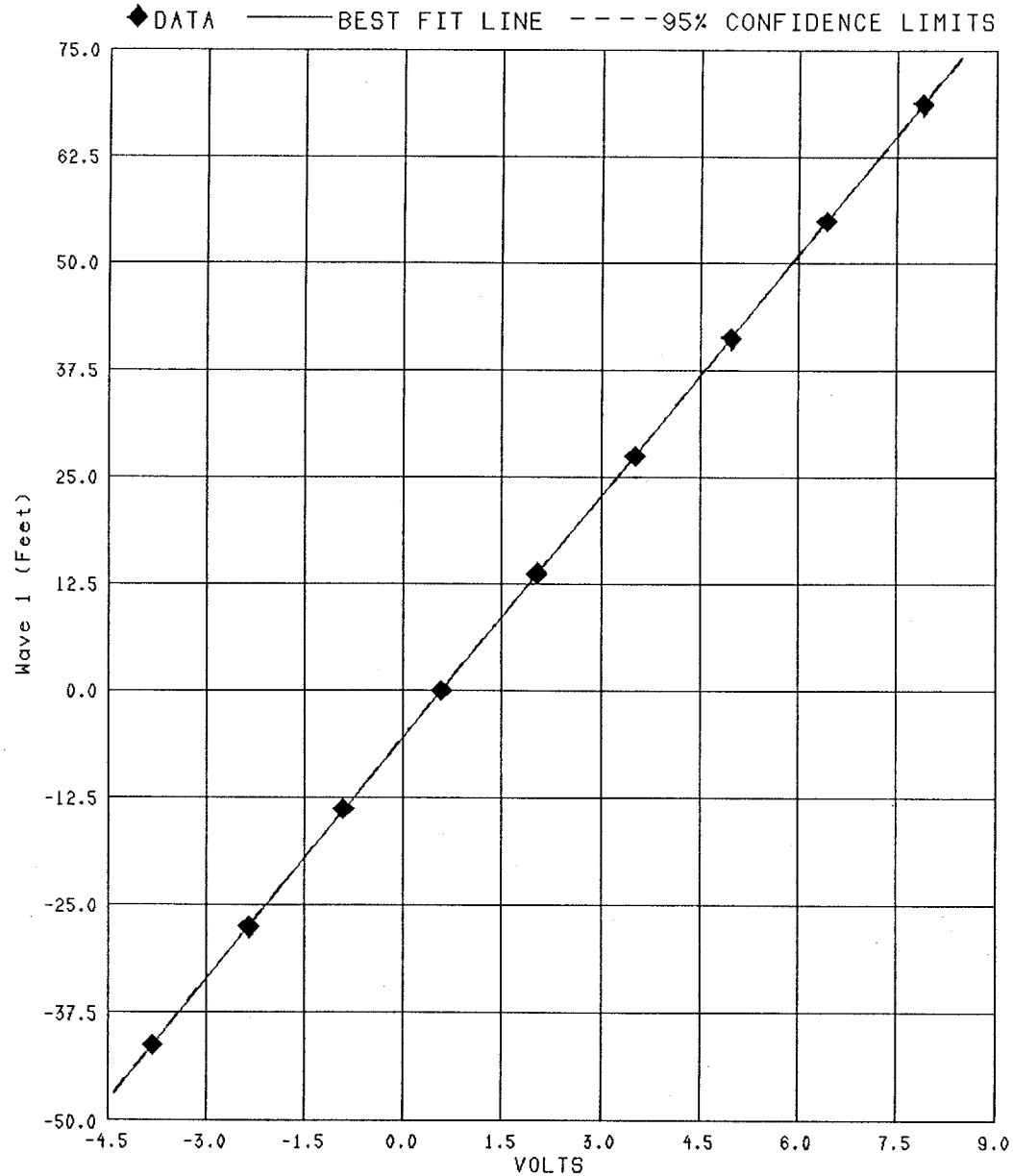
$$Y = -5.340 + (9.384) * X$$

STANDARD DEVIATION = 0.09512 Feet

STANDARD DEVIATION = 0.0865 % OF RANGE

CORR. COEFF. (r^2) = 0.999994

XMEASURED (VOLTS)	YMEASURED (Feet)
-3.826	-41.25
-2.353	-27.50
-0.9157	-13.75
0.5801	0.0
2.026	13.75
3.505	27.50
4.971	41.25
6.429	55.00
7.893	68.75



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 5

CALIBRATION DATE 21-MAR-94 CALIBRATION TIME 07:33:37	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 9 Wave 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

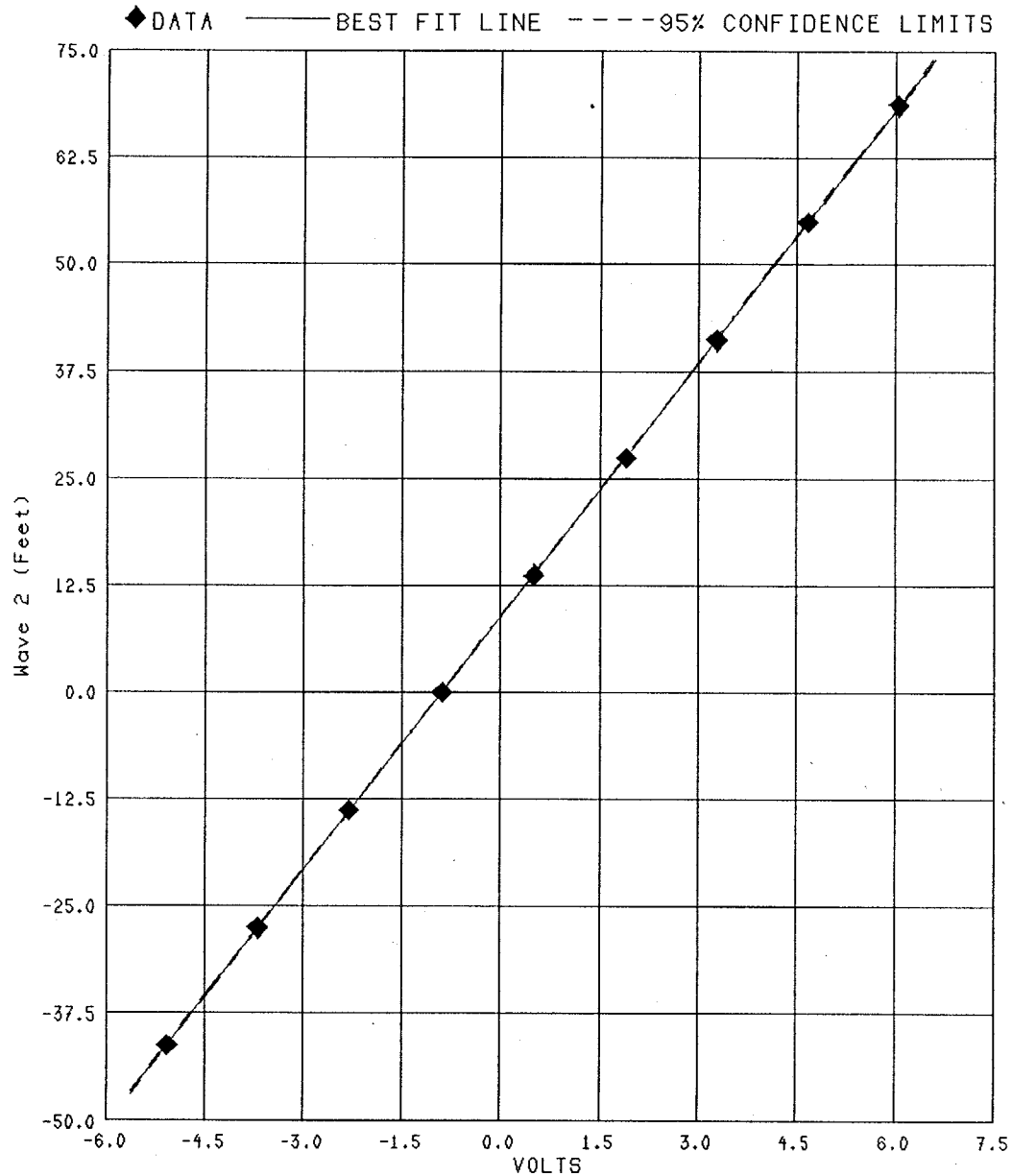
$$Y = 8.947 + (9.874) * X$$

STANDARD DEVIATION = 0.1412 Feet

STANDARD DEVIATION = 0.128 % OF RANGE

CORR. COEFF. (r^2) = 0.999988

XMEASURED (VOLTS)	YMEASURED (Feet)
-5.078	-41.25
-3.707	-27.50
-2.313	-13.75
-0.8981	0.0
0.4964	13.75
1.897	27.50
3.279	41.25
4.663	55.00
6.038	68.75



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 5

CALIBRATION DATE 21-MAR-94 CALIBRATION TIME 08:27:17	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 10 Wave 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

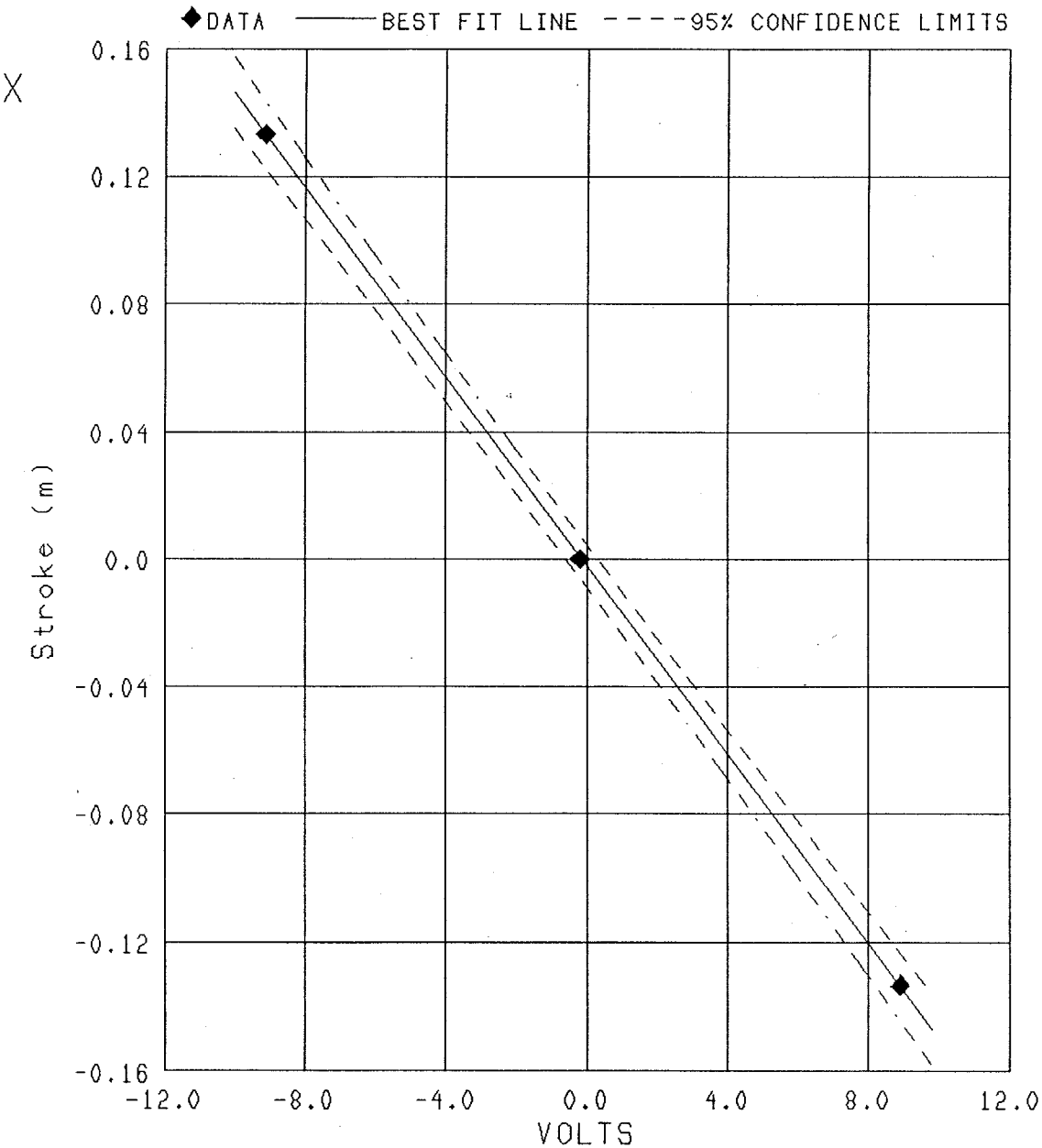
-0.002196 + (-0.01478) * X

STANDARD DEVIATION = 0.0009090 m

STANDARD DEVIATION = 0.341 % OF RANGE

CORR. COEFF. (r^2) = 0.999977

XMEASURED (VOLTS)	YMEASURED (m)
8.904	-0.1334
-9.151	0.1334
-0.1988	0.0



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1

CALIBRATION DATE 21-MAR-94 CALIBRATION TIME 08:36:08	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 16 Stroke	OFFSHORE TECHNOLOGY RESEARCH CENTER

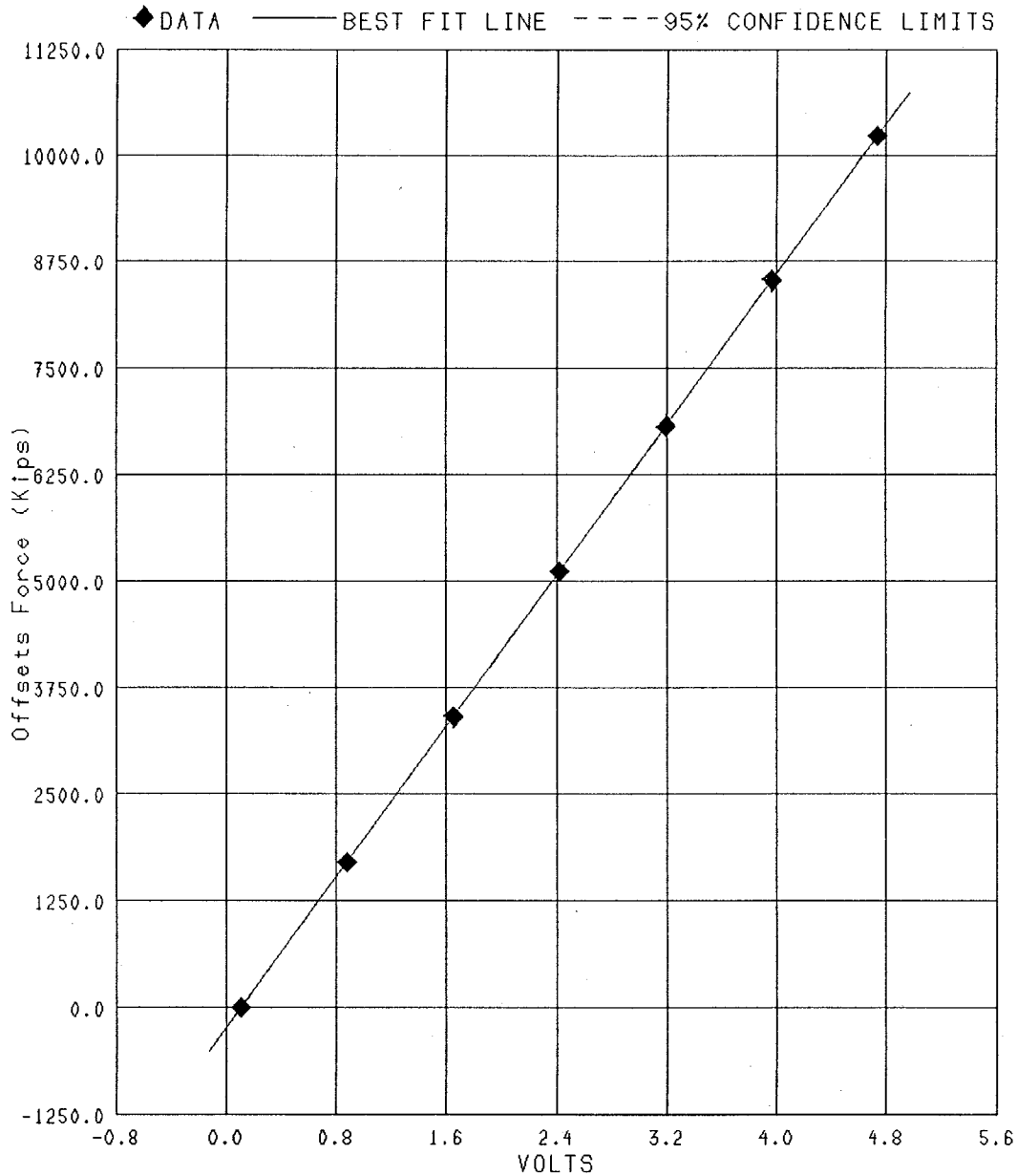
$$Y = -230.2 + (2209.0) * X$$

STANDARD DEVIATION = 0.6036 Kips

STANDARD DEVIATION = 0.00590 % OF RANGE

CORR. COEFF. (r^2) = 1.00000

XMEASURED (VOLTS)	YMEASURED (Kips)
4.739	10240.0
3.966	8532.0
3.193	6826.0
2.421	5119.0
1.649	3413.0
0.8763	1706.0
0.1045	0.0



PROGRAMMABLE GAIN = 2 PLUG-IN GAIN = 1000

CALIBRATION DATE 4-APR-94 CALIBRATION TIME 08:33:09	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 27 Offsets Force	OFFSHORE TECHNOLOGY RESEARCH CENTER

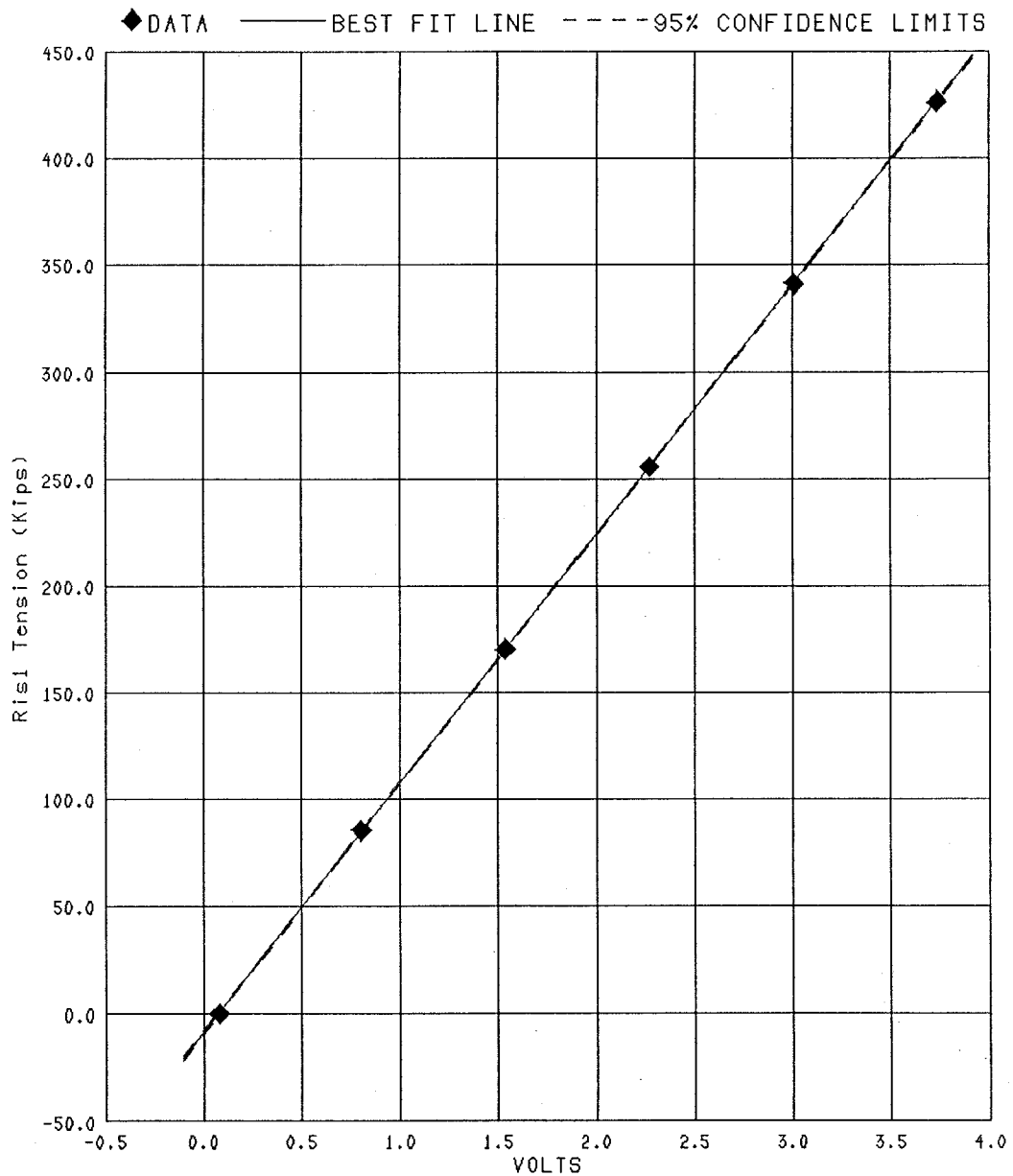
$$Y = -8.453 + (116.4) * X$$

STANDARD DEVIATION = 0.4645 Kips

STANDARD DEVIATION = 0.109 % OF RANGE

CORR. COEFF. (r^2) = 0.999993

XMEASURED (VOLTS)	YMEASURED (Kips)
0.07710	0.0
0.8001	85.32
1.537	170.6
2.272	256.0
3.008	341.3
3.737	426.6



PROGRAMMABLE GAIN = 40 PLUG-IN GAIN = 1000

CALIBRATION DATE 6-MAY-94 CALIBRATION TIME 16:50:54	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 21 Risl Tension	OFFSHORE TECHNOLOGY RESEARCH CENTER

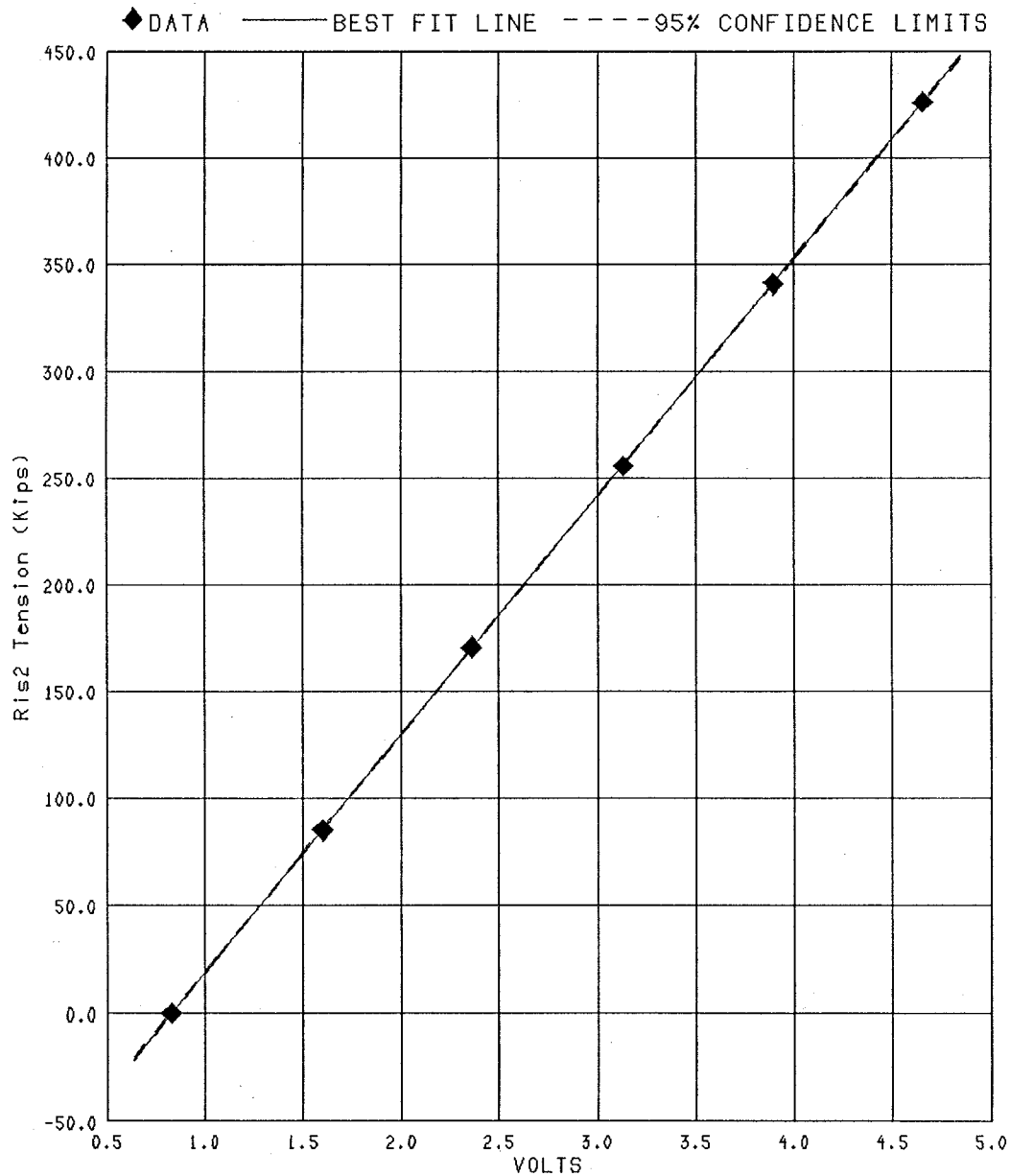
$$Y = -92.20 + (111.3) * X$$

STANDARD DEVIATION = 0.4259 Kips

STANDARD DEVIATION = 0.0998 % OF RANGE

CORR. COEFF. (r^2) = 0.999994

XMEASURED (VOLTS)	YMEASURED (Kips)
0.8286	0.0
1.596	85.32
2.357	170.6
3.134	256.0
3.896	341.3
4.660	426.6



PROGRAMMABLE GAIN = 40 PLUG-IN GAIN = 1000

CALIBRATION DATE 6-MAY-94 CALIBRATION TIME 16:50:54	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 22 Ris2 Tension	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

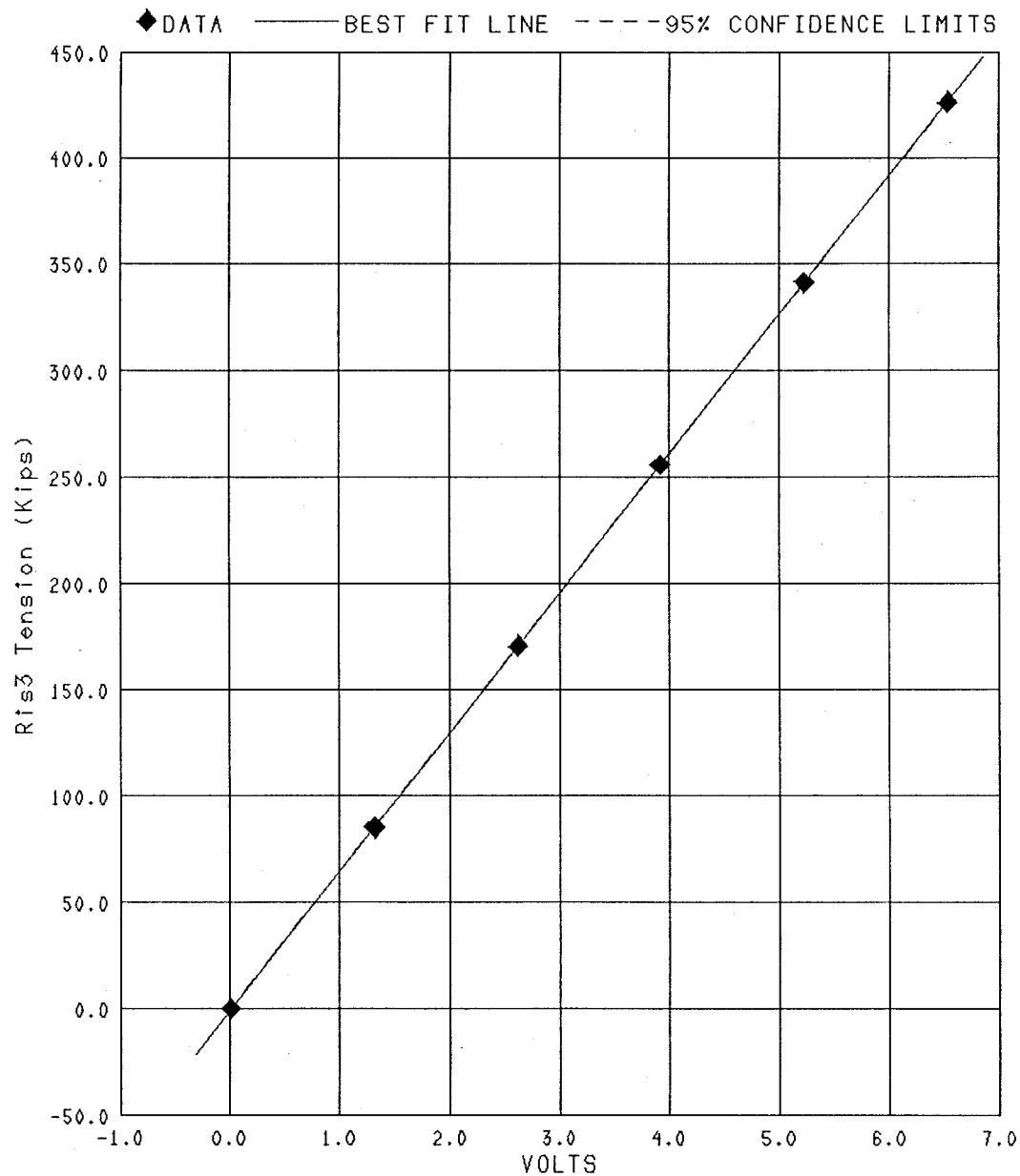
-0.5693 + (65.38) * X

STANDARD DEVIATION = 0.05810 Kips

STANDARD DEVIATION = 0.0136 % OF RANGE

CORR. COEFF. (r^2) = 1.00000

XMEASURED (VOLTS)	YMEASURED (Kips)
0.009129	0.0
1.314	85.32
2.617	170.6
3.923	256.0
5.228	341.3
6.534	426.6



PROGRAMMABLE GAIN = 10 PLUG-IN GAIN = 1000

CALIBRATION DATE 6-MAY-94 CALIBRATION TIME 16:50:54	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 23 Ris3 Tension	OFFSHORE TECHNOLOGY RESEARCH CENTER

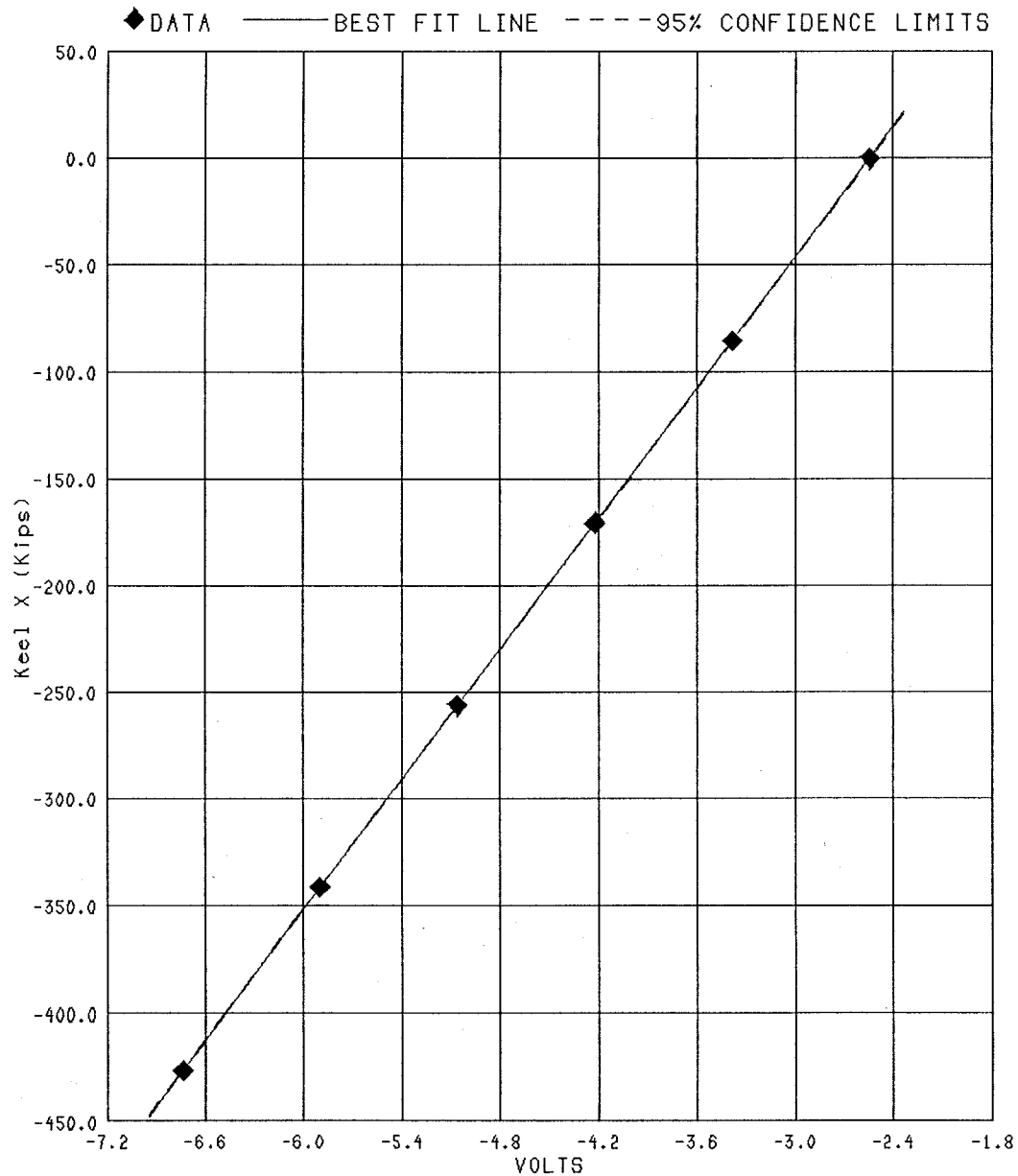
$$Y = 258.0 + (101.6) * X$$

STANDARD DEVIATION = 0.2346 Kips

STANDARD DEVIATION = 0.0550 % OF RANGE

CORR. COEFF. (r^2) = 0.999998

XMEASURED (VOLTS)	YMEASURED (Kips)
-6.739	-426.6
-5.901	-341.3
-5.064	-256.0
-4.222	-170.6
-3.379	-85.32
-2.540	0.0



PROGRAMMABLE GAIN = 40 PLUG-IN GAIN = 1000

CALIBRATION DATE 10-MAY-94 CALIBRATION TIME 09:10:54	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 24 Keel X	OFFSHORE TECHNOLOGY RESEARCH CENTER

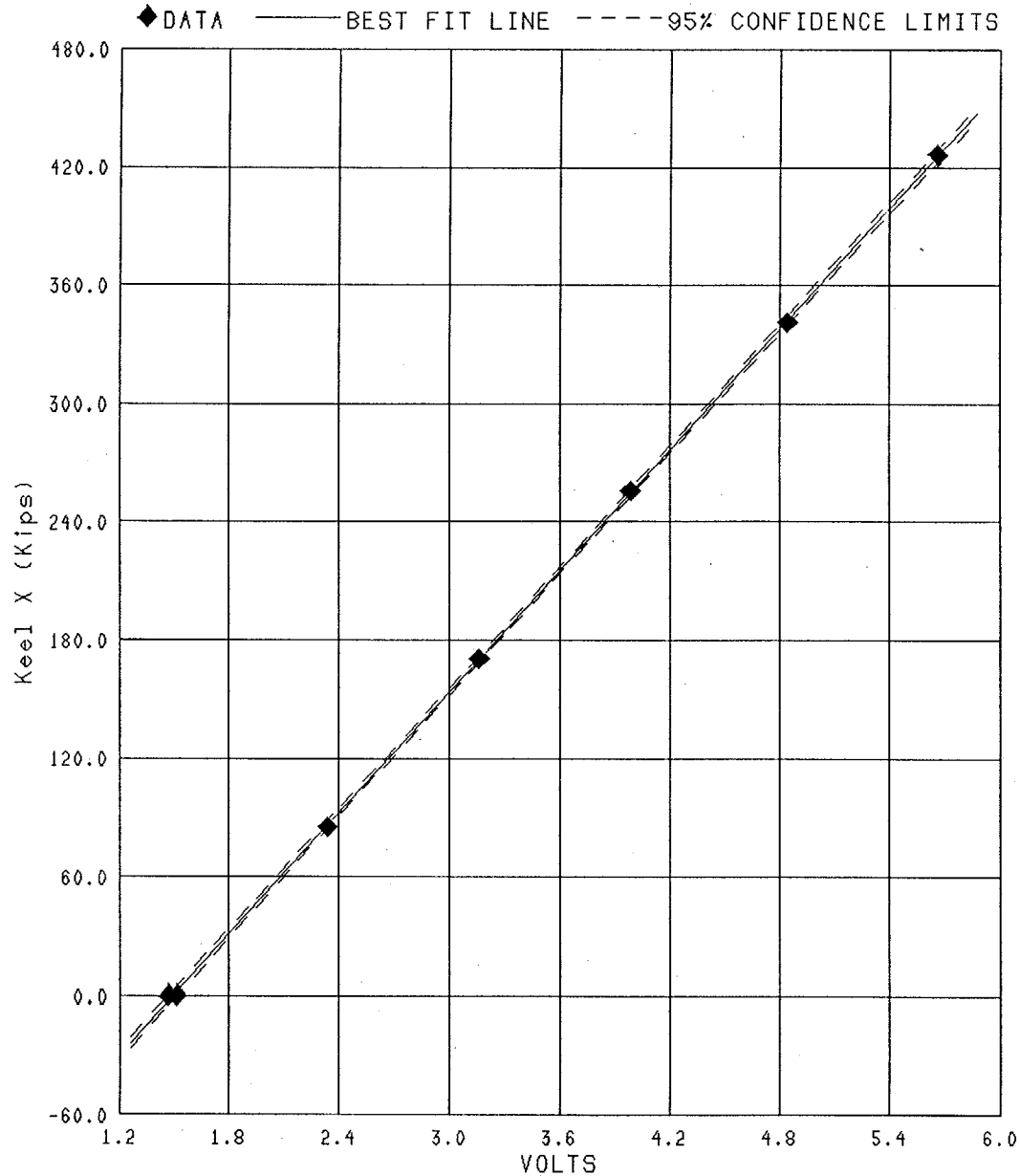
$$Y = -152.4 + (102.2) * X$$

STANDARD DEVIATION = 1.749 Kips

STANDARD DEVIATION = 0.410 % OF RANGE

CORR. COEFF. (r^2) = 0.999908

XMEASURED (VOLTS)	YMEASURED (Kips)
1.466	0.0
5.662	426.6
4.845	341.3
3.987	256.0
3.160	170.6
2.338	85.32
1.512	0.0



PROGRAMMABLE GAIN = 40 PLUG-IN GAIN = 1000

CALIBRATION DATE 10-MAY-94 CALIBRATION TIME 09:20:33	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 24 Keel X	OFFSHORE TECHNOLOGY RESEARCH CENTER

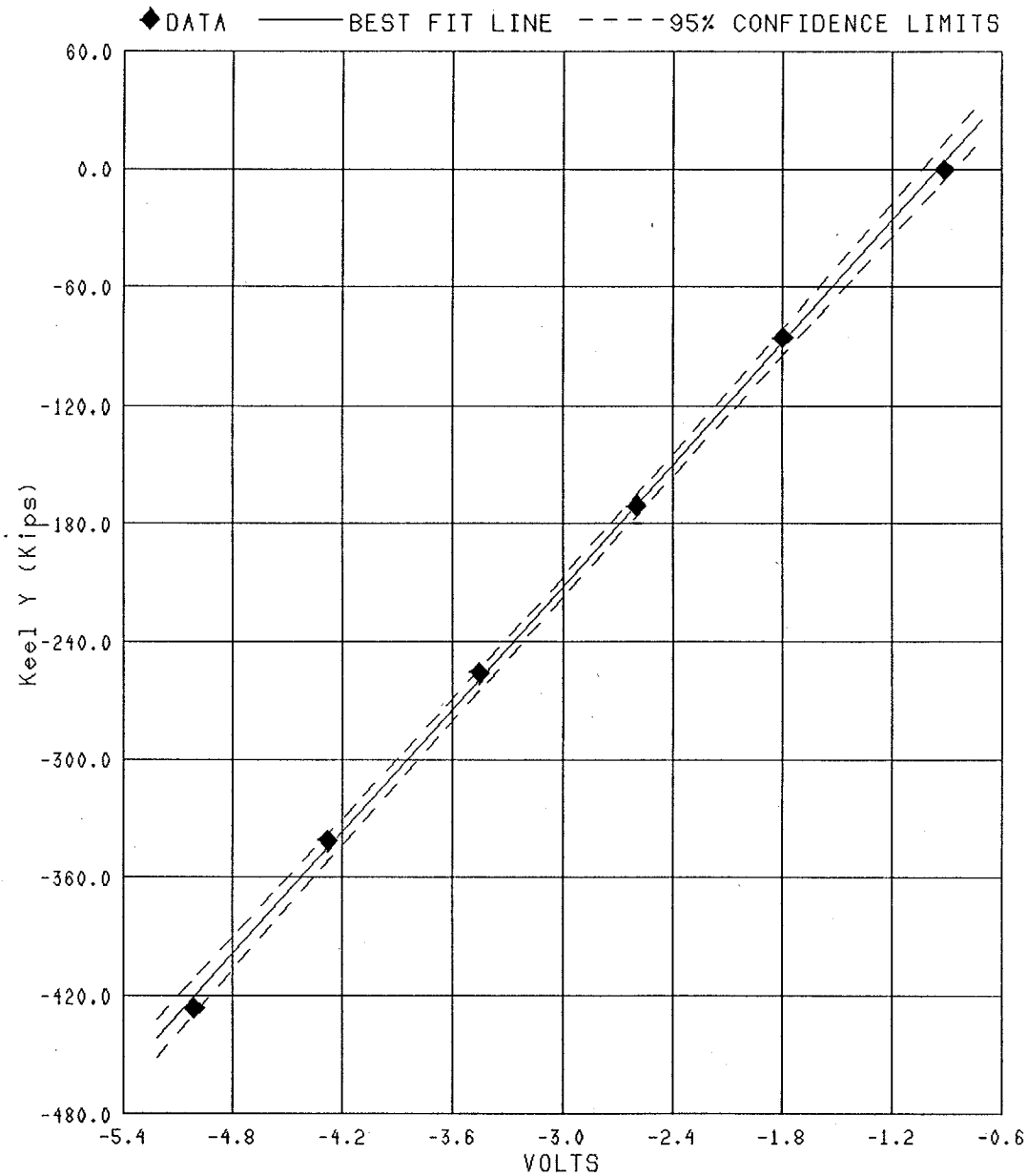
$$Y = 98.21 + (103.5) * X$$

STANDARD DEVIATION = 4.570 Kips

STANDARD DEVIATION = 1.07 % OF RANGE

CORR. COEFF. (r^2) = 0.999344

XMEASURED (VOLTS)	YMEASURED (Kips)
-0.9106	0.0
-5.012	-426.6
-4.282	-341.3
-3.455	-256.0
-2.598	-170.6
-1.796	-85.32



PROGRAMMABLE GAIN = 40 PLUG-IN GAIN = 1000

CALIBRATION DATE 10-MAY-94 CALIBRATION TIME 09:27:23	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 25 Keel Y	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

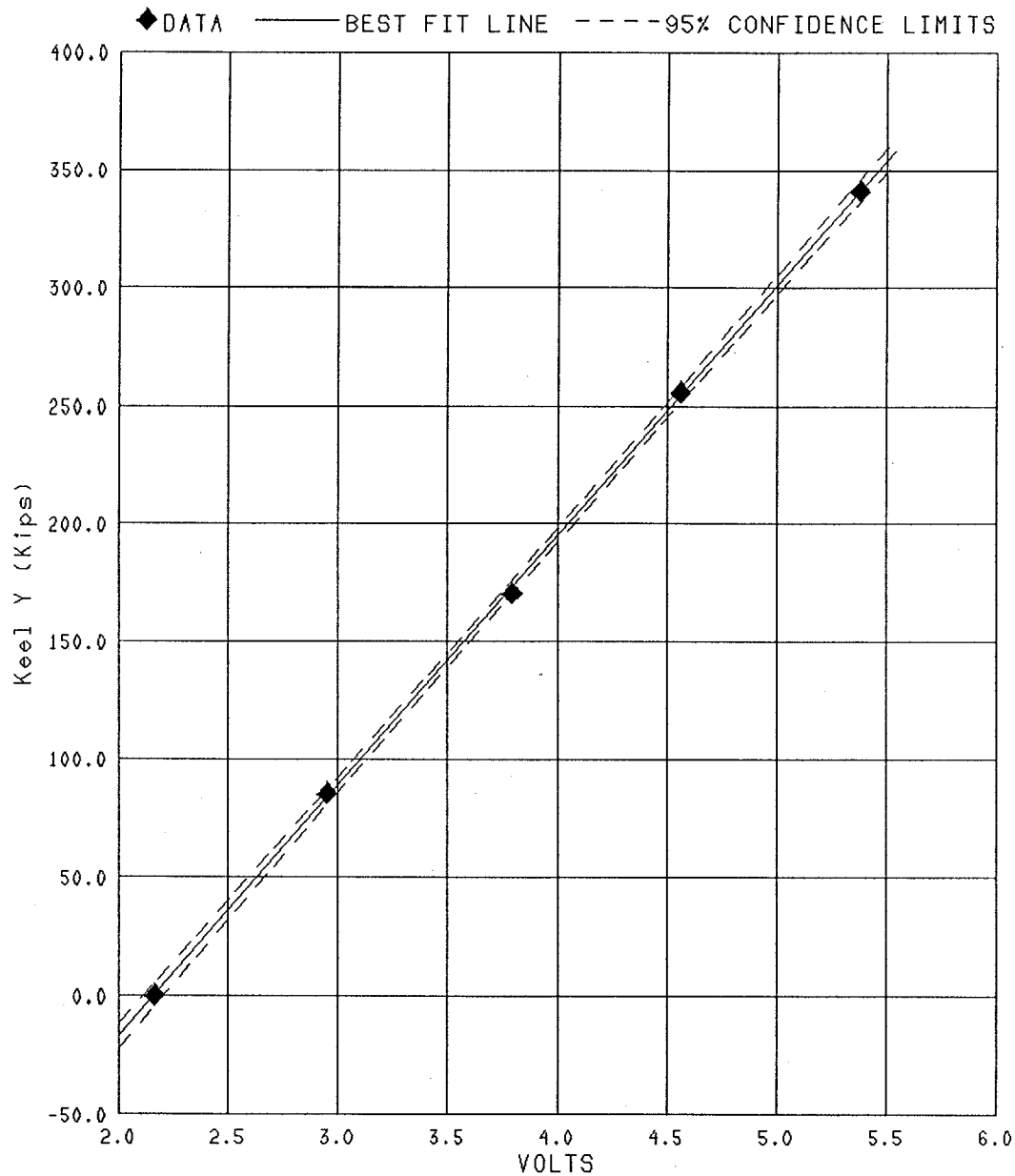
$$-229.1 + (106.1) * X$$

STANDARD DEVIATION = 1.958 Kips

STANDARD DEVIATION = 0.574 % OF RANGE

CORR. COEFF. (r^2) = 0.999842

XMEASURED (VOLTS)	YMEASURED (Kips)
2.161	0.0
2.949	85.32
3.794	170.6
4.560	256.0
5.376	341.3



PROGRAMMABLE GAIN = 40 PLUG-IN GAIN = 1000

CALIBRATION DATE 10-MAY-94 CALIBRATION TIME 09:34:37	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 25 Keel Y	OFFSHORE TECHNOLOGY RESEARCH CENTER

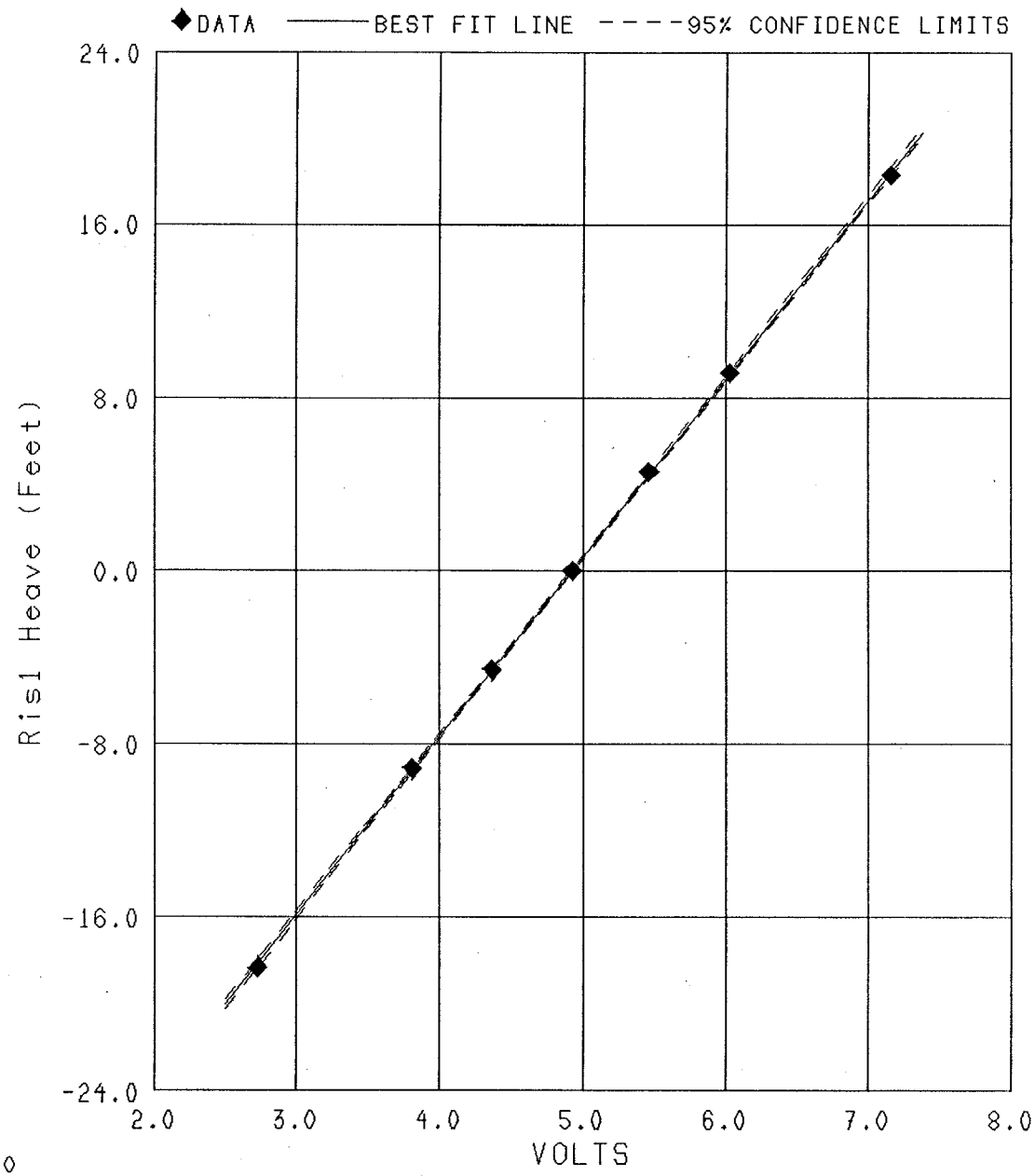
$$Y = -40.68 + (8.262) * X$$

STANDARD DEVIATION = 0.1124 Feet

STANDARD DEVIATION = 0.307 % OF RANGE

CORR. COEFF. (r^2) = 0.999929

XMEASURED (VOLTS)	YMEASURED (Feet)
4.925	0.0
7.159	18.33
2.722	-18.33
3.807	-9.170
4.361	-4.580
5.464	4.580
6.028	9.170



PROGRAMMABLE GAIN = -4096 PLUG-IN GAIN = 0

CALIBRATION DATE 9-MAY-94 CALIBRATION TIME 08:51:42	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 30 Risl Heave	OFFSHORE TECHNOLOGY RESEARCH CENTER

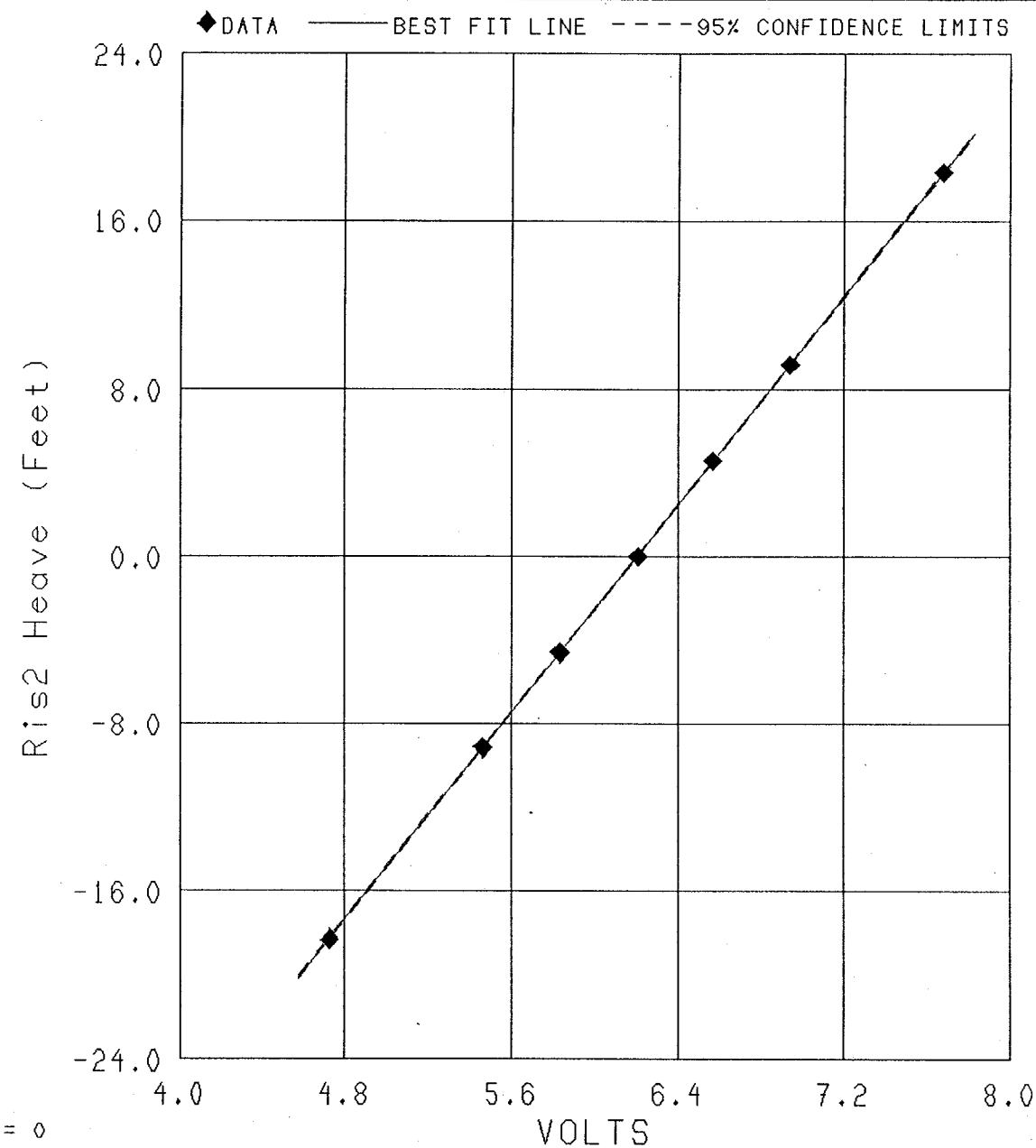
$$Y = -76.89 + (12.40) * X$$

STANDARD DEVIATION = 0.04296 Feet

STANDARD DEVIATION = 0.117 % OF RANGE

CORR. COEFF. (r^2) = 0.999990

XMEASURED (VOLTS)	YMEASURED (Feet)
6.206	0.0
5.829	-4.580
5.459	-9.170
4.725	-18.33
6.568	4.580
6.943	9.170
7.679	18.33



PROGRAMMABLE GAIN = -4096 PLUG-IN GAIN = 0

CALIBRATION DATE 9-MAY-94 CALIBRATION TIME 08:42:12	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 31 Ris2 Heave	OFFSHORE TECHNOLOGY RESEARCH CENTER

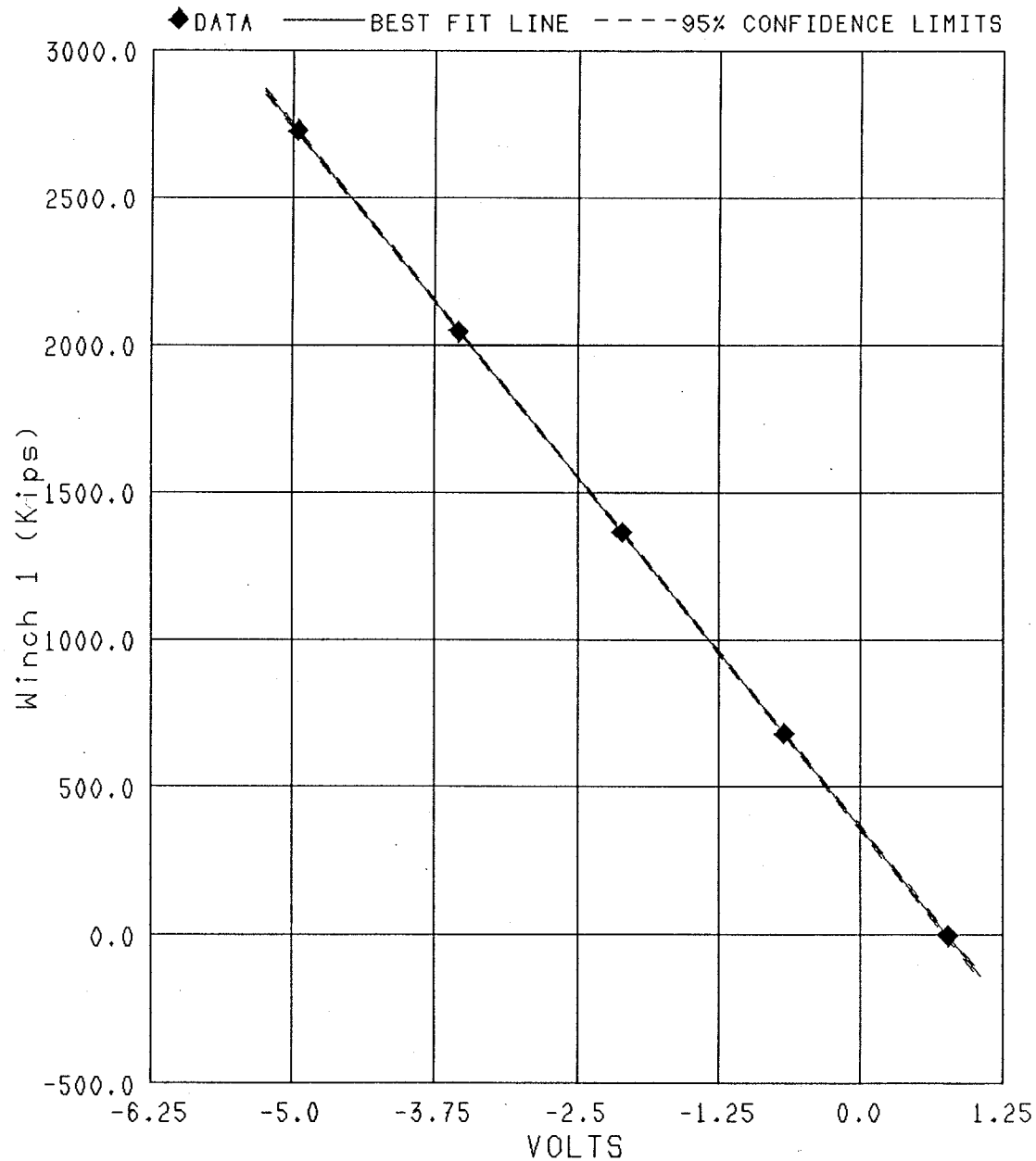
$$Y = 363.8 + (-476.2) * X$$

STANDARD DEVIATION = 3.820 Kips

STANDARD DEVIATION = 0.140 % OF RANGE

CORR. COEFF. (r^2) = 0.999991

XMEASURED (VOLTS)	YMEASURED (Kips)
-4.961	2730.0
-3.546	2048.0
-2.103	1365.0
-0.6711	682.6
0.7676	0.0



PROGRAMMABLE GAIN = 4 PLUG-IN GAIN = 1000

CALIBRATION DATE 25-MAY-94 CALIBRATION TIME 11:39:47	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 5 Winch 1	OFFSHORE TECHNOLOGY RESEARCH CENTER

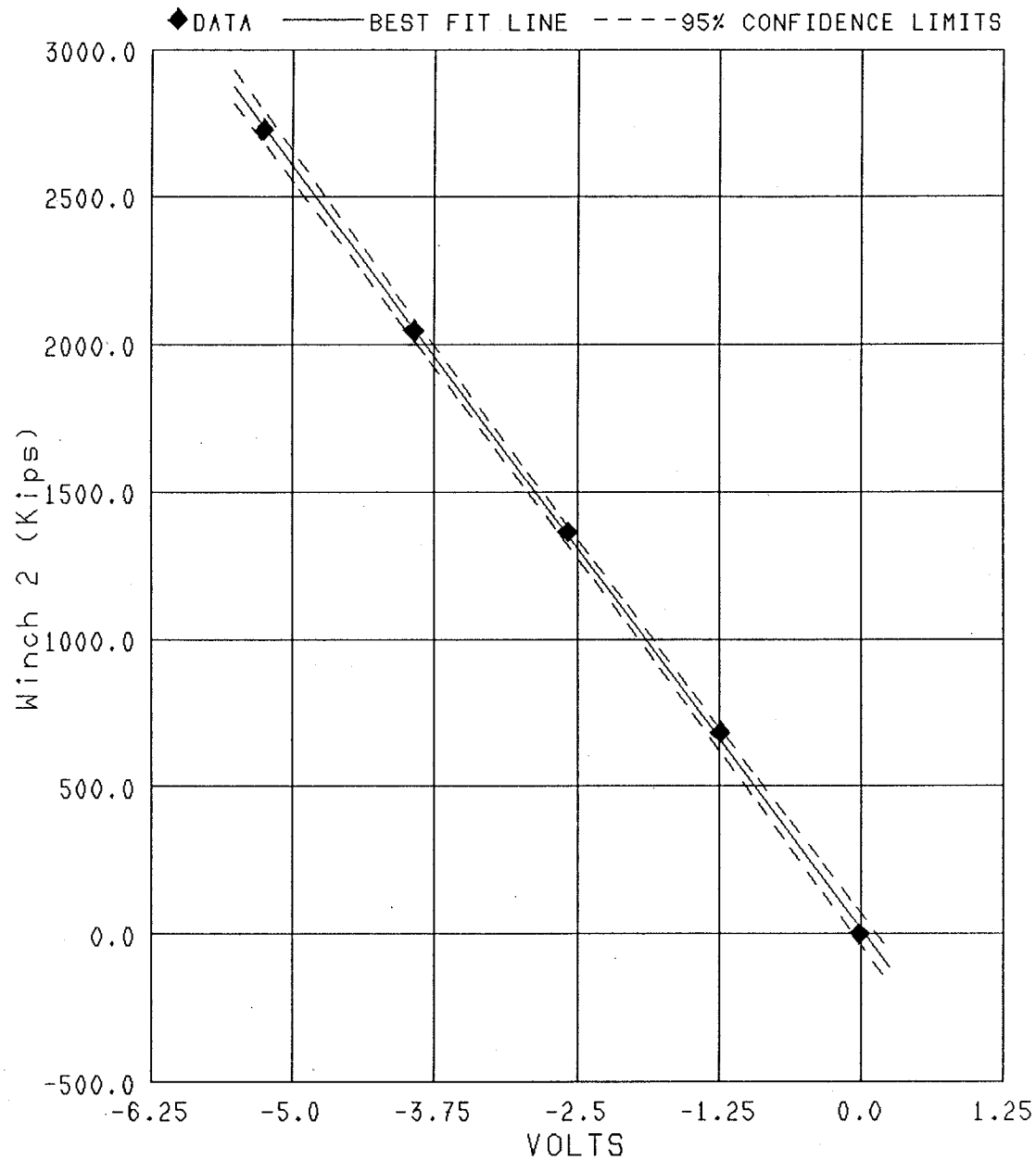
$$Y = 15.95 + (-517.5) * X$$

STANDARD DEVIATION = 21.95 Kips

STANDARD DEVIATION = 0.804 % OF RANGE

CORR. COEFF. (r^2) = 0.999690

XMEASURED (VOLTS)	YMEASURED (Kips)
-1.241	682.6
-0.01600	0.0
-2.581	1365.0
-3.934	2048.0
-5.262	2730.0



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1000

CALIBRATION DATE 25-MAY-94 CALIBRATION TIME 11:07:22	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 6 Winch 2	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

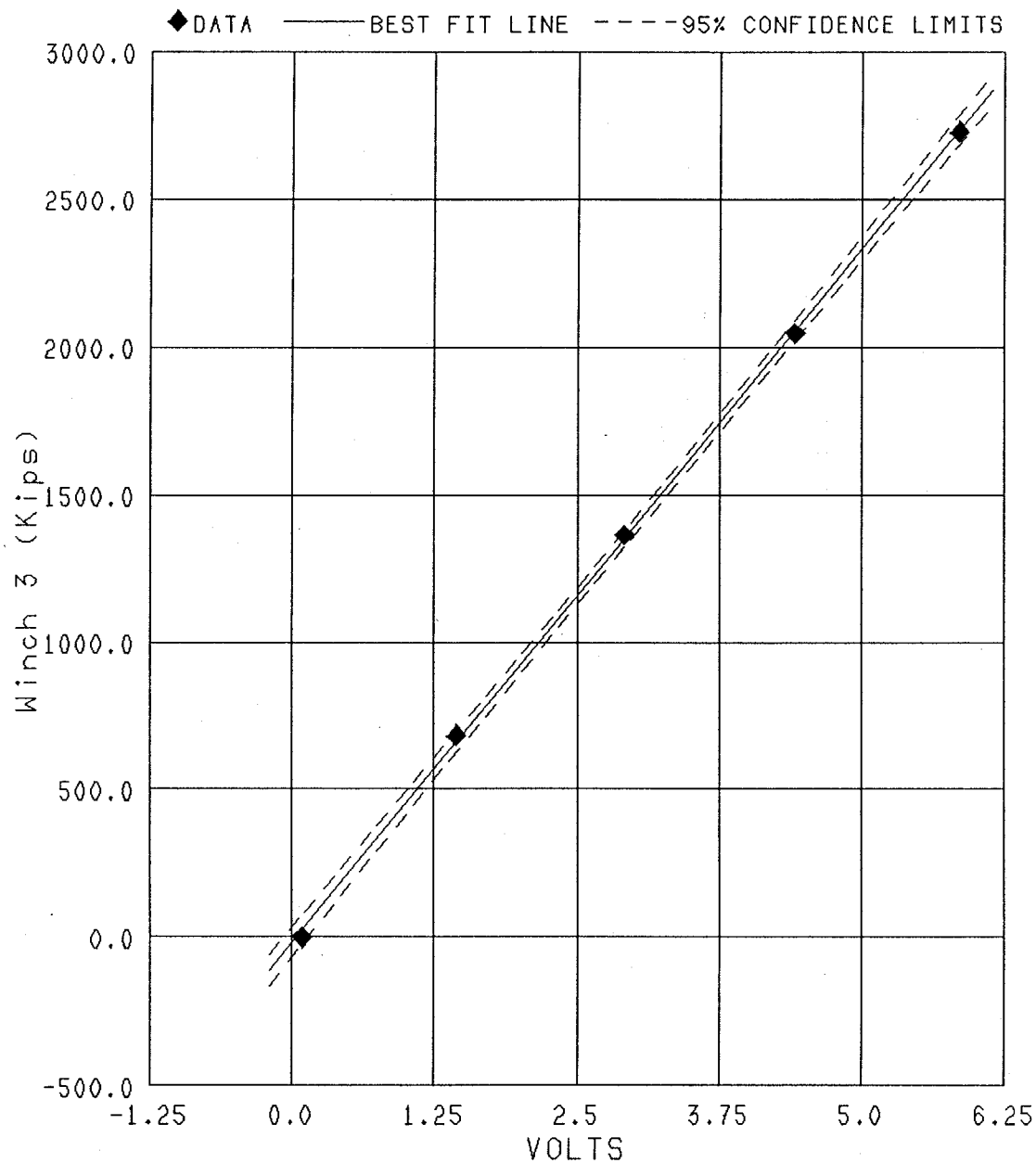
-19.33 + (470.4) * X

STANDARD DEVIATION = 20.24 Kips

STANDARD DEVIATION = 0.741 % OF RANGE

CORR. COEFF. (r^2) = 0.999736

XMEASURED (VOLTS)	YMEASURED (Kips)
1.446	682.6
0.08684	0.0
2.913	1365.0
4.412	2048.0
5.857	2730.0



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1000

CALIBRATION DATE 25-MAY-94 CALIBRATION TIME 11:07:22	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 7 Winch 3	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

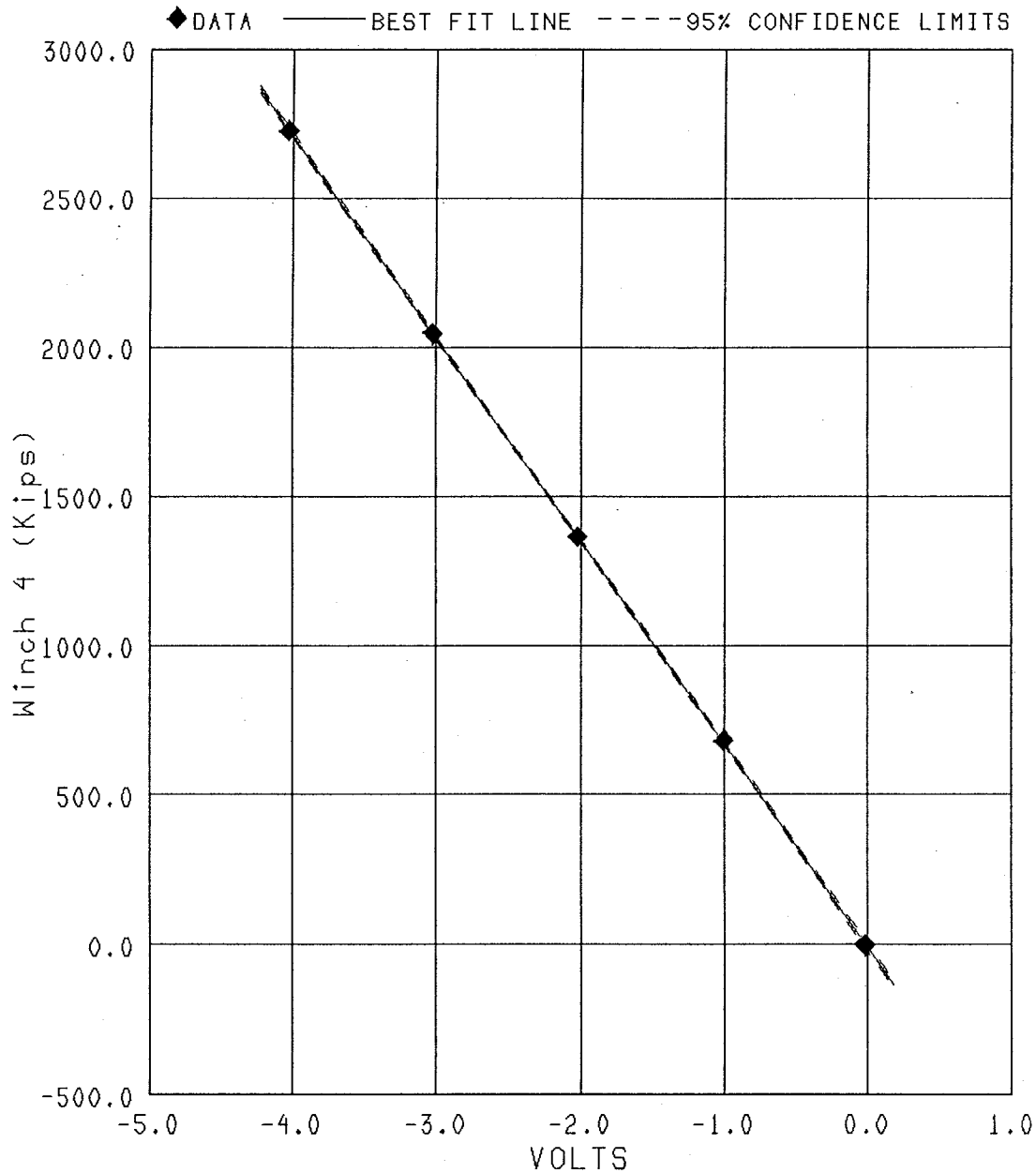
-6.988 + (-679.1) * X

STANDARD DEVIATION = 4.701 Kips

STANDARD DEVIATION = 0.172 % OF RANGE

CORR. COEFF. (r^2) = 0.999986

XMEASURED (VOLTS)	YMEASURED (Kips)
-4.033	2730.0
-3.027	2048.0
-2.020	1365.0
-1.006	682.6
-0.01751	0.0



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1000

CALIBRATION DATE 26-MAY-94 CALIBRATION TIME 09:48:03	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 8 Winch 4	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

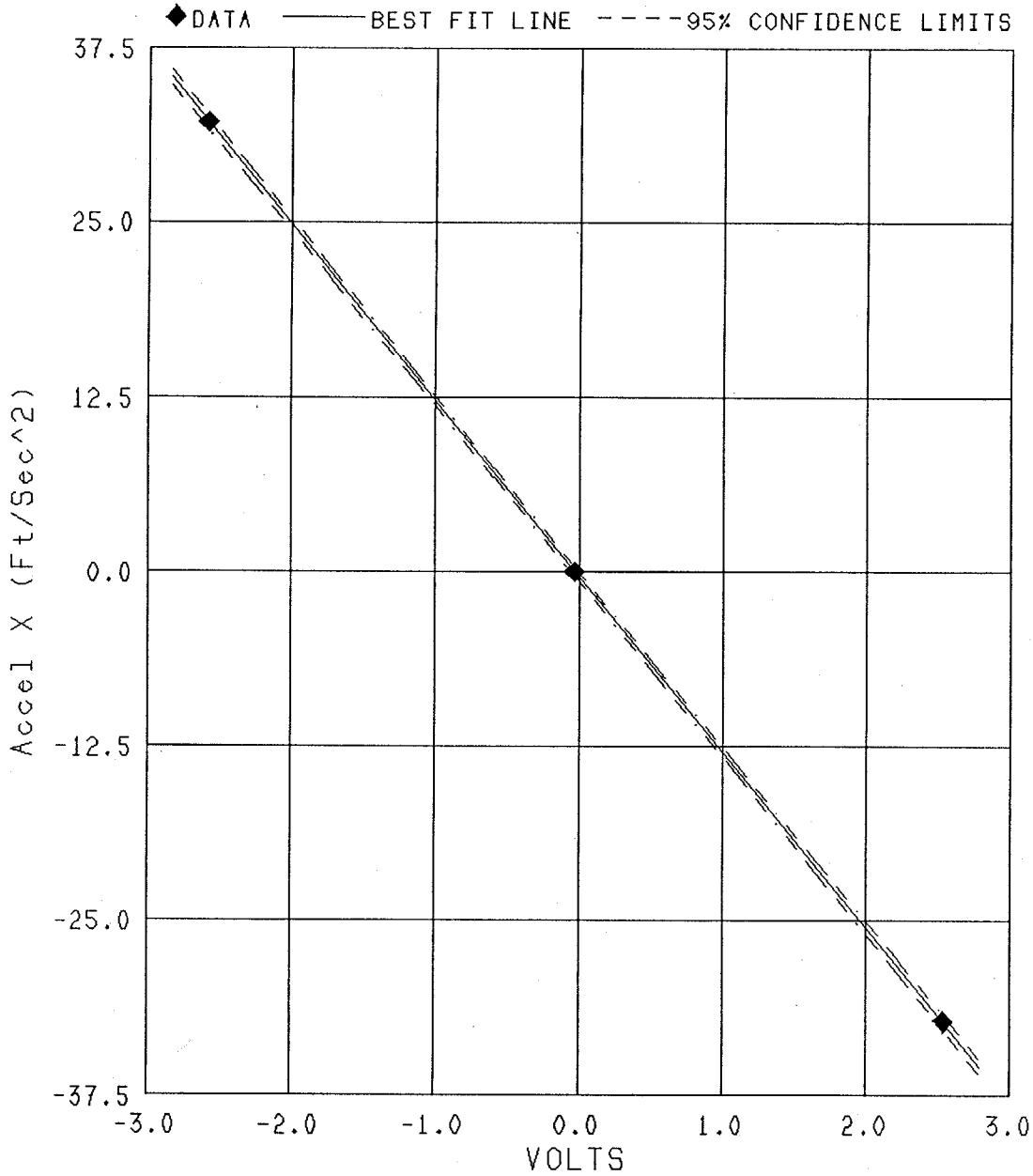
$$-0.3677 + (-12.58) * X$$

STANDARD DEVIATION = 0.04520 Ft/Sec^2

STANDARD DEVIATION = 0.0702 % OF RANGE

CORR. COEFF. (r^2) = 0.999999

XMEASURED (VOLTS)	YMEASURED (Ft/Sec^2)
-2.588	32.20
-0.03218	0.0
2.533	-32.20



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1000

CALIBRATION DATE 25-MAY-94 CALIBRATION TIME 12:30:35	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 17 Accel X	OFFSHORE TECHNOLOGY RESEARCH CENTER

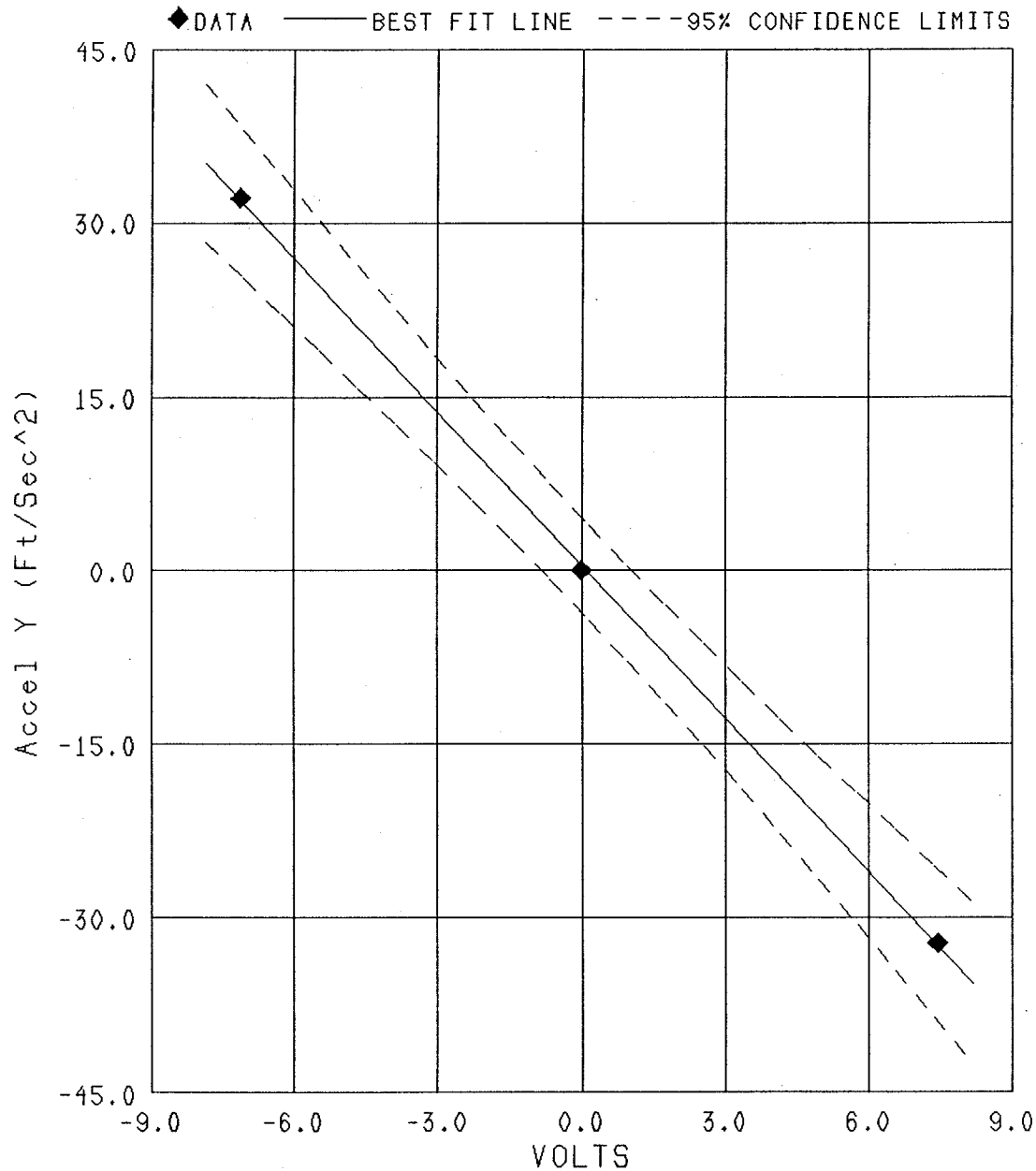
$$Y = 0.4379 + (-4.414) * X$$

STANDARD DEVIATION = 0.5597 Ft/Sec^2

STANDARD DEVIATION = 0.869 % OF RANGE

CORR. COEFF. (r^2) = 0.999849

XMEASURED (VOLTS)	YMEASURED (Ft/Sec^2)
-7.143	32.20
-0.004320	0.0
7.445	-32.20



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1000

CALIBRATION DATE 25-MAY-94 CALIBRATION TIME 12:30:35	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 18 Accel Y	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

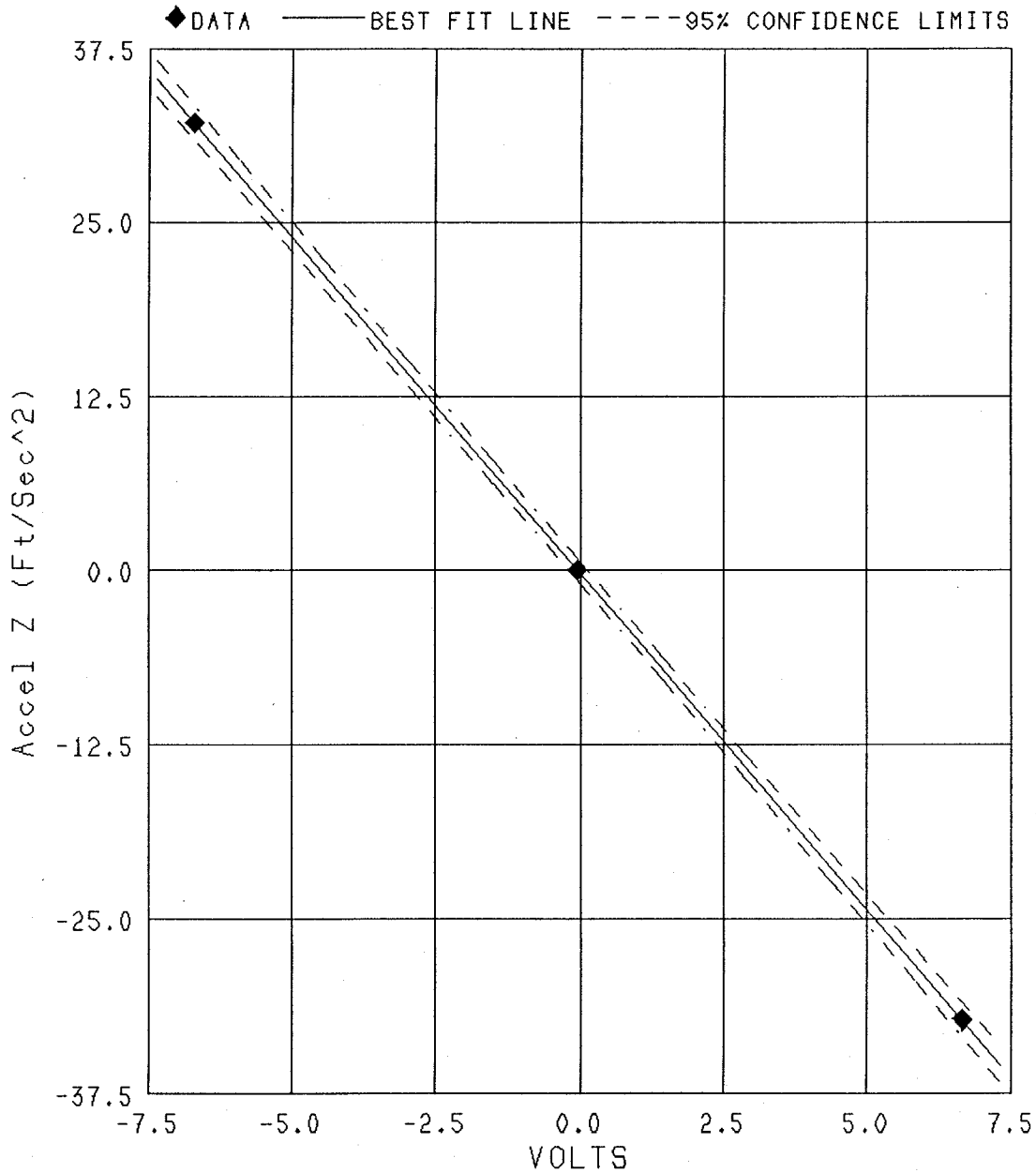
-0.1822 + (-4.821) * X

STANDARD DEVIATION = 0.1075 Ft/Sec^2

STANDARD DEVIATION = 0.167 % OF RANGE

CORR. COEFF. (r^2) = 0.999994

XMEASURED (VOLTS)	YMEASURED (Ft/Sec^2)
-6.707	32.20
-0.05600	0.0
6.650	-32.20



PROGRAMMABLE GAIN = 1 PLUG-IN GAIN = 1000

CALIBRATION DATE 25-MAY-94 CALIBRATION TIME 12:30:35	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 19 Accel Z	OFFSHORE TECHNOLOGY RESEARCH CENTER

Y =

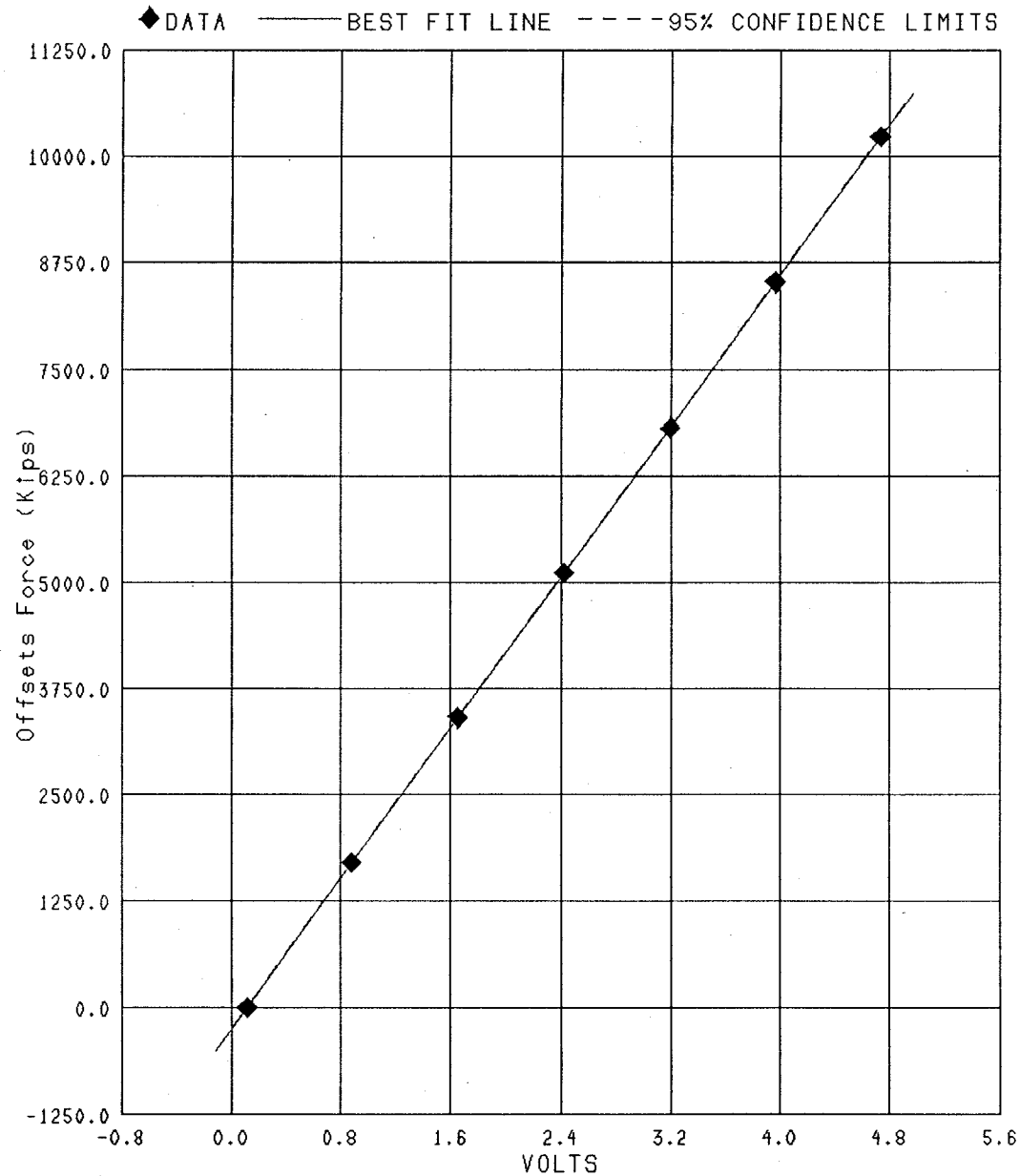
-240.3 + (2214.0) * X

STANDARD DEVIATION = 1.965 Kips

STANDARD DEVIATION = 0.0192 % OF RANGE

CORR. COEFF. (r^2) = 1.00000

XMEASURED (VOLTS)	YMEASURED (Kips)
4.735	10240.0
3.963	8532.0
3.192	6826.0
2.421	5119.0
1.649	3413.0
0.8792	1706.0
0.1098	0.0



PROGRAMMABLE GAIN = 2 PLUG-IN GAIN = 1000

CALIBRATION DATE 14-MAR-94 CALIBRATION TIME 10:37:46	LINEAR CALIBRATION RESULTS Spar Platform CHANNEL 27 Offsets Force	OFFSHORE TECHNOLOGY RESEARCH CENTER

Appendix C: Selected Photographs

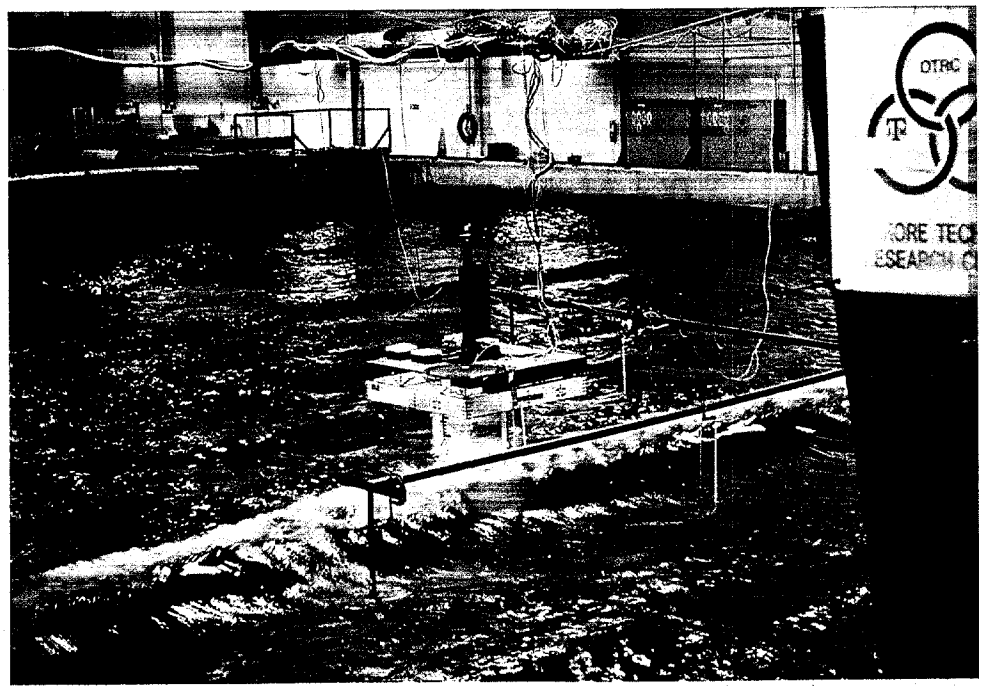


Figure C.1 Large Spar in Breaking Wave Configuration A

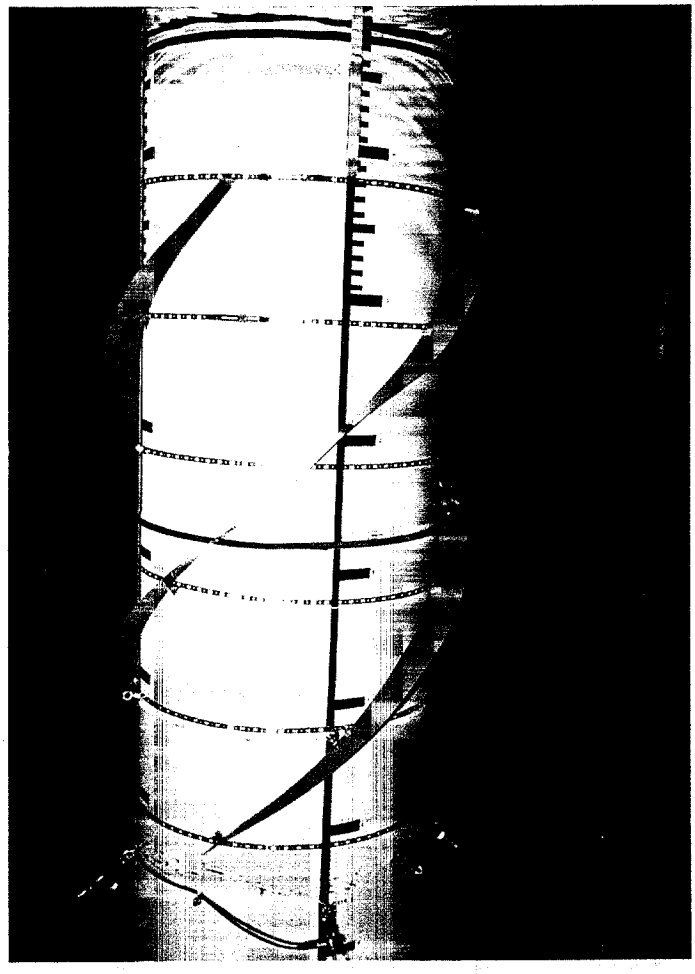


Figure C.2 Strakes on Large Spar Configurations F1, F2, H, J, O, and P

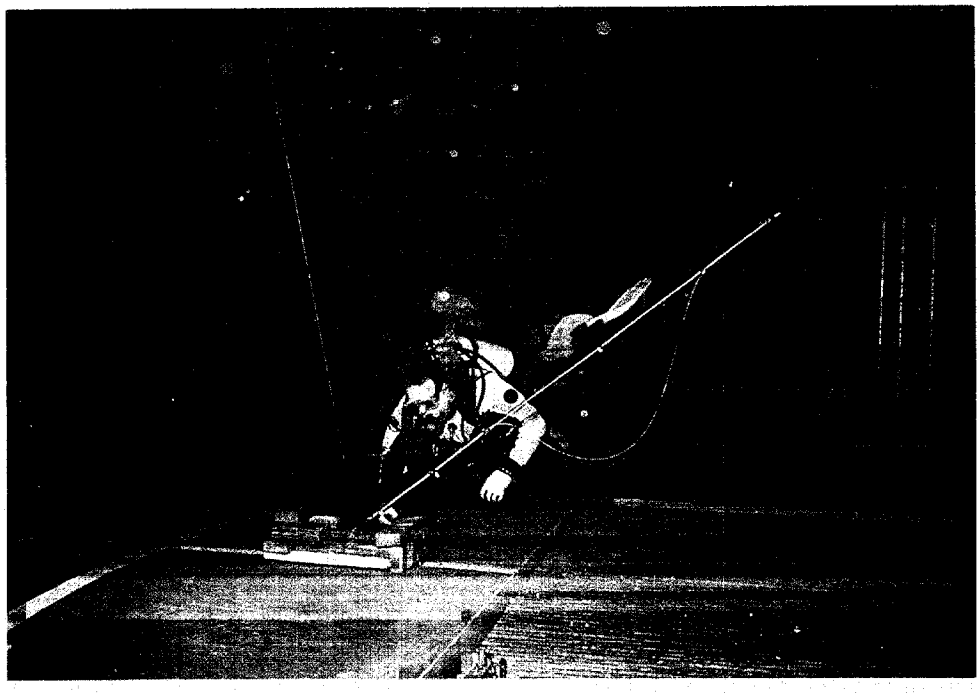


Figure C.3 Mooring Lines for Large Spar with Springs In Series

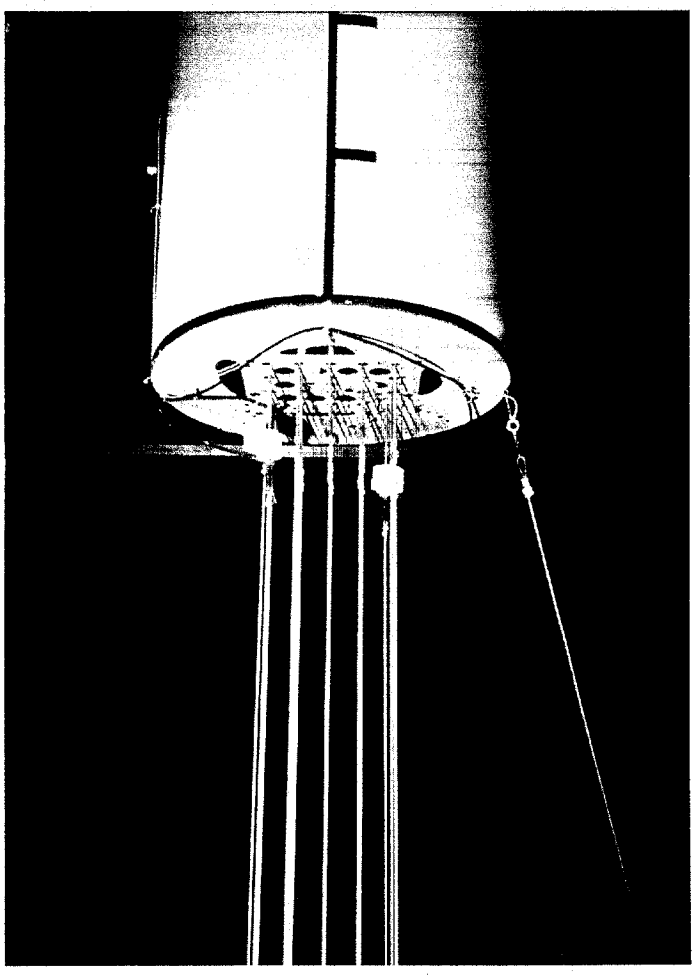


Figure C.4 Large Spar with Vertical Risers and Catenary Riser Configuration F2

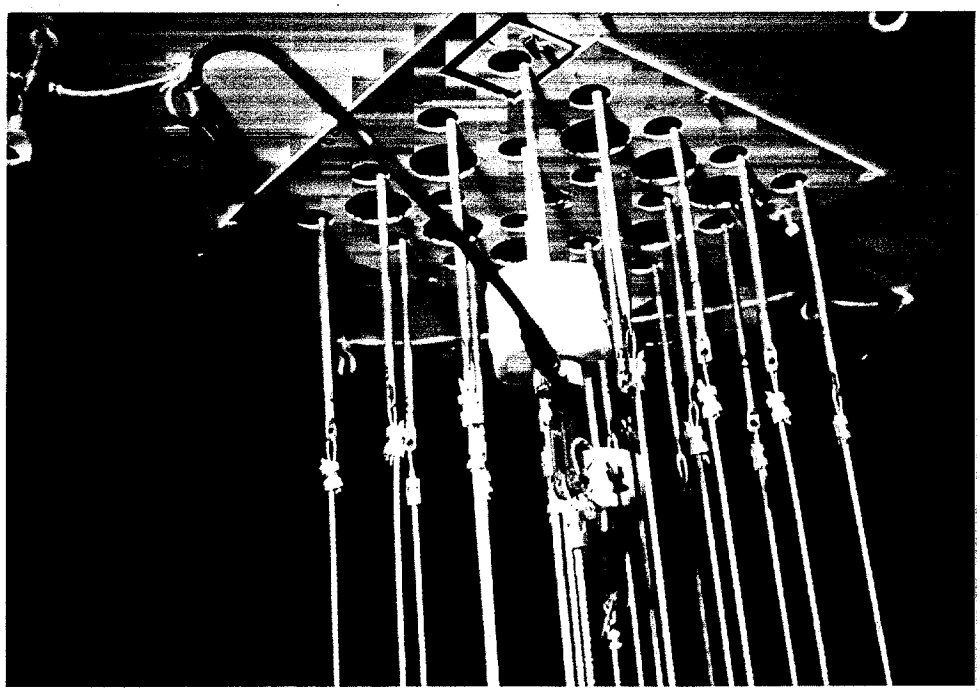


Figure C.5 Large Spar Close Up of Riser Keel Joints and Instrumented Guide Hole Configuration F2

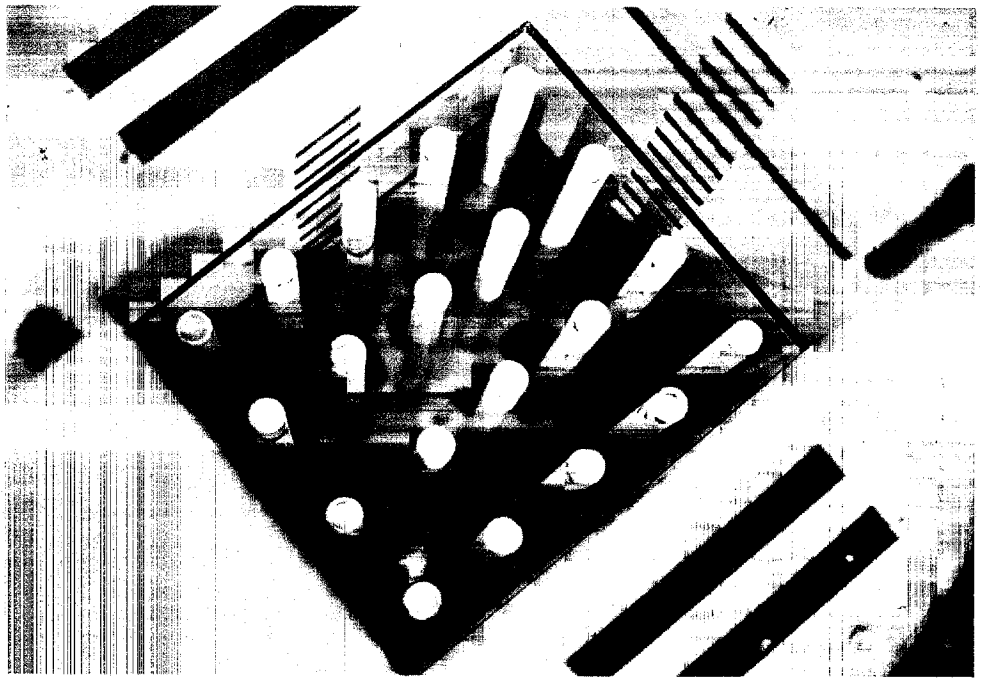


Figure C.6 Large Spar Moonpool and Buoyancy Cans Configurations F, F1 and F2

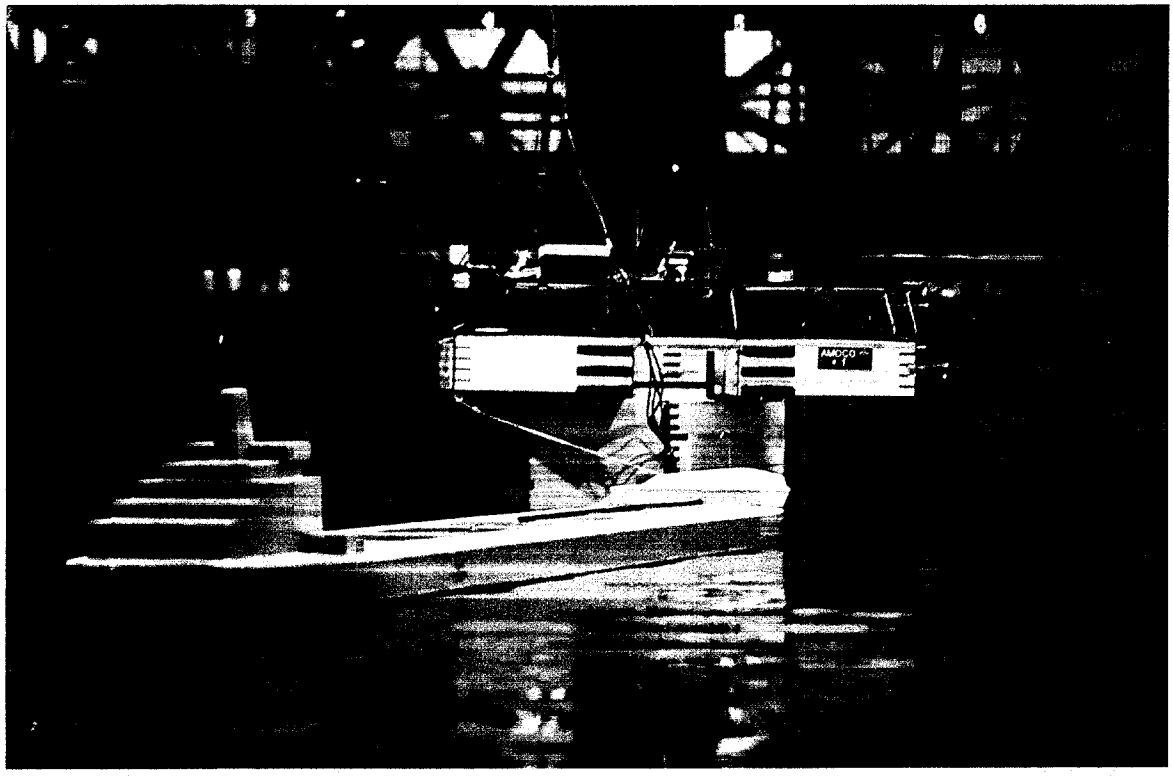


Figure C.7 Large Spar and Tanker Hawser Connected to the Deck Configuration J

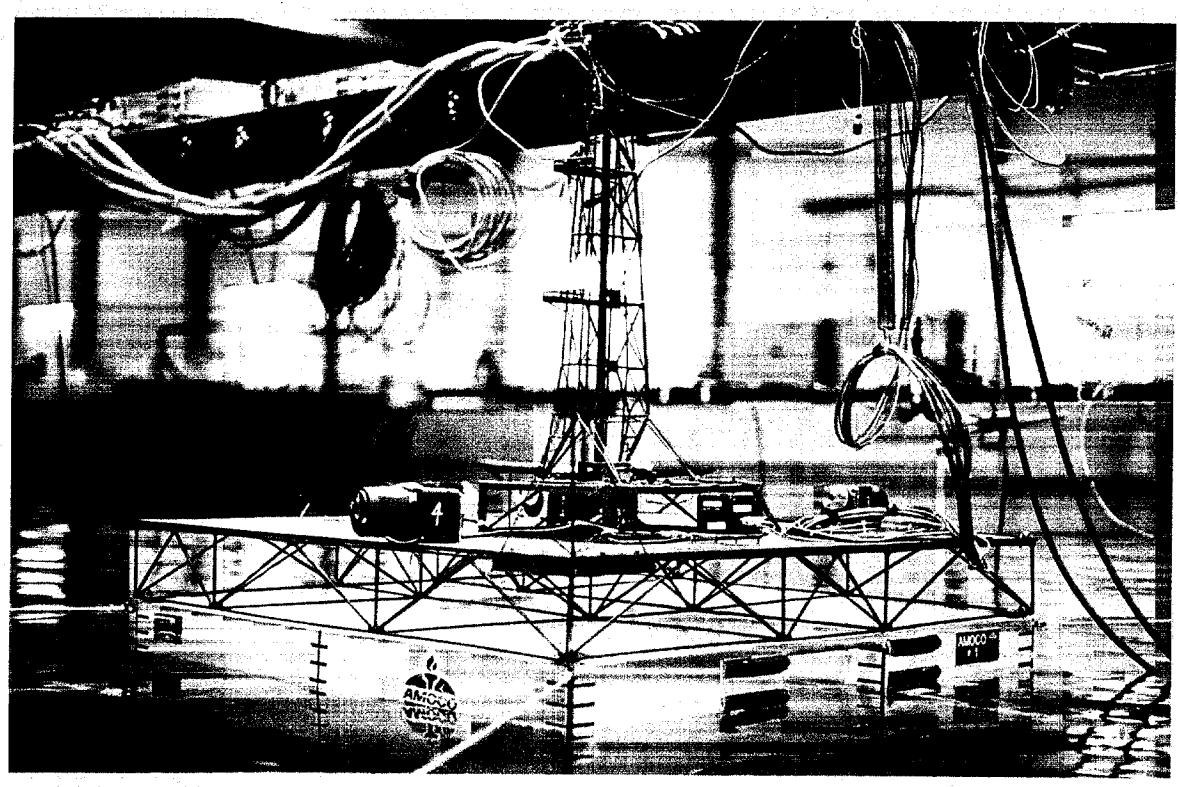


Figure C.8 Floating Deck Configuration N

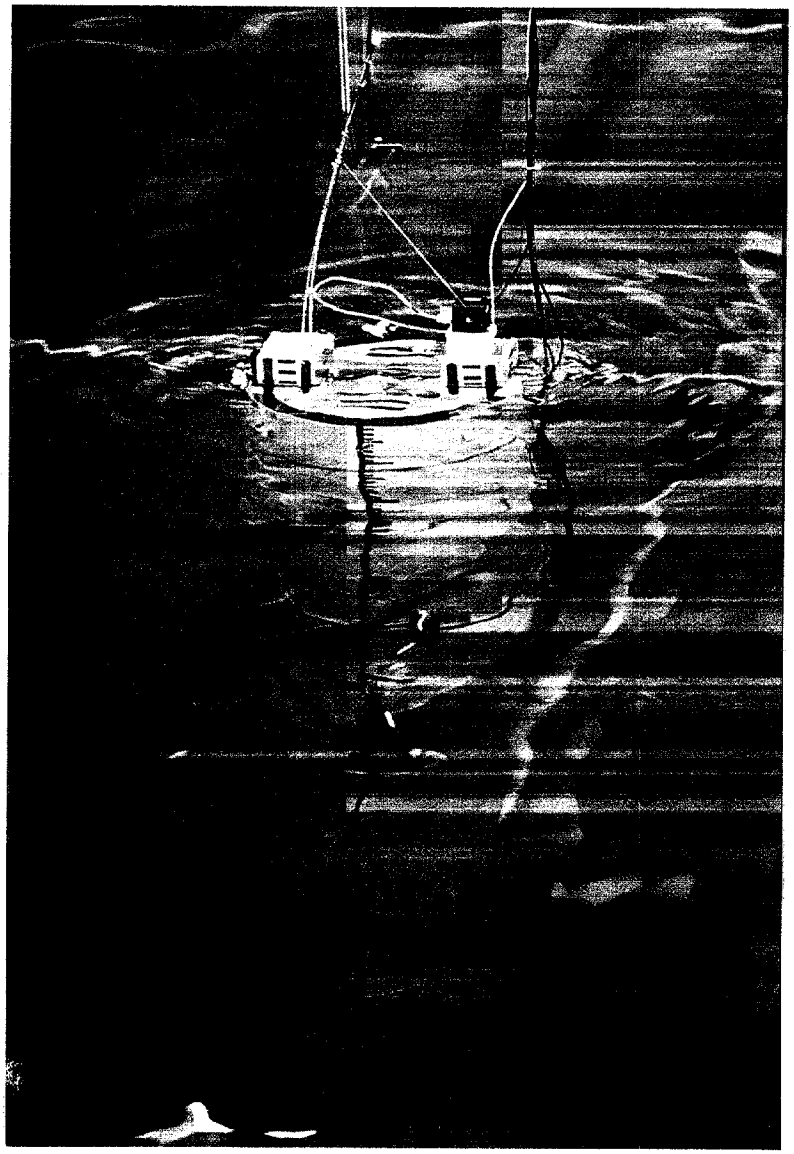


Figure C.9 Flooded Spar Hull Waterline on Sponsons Configuration O

Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:13 PM
Print Date: 06-06-1995

Volume # 2 Volume label: DOS:HD_504 Volume size: 118,804
Created on 05-16-1995 at 04:04 PM Ver: 18.00-0.0
Volume title: ConfigF

```
\
 +--DATA
     +--CONFIGF
         +--F1CUR3.DT1          05-16-1995  03:10 PM   1,184,530
         +--F1CUR3.DT2          05-16-1995  03:10 PM     796,170
         +--F1CUR3.DT3          05-16-1995  03:10 PM   1,281,620
         +--F1CUR3.HD1          05-16-1995  03:10 PM         616
         +--F1CUR3.HD2          05-16-1995  03:10 PM         492
         +--F1CUR3.HD3          05-16-1995  03:10 PM         647
         +--F1CUR3.HFS          05-16-1995  03:10 PM       3,183
         +--F1CUR3.HSP          05-16-1995  03:10 PM       4,674
         +--F1CUR3.LFS          05-16-1995  03:10 PM       3,164
         +--F1CUR3.LSP          05-16-1995  03:10 PM       4,655
         +--F1CUR3.UFS          05-16-1995  03:10 PM       3,321
         +--F1CUR3.USP          05-16-1995  03:10 PM       4,733
         +--F1CUR5.DT1          05-16-1995  03:10 PM   1,184,530
         +--F1CUR5.DT2          05-16-1995  03:10 PM     796,170
         +--F1CUR5.DT3          05-16-1995  03:10 PM   1,281,620
         +--F1CUR5.HD1          05-16-1995  03:10 PM         616
         +--F1CUR5.HD2          05-16-1995  03:10 PM         492
         +--F1CUR5.HD3          05-16-1995  03:10 PM         647
         +--F1CUR5.HFS          05-16-1995  03:10 PM       3,183
         +--F1CUR5.HSP          05-16-1995  03:10 PM       4,674
         +--F1CUR5.LFS          05-16-1995  03:10 PM       3,322
         +--F1CUR5.LSP          05-16-1995  03:10 PM       5,129
         +--F1CUR5.UFS          05-16-1995  03:10 PM       3,321
         +--F1CUR5.USP          05-16-1995  03:10 PM       4,733
         +--F1D1.DT1            05-16-1995  03:10 PM   1,184,530
         +--F1D1.DT2            05-16-1995  03:11 PM     796,170
         +--F1D1.DT3            05-16-1995  03:11 PM   1,281,620
         +--F1D1.HD1            05-16-1995  03:11 PM         610
         +--F1D1.HD2            05-16-1995  03:11 PM         486
         +--F1D1.HD3            05-16-1995  03:11 PM         641
         +--F1D1.UFS            05-16-1995  03:11 PM       3,398
         +--F1D2.DT1            05-16-1995  03:11 PM   1,184,530
         +--F1D2.DT2            05-16-1995  03:11 PM     796,170
         +--F1D2.DT3            05-16-1995  03:11 PM   1,281,620
         +--F1D2.HD1            05-16-1995  03:11 PM         610
         +--F1D2.HD2            05-16-1995  03:11 PM         486
         +--F1D2.HD3            05-16-1995  03:11 PM         641
         +--F1D2.UFS            05-16-1995  03:11 PM       3,398
         +--F1D3.DT1            05-16-1995  03:11 PM   1,184,530
         +--F1D3.DT2            05-16-1995  03:11 PM     796,170
         +--F1D3.DT3            05-16-1995  03:11 PM   1,281,620
         +--F1D3.HD1            05-16-1995  03:11 PM         610
         +--F1D3.HD2            05-16-1995  03:11 PM         486
         +--F1D3.HD3            05-16-1995  03:11 PM         641
```

+--F1D3.UFS	05-16-1995	03:11 PM	3,398
+--F1D4.DT1	05-16-1995	03:11 PM	1,184,530
+--F1D4.DT2	05-16-1995	03:11 PM	796,170
+--F1D4.DT3	05-16-1995	03:12 PM	1,281,620
+--F1D4.HD1	05-16-1995	03:12 PM	610
+--F1D4.HD2	05-16-1995	03:12 PM	486
+--F1D4.HD3	05-16-1995	03:12 PM	641
+--F1D4.UFS	05-16-1995	03:12 PM	3,398
+--F1D5.DT1	05-16-1995	03:12 PM	1,184,530
+--F1D5.DT2	05-16-1995	03:12 PM	796,170
+--F1D5.DT3	05-16-1995	03:12 PM	1,281,620
+--F1D5.HD1	05-16-1995	03:12 PM	610
+--F1D5.HD2	05-16-1995	03:12 PM	486
+--F1D5.HD3	05-16-1995	03:12 PM	641
+--F1D5.UFS	05-16-1995	03:12 PM	3,398
+--F1D6.DT1	05-16-1995	03:12 PM	1,184,530
+--F1D6.DT2	05-16-1995	03:12 PM	796,170
+--F1D6.DT3	05-16-1995	03:12 PM	1,281,620
+--F1D6.HD1	05-16-1995	03:12 PM	610
+--F1D6.HD2	05-16-1995	03:12 PM	486
+--F1D6.HD3	05-16-1995	03:12 PM	641
+--F1D6.UFS	05-16-1995	03:12 PM	3,398
+--F1RAN3.DT1	05-16-1995	03:12 PM	1,184,530
+--F1RAN3.DT2	05-16-1995	03:12 PM	796,170
+--F1RAN3.DT3	05-16-1995	03:13 PM	1,281,620
+--F1RAN3.HD1	05-16-1995	03:13 PM	616
+--F1RAN3.HD2	05-16-1995	03:13 PM	492
+--F1RAN3.HD3	05-16-1995	03:13 PM	647
+--F1RAN3.HFS	05-16-1995	03:13 PM	3,183
+--F1RAN3.HSP	05-16-1995	03:13 PM	4,674
+--F1RAN3.LFS	05-16-1995	03:13 PM	3,164
+--F1RAN3.LSP	05-16-1995	03:13 PM	4,655
+--F1RAN3.UFS	05-16-1995	03:13 PM	3,321
+--F1RAN3.USP	05-16-1995	03:13 PM	4,733
+--F1RAN5.DT1	05-16-1995	03:13 PM	1,184,530
+--F1RAN5.DT2	05-16-1995	03:13 PM	796,170
+--F1RAN5.DT3	05-16-1995	03:13 PM	1,281,620
+--F1RAN5.HD1	05-16-1995	03:13 PM	616
+--F1RAN5.HD2	05-16-1995	03:13 PM	492
+--F1RAN5.HD3	05-16-1995	03:13 PM	647
+--F1RAN5.HFS	05-16-1995	03:13 PM	3,183
+--F1RAN5.HSP	05-16-1995	03:13 PM	4,674
+--F1RAN5.LFS	05-16-1995	03:13 PM	3,164
+--F1RAN5.LSP	05-16-1995	03:13 PM	4,655
+--F1RAN5.UFS	05-16-1995	03:13 PM	3,321
+--F1RAN5.USP	05-16-1995	03:13 PM	4,733
+--F1RC3.DT1	05-16-1995	03:13 PM	1,184,530
+--F1RC3.DT2	05-16-1995	03:13 PM	796,170
+--F1RC3.DT3	05-16-1995	03:13 PM	1,281,620
+--F1RC3.HD1	05-16-1995	03:13 PM	613
+--F1RC3.HD2	05-16-1995	03:13 PM	489
+--F1RC3.HD3	05-16-1995	03:13 PM	644
+--F1RC3.HFS	05-16-1995	03:13 PM	3,182
+--F1RC3.HSP	05-16-1995	03:13 PM	4,672
+--F1RC3.LFS	05-16-1995	03:13 PM	3,163
+--F1RC3.LSP	05-16-1995	03:13 PM	4,653
+--F1RC3.UFS	05-16-1995	03:13 PM	3,320
+--F1RC3.USP	05-16-1995	03:13 PM	4,731
+--F1RC5.DT1	05-16-1995	03:13 PM	1,184,530
+--F1RC5.DT2	05-16-1995	03:13 PM	796,170

+--F1RC5.DT3	05-16-1995	03:14	PM	1,281,620
+--F1RC5.HD1	05-16-1995	03:14	PM	613
+--F1RC5.HD2	05-16-1995	03:14	PM	489
+--F1RC5.HD3	05-16-1995	03:14	PM	644
+--F1RC5.HFS	05-16-1995	03:14	PM	3,182
+--F1RC5.HSP	05-16-1995	03:14	PM	4,672
+--F1RC5.LFS	05-16-1995	03:14	PM	3,163
+--F1RC5.LSP	05-16-1995	03:14	PM	4,653
+--F1RC5.UFS	05-16-1995	03:14	PM	3,320
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+--F1RCW3.DT1	05-16-1995	03:14	PM	1,184,530
+--F1RCW3.DT2	05-16-1995	03:14	PM	796,170
+--F1RCW3.DT3	05-16-1995	03:14	PM	1,281,620
+--F1RCW3.HD1	05-16-1995	03:14	PM	616
+--F1RCW3.HD2	05-16-1995	03:14	PM	492
+--F1RCW3.HD3	05-16-1995	03:14	PM	647
+--F1RCW3.HFS	05-16-1995	03:14	PM	3,183
+--F1RCW3.HSP	05-16-1995	03:14	PM	4,674
+--F1RCW3.LFS	05-16-1995	03:14	PM	3,164
+--F1RCW3.LSP	05-16-1995	03:14	PM	4,655
+--F1RCW3.UFS	05-16-1995	03:14	PM	3,321
+--F1RCW3.USP	05-16-1995	03:14	PM	4,733
+--F1RCW5.DT1	05-16-1995	03:14	PM	1,184,530
+--F1RCW5.DT2	05-16-1995	03:14	PM	796,170
+--F1RCW5.DT3	05-16-1995	03:14	PM	1,281,620
+--F1RCW5.HD1	05-16-1995	03:14	PM	616
+--F1RCW5.HD2	05-16-1995	03:14	PM	492
+--F1RCW5.HD3	05-16-1995	03:14	PM	647
+--F1RCW5.HFS	05-16-1995	03:14	PM	3,183
+--F1RCW5.HSP	05-16-1995	03:14	PM	4,674
+--F1RCW5.LFS	05-16-1995	03:14	PM	3,164
+--F1RCW5.LSP	05-16-1995	03:14	PM	4,655
+--F1RCW5.UFS	05-16-1995	03:14	PM	3,321
+--F1RCW5.USP	05-16-1995	03:14	PM	4,733
+--F2CUR3.DT1	05-16-1995	03:14	PM	1,184,530
+--F2CUR3.DT2	05-16-1995	03:14	PM	796,170
+--F2CUR3.DT3	05-16-1995	03:15	PM	1,281,620
+--F2CUR3.HD1	05-16-1995	03:15	PM	616
+--F2CUR3.HD2	05-16-1995	03:15	PM	492
+--F2CUR3.HD3	05-16-1995	03:15	PM	647
+--F2CUR3.HFS	05-16-1995	03:15	PM	3,341
+--F2CUR3.HSP	05-16-1995	03:15	PM	5,148
+--F2CUR3.LFS	05-16-1995	03:15	PM	3,322
+--F2CUR3.LSP	05-16-1995	03:15	PM	5,129
+--F2CUR3.UFS	05-16-1995	03:15	PM	3,321
+--F2CUR3.USP	05-16-1995	03:15	PM	5,049
+--F2RAN3.DT1	05-16-1995	03:15	PM	1,184,530
+--F2RAN3.DT2	05-16-1995	03:15	PM	796,170
+--F2RAN3.DT3	05-16-1995	03:15	PM	1,281,620
+--F2RAN3.HD1	05-16-1995	03:15	PM	616
+--F2RAN3.HD2	05-16-1995	03:15	PM	492
+--F2RAN3.HD3	05-16-1995	03:15	PM	647
+--F2RAN3.HFS	05-16-1995	03:15	PM	3,341
+--F2RAN3.HSP	05-16-1995	03:15	PM	5,148
+--F2RAN3.LFS	05-16-1995	03:15	PM	3,322
+--F2RAN3.LSP	05-16-1995	03:15	PM	5,129
+--F2RAN3.UFS	05-16-1995	03:15	PM	3,321
+--F2RAN3.USP	05-16-1995	03:15	PM	5,049
+--F2RC3.DT1	05-16-1995	03:15	PM	1,184,530
+--F2RC3.DT2	05-16-1995	03:15	PM	796,170

+--F2RC3.DT3	05-16-1995	03:15	PM	1,281,620
+--F2RC3.HD1	05-16-1995	03:15	PM	613
+--F2RC3.HD2	05-16-1995	03:15	PM	489
+--F2RC3.HD3	05-16-1995	03:15	PM	644
+--F2RC3.HFS	05-16-1995	03:15	PM	3,340
+--F2RC3.HSP	05-16-1995	03:15	PM	5,146
+--F2RC3.LFS	05-16-1995	03:15	PM	3,321
+--F2RC3.LSP	05-16-1995	03:15	PM	5,127
+--F2RC3.UFS	05-16-1995	03:15	PM	3,320
+--F2RC3.USP	05-16-1995	03:15	PM	5,047
+--F2RCW3.DT1	05-16-1995	03:15	PM	1,184,530
+--F2RCW3.DT2	05-16-1995	03:15	PM	796,170
+--F2RCW3.DT3	05-16-1995	03:16	PM	1,281,620
+--F2RCW3.HD1	05-16-1995	03:16	PM	616
+--F2RCW3.HD2	05-16-1995	03:16	PM	492
+--F2RCW3.HD3	05-16-1995	03:16	PM	647
+--F2RCW3.HFS	05-16-1995	03:16	PM	3,341
+--F2RCW3.HSP	05-16-1995	03:16	PM	5,148
+--F2RCW3.LFS	05-16-1995	03:16	PM	3,322
+--F2RCW3.LSP	05-16-1995	03:16	PM	5,129
+--F2RCW3.UFS	05-16-1995	03:16	PM	3,321
+--F2RCW3.USP	05-16-1995	03:16	PM	5,049
+--FCUR2.DT1	05-16-1995	03:16	PM	1,184,530
+--FCUR2.DT2	05-16-1995	03:16	PM	796,170
+--FCUR2.DT3	05-16-1995	03:16	PM	1,281,620
+--FCUR2.HD1	05-16-1995	03:16	PM	613
+--FCUR2.HD2	05-16-1995	03:16	PM	489
+--FCUR2.HD3	05-16-1995	03:16	PM	644
+--FCUR2.HFS	05-16-1995	03:16	PM	3,340
+--FCUR2.HSP	05-16-1995	03:16	PM	5,146
+--FCUR2.LFS	05-16-1995	03:16	PM	3,321
+--FCUR2.LSP	05-16-1995	03:16	PM	5,127
+--FCUR2.UFS	05-16-1995	03:16	PM	3,320
+--FCUR2.USP	05-16-1995	03:16	PM	5,047
+--FCUR3.DT1	05-16-1995	03:16	PM	1,184,530
+--FCUR3.DT2	05-16-1995	03:16	PM	796,170
+--FCUR3.DT3	05-16-1995	03:16	PM	1,281,620
+--FCUR3.HD1	05-16-1995	03:16	PM	613
+--FCUR3.HD2	05-16-1995	03:16	PM	489
+--FCUR3.HD3	05-16-1995	03:16	PM	644
+--FCUR3.HFS	05-16-1995	03:16	PM	3,340
+--FCUR3.HSP	05-16-1995	03:16	PM	5,146
+--FCUR3.LFS	05-16-1995	03:16	PM	3,321
+--FCUR3.LSP	05-16-1995	03:16	PM	5,127
+--FCUR3.UFS	05-16-1995	03:16	PM	3,320
+--FCUR3.USP	05-16-1995	03:16	PM	5,047
+--FD1.DT1	05-16-1995	03:16	PM	1,184,530
+--FD1.DT2	05-16-1995	03:16	PM	796,170
+--FD1.DT3	05-16-1995	03:17	PM	1,281,620
+--FD1.HD1	05-16-1995	03:17	PM	607
+--FD1.HD2	05-16-1995	03:17	PM	483
+--FD1.HD3	05-16-1995	03:17	PM	638
+--FD1.UFS	05-16-1995	03:17	PM	3,397
+--FD2.DT1	05-16-1995	03:17	PM	1,184,530
+--FD2.DT2	05-16-1995	03:17	PM	796,170
+--FD2.DT3	05-16-1995	03:17	PM	1,281,620
+--FD2.HD1	05-16-1995	03:17	PM	607
+--FD2.HD2	05-16-1995	03:17	PM	483
+--FD2.HD3	05-16-1995	03:17	PM	638
+--FD2.UFS	05-16-1995	03:17	PM	3,397

+--FD3.DT1	05-16-1995	03:17 PM	1,184,530
+--FD3.DT2	05-16-1995	03:17 PM	796,170
+--FD3.DT3	05-16-1995	03:17 PM	1,281,620
+--FD3.HD1	05-16-1995	03:17 PM	607
+--FD3.HD2	05-16-1995	03:17 PM	483
+--FD3.HD3	05-16-1995	03:17 PM	638
+--FD3.UFS	05-16-1995	03:17 PM	3,397
+--FD4.DT1	05-16-1995	03:17 PM	1,184,530
+--FD4.DT2	05-16-1995	03:17 PM	796,170
+--FD4.DT3	05-16-1995	03:18 PM	1,281,620
+--FD4.HD1	05-16-1995	03:18 PM	607
+--FD4.HD2	05-16-1995	03:18 PM	483
+--FD4.HD3	05-16-1995	03:18 PM	638
+--FD4.UFS	05-16-1995	03:18 PM	3,397
+--FD5.DT1	05-16-1995	03:18 PM	1,184,530
+--FD5.DT2	05-16-1995	03:18 PM	796,170
+--FD5.DT3	05-16-1995	03:18 PM	1,281,620
+--FD5.HD1	05-16-1995	03:18 PM	607
+--FD5.HD2	05-16-1995	03:18 PM	483
+--FD5.HD3	05-16-1995	03:18 PM	638
+--FD5.UFS	05-16-1995	03:18 PM	3,397
+--FD6.DT1	05-16-1995	03:18 PM	1,184,530
+--FD6.DT2	05-16-1995	03:18 PM	796,170
+--FD6.DT3	05-16-1995	03:18 PM	1,281,620
+--FD6.HD1	05-16-1995	03:18 PM	607
+--FD6.HD2	05-16-1995	03:18 PM	483
+--FD6.HD3	05-16-1995	03:18 PM	638
+--FD6.UFS	05-16-1995	03:18 PM	3,397
+--FRAN1.DT1	05-16-1995	03:18 PM	1,184,530
+--FRAN1.DT2	05-16-1995	03:18 PM	796,170
+--FRAN1.DT3	05-16-1995	03:19 PM	1,281,620
+--FRAN1.HD1	05-16-1995	03:19 PM	613
+--FRAN1.HD2	05-16-1995	03:19 PM	489
+--FRAN1.HD3	05-16-1995	03:19 PM	644
+--FRAN1.HFS	05-16-1995	03:19 PM	3,340
+--FRAN1.HSP	05-16-1995	03:19 PM	5,146
+--FRAN1.LFS	05-16-1995	03:19 PM	3,321
+--FRAN1.LSP	05-16-1995	03:19 PM	5,127
+--FRAN1.UFS	05-16-1995	03:19 PM	3,320
+--FRAN1.USP	05-16-1995	03:19 PM	5,047
+--FRAN2.DT1	05-16-1995	03:19 PM	1,184,530
+--FRAN2.DT2	05-16-1995	03:19 PM	796,170
+--FRAN2.DT3	05-16-1995	03:19 PM	1,281,620
+--FRAN2.HD1	05-16-1995	03:19 PM	613
+--FRAN2.HD2	05-16-1995	03:19 PM	489
+--FRAN2.HD3	05-16-1995	03:19 PM	644
+--FRAN2.HFS	05-16-1995	03:19 PM	3,340
+--FRAN2.HSP	05-16-1995	03:19 PM	5,146
+--FRAN2.LFS	05-16-1995	03:19 PM	3,321
+--FRAN2.LSP	05-16-1995	03:19 PM	5,127
+--FRAN2.UFS	05-16-1995	03:19 PM	3,320
+--FRAN2.USP	05-16-1995	03:19 PM	5,047
+--FRAN3.DT1	05-16-1995	03:19 PM	1,184,530
+--FRAN3.DT2	05-16-1995	03:19 PM	796,170
+--FRAN3.DT3	05-16-1995	03:19 PM	1,281,620
+--FRAN3.HD1	05-16-1995	03:19 PM	613
+--FRAN3.HD2	05-16-1995	03:19 PM	489
+--FRAN3.HD3	05-16-1995	03:19 PM	644
+--FRAN3.HFS	05-16-1995	03:19 PM	3,340
+--FRAN3.HSP	05-16-1995	03:19 PM	5,146

+--FRAN3.LFS	05-16-1995	03:19 PM	3,321
+--FRAN3.LSP	05-16-1995	03:19 PM	5,127
+--FRAN3.UFS	05-16-1995	03:19 PM	3,320
+--FRAN3.USP	05-16-1995	03:19 PM	5,047
+--FRAN6.DT1	05-16-1995	03:19 PM	1,184,530
+--FRAN6.DT2	05-16-1995	03:19 PM	796,170
+--FRAN6.DT3	05-16-1995	03:20 PM	1,281,620
+--FRAN6.HD1	05-16-1995	03:20 PM	613
+--FRAN6.HD2	05-16-1995	03:20 PM	489
+--FRAN6.HD3	05-16-1995	03:20 PM	644
+--FRAN6.HFS	05-16-1995	03:20 PM	3,340
+--FRAN6.HSP	05-16-1995	03:20 PM	5,146
+--FRAN6.LFS	05-16-1995	03:20 PM	3,321
+--FRAN6.LSP	05-16-1995	03:20 PM	5,127
+--FRAN6.UFS	05-16-1995	03:20 PM	3,320
+--FRAN6.USP	05-16-1995	03:20 PM	5,047
+--FRC2.DT1	05-16-1995	03:20 PM	1,184,530
+--FRC2.DT2	05-16-1995	03:20 PM	796,170
+--FRC2.DT3	05-16-1995	03:20 PM	1,281,620
+--FRC2.HD1	05-16-1995	03:20 PM	610
+--FRC2.HD2	05-16-1995	03:20 PM	486
+--FRC2.HD3	05-16-1995	03:20 PM	641
+--FRC2.HFS	05-16-1995	03:20 PM	3,339
+--FRC2.HSP	05-16-1995	03:20 PM	5,144
+--FRC2.LFS	05-16-1995	03:20 PM	3,320
+--FRC2.LSP	05-16-1995	03:20 PM	5,125
+--FRC2.UFS	05-16-1995	03:20 PM	3,319
+--FRC2.USP	05-16-1995	03:20 PM	5,045
+--FRC3.DT1	05-16-1995	03:20 PM	1,184,530
+--FRC3.DT2	05-16-1995	03:20 PM	796,170
+--FRC3.DT3	05-16-1995	03:20 PM	1,281,620
+--FRC3.HD1	05-16-1995	03:20 PM	610
+--FRC3.HD2	05-16-1995	03:20 PM	486
+--FRC3.HD3	05-16-1995	03:20 PM	641
+--FRC3.HFS	05-16-1995	03:20 PM	3,339
+--FRC3.HSP	05-16-1995	03:20 PM	5,144
+--FRC3.LFS	05-16-1995	03:20 PM	3,320
+--FRC3.LSP	05-16-1995	03:20 PM	5,125
+--FRC3.UFS	05-16-1995	03:20 PM	3,319
+--FRC3.USP	05-16-1995	03:20 PM	5,045
+--FRC6.DT1	05-16-1995	03:20 PM	1,184,530
+--FRC6.DT2	05-16-1995	03:20 PM	796,170
+--FRC6.DT3	05-16-1995	03:21 PM	1,281,620
+--FRC6.HD1	05-16-1995	03:21 PM	610
+--FRC6.HD2	05-16-1995	03:21 PM	486
+--FRC6.HD3	05-16-1995	03:21 PM	641
+--FRC6.HFS	05-16-1995	03:21 PM	3,339
+--FRC6.HSP	05-16-1995	03:21 PM	5,144
+--FRC6.LFS	05-16-1995	03:21 PM	3,320
+--FRC6.LSP	05-16-1995	03:21 PM	5,125
+--FRC6.UFS	05-16-1995	03:21 PM	3,319
+--FRC6.USP	05-16-1995	03:21 PM	5,045
+--FRCW2.DT1	05-16-1995	03:21 PM	1,184,530
+--FRCW2.DT2	05-16-1995	03:21 PM	796,170
+--FRCW2.DT3	05-16-1995	03:21 PM	1,281,620
+--FRCW2.HD1	05-16-1995	03:21 PM	613
+--FRCW2.HD2	05-16-1995	03:21 PM	489
+--FRCW2.HD3	05-16-1995	03:21 PM	644
+--FRCW2.HFS	05-16-1995	03:21 PM	3,340
+--FRCW2.HSP	05-16-1995	03:21 PM	5,146

+--FRCW2.LFS	05-16-1995	03:21 PM	3,321
+--FRCW2.LSP	05-16-1995	03:21 PM	5,127
+--FRCW2.UFS	05-16-1995	03:21 PM	3,320
+--FRCW2.USP	05-16-1995	03:21 PM	5,047
+--FRCW3.DT1	05-16-1995	03:21 PM	1,184,530
+--FRCW3.DT2	05-16-1995	03:21 PM	796,170
+--FRCW3.DT3	05-16-1995	03:21 PM	1,281,620
+--FRCW3.HD1	05-16-1995	03:21 PM	613
+--FRCW3.HD2	05-16-1995	03:21 PM	489
+--FRCW3.HD3	05-16-1995	03:21 PM	644
+--FRCW3.HFS	05-16-1995	03:21 PM	3,340
+--FRCW3.HSP	05-16-1995	03:21 PM	5,146
+--FRCW3.LFS	05-16-1995	03:21 PM	3,321
+--FRCW3.LSP	05-16-1995	03:21 PM	5,127
+--FRCW3.UFS	05-16-1995	03:21 PM	3,320
+--FRCW3.USP	05-16-1995	03:21 PM	5,047
+--FRCW6.DT1	05-16-1995	03:21 PM	1,184,530
+--FRCW6.DT2	05-16-1995	03:21 PM	796,170
+--FRCW6.DT3	05-16-1995	03:22 PM	1,281,620
+--FRCW6.HD1	05-16-1995	03:22 PM	613
+--FRCW6.HD2	05-16-1995	03:22 PM	489
+--FRCW6.HD3	05-16-1995	03:22 PM	644
+--FRCW6.HFS	05-16-1995	03:22 PM	3,340
+--FRCW6.HSP	05-16-1995	03:22 PM	5,146
+--FRCW6.LFS	05-16-1995	03:22 PM	3,321
+--FRCW6.LSP	05-16-1995	03:22 PM	5,127
+--FRCW6.UFS	05-16-1995	03:22 PM	3,320
+--FRCW6.USP	05-16-1995	03:22 PM	5,047
+--FRG10.DT1	05-16-1995	03:22 PM	292,832
+--FRG10.DT2	05-16-1995	03:22 PM	196,832
+--FRG10.DT3	05-16-1995	03:22 PM	316,832
+--FRG10.HD1	05-16-1995	03:22 PM	613
+--FRG10.HD2	05-16-1995	03:22 PM	489
+--FRG10.HD3	05-16-1995	03:22 PM	644
+--FRG10.RGS	05-16-1995	03:22 PM	1,993
+--FRG10.UFS	05-16-1995	03:22 PM	3,399
+--FRG10.UFT	05-16-1995	03:22 PM	3,664
+--FRG9.DT1	05-16-1995	03:22 PM	292,832
+--FRG9.DT2	05-16-1995	03:22 PM	196,832
+--FRG9.DT3	05-16-1995	03:22 PM	316,832
+--FRG9.HD1	05-16-1995	03:22 PM	610
+--FRG9.HD2	05-16-1995	03:22 PM	486
+--FRG9.HD3	05-16-1995	03:22 PM	641
+--FRG9.RGS	05-16-1995	03:22 PM	1,991
+--FRG9.UFS	05-16-1995	03:22 PM	3,398
+--FRG9.UFT	05-16-1995	03:22 PM	3,660
+--FSO02.DT1	05-16-1995	03:22 PM	73,232
+--FSO02.DT2	05-16-1995	03:22 PM	49,232
+--FSO02.DT3	05-16-1995	03:22 PM	79,232
+--FSO02.HD1	05-16-1995	03:22 PM	607
+--FSO02.HD2	05-16-1995	03:22 PM	483
+--FSO02.HD3	05-16-1995	03:22 PM	638
+--FSO02.UFS	05-16-1995	03:22 PM	3,397
+--FSO03.DT1	05-16-1995	03:22 PM	73,232
+--FSO03.DT2	05-16-1995	03:22 PM	49,232
+--FSO03.DT3	05-16-1995	03:22 PM	79,232
+--FSO03.HD1	05-16-1995	03:22 PM	607
+--FSO03.HD2	05-16-1995	03:22 PM	483
+--FSO03.HD3	05-16-1995	03:22 PM	638
+--FSO03.UFS	05-16-1995	03:22 PM	3,397

+--FSO04.DT1	05-16-1995	03:22 PM	73,232
+--FSO04.DT2	05-16-1995	03:22 PM	49,232
+--FSO04.DT3	05-16-1995	03:22 PM	79,232
+--FSO04.HD1	05-16-1995	03:22 PM	607
+--FSO04.HD2	05-16-1995	03:22 PM	483
+--FSO04.HD3	05-16-1995	03:22 PM	638
+--FSO04.UFS	05-16-1995	03:22 PM	3,397
+--FSO05.DT1	05-16-1995	03:22 PM	73,232
+--FSO05.DT2	05-16-1995	03:22 PM	49,232
+--FSO05.DT3	05-16-1995	03:22 PM	79,232
+--FSO05.HD1	05-16-1995	03:22 PM	607
+--FSO05.HD2	05-16-1995	03:22 PM	483
+--FSO05.HD3	05-16-1995	03:22 PM	638
+--FSO05.UFS	05-16-1995	03:22 PM	3,397
+--FSO06.DT1	05-16-1995	03:22 PM	73,232
+--FSO06.DT2	05-16-1995	03:22 PM	49,232
+--FSO06.DT3	05-16-1995	03:22 PM	79,232
+--FSO06.HD1	05-16-1995	03:22 PM	607
+--FSO06.HD2	05-16-1995	03:22 PM	483
+--FSO06.HD3	05-16-1995	03:22 PM	638
+--FSO06.UFS	05-16-1995	03:22 PM	3,397
+--FSO07.DT1	05-16-1995	03:22 PM	73,232
+--FSO07.DT2	05-16-1995	03:22 PM	49,232
+--FSO07.DT3	05-16-1995	03:22 PM	79,232
+--FSO07.HD1	05-16-1995	03:22 PM	607
+--FSO07.HD2	05-16-1995	03:22 PM	483
+--FSO07.HD3	05-16-1995	03:22 PM	638
+--FSO07.UFS	05-16-1995	03:22 PM	3,397
+--FSO08.DT1	05-16-1995	03:22 PM	73,232
+--FSO08.DT2	05-16-1995	03:22 PM	49,232
+--FSO08.DT3	05-16-1995	03:22 PM	79,232
+--FSO08.HD1	05-16-1995	03:22 PM	607
+--FSO08.HD2	05-16-1995	03:22 PM	483
+--FSO08.HD3	05-16-1995	03:22 PM	638
+--FSO08.UFS	05-16-1995	03:22 PM	3,397
+--FSO09.DT1	05-16-1995	03:22 PM	73,232
+--FSO09.DT2	05-16-1995	03:22 PM	49,232
+--FSO09.DT3	05-16-1995	03:22 PM	79,232
+--FSO09.HD1	05-16-1995	03:22 PM	607
+--FSO09.HD2	05-16-1995	03:22 PM	483
+--FSO09.HD3	05-16-1995	03:22 PM	638
+--FSO09.UFS	05-16-1995	03:22 PM	3,397
+--FSO10.DT1	05-16-1995	03:22 PM	73,232
+--FSO10.DT2	05-16-1995	03:22 PM	49,232
+--FSO10.DT3	05-16-1995	03:22 PM	79,232
+--FSO10.HD1	05-16-1995	03:22 PM	607
+--FSO10.HD2	05-16-1995	03:22 PM	483
+--FSO10.HD3	05-16-1995	03:22 PM	638
+--FSO10.UFS	05-16-1995	03:22 PM	3,397

Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:14 PM
Print Date: 06-06-1995

Volume # 3 Volume label: DOS:HD_504 Volume size: 97,018
Created on 05-16-1995 at 05:03 PM Ver: 18.00-0.0
Volume title: ConfigH

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+--DATA
    +--CONFIGH
        +--HCUR2.DT1      05-16-1995  04:22 PM   1,184,530
        +--HCUR2.DT2      05-16-1995  04:22 PM     796,170
        +--HCUR2.DT3      05-16-1995  04:23 PM   1,087,440
        +--HCUR2.HD1      05-16-1995  04:23 PM         613
        +--HCUR2.HD2      05-16-1995  04:23 PM         489
        +--HCUR2.HD3      05-16-1995  04:23 PM         582
        +--HCUR2.HFS      05-16-1995  04:23 PM       3,261
        +--HCUR2.HSP      05-16-1995  04:23 PM       3,566
        +--HCUR2.LFS      05-16-1995  04:23 PM       3,242
        +--HCUR2.LSP      05-16-1995  04:23 PM       3,547
        +--HCUR2.UFS      05-16-1995  04:23 PM       3,162
        +--HCUR2.USP      05-16-1995  04:23 PM       3,467
        +--HCUR3.DT1      05-16-1995  04:23 PM   1,184,530
        +--HCUR3.DT2      05-16-1995  04:23 PM     796,170
        +--HCUR3.DT3      05-16-1995  04:23 PM   1,087,440
        +--HCUR3.HD1      05-16-1995  04:23 PM         613
        +--HCUR3.HD2      05-16-1995  04:23 PM         489
        +--HCUR3.HD3      05-16-1995  04:23 PM         582
        +--HCUR3.HFS      05-16-1995  04:23 PM       3,261
        +--HCUR3.HSP      05-16-1995  04:23 PM       3,566
        +--HCUR3.LFS      05-16-1995  04:23 PM       3,242
        +--HCUR3.LSP      05-16-1995  04:23 PM       3,547
        +--HCUR3.UFS      05-16-1995  04:23 PM       3,162
        +--HCUR3.USP      05-16-1995  04:23 PM       3,467
        +--HCUR5.DT1      05-16-1995  04:23 PM   1,184,530
        +--HCUR5.DT2      05-16-1995  04:23 PM     796,170
        +--HCUR5.DT3      05-16-1995  04:23 PM   1,087,440
        +--HCUR5.HD1      05-16-1995  04:23 PM         613
        +--HCUR5.HD2      05-16-1995  04:23 PM         489
        +--HCUR5.HD3      05-16-1995  04:23 PM         582
        +--HCUR5.HFS      05-16-1995  04:23 PM       3,261
        +--HCUR5.HSP      05-16-1995  04:23 PM       3,566
        +--HCUR5.LFS      05-16-1995  04:23 PM       3,242
        +--HCUR5.LSP      05-16-1995  04:23 PM       3,547
        +--HCUR5.UFS      05-16-1995  04:23 PM       3,162
        +--HCUR5.USP      05-16-1995  04:23 PM       3,467
        +--HD1.DT1        05-16-1995  04:23 PM   1,184,530
        +--HD1.DT2        05-16-1995  04:23 PM     796,170
        +--HD1.DT3        05-16-1995  04:23 PM   1,087,440
        +--HD1.HD1        05-16-1995  04:23 PM         607
        +--HD1.HD2        05-16-1995  04:23 PM         483
        +--HD1.HD3        05-16-1995  04:23 PM         576
        +--HD1.UFS        05-16-1995  04:23 PM       3,160
        +--HD2.DT1        05-16-1995  04:24 PM   1,184,530
```

+--HD2.DT2	05-16-1995	04:24	PM	796,170
+--HD2.DT3	05-16-1995	04:24	PM	1,087,440
+--HD2.HD1	05-16-1995	04:24	PM	607
+--HD2.HD2	05-16-1995	04:24	PM	483
+--HD2.HD3	05-16-1995	04:24	PM	576
+--HD2.UFS	05-16-1995	04:24	PM	3,160
+--HD3.DT1	05-16-1995	04:24	PM	1,184,530
+--HD3.DT2	05-16-1995	04:24	PM	796,170
+--HD3.DT3	05-16-1995	04:24	PM	1,087,440
+--HD3.HD1	05-16-1995	04:24	PM	607
+--HD3.HD2	05-16-1995	04:24	PM	483
+--HD3.HD3	05-16-1995	04:24	PM	576
+--HD3.UFS	05-16-1995	04:24	PM	3,160
+--HD4.DT1	05-16-1995	04:24	PM	1,184,530
+--HD4.DT2	05-16-1995	04:24	PM	796,170
+--HD4.DT3	05-16-1995	04:24	PM	1,087,440
+--HD4.HD1	05-16-1995	04:24	PM	607
+--HD4.HD2	05-16-1995	04:24	PM	483
+--HD4.HD3	05-16-1995	04:24	PM	576
+--HD4.UFS	05-16-1995	04:24	PM	3,160
+--HD5.DT1	05-16-1995	04:25	PM	1,184,530
+--HD5.DT2	05-16-1995	04:25	PM	796,170
+--HD5.DT3	05-16-1995	04:25	PM	1,087,440
+--HD5.HD1	05-16-1995	04:25	PM	607
+--HD5.HD2	05-16-1995	04:25	PM	483
+--HD5.HD3	05-16-1995	04:25	PM	576
+--HD5.UFS	05-16-1995	04:25	PM	3,160
+--HPRE17.DT1	05-16-1995	04:25	PM	73,232
+--HPRE17.DT2	05-16-1995	04:25	PM	49,232
+--HPRE17.DT3	05-16-1995	04:25	PM	67,232
+--HPRE17.HD1	05-16-1995	04:25	PM	610
+--HPRE17.HD2	05-16-1995	04:25	PM	486
+--HPRE17.HD3	05-16-1995	04:25	PM	579
+--HPRE17.UFS	05-16-1995	04:25	PM	3,161
+--HPRE5.DT1	05-16-1995	04:25	PM	73,232
+--HPRE5.DT2	05-16-1995	04:25	PM	49,232
+--HPRE5.DT3	05-16-1995	04:25	PM	67,232
+--HPRE5.HD1	05-16-1995	04:25	PM	610
+--HPRE5.HD2	05-16-1995	04:25	PM	486
+--HPRE5.HD3	05-16-1995	04:25	PM	579
+--HPRE5.UFS	05-16-1995	04:25	PM	3,161
+--HPRE6.DT1	05-16-1995	04:25	PM	73,232
+--HPRE6.DT2	05-16-1995	04:25	PM	49,232
+--HPRE6.DT3	05-16-1995	04:25	PM	67,232
+--HPRE6.HD1	05-16-1995	04:25	PM	610
+--HPRE6.HD2	05-16-1995	04:25	PM	486
+--HPRE6.HD3	05-16-1995	04:25	PM	579
+--HPRE6.UFS	05-16-1995	04:25	PM	3,161
+--HRAN1.DT1	05-16-1995	04:25	PM	1,184,530
+--HRAN1.DT2	05-16-1995	04:25	PM	796,170
+--HRAN1.DT3	05-16-1995	04:25	PM	1,087,440
+--HRAN1.HD1	05-16-1995	04:25	PM	613
+--HRAN1.HD2	05-16-1995	04:25	PM	489
+--HRAN1.HD3	05-16-1995	04:25	PM	582
+--HRAN1.HFS	05-16-1995	04:25	PM	3,261
+--HRAN1.HSP	05-16-1995	04:25	PM	3,882
+--HRAN1.LFS	05-16-1995	04:25	PM	3,242
+--HRAN1.LSP	05-16-1995	04:25	PM	3,863
+--HRAN1.UFS	05-16-1995	04:25	PM	3,162
+--HRAN1.USP	05-16-1995	04:25	PM	3,783

+--HRAN2.DT1	05-16-1995	04:25 PM	1,184,530
+--HRAN2.DT2	05-16-1995	04:25 PM	796,170
+--HRAN2.DT3	05-16-1995	04:26 PM	1,087,440
+--HRAN2.HD1	05-16-1995	04:26 PM	613
+--HRAN2.HD2	05-16-1995	04:26 PM	489
+--HRAN2.HD3	05-16-1995	04:26 PM	582
+--HRAN2.HFS	05-16-1995	04:26 PM	3,261
+--HRAN2.HSP	05-16-1995	04:26 PM	3,882
+--HRAN2.LFS	05-16-1995	04:26 PM	3,242
+--HRAN2.LSP	05-16-1995	04:26 PM	3,863
+--HRAN2.UFS	05-16-1995	04:26 PM	3,162
+--HRAN2.USP	05-16-1995	04:26 PM	3,783
+--HRAN3-4.DT1	05-16-1995	04:26 PM	2,369,028
+--HRAN3-4.DT2	05-16-1995	04:26 PM	1,592,308
+--HRAN3-4.DT3	05-16-1995	04:26 PM	2,174,848
+--HRAN3-4.HD1	05-16-1995	04:26 PM	607
+--HRAN3-4.HD2	05-16-1995	04:26 PM	483
+--HRAN3-4.HD3	05-16-1995	04:26 PM	576
+--HRAN3-4.HFS	05-16-1995	04:26 PM	3,259
+--HRAN3-4.HSP	05-16-1995	04:26 PM	3,878
+--HRAN3-4.LFS	05-16-1995	04:26 PM	3,240
+--HRAN3-4.LSP	05-16-1995	04:26 PM	3,859
+--HRAN3-4.UFS	05-16-1995	04:26 PM	3,160
+--HRAN3-4.USP	05-16-1995	04:26 PM	3,779
+--HRAN3.DT1	05-16-1995	04:26 PM	1,184,530
+--HRAN3.DT2	05-16-1995	04:26 PM	796,170
+--HRAN3.DT3	05-16-1995	04:27 PM	1,087,440
+--HRAN3.HD1	05-16-1995	04:27 PM	613
+--HRAN3.HD2	05-16-1995	04:27 PM	489
+--HRAN3.HD3	05-16-1995	04:27 PM	582
+--HRAN3.HFS	05-16-1995	04:27 PM	3,261
+--HRAN3.HSP	05-16-1995	04:27 PM	3,882
+--HRAN3.LFS	05-16-1995	04:27 PM	3,242
+--HRAN3.LSP	05-16-1995	04:27 PM	3,863
+--HRAN3.UFS	05-16-1995	04:27 PM	3,162
+--HRAN3.USP	05-16-1995	04:27 PM	3,783
+--HRAN4.DT1	05-16-1995	04:27 PM	1,184,530
+--HRAN4.DT2	05-16-1995	04:27 PM	796,170
+--HRAN4.DT3	05-16-1995	04:27 PM	1,087,440
+--HRAN4.HD1	05-16-1995	04:27 PM	613
+--HRAN4.HD2	05-16-1995	04:27 PM	489
+--HRAN4.HD3	05-16-1995	04:27 PM	582
+--HRAN4.HFS	05-16-1995	04:27 PM	3,261
+--HRAN4.HSP	05-16-1995	04:27 PM	3,882
+--HRAN4.LFS	05-16-1995	04:27 PM	3,242
+--HRAN4.LSP	05-16-1995	04:27 PM	3,863
+--HRAN4.UFS	05-16-1995	04:27 PM	3,162
+--HRAN4.USP	05-16-1995	04:27 PM	3,783
+--HRAN5.DT1	05-16-1995	04:27 PM	1,184,530
+--HRAN5.DT2	05-16-1995	04:27 PM	796,170
+--HRAN5.DT3	05-16-1995	04:27 PM	1,087,440
+--HRAN5.HD1	05-16-1995	04:27 PM	613
+--HRAN5.HD2	05-16-1995	04:27 PM	489
+--HRAN5.HD3	05-16-1995	04:27 PM	582
+--HRAN5.HFS	05-16-1995	04:27 PM	3,261
+--HRAN5.HSP	05-16-1995	04:27 PM	3,882
+--HRAN5.LFS	05-16-1995	04:27 PM	3,242
+--HRAN5.LSP	05-16-1995	04:27 PM	3,863
+--HRAN5.UFS	05-16-1995	04:27 PM	3,162
+--HRAN5.USP	05-16-1995	04:27 PM	3,783

+--HRAN6.DT1	05-16-1995	04:27 PM	1,184,530
+--HRAN6.DT2	05-16-1995	04:28 PM	796,170
+--HRAN6.DT3	05-16-1995	04:28 PM	1,087,440
+--HRAN6.HD1	05-16-1995	04:28 PM	613
+--HRAN6.HD2	05-16-1995	04:28 PM	489
+--HRAN6.HD3	05-16-1995	04:28 PM	582
+--HRAN6.HFS	05-16-1995	04:28 PM	3,261
+--HRAN6.HSP	05-16-1995	04:28 PM	3,882
+--HRAN6.LFS	05-16-1995	04:28 PM	3,242
+--HRAN6.LSP	05-16-1995	04:28 PM	3,863
+--HRAN6.UFS	05-16-1995	04:28 PM	3,162
+--HRAN6.USP	05-16-1995	04:28 PM	3,783
+--HRC2.DT1	05-16-1995	04:28 PM	1,184,530
+--HRC2.DT2	05-16-1995	04:28 PM	796,170
+--HRC2.DT3	05-16-1995	04:28 PM	1,087,440
+--HRC2.HD1	05-16-1995	04:28 PM	610
+--HRC2.HD2	05-16-1995	04:28 PM	486
+--HRC2.HD3	05-16-1995	04:28 PM	579
+--HRC2.HFS	05-16-1995	04:28 PM	3,260
+--HRC2.HSP	05-16-1995	04:28 PM	3,880
+--HRC2.LFS	05-16-1995	04:28 PM	3,241
+--HRC2.LSP	05-16-1995	04:28 PM	3,861
+--HRC2.UFS	05-16-1995	04:28 PM	3,161
+--HRC2.USP	05-16-1995	04:28 PM	3,781
+--HRC3-4.DT1	05-16-1995	04:28 PM	2,369,028
+--HRC3-4.DT2	05-16-1995	04:28 PM	1,592,308
+--HRC3-4.DT3	05-16-1995	04:29 PM	2,174,848
+--HRC3-4.HD1	05-16-1995	04:29 PM	604
+--HRC3-4.HD2	05-16-1995	04:29 PM	480
+--HRC3-4.HD3	05-16-1995	04:29 PM	573
+--HRC3-4.HFS	05-16-1995	04:29 PM	3,258
+--HRC3-4.HSP	05-16-1995	04:29 PM	3,876
+--HRC3-4.LFS	05-16-1995	04:29 PM	3,239
+--HRC3-4.LSP	05-16-1995	04:29 PM	3,857
+--HRC3-4.UFS	05-16-1995	04:29 PM	3,159
+--HRC3-4.USP	05-16-1995	04:29 PM	3,777
+--HRC3.DT1	05-16-1995	04:29 PM	1,184,530
+--HRC3.DT2	05-16-1995	04:29 PM	796,170
+--HRC3.DT3	05-16-1995	04:29 PM	1,087,440
+--HRC3.HD1	05-16-1995	04:29 PM	610
+--HRC3.HD2	05-16-1995	04:29 PM	486
+--HRC3.HD3	05-16-1995	04:29 PM	579
+--HRC3.HFS	05-16-1995	04:29 PM	3,260
+--HRC3.HSP	05-16-1995	04:29 PM	3,880
+--HRC3.LFS	05-16-1995	04:29 PM	3,241
+--HRC3.LSP	05-16-1995	04:29 PM	3,861
+--HRC3.UFS	05-16-1995	04:29 PM	3,161
+--HRC3.USP	05-16-1995	04:29 PM	3,781
+--HRC4.DT1	05-16-1995	04:29 PM	1,184,530
+--HRC4.DT2	05-16-1995	04:29 PM	796,170
+--HRC4.DT3	05-16-1995	04:29 PM	1,087,440
+--HRC4.HD1	05-16-1995	04:29 PM	610
+--HRC4.HD2	05-16-1995	04:29 PM	486
+--HRC4.HD3	05-16-1995	04:29 PM	579
+--HRC4.HFS	05-16-1995	04:29 PM	3,260
+--HRC4.HSP	05-16-1995	04:29 PM	3,880
+--HRC4.LFS	05-16-1995	04:29 PM	3,241
+--HRC4.LSP	05-16-1995	04:29 PM	3,861
+--HRC4.UFS	05-16-1995	04:29 PM	3,161
+--HRC4.USP	05-16-1995	04:29 PM	3,781

+--HRC5.DT1	05-16-1995	04:30 PM	1,184,530
+--HRC5.DT2	05-16-1995	04:30 PM	796,170
+--HRC5.DT3	05-16-1995	04:30 PM	1,087,440
+--HRC5.HD1	05-16-1995	04:30 PM	610
+--HRC5.HD2	05-16-1995	04:30 PM	486
+--HRC5.HD3	05-16-1995	04:30 PM	579
+--HRC5.HFS	05-16-1995	04:30 PM	3,260
+--HRC5.HSP	05-16-1995	04:30 PM	3,880
+--HRC5.LFS	05-16-1995	04:30 PM	3,241
+--HRC5.LSP	05-16-1995	04:30 PM	3,861
+--HRC5.UFS	05-16-1995	04:30 PM	3,161
+--HRC5.USP	05-16-1995	04:30 PM	3,781
+--HRCW2.DT1	05-16-1995	04:30 PM	1,184,530
+--HRCW2.DT2	05-16-1995	04:30 PM	796,170
+--HRCW2.DT3	05-16-1995	04:30 PM	1,087,440
+--HRCW2.HD1	05-16-1995	04:30 PM	613
+--HRCW2.HD2	05-16-1995	04:30 PM	489
+--HRCW2.HD3	05-16-1995	04:30 PM	582
+--HRCW2.HFS	05-16-1995	04:30 PM	3,261
+--HRCW2.HSP	05-16-1995	04:30 PM	3,882
+--HRCW2.LFS	05-16-1995	04:30 PM	3,242
+--HRCW2.LSP	05-16-1995	04:30 PM	3,863
+--HRCW2.UFS	05-16-1995	04:30 PM	3,162
+--HRCW2.USP	05-16-1995	04:30 PM	3,783
+--HRCW3-4.DT1	05-16-1995	04:30 PM	2,369,028
+--HRCW3-4.DT2	05-16-1995	04:31 PM	1,592,308
+--HRCW3-4.DT3	05-16-1995	04:31 PM	2,174,848
+--HRCW3-4.HD1	05-16-1995	04:31 PM	607
+--HRCW3-4.HD2	05-16-1995	04:31 PM	483
+--HRCW3-4.HD3	05-16-1995	04:31 PM	576
+--HRCW3-4.HFS	05-16-1995	04:31 PM	3,259
+--HRCW3-4.HSP	05-16-1995	04:31 PM	3,878
+--HRCW3-4.LFS	05-16-1995	04:31 PM	3,240
+--HRCW3-4.LSP	05-16-1995	04:31 PM	3,859
+--HRCW3-4.UFS	05-16-1995	04:31 PM	3,160
+--HRCW3-4.USP	05-16-1995	04:31 PM	3,779
+--HRCW3.DT1	05-16-1995	04:31 PM	1,184,530
+--HRCW3.DT2	05-16-1995	04:31 PM	796,170
+--HRCW3.DT3	05-16-1995	04:31 PM	1,087,440
+--HRCW3.HD1	05-16-1995	04:31 PM	613
+--HRCW3.HD2	05-16-1995	04:31 PM	489
+--HRCW3.HD3	05-16-1995	04:31 PM	582
+--HRCW3.HFS	05-16-1995	04:31 PM	3,261
+--HRCW3.HSP	05-16-1995	04:31 PM	3,882
+--HRCW3.LFS	05-16-1995	04:31 PM	3,242
+--HRCW3.LSP	05-16-1995	04:31 PM	3,863
+--HRCW3.UFS	05-16-1995	04:31 PM	3,162
+--HRCW3.USP	05-16-1995	04:31 PM	3,783
+--HRCW4.DT1	05-16-1995	04:31 PM	1,184,530
+--HRCW4.DT2	05-16-1995	04:31 PM	796,170
+--HRCW4.DT3	05-16-1995	04:31 PM	1,087,440
+--HRCW4.HD1	05-16-1995	04:31 PM	613
+--HRCW4.HD2	05-16-1995	04:31 PM	489
+--HRCW4.HD3	05-16-1995	04:31 PM	582
+--HRCW4.HFS	05-16-1995	04:32 PM	3,261
+--HRCW4.HSP	05-16-1995	04:32 PM	3,882
+--HRCW4.LFS	05-16-1995	04:32 PM	3,242
+--HRCW4.LSP	05-16-1995	04:32 PM	3,863
+--HRCW4.UFS	05-16-1995	04:32 PM	3,162
+--HRCW4.USP	05-16-1995	04:32 PM	3,783

Colorado Backup - DOS

Tape Directory

Tape name:	SONY
Volumes recorded:	5
Print Time:	06:24 PM
Print Date:	06-06-1995

```
+- TITLE: ConfigJ ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     05:56 PM          69,032 -+

+- TITLE: ConfigL ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     09:31 PM          79,698 -+

+- TITLE: ConfigM ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     10:52 PM          60,664 -+

+- TITLE: ConfigN ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     11:02 PM           8,449 -+

+- TITLE: ConfigO ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     11:05 PM          10,067 -+
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Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:25 PM
Print Date: 06-06-1995

Volume # 1 Volume label: DOS:HD_504 Volume size: 69,029
Created on 05-16-1995 at 05:56 PM Ver: 18.00-0.0
Volume title: ConfigJ

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+--DATA
    +--CONFIGJ
        +--J_SERIES.TXT      05-16-1995  05:26 PM      1,797
        +--J1.DT1            05-16-1995  05:26 PM  1,184,530
        +--J1.DT2            05-16-1995  05:26 PM    796,170
        +--J1.DT3            05-16-1995  05:26 PM  1,087,440
        +--J1.HD1            05-16-1995  05:26 PM        604
        +--J1.HD2            05-16-1995  05:26 PM        480
        +--J1.HD3            05-16-1995  05:26 PM        573
        +--J1.UFS            05-16-1995  05:26 PM      3,159
        +--J10.DT1           05-16-1995  05:26 PM  1,184,530
        +--J10.DT2           05-16-1995  05:26 PM    796,170
        +--J10.DT3           05-16-1995  05:26 PM  1,087,440
        +--J10.HD1           05-16-1995  05:26 PM        607
        +--J10.HD2           05-16-1995  05:26 PM        483
        +--J10.HD3           05-16-1995  05:26 PM        576
        +--J10.UFS           05-16-1995  05:26 PM      3,160
        +--J11.DT1           05-16-1995  05:26 PM  1,184,530
        +--J11.DT2           05-16-1995  05:27 PM    796,170
        +--J11.DT3           05-16-1995  05:27 PM  1,087,440
        +--J11.HD1           05-16-1995  05:27 PM        607
        +--J11.HD2           05-16-1995  05:27 PM        483
        +--J11.HD3           05-16-1995  05:27 PM        576
        +--J11.UFS           05-16-1995  05:27 PM      3,160
        +--J12.DT1           05-16-1995  05:27 PM  1,184,530
        +--J12.DT2           05-16-1995  05:27 PM    796,170
        +--J12.DT3           05-16-1995  05:27 PM  1,087,440
        +--J12.HD1           05-16-1995  05:27 PM        607
        +--J12.HD2           05-16-1995  05:27 PM        483
        +--J12.HD3           05-16-1995  05:27 PM        576
        +--J12.UFS           05-16-1995  05:27 PM      3,160
        +--J13.DT1           05-16-1995  05:27 PM  1,184,530
        +--J13.DT2           05-16-1995  05:27 PM    796,170
        +--J13.DT3           05-16-1995  05:27 PM  1,087,440
        +--J13.HD1           05-16-1995  05:27 PM        607
        +--J13.HD2           05-16-1995  05:27 PM        483
        +--J13.HD3           05-16-1995  05:27 PM        576
        +--J13.UFS           05-16-1995  05:27 PM      3,160
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        +--J14.DT3           05-16-1995  05:28 PM  1,087,440
        +--J14.HD1           05-16-1995  05:28 PM        607
        +--J14.HD2           05-16-1995  05:28 PM        483
        +--J14.HD3           05-16-1995  05:28 PM        576
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+--J142.HD3	05-16-1995	05:28 PM	576
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+--J15.DT2	05-16-1995	05:28 PM	796,170
+--J15.DT3	05-16-1995	05:28 PM	1,087,440
+--J15.HD1	05-16-1995	05:28 PM	607
+--J15.HD2	05-16-1995	05:28 PM	483
+--J15.HD3	05-16-1995	05:28 PM	576
+--J15.UFS	05-16-1995	05:28 PM	3,160
+--J16.DT1	05-16-1995	05:28 PM	1,184,530
+--J16.DT2	05-16-1995	05:28 PM	796,170
+--J16.DT3	05-16-1995	05:28 PM	1,087,440
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+--J16.HD2	05-16-1995	05:28 PM	483
+--J16.HD3	05-16-1995	05:28 PM	576
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+--J17.HD3	05-16-1995	05:29 PM	576
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+--J2.HD2	05-16-1995	05:30 PM	480
+--J2.HD3	05-16-1995	05:30 PM	573
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+--J21.HD3	05-16-1995	05:30 PM	576
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+--J3.HD2	05-16-1995	05:31 PM	480
+--J3.HD3	05-16-1995	05:31 PM	573
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+--J4.HD3	05-16-1995	05:31 PM	573
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+--J5.HD2	05-16-1995	05:31 PM	480
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+--J6.HD2	05-16-1995	05:32 PM	480
+--J6.HD3	05-16-1995	05:32 PM	573
+--J6.UFS	05-16-1995	05:32 PM	3,159
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+--J7.DT3	05-16-1995	05:32 PM	1,087,440
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+--J7.HD2	05-16-1995	05:32 PM	480
+--J7.HD3	05-16-1995	05:32 PM	573
+--J7.UFS	05-16-1995	05:32 PM	3,159
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+--J8.DT3	05-16-1995	05:32 PM	1,087,440
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+--J8.HD2	05-16-1995	05:32 PM	480
+--J8.HD3	05-16-1995	05:32 PM	573
+--J8.UFS	05-16-1995	05:32 PM	3,159
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+--J9.HD2	05-16-1995	05:33 PM	480
+--J9.HD3	05-16-1995	05:33 PM	573
+--J9.UFS	05-16-1995	05:33 PM	3,159

Colorado Backup - DOS

Volume Directory

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Print Time: 06:26 PM
Print Date: 06-06-1995

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Created on 05-16-1995 at 09:31 PM Ver: 18.00-0.0
Volume title: ConfigL

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         +--LCUR3.HD2      05-16-1995  06:08 PM         489
         +--LCUR3.HD3      05-16-1995  06:08 PM         489
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         +--LD3.DT3        05-16-1995  06:09 PM     796,170
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+--LD7.HD2	05-16-1995	06:10 PM	483
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+--LRAN1.HD3	05-16-1995	06:10 PM	489
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+--LRAN3.HD3	05-16-1995	06:11 PM	489
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+--LRAN4.HFS	05-16-1995	06:11 PM	3,182
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+--LRCW2.UFS	05-16-1995	06:13	PM	3,241
+--LRCW2.USP	05-16-1995	06:13	PM	4,099
+--LRCW3.DT1	05-16-1995	06:13	PM	1,184,530
+--LRCW3.DT2	05-16-1995	06:13	PM	796,170
+--LRCW3.DT3	05-16-1995	06:13	PM	796,170
+--LRCW3.HD1	05-16-1995	06:13	PM	606
+--LRCW3.HD2	05-16-1995	06:13	PM	482
+--LRCW3.HD3	05-16-1995	06:13	PM	482
+--LRCW3.HFS	05-16-1995	06:13	PM	3,175
+--LRCW3.HSP	05-16-1995	06:13	PM	4,184
+--LRCW3.LFS	05-16-1995	06:13	PM	3,156
+--LRCW3.LSP	05-16-1995	06:13	PM	4,165
+--LRCW3.UFS	05-16-1995	06:13	PM	3,234
+--LRCW3.USP	05-16-1995	06:13	PM	4,085
+--LRCW34.DT1	05-16-1995	06:13	PM	2,369,028
+--LRCW34.DT2	05-16-1995	06:13	PM	1,592,308
+--LRCW34.DT3	05-16-1995	06:14	PM	1,592,308
+--LRCW34.HD1	05-16-1995	06:14	PM	597
+--LRCW34.HD2	05-16-1995	06:14	PM	473
+--LRCW34.HD3	05-16-1995	06:14	PM	473
+--LRCW34.HFS	05-16-1995	06:14	PM	2,935
+--LRCW34.HSP	05-16-1995	06:14	PM	4,178
+--LRCW34.LFS	05-16-1995	06:14	PM	2,916
+--LRCW34.LSP	05-16-1995	06:14	PM	4,159
+--LRCW34.UFS	05-16-1995	06:14	PM	2,836
+--LRCW34.USP	05-16-1995	06:14	PM	4,079
+--LRCW4.DT1	05-16-1995	06:14	PM	1,184,530
+--LRCW4.DT2	05-16-1995	06:14	PM	796,170
+--LRCW4.DT3	05-16-1995	06:14	PM	796,170
+--LRCW4.HD1	05-16-1995	06:14	PM	606
+--LRCW4.HD2	05-16-1995	06:14	PM	482
+--LRCW4.HD3	05-16-1995	06:14	PM	482
+--LRCW4.HFS	05-16-1995	06:14	PM	3,175
+--LRCW4.HSP	05-16-1995	06:14	PM	4,184
+--LRCW4.LFS	05-16-1995	06:14	PM	3,156
+--LRCW4.LSP	05-16-1995	06:14	PM	4,165
+--LRCW4.UFS	05-16-1995	06:14	PM	3,234
+--LRCW4.USP	05-16-1995	06:14	PM	4,085
+--LRG1.DT1	05-16-1995	06:14	PM	292,832
+--LRG1.DT2	05-16-1995	06:14	PM	196,832

+--LRG1.DT3	05-16-1995	06:14 PM	196,832
+--LRG1.HD1	05-16-1995	06:14 PM	610
+--LRG1.HD2	05-16-1995	06:14 PM	486
+--LRG1.HD3	05-16-1995	06:14 PM	486
+--LRG1.RGS	05-16-1995	06:14 PM	1,661
+--LRG1.UFS	05-16-1995	06:14 PM	3,240
+--LRG1.UFT	05-16-1995	06:14 PM	3,107
+--LRG2.DT1	05-16-1995	06:14 PM	292,832
+--LRG2.DT2	05-16-1995	06:14 PM	196,832
+--LRG2.DT3	05-16-1995	06:14 PM	196,832
+--LRG2.HD1	05-16-1995	06:14 PM	610
+--LRG2.HD2	05-16-1995	06:14 PM	486
+--LRG2.HD3	05-16-1995	06:14 PM	486
+--LRG2.RGS	05-16-1995	06:14 PM	1,661
+--LRG2.UFS	05-16-1995	06:14 PM	3,240
+--LRG2.UFT	05-16-1995	06:14 PM	3,107
+--LRG3.DT1	05-16-1995	06:14 PM	292,832
+--LRG3.DT2	05-16-1995	06:14 PM	196,832
+--LRG3.DT3	05-16-1995	06:14 PM	196,832
+--LRG3.HD1	05-16-1995	06:14 PM	610
+--LRG3.HD2	05-16-1995	06:14 PM	486
+--LRG3.HD3	05-16-1995	06:14 PM	486
+--LRG3.RGS	05-16-1995	06:14 PM	1,661
+--LRG3.UFS	05-16-1995	06:14 PM	3,240
+--LRG3.UFT	05-16-1995	06:14 PM	3,107
+--LRG4.DT1	05-16-1995	06:14 PM	292,832
+--LRG4.DT2	05-16-1995	06:14 PM	196,832
+--LRG4.DT3	05-16-1995	06:14 PM	196,832
+--LRG4.HD1	05-16-1995	06:14 PM	610
+--LRG4.HD2	05-16-1995	06:14 PM	486
+--LRG4.HD3	05-16-1995	06:14 PM	486
+--LRG4.RGS	05-16-1995	06:14 PM	1,661
+--LRG4.UFS	05-16-1995	06:14 PM	3,240
+--LRG4.UFT	05-16-1995	06:14 PM	3,107
+--LRG5.DT1	05-16-1995	06:14 PM	292,832
+--LRG5.DT2	05-16-1995	06:14 PM	196,832
+--LRG5.DT3	05-16-1995	06:14 PM	196,832
+--LRG5.HD1	05-16-1995	06:14 PM	610
+--LRG5.HD2	05-16-1995	06:14 PM	486
+--LRG5.HD3	05-16-1995	06:14 PM	486
+--LRG5.RGS	05-16-1995	06:14 PM	1,661
+--LRG5.UFS	05-16-1995	06:14 PM	3,240
+--LRG5.UFT	05-16-1995	06:14 PM	3,107
+--LRG6.DT1	05-16-1995	06:14 PM	292,832
+--LRG6.DT2	05-16-1995	06:14 PM	196,832
+--LRG6.DT3	05-16-1995	06:14 PM	196,832
+--LRG6.HD1	05-16-1995	06:14 PM	610
+--LRG6.HD2	05-16-1995	06:14 PM	486
+--LRG6.HD3	05-16-1995	06:14 PM	486
+--LRG6.RGS	05-16-1995	06:14 PM	1,661
+--LRG6.UFS	05-16-1995	06:14 PM	3,240
+--LRG6.UFT	05-16-1995	06:14 PM	3,107
+--LRG7.DT1	05-16-1995	06:14 PM	292,832
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+--LRG7.DT3	05-16-1995	06:15 PM	196,832
+--LRG7.HD1	05-16-1995	06:15 PM	610
+--LRG7.HD2	05-16-1995	06:15 PM	486
+--LRG7.HD3	05-16-1995	06:15 PM	486
+--LRG7.RGS	05-16-1995	06:15 PM	1,661
+--LRG7.UFS	05-16-1995	06:15 PM	3,240

+--LRG7.UFT	05-16-1995	06:15 PM	3,107
+--LRG8.DT1	05-16-1995	06:15 PM	292,832
+--LRG8.DT2	05-16-1995	06:15 PM	196,832
+--LRG8.DT3	05-16-1995	06:15 PM	196,832
+--LRG8.HD1	05-16-1995	06:15 PM	610
+--LRG8.HD2	05-16-1995	06:15 PM	486
+--LRG8.HD3	05-16-1995	06:15 PM	486
+--LRG8.RGS	05-16-1995	06:15 PM	1,661
+--LRG8.UFS	05-16-1995	06:15 PM	3,240
+--LRG8.UFT	05-16-1995	06:15 PM	3,107
+--LSO1.DT1	05-16-1995	06:15 PM	73,232
+--LSO1.DT2	05-16-1995	06:15 PM	49,232
+--LSO1.DT3	05-16-1995	06:15 PM	49,232
+--LSO1.HD1	05-16-1995	06:15 PM	607
+--LSO1.HD2	05-16-1995	06:15 PM	483
+--LSO1.HD3	05-16-1995	06:15 PM	483
+--LSO1.UFS	05-16-1995	06:15 PM	3,239
+--LSO10.DT1	05-16-1995	06:15 PM	73,232
+--LSO10.DT2	05-16-1995	06:15 PM	49,232
+--LSO10.DT3	05-16-1995	06:15 PM	49,232
+--LSO10.HD1	05-16-1995	06:15 PM	607
+--LSO10.HD2	05-16-1995	06:15 PM	483
+--LSO10.HD3	05-16-1995	06:15 PM	483
+--LSO10.UFS	05-16-1995	06:15 PM	3,239
+--LSO11.DT1	05-16-1995	06:15 PM	73,232
+--LSO11.DT2	05-16-1995	06:15 PM	49,232
+--LSO11.DT3	05-16-1995	06:15 PM	49,232
+--LSO11.HD1	05-16-1995	06:15 PM	607
+--LSO11.HD2	05-16-1995	06:15 PM	483
+--LSO11.HD3	05-16-1995	06:15 PM	483
+--LSO11.UFS	05-16-1995	06:15 PM	3,239
+--LSO12.DT1	05-16-1995	06:15 PM	73,232
+--LSO12.DT2	05-16-1995	06:15 PM	49,232
+--LSO12.DT3	05-16-1995	06:15 PM	49,232
+--LSO12.HD1	05-16-1995	06:15 PM	607
+--LSO12.HD2	05-16-1995	06:15 PM	483
+--LSO12.HD3	05-16-1995	06:15 PM	483
+--LSO12.UFS	05-16-1995	06:15 PM	3,239
+--LSO13.DT1	05-16-1995	06:15 PM	73,232
+--LSO13.DT2	05-16-1995	06:15 PM	49,232
+--LSO13.DT3	05-16-1995	06:15 PM	49,232
+--LSO13.HD1	05-16-1995	06:15 PM	607
+--LSO13.HD2	05-16-1995	06:15 PM	483
+--LSO13.HD3	05-16-1995	06:15 PM	483
+--LSO13.UFS	05-16-1995	06:15 PM	3,239
+--LSO14.DT1	05-16-1995	06:15 PM	73,232
+--LSO14.DT2	05-16-1995	06:15 PM	49,232
+--LSO14.DT3	05-16-1995	06:15 PM	49,232
+--LSO14.HD1	05-16-1995	06:15 PM	607
+--LSO14.HD2	05-16-1995	06:15 PM	483
+--LSO14.HD3	05-16-1995	06:15 PM	483
+--LSO14.UFS	05-16-1995	06:15 PM	3,239
+--LSO15.DT1	05-16-1995	06:15 PM	86,042
+--LSO15.DT2	05-16-1995	06:15 PM	57,842
+--LSO15.DT3	05-16-1995	06:15 PM	57,842
+--LSO15.HD1	05-16-1995	06:15 PM	1,214
+--LSO15.HD2	05-16-1995	06:15 PM	483
+--LSO15.HD3	05-16-1995	06:15 PM	483
+--LSO15.UFS	05-16-1995	06:15 PM	3,239
+--LSO16.DT1	05-16-1995	06:15 PM	73,232

+--LSO16.DT2	05-16-1995	06:15 PM	49,232
+--LSO16.DT3	05-16-1995	06:15 PM	49,232
+--LSO16.HD1	05-16-1995	06:15 PM	607
+--LSO16.HD2	05-16-1995	06:15 PM	483
+--LSO16.HD3	05-16-1995	06:15 PM	483
+--LSO16.UFS	05-16-1995	06:15 PM	3,239
+--LSO17.DT1	05-16-1995	06:15 PM	73,232
+--LSO17.DT2	05-16-1995	06:15 PM	49,232
+--LSO17.DT3	05-16-1995	06:15 PM	49,232
+--LSO17.HD1	05-16-1995	06:15 PM	607
+--LSO17.HD2	05-16-1995	06:15 PM	483
+--LSO17.HD3	05-16-1995	06:15 PM	483
+--LSO17.UFS	05-16-1995	06:15 PM	3,239
+--LSO18.DT1	05-16-1995	06:15 PM	73,232
+--LSO18.DT2	05-16-1995	06:15 PM	49,232
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+--LSO18.HD2	05-16-1995	06:15 PM	483
+--LSO18.HD3	05-16-1995	06:15 PM	483
+--LSO18.UFS	05-16-1995	06:15 PM	3,239
+--LSO4.DT1	05-16-1995	06:15 PM	73,232
+--LSO4.DT2	05-16-1995	06:15 PM	49,232
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+--LSO4.HD1	05-16-1995	06:15 PM	607
+--LSO4.HD2	05-16-1995	06:15 PM	483
+--LSO4.HD3	05-16-1995	06:15 PM	483
+--LSO4.UFS	05-16-1995	06:15 PM	3,239
+--LSO5.DT1	05-16-1995	06:15 PM	73,232
+--LSO5.DT2	05-16-1995	06:15 PM	49,232
+--LSO5.DT3	05-16-1995	06:15 PM	49,232
+--LSO5.HD1	05-16-1995	06:15 PM	607
+--LSO5.HD2	05-16-1995	06:15 PM	483
+--LSO5.HD3	05-16-1995	06:15 PM	483
+--LSO5.UFS	05-16-1995	06:15 PM	3,239
+--LSO6.DT1	05-16-1995	06:15 PM	73,232
+--LSO6.DT2	05-16-1995	06:15 PM	49,232
+--LSO6.DT3	05-16-1995	06:15 PM	49,232
+--LSO6.HD1	05-16-1995	06:15 PM	607
+--LSO6.HD2	05-16-1995	06:15 PM	483
+--LSO6.HD3	05-16-1995	06:15 PM	483
+--LSO6.UFS	05-16-1995	06:15 PM	3,239
+--LSO7.DT1	05-16-1995	06:15 PM	73,232
+--LSO7.DT2	05-16-1995	06:15 PM	49,232
+--LSO7.DT3	05-16-1995	06:15 PM	49,232
+--LSO7.HD1	05-16-1995	06:15 PM	607
+--LSO7.HD2	05-16-1995	06:15 PM	483
+--LSO7.HD3	05-16-1995	06:15 PM	483
+--LSO7.UFS	05-16-1995	06:15 PM	3,239
+--LSO8.DT1	05-16-1995	06:15 PM	73,232
+--LSO8.DT2	05-16-1995	06:15 PM	49,232
+--LSO8.DT3	05-16-1995	06:15 PM	49,232
+--LSO8.HD1	05-16-1995	06:15 PM	607
+--LSO8.HD2	05-16-1995	06:15 PM	483
+--LSO8.HD3	05-16-1995	06:15 PM	483
+--LSO8.UFS	05-16-1995	06:15 PM	3,239
+--LSO9.DT1	05-16-1995	06:15 PM	73,232
+--LSO9.DT2	05-16-1995	06:15 PM	49,232
+--LSO9.DT3	05-16-1995	06:15 PM	49,232
+--LSO9.HD1	05-16-1995	06:15 PM	607
+--LSO9.HD2	05-16-1995	06:15 PM	483

+--LSO9.HD3	05-16-1995	06:15	PM	483
+--LSO9.UFS	05-16-1995	06:15	PM	3,239
+--LWIN2.DT1	05-16-1995	06:15	PM	1,184,530
+--LWIN2.DT2	05-16-1995	06:15	PM	796,170
+--LWIN2.DT3	05-16-1995	06:15	PM	796,170
+--LWIN2.HD1	05-16-1995	06:15	PM	613
+--LWIN2.HD2	05-16-1995	06:15	PM	489
+--LWIN2.HD3	05-16-1995	06:15	PM	489
+--LWIN2.HFS	05-16-1995	06:15	PM	3,182
+--LWIN2.HSP	05-16-1995	06:15	PM	4,040
+--LWIN2.LFS	05-16-1995	06:15	PM	3,163
+--LWIN2.LSP	05-16-1995	06:15	PM	4,021
+--LWIN2.UFS	05-16-1995	06:15	PM	3,241
+--LWIN2.USP	05-16-1995	06:15	PM	3,941
+--LWIN3.DT1	05-16-1995	06:16	PM	1,184,530
+--LWIN3.DT2	05-16-1995	06:16	PM	796,170
+--LWIN3.DT3	05-16-1995	06:16	PM	796,170
+--LWIN3.HD1	05-16-1995	06:16	PM	613
+--LWIN3.HD2	05-16-1995	06:16	PM	489
+--LWIN3.HD3	05-16-1995	06:16	PM	489
+--LWIN3.HFS	05-16-1995	06:16	PM	3,182
+--LWIN3.HSP	05-16-1995	06:16	PM	4,040
+--LWIN3.LFS	05-16-1995	06:16	PM	3,163
+--LWIN3.LSP	05-16-1995	06:16	PM	3,705
+--LWIN3.UFS	05-16-1995	06:16	PM	3,241
+--LWIN3.USP	05-16-1995	06:16	PM	3,941
+--LWIN4.DT1	05-16-1995	06:16	PM	1,184,530
+--LWIN4.DT2	05-16-1995	06:16	PM	796,170
+--LWIN4.DT3	05-16-1995	06:16	PM	796,170
+--LWIN4.HD1	05-16-1995	06:16	PM	613
+--LWIN4.HD2	05-16-1995	06:16	PM	489
+--LWIN4.HD3	05-16-1995	06:16	PM	489
+--LWIN4.HFS	05-16-1995	06:16	PM	3,182
+--LWIN4.HSP	05-16-1995	06:16	PM	4,040
+--LWIN4.LFS	05-16-1995	06:16	PM	3,163
+--LWIN4.LSP	05-16-1995	06:16	PM	3,705
+--LWIN4.UFS	05-16-1995	06:16	PM	3,241
+--LWIN4.USP	05-16-1995	06:16	PM	3,941
+--TEST_L.TXT	05-16-1995	06:16	PM	1,923

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:26 PM
Print Date: 06-06-1995

Volume # 3 Volume label: DOS:HD_504 Volume size: 60,658
Created on 05-16-1995 at 10:52 PM Ver: 18.00-0.0
Volume title: ConfigM

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         +--MCUR2.DT3        05-16-1995  09:51 PM     796,170
         +--MCUR2.DT4        05-16-1995  09:51 PM     796,170
         +--MCUR2.HD1        05-16-1995  09:51 PM         613
         +--MCUR2.HD2        05-16-1995  09:51 PM         489
         +--MCUR2.HD3        05-16-1995  09:51 PM         489
         +--MCUR2.HD4        05-16-1995  09:51 PM         489
         +--MCUR2.HFS        05-16-1995  09:51 PM       3,814
         +--MCUR2.HSP        05-16-1995  09:51 PM       5,462
         +--MCUR2.LFS        05-16-1995  09:51 PM       3,795
         +--MCUR2.LSP        05-16-1995  09:51 PM       5,443
         +--MCUR2.UFS        05-16-1995  09:51 PM       3,873
         +--MCUR2.USP        05-16-1995  09:51 PM       5,363
         +--MCUR3.DT1        05-16-1995  09:51 PM   1,184,530
         +--MCUR3.DT2        05-16-1995  09:51 PM     796,170
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         +--MCUR3.DT4        05-16-1995  09:51 PM     796,170
         +--MCUR3.HD1        05-16-1995  09:51 PM         613
         +--MCUR3.HD2        05-16-1995  09:51 PM         489
         +--MCUR3.HD3        05-16-1995  09:51 PM         489
         +--MCUR3.HD4        05-16-1995  09:51 PM         489
         +--MCUR3.HFS        05-16-1995  09:51 PM       3,814
         +--MCUR3.HSP        05-16-1995  09:51 PM       5,462
         +--MCUR3.LFS        05-16-1995  09:51 PM       3,795
         +--MCUR3.LSP        05-16-1995  09:51 PM       5,443
         +--MCUR3.UFS        05-16-1995  09:51 PM       3,873
         +--MCUR3.USP        05-16-1995  09:51 PM       5,363
         +--MD1.DT1          05-16-1995  09:51 PM   1,184,530
         +--MD1.DT2          05-16-1995  09:51 PM     796,170
         +--MD1.DT3          05-16-1995  09:51 PM     796,170
         +--MD1.DT4          05-16-1995  09:51 PM     796,170
         +--MD1.HD1          05-16-1995  09:51 PM         607
         +--MD1.HD2          05-16-1995  09:51 PM         483
         +--MD1.HD3          05-16-1995  09:51 PM         483
         +--MD1.HD4          05-16-1995  09:51 PM         483
         +--MD1.HFS          05-16-1995  09:51 PM       3,813
         +--MD1.HSP          05-16-1995  09:51 PM       4,828
         +--MD1.LFS          05-16-1995  09:51 PM       3,794
         +--MD1.LSP          05-16-1995  09:51 PM       4,809
         +--MD1.UFS          05-16-1995  09:51 PM       3,871
         +--MD1.USP          05-16-1995  09:51 PM       4,729
         +--MD2.DT1          05-16-1995  09:51 PM     670,910
         +--MD2.DT2          05-16-1995  09:52 PM     450,950
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+--MD2.HD3	05-16-1995	09:52	PM	483
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+--MD3.DT2	05-16-1995	09:52	PM	531,884
+--MD3.DT3	05-16-1995	09:52	PM	531,884
+--MD3.DT4	05-16-1995	09:52	PM	531,884
+--MD3.HD1	05-16-1995	09:52	PM	607
+--MD3.HD2	05-16-1995	09:52	PM	483
+--MD3.HD3	05-16-1995	09:52	PM	483
+--MD3.HD4	05-16-1995	09:52	PM	483
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+--MD4.DT3	05-16-1995	09:52	PM	474,074
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+--MD4.HD2	05-16-1995	09:52	PM	483
+--MD4.HD3	05-16-1995	09:52	PM	483
+--MD4.HD4	05-16-1995	09:52	PM	483
+--MD4.UFS	05-16-1995	09:52	PM	3,871
+--MD5.DT1	05-16-1995	09:53	PM	1,184,530
+--MD5.DT2	05-16-1995	09:53	PM	796,170
+--MD5.DT3	05-16-1995	09:53	PM	796,170
+--MD5.DT4	05-16-1995	09:53	PM	796,170
+--MD5.HD1	05-16-1995	09:53	PM	607
+--MD5.HD2	05-16-1995	09:53	PM	483
+--MD5.HD3	05-16-1995	09:53	PM	483
+--MD5.HD4	05-16-1995	09:53	PM	483
+--MD5.UFS	05-16-1995	09:53	PM	3,871
+--MPRE1.DT1	05-16-1995	09:53	PM	73,232
+--MPRE1.DT2	05-16-1995	09:53	PM	49,232
+--MPRE1.DT3	05-16-1995	09:53	PM	49,232
+--MPRE1.DT4	05-16-1995	09:53	PM	49,232
+--MPRE1.HD1	05-16-1995	09:53	PM	610
+--MPRE1.HD2	05-16-1995	09:53	PM	486
+--MPRE1.HD3	05-16-1995	09:53	PM	486
+--MPRE1.HD4	05-16-1995	09:53	PM	486
+--MPRE1.UFS	05-16-1995	09:53	PM	3,872
+--MPRE1.USP	05-16-1995	09:53	PM	3,465
+--MRC2.DT1	05-16-1995	09:53	PM	1,184,530
+--MRC2.DT2	05-16-1995	09:53	PM	796,170
+--MRC2.DT3	05-16-1995	09:53	PM	796,170
+--MRC2.DT4	05-16-1995	09:53	PM	796,170
+--MRC2.HD1	05-16-1995	09:53	PM	610
+--MRC2.HD2	05-16-1995	09:53	PM	486
+--MRC2.HD3	05-16-1995	09:53	PM	486
+--MRC2.HD4	05-16-1995	09:53	PM	486
+--MRC2.HFS	05-16-1995	09:53	PM	3,813
+--MRC2.HSP	05-16-1995	09:53	PM	5,460
+--MRC2.LFS	05-16-1995	09:53	PM	3,794
+--MRC2.LSP	05-16-1995	09:53	PM	5,441
+--MRC2.UFS	05-16-1995	09:53	PM	3,872
+--MRC2.USP	05-16-1995	09:53	PM	5,361
+--MRC3-4.DT1	05-16-1995	09:54	PM	2,369,028
+--MRC3-4.DT2	05-16-1995	09:54	PM	1,592,308

+--MRC3-4.DT3	05-16-1995	09:54	PM	1,592,308
+--MRC3-4.DT4	05-16-1995	09:54	PM	1,592,308
+--MRC3-4.HD1	05-16-1995	09:54	PM	604
+--MRC3-4.HD2	05-16-1995	09:54	PM	480
+--MRC3-4.HD3	05-16-1995	09:54	PM	480
+--MRC3-4.HD4	05-16-1995	09:54	PM	480
+--MRC3-4.HFS	05-16-1995	09:56	PM	3,811
+--MRC3-4.HSP	05-16-1995	09:56	PM	5,456
+--MRC3-4.LFS	05-16-1995	09:56	PM	3,792
+--MRC3-4.LSP	05-16-1995	09:56	PM	5,437
+--MRC3-4.UFS	05-16-1995	09:56	PM	3,791
+--MRC3-4.USP	05-16-1995	09:56	PM	5,357
+--MRC3.DT1	05-16-1995	09:56	PM	1,184,530
+--MRC3.DT2	05-16-1995	09:56	PM	796,170
+--MRC3.DT3	05-16-1995	09:56	PM	796,170
+--MRC3.DT4	05-16-1995	09:56	PM	796,170
+--MRC3.HD1	05-16-1995	09:56	PM	610
+--MRC3.HD2	05-16-1995	09:56	PM	486
+--MRC3.HD3	05-16-1995	09:56	PM	486
+--MRC3.HD4	05-16-1995	09:56	PM	486
+--MRC3.HFS	05-16-1995	09:56	PM	3,813
+--MRC3.HSP	05-16-1995	09:56	PM	5,460
+--MRC3.LFS	05-16-1995	09:56	PM	3,794
+--MRC3.LSP	05-16-1995	09:56	PM	5,441
+--MRC3.UFS	05-16-1995	09:56	PM	3,872
+--MRC3.USP	05-16-1995	09:56	PM	5,361
+--MRC4.DT1	05-16-1995	09:56	PM	1,184,530
+--MRC4.DT2	05-16-1995	09:56	PM	796,170
+--MRC4.DT3	05-16-1995	09:56	PM	796,170
+--MRC4.DT4	05-16-1995	09:56	PM	796,170
+--MRC4.HD1	05-16-1995	09:56	PM	610
+--MRC4.HD2	05-16-1995	09:56	PM	486
+--MRC4.HD3	05-16-1995	09:56	PM	486
+--MRC4.HD4	05-16-1995	09:56	PM	486
+--MRC4.HFS	05-16-1995	09:56	PM	3,813
+--MRC4.HSP	05-16-1995	09:56	PM	5,460
+--MRC4.LFS	05-16-1995	09:56	PM	3,794
+--MRC4.LSP	05-16-1995	09:56	PM	5,441
+--MRC4.UFS	05-16-1995	09:56	PM	3,872
+--MRC4.USP	05-16-1995	09:56	PM	5,361
+--MRCW3-4.DT1	05-16-1995	09:56	PM	2,369,028
+--MRCW3-4.DT2	05-16-1995	09:57	PM	1,592,308
+--MRCW3-4.DT3	05-16-1995	09:57	PM	1,592,308
+--MRCW3-4.DT4	05-16-1995	09:57	PM	1,592,308
+--MRCW3-4.HD1	05-16-1995	09:57	PM	607
+--MRCW3-4.HD2	05-16-1995	09:57	PM	483
+--MRCW3-4.HD3	05-16-1995	09:57	PM	483
+--MRCW3-4.HD4	05-16-1995	09:57	PM	483
+--MRCW3-4.HFS	05-16-1995	09:57	PM	3,812
+--MRCW3-4.HSP	05-16-1995	09:57	PM	5,458
+--MRCW3-4.LFS	05-16-1995	09:57	PM	3,793
+--MRCW3-4.LSP	05-16-1995	09:57	PM	5,439
+--MRCW3-4.UFS	05-16-1995	09:57	PM	3,792
+--MRCW3-4.USP	05-16-1995	09:57	PM	5,359
+--MRCW3.DT1	05-16-1995	09:57	PM	1,184,530
+--MRCW3.DT2	05-16-1995	09:57	PM	796,170
+--MRCW3.DT3	05-16-1995	09:57	PM	796,170
+--MRCW3.DT4	05-16-1995	09:57	PM	796,170
+--MRCW3.HD1	05-16-1995	09:57	PM	613
+--MRCW3.HD2	05-16-1995	09:57	PM	489

+--MRCW3.HD3	05-16-1995	09:57 PM	489
+--MRCW3.HD4	05-16-1995	09:57 PM	489
+--MRCW3.HFS	05-16-1995	09:57 PM	3,814
+--MRCW3.HSP	05-16-1995	09:57 PM	5,462
+--MRCW3.LFS	05-16-1995	09:57 PM	3,795
+--MRCW3.LSP	05-16-1995	09:57 PM	5,443
+--MRCW3.UFS	05-16-1995	09:57 PM	3,873
+--MRCW3.USP	05-16-1995	09:57 PM	5,363
+--MRCW4.DT1	05-16-1995	09:57 PM	1,184,530
+--MRCW4.DT2	05-16-1995	09:57 PM	796,170
+--MRCW4.DT3	05-16-1995	09:57 PM	796,170
+--MRCW4.DT4	05-16-1995	09:58 PM	796,170
+--MRCW4.HD1	05-16-1995	09:58 PM	613
+--MRCW4.HD2	05-16-1995	09:58 PM	489
+--MRCW4.HD3	05-16-1995	09:58 PM	489
+--MRCW4.HD4	05-16-1995	09:58 PM	489
+--MRCW4.HFS	05-16-1995	09:58 PM	3,814
+--MRCW4.HSP	05-16-1995	09:58 PM	5,462
+--MRCW4.LFS	05-16-1995	09:58 PM	3,795
+--MRCW4.LSP	05-16-1995	09:58 PM	5,443
+--MRCW4.UFS	05-16-1995	09:58 PM	3,873
+--MRCW4.USP	05-16-1995	09:58 PM	5,363
+--MSO2.DT1	05-16-1995	09:58 PM	73,232
+--MSO2.DT2	05-16-1995	09:58 PM	49,232
+--MSO2.DT3	05-16-1995	09:58 PM	49,232
+--MSO2.DT4	05-16-1995	09:58 PM	49,232
+--MSO2.HD1	05-16-1995	09:58 PM	607
+--MSO2.HD2	05-16-1995	09:58 PM	483
+--MSO2.HD3	05-16-1995	09:58 PM	483
+--MSO2.HD4	05-16-1995	09:58 PM	483
+--MSO2.UFS	05-16-1995	09:58 PM	3,871
+--MSO3.DT1	05-16-1995	09:58 PM	73,232
+--MSO3.DT2	05-16-1995	09:58 PM	49,232
+--MSO3.DT3	05-16-1995	09:58 PM	49,232
+--MSO3.DT4	05-16-1995	09:58 PM	49,232
+--MSO3.HD1	05-16-1995	09:58 PM	607
+--MSO3.HD2	05-16-1995	09:58 PM	483
+--MSO3.HD3	05-16-1995	09:58 PM	483
+--MSO3.HD4	05-16-1995	09:58 PM	483
+--MSO3.UFS	05-16-1995	09:58 PM	3,871
+--MSO4.DT1	05-16-1995	09:58 PM	73,232
+--MSO4.DT2	05-16-1995	09:58 PM	49,232
+--MSO4.DT3	05-16-1995	09:58 PM	49,232
+--MSO4.DT4	05-16-1995	09:58 PM	49,232
+--MSO4.HD1	05-16-1995	09:58 PM	607
+--MSO4.HD2	05-16-1995	09:58 PM	483
+--MSO4.HD3	05-16-1995	09:58 PM	483
+--MSO4.HD4	05-16-1995	09:58 PM	483
+--MSO4.UFS	05-16-1995	09:58 PM	3,871
+--MSO5.DT1	05-16-1995	09:58 PM	73,232
+--MSO5.DT2	05-16-1995	09:58 PM	49,232
+--MSO5.DT3	05-16-1995	09:58 PM	49,232
+--MSO5.DT4	05-16-1995	09:58 PM	49,232
+--MSO5.HD1	05-16-1995	09:58 PM	607
+--MSO5.HD2	05-16-1995	09:58 PM	483
+--MSO5.HD3	05-16-1995	09:58 PM	483
+--MSO5.HD4	05-16-1995	09:58 PM	483
+--MSO5.UFS	05-16-1995	09:58 PM	3,871
+--MSO6.DT1	05-16-1995	09:58 PM	73,232
+--MSO6.DT2	05-16-1995	09:58 PM	49,232

+--MSO6.DT3	05-16-1995	09:58 PM	49,232
+--MSO6.DT4	05-16-1995	09:58 PM	49,232
+--MSO6.HD1	05-16-1995	09:58 PM	607
+--MSO6.HD2	05-16-1995	09:58 PM	483
+--MSO6.HD3	05-16-1995	09:58 PM	483
+--MSO6.HD4	05-16-1995	09:58 PM	483
+--MSO6.UFS	05-16-1995	09:58 PM	3,871
+--MSO8.DT1	05-16-1995	09:58 PM	73,232
+--MSO8.DT2	05-16-1995	09:58 PM	49,232
+--MSO8.DT3	05-16-1995	09:58 PM	49,232
+--MSO8.DT4	05-16-1995	09:58 PM	49,232
+--MSO8.HD1	05-16-1995	09:58 PM	607
+--MSO8.HD2	05-16-1995	09:58 PM	483
+--MSO8.HD3	05-16-1995	09:58 PM	483
+--MSO8.HD4	05-16-1995	09:58 PM	483
+--MSO8.UFS	05-16-1995	09:58 PM	3,871
+--MWIN3.DT1	05-16-1995	09:58 PM	1,184,530
+--MWIN3.DT2	05-16-1995	09:58 PM	796,170
+--MWIN3.DT3	05-16-1995	09:58 PM	796,170
+--MWIN3.DT4	05-16-1995	09:58 PM	796,170
+--MWIN3.HD1	05-16-1995	09:58 PM	613
+--MWIN3.HD2	05-16-1995	09:58 PM	489
+--MWIN3.HD3	05-16-1995	09:58 PM	489
+--MWIN3.HD4	05-16-1995	09:58 PM	489
+--MWIN3.HFS	05-16-1995	09:58 PM	3,814
+--MWIN3.HSP	05-16-1995	09:58 PM	5,462
+--MWIN3.LFS	05-16-1995	09:58 PM	3,795
+--MWIN3.LSP	05-16-1995	09:58 PM	5,443
+--MWIN3.UFS	05-16-1995	09:58 PM	3,873
+--MWIN3.USP	05-16-1995	09:58 PM	5,363
+--MWIN4.DT1	05-16-1995	09:58 PM	1,184,530
+--MWIN4.DT2	05-16-1995	09:58 PM	796,170
+--MWIN4.DT3	05-16-1995	09:58 PM	796,170
+--MWIN4.DT4	05-16-1995	09:58 PM	796,170
+--MWIN4.HD1	05-16-1995	09:58 PM	613
+--MWIN4.HD2	05-16-1995	09:58 PM	489
+--MWIN4.HD3	05-16-1995	09:58 PM	489
+--MWIN4.HD4	05-16-1995	09:58 PM	489
+--MWIN4.HFS	05-16-1995	09:59 PM	3,814
+--MWIN4.HSP	05-16-1995	09:59 PM	5,462
+--MWIN4.LFS	05-16-1995	09:59 PM	3,795
+--MWIN4.LSP	05-16-1995	09:59 PM	5,443
+--MWIN4.UFS	05-16-1995	09:59 PM	3,873
+--MWIN4.USP	05-16-1995	09:59 PM	5,363

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:34 PM
Print Date: 06-06-1995

olume # 4 Volume label: DOS:HD_504 Volume size: 8,448
Created on 05-16-1995 at 11:02 PM Ver: 18.00-0.0
olume title: ConfigN

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        +--ND3.DT1          05-16-1995  10:12 PM     650,528
        +--ND3.DT2          05-16-1995  10:12 PM     127,808
        +--ND3.DT3          05-16-1995  10:12 PM     127,808
        +--ND3.HD1          05-16-1995  10:12 PM         576
        +--ND3.HD2          05-16-1995  10:12 PM         297
        +--ND3.HD3          05-16-1995  10:12 PM         297
        +--ND3.UFS          05-16-1995  10:13 PM       7,906
        +--ND4.DT1          05-16-1995  10:13 PM     620,960
        +--ND4.DT2          05-16-1995  10:13 PM     122,000
        +--ND4.DT3          05-16-1995  10:13 PM     122,000
        +--ND4.HD1          05-16-1995  10:13 PM         576
        +--ND4.HD2          05-16-1995  10:13 PM         297
        +--ND4.HD3          05-16-1995  10:13 PM         297
        +--ND4.UFS          05-16-1995  10:13 PM       1,975
        +--ND5.DT1          05-16-1995  10:13 PM     561,824
        +--ND5.DT2          05-16-1995  10:13 PM     110,384
        +--ND5.DT3          05-16-1995  10:13 PM     110,384
        +--ND5.HD1          05-16-1995  10:13 PM         576
        +--ND5.HD2          05-16-1995  10:13 PM         297
        +--ND5.HD3          05-16-1995  10:13 PM         297
        +--ND5.UFS          05-16-1995  10:13 PM       1,975
        +--NRAN1.DT1        05-16-1995  10:13 PM   1,087,440
        +--NRAN1.DT2        05-16-1995  10:13 PM     213,630
        +--NRAN1.DT3        05-16-1995  10:13 PM     213,630
        +--NRAN1.HD1        05-16-1995  10:13 PM         582
        +--NRAN1.HD2        05-16-1995  10:13 PM         303
        +--NRAN1.HD3        05-16-1995  10:13 PM         303
        +--NRAN1.UFS        05-16-1995  10:13 PM       1,977
        +--NRAN1.USP        05-16-1995  10:13 PM       2,203
        +--NRAN6.DT1        05-16-1995  10:13 PM   1,087,440
        +--NRAN6.DT2        05-16-1995  10:13 PM     213,630
        +--NRAN6.DT3        05-16-1995  10:13 PM     213,630
        +--NRAN6.HD1        05-16-1995  10:13 PM         582
        +--NRAN6.HD2        05-16-1995  10:13 PM         303
        +--NRAN6.HD3        05-16-1995  10:13 PM         303
        +--NRAN6.UFS        05-16-1995  10:13 PM       1,977
        +--NRAN6.USP        05-16-1995  10:13 PM       2,203
        +--NRAN8.DT1        05-16-1995  10:13 PM   1,087,440
        +--NRAN8.DT2        05-16-1995  10:13 PM     213,630
        +--NRAN8.DT3        05-16-1995  10:13 PM     213,630
        +--NRAN8.HD1        05-16-1995  10:13 PM         582
        +--NRAN8.HD2        05-16-1995  10:13 PM         303
        +--NRAN8.HD3        05-16-1995  10:13 PM         303
        +--NRAN8.UFS        05-16-1995  10:13 PM       1,977
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+--NRAN8.USP	05-16-1995	10:13	PM	2,203
+--NRAN9.DT1	05-16-1995	10:13	PM	1,087,440
+--NRAN9.DT2	05-16-1995	10:13	PM	213,630
+--NRAN9.DT3	05-16-1995	10:13	PM	213,630
+--NRAN9.HD1	05-16-1995	10:13	PM	582
+--NRAN9.HD2	05-16-1995	10:13	PM	303
+--NRAN9.HD3	05-16-1995	10:13	PM	303
+--NRAN9.UFS	05-16-1995	10:13	PM	1,977
+--NRAN9.USP	05-16-1995	10:13	PM	2,203

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:35 PM
Print Date: 06-06-1995

Volume # 5 Volume label: DOS:HD_504 Volume size: 10,066
Created on 05-16-1995 at 11:05 PM Ver: 18.00-0.0
Volume title: Config0

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         +--OD3.DT1               05-16-1995  10:17 PM  1,087,440
         +--OD3.DT2               05-16-1995  10:17 PM    213,630
         +--OD3.DT3               05-16-1995  10:17 PM    407,810
         +--OD3.HD1               05-16-1995  10:17 PM        576
         +--OD3.HD2               05-16-1995  10:17 PM        297
         +--OD3.HD3               05-16-1995  10:17 PM        359
         +--OD3.UFS               05-16-1995  10:17 PM      1,817
         +--OD4.DT1               05-16-1995  10:20 PM  1,087,440
         +--OD4.DT2               05-16-1995  10:20 PM    213,630
         +--OD4.DT3               05-16-1995  10:20 PM    407,810
         +--OD4.HD1               05-16-1995  10:20 PM        576
         +--OD4.HD2               05-16-1995  10:20 PM        297
         +--OD4.HD3               05-16-1995  10:20 PM        359
         +--OD4.UFS               05-16-1995  10:20 PM      1,821
         +--OD5.DT1               05-16-1995  10:20 PM  1,087,440
         +--OD5.DT2               05-16-1995  10:20 PM    213,630
         +--OD5.DT3               05-16-1995  10:20 PM    407,810
         +--OD5.HD1               05-16-1995  10:20 PM        576
         +--OD5.HD2               05-16-1995  10:20 PM        297
         +--OD5.HD3               05-16-1995  10:20 PM        359
         +--OD5.UFS               05-16-1995  10:20 PM      1,821
         +--ORAN1.DT1             05-16-1995  10:20 PM  1,087,440
         +--ORAN1.DT2             05-16-1995  10:21 PM    213,630
         +--ORAN1.DT3             05-16-1995  10:21 PM    407,810
         +--ORAN1.HD1             05-16-1995  10:21 PM        582
         +--ORAN1.HD2             05-16-1995  10:21 PM        303
         +--ORAN1.HD3             05-16-1995  10:21 PM        365
         +--ORAN1.HFS             05-16-1995  10:21 PM      1,839
         +--ORAN1.HSP             05-16-1995  10:21 PM      2,618
         +--ORAN1.LFS             05-16-1995  10:21 PM      1,820
         +--ORAN1.LSP             05-16-1995  10:21 PM      2,599
         +--ORAN1.UFS             05-16-1995  10:21 PM      1,819
         +--ORAN1.USP             05-16-1995  10:21 PM      2,282
         +--ORAN6.DT1             05-16-1995  10:21 PM  1,087,440
         +--ORAN6.DT2             05-16-1995  10:21 PM    213,630
         +--ORAN6.DT3             05-16-1995  10:21 PM    407,810
         +--ORAN6.HD1             05-16-1995  10:21 PM        582
         +--ORAN6.HD2             05-16-1995  10:21 PM        303
         +--ORAN6.HD3             05-16-1995  10:21 PM        365
         +--ORAN6.HFS             05-16-1995  10:21 PM      1,839
         +--ORAN6.HSP             05-16-1995  10:21 PM      2,618
         +--ORAN6.LFS             05-16-1995  10:21 PM      1,820
         +--ORAN6.LSP             05-16-1995  10:21 PM      2,599
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+--ORAN6.UFS	05-16-1995	10:21	PM	1,819
+--ORAN6.USP	05-16-1995	10:21	PM	2,282
+--ORAN8.DT1	05-16-1995	10:21	PM	1,087,440
+--ORAN8.DT2	05-16-1995	10:21	PM	213,630
+--ORAN8.DT3	05-16-1995	10:21	PM	407,810
+--ORAN8.HD1	05-16-1995	10:21	PM	582
+--ORAN8.HD2	05-16-1995	10:21	PM	303
+--ORAN8.HD3	05-16-1995	10:21	PM	365
+--ORAN8.HFS	05-16-1995	10:21	PM	1,839
+--ORAN8.HSP	05-16-1995	10:21	PM	2,618
+--ORAN8.LFS	05-16-1995	10:21	PM	1,820
+--ORAN8.LSP	05-16-1995	10:21	PM	2,599
+--ORAN8.UFS	05-16-1995	10:21	PM	1,819
+--ORAN8.USP	05-16-1995	10:21	PM	2,519

Colorado Backup - DOS

Tape Directory

Tape name:	SONY
Volumes recorded:	2
Print Time:	06:38 PM
Print Date:	06-06-1995

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+- TITLE: ConfigP ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     11:59 PM          77,412 -+

+- TITLE: Waves/WindCurrent ------------------------------------------+
+- DOS:HD_504                 05-17-95     12:11 AM          13,259 -+
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Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:38 PM
Print Date: 06-06-1995

olume # 1 Volume label: DOS:HD_504 Volume size: 77,410
Created on 05-16-1995 at 11:59 PM Ver: 18.00-0.0
olume title: ConfigP

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    +--CONFIGP
        +--PRAN10.DT1                    05-16-1995  11:09 PM   2,688,032
        +--PRAN10.DT2                    05-16-1995  11:10 PM   1,008,032
        +--PRAN10.HD1                    05-16-1995  11:10 PM         579
        +--PRAN10.HD2                    05-16-1995  11:10 PM         362
        +--PRAN10.UFS                    05-16-1995  11:10 PM       1,581
        +--PRAN11.DT1                    05-16-1995  11:10 PM   2,688,032
        +--PRAN11.DT2                    05-16-1995  11:10 PM   1,008,032
        +--PRAN11.HD1                    05-16-1995  11:10 PM         579
        +--PRAN11.HD2                    05-16-1995  11:10 PM         362
        +--PRAN11.UFS                    05-16-1995  11:10 PM       1,581
        +--PRAN12.DT1                    05-16-1995  11:10 PM   2,688,032
        +--PRAN12.DT2                    05-16-1995  11:10 PM   1,008,032
        +--PRAN12.HD1                    05-16-1995  11:10 PM         579
        +--PRAN12.HD2                    05-16-1995  11:10 PM         362
        +--PRAN12.UFS                    05-16-1995  11:10 PM       1,581
        +--PRAN13.DT1                    05-16-1995  11:11 PM   2,688,032
        +--PRAN13.DT2                    05-16-1995  11:11 PM   1,008,032
        +--PRAN13.HD1                    05-16-1995  11:11 PM         579
        +--PRAN13.HD2                    05-16-1995  11:11 PM         362
        +--PRAN13.UFS                    05-16-1995  11:11 PM       1,581
        +--PRAN14.DT1                    05-16-1995  11:11 PM   2,688,032
        +--PRAN14.DT2                    05-16-1995  11:12 PM   1,008,032
        +--PRAN14.HD1                    05-16-1995  11:12 PM         579
        +--PRAN14.HD2                    05-16-1995  11:12 PM         362
        +--PRAN14.UFS                    05-16-1995  11:12 PM       1,581
        +--PRAN16.DT1                    05-16-1995  11:12 PM   2,688,032
        +--PRAN16.DT2                    05-16-1995  11:12 PM   1,008,032
        +--PRAN16.HD1                    05-16-1995  11:12 PM         579
        +--PRAN16.HD2                    05-16-1995  11:12 PM         362
        +--PRAN16.UFS                    05-16-1995  11:12 PM       1,581
        +--PRAN17.DT1                    05-16-1995  11:12 PM   2,688,032
        +--PRAN17.DT2                    05-16-1995  11:12 PM   1,008,032
        +--PRAN17.HD1                    05-16-1995  11:12 PM         579
        +--PRAN17.HD2                    05-16-1995  11:12 PM         362
        +--PRAN17.UFS                    05-16-1995  11:12 PM       1,581
        +--PRAN18.DT1                    05-16-1995  11:13 PM   2,688,032
        +--PRAN18.DT2                    05-16-1995  11:13 PM   1,008,032
        +--PRAN18.HD1                    05-16-1995  11:13 PM         579
        +--PRAN18.HD2                    05-16-1995  11:13 PM         362
        +--PRAN18.UFS                    05-16-1995  11:13 PM       1,581
        +--PRAN20.DT1                    05-16-1995  11:13 PM   2,688,032
        +--PRAN20.DT2                    05-16-1995  11:13 PM   1,008,032
        +--PRAN20.HD1                    05-16-1995  11:13 PM         579
        +--PRAN20.HD2                    05-16-1995  11:13 PM         362
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+--PRAN20.UFS	05-16-1995	11:13	PM	1,581
+--PRAN21.DT1	05-16-1995	11:13	PM	2,688,032
+--PRAN21.DT2	05-16-1995	11:14	PM	1,008,032
+--PRAN21.HD1	05-16-1995	11:14	PM	579
+--PRAN21.HD2	05-16-1995	11:14	PM	362
+--PRAN21.UFS	05-16-1995	11:14	PM	1,581
+--PRAN22.DT1	05-16-1995	11:14	PM	2,688,032
+--PRAN22.DT2	05-16-1995	11:14	PM	1,008,032
+--PRAN22.HD1	05-16-1995	11:14	PM	579
+--PRAN22.HD2	05-16-1995	11:14	PM	362
+--PRAN22.UFS	05-16-1995	11:14	PM	1,581
+--PRAN23.DT1	05-16-1995	11:14	PM	2,688,032
+--PRAN23.DT2	05-16-1995	11:14	PM	1,008,032
+--PRAN23.HD1	05-16-1995	11:14	PM	579
+--PRAN23.HD2	05-16-1995	11:14	PM	362
+--PRAN23.UFS	05-16-1995	11:14	PM	1,581
+--PRAN24.DT1	05-16-1995	11:15	PM	2,688,032
+--PRAN24.DT2	05-16-1995	11:15	PM	1,008,032
+--PRAN24.HD1	05-16-1995	11:15	PM	579
+--PRAN24.HD2	05-16-1995	11:15	PM	362
+--PRAN24.UFS	05-16-1995	11:15	PM	1,581
+--PRAN25.DT1	05-16-1995	11:15	PM	2,688,032
+--PRAN25.DT2	05-16-1995	11:15	PM	1,008,032
+--PRAN25.HD1	05-16-1995	11:15	PM	579
+--PRAN25.HD2	05-16-1995	11:15	PM	362
+--PRAN25.UFS	05-16-1995	11:15	PM	1,581
+--PRAN26.DT1	05-16-1995	11:15	PM	1,155,872
+--PRAN26.DT2	05-16-1995	11:15	PM	433,472
+--PRAN26.HD1	05-16-1995	11:15	PM	579
+--PRAN26.HD2	05-16-1995	11:15	PM	362
+--PRAN26.UFS	05-16-1995	11:15	PM	1,581
+--PRAN63.DT1	05-16-1995	11:15	PM	2,688,032
+--PRAN63.DT2	05-16-1995	11:16	PM	1,008,032
+--PRAN63.HD1	05-16-1995	11:16	PM	582
+--PRAN63.HD2	05-16-1995	11:16	PM	365
+--PRAN63.UFS	05-16-1995	11:16	PM	1,582
+--PRAN71.DT1	05-16-1995	11:16	PM	2,688,032
+--PRAN71.DT2	05-16-1995	11:16	PM	1,008,032
+--PRAN71.HD1	05-16-1995	11:16	PM	582
+--PRAN71.HD2	05-16-1995	11:16	PM	365
+--PRAN71.UFS	05-16-1995	11:16	PM	1,582
+--PRC61.DT1	05-16-1995	11:16	PM	2,688,032
+--PRC61.DT2	05-16-1995	11:16	PM	1,008,032
+--PRC61.HD1	05-16-1995	11:16	PM	579
+--PRC61.HD2	05-16-1995	11:16	PM	362
+--PRC61.UFS	05-16-1995	11:16	PM	1,581
+--PRC71.DT1	05-16-1995	11:17	PM	2,688,032
+--PRC71.DT2	05-16-1995	11:17	PM	1,008,032
+--PRC71.HD1	05-16-1995	11:17	PM	579
+--PRC71.HD2	05-16-1995	11:17	PM	362
+--PRC71.UFS	05-16-1995	11:17	PM	1,581
+--PUMP1.DT1	05-16-1995	11:17	PM	2,688,032
+--PUMP1.DT2	05-16-1995	11:17	PM	1,008,032
+--PUMP1.HD1	05-16-1995	11:17	PM	579
+--PUMP1.HD2	05-16-1995	11:17	PM	362
+--PUMP1.UFS	05-16-1995	11:17	PM	1,581
+--PUMP2.DT1	05-16-1995	11:17	PM	2,688,032
+--PUMP2.DT2	05-16-1995	11:18	PM	1,008,032
+--PUMP2.HD1	05-16-1995	11:18	PM	579
+--PUMP2.HD2	05-16-1995	11:18	PM	362

+--PUMP2.UFS	05-16-1995	11:18	PM	1,581
+--PUMP3.DT1	05-16-1995	11:21	PM	2,688,032
+--PUMP3.DT2	05-16-1995	11:21	PM	1,008,032
+--PUMP3.HD1	05-16-1995	11:21	PM	579
+--PUMP3.HD2	05-16-1995	11:21	PM	362
+--PUMP3.UFS	05-16-1995	11:21	PM	1,581
+--SUMMARY.UFS	05-16-1995	11:21	PM	1,582

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:39 PM
Print Date: 06-06-1995

Volume # 2 Volume label: DOS:HD_504 Volume size: 13,255
Created on 05-17-1995 at 12:11 AM Ver: 18.00-0.0
Volume title: Waves/WindCurrent

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+--DATA
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    |   +--C10D18.DAT                   05-16-1995  11:27 PM     407,810
    |   +--C10D18.HDR                   05-16-1995  11:27 PM         368
    |   +--C10D18.UFS                   05-16-1995  11:28 PM       1,497
    |   +--C10D48.DAT                   05-16-1995  11:28 PM     407,810
    |   +--C10D48.HDR                   05-16-1995  11:28 PM         368
    |   +--C10D48.UFS                   05-16-1995  11:28 PM       1,497
    |   +--C10D6.DAT                    05-16-1995  11:28 PM     407,810
    |   +--C10D6.HDR                    05-16-1995  11:28 PM         365
    |   +--C10D6.UFS                    05-16-1995  11:28 PM       1,495
    |   +--CGMD18.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CGMD18.HDR                   05-16-1995  11:28 PM         368
    |   +--CGMD18.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CGMD48.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CGMD48.HDR                   05-16-1995  11:28 PM         368
    |   +--CGMD48.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CGMD6.DAT                    05-16-1995  11:28 PM     407,810
    |   +--CGMD6.HDR                    05-16-1995  11:28 PM         365
    |   +--CGMD6.UFS                    05-16-1995  11:28 PM       1,495
    |   +--CNSD18.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CNSD18.HDR                   05-16-1995  11:28 PM         368
    |   +--CNSD18.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CNSD48.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CNSD48.HDR                   05-16-1995  11:28 PM         368
    |   +--CNSD48.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CNSD6.DAT                    05-16-1995  11:28 PM     407,810
    |   +--CNSD6.HDR                    05-16-1995  11:28 PM         365
    |   +--CNSD6.UFS                    05-16-1995  11:28 PM       1,495
    |   +--TEST_CUR.TXT                 05-16-1995  11:28 PM         340
    +--WIND                             02-06-1995  05:53 AM
    |   +--43KT1.DT1                    05-16-1995  11:25 PM     116,540
    |   +--43KT1.HD1                    05-16-1995  11:25 PM         269
    |   +--43KT1.RST                    05-16-1995  11:25 PM         475
    |   +--59KT1.DT1                    05-16-1995  11:25 PM     116,540
    |   +--59KT1.HD1                    05-16-1995  11:25 PM         269
    |   +--59KT1.RST                    05-16-1995  11:25 PM         475
    |   +--85KT2.DT1                    05-16-1995  11:25 PM     116,540
    |   +--85KT2.HD1                    05-16-1995  11:25 PM         269
    |   +--85KT2.RST                    05-16-1995  11:25 PM         475
    |   +--AFRW.DT1                     05-16-1995  11:25 PM     116,540
    |   +--AFRW.HD1                     05-16-1995  11:25 PM         269
    |   +--AFRW.RST                     05-16-1995  11:25 PM         475
    |   +--TEST_WIN.TXT                 05-16-1995  11:25 PM         146
    +--WAVES                            02-06-1995  03:08 PM
        +--10YR.DT1                     05-16-1995  11:22 PM     445,568
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+--10YR.HD1	05-16-1995	11:22 PM	362
+--10YR.RST	05-16-1995	11:22 PM	1,418
+--10YRC.DT1	05-16-1995	11:22 PM	445,610
+--10YRC.HD1	05-16-1995	11:22 PM	365
+--10YRC.RST	05-16-1995	11:22 PM	1,420
+--10YRCW.DT1	05-16-1995	11:22 PM	445,610
+--10YRCW.HD1	05-16-1995	11:22 PM	368
+--10YRCW.RST	05-16-1995	11:22 PM	1,422
+--AFR.RST	05-16-1995	11:22 PM	1,416
+--AFRC.RST	05-16-1995	11:22 PM	1,418
+--AFRCW.RST	05-16-1995	11:22 PM	1,420
+--BC1.DT1	05-16-1995	11:22 PM	100,832
+--BC1.HD1	05-16-1995	11:22 PM	359
+--BC1.RST	05-16-1995	11:22 PM	1,416
+--BC10.DT1	05-16-1995	11:22 PM	100,832
+--BC10.HD1	05-16-1995	11:22 PM	362
+--BC10.RST	05-16-1995	11:22 PM	1,418
+--BC11.DT1	05-16-1995	11:22 PM	100,832
+--BC11.HD1	05-16-1995	11:22 PM	362
+--BC11.RST	05-16-1995	11:22 PM	1,418
+--BC12.DT1	05-16-1995	11:22 PM	100,832
+--BC12.HD1	05-16-1995	11:22 PM	362
+--BC12.RST	05-16-1995	11:22 PM	1,418
+--BC13.DT1	05-16-1995	11:22 PM	100,832
+--BC13.HD1	05-16-1995	11:22 PM	362
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+--BC14.DT1	05-16-1995	11:22 PM	50,432
+--BC14.HD1	05-16-1995	11:22 PM	362
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+--BC2.DT1	05-16-1995	11:22 PM	100,832
+--BC2.HD1	05-16-1995	11:22 PM	359
+--BC2.RST	05-16-1995	11:22 PM	1,416
+--BC3.DT1	05-16-1995	11:22 PM	100,832
+--BC3.HD1	05-16-1995	11:22 PM	359
+--BC3.RST	05-16-1995	11:22 PM	1,416
+--BC4.DT1	05-16-1995	11:22 PM	100,832
+--BC4.HD1	05-16-1995	11:22 PM	359
+--BC4.RST	05-16-1995	11:22 PM	1,416
+--BC5.DT1	05-16-1995	11:22 PM	100,832
+--BC5.HD1	05-16-1995	11:22 PM	359
+--BC5.RST	05-16-1995	11:22 PM	1,416
+--BC6.DT1	05-16-1995	11:22 PM	100,832
+--BC6.HD1	05-16-1995	11:22 PM	359
+--BC6.RST	05-16-1995	11:22 PM	1,416
+--BC7.DT1	05-16-1995	11:22 PM	100,832
+--BC7.HD1	05-16-1995	11:22 PM	359
+--BC7.RST	05-16-1995	11:22 PM	1,416
+--BC8.DT1	05-16-1995	11:22 PM	100,832
+--BC8.HD1	05-16-1995	11:22 PM	359
+--BC8.RST	05-16-1995	11:22 PM	1,416
+--BC9.DT1	05-16-1995	11:22 PM	100,832
+--BC9.HD1	05-16-1995	11:22 PM	359
+--BC9.RST	05-16-1995	11:22 PM	1,416
+--BCL1.DT1	05-16-1995	11:22 PM	50,432
+--BCL1.HD1	05-16-1995	11:22 PM	362
+--BCL1.RST	05-16-1995	11:22 PM	1,418
+--BCL10.DT1	05-16-1995	11:22 PM	50,432
+--BCL10.HD1	05-16-1995	11:22 PM	365
+--BCL10.RST	05-16-1995	11:23 PM	1,420
+--BCL11.DT1	05-16-1995	11:23 PM	50,432

+--BCL11.HD1	05-16-1995	11:23	PM	365
+--BCL11.RST	05-16-1995	11:23	PM	1,420
+--BCL12.DT1	05-16-1995	11:23	PM	50,432
+--BCL12.HD1	05-16-1995	11:23	PM	365
+--BCL12.RST	05-16-1995	11:23	PM	1,420
+--BCL13.DT1	05-16-1995	11:23	PM	50,432
+--BCL13.HD1	05-16-1995	11:23	PM	365
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+--BCL2.DT1	05-16-1995	11:23	PM	50,432
+--BCL2.HD1	05-16-1995	11:23	PM	362
+--BCL2.RST	05-16-1995	11:23	PM	1,418
+--BCL3.DT1	05-16-1995	11:23	PM	50,432
+--BCL3.HD1	05-16-1995	11:23	PM	362
+--BCL3.RST	05-16-1995	11:23	PM	1,418
+--BCL4.DT1	05-16-1995	11:23	PM	50,432
+--BCL4.HD1	05-16-1995	11:23	PM	362
+--BCL4.RST	05-16-1995	11:23	PM	1,418
+--BCL5.DT1	05-16-1995	11:23	PM	50,432
+--BCL5.HD1	05-16-1995	11:23	PM	362
+--BCL5.RST	05-16-1995	11:23	PM	1,418
+--BCL6.DT1	05-16-1995	11:23	PM	50,432
+--BCL6.HD1	05-16-1995	11:23	PM	362
+--BCL6.RST	05-16-1995	11:23	PM	1,418
+--BCL7.DT1	05-16-1995	11:23	PM	50,432
+--BCL7.HD1	05-16-1995	11:23	PM	362
+--BCL7.RST	05-16-1995	11:23	PM	1,418
+--BCL8.DT1	05-16-1995	11:23	PM	50,432
+--BCL8.HD1	05-16-1995	11:23	PM	362
+--BCL8.RST	05-16-1995	11:23	PM	1,418
+--BCL9.DT1	05-16-1995	11:23	PM	50,432
+--BCL9.HD1	05-16-1995	11:23	PM	362
+--BCL9.RST	05-16-1995	11:23	PM	1,418
+--GOM1.DT1	05-16-1995	11:23	PM	445,568
+--GOM1.HD1	05-16-1995	11:23	PM	362
+--GOM1.RST	05-16-1995	11:23	PM	1,418
+--GOM2.DT1	05-16-1995	11:23	PM	445,568
+--GOM2.HD1	05-16-1995	11:23	PM	362
+--GOM2.RST	05-16-1995	11:23	PM	1,418
+--GOMC1.DT1	05-16-1995	11:23	PM	445,610
+--GOMC1.HD1	05-16-1995	11:23	PM	365
+--GOMC1.RST	05-16-1995	11:23	PM	1,420
+--GOMC2.DT1	05-16-1995	11:23	PM	445,610
+--GOMC2.HD1	05-16-1995	11:23	PM	365
+--GOMC2.RST	05-16-1995	11:23	PM	1,420
+--GOMCW1.DT1	05-16-1995	11:23	PM	445,610
+--GOMCW1.HD1	05-16-1995	11:23	PM	368
+--GOMCW1.RST	05-16-1995	11:23	PM	1,422
+--GOMCW2.DT1	05-16-1995	11:23	PM	445,610
+--GOMCW2.HD1	05-16-1995	11:23	PM	368
+--GOMCW2.RST	05-16-1995	11:23	PM	1,422
+--INSTALL.DT1	05-16-1995	11:23	PM	445,568
+--INSTALL.HD1	05-16-1995	11:23	PM	371
+--INSTALL.RST	05-16-1995	11:23	PM	1,424
+--NS.DT1	05-16-1995	11:23	PM	445,568
+--NS.HD1	05-16-1995	11:23	PM	356
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+--NSC.DT1	05-16-1995	11:23	PM	445,610
+--NSC.HD1	05-16-1995	11:23	PM	359
+--NSC.RST	05-16-1995	11:23	PM	1,416
+--NSCW.DT1	05-16-1995	11:23	PM	445,610

+--NSCW.HD1	05-16-1995	11:23	PM	362
+--NSCW.RST	05-16-1995	11:23	PM	1,418
+--OP.DT1	05-16-1995	11:23	PM	445,568
+--OP.HD1	05-16-1995	11:23	PM	356
+--OP.RST	05-16-1995	11:23	PM	1,414
+--OPMDS.DT1	05-16-1995	11:23	PM	445,568
+--OPMDS.HD1	05-16-1995	11:23	PM	365
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+--RG10.DT1	05-16-1995	11:23	PM	50,432
+--RG10.HD1	05-16-1995	11:23	PM	362
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+--RG11.HD1	05-16-1995	11:23	PM	362
+--RG11.RST	05-16-1995	11:23	PM	1,418
+--RG12.DT1	05-16-1995	11:23	PM	50,432
+--RG12.HD1	05-16-1995	11:23	PM	362
+--RG12.RST	05-16-1995	11:23	PM	1,418
+--RG13.DT1	05-16-1995	11:23	PM	50,432
+--RG13.HD1	05-16-1995	11:23	PM	362
+--RG13.RST	05-16-1995	11:23	PM	1,418
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+--RG14.HD1	05-16-1995	11:23	PM	362
+--RG14.RST	05-16-1995	11:23	PM	1,418
+--RG3.DT1	05-16-1995	11:23	PM	50,432
+--RG3.HD1	05-16-1995	11:23	PM	359
+--RG3.RST	05-16-1995	11:23	PM	1,891
+--RG4.DT1	05-16-1995	11:23	PM	50,432
+--RG4.HD1	05-16-1995	11:23	PM	359
+--RG4.RST	05-16-1995	11:23	PM	1,416
+--RG5.DT1	05-16-1995	11:23	PM	50,432
+--RG5.HD1	05-16-1995	11:23	PM	359
+--RG5.RST	05-16-1995	11:23	PM	1,416
+--RG6.DT1	05-16-1995	11:23	PM	50,432
+--RG6.HD1	05-16-1995	11:23	PM	359
+--RG6.RST	05-16-1995	11:23	PM	1,416
+--RG7.DT1	05-16-1995	11:23	PM	50,432
+--RG7.HD1	05-16-1995	11:23	PM	359
+--RG7.RST	05-16-1995	11:23	PM	1,416
+--RG8.DT1	05-16-1995	11:23	PM	50,432
+--RG8.HD1	05-16-1995	11:23	PM	359
+--RG8.RST	05-16-1995	11:23	PM	1,416
+--RG9.DT1	05-16-1995	11:23	PM	50,432
+--RG9.HD1	05-16-1995	11:23	PM	359
+--RG9.RST	05-16-1995	11:23	PM	1,416
+--TEST_WAV.TXT	05-16-1995	11:23	PM	3,141

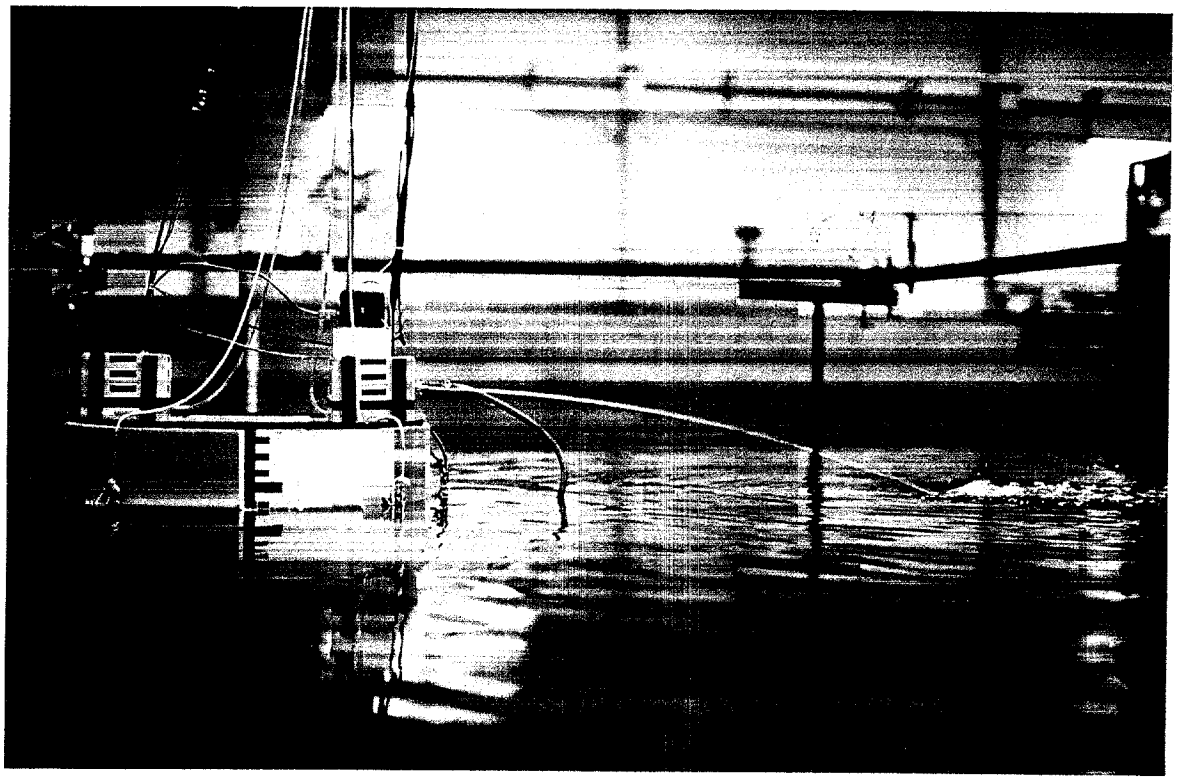

Figure C.10 Deballasting Spar Hull Configuration O

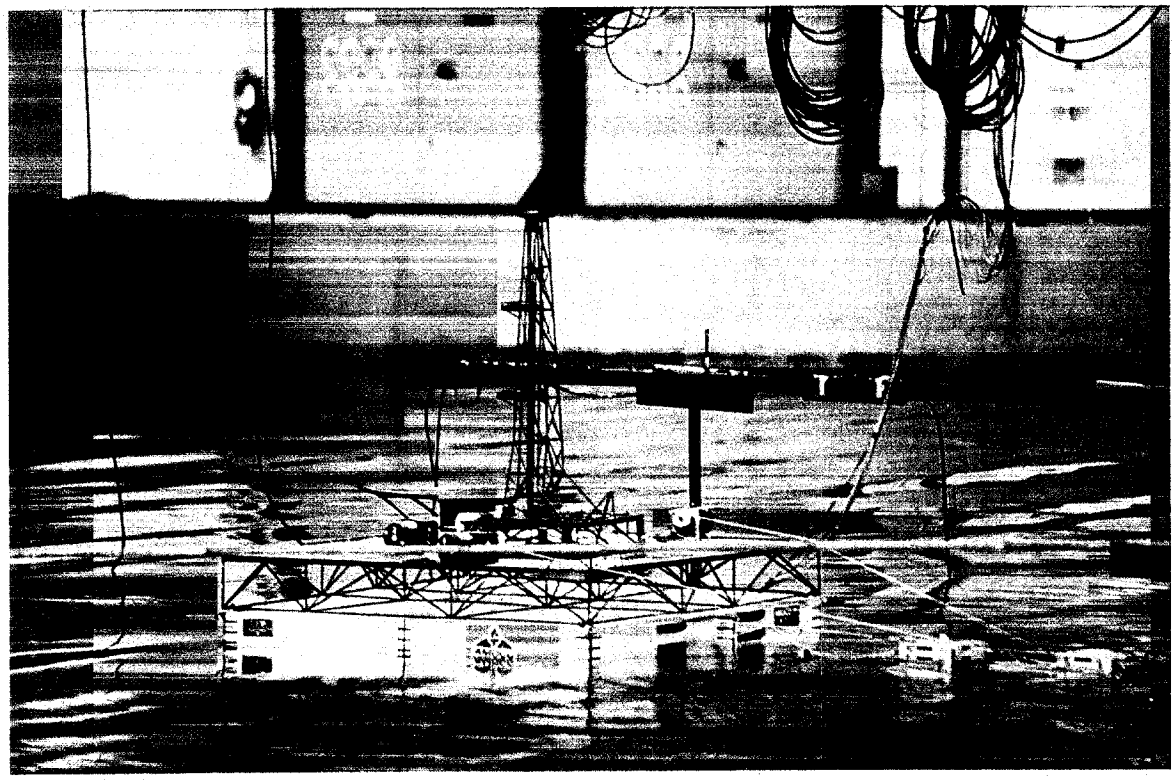

Figure C.11 Float-On Test Configuration P

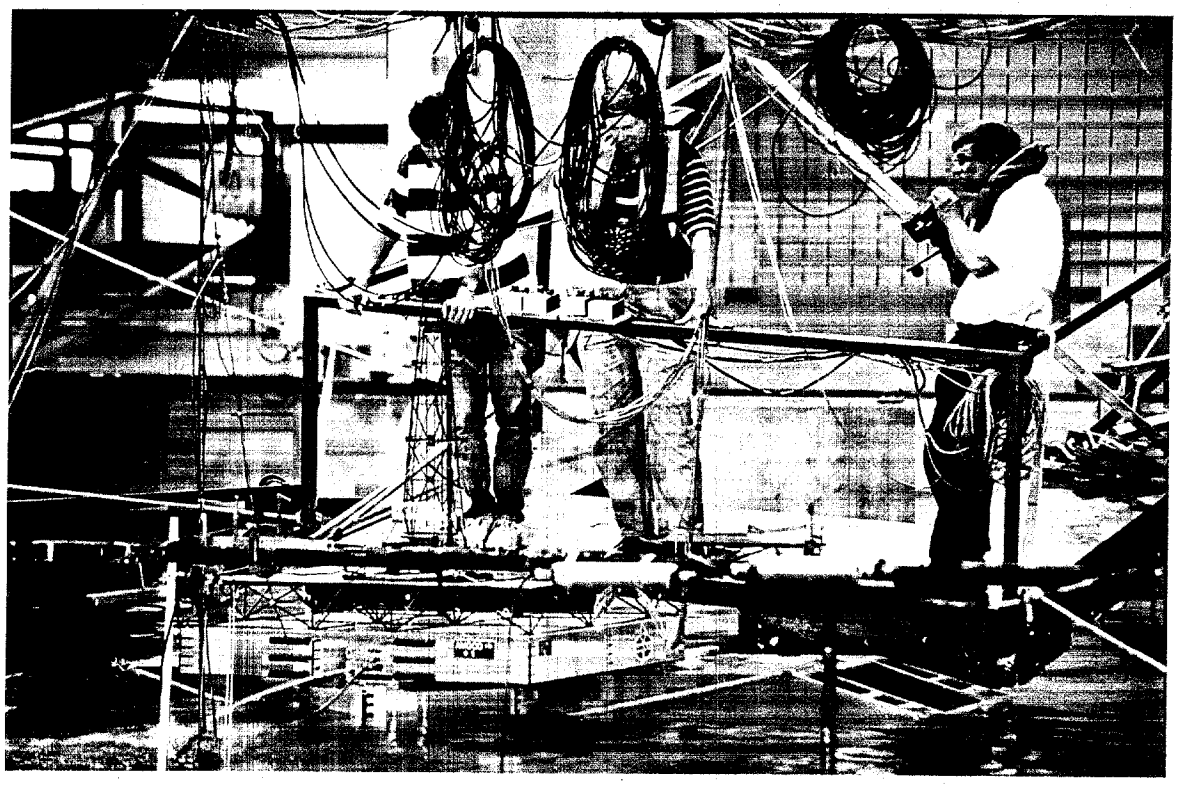

Figure C.12 Deballasting During Slide-On Test Configuration P

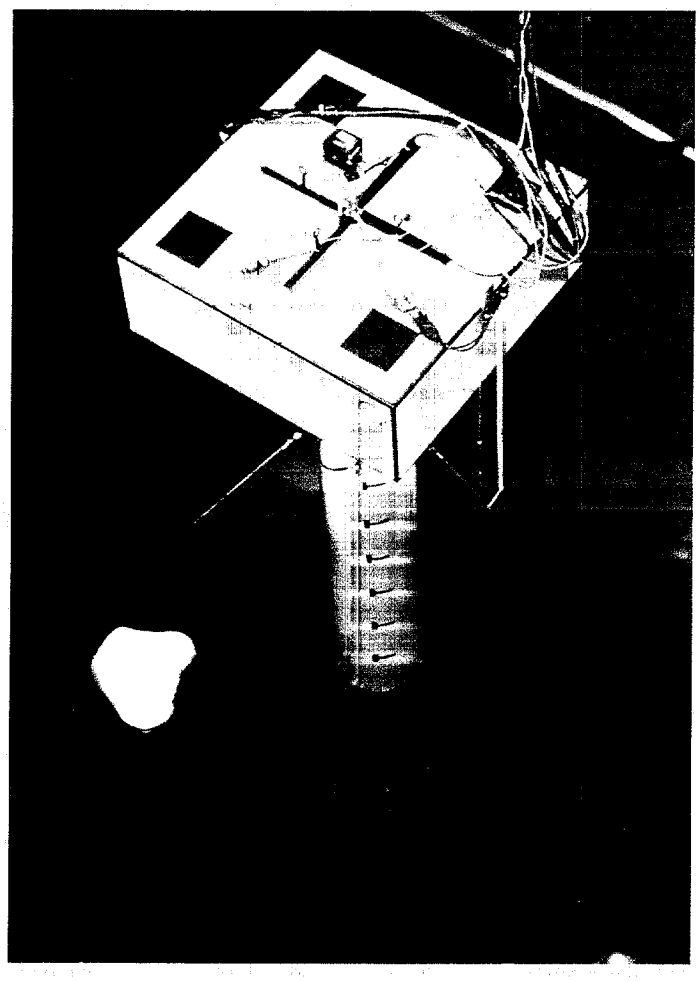

Figure C.13 Small Spar Configuration L

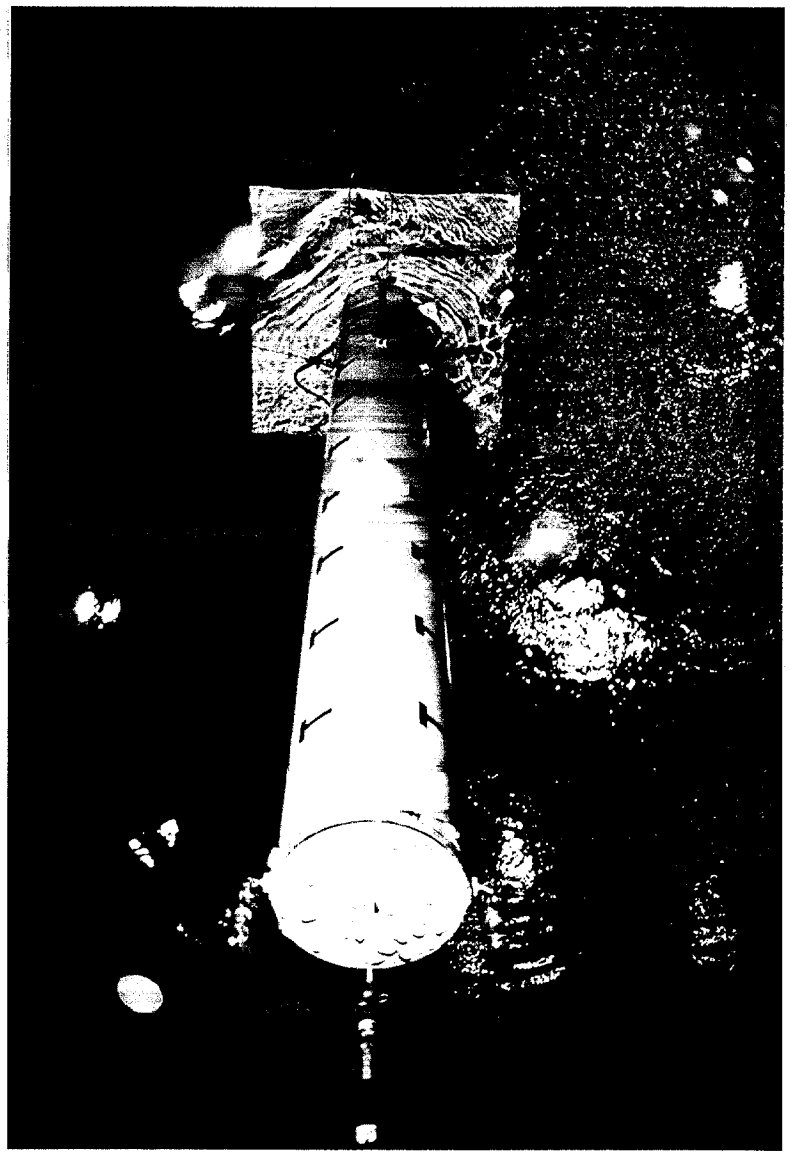

Figure C.14 Small Spar Underwater View Showing Vertical Tether Configuration L

D.1 Data Tape Format

The data tapes that accompany this report contain the tabular summary statistics and time series for each experiment. The tapes are DC2120 Mini Data Cartridges with an uncompressed capacity of 120 mega-bytes and a compressed capacity of 250 megabytes. The tapes were created on a Dell PC computer using a 250 MB Colorado tape drive. The software used was Colorado Backup Lite running under the Windows operating system.

All data is in ASCII format. The data was placed on the tapes in compressed format. Each tape contains one or more volumes. The volume titles indicate which configurations are stored within.

The experiment to which the data applies is indicated by the root file name. The suffixes after the period (".") indicate the content of the file. Table D.1 explains the meaning of the different file suffixes.

Tables D.2 and D.3 present samples of typical header and data files. The header file `NRAN8.HD1` lists the channels of acquired and computed data and the prototype units found in file `NRAN8.DT1`. In this example, data from 11 channels is stored in the data file. Each column of data is identified in order by the list of items in the header file.

Every data file has a similar structure. The first line in each data file contains three numbers. The first number, 9709, in Table D.3 represents the number of data points contained in each column. The second number, 11 in this example, is the number of columns, i.e. the number of channels of data. The third number, 0.37081, is the time step, in prototype seconds, between successive scans (rows). Below the first row of three numbers, each column in the data file represents one channel and each row represents a scan of all the channels at one instant in time. Note that in this example, all 11 columns are shown while only the first 20 rows of data are presented. The complete file contains the header row of 3 numbers and 9709 succeeding rows of data in 11 columns.

D.2 Data Tape Contents

Four (4) cartridge tapes have been provided. The tapes are labeled with their contents:

- ConfigA, ConfigB, ConfigC,
- ConfigD, ConfigF, ConfigH,
- ConfigJ, ConfigL, ConfigM, ConfigN, ConfigO
- ConfigP, Waves/Wind/Current.

The data for each configuration is stored as a tape volume. Downloading each tape volume will produce a directory tree:

```
Root-
    DATA-
        Config*.
```

All data files on the tapes are listed in this appendix.

Table D.1 Data File Suffixes

File Suffix	File Content
*.UFS	Unfiltered temporal statistics summary table.
*.USP	Unfiltered spectral statistics summary table.
*.LFS	Low pass filtered temporal statistics summary table.
*.LSP	Low pass filtered spectral statistics summary table.
*.HFS	High pass filtered temporal statistics summary table.
*.HSP	High pass filtered filtered spectral statistics summary table.
*.RGS	Regular wave test summary table.
*.UFT	Unfiltered temporal statistics summary table for windowed data.
.HD	Header file describing data file *.DT*.
.DT	Data file.

Table D.2 Sample Header File NRAN8 . HD1

```
-----------------------------------------------------
Test No. NRAN8_001          Project: Spar Platform
Started at 14:39:52 on 24-MAY-94
-----------------------------------------------------
     DATA_CHAN
Ch                UNITS_CHAN

 1   Surge        Feet
 2   Sway         Feet
 3   Heave        Feet
 4   Roll         Degrees
 5   Pitch        Degrees
30   Cor_Surge    Feet
31   Cor_Sway     Feet
32   Cor_Heave    Feet
40   Surge_CG     Feet
41   Sway_CG      Feet
42   Heave_CG     Feet
```

Table D.3 Sample Data File NRAN8 . DT1

9709	11	0.37081								
-8.82719	1.343881	0.014174	-0.129554	0.096896	-8.80077	1.386516	0.042627	-9.14209	0.930151	0.043442
-8.4638	1.476604	-0.043238	-0.16552	0.097994	-8.43469	1.517259	-0.015878	-8.77989	0.934201	-0.01474
-8.19125	1.609329	-0.071943	-0.1865	0.088367	-8.15947	1.648456	-0.045433	-8.47075	0.991494	-0.044128
-7.82787	1.582784	-0.15806	-0.189497	0.066768	-7.79642	1.620208	-0.132605	-8.03161	0.952688	-0.131363
-7.5099	1.609329	-0.215469	-0.177508	0.034954	-7.47777	1.645188	-0.190975	-7.6009	1.019898	-0.189957
-7.3282	1.609329	-0.33029	-0.153531	-0.005096	-7.29599	1.644316	-0.306236	-7.27804	1.103489	-0.305496
-7.14651	1.476604	-0.358995	-0.111571	-0.050048	-7.11681	1.510907	-0.335494	-6.94051	1.117888	-0.335037
-7.05565	1.343881	-0.416407	-0.066613	-0.096069	-7.02852	1.37793	-0.393122	-6.69011	1.143279	-0.392715
-7.10107	1.158068	-0.416407	-0.015661	-0.139128	-7.07761	1.192599	-0.39296	-6.58752	1.13743	-0.392349
-7.28277	0.998799	-0.44511	0.03529	-0.175467	-7.26249	1.034446	-0.421012	-6.64439	1.15876	-0.420029
-7.55532	0.786441	-0.44511	0.080248	-0.20199	-7.53925	0.823743	-0.420094	-6.82772	1.106422	-0.418625
-7.78244	0.574083	-0.416407	0.1312	-0.216543	-7.77053	0.612835	-0.390664	-7.00774	1.074996	-0.388702
-8.05499	0.467904	-0.301584	0.161171	-0.218071	-8.04516	0.508184	-0.275103	-7.27699	1.075921	-0.272842
-8.2821	0.38827	-0.272879	0.179154	-0.206635	-8.27383	0.429817	-0.245689	-7.54594	1.060901	-0.243378
-8.37295	0.308635	-0.129353	0.176157	-0.183308	-8.36621	0.350769	-0.102082	-7.72049	0.971296	-0.100098
-8.55464	0.308635	0.014174	0.15218	-0.149967	-8.54791	0.351684	0.041809	-8.01964	0.88775	0.043213
-8.64549	0.361725	0.128994	0.11022	-0.10902	-8.63775	0.405141	0.156737	-8.25371	0.7934	0.157486
-8.60007	0.520993	0.27252	0.059268	-0.063137	-8.58928	0.563913	0.299879	-8.36687	0.772689	0.30011
-8.41837	0.680262	0.416046	0.002322	-0.015007	-8.40451	0.72201	0.442593	-8.35165	0.730188	0.442612
-8.32752	0.839531	0.444752	-0.066613	0.032836	-8.31059	0.880568	0.470958	-8.42625	0.645916	0.47113

Colorado Backup - DOS

Tape Directory

Tape name:
Volumes recorded: 3
Print Time: 06:08 PM
Print Date: 06-06-1995

```
+- TITLE: ConfigA ----------------------------------------------------+
+- DOS:HD_504                 05-15-95     07:25 PM         122,215 -+

+- TITLE: ConfigB ----------------------------------------------------+
+- DOS:HD_504                 05-15-95     08:58 PM          96,461 -+

+- TITLE: ConfigC ----------------------------------------------------+
+- DOS:HD_504                 05-15-95     09:11 PM          48,070 -+
```

Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:03 PM
Print Date: 06-06-1995

Volume # 1 Volume label: DOS:HD_504 Volume size: 122,204
Created on 05-15-1995 at 07:25 PM Ver: 18.00-0.0
Volume title: ConfigA

```
\
 +--DATA
     +--CONFIGA
         +--ACUR2.DT1                    05-15-1995  06:24 PM   1,184,530
         +--ACUR2.DT3                    05-15-1995  06:24 PM   1,281,620
         +--ACUR2.DT2                    05-15-1995  06:24 PM     796,170
         +--ACUR2.HD1                    05-15-1995  06:24 PM         613
         +--ACUR2.HD2                    05-15-1995  06:24 PM         489
         +--ACUR2.HD3                    05-15-1995  06:24 PM         644
         +--ACUR2.HFS                    05-15-1995  06:24 PM       3,340
         +--ACUR2.HSP                    05-15-1995  06:24 PM       3,882
         +--ACUR2.LFS                    05-15-1995  06:24 PM       3,321
         +--ACUR2.LSP                    05-15-1995  06:24 PM       3,863
         +--ACUR2.UFS                    05-15-1995  06:24 PM       3,241
         +--ACUR2.USP                    05-15-1995  06:24 PM       3,783
         +--ACUR3.DT1                    05-15-1995  06:24 PM   1,184,530
         +--ACUR3.DT2                    05-15-1995  06:24 PM     699,080
         +--ACUR3.DT3                    05-15-1995  06:24 PM   1,087,440
         +--ACUR3.HD1                    05-15-1995  06:24 PM         613
         +--ACUR3.HD2                    05-15-1995  06:24 PM         458
         +--ACUR3.HD3                    05-15-1995  06:24 PM         582
         +--ACUR3.HFS                    05-15-1995  06:24 PM       3,340
         +--ACUR3.HSP                    05-15-1995  06:24 PM       3,882
         +--ACUR3.LFS                    05-15-1995  06:24 PM       3,321
         +--ACUR3.LSP                    05-15-1995  06:24 PM       3,863
         +--ACUR3.UFS                    05-15-1995  06:24 PM       3,241
         +--ACUR3.USP                    05-15-1995  06:24 PM       3,783
         +--ACUR5.DT1                    05-15-1995  06:24 PM   1,184,530
         +--ACUR5.DT2                    05-15-1995  06:24 PM     699,080
         +--ACUR5.DT3                    05-15-1995  06:24 PM   1,087,440
         +--ACUR5.HD1                    05-15-1995  06:24 PM         613
         +--ACUR5.HD2                    05-15-1995  06:24 PM         458
         +--ACUR5.HD3                    05-15-1995  06:24 PM         582
         +--ACUR5.HFS                    05-15-1995  06:24 PM       3,340
         +--ACUR5.HSP                    05-15-1995  06:24 PM       3,882
         +--ACUR5.LFS                    05-15-1995  06:24 PM       3,321
         +--ACUR5.LSP                    05-15-1995  06:24 PM       3,863
         +--ACUR5.UFS                    05-15-1995  06:24 PM       3,162
         +--ACUR5.USP                    05-15-1995  06:24 PM       3,783
         +--ACUR7.DT1                    05-15-1995  06:25 PM   1,184,530
         +--ACUR7.DT2                    05-15-1995  06:25 PM     796,170
         +--ACUR7.DT3                    05-15-1995  06:25 PM   1,281,620
         +--ACUR7.HD1                    05-15-1995  06:25 PM         613
         +--ACUR7.HD2                    05-15-1995  06:25 PM         489
         +--ACUR7.HD3                    05-15-1995  06:25 PM         644
         +--ACUR7.HFS                    05-15-1995  06:25 PM       3,498
         +--ACUR7.HSP                    05-15-1995  06:25 PM       4,040
```

+--ACUR7.LFS	05-15-1995	06:25 PM	3,479
+--ACUR7.LSP	05-15-1995	06:25 PM	4,021
+--ACUR7.UFS	05-15-1995	06:25 PM	3,399
+--ACUR7.USP	05-15-1995	06:25 PM	3,941
+--AD1.DT1	05-15-1995	06:25 PM	1,464,032
+--AD1.DT2	05-15-1995	06:25 PM	864,032
+--AD1.DT3	05-15-1995	06:25 PM	1,344,032
+--AD1.HD1	05-15-1995	06:25 PM	607
+--AD1.HD2	05-15-1995	06:25 PM	452
+--AD1.HD3	05-15-1995	06:25 PM	576
+--AD1.UFS	05-15-1995	06:25 PM	3,081
+--AD2.DT1	05-15-1995	06:25 PM	1,184,530
+--AD2.DT2	05-15-1995	06:25 PM	699,080
+--AD2.DT3	05-15-1995	06:25 PM	1,087,440
+--AD2.HD1	05-15-1995	06:25 PM	1,214
+--AD2.HD2	05-15-1995	06:25 PM	452
+--AD2.HD3	05-15-1995	06:25 PM	576
+--AD2.UFS	05-15-1995	06:25 PM	3,081
+--AD3.DT1	05-15-1995	06:26 PM	1,184,530
+--AD3.DT2	05-15-1995	06:26 PM	699,080
+--AD3.DT3	05-15-1995	06:26 PM	1,087,440
+--AD3.HD1	05-15-1995	06:26 PM	607
+--AD3.HD2	05-15-1995	06:26 PM	452
+--AD3.HD3	05-15-1995	06:26 PM	576
+--AD3.UFS	05-15-1995	06:26 PM	3,081
+--AD4.DT1	05-15-1995	06:26 PM	1,464,032
+--AD4.DT2	05-15-1995	06:26 PM	864,032
+--AD4.DT3	05-15-1995	06:26 PM	1,344,032
+--AD4.HD1	05-15-1995	06:26 PM	607
+--AD4.HD2	05-15-1995	06:26 PM	452
+--AD4.HD3	05-15-1995	06:26 PM	576
+--AD4.UFS	05-15-1995	06:26 PM	3,081
+--AD5.DT1	05-15-1995	06:26 PM	1,464,032
+--AD5.DT2	05-15-1995	06:26 PM	864,032
+--AD5.DT3	05-15-1995	06:26 PM	1,344,032
+--AD5.HD1	05-15-1995	06:26 PM	607
+--AD5.HD2	05-15-1995	06:26 PM	452
+--AD5.HD3	05-15-1995	06:26 PM	576
+--AD5.UFS	05-15-1995	06:26 PM	3,081
+--AD6.DT1	05-15-1995	06:27 PM	1,464,032
+--AD6.DT2	05-15-1995	06:27 PM	864,032
+--AD6.DT3	05-15-1995	06:27 PM	1,344,032
+--AD6.HD1	05-15-1995	06:27 PM	607
+--AD6.HD2	05-15-1995	06:27 PM	452
+--AD6.HD3	05-15-1995	06:27 PM	576
+--AD6.UFS	05-15-1995	06:27 PM	3,081
+--ARAN1.DT1	05-15-1995	06:27 PM	1,184,530
+--ARAN1.DT2	05-15-1995	06:27 PM	699,080
+--ARAN1.DT3	05-15-1995	06:27 PM	1,087,440
+--ARAN1.HD1	05-15-1995	06:27 PM	613
+--ARAN1.HD2	05-15-1995	06:27 PM	458
+--ARAN1.HD3	05-15-1995	06:27 PM	582
+--ARAN1.HFS	05-15-1995	06:27 PM	3,182
+--ARAN1.HSP	05-15-1995	06:27 PM	3,724
+--ARAN1.LFS	05-15-1995	06:27 PM	3,163
+--ARAN1.LSP	05-15-1995	06:27 PM	3,705
+--ARAN1.UFS	05-15-1995	06:27 PM	3,083
+--ARAN1.USP	05-15-1995	06:27 PM	3,625
+--ARAN2.DT1	05-15-1995	06:27 PM	1,184,530
+--ARAN2.DT2	05-15-1995	06:27 PM	699,080

+--ARAN2.DT3	05-15-1995	06:27 PM	1,087,440
+--ARAN2.HD1	05-15-1995	06:27 PM	613
+--ARAN2.HD2	05-15-1995	06:27 PM	458
+--ARAN2.HD3	05-15-1995	06:27 PM	582
+--ARAN2.HFS	05-15-1995	06:27 PM	3,182
+--ARAN2.HSP	05-15-1995	06:27 PM	3,724
+--ARAN2.LFS	05-15-1995	06:27 PM	3,163
+--ARAN2.LSP	05-15-1995	06:27 PM	3,705
+--ARAN2.UFS	05-15-1995	06:27 PM	3,083
+--ARAN2.USP	05-15-1995	06:27 PM	3,625
+--ARAN3-4.DT1	05-15-1995	06:28 PM	2,369,028
+--ARAN3-4.DT2	05-15-1995	06:28 PM	1,398,128
+--ARAN3-4.DT3	05-15-1995	06:28 PM	2,174,848
+--ARAN3-4.HD1	05-15-1995	06:28 PM	1,214
+--ARAN3-4.HD2	05-15-1995	06:28 PM	452
+--ARAN3-4.HD3	05-15-1995	06:28 PM	576
+--ARAN3-4.HFS	05-15-1995	06:28 PM	3,259
+--ARAN3-4.HSP	05-15-1995	06:28 PM	3,878
+--ARAN3-4.LFS	05-15-1995	06:28 PM	3,240
+--ARAN3-4.LSP	05-15-1995	06:28 PM	3,859
+--ARAN3-4.UFS	05-15-1995	06:28 PM	3,160
+--ARAN3-4.USP	05-15-1995	06:28 PM	3,779
+--ARAN3.DT1	05-15-1995	06:28 PM	1,184,530
+--ARAN3.DT2	05-15-1995	06:28 PM	699,080
+--ARAN3.DT3	05-15-1995	06:28 PM	1,087,440
+--ARAN3.HD1	05-15-1995	06:28 PM	613
+--ARAN3.HD2	05-15-1995	06:28 PM	458
+--ARAN3.HD3	05-15-1995	06:28 PM	582
+--ARAN3.HFS	05-15-1995	06:28 PM	3,182
+--ARAN3.HSP	05-15-1995	06:28 PM	3,724
+--ARAN3.LFS	05-15-1995	06:28 PM	3,163
+--ARAN3.LSP	05-15-1995	06:28 PM	3,705
+--ARAN3.UFS	05-15-1995	06:28 PM	3,083
+--ARAN3.USP	05-15-1995	06:28 PM	3,625
+--ARAN31.DT1	05-15-1995	06:28 PM	1,184,530
+--ARAN31.DT2	05-15-1995	06:29 PM	796,170
+--ARAN31.DT3	05-15-1995	06:29 PM	1,281,620
+--ARAN31.HD1	05-15-1995	06:29 PM	613
+--ARAN31.HD2	05-15-1995	06:29 PM	489
+--ARAN31.HD3	05-15-1995	06:29 PM	644
+--ARAN31.HFS	05-15-1995	06:29 PM	3,498
+--ARAN31.HSP	05-15-1995	06:29 PM	4,040
+--ARAN31.LFS	05-15-1995	06:29 PM	3,479
+--ARAN31.LSP	05-15-1995	06:29 PM	4,021
+--ARAN31.UFS	05-15-1995	06:29 PM	3,399
+--ARAN31.USP	05-15-1995	06:29 PM	3,941
+--ARAN4.DT1	05-15-1995	06:29 PM	1,184,530
+--ARAN4.DT2	05-15-1995	06:29 PM	699,080
+--ARAN4.DT3	05-15-1995	06:29 PM	1,087,440
+--ARAN4.HD1	05-15-1995	06:29 PM	613
+--ARAN4.HD2	05-15-1995	06:29 PM	458
+--ARAN4.HD3	05-15-1995	06:29 PM	582
+--ARAN4.HFS	05-15-1995	06:29 PM	3,261
+--ARAN4.HSP	05-15-1995	06:29 PM	3,882
+--ARAN4.LFS	05-15-1995	06:29 PM	3,242
+--ARAN4.LSP	05-15-1995	06:29 PM	3,863
+--ARAN4.UFS	05-15-1995	06:29 PM	3,162
+--ARAN4.USP	05-15-1995	06:29 PM	3,783
+--ARAN5.DT1	05-15-1995	06:29 PM	1,184,530
+--ARAN5.DT2	05-15-1995	06:29 PM	699,080

+--ARAN5.DT3	05-15-1995	06:29 PM	1,087,440
+--ARAN5.HD1	05-15-1995	06:29 PM	613
+--ARAN5.HD2	05-15-1995	06:29 PM	458
+--ARAN5.HD3	05-15-1995	06:29 PM	582
+--ARAN5.HFS	05-15-1995	06:29 PM	3,261
+--ARAN5.HSP	05-15-1995	06:29 PM	3,882
+--ARAN5.LFS	05-15-1995	06:29 PM	3,242
+--ARAN5.LSP	05-15-1995	06:29 PM	3,863
+--ARAN5.UFS	05-15-1995	06:29 PM	3,162
+--ARAN5.USP	05-15-1995	06:29 PM	3,783
+--ARAN6.DT1	05-15-1995	06:29 PM	1,184,530
+--ARAN6.DT2	05-15-1995	06:29 PM	699,080
+--ARAN6.DT3	05-15-1995	06:30 PM	1,087,440
+--ARAN6.HD1	05-15-1995	06:30 PM	613
+--ARAN6.HD2	05-15-1995	06:30 PM	458
+--ARAN6.HD3	05-15-1995	06:30 PM	582
+--ARAN6.HFS	05-15-1995	06:30 PM	3,182
+--ARAN6.HSP	05-15-1995	06:30 PM	3,724
+--ARAN6.LFS	05-15-1995	06:30 PM	3,163
+--ARAN6.LSP	05-15-1995	06:30 PM	3,705
+--ARAN6.UFS	05-15-1995	06:30 PM	3,083
+--ARAN6.USP	05-15-1995	06:30 PM	3,625
+--ARAN7.DT1	05-15-1995	06:30 PM	1,184,530
+--ARAN7.DT2	05-15-1995	06:30 PM	796,170
+--ARAN7.DT3	05-15-1995	06:30 PM	1,281,620
+--ARAN7.HD1	05-15-1995	06:30 PM	613
+--ARAN7.HD2	05-15-1995	06:30 PM	489
+--ARAN7.HD3	05-15-1995	06:30 PM	644
+--ARAN7.HFS	05-15-1995	06:30 PM	3,498
+--ARAN7.HSP	05-15-1995	06:30 PM	4,040
+--ARAN7.LFS	05-15-1995	06:30 PM	3,479
+--ARAN7.LSP	05-15-1995	06:30 PM	4,021
+--ARAN7.UFS	05-15-1995	06:30 PM	3,399
+--ARAN7.USP	05-15-1995	06:30 PM	3,941
+--ARC2.DT1	05-15-1995	06:30 PM	1,184,530
+--ARC2.DT2	05-15-1995	06:30 PM	699,080
+--ARC2.DT3	05-15-1995	06:30 PM	1,087,440
+--ARC2.HD1	05-15-1995	06:30 PM	610
+--ARC2.HD2	05-15-1995	06:30 PM	455
+--ARC2.HD3	05-15-1995	06:30 PM	579
+--ARC2.HFS	05-15-1995	06:30 PM	3,260
+--ARC2.HSP	05-15-1995	06:30 PM	3,880
+--ARC2.LFS	05-15-1995	06:30 PM	3,241
+--ARC2.LSP	05-15-1995	06:30 PM	3,861
+--ARC2.UFS	05-15-1995	06:30 PM	3,161
+--ARC2.USP	05-15-1995	06:30 PM	3,781
+--ARC3-4.DT1	05-15-1995	06:30 PM	2,369,028
+--ARC3-4.DT2	05-15-1995	06:31 PM	1,398,128
+--ARC3-4.DT3	05-15-1995	06:31 PM	2,174,848
+--ARC3-4.HD1	05-15-1995	06:31 PM	604
+--ARC3-4.HD2	05-15-1995	06:31 PM	449
+--ARC3-4.HD3	05-15-1995	06:31 PM	573
+--ARC3-4.HFS	05-15-1995	06:31 PM	3,258
+--ARC3-4.HSP	05-15-1995	06:31 PM	3,876
+--ARC3-4.LFS	05-15-1995	06:31 PM	3,239
+--ARC3-4.LSP	05-15-1995	06:31 PM	3,857
+--ARC3-4.UFS	05-15-1995	06:31 PM	3,159
+--ARC3-4.USP	05-15-1995	06:31 PM	3,777
+--ARC3.DT1	05-15-1995	06:31 PM	1,184,530
+--ARC3.DT2	05-15-1995	06:31 PM	699,080

+--ARC3.DT3	05-15-1995	06:31 PM	1,087,440
+--ARC3.HD1	05-15-1995	06:31 PM	610
+--ARC3.HD2	05-15-1995	06:31 PM	455
+--ARC3.HD3	05-15-1995	06:31 PM	579
+--ARC3.HFS	05-15-1995	06:31 PM	3,260
+--ARC3.HSP	05-15-1995	06:31 PM	3,880
+--ARC3.LFS	05-15-1995	06:31 PM	3,241
+--ARC3.LSP	05-15-1995	06:31 PM	3,861
+--ARC3.UFS	05-15-1995	06:31 PM	3,161
+--ARC3.USP	05-15-1995	06:31 PM	3,781
+--ARC4.DT1	05-15-1995	06:31 PM	1,184,530
+--ARC4.DT2	05-15-1995	06:31 PM	699,080
+--ARC4.DT3	05-15-1995	06:31 PM	1,087,440
+--ARC4.HD1	05-15-1995	06:31 PM	610
+--ARC4.HD2	05-15-1995	06:31 PM	455
+--ARC4.HD3	05-15-1995	06:31 PM	579
+--ARC4.HFS	05-15-1995	06:31 PM	3,260
+--ARC4.HSP	05-15-1995	06:31 PM	3,880
+--ARC4.LFS	05-15-1995	06:31 PM	3,241
+--ARC4.LSP	05-15-1995	06:31 PM	3,861
+--ARC4.UFS	05-15-1995	06:31 PM	3,161
+--ARC4.USP	05-15-1995	06:31 PM	3,781
+--ARC5.DT1	05-15-1995	06:32 PM	1,184,530
+--ARC5.DT2	05-15-1995	06:32 PM	699,080
+--ARC5.DT3	05-15-1995	06:32 PM	1,087,440
+--ARC5.HD1	05-15-1995	06:32 PM	610
+--ARC5.HD2	05-15-1995	06:32 PM	455
+--ARC5.HD3	05-15-1995	06:32 PM	579
+--ARC5.HFS	05-15-1995	06:32 PM	3,260
+--ARC5.HSP	05-15-1995	06:32 PM	3,880
+--ARC5.LFS	05-15-1995	06:32 PM	3,241
+--ARC5.LSP	05-15-1995	06:32 PM	3,861
+--ARC5.UFS	05-15-1995	06:32 PM	3,161
+--ARC5.USP	05-15-1995	06:32 PM	3,781
+--ARC7.DT1	05-15-1995	06:32 PM	1,184,530
+--ARC7.DT2	05-15-1995	06:32 PM	796,170
+--ARC7.DT3	05-15-1995	06:32 PM	1,281,620
+--ARC7.HD1	05-15-1995	06:32 PM	610
+--ARC7.HD2	05-15-1995	06:32 PM	486
+--ARC7.HD3	05-15-1995	06:32 PM	641
+--ARC7.HFS	05-15-1995	06:32 PM	3,497
+--ARC7.HSP	05-15-1995	06:32 PM	4,038
+--ARC7.LFS	05-15-1995	06:32 PM	3,478
+--ARC7.LSP	05-15-1995	06:32 PM	4,019
+--ARC7.UFS	05-15-1995	06:32 PM	3,398
+--ARC7.USP	05-15-1995	06:32 PM	3,939
+--ARCW2.DT1	05-15-1995	06:32 PM	1,184,530
+--ARCW2.DT2	05-15-1995	06:32 PM	699,080
+--ARCW2.DT3	05-15-1995	06:32 PM	1,087,440
+--ARCW2.HD1	05-15-1995	06:32 PM	613
+--ARCW2.HD2	05-15-1995	06:32 PM	458
+--ARCW2.HD3	05-15-1995	06:32 PM	582
+--ARCW2.HFS	05-15-1995	06:32 PM	3,261
+--ARCW2.HSP	05-15-1995	06:32 PM	3,882
+--ARCW2.LFS	05-15-1995	06:32 PM	3,242
+--ARCW2.LSP	05-15-1995	06:32 PM	3,863
+--ARCW2.UFS	05-15-1995	06:32 PM	3,162
+--ARCW2.USP	05-15-1995	06:32 PM	3,783
+--ARCW3-4.DT1	05-15-1995	06:33 PM	2,369,028
+--ARCW3-4.DT2	05-15-1995	06:33 PM	1,398,128

+--ARCW3-4.DT3	05-15-1995	06:33	PM	2,174,848
+--ARCW3-4.HD1	05-15-1995	06:33	PM	607
+--ARCW3-4.HD2	05-15-1995	06:33	PM	452
+--ARCW3-4.HD3	05-15-1995	06:33	PM	576
+--ARCW3-4.HFS	05-15-1995	06:33	PM	3,259
+--ARCW3-4.HSP	05-15-1995	06:33	PM	3,878
+--ARCW3-4.LFS	05-15-1995	06:33	PM	3,240
+--ARCW3-4.LSP	05-15-1995	06:33	PM	3,859
+--ARCW3-4.UFS	05-15-1995	06:33	PM	3,160
+--ARCW3-4.USP	05-15-1995	06:33	PM	3,779
+--ARCW3.DT1	05-15-1995	06:33	PM	1,184,530
+--ARCW3.DT2	05-15-1995	06:33	PM	699,080
+--ARCW3.DT3	05-15-1995	06:33	PM	1,087,440
+--ARCW3.HD1	05-15-1995	06:33	PM	613
+--ARCW3.HD2	05-15-1995	06:33	PM	458
+--ARCW3.HD3	05-15-1995	06:33	PM	582
+--ARCW3.HFS	05-15-1995	06:33	PM	3,261
+--ARCW3.HSP	05-15-1995	06:33	PM	3,882
+--ARCW3.LFS	05-15-1995	06:33	PM	3,242
+--ARCW3.LSP	05-15-1995	06:33	PM	3,863
+--ARCW3.UFS	05-15-1995	06:33	PM	3,162
+--ARCW3.USP	05-15-1995	06:33	PM	3,783
+--ARCW4.DT1	05-15-1995	06:33	PM	1,184,530
+--ARCW4.DT2	05-15-1995	06:33	PM	699,080
+--ARCW4.DT3	05-15-1995	06:34	PM	1,087,440
+--ARCW4.HD1	05-15-1995	06:34	PM	613
+--ARCW4.HD2	05-15-1995	06:34	PM	458
+--ARCW4.HD3	05-15-1995	06:34	PM	582
+--ARCW4.HFS	05-15-1995	06:34	PM	3,261
+--ARCW4.HSP	05-15-1995	06:34	PM	3,882
+--ARCW4.LFS	05-15-1995	06:34	PM	3,242
+--ARCW4.LSP	05-15-1995	06:34	PM	3,863
+--ARCW4.UFS	05-15-1995	06:34	PM	3,162
+--ARCW4.USP	05-15-1995	06:34	PM	3,783
+--ARCW5.DT1	05-15-1995	06:34	PM	1,184,530
+--ARCW5.DT2	05-15-1995	06:34	PM	699,080
+--ARCW5.DT3	05-15-1995	06:34	PM	1,087,440
+--ARCW5.HD1	05-15-1995	06:34	PM	613
+--ARCW5.HD2	05-15-1995	06:34	PM	458
+--ARCW5.HD3	05-15-1995	06:34	PM	582
+--ARCW5.HFS	05-15-1995	06:34	PM	3,261
+--ARCW5.HSP	05-15-1995	06:34	PM	3,882
+--ARCW5.LFS	05-15-1995	06:34	PM	3,242
+--ARCW5.LSP	05-15-1995	06:34	PM	3,863
+--ARCW5.UFS	05-15-1995	06:34	PM	3,162
+--ARCW5.USP	05-15-1995	06:34	PM	3,783
+--ARCW7.DT1	05-15-1995	06:34	PM	1,184,530
+--ARCW7.DT2	05-15-1995	06:34	PM	796,170
+--ARCW7.DT3	05-15-1995	06:34	PM	1,281,620
+--ARCW7.HD1	05-15-1995	06:34	PM	613
+--ARCW7.HD2	05-15-1995	06:34	PM	489
+--ARCW7.HD3	05-15-1995	06:34	PM	644
+--ARCW7.HFS	05-15-1995	06:34	PM	3,498
+--ARCW7.HSP	05-15-1995	06:34	PM	4,040
+--ARCW7.LFS	05-15-1995	06:34	PM	3,479
+--ARCW7.LSP	05-15-1995	06:34	PM	4,021
+--ARCW7.UFS	05-15-1995	06:34	PM	3,399
+--ARCW7.USP	05-15-1995	06:34	PM	3,941
+--ARG10.DT1	05-15-1995	06:34	PM	292,832
+--ARG10.DT2	05-15-1995	06:34	PM	196,832

+--ARG10.DT3	05-15-1995	06:34 PM	316,832
+--ARG10.HD1	05-15-1995	06:34 PM	613
+--ARG10.HD2	05-15-1995	06:34 PM	489
+--ARG10.HD3	05-15-1995	06:34 PM	644
+--ARG10.RGS	05-15-1995	06:34 PM	1,553
+--ARG10.UFS	05-15-1995	06:34 PM	3,399
+--ARG10.UFT	05-15-1995	06:34 PM	3,664
+--ARG3.DT1	05-15-1995	06:34 PM	292,832
+--ARG3.DT2	05-15-1995	06:34 PM	196,832
+--ARG3.DT3	05-15-1995	06:34 PM	316,832
+--ARG3.HD1	05-15-1995	06:34 PM	610
+--ARG3.HD2	05-15-1995	06:34 PM	486
+--ARG3.HD3	05-15-1995	06:34 PM	641
+--ARG3.RGS	05-15-1995	06:34 PM	1,551
+--ARG3.UFS	05-15-1995	06:34 PM	3,398
+--ARG3.UFT	05-15-1995	06:34 PM	3,660
+--ARG5.DT1	05-15-1995	06:34 PM	292,832
+--ARG5.DT2	05-15-1995	06:34 PM	196,832
+--ARG5.DT3	05-15-1995	06:34 PM	316,832
+--ARG5.HD1	05-15-1995	06:34 PM	610
+--ARG5.HD2	05-15-1995	06:34 PM	486
+--ARG5.HD3	05-15-1995	06:34 PM	641
+--ARG5.RGS	05-15-1995	06:34 PM	1,551
+--ARG5.UFS	05-15-1995	06:34 PM	3,398
+--ARG5.UFT	05-15-1995	06:34 PM	3,660
+--ARG6.DT1	05-15-1995	06:35 PM	292,832
+--ARG6.DT2	05-15-1995	06:35 PM	196,832
+--ARG6.DT3	05-15-1995	06:35 PM	316,832
+--ARG6.HD1	05-15-1995	06:35 PM	610
+--ARG6.HD2	05-15-1995	06:35 PM	486
+--ARG6.HD3	05-15-1995	06:35 PM	641
+--ARG6.RGS	05-15-1995	06:35 PM	1,551
+--ARG6.UFS	05-15-1995	06:35 PM	3,398
+--ARG6.UFT	05-15-1995	06:35 PM	3,660
+--ARG7.DT1	05-15-1995	06:35 PM	292,832
+--ARG7.DT2	05-15-1995	06:35 PM	196,832
+--ARG7.DT3	05-15-1995	06:35 PM	316,832
+--ARG7.HD1	05-15-1995	06:35 PM	610
+--ARG7.HD2	05-15-1995	06:35 PM	486
+--ARG7.HD3	05-15-1995	06:35 PM	641
+--ARG7.RGS	05-15-1995	06:35 PM	1,551
+--ARG7.UFS	05-15-1995	06:35 PM	3,398
+--ARG7.UFT	05-15-1995	06:35 PM	3,660
+--ARG8.DT1	05-15-1995	06:35 PM	292,832
+--ARG8.DT2	05-15-1995	06:35 PM	196,832
+--ARG8.DT3	05-15-1995	06:35 PM	316,832
+--ARG8.HD1	05-15-1995	06:35 PM	610
+--ARG8.HD2	05-15-1995	06:35 PM	486
+--ARG8.HD3	05-15-1995	06:35 PM	641
+--ARG8.RGS	05-15-1995	06:35 PM	1,551
+--ARG8.UFS	05-15-1995	06:35 PM	3,398
+--ARG8.UFT	05-15-1995	06:35 PM	3,660
+--ASO60.DT1	05-15-1995	06:35 PM	73,232
+--ASO60.DT2	05-15-1995	06:35 PM	43,232
+--ASO60.DT3	05-15-1995	06:35 PM	67,232
+--ASO60.HD1	05-15-1995	06:35 PM	607
+--ASO60.HD2	05-15-1995	06:35 PM	452
+--ASO60.HD3	05-15-1995	06:35 PM	576
+--ASO60.UFS	05-15-1995	06:35 PM	3,081
+--ASO61.DT1	05-15-1995	06:35 PM	73,232

+--ASO61.DT2	05-15-1995	06:35 PM	43,232
+--ASO61.DT3	05-15-1995	06:35 PM	67,232
+--ASO61.HD1	05-15-1995	06:35 PM	607
+--ASO61.HD2	05-15-1995	06:35 PM	452
+--ASO61.HD3	05-15-1995	06:35 PM	576
+--ASO61.UFS	05-15-1995	06:35 PM	3,081
+--ASO62.DT1	05-15-1995	06:35 PM	73,232
+--ASO62.DT2	05-15-1995	06:35 PM	43,232
+--ASO62.DT3	05-15-1995	06:35 PM	67,232
+--ASO62.HD1	05-15-1995	06:35 PM	607
+--ASO62.HD2	05-15-1995	06:35 PM	452
+--ASO62.HD3	05-15-1995	06:35 PM	576
+--ASO62.UFS	05-15-1995	06:35 PM	3,081
+--ASO63.DT1	05-15-1995	06:35 PM	73,232
+--ASO63.DT2	05-15-1995	06:35 PM	43,232
+--ASO63.DT3	05-15-1995	06:35 PM	67,232
+--ASO63.HD1	05-15-1995	06:35 PM	607
+--ASO63.HD2	05-15-1995	06:35 PM	452
+--ASO63.HD3	05-15-1995	06:35 PM	576
+--ASO63.UFS	05-15-1995	06:35 PM	3,081
+--ASO64.DT1	05-15-1995	06:35 PM	73,232
+--ASO64.DT2	05-15-1995	06:35 PM	43,232
+--ASO64.DT3	05-15-1995	06:35 PM	67,232
+--ASO64.HD1	05-15-1995	06:35 PM	607
+--ASO64.HD2	05-15-1995	06:35 PM	452
+--ASO64.HD3	05-15-1995	06:35 PM	576
+--ASO64.UFS	05-15-1995	06:35 PM	3,081
+--ASO65.DT1	05-15-1995	06:35 PM	73,232
+--ASO65.DT2	05-15-1995	06:35 PM	43,232
+--ASO65.DT3	05-15-1995	06:35 PM	67,232
+--ASO65.HD1	05-15-1995	06:35 PM	607
+--ASO65.HD2	05-15-1995	06:35 PM	452
+--ASO65.HD3	05-15-1995	06:35 PM	576
+--ASO65.UFS	05-15-1995	06:35 PM	3,081
+--ASO66.DT1	05-15-1995	06:35 PM	73,232
+--ASO66.DT2	05-15-1995	06:35 PM	43,232
+--ASO66.DT3	05-15-1995	06:35 PM	67,232
+--ASO66.HD1	05-15-1995	06:35 PM	607
+--ASO66.HD2	05-15-1995	06:35 PM	452
+--ASO66.HD3	05-15-1995	06:35 PM	576
+--ASO66.UFS	05-15-1995	06:35 PM	3,081
+--ASO67.DT1	05-15-1995	06:35 PM	73,232
+--ASO67.DT2	05-15-1995	06:35 PM	43,232
+--ASO67.DT3	05-15-1995	06:35 PM	67,232
+--ASO67.HD1	05-15-1995	06:35 PM	607
+--ASO67.HD2	05-15-1995	06:35 PM	452
+--ASO67.HD3	05-15-1995	06:35 PM	576
+--ASO67.UFS	05-15-1995	06:35 PM	3,081
+--ASO68.DT1	05-15-1995	06:35 PM	73,232
+--ASO68.DT2	05-15-1995	06:35 PM	43,232
+--ASO68.DT3	05-15-1995	06:35 PM	67,232
+--ASO68.HD1	05-15-1995	06:35 PM	607
+--ASO68.HD2	05-15-1995	06:35 PM	452
+--ASO68.HD3	05-15-1995	06:35 PM	576
+--ASO68.UFS	05-15-1995	06:35 PM	3,081
+--ASO69.DT1	05-15-1995	06:35 PM	73,232
+--ASO69.DT2	05-15-1995	06:35 PM	43,232
+--ASO69.DT3	05-15-1995	06:35 PM	67,232
+--ASO69.HD1	05-15-1995	06:35 PM	607
+--ASO69.HD2	05-15-1995	06:35 PM	452

+--ASO69.HD3	05-15-1995	06:35 PM	576
+--ASO69.UFS	05-15-1995	06:35 PM	3,081
+--ASO70.DT1	05-15-1995	06:35 PM	73,232
+--ASO70.DT2	05-15-1995	06:35 PM	43,232
+--ASO70.DT3	05-15-1995	06:35 PM	67,232
+--ASO70.HD1	05-15-1995	06:35 PM	607
+--ASO70.HD2	05-15-1995	06:35 PM	452
+--ASO70.HD3	05-15-1995	06:35 PM	576
+--ASO70.UFS	05-15-1995	06:35 PM	3,081
+--AWIN2.DT1	05-15-1995	06:35 PM	1,184,530
+--AWIN2.DT2	05-15-1995	06:35 PM	699,080
+--AWIN2.DT3	05-15-1995	06:35 PM	1,087,440
+--AWIN2.HD1	05-15-1995	06:35 PM	613
+--AWIN2.HD2	05-15-1995	06:35 PM	458
+--AWIN2.HD3	05-15-1995	06:35 PM	582
+--AWIN2.HFS	05-15-1995	06:35 PM	3,182
+--AWIN2.HSP	05-15-1995	06:35 PM	3,724
+--AWIN2.LFS	05-15-1995	06:35 PM	3,163
+--AWIN2.LSP	05-15-1995	06:35 PM	3,705
+--AWIN2.UFS	05-15-1995	06:35 PM	3,004
+--AWIN2.USP	05-15-1995	06:35 PM	3,625
+--AWIN3.DT1	05-15-1995	06:36 PM	1,184,530
+--AWIN3.DT2	05-15-1995	06:36 PM	699,080
+--AWIN3.DT3	05-15-1995	06:36 PM	1,087,440
+--AWIN3.HD1	05-15-1995	06:36 PM	613
+--AWIN3.HD2	05-15-1995	06:36 PM	458
+--AWIN3.HD3	05-15-1995	06:36 PM	582
+--AWIN3.HFS	05-15-1995	06:36 PM	3,182
+--AWIN3.HSP	05-15-1995	06:36 PM	3,724
+--AWIN3.LFS	05-15-1995	06:36 PM	3,163
+--AWIN3.LSP	05-15-1995	06:36 PM	3,705
+--AWIN3.UFS	05-15-1995	06:36 PM	3,004
+--AWIN3.USP	05-15-1995	06:36 PM	3,625
+--AWIN4.DT1	05-15-1995	06:36 PM	1,184,530
+--AWIN4.DT2	05-15-1995	06:36 PM	699,080
+--AWIN4.DT3	05-15-1995	06:36 PM	1,087,440
+--AWIN4.HD1	05-15-1995	06:36 PM	613
+--AWIN4.HD2	05-15-1995	06:36 PM	458
+--AWIN4.HD3	05-15-1995	06:36 PM	582
+--AWIN4.HFS	05-15-1995	06:36 PM	3,182
+--AWIN4.HSP	05-15-1995	06:36 PM	3,724
+--AWIN4.LFS	05-15-1995	06:36 PM	3,163
+--AWIN4.LSP	05-15-1995	06:36 PM	3,705
+--AWIN4.UFS	05-15-1995	06:36 PM	3,004
+--AWIN4.USP	05-15-1995	06:36 PM	3,625
+--AWIN5.DT1	05-15-1995	06:36 PM	1,184,530
+--AWIN5.DT2	05-15-1995	06:36 PM	699,080
+--AWIN5.DT3	05-15-1995	06:36 PM	1,087,440
+--AWIN5.HD1	05-15-1995	06:36 PM	613
+--AWIN5.HD2	05-15-1995	06:36 PM	458
+--AWIN5.HD3	05-15-1995	06:36 PM	582
+--AWIN5.HFS	05-15-1995	06:36 PM	3,182
+--AWIN5.HSP	05-15-1995	06:36 PM	3,724
+--AWIN5.LFS	05-15-1995	06:36 PM	3,163
+--AWIN5.LSP	05-15-1995	06:36 PM	3,705
+--AWIN5.UFS	05-15-1995	06:36 PM	3,004
+--AWIN5.USP	05-15-1995	06:36 PM	3,625

Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:05 PM
Print Date: 06-06-1995

Volume # 2 Volume label: DOS:HD_504 Volume size: 96,451
Created on 05-15-1995 at 08:58 PM Ver: 18.00-0.0
Volume title: ConfigB

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     +--CONFIGB
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         +--BBC10.DT2        05-15-1995  07:53 PM     273,632
         +--BBC10.DT3        05-15-1995  07:53 PM     425,632
         +--BBC10.HD1        05-15-1995  07:53 PM         613
         +--BBC10.HD2        05-15-1995  07:53 PM         458
         +--BBC10.HD3        05-15-1995  07:53 PM         582
         +--BBC10.UFS        05-15-1995  07:53 PM       3,241
         +--BBC12.DT1        05-15-1995  07:53 PM     463,632
         +--BBC12.DT2        05-15-1995  07:53 PM     273,632
         +--BBC12.DT3        05-15-1995  07:53 PM     425,632
         +--BBC12.HD1        05-15-1995  07:53 PM         613
         +--BBC12.HD2        05-15-1995  07:53 PM         458
         +--BBC12.HD3        05-15-1995  07:53 PM         582
         +--BBC12.UFS        05-15-1995  07:53 PM       3,241
         +--BBC3.DT1         05-15-1995  07:53 PM     463,632
         +--BBC3.DT2         05-15-1995  07:53 PM     273,632
         +--BBC3.DT3         05-15-1995  07:53 PM     425,632
         +--BBC3.HD1         05-15-1995  07:53 PM         610
         +--BBC3.HD2         05-15-1995  07:53 PM         455
         +--BBC3.HD3         05-15-1995  07:53 PM         579
         +--BBC3.UFS         05-15-1995  07:53 PM       3,240
         +--BBC5.DT1         05-15-1995  07:53 PM     463,632
         +--BBC5.DT2         05-15-1995  07:53 PM     273,632
         +--BBC5.DT3         05-15-1995  07:53 PM     425,632
         +--BBC5.HD1         05-15-1995  07:53 PM         610
         +--BBC5.HD2         05-15-1995  07:53 PM         455
         +--BBC5.HD3         05-15-1995  07:53 PM         579
         +--BBC5.UFS         05-15-1995  07:53 PM       3,240
         +--BBC8.DT1         05-15-1995  07:53 PM     463,632
         +--BBC8.DT2         05-15-1995  07:53 PM     273,632
         +--BBC8.DT3         05-15-1995  07:53 PM     425,632
         +--BBC8.HD1         05-15-1995  07:53 PM         610
         +--BBC8.HD2         05-15-1995  07:53 PM         455
         +--BBC8.HD3         05-15-1995  07:53 PM         579
         +--BBC8.UFS         05-15-1995  07:53 PM       3,240
         +--BCUR2.DT1        05-15-1995  07:53 PM   1,184,530
         +--BCUR2.DT2        05-15-1995  07:53 PM     699,080
         +--BCUR2.DT3        05-15-1995  07:53 PM   1,087,440
         +--BCUR2.HD1        05-15-1995  07:53 PM         613
         +--BCUR2.HD2        05-15-1995  07:53 PM         458
         +--BCUR2.HD3        05-15-1995  07:53 PM         582
         +--BCUR2.HFS        05-15-1995  07:53 PM       3,340
         +--BCUR2.HSP        05-15-1995  07:53 PM       4,198
         +--BCUR2.LFS        05-15-1995  07:53 PM       3,321
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Appendix D: Data Files on Magnetic Cartridge Tape

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+--BCUR3.DT2	05-15-1995	07:54 PM	699,080
+--BCUR3.DT3	05-15-1995	07:54 PM	1,087,440
+--BCUR3.HD1	05-15-1995	07:54 PM	613
+--BCUR3.HD2	05-15-1995	07:54 PM	458
+--BCUR3.HD3	05-15-1995	07:54 PM	582
+--BCUR3.HFS	05-15-1995	07:54 PM	3,340
+--BCUR3.HSP	05-15-1995	07:54 PM	4,198
+--BCUR3.LFS	05-15-1995	07:54 PM	3,321
+--BCUR3.LSP	05-15-1995	07:54 PM	4,179
+--BCUR3.UFS	05-15-1995	07:54 PM	3,241
+--BCUR3.USP	05-15-1995	07:54 PM	4,099
+--BCUR5.DT1	05-15-1995	07:54 PM	1,184,530
+--BCUR5.DT2	05-15-1995	07:54 PM	699,080
+--BCUR5.DT3	05-15-1995	07:54 PM	1,087,440
+--BCUR5.HD1	05-15-1995	07:54 PM	613
+--BCUR5.HD2	05-15-1995	07:54 PM	458
+--BCUR5.HD3	05-15-1995	07:54 PM	582
+--BCUR5.HFS	05-15-1995	07:54 PM	3,340
+--BCUR5.HSP	05-15-1995	07:54 PM	4,198
+--BCUR5.LFS	05-15-1995	07:54 PM	3,321
+--BCUR5.LSP	05-15-1995	07:54 PM	4,100
+--BCUR5.UFS	05-15-1995	07:54 PM	3,241
+--BCUR5.USP	05-15-1995	07:54 PM	4,099
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+--BD1.DT2	05-15-1995	07:54 PM	699,080
+--BD1.DT3	05-15-1995	07:54 PM	1,087,440
+--BD1.HD1	05-15-1995	07:54 PM	607
+--BD1.HD2	05-15-1995	07:54 PM	452
+--BD1.HD3	05-15-1995	07:54 PM	576
+--BD1.UFS	05-15-1995	07:54 PM	3,239
+--BD2.DT1	05-15-1995	07:54 PM	1,184,530
+--BD2.DT2	05-15-1995	07:55 PM	699,080
+--BD2.DT3	05-15-1995	07:55 PM	1,087,440
+--BD2.HD1	05-15-1995	07:55 PM	607
+--BD2.HD2	05-15-1995	07:55 PM	452
+--BD2.HD3	05-15-1995	07:55 PM	576
+--BD2.UFS	05-15-1995	07:55 PM	3,239
+--BD3.DT1	05-15-1995	07:55 PM	1,184,530
+--BD3.DT2	05-15-1995	07:55 PM	699,080
+--BD3.DT3	05-15-1995	07:55 PM	1,087,440
+--BD3.HD1	05-15-1995	07:55 PM	607
+--BD3.HD2	05-15-1995	07:55 PM	452
+--BD3.HD3	05-15-1995	07:55 PM	576
+--BD3.UFS	05-15-1995	07:55 PM	3,239
+--BD4.DT1	05-15-1995	07:55 PM	644,802
+--BD4.DT2	05-15-1995	07:55 PM	380,552
+--BD4.DT3	05-15-1995	07:55 PM	591,952
+--BD4.HD1	05-15-1995	07:55 PM	1,214
+--BD4.HD2	05-15-1995	07:55 PM	452
+--BD4.HD3	05-15-1995	07:55 PM	576
+--BD4.UFS	05-15-1995	07:55 PM	3,239
+--BD5.DT1	05-15-1995	07:55 PM	732,032
+--BD5.DT2	05-15-1995	07:55 PM	432,032
+--BD5.DT3	05-15-1995	07:55 PM	672,032
+--BD5.HD1	05-15-1995	07:55 PM	607
+--BD5.HD2	05-15-1995	07:55 PM	452

+--BD5.HD3	05-15-1995	07:55 PM	576
+--BD5.UFS	05-15-1995	07:55 PM	3,239
+--BPRE17.DT1	05-15-1995	07:55 PM	73,232
+--BPRE17.DT2	05-15-1995	07:55 PM	43,232
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+--BPRE17.HD2	05-15-1995	07:55 PM	464
+--BPRE17.HD3	05-15-1995	07:55 PM	588
+--BPRE17.UFS	05-15-1995	07:55 PM	3,243
+--BPRE21.DT1	05-15-1995	07:55 PM	146,432
+--BPRE21.DT2	05-15-1995	07:55 PM	86,432
+--BPRE21.DT3	05-15-1995	07:55 PM	134,432
+--BPRE21.HD1	05-15-1995	07:55 PM	1,238
+--BPRE21.HD2	05-15-1995	07:55 PM	464
+--BPRE21.HD3	05-15-1995	07:55 PM	588
+--BPRE21.UFS	05-15-1995	07:55 PM	3,243
+--BRAN2.DT1	05-15-1995	07:56 PM	1,184,530
+--BRAN2.DT2	05-15-1995	07:56 PM	699,080
+--BRAN2.DT3	05-15-1995	07:56 PM	1,087,440
+--BRAN2.HD1	05-15-1995	07:56 PM	613
+--BRAN2.HD2	05-15-1995	07:56 PM	458
+--BRAN2.HD3	05-15-1995	07:56 PM	582
+--BRAN2.HFS	05-15-1995	07:56 PM	3,340
+--BRAN2.HSP	05-15-1995	07:56 PM	4,198
+--BRAN2.LFS	05-15-1995	07:56 PM	3,321
+--BRAN2.LSP	05-15-1995	07:56 PM	4,179
+--BRAN2.UFS	05-15-1995	07:56 PM	3,241
+--BRAN2.USP	05-15-1995	07:56 PM	4,099
+--BRAN3-4.DT1	05-15-1995	07:56 PM	2,369,028
+--BRAN3-4.DT2	05-15-1995	07:56 PM	1,398,128
+--BRAN3-4.DT3	05-15-1995	07:56 PM	2,174,848
+--BRAN3-4.HD1	05-15-1995	07:56 PM	607
+--BRAN3-4.HD2	05-15-1995	07:56 PM	452
+--BRAN3-4.HD3	05-15-1995	07:56 PM	576
+--BRAN3-4.HFS	05-15-1995	07:56 PM	3,338
+--BRAN3-4.HSP	05-15-1995	07:56 PM	4,352
+--BRAN3-4.LFS	05-15-1995	07:56 PM	3,319
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+--BRAN3.DT2	05-15-1995	07:56 PM	699,080
+--BRAN3.DT3	05-15-1995	07:57 PM	1,087,440
+--BRAN3.HD1	05-15-1995	07:57 PM	613
+--BRAN3.HD2	05-15-1995	07:57 PM	458
+--BRAN3.HD3	05-15-1995	07:57 PM	582
+--BRAN3.HFS	05-15-1995	07:57 PM	3,340
+--BRAN3.HSP	05-15-1995	07:57 PM	4,198
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+--BRAN3.LSP	05-15-1995	07:57 PM	4,179
+--BRAN3.UFS	05-15-1995	07:57 PM	3,241
+--BRAN3.USP	05-15-1995	07:57 PM	4,099
+--BRAN4.DT1	05-15-1995	07:57 PM	1,184,530
+--BRAN4.DT2	05-15-1995	07:57 PM	699,080
+--BRAN4.DT3	05-15-1995	07:57 PM	1,087,440
+--BRAN4.HD1	05-15-1995	07:57 PM	613
+--BRAN4.HD2	05-15-1995	07:57 PM	458
+--BRAN4.HD3	05-15-1995	07:57 PM	582
+--BRAN4.HFS	05-15-1995	07:57 PM	3,340
+--BRAN4.HSP	05-15-1995	07:57 PM	4,198

+--BRAN4.LFS	05-15-1995	07:57 PM	3,321
+--BRAN4.LSP	05-15-1995	07:57 PM	4,179
+--BRAN4.UFS	05-15-1995	07:57 PM	3,241
+--BRAN4.USP	05-15-1995	07:57 PM	4,099
+--BRAN5.DT1	05-15-1995	07:57 PM	1,184,530
+--BRAN5.DT2	05-15-1995	07:57 PM	699,080
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+--BRAN5.HD2	05-15-1995	07:57 PM	458
+--BRAN5.HD3	05-15-1995	07:57 PM	582
+--BRAN5.HFS	05-15-1995	07:57 PM	3,340
+--BRAN5.HSP	05-15-1995	07:57 PM	4,198
+--BRAN5.LFS	05-15-1995	07:57 PM	3,321
+--BRAN5.LSP	05-15-1995	07:57 PM	4,100
+--BRAN5.UFS	05-15-1995	07:57 PM	3,241
+--BRAN5.USP	05-15-1995	07:57 PM	4,099
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+--BRC2.DT2	05-15-1995	07:57 PM	699,080
+--BRC2.DT3	05-15-1995	07:57 PM	1,087,440
+--BRC2.HD1	05-15-1995	07:57 PM	610
+--BRC2.HD2	05-15-1995	07:57 PM	455
+--BRC2.HD3	05-15-1995	07:57 PM	579
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+--BRC3-4.DT2	05-15-1995	07:58 PM	1,398,128
+--BRC3-4.DT3	05-15-1995	07:58 PM	2,174,848
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+--BRC3-4.HD3	05-15-1995	07:58 PM	573
+--BRC3-4.HFS	05-15-1995	07:58 PM	3,337
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+--BRC3.DT1	05-15-1995	07:58 PM	1,184,530
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+--BRC3.HD1	05-15-1995	07:58 PM	610
+--BRC3.HD2	05-15-1995	07:58 PM	455
+--BRC3.HD3	05-15-1995	07:58 PM	579
+--BRC3.HFS	05-15-1995	07:58 PM	3,339
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+--BRC3.LSP	05-15-1995	07:58 PM	4,177
+--BRC3.UFS	05-15-1995	07:58 PM	3,240
+--BRC3.USP	05-15-1995	07:58 PM	4,097
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+--BRC4.DT2	05-15-1995	07:59 PM	699,080
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+--BRC4.HD2	05-15-1995	07:59 PM	455
+--BRC4.HD3	05-15-1995	07:59 PM	579
+--BRC4.HFS	05-15-1995	07:59 PM	3,339

+--BRC4.HSP	05-15-1995	07:59 PM	4,196
+--BRC4.LFS	05-15-1995	07:59 PM	3,320
+--BRC4.LSP	05-15-1995	07:59 PM	4,177
+--BRC4.UFS	05-15-1995	07:59 PM	3,240
+--BRC4.USP	05-15-1995	07:59 PM	4,097
+--BRC5.DT1	05-15-1995	07:59 PM	1,184,530
+--BRC5.DT2	05-15-1995	07:59 PM	699,080
+--BRC5.DT3	05-15-1995	07:59 PM	1,087,440
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+--BRC5.HD2	05-15-1995	07:59 PM	455
+--BRC5.HD3	05-15-1995	07:59 PM	579
+--BRC5.HFS	05-15-1995	07:59 PM	3,339
+--BRC5.HSP	05-15-1995	07:59 PM	4,196
+--BRC5.LFS	05-15-1995	07:59 PM	3,320
+--BRC5.LSP	05-15-1995	07:59 PM	4,177
+--BRC5.UFS	05-15-1995	07:59 PM	3,240
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+--BRCW2.DT2	05-15-1995	07:59 PM	699,080
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+--BRCW2.HD2	05-15-1995	07:59 PM	458
+--BRCW2.HD3	05-15-1995	07:59 PM	582
+--BRCW2.HFS	05-15-1995	07:59 PM	3,340
+--BRCW2.HSP	05-15-1995	07:59 PM	4,198
+--BRCW2.LFS	05-15-1995	07:59 PM	3,321
+--BRCW2.LSP	05-15-1995	07:59 PM	4,179
+--BRCW2.UFS	05-15-1995	07:59 PM	3,241
+--BRCW2.USP	05-15-1995	07:59 PM	4,099
+--BRCW3-4.DT1	05-15-1995	07:59 PM	2,369,028
+--BRCW3-4.DT2	05-15-1995	08:00 PM	1,398,128
+--BRCW3-4.DT3	05-15-1995	08:00 PM	2,174,848
+--BRCW3-4.HD1	05-15-1995	08:00 PM	607
+--BRCW3-4.HD2	05-15-1995	08:00 PM	452
+--BRCW3-4.HD3	05-15-1995	08:00 PM	576
+--BRCW3-4.HFS	05-15-1995	08:00 PM	3,338
+--BRCW3-4.HSP	05-15-1995	08:00 PM	4,352
+--BRCW3-4.LFS	05-15-1995	08:00 PM	3,319
+--BRCW3-4.LSP	05-15-1995	08:00 PM	4,333
+--BRCW3-4.UFS	05-15-1995	08:00 PM	3,239
+--BRCW3-4.USP	05-15-1995	08:00 PM	3,621
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+--BRCW3.DT2	05-15-1995	08:00 PM	699,080
+--BRCW3.DT3	05-15-1995	08:00 PM	1,087,440
+--BRCW3.HD1	05-15-1995	08:00 PM	613
+--BRCW3.HD2	05-15-1995	08:00 PM	458
+--BRCW3.HD3	05-15-1995	08:00 PM	582
+--BRCW3.HFS	05-15-1995	08:00 PM	3,340
+--BRCW3.HSP	05-15-1995	08:00 PM	4,198
+--BRCW3.LFS	05-15-1995	08:00 PM	3,321
+--BRCW3.LSP	05-15-1995	08:00 PM	4,179
+--BRCW3.UFS	05-15-1995	08:00 PM	3,241
+--BRCW3.USP	05-15-1995	08:00 PM	4,099
+--BRCW4.DT1	05-15-1995	08:00 PM	1,184,530
+--BRCW4.DT2	05-15-1995	08:00 PM	699,080
+--BRCW4.DT3	05-15-1995	08:00 PM	1,087,440
+--BRCW4.HD1	05-15-1995	08:00 PM	613
+--BRCW4.HD2	05-15-1995	08:00 PM	458
+--BRCW4.HD3	05-15-1995	08:00 PM	582
+--BRCW4.HFS	05-15-1995	08:00 PM	3,340

+--BRCW4.HSP	05-15-1995	08:00 PM	4,198
+--BRCW4.LFS	05-15-1995	08:00 PM	3,321
+--BRCW4.LSP	05-15-1995	08:00 PM	4,179
+--BRCW4.UFS	05-15-1995	08:00 PM	3,241
+--BRCW4.USP	05-15-1995	08:00 PM	4,099
+--BRCW5.DT1	05-15-1995	08:00 PM	1,184,530
+--BRCW5.DT2	05-15-1995	08:01 PM	699,080
+--BRCW5.DT3	05-15-1995	08:01 PM	1,087,440
+--BRCW5.HD1	05-15-1995	08:01 PM	613
+--BRCW5.HD2	05-15-1995	08:01 PM	458
+--BRCW5.HD3	05-15-1995	08:01 PM	582
+--BRCW5.HFS	05-15-1995	08:01 PM	3,340
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+--BRCW5.LSP	05-15-1995	08:01 PM	4,179
+--BRCW5.UFS	05-15-1995	08:01 PM	3,241
+--BRCW5.USP	05-15-1995	08:01 PM	4,099
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+--BRG2.HD1	05-15-1995	08:01 PM	610
+--BRG2.HD2	05-15-1995	08:01 PM	455
+--BRG2.HD3	05-15-1995	08:01 PM	579
+--BRG2.RGS	05-15-1995	08:01 PM	1,606
+--BRG2.UFS	05-15-1995	08:01 PM	3,240
+--BRG2.UFT	05-15-1995	08:01 PM	3,502
+--BRG4.DT1	05-15-1995	08:01 PM	292,832
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+--BRG4.DT3	05-15-1995	08:01 PM	268,832
+--BRG4.HD1	05-15-1995	08:01 PM	610
+--BRG4.HD2	05-15-1995	08:01 PM	455
+--BRG4.HD3	05-15-1995	08:01 PM	579
+--BRG4.RGS	05-15-1995	08:01 PM	1,606
+--BRG4.UFS	05-15-1995	08:01 PM	3,240
+--BRG4.UFT	05-15-1995	08:01 PM	3,502
+--BRG6.DT1	05-15-1995	08:01 PM	292,832
+--BRG6.DT2	05-15-1995	08:01 PM	172,832
+--BRG6.DT3	05-15-1995	08:01 PM	268,832
+--BRG6.HD1	05-15-1995	08:01 PM	610
+--BRG6.HD2	05-15-1995	08:01 PM	455
+--BRG6.HD3	05-15-1995	08:01 PM	579
+--BRG6.RGS	05-15-1995	08:01 PM	1,606
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+--BRG8.DT3	05-15-1995	08:01 PM	268,832
+--BRG8.HD1	05-15-1995	08:01 PM	610
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+--BRG8.UFS	05-15-1995	08:01 PM	3,240
+--BRG8.UFT	05-15-1995	08:01 PM	3,502
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+--BSO13.HD1	05-15-1995	08:01 PM	1,821
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+--BSO13.HD3	05-15-1995	08:01 PM	576
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+--BSO14.DT2	05-15-1995	08:01 PM	43,232
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+--BSO15.HD2	05-15-1995	08:01 PM	452
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+--BSO16.DT2	05-15-1995	08:01 PM	43,232
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+--BSO17.DT2	05-15-1995	08:01 PM	43,232
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+--BSO21.HD2	05-15-1995	08:01 PM	452
+--BSO21.HD3	05-15-1995	08:01 PM	576
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+--BSO22.HD1	05-15-1995	08:01 PM	607

+--BSO22.HD2	05-15-1995	08:01 PM	452
+--BSO22.HD3	05-15-1995	08:01 PM	576
+--BSO22.UFS	05-15-1995	08:01 PM	3,239
+--BSO23.DT1	05-15-1995	08:01 PM	73,232
+--BSO23.DT2	05-15-1995	08:01 PM	43,232
+--BSO23.DT3	05-15-1995	08:01 PM	67,232
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+--BSO23.HD2	05-15-1995	08:01 PM	452
+--BSO23.HD3	05-15-1995	08:01 PM	576
+--BSO23.UFS	05-15-1995	08:01 PM	3,239
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+--BWIN2.HD1	05-15-1995	08:02 PM	613
+--BWIN2.HD2	05-15-1995	08:02 PM	458
+--BWIN2.HD3	05-15-1995	08:02 PM	582
+--BWIN2.HFS	05-15-1995	08:02 PM	3,340
+--BWIN2.HSP	05-15-1995	08:02 PM	4,198
+--BWIN2.LFS	05-15-1995	08:02 PM	3,321
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+--BWIN2.USP	05-15-1995	08:02 PM	4,099
+--BWIN3.DT1	05-15-1995	08:02 PM	1,184,530
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+--BWIN3.DT3	05-15-1995	08:02 PM	1,087,440
+--BWIN3.HD1	05-15-1995	08:02 PM	613
+--BWIN3.HD2	05-15-1995	08:02 PM	458
+--BWIN3.HD3	05-15-1995	08:02 PM	582
+--BWIN3.HFS	05-15-1995	08:02 PM	3,340
+--BWIN3.HSP	05-15-1995	08:02 PM	4,198
+--BWIN3.LFS	05-15-1995	08:02 PM	3,321
+--BWIN3.LSP	05-15-1995	08:02 PM	4,179
+--BWIN3.UFS	05-15-1995	08:02 PM	3,241
+--BWIN3.USP	05-15-1995	08:02 PM	4,099
+--BWIN4.DT1	05-15-1995	08:02 PM	1,184,530
+--BWIN4.DT2	05-15-1995	08:02 PM	699,080
+--BWIN4.DT3	05-15-1995	08:02 PM	1,087,440
+--BWIN4.HD1	05-15-1995	08:02 PM	613
+--BWIN4.HD2	05-15-1995	08:02 PM	458
+--BWIN4.HD3	05-15-1995	08:02 PM	582
+--BWIN4.HFS	05-15-1995	08:02 PM	3,340
+--BWIN4.HSP	05-15-1995	08:02 PM	4,198
+--BWIN4.LFS	05-15-1995	08:02 PM	3,321
+--BWIN4.LSP	05-15-1995	08:02 PM	4,179
+--BWIN4.UFS	05-15-1995	08:02 PM	3,241
+--BWIN4.USP	05-15-1995	08:02 PM	4,099
+--BWIN5.DT1	05-15-1995	08:02 PM	1,184,530
+--BWIN5.DT2	05-15-1995	08:02 PM	699,080
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+--BWIN5.HD1	05-15-1995	08:03 PM	613
+--BWIN5.HD2	05-15-1995	08:03 PM	458
+--BWIN5.HD3	05-15-1995	08:03 PM	582
+--BWIN5.HFS	05-15-1995	08:03 PM	3,340
+--BWIN5.HSP	05-15-1995	08:03 PM	4,198
+--BWIN5.LFS	05-15-1995	08:03 PM	3,321
+--BWIN5.LSP	05-15-1995	08:03 PM	4,179
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+--TEST_B.TXT	05-15-1995	08:03 PM	3,018

Colorado Backup - DOS

Volume Directory

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Print Time: 06:06 PM
Print Date: 06-06-1995

Volume # 3 Volume label: DOS:HD_504 Volume size: 48,064
Created on 05-15-1995 at 09:11 PM Ver: 18.00-0.0
Volume title: ConfigC

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         +--CBC10.HD3                    05-15-1995  08:05 PM         582
         +--CBC10.HD4                    05-15-1995  08:05 PM         489
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         +--CBC11.DT2                    05-15-1995  08:05 PM     259,232
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         +--CBC13.HD3                    05-15-1995  08:05 PM         582
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+--CBC2.HD3	05-15-1995	08:06 PM	579
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+--CBC3.DT2	05-15-1995	08:06 PM	259,232
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+--CBC3.HD3	05-15-1995	08:06 PM	579
+--CBC3.HD4	05-15-1995	08:06 PM	486
+--CBC3.UFS	05-15-1995	08:06 PM	3,714
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+--CBC4.DT2	05-15-1995	08:06 PM	259,232
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+--CBC4.HD3	05-15-1995	08:06 PM	579
+--CBC4.HD4	05-15-1995	08:06 PM	486
+--CBC4.UFS	05-15-1995	08:06 PM	3,714
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+--CBC5.DT2	05-15-1995	08:06 PM	259,232
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+--CBC5.DT4	05-15-1995	08:06 PM	295,232
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+--CBC5.HD2	05-15-1995	08:06 PM	455
+--CBC5.HD3	05-15-1995	08:06 PM	579
+--CBC5.HD4	05-15-1995	08:06 PM	486
+--CBC5.UFS	05-15-1995	08:06 PM	3,714
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+--CBC6.DT2	05-15-1995	08:06 PM	259,232
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+--CBC6.DT4	05-15-1995	08:06 PM	295,232
+--CBC6.HD1	05-15-1995	08:06 PM	610
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+--CBC6.HD4	05-15-1995	08:06 PM	486
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+--CBC7.HD1	05-15-1995	08:06 PM	610
+--CBC7.HD2	05-15-1995	08:06 PM	455
+--CBC7.HD3	05-15-1995	08:06 PM	579
+--CBC7.HD4	05-15-1995	08:06 PM	486
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+--CBC8.HD1	05-15-1995	08:07 PM	610

+--CBC8.HD2	05-15-1995	08:07 PM	455
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+--CBC8.HD4	05-15-1995	08:07 PM	486
+--CBC8.UFS	05-15-1995	08:07 PM	3,714
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+--CBC9.HD4	05-15-1995	08:07 PM	486
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+--CD1.HD4	05-15-1995	08:07 PM	483
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+--CD2.HD3	05-15-1995	08:07 PM	576
+--CD2.HD4	05-15-1995	08:07 PM	483
+--CD2.UFS	05-15-1995	08:07 PM	3,713
+--CD3.DT1	05-15-1995	08:07 PM	1,184,530
+--CD3.DT2	05-15-1995	08:08 PM	699,080
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+--CD3.HD3	05-15-1995	08:08 PM	576
+--CD3.HD4	05-15-1995	08:08 PM	483
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+--CD4.HD3	05-15-1995	08:08 PM	576
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+--CD5.HD3	05-15-1995	08:08 PM	576
+--CD5.HD4	05-15-1995	08:08 PM	483
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+--CRAN2.HD4	05-15-1995	08:09 PM	489
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+--CRG1.HD4	05-15-1995	08:09 PM	486
+--CRG1.RGS	05-15-1995	08:09 PM	1,826
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+--CRG10.DT1	05-15-1995	08:09 PM	292,832
+--CRG10.DT2	05-15-1995	08:09 PM	172,832
+--CRG10.DT3	05-15-1995	08:09 PM	268,832
+--CRG10.DT4	05-15-1995	08:09 PM	196,832
+--CRG10.HD1	05-15-1995	08:09 PM	613
+--CRG10.HD2	05-15-1995	08:09 PM	458
+--CRG10.HD3	05-15-1995	08:09 PM	582
+--CRG10.HD4	05-15-1995	08:09 PM	489
+--CRG10.RGS	05-15-1995	08:09 PM	1,773
+--CRG10.UFS	05-15-1995	08:09 PM	3,715
+--CRG10.UFT	05-15-1995	08:09 PM	3,980
+--CRG2.DT1	05-15-1995	08:09 PM	292,832
+--CRG2.DT2	05-15-1995	08:09 PM	172,832
+--CRG2.DT3	05-15-1995	08:09 PM	268,832
+--CRG2.DT4	05-15-1995	08:09 PM	196,832
+--CRG2.HD1	05-15-1995	08:09 PM	610
+--CRG2.HD2	05-15-1995	08:09 PM	455
+--CRG2.HD3	05-15-1995	08:09 PM	579
+--CRG2.HD4	05-15-1995	08:09 PM	486
+--CRG2.RGS	05-15-1995	08:09 PM	1,826
+--CRG2.UFS	05-15-1995	08:09 PM	3,714
+--CRG2.UFT	05-15-1995	08:09 PM	3,976
+--CRG3.DT1	05-15-1995	08:09 PM	292,832
+--CRG3.DT2	05-15-1995	08:09 PM	172,832
+--CRG3.DT3	05-15-1995	08:09 PM	268,832
+--CRG3.DT4	05-15-1995	08:09 PM	196,832
+--CRG3.HD1	05-15-1995	08:09 PM	610
+--CRG3.HD2	05-15-1995	08:09 PM	455
+--CRG3.HD3	05-15-1995	08:09 PM	579
+--CRG3.HD4	05-15-1995	08:09 PM	486
+--CRG3.RGS	05-15-1995	08:09 PM	1,771
+--CRG3.UFS	05-15-1995	08:09 PM	3,714
+--CRG3.UFT	05-15-1995	08:09 PM	3,976
+--CRG4.DT1	05-15-1995	08:09 PM	292,832
+--CRG4.DT2	05-15-1995	08:09 PM	172,832
+--CRG4.DT3	05-15-1995	08:09 PM	268,832
+--CRG4.DT4	05-15-1995	08:09 PM	196,832

+--HRCW5.DT1	05-16-1995	04:32 PM	1,184,530
+--HRCW5.DT2	05-16-1995	04:32 PM	796,170
+--HRCW5.DT3	05-16-1995	04:32 PM	1,087,440
+--HRCW5.HD1	05-16-1995	04:32 PM	613
+--HRCW5.HD2	05-16-1995	04:32 PM	489
+--HRCW5.HD3	05-16-1995	04:32 PM	582
+--HRCW5.HFS	05-16-1995	04:32 PM	3,261
+--HRCW5.HSP	05-16-1995	04:32 PM	3,882
+--HRCW5.LFS	05-16-1995	04:32 PM	3,242
+--HRCW5.LSP	05-16-1995	04:32 PM	3,863
+--HRCW5.UFS	05-16-1995	04:32 PM	3,162
+--HRCW5.USP	05-16-1995	04:32 PM	3,783
+--HWIN2.DT1	05-16-1995	04:32 PM	1,184,530
+--HWIN2.DT2	05-16-1995	04:32 PM	796,170
+--HWIN2.DT3	05-16-1995	04:32 PM	1,087,440
+--HWIN2.HD1	05-16-1995	04:32 PM	613
+--HWIN2.HD2	05-16-1995	04:32 PM	489
+--HWIN2.HD3	05-16-1995	04:32 PM	582
+--HWIN2.HFS	05-16-1995	04:32 PM	3,261
+--HWIN2.HSP	05-16-1995	04:32 PM	3,882
+--HWIN2.LFS	05-16-1995	04:32 PM	3,242
+--HWIN2.LSP	05-16-1995	04:32 PM	3,863
+--HWIN2.UFS	05-16-1995	04:32 PM	3,162
+--HWIN2.USP	05-16-1995	04:32 PM	3,783
+--HWIN3.DT1	05-16-1995	04:32 PM	1,184,530
+--HWIN3.DT2	05-16-1995	04:32 PM	796,170
+--HWIN3.DT3	05-16-1995	04:32 PM	1,087,440
+--HWIN3.HD1	05-16-1995	04:32 PM	613
+--HWIN3.HD2	05-16-1995	04:32 PM	489
+--HWIN3.HD3	05-16-1995	04:32 PM	582
+--HWIN3.HFS	05-16-1995	04:32 PM	3,261
+--HWIN3.HSP	05-16-1995	04:32 PM	3,882
+--HWIN3.LFS	05-16-1995	04:32 PM	3,242
+--HWIN3.LSP	05-16-1995	04:32 PM	3,863
+--HWIN3.UFS	05-16-1995	04:32 PM	3,162
+--HWIN3.USP	05-16-1995	04:33 PM	3,783
+--HWIN4.DT1	05-16-1995	04:33 PM	1,184,530
+--HWIN4.DT2	05-16-1995	04:33 PM	796,170
+--HWIN4.DT3	05-16-1995	04:33 PM	1,087,440
+--HWIN4.HD1	05-16-1995	04:33 PM	613
+--HWIN4.HD2	05-16-1995	04:33 PM	489
+--HWIN4.HD3	05-16-1995	04:33 PM	582
+--HWIN4.HFS	05-16-1995	04:33 PM	3,261
+--HWIN4.HSP	05-16-1995	04:33 PM	3,882
+--HWIN4.LFS	05-16-1995	04:33 PM	3,242
+--HWIN4.LSP	05-16-1995	04:33 PM	3,863
+--HWIN4.UFS	05-16-1995	04:33 PM	3,162
+--HWIN4.USP	05-16-1995	04:33 PM	3,783
+--HWIN5.DT1	05-16-1995	04:33 PM	1,184,530
+--HWIN5.DT2	05-16-1995	04:33 PM	796,170
+--HWIN5.DT3	05-16-1995	04:33 PM	1,087,440
+--HWIN5.HD1	05-16-1995	04:33 PM	613
+--HWIN5.HD2	05-16-1995	04:33 PM	489
+--HWIN5.HD3	05-16-1995	04:33 PM	582
+--HWIN5.HFS	05-16-1995	04:33 PM	3,261
+--HWIN5.HSP	05-16-1995	04:33 PM	3,882
+--HWIN5.LFS	05-16-1995	04:33 PM	3,242
+--HWIN5.LSP	05-16-1995	04:33 PM	3,863
+--HWIN5.UFS	05-16-1995	04:33 PM	3,162
+--HWIN5.USP	05-16-1995	04:33 PM	3,783

+--CRG4.HD1	05-15-1995	08:09 PM	610
+--CRG4.HD2	05-15-1995	08:09 PM	455
+--CRG4.HD3	05-15-1995	08:09 PM	579
+--CRG4.HD4	05-15-1995	08:09 PM	486
+--CRG4.RGS	05-15-1995	08:09 PM	1,826
+--CRG4.UFS	05-15-1995	08:09 PM	3,714
+--CRG4.UFT	05-15-1995	08:09 PM	3,976
+--CRG5.DT1	05-15-1995	08:09 PM	292,832
+--CRG5.DT2	05-15-1995	08:09 PM	172,832
+--CRG5.DT3	05-15-1995	08:09 PM	268,832
+--CRG5.DT4	05-15-1995	08:09 PM	196,832
+--CRG5.HD1	05-15-1995	08:09 PM	610
+--CRG5.HD2	05-15-1995	08:09 PM	455
+--CRG5.HD3	05-15-1995	08:09 PM	579
+--CRG5.HD4	05-15-1995	08:09 PM	486
+--CRG5.RGS	05-15-1995	08:09 PM	1,826
+--CRG5.UFS	05-15-1995	08:09 PM	3,714
+--CRG5.UFT	05-15-1995	08:09 PM	3,976
+--CRG6.DT1	05-15-1995	08:09 PM	292,832
+--CRG6.DT2	05-15-1995	08:09 PM	172,832
+--CRG6.DT3	05-15-1995	08:09 PM	268,832
+--CRG6.DT4	05-15-1995	08:09 PM	196,832
+--CRG6.HD1	05-15-1995	08:09 PM	610
+--CRG6.HD2	05-15-1995	08:09 PM	455
+--CRG6.HD3	05-15-1995	08:09 PM	579
+--CRG6.HD4	05-15-1995	08:09 PM	486
+--CRG6.RGS	05-15-1995	08:09 PM	1,826
+--CRG6.UFS	05-15-1995	08:09 PM	3,714
+--CRG6.UFT	05-15-1995	08:09 PM	3,976
+--CRG7.DT1	05-15-1995	08:09 PM	292,832
+--CRG7.DT2	05-15-1995	08:09 PM	172,832
+--CRG7.DT3	05-15-1995	08:10 PM	268,832
+--CRG7.DT4	05-15-1995	08:10 PM	196,832
+--CRG7.HD1	05-15-1995	08:10 PM	610
+--CRG7.HD2	05-15-1995	08:10 PM	455
+--CRG7.HD3	05-15-1995	08:10 PM	579
+--CRG7.HD4	05-15-1995	08:10 PM	486
+--CRG7.RGS	05-15-1995	08:10 PM	1,826
+--CRG7.UFS	05-15-1995	08:10 PM	3,714
+--CRG7.UFT	05-15-1995	08:10 PM	3,976
+--CRG8.DT1	05-15-1995	08:10 PM	292,832
+--CRG8.DT2	05-15-1995	08:10 PM	172,832
+--CRG8.DT3	05-15-1995	08:10 PM	268,832
+--CRG8.DT4	05-15-1995	08:10 PM	196,832
+--CRG8.HD1	05-15-1995	08:10 PM	610
+--CRG8.HD2	05-15-1995	08:10 PM	455
+--CRG8.HD3	05-15-1995	08:10 PM	579
+--CRG8.HD4	05-15-1995	08:10 PM	486
+--CRG8.RGS	05-15-1995	08:10 PM	1,826
+--CRG8.UFS	05-15-1995	08:10 PM	3,714
+--CRG8.UFT	05-15-1995	08:10 PM	3,976
+--CRG9.DT1	05-15-1995	08:10 PM	292,832
+--CRG9.DT2	05-15-1995	08:10 PM	172,832
+--CRG9.DT3	05-15-1995	08:10 PM	268,832
+--CRG9.DT4	05-15-1995	08:10 PM	196,832
+--CRG9.HD1	05-15-1995	08:10 PM	610
+--CRG9.HD2	05-15-1995	08:10 PM	455
+--CRG9.HD3	05-15-1995	08:10 PM	579
+--CRG9.HD4	05-15-1995	08:10 PM	486
+--CRG9.RGS	05-15-1995	08:10 PM	1,661

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+--CRG9.UFS                    05-15-1995  08:10 PM        3,714
+--CRG9.UFT                    05-15-1995  08:10 PM        3,976
+--TEST_C.TXT                  05-15-1995  08:10 PM        2,438
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Colorado Backup - DOS

Tape Directory

Tape name:
Volumes recorded: 3
Print Time: 06:11 PM
Print Date: 06-06-1995

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+- TITLE: ConfigD ----------------------------------------------------+
+- DOS:HD_504                 05-15-95     10:22 PM          51,632 -+

+- TITLE: ConfigF ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     04:04 PM         118,813 -+

+- TITLE: ConfigH ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     05:03 PM          97,025 -+
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Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:12 PM
Print Date: 06-06-1995

Volume # 1 Volume label: DOS:HD_504 Volume size: 51,629
Created on 05-15-1995 at 10:22 PM Ver: 18.00-0.0
Volume title: ConfigD

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     +--CONFIGD
         +--DCUR2.DT1        05-15-1995  09:21 PM   1,184,530
         +--DCUR2.DT2        05-15-1995  09:21 PM     699,080
         +--DCUR2.DT3        05-15-1995  09:22 PM   1,087,440
         +--DCUR2.DT4        05-15-1995  09:22 PM     796,170
         +--DCUR2.HD1        05-15-1995  09:22 PM         613
         +--DCUR2.HD2        05-15-1995  09:22 PM         458
         +--DCUR2.HD3        05-15-1995  09:22 PM         582
         +--DCUR2.HD4        05-15-1995  09:22 PM         489
         +--DCUR2.HFS        05-15-1995  09:22 PM       3,814
         +--DCUR2.HSP        05-15-1995  09:22 PM       4,988
         +--DCUR2.LFS        05-15-1995  09:22 PM       3,795
         +--DCUR2.LSP        05-15-1995  09:22 PM       4,969
         +--DCUR2.UFS        05-15-1995  09:22 PM       3,715
         +--DCUR2.USP        05-15-1995  09:22 PM       4,889
         +--DCUR3.DT1        05-15-1995  09:22 PM   1,184,530
         +--DCUR3.DT2        05-15-1995  09:22 PM     699,080
         +--DCUR3.DT3        05-15-1995  09:22 PM   1,087,440
         +--DCUR3.DT4        05-15-1995  09:22 PM     796,170
         +--DCUR3.HD1        05-15-1995  09:22 PM         613
         +--DCUR3.HD2        05-15-1995  09:22 PM         458
         +--DCUR3.HD3        05-15-1995  09:22 PM         582
         +--DCUR3.HD4        05-15-1995  09:22 PM         489
         +--DCUR3.HFS        05-15-1995  09:22 PM       3,814
         +--DCUR3.HSP        05-15-1995  09:22 PM       4,988
         +--DCUR3.LFS        05-15-1995  09:22 PM       3,795
         +--DCUR3.LSP        05-15-1995  09:22 PM       4,969
         +--DCUR3.UFS        05-15-1995  09:22 PM       3,715
         +--DCUR3.USP        05-15-1995  09:22 PM       4,889
         +--DCUR5.DT1        05-15-1995  09:23 PM   1,184,530
         +--DCUR5.DT2        05-15-1995  09:23 PM     699,080
         +--DCUR5.DT3        05-15-1995  09:23 PM   1,087,440
         +--DCUR5.DT4        05-15-1995  09:23 PM     796,170
         +--DCUR5.HD1        05-15-1995  09:23 PM         613
         +--DCUR5.HD2        05-15-1995  09:23 PM         458
         +--DCUR5.HD3        05-15-1995  09:23 PM         582
         +--DCUR5.HD4        05-15-1995  09:23 PM         489
         +--DCUR5.HFS        05-15-1995  09:23 PM       3,814
         +--DCUR5.HSP        05-15-1995  09:23 PM       4,988
         +--DCUR5.LFS        05-15-1995  09:23 PM       3,795
         +--DCUR5.LSP        05-15-1995  09:23 PM       4,969
         +--DCUR5.UFS        05-15-1995  09:23 PM       3,715
         +--DCUR5.USP        05-15-1995  09:23 PM       4,889
         +--DD1.DT1          05-15-1995  09:23 PM   1,142,196
         +--DD1.DT2          05-15-1995  09:23 PM     674,096
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+--DD1.DT3	05-15-1995	09:23 PM	1,048,576
+--DD1.DT4	05-15-1995	09:24 PM	767,716
+--DD1.HD1	05-15-1995	09:24 PM	607
+--DD1.HD2	05-15-1995	09:24 PM	452
+--DD1.HD3	05-15-1995	09:24 PM	576
+--DD1.HD4	05-15-1995	09:24 PM	483
+--DD1.UFS	05-15-1995	09:24 PM	3,713
+--DD2.DT1	05-15-1995	09:24 PM	1,184,530
+--DD2.DT2	05-15-1995	09:24 PM	699,080
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+--DD2.DT4	05-15-1995	09:24 PM	796,170
+--DD2.HD1	05-15-1995	09:24 PM	607
+--DD2.HD2	05-15-1995	09:24 PM	452
+--DD2.HD3	05-15-1995	09:24 PM	576
+--DD2.HD4	05-15-1995	09:24 PM	483
+--DD2.UFS	05-15-1995	09:24 PM	3,713
+--DD3.DT1	05-15-1995	09:24 PM	1,184,530
+--DD3.DT2	05-15-1995	09:24 PM	699,080
+--DD3.DT3	05-15-1995	09:25 PM	1,087,440
+--DD3.DT4	05-15-1995	09:25 PM	796,170
+--DD3.HD1	05-15-1995	09:25 PM	607
+--DD3.HD2	05-15-1995	09:25 PM	452
+--DD3.HD3	05-15-1995	09:25 PM	576
+--DD3.HD4	05-15-1995	09:25 PM	483
+--DD3.UFS	05-15-1995	09:25 PM	3,713
+--DD4.DT1	05-15-1995	09:25 PM	1,184,530
+--DD4.DT2	05-15-1995	09:25 PM	699,080
+--DD4.DT3	05-15-1995	09:25 PM	1,087,440
+--DD4.DT4	05-15-1995	09:25 PM	796,170
+--DD4.HD1	05-15-1995	09:25 PM	607
+--DD4.HD2	05-15-1995	09:25 PM	452
+--DD4.HD3	05-15-1995	09:25 PM	576
+--DD4.HD4	05-15-1995	09:25 PM	483
+--DD4.UFS	05-15-1995	09:25 PM	3,713
+--DD5.DT1	05-15-1995	09:25 PM	1,184,530
+--DD5.DT2	05-15-1995	09:26 PM	699,080
+--DD5.DT3	05-15-1995	09:26 PM	1,087,440
+--DD5.DT4	05-15-1995	09:26 PM	796,170
+--DD5.HD1	05-15-1995	09:26 PM	607
+--DD5.HD2	05-15-1995	09:26 PM	452
+--DD5.HD3	05-15-1995	09:26 PM	576
+--DD5.HD4	05-15-1995	09:26 PM	483
+--DD5.UFS	05-15-1995	09:26 PM	3,713
+--DRC2.DT1	05-15-1995	09:26 PM	1,184,530
+--DRC2.DT2	05-15-1995	09:26 PM	699,080
+--DRC2.DT3	05-15-1995	09:26 PM	1,087,440
+--DRC2.DT4	05-15-1995	09:26 PM	796,170
+--DRC2.HD1	05-15-1995	09:26 PM	610
+--DRC2.HD2	05-15-1995	09:26 PM	455
+--DRC2.HD3	05-15-1995	09:26 PM	579
+--DRC2.HD4	05-15-1995	09:26 PM	486
+--DRC2.HFS	05-15-1995	09:26 PM	3,813
+--DRC2.HSP	05-15-1995	09:26 PM	4,986
+--DRC2.LFS	05-15-1995	09:26 PM	3,794
+--DRC2.LSP	05-15-1995	09:26 PM	4,967
+--DRC2.UFS	05-15-1995	09:26 PM	3,714
+--DRC2.USP	05-15-1995	09:26 PM	4,887
+--DRC3.DT1	05-15-1995	09:27 PM	1,184,530
+--DRC3.DT2	05-15-1995	09:27 PM	699,080
+--DRC3.DT3	05-15-1995	09:27 PM	1,087,440

+--DRC3.DT4	05-15-1995	09:27	PM	796,170
+--DRC3.HD1	05-15-1995	09:27	PM	610
+--DRC3.HD2	05-15-1995	09:27	PM	455
+--DRC3.HD3	05-15-1995	09:27	PM	579
+--DRC3.HD4	05-15-1995	09:27	PM	486
+--DRC3.HFS	05-15-1995	09:27	PM	3,813
+--DRC3.HSP	05-15-1995	09:27	PM	4,986
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+--DRC3.LSP	05-15-1995	09:27	PM	4,967
+--DRC3.UFS	05-15-1995	09:27	PM	3,714
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+--DRC34.DT4	05-15-1995	09:28	PM	1,592,308
+--DRC34.HD1	05-15-1995	09:28	PM	601
+--DRC34.HD2	05-15-1995	09:28	PM	446
+--DRC34.HD3	05-15-1995	09:28	PM	570
+--DRC34.HD4	05-15-1995	09:28	PM	477
+--DRC34.HFS	05-15-1995	09:28	PM	3,810
+--DRC34.HSP	05-15-1995	09:28	PM	4,980
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+--DRC34.LSP	05-15-1995	09:28	PM	4,961
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+--DRC4.DT1	05-15-1995	09:28	PM	1,184,530
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+--DRC4.DT4	05-15-1995	09:28	PM	796,170
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+--DRC4.HD2	05-15-1995	09:28	PM	455
+--DRC4.HD3	05-15-1995	09:28	PM	579
+--DRC4.HD4	05-15-1995	09:28	PM	486
+--DRC4.HFS	05-15-1995	09:28	PM	3,813
+--DRC4.HSP	05-15-1995	09:28	PM	4,986
+--DRC4.LFS	05-15-1995	09:28	PM	3,794
+--DRC4.LSP	05-15-1995	09:28	PM	4,967
+--DRC4.UFS	05-15-1995	09:28	PM	3,714
+--DRC4.USP	05-15-1995	09:28	PM	4,887
+--DRC5.DT1	05-15-1995	09:29	PM	1,184,530
+--DRC5.DT2	05-15-1995	09:29	PM	699,080
+--DRC5.DT3	05-15-1995	09:29	PM	1,087,440
+--DRC5.DT4	05-15-1995	09:29	PM	796,170
+--DRC5.HD1	05-15-1995	09:29	PM	610
+--DRC5.HD2	05-15-1995	09:29	PM	455
+--DRC5.HD3	05-15-1995	09:29	PM	579
+--DRC5.HD4	05-15-1995	09:29	PM	486
+--DRC5.HFS	05-15-1995	09:29	PM	3,813
+--DRC5.HSP	05-15-1995	09:29	PM	4,986
+--DRC5.LFS	05-15-1995	09:29	PM	3,794
+--DRC5.LSP	05-15-1995	09:29	PM	4,967
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+--DRC5.USP	05-15-1995	09:29	PM	4,887
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Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:13 PM
Print Date: 06-06-1995

Volume # 2 Volume label: DOS:HD_504 Volume size: 118,804
Created on 05-16-1995 at 04:04 PM Ver: 18.00-0.0
Volume title: ConfigF

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         +--F1CUR3.DT3          05-16-1995  03:10 PM   1,281,620
         +--F1CUR3.HD1          05-16-1995  03:10 PM         616
         +--F1CUR3.HD2          05-16-1995  03:10 PM         492
         +--F1CUR3.HD3          05-16-1995  03:10 PM         647
         +--F1CUR3.HFS          05-16-1995  03:10 PM       3,183
         +--F1CUR3.HSP          05-16-1995  03:10 PM       4,674
         +--F1CUR3.LFS          05-16-1995  03:10 PM       3,164
         +--F1CUR3.LSP          05-16-1995  03:10 PM       4,655
         +--F1CUR3.UFS          05-16-1995  03:10 PM       3,321
         +--F1CUR3.USP          05-16-1995  03:10 PM       4,733
         +--F1CUR5.DT1          05-16-1995  03:10 PM   1,184,530
         +--F1CUR5.DT2          05-16-1995  03:10 PM     796,170
         +--F1CUR5.DT3          05-16-1995  03:10 PM   1,281,620
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         +--F1CUR5.HD2          05-16-1995  03:10 PM         492
         +--F1CUR5.HD3          05-16-1995  03:10 PM         647
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         +--F1CUR5.LSP          05-16-1995  03:10 PM       5,129
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         +--F1D1.HD1            05-16-1995  03:11 PM         610
         +--F1D1.HD2            05-16-1995  03:11 PM         486
         +--F1D1.HD3            05-16-1995  03:11 PM         641
         +--F1D1.UFS            05-16-1995  03:11 PM       3,398
         +--F1D2.DT1            05-16-1995  03:11 PM   1,184,530
         +--F1D2.DT2            05-16-1995  03:11 PM     796,170
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         +--F1D2.HD1            05-16-1995  03:11 PM         610
         +--F1D2.HD2            05-16-1995  03:11 PM         486
         +--F1D2.HD3            05-16-1995  03:11 PM         641
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+--F1D4.HD2	05-16-1995	03:12 PM	486
+--F1D4.HD3	05-16-1995	03:12 PM	641
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+--F1D5.HD2	05-16-1995	03:12 PM	486
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+--F1D5.UFS	05-16-1995	03:12 PM	3,398
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+--F1RAN3.LFS	05-16-1995	03:13 PM	3,164
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+--F1RC3.LFS	05-16-1995	03:13 PM	3,163
+--F1RC3.LSP	05-16-1995	03:13 PM	4,653
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+--F1RC3.USP	05-16-1995	03:13 PM	4,731
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+--F1RCW3.DT3	05-16-1995	03:14	PM	1,281,620
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+--F1RCW5.DT3	05-16-1995	03:14	PM	1,281,620
+--F1RCW5.HD1	05-16-1995	03:14	PM	616
+--F1RCW5.HD2	05-16-1995	03:14	PM	492
+--F1RCW5.HD3	05-16-1995	03:14	PM	647
+--F1RCW5.HFS	05-16-1995	03:14	PM	3,183
+--F1RCW5.HSP	05-16-1995	03:14	PM	4,674
+--F1RCW5.LFS	05-16-1995	03:14	PM	3,164
+--F1RCW5.LSP	05-16-1995	03:14	PM	4,655
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+--F2RAN3.DT2	05-16-1995	03:15	PM	796,170
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+--F2RAN3.HD2	05-16-1995	03:15	PM	492
+--F2RAN3.HD3	05-16-1995	03:15	PM	647
+--F2RAN3.HFS	05-16-1995	03:15	PM	3,341
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+--F2RAN3.LSP	05-16-1995	03:15	PM	5,129
+--F2RAN3.UFS	05-16-1995	03:15	PM	3,321
+--F2RAN3.USP	05-16-1995	03:15	PM	5,049
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+--F2RC3.HFS	05-16-1995	03:15	PM	3,340
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+--F2RCW3.HD2	05-16-1995	03:16	PM	492
+--F2RCW3.HD3	05-16-1995	03:16	PM	647
+--F2RCW3.HFS	05-16-1995	03:16	PM	3,341
+--F2RCW3.HSP	05-16-1995	03:16	PM	5,148
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+--FD3.DT3	05-16-1995	03:17 PM	1,281,620
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+--FD3.HD2	05-16-1995	03:17 PM	483
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+--FD5.HD2	05-16-1995	03:18 PM	483
+--FD5.HD3	05-16-1995	03:18 PM	638
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+--FD6.DT1	05-16-1995	03:18 PM	1,184,530
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+--FD6.HD3	05-16-1995	03:18 PM	638
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+--FRAN2.HD3	05-16-1995	03:19 PM	644
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+--FRAN3.HD3	05-16-1995	03:19 PM	644
+--FRAN3.HFS	05-16-1995	03:19 PM	3,340
+--FRAN3.HSP	05-16-1995	03:19 PM	5,146

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+--FRAN3.LSP	05-16-1995	03:19 PM	5,127
+--FRAN3.UFS	05-16-1995	03:19 PM	3,320
+--FRAN3.USP	05-16-1995	03:19 PM	5,047
+--FRAN6.DT1	05-16-1995	03:19 PM	1,184,530
+--FRAN6.DT2	05-16-1995	03:19 PM	796,170
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+--FRAN6.HD2	05-16-1995	03:20 PM	489
+--FRAN6.HD3	05-16-1995	03:20 PM	644
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+--FRC2.HSP	05-16-1995	03:20 PM	5,144
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+--FRC3.DT1	05-16-1995	03:20 PM	1,184,530
+--FRC3.DT2	05-16-1995	03:20 PM	796,170
+--FRC3.DT3	05-16-1995	03:20 PM	1,281,620
+--FRC3.HD1	05-16-1995	03:20 PM	610
+--FRC3.HD2	05-16-1995	03:20 PM	486
+--FRC3.HD3	05-16-1995	03:20 PM	641
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+--FRC6.HD2	05-16-1995	03:21 PM	486
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+--FRCW2.DT1	05-16-1995	03:21 PM	1,184,530
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+--FRG9.DT3	05-16-1995	03:22 PM	316,832
+--FRG9.HD1	05-16-1995	03:22 PM	610
+--FRG9.HD2	05-16-1995	03:22 PM	486
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+--FSO07.HD2	05-16-1995	03:22 PM	483
+--FSO07.HD3	05-16-1995	03:22 PM	638
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+--FSO08.DT2	05-16-1995	03:22 PM	49,232
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+--FSO08.HD3	05-16-1995	03:22 PM	638
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+--FSO10.HD1	05-16-1995	03:22 PM	607
+--FSO10.HD2	05-16-1995	03:22 PM	483
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Colorado Backup - DOS

Volume Directory

Tape name:
Print Time: 06:14 PM
Print Date: 06-06-1995

Volume # 3 Volume label: DOS:HD_504 Volume size: 97,018
Created on 05-16-1995 at 05:03 PM Ver: 18.00-0.0
Volume title: ConfigH

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        +--HCUR2.HD2      05-16-1995  04:23 PM         489
        +--HCUR2.HD3      05-16-1995  04:23 PM         582
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        +--HCUR2.HSP      05-16-1995  04:23 PM       3,566
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+--HD5.HD2	05-16-1995	04:25	PM	483
+--HD5.HD3	05-16-1995	04:25	PM	576
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+--HPRE17.HD2	05-16-1995	04:25	PM	486
+--HPRE17.HD3	05-16-1995	04:25	PM	579
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+--HPRE5.HD2	05-16-1995	04:25	PM	486
+--HPRE5.HD3	05-16-1995	04:25	PM	579
+--HPRE5.UFS	05-16-1995	04:25	PM	3,161
+--HPRE6.DT1	05-16-1995	04:25	PM	73,232
+--HPRE6.DT2	05-16-1995	04:25	PM	49,232
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+--HPRE6.HD1	05-16-1995	04:25	PM	610
+--HPRE6.HD2	05-16-1995	04:25	PM	486
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+--HRAN3.HD3	05-16-1995	04:27 PM	582
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+--HRAN5.HD3	05-16-1995	04:27 PM	582
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+--HRAN5.USP	05-16-1995	04:27 PM	3,783

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+--HRC2.DT3	05-16-1995	04:28 PM	1,087,440
+--HRC2.HD1	05-16-1995	04:28 PM	610
+--HRC2.HD2	05-16-1995	04:28 PM	486
+--HRC2.HD3	05-16-1995	04:28 PM	579
+--HRC2.HFS	05-16-1995	04:28 PM	3,260
+--HRC2.HSP	05-16-1995	04:28 PM	3,880
+--HRC2.LFS	05-16-1995	04:28 PM	3,241
+--HRC2.LSP	05-16-1995	04:28 PM	3,861
+--HRC2.UFS	05-16-1995	04:28 PM	3,161
+--HRC2.USP	05-16-1995	04:28 PM	3,781
+--HRC3-4.DT1	05-16-1995	04:28 PM	2,369,028
+--HRC3-4.DT2	05-16-1995	04:28 PM	1,592,308
+--HRC3-4.DT3	05-16-1995	04:29 PM	2,174,848
+--HRC3-4.HD1	05-16-1995	04:29 PM	604
+--HRC3-4.HD2	05-16-1995	04:29 PM	480
+--HRC3-4.HD3	05-16-1995	04:29 PM	573
+--HRC3-4.HFS	05-16-1995	04:29 PM	3,258
+--HRC3-4.HSP	05-16-1995	04:29 PM	3,876
+--HRC3-4.LFS	05-16-1995	04:29 PM	3,239
+--HRC3-4.LSP	05-16-1995	04:29 PM	3,857
+--HRC3-4.UFS	05-16-1995	04:29 PM	3,159
+--HRC3-4.USP	05-16-1995	04:29 PM	3,777
+--HRC3.DT1	05-16-1995	04:29 PM	1,184,530
+--HRC3.DT2	05-16-1995	04:29 PM	796,170
+--HRC3.DT3	05-16-1995	04:29 PM	1,087,440
+--HRC3.HD1	05-16-1995	04:29 PM	610
+--HRC3.HD2	05-16-1995	04:29 PM	486
+--HRC3.HD3	05-16-1995	04:29 PM	579
+--HRC3.HFS	05-16-1995	04:29 PM	3,260
+--HRC3.HSP	05-16-1995	04:29 PM	3,880
+--HRC3.LFS	05-16-1995	04:29 PM	3,241
+--HRC3.LSP	05-16-1995	04:29 PM	3,861
+--HRC3.UFS	05-16-1995	04:29 PM	3,161
+--HRC3.USP	05-16-1995	04:29 PM	3,781
+--HRC4.DT1	05-16-1995	04:29 PM	1,184,530
+--HRC4.DT2	05-16-1995	04:29 PM	796,170
+--HRC4.DT3	05-16-1995	04:29 PM	1,087,440
+--HRC4.HD1	05-16-1995	04:29 PM	610
+--HRC4.HD2	05-16-1995	04:29 PM	486
+--HRC4.HD3	05-16-1995	04:29 PM	579
+--HRC4.HFS	05-16-1995	04:29 PM	3,260
+--HRC4.HSP	05-16-1995	04:29 PM	3,880
+--HRC4.LFS	05-16-1995	04:29 PM	3,241
+--HRC4.LSP	05-16-1995	04:29 PM	3,861
+--HRC4.UFS	05-16-1995	04:29 PM	3,161
+--HRC4.USP	05-16-1995	04:29 PM	3,781

+--HRC5.DT1	05-16-1995	04:30 PM	1,184,530
+--HRC5.DT2	05-16-1995	04:30 PM	796,170
+--HRC5.DT3	05-16-1995	04:30 PM	1,087,440
+--HRC5.HD1	05-16-1995	04:30 PM	610
+--HRC5.HD2	05-16-1995	04:30 PM	486
+--HRC5.HD3	05-16-1995	04:30 PM	579
+--HRC5.HFS	05-16-1995	04:30 PM	3,260
+--HRC5.HSP	05-16-1995	04:30 PM	3,880
+--HRC5.LFS	05-16-1995	04:30 PM	3,241
+--HRC5.LSP	05-16-1995	04:30 PM	3,861
+--HRC5.UFS	05-16-1995	04:30 PM	3,161
+--HRC5.USP	05-16-1995	04:30 PM	3,781
+--HRCW2.DT1	05-16-1995	04:30 PM	1,184,530
+--HRCW2.DT2	05-16-1995	04:30 PM	796,170
+--HRCW2.DT3	05-16-1995	04:30 PM	1,087,440
+--HRCW2.HD1	05-16-1995	04:30 PM	613
+--HRCW2.HD2	05-16-1995	04:30 PM	489
+--HRCW2.HD3	05-16-1995	04:30 PM	582
+--HRCW2.HFS	05-16-1995	04:30 PM	3,261
+--HRCW2.HSP	05-16-1995	04:30 PM	3,882
+--HRCW2.LFS	05-16-1995	04:30 PM	3,242
+--HRCW2.LSP	05-16-1995	04:30 PM	3,863
+--HRCW2.UFS	05-16-1995	04:30 PM	3,162
+--HRCW2.USP	05-16-1995	04:30 PM	3,783
+--HRCW3-4.DT1	05-16-1995	04:30 PM	2,369,028
+--HRCW3-4.DT2	05-16-1995	04:31 PM	1,592,308
+--HRCW3-4.DT3	05-16-1995	04:31 PM	2,174,848
+--HRCW3-4.HD1	05-16-1995	04:31 PM	607
+--HRCW3-4.HD2	05-16-1995	04:31 PM	483
+--HRCW3-4.HD3	05-16-1995	04:31 PM	576
+--HRCW3-4.HFS	05-16-1995	04:31 PM	3,259
+--HRCW3-4.HSP	05-16-1995	04:31 PM	3,878
+--HRCW3-4.LFS	05-16-1995	04:31 PM	3,240
+--HRCW3-4.LSP	05-16-1995	04:31 PM	3,859
+--HRCW3-4.UFS	05-16-1995	04:31 PM	3,160
+--HRCW3-4.USP	05-16-1995	04:31 PM	3,779
+--HRCW3.DT1	05-16-1995	04:31 PM	1,184,530
+--HRCW3.DT2	05-16-1995	04:31 PM	796,170
+--HRCW3.DT3	05-16-1995	04:31 PM	1,087,440
+--HRCW3.HD1	05-16-1995	04:31 PM	613
+--HRCW3.HD2	05-16-1995	04:31 PM	489
+--HRCW3.HD3	05-16-1995	04:31 PM	582
+--HRCW3.HFS	05-16-1995	04:31 PM	3,261
+--HRCW3.HSP	05-16-1995	04:31 PM	3,882
+--HRCW3.LFS	05-16-1995	04:31 PM	3,242
+--HRCW3.LSP	05-16-1995	04:31 PM	3,863
+--HRCW3.UFS	05-16-1995	04:31 PM	3,162
+--HRCW3.USP	05-16-1995	04:31 PM	3,783
+--HRCW4.DT1	05-16-1995	04:31 PM	1,184,530
+--HRCW4.DT2	05-16-1995	04:31 PM	796,170
+--HRCW4.DT3	05-16-1995	04:31 PM	1,087,440
+--HRCW4.HD1	05-16-1995	04:31 PM	613
+--HRCW4.HD2	05-16-1995	04:31 PM	489
+--HRCW4.HD3	05-16-1995	04:31 PM	582
+--HRCW4.HFS	05-16-1995	04:32 PM	3,261
+--HRCW4.HSP	05-16-1995	04:32 PM	3,882
+--HRCW4.LFS	05-16-1995	04:32 PM	3,242
+--HRCW4.LSP	05-16-1995	04:32 PM	3,863
+--HRCW4.UFS	05-16-1995	04:32 PM	3,162
+--HRCW4.USP	05-16-1995	04:32 PM	3,783

Colorado Backup - DOS

Tape Directory

Tape name:	SONY
Volumes recorded:	5
Print Time:	06:24 PM
Print Date:	06-06-1995

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+- TITLE: ConfigJ ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     05:56 PM          69,032 -+

+- TITLE: ConfigL ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     09:31 PM          79,698 -+

+- TITLE: ConfigM ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     10:52 PM          60,664 -+

+- TITLE: ConfigN ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     11:02 PM           8,449 -+

+- TITLE: ConfigO ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     11:05 PM          10,067 -+
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Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:25 PM
Print Date: 06-06-1995

Volume # 1 Volume label: DOS:HD_504 Volume size: 69,029
Created on 05-16-1995 at 05:56 PM Ver: 18.00-0.0
Volume title: ConfigJ

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    +--CONFIGJ
        +--J_SERIES.TXT      05-16-1995  05:26 PM      1,797
        +--J1.DT1            05-16-1995  05:26 PM  1,184,530
        +--J1.DT2            05-16-1995  05:26 PM    796,170
        +--J1.DT3            05-16-1995  05:26 PM  1,087,440
        +--J1.HD1            05-16-1995  05:26 PM        604
        +--J1.HD2            05-16-1995  05:26 PM        480
        +--J1.HD3            05-16-1995  05:26 PM        573
        +--J1.UFS            05-16-1995  05:26 PM      3,159
        +--J10.DT1           05-16-1995  05:26 PM  1,184,530
        +--J10.DT2           05-16-1995  05:26 PM    796,170
        +--J10.DT3           05-16-1995  05:26 PM  1,087,440
        +--J10.HD1           05-16-1995  05:26 PM        607
        +--J10.HD2           05-16-1995  05:26 PM        483
        +--J10.HD3           05-16-1995  05:26 PM        576
        +--J10.UFS           05-16-1995  05:26 PM      3,160
        +--J11.DT1           05-16-1995  05:26 PM  1,184,530
        +--J11.DT2           05-16-1995  05:27 PM    796,170
        +--J11.DT3           05-16-1995  05:27 PM  1,087,440
        +--J11.HD1           05-16-1995  05:27 PM        607
        +--J11.HD2           05-16-1995  05:27 PM        483
        +--J11.HD3           05-16-1995  05:27 PM        576
        +--J11.UFS           05-16-1995  05:27 PM      3,160
        +--J12.DT1           05-16-1995  05:27 PM  1,184,530
        +--J12.DT2           05-16-1995  05:27 PM    796,170
        +--J12.DT3           05-16-1995  05:27 PM  1,087,440
        +--J12.HD1           05-16-1995  05:27 PM        607
        +--J12.HD2           05-16-1995  05:27 PM        483
        +--J12.HD3           05-16-1995  05:27 PM        576
        +--J12.UFS           05-16-1995  05:27 PM      3,160
        +--J13.DT1           05-16-1995  05:27 PM  1,184,530
        +--J13.DT2           05-16-1995  05:27 PM    796,170
        +--J13.DT3           05-16-1995  05:27 PM  1,087,440
        +--J13.HD1           05-16-1995  05:27 PM        607
        +--J13.HD2           05-16-1995  05:27 PM        483
        +--J13.HD3           05-16-1995  05:27 PM        576
        +--J13.UFS           05-16-1995  05:27 PM      3,160
        +--J14.DT1           05-16-1995  05:27 PM  1,184,530
        +--J14.DT2           05-16-1995  05:27 PM    796,170
        +--J14.DT3           05-16-1995  05:28 PM  1,087,440
        +--J14.HD1           05-16-1995  05:28 PM        607
        +--J14.HD2           05-16-1995  05:28 PM        483
        +--J14.HD3           05-16-1995  05:28 PM        576
        +--J14.UFS           05-16-1995  05:28 PM      3,160
        +--J142.DT1          05-16-1995  05:28 PM  1,184,530
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+--J142.DT2	05-16-1995	05:28 PM	796,170
+--J142.DT3	05-16-1995	05:28 PM	1,087,440
+--J142.HD1	05-16-1995	05:28 PM	607
+--J142.HD2	05-16-1995	05:28 PM	483
+--J142.HD3	05-16-1995	05:28 PM	576
+--J142.UFS	05-16-1995	05:28 PM	3,160
+--J15.DT1	05-16-1995	05:28 PM	1,184,530
+--J15.DT2	05-16-1995	05:28 PM	796,170
+--J15.DT3	05-16-1995	05:28 PM	1,087,440
+--J15.HD1	05-16-1995	05:28 PM	607
+--J15.HD2	05-16-1995	05:28 PM	483
+--J15.HD3	05-16-1995	05:28 PM	576
+--J15.UFS	05-16-1995	05:28 PM	3,160
+--J16.DT1	05-16-1995	05:28 PM	1,184,530
+--J16.DT2	05-16-1995	05:28 PM	796,170
+--J16.DT3	05-16-1995	05:28 PM	1,087,440
+--J16.HD1	05-16-1995	05:28 PM	607
+--J16.HD2	05-16-1995	05:28 PM	483
+--J16.HD3	05-16-1995	05:28 PM	576
+--J16.UFS	05-16-1995	05:28 PM	3,160
+--J17.DT1	05-16-1995	05:29 PM	1,184,530
+--J17.DT2	05-16-1995	05:29 PM	796,170
+--J17.DT3	05-16-1995	05:29 PM	1,087,440
+--J17.HD1	05-16-1995	05:29 PM	607
+--J17.HD2	05-16-1995	05:29 PM	483
+--J17.HD3	05-16-1995	05:29 PM	576
+--J17.UFS	05-16-1995	05:29 PM	3,160
+--J18.DT1	05-16-1995	05:29 PM	1,184,530
+--J18.DT2	05-16-1995	05:29 PM	796,170
+--J18.DT3	05-16-1995	05:29 PM	1,087,440
+--J18.HD1	05-16-1995	05:29 PM	607
+--J18.HD2	05-16-1995	05:29 PM	483
+--J18.HD3	05-16-1995	05:29 PM	576
+--J18.UFS	05-16-1995	05:29 PM	3,160
+--J19.DT1	05-16-1995	05:29 PM	1,184,530
+--J19.DT2	05-16-1995	05:29 PM	796,170
+--J19.DT3	05-16-1995	05:29 PM	1,087,440
+--J19.HD1	05-16-1995	05:29 PM	607
+--J19.HD2	05-16-1995	05:29 PM	483
+--J19.HD3	05-16-1995	05:29 PM	576
+--J19.UFS	05-16-1995	05:29 PM	3,160
+--J2.DT1	05-16-1995	05:29 PM	1,184,530
+--J2.DT2	05-16-1995	05:30 PM	796,170
+--J2.DT3	05-16-1995	05:30 PM	1,087,440
+--J2.HD1	05-16-1995	05:30 PM	604
+--J2.HD2	05-16-1995	05:30 PM	480
+--J2.HD3	05-16-1995	05:30 PM	573
+--J2.UFS	05-16-1995	05:30 PM	3,159
+--J20.DT1	05-16-1995	05:30 PM	1,184,530
+--J20.DT2	05-16-1995	05:30 PM	796,170
+--J20.DT3	05-16-1995	05:30 PM	1,087,440
+--J20.HD1	05-16-1995	05:30 PM	607
+--J20.HD2	05-16-1995	05:30 PM	483
+--J20.HD3	05-16-1995	05:30 PM	576
+--J20.UFS	05-16-1995	05:30 PM	3,160
+--J21.DT1	05-16-1995	05:30 PM	1,184,530
+--J21.DT2	05-16-1995	05:30 PM	796,170
+--J21.DT3	05-16-1995	05:30 PM	1,087,440
+--J21.HD1	05-16-1995	05:30 PM	607
+--J21.HD2	05-16-1995	05:30 PM	483

+--J21.HD3	05-16-1995	05:30 PM	576
+--J21.UFS	05-16-1995	05:30 PM	3,160
+--J22.DT1	05-16-1995	05:30 PM	1,184,530
+--J22.DT2	05-16-1995	05:30 PM	796,170
+--J22.DT3	05-16-1995	05:31 PM	1,087,440
+--J22.HD1	05-16-1995	05:31 PM	607
+--J22.HD2	05-16-1995	05:31 PM	483
+--J22.HD3	05-16-1995	05:31 PM	576
+--J22.UFS	05-16-1995	05:31 PM	3,160
+--J3.DT1	05-16-1995	05:31 PM	1,184,530
+--J3.DT2	05-16-1995	05:31 PM	796,170
+--J3.DT3	05-16-1995	05:31 PM	1,087,440
+--J3.HD1	05-16-1995	05:31 PM	604
+--J3.HD2	05-16-1995	05:31 PM	480
+--J3.HD3	05-16-1995	05:31 PM	573
+--J3.UFS	05-16-1995	05:31 PM	3,159
+--J4.DT1	05-16-1995	05:31 PM	1,184,530
+--J4.DT2	05-16-1995	05:31 PM	796,170
+--J4.DT3	05-16-1995	05:31 PM	1,087,440
+--J4.HD1	05-16-1995	05:31 PM	604
+--J4.HD2	05-16-1995	05:31 PM	480
+--J4.HD3	05-16-1995	05:31 PM	573
+--J4.UFS	05-16-1995	05:31 PM	3,159
+--J5.DT1	05-16-1995	05:31 PM	1,184,530
+--J5.DT2	05-16-1995	05:31 PM	796,170
+--J5.DT3	05-16-1995	05:31 PM	1,087,440
+--J5.HD1	05-16-1995	05:31 PM	604
+--J5.HD2	05-16-1995	05:31 PM	480
+--J5.HD3	05-16-1995	05:31 PM	573
+--J5.UFS	05-16-1995	05:31 PM	3,159
+--J6.DT1	05-16-1995	05:32 PM	1,184,530
+--J6.DT2	05-16-1995	05:32 PM	796,170
+--J6.DT3	05-16-1995	05:32 PM	1,087,440
+--J6.HD1	05-16-1995	05:32 PM	604
+--J6.HD2	05-16-1995	05:32 PM	480
+--J6.HD3	05-16-1995	05:32 PM	573
+--J6.UFS	05-16-1995	05:32 PM	3,159
+--J7.DT1	05-16-1995	05:32 PM	1,184,530
+--J7.DT2	05-16-1995	05:32 PM	796,170
+--J7.DT3	05-16-1995	05:32 PM	1,087,440
+--J7.HD1	05-16-1995	05:32 PM	604
+--J7.HD2	05-16-1995	05:32 PM	480
+--J7.HD3	05-16-1995	05:32 PM	573
+--J7.UFS	05-16-1995	05:32 PM	3,159
+--J8.DT1	05-16-1995	05:32 PM	1,184,530
+--J8.DT2	05-16-1995	05:32 PM	796,170
+--J8.DT3	05-16-1995	05:32 PM	1,087,440
+--J8.HD1	05-16-1995	05:32 PM	604
+--J8.HD2	05-16-1995	05:32 PM	480
+--J8.HD3	05-16-1995	05:32 PM	573
+--J8.UFS	05-16-1995	05:32 PM	3,159
+--J9.DT1	05-16-1995	05:32 PM	1,184,530
+--J9.DT2	05-16-1995	05:32 PM	796,170
+--J9.DT3	05-16-1995	05:33 PM	1,087,440
+--J9.HD1	05-16-1995	05:33 PM	604
+--J9.HD2	05-16-1995	05:33 PM	480
+--J9.HD3	05-16-1995	05:33 PM	573
+--J9.UFS	05-16-1995	05:33 PM	3,159

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:26 PM
Print Date: 06-06-1995

Volume # 2 Volume label: DOS:HD_504 Volume size: 79,689
Created on 05-16-1995 at 09:31 PM Ver: 18.00-0.0
Volume title: ConfigL

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         +--LCUR3.DT1      05-16-1995  06:08 PM   1,184,530
         +--LCUR3.DT2      05-16-1995  06:08 PM     796,170
         +--LCUR3.DT3      05-16-1995  06:08 PM     796,170
         +--LCUR3.HD1      05-16-1995  06:08 PM         613
         +--LCUR3.HD2      05-16-1995  06:08 PM         489
         +--LCUR3.HD3      05-16-1995  06:08 PM         489
         +--LCUR3.HFS      05-16-1995  06:08 PM       3,182
         +--LCUR3.HSP      05-16-1995  06:08 PM       4,040
         +--LCUR3.LFS      05-16-1995  06:08 PM       3,163
         +--LCUR3.LSP      05-16-1995  06:08 PM       3,705
         +--LCUR3.UFS      05-16-1995  06:08 PM       3,241
         +--LCUR3.USP      05-16-1995  06:08 PM       3,941
         +--LD1.DT1        05-16-1995  06:08 PM   1,184,530
         +--LD1.DT2        05-16-1995  06:08 PM     796,170
         +--LD1.DT3        05-16-1995  06:08 PM     796,170
         +--LD1.HD1        05-16-1995  06:08 PM         607
         +--LD1.HD2        05-16-1995  06:08 PM         483
         +--LD1.HD3        05-16-1995  06:08 PM         483
         +--LD1.UFS        05-16-1995  06:08 PM       3,239
         +--LD2.DT1        05-16-1995  06:08 PM   1,184,530
         +--LD2.DT2        05-16-1995  06:08 PM     796,170
         +--LD2.DT3        05-16-1995  06:09 PM     796,170
         +--LD2.HD1        05-16-1995  06:09 PM         607
         +--LD2.HD2        05-16-1995  06:09 PM         483
         +--LD2.HD3        05-16-1995  06:09 PM         483
         +--LD2.UFS        05-16-1995  06:09 PM       3,239
         +--LD3.DT1        05-16-1995  06:09 PM   1,184,530
         +--LD3.DT2        05-16-1995  06:09 PM     796,170
         +--LD3.DT3        05-16-1995  06:09 PM     796,170
         +--LD3.HD1        05-16-1995  06:09 PM         607
         +--LD3.HD2        05-16-1995  06:09 PM         483
         +--LD3.HD3        05-16-1995  06:09 PM         483
         +--LD3.UFS        05-16-1995  06:09 PM       3,239
         +--LD4.DT1        05-16-1995  06:09 PM   1,184,530
         +--LD4.DT2        05-16-1995  06:09 PM     796,170
         +--LD4.DT3        05-16-1995  06:09 PM     796,170
         +--LD4.HD1        05-16-1995  06:09 PM         607
         +--LD4.HD2        05-16-1995  06:09 PM         483
         +--LD4.HD3        05-16-1995  06:09 PM         483
         +--LD4.UFS        05-16-1995  06:09 PM       3,239
         +--LD5.DT1        05-16-1995  06:09 PM   1,184,530
         +--LD5.DT2        05-16-1995  06:09 PM     796,170
         +--LD5.DT3        05-16-1995  06:09 PM     796,170
         +--LD5.HD1        05-16-1995  06:09 PM         607
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+--LD5.HD2	05-16-1995	06:09 PM	483
+--LD5.HD3	05-16-1995	06:09 PM	483
+--LD5.UFS	05-16-1995	06:09 PM	3,239
+--LD6.DT1	05-16-1995	06:09 PM	1,184,530
+--LD6.DT2	05-16-1995	06:09 PM	796,170
+--LD6.DT3	05-16-1995	06:10 PM	796,170
+--LD6.HD1	05-16-1995	06:10 PM	607
+--LD6.HD2	05-16-1995	06:10 PM	483
+--LD6.HD3	05-16-1995	06:10 PM	483
+--LD6.UFS	05-16-1995	06:10 PM	3,239
+--LD7.DT1	05-16-1995	06:10 PM	1,184,530
+--LD7.DT2	05-16-1995	06:10 PM	796,170
+--LD7.DT3	05-16-1995	06:10 PM	796,170
+--LD7.HD1	05-16-1995	06:10 PM	607
+--LD7.HD2	05-16-1995	06:10 PM	483
+--LD7.HD3	05-16-1995	06:10 PM	483
+--LD7.UFS	05-16-1995	06:10 PM	3,239
+--LD8.DT1	05-16-1995	06:10 PM	1,184,530
+--LD8.DT2	05-16-1995	06:10 PM	796,170
+--LD8.DT3	05-16-1995	06:10 PM	796,170
+--LD8.HD1	05-16-1995	06:10 PM	607
+--LD8.HD2	05-16-1995	06:10 PM	483
+--LD8.HD3	05-16-1995	06:10 PM	483
+--LD8.UFS	05-16-1995	06:10 PM	3,239
+--LRAN1.DT1	05-16-1995	06:10 PM	1,184,530
+--LRAN1.DT2	05-16-1995	06:10 PM	796,170
+--LRAN1.DT3	05-16-1995	06:10 PM	796,170
+--LRAN1.HD1	05-16-1995	06:10 PM	613
+--LRAN1.HD2	05-16-1995	06:10 PM	489
+--LRAN1.HD3	05-16-1995	06:10 PM	489
+--LRAN1.HFS	05-16-1995	06:10 PM	3,182
+--LRAN1.HSP	05-16-1995	06:10 PM	4,198
+--LRAN1.LFS	05-16-1995	06:10 PM	3,163
+--LRAN1.LSP	05-16-1995	06:10 PM	4,179
+--LRAN1.UFS	05-16-1995	06:10 PM	3,241
+--LRAN1.USP	05-16-1995	06:10 PM	4,099
+--LRAN3.DT1	05-16-1995	06:10 PM	1,184,530
+--LRAN3.DT2	05-16-1995	06:11 PM	796,170
+--LRAN3.DT3	05-16-1995	06:11 PM	796,170
+--LRAN3.HD1	05-16-1995	06:11 PM	613
+--LRAN3.HD2	05-16-1995	06:11 PM	489
+--LRAN3.HD3	05-16-1995	06:11 PM	489
+--LRAN3.HFS	05-16-1995	06:11 PM	3,182
+--LRAN3.HSP	05-16-1995	06:11 PM	4,198
+--LRAN3.LFS	05-16-1995	06:11 PM	3,163
+--LRAN3.LSP	05-16-1995	06:11 PM	4,179
+--LRAN3.UFS	05-16-1995	06:11 PM	3,241
+--LRAN3.USP	05-16-1995	06:11 PM	4,099
+--LRAN34.DT1	05-16-1995	06:11 PM	2,369,028
+--LRAN34.DT2	05-16-1995	06:11 PM	1,592,308
+--LRAN34.DT3	05-16-1995	06:11 PM	1,592,308
+--LRAN34.HD1	05-16-1995	06:11 PM	604
+--LRAN34.HD2	05-16-1995	06:11 PM	480
+--LRAN34.HD3	05-16-1995	06:11 PM	480
+--LRAN34.HFS	05-16-1995	06:11 PM	2,942
+--LRAN34.HSP	05-16-1995	06:11 PM	4,192
+--LRAN34.LFS	05-16-1995	06:11 PM	2,923
+--LRAN34.LSP	05-16-1995	06:11 PM	4,173
+--LRAN34.UFS	05-16-1995	06:11 PM	2,843
+--LRAN34.USP	05-16-1995	06:11 PM	4,093

+--LRAN4.DT1	05-16-1995	06:11 PM	1,184,530
+--LRAN4.DT2	05-16-1995	06:11 PM	796,170
+--LRAN4.DT3	05-16-1995	06:11 PM	796,170
+--LRAN4.HD1	05-16-1995	06:11 PM	613
+--LRAN4.HD2	05-16-1995	06:11 PM	489
+--LRAN4.HD3	05-16-1995	06:11 PM	489
+--LRAN4.HFS	05-16-1995	06:11 PM	3,182
+--LRAN4.HSP	05-16-1995	06:11 PM	4,198
+--LRAN4.LFS	05-16-1995	06:11 PM	3,163
+--LRAN4.LSP	05-16-1995	06:11 PM	4,179
+--LRAN4.UFS	05-16-1995	06:11 PM	3,241
+--LRAN4.USP	05-16-1995	06:11 PM	4,099
+--LRAN6.DT1	05-16-1995	06:12 PM	1,184,530
+--LRAN6.DT2	05-16-1995	06:12 PM	796,170
+--LRAN6.DT3	05-16-1995	06:12 PM	796,170
+--LRAN6.HD1	05-16-1995	06:12 PM	613
+--LRAN6.HD2	05-16-1995	06:12 PM	489
+--LRAN6.HD3	05-16-1995	06:12 PM	489
+--LRAN6.HFS	05-16-1995	06:12 PM	3,182
+--LRAN6.HSP	05-16-1995	06:12 PM	4,198
+--LRAN6.LFS	05-16-1995	06:12 PM	3,163
+--LRAN6.LSP	05-16-1995	06:12 PM	4,179
+--LRAN6.UFS	05-16-1995	06:12 PM	3,241
+--LRAN6.USP	05-16-1995	06:12 PM	4,099
+--LRC2.DT1	05-16-1995	06:12 PM	1,184,530
+--LRC2.DT2	05-16-1995	06:12 PM	796,170
+--LRC2.DT3	05-16-1995	06:12 PM	796,170
+--LRC2.HD1	05-16-1995	06:12 PM	610
+--LRC2.HD2	05-16-1995	06:12 PM	486
+--LRC2.HD3	05-16-1995	06:12 PM	486
+--LRC2.HFS	05-16-1995	06:12 PM	3,181
+--LRC2.HSP	05-16-1995	06:12 PM	4,196
+--LRC2.LFS	05-16-1995	06:12 PM	3,162
+--LRC2.LSP	05-16-1995	06:12 PM	4,177
+--LRC2.UFS	05-16-1995	06:12 PM	3,240
+--LRC2.USP	05-16-1995	06:12 PM	4,097
+--LRC3.DT1	05-16-1995	06:12 PM	1,184,530
+--LRC3.DT2	05-16-1995	06:12 PM	796,170
+--LRC3.DT3	05-16-1995	06:12 PM	796,170
+--LRC3.HD1	05-16-1995	06:12 PM	610
+--LRC3.HD2	05-16-1995	06:12 PM	486
+--LRC3.HD3	05-16-1995	06:12 PM	486
+--LRC3.HFS	05-16-1995	06:12 PM	3,181
+--LRC3.HSP	05-16-1995	06:12 PM	4,196
+--LRC3.LFS	05-16-1995	06:12 PM	3,162
+--LRC3.LSP	05-16-1995	06:12 PM	4,177
+--LRC3.UFS	05-16-1995	06:12 PM	3,240
+--LRC3.USP	05-16-1995	06:12 PM	4,097
+--LRC34.DT1	05-16-1995	06:12 PM	528,621
+--LRC34.DT2	05-16-1995	06:12 PM	0
+--LRC34.DT3	05-16-1995	06:12 PM	0
+--LRC34.HD2	05-16-1995	06:12 PM	0
+--LRC34.HFS	05-16-1995	06:12 PM	2,934
+--LRC34.HSP	05-16-1995	06:12 PM	4,176
+--LRC34.LFS	05-16-1995	06:12 PM	2,915
+--LRC34.LSP	05-16-1995	06:12 PM	4,157
+--LRC34.UFS	05-16-1995	06:12 PM	2,835
+--LRC34.USP	05-16-1995	06:12 PM	4,077
+--LRC4.DT1	05-16-1995	06:12 PM	1,184,530
+--LRC4.DT2	05-16-1995	06:12 PM	796,170

+--LRC4.DT3	05-16-1995	06:13	PM	796,170
+--LRC4.HD1	05-16-1995	06:13	PM	603
+--LRC4.HD2	05-16-1995	06:13	PM	479
+--LRC4.HD3	05-16-1995	06:13	PM	479
+--LRC4.HFS	05-16-1995	06:13	PM	3,174
+--LRC4.HSP	05-16-1995	06:13	PM	4,182
+--LRC4.LFS	05-16-1995	06:13	PM	3,155
+--LRC4.LSP	05-16-1995	06:13	PM	4,163
+--LRC4.UFS	05-16-1995	06:13	PM	3,233
+--LRC4.USP	05-16-1995	06:13	PM	4,083
+--LRCW2.DT1	05-16-1995	06:13	PM	1,184,530
+--LRCW2.DT2	05-16-1995	06:13	PM	796,170
+--LRCW2.DT3	05-16-1995	06:13	PM	796,170
+--LRCW2.HD1	05-16-1995	06:13	PM	613
+--LRCW2.HD2	05-16-1995	06:13	PM	489
+--LRCW2.HD3	05-16-1995	06:13	PM	489
+--LRCW2.HFS	05-16-1995	06:13	PM	3,182
+--LRCW2.HSP	05-16-1995	06:13	PM	4,198
+--LRCW2.LFS	05-16-1995	06:13	PM	3,163
+--LRCW2.LSP	05-16-1995	06:13	PM	4,179
+--LRCW2.UFS	05-16-1995	06:13	PM	3,241
+--LRCW2.USP	05-16-1995	06:13	PM	4,099
+--LRCW3.DT1	05-16-1995	06:13	PM	1,184,530
+--LRCW3.DT2	05-16-1995	06:13	PM	796,170
+--LRCW3.DT3	05-16-1995	06:13	PM	796,170
+--LRCW3.HD1	05-16-1995	06:13	PM	606
+--LRCW3.HD2	05-16-1995	06:13	PM	482
+--LRCW3.HD3	05-16-1995	06:13	PM	482
+--LRCW3.HFS	05-16-1995	06:13	PM	3,175
+--LRCW3.HSP	05-16-1995	06:13	PM	4,184
+--LRCW3.LFS	05-16-1995	06:13	PM	3,156
+--LRCW3.LSP	05-16-1995	06:13	PM	4,165
+--LRCW3.UFS	05-16-1995	06:13	PM	3,234
+--LRCW3.USP	05-16-1995	06:13	PM	4,085
+--LRCW34.DT1	05-16-1995	06:13	PM	2,369,028
+--LRCW34.DT2	05-16-1995	06:13	PM	1,592,308
+--LRCW34.DT3	05-16-1995	06:14	PM	1,592,308
+--LRCW34.HD1	05-16-1995	06:14	PM	597
+--LRCW34.HD2	05-16-1995	06:14	PM	473
+--LRCW34.HD3	05-16-1995	06:14	PM	473
+--LRCW34.HFS	05-16-1995	06:14	PM	2,935
+--LRCW34.HSP	05-16-1995	06:14	PM	4,178
+--LRCW34.LFS	05-16-1995	06:14	PM	2,916
+--LRCW34.LSP	05-16-1995	06:14	PM	4,159
+--LRCW34.UFS	05-16-1995	06:14	PM	2,836
+--LRCW34.USP	05-16-1995	06:14	PM	4,079
+--LRCW4.DT1	05-16-1995	06:14	PM	1,184,530
+--LRCW4.DT2	05-16-1995	06:14	PM	796,170
+--LRCW4.DT3	05-16-1995	06:14	PM	796,170
+--LRCW4.HD1	05-16-1995	06:14	PM	606
+--LRCW4.HD2	05-16-1995	06:14	PM	482
+--LRCW4.HD3	05-16-1995	06:14	PM	482
+--LRCW4.HFS	05-16-1995	06:14	PM	3,175
+--LRCW4.HSP	05-16-1995	06:14	PM	4,184
+--LRCW4.LFS	05-16-1995	06:14	PM	3,156
+--LRCW4.LSP	05-16-1995	06:14	PM	4,165
+--LRCW4.UFS	05-16-1995	06:14	PM	3,234
+--LRCW4.USP	05-16-1995	06:14	PM	4,085
+--LRG1.DT1	05-16-1995	06:14	PM	292,832
+--LRG1.DT2	05-16-1995	06:14	PM	196,832

+--LRG1.DT3	05-16-1995	06:14 PM	196,832
+--LRG1.HD1	05-16-1995	06:14 PM	610
+--LRG1.HD2	05-16-1995	06:14 PM	486
+--LRG1.HD3	05-16-1995	06:14 PM	486
+--LRG1.RGS	05-16-1995	06:14 PM	1,661
+--LRG1.UFS	05-16-1995	06:14 PM	3,240
+--LRG1.UFT	05-16-1995	06:14 PM	3,107
+--LRG2.DT1	05-16-1995	06:14 PM	292,832
+--LRG2.DT2	05-16-1995	06:14 PM	196,832
+--LRG2.DT3	05-16-1995	06:14 PM	196,832
+--LRG2.HD1	05-16-1995	06:14 PM	610
+--LRG2.HD2	05-16-1995	06:14 PM	486
+--LRG2.HD3	05-16-1995	06:14 PM	486
+--LRG2.RGS	05-16-1995	06:14 PM	1,661
+--LRG2.UFS	05-16-1995	06:14 PM	3,240
+--LRG2.UFT	05-16-1995	06:14 PM	3,107
+--LRG3.DT1	05-16-1995	06:14 PM	292,832
+--LRG3.DT2	05-16-1995	06:14 PM	196,832
+--LRG3.DT3	05-16-1995	06:14 PM	196,832
+--LRG3.HD1	05-16-1995	06:14 PM	610
+--LRG3.HD2	05-16-1995	06:14 PM	486
+--LRG3.HD3	05-16-1995	06:14 PM	486
+--LRG3.RGS	05-16-1995	06:14 PM	1,661
+--LRG3.UFS	05-16-1995	06:14 PM	3,240
+--LRG3.UFT	05-16-1995	06:14 PM	3,107
+--LRG4.DT1	05-16-1995	06:14 PM	292,832
+--LRG4.DT2	05-16-1995	06:14 PM	196,832
+--LRG4.DT3	05-16-1995	06:14 PM	196,832
+--LRG4.HD1	05-16-1995	06:14 PM	610
+--LRG4.HD2	05-16-1995	06:14 PM	486
+--LRG4.HD3	05-16-1995	06:14 PM	486
+--LRG4.RGS	05-16-1995	06:14 PM	1,661
+--LRG4.UFS	05-16-1995	06:14 PM	3,240
+--LRG4.UFT	05-16-1995	06:14 PM	3,107
+--LRG5.DT1	05-16-1995	06:14 PM	292,832
+--LRG5.DT2	05-16-1995	06:14 PM	196,832
+--LRG5.DT3	05-16-1995	06:14 PM	196,832
+--LRG5.HD1	05-16-1995	06:14 PM	610
+--LRG5.HD2	05-16-1995	06:14 PM	486
+--LRG5.HD3	05-16-1995	06:14 PM	486
+--LRG5.RGS	05-16-1995	06:14 PM	1,661
+--LRG5.UFS	05-16-1995	06:14 PM	3,240
+--LRG5.UFT	05-16-1995	06:14 PM	3,107
+--LRG6.DT1	05-16-1995	06:14 PM	292,832
+--LRG6.DT2	05-16-1995	06:14 PM	196,832
+--LRG6.DT3	05-16-1995	06:14 PM	196,832
+--LRG6.HD1	05-16-1995	06:14 PM	610
+--LRG6.HD2	05-16-1995	06:14 PM	486
+--LRG6.HD3	05-16-1995	06:14 PM	486
+--LRG6.RGS	05-16-1995	06:14 PM	1,661
+--LRG6.UFS	05-16-1995	06:14 PM	3,240
+--LRG6.UFT	05-16-1995	06:14 PM	3,107
+--LRG7.DT1	05-16-1995	06:14 PM	292,832
+--LRG7.DT2	05-16-1995	06:14 PM	196,832
+--LRG7.DT3	05-16-1995	06:15 PM	196,832
+--LRG7.HD1	05-16-1995	06:15 PM	610
+--LRG7.HD2	05-16-1995	06:15 PM	486
+--LRG7.HD3	05-16-1995	06:15 PM	486
+--LRG7.RGS	05-16-1995	06:15 PM	1,661
+--LRG7.UFS	05-16-1995	06:15 PM	3,240

+--LRG7.UFT	05-16-1995	06:15 PM	3,107
+--LRG8.DT1	05-16-1995	06:15 PM	292,832
+--LRG8.DT2	05-16-1995	06:15 PM	196,832
+--LRG8.DT3	05-16-1995	06:15 PM	196,832
+--LRG8.HD1	05-16-1995	06:15 PM	610
+--LRG8.HD2	05-16-1995	06:15 PM	486
+--LRG8.HD3	05-16-1995	06:15 PM	486
+--LRG8.RGS	05-16-1995	06:15 PM	1,661
+--LRG8.UFS	05-16-1995	06:15 PM	3,240
+--LRG8.UFT	05-16-1995	06:15 PM	3,107
+--LSO1.DT1	05-16-1995	06:15 PM	73,232
+--LSO1.DT2	05-16-1995	06:15 PM	49,232
+--LSO1.DT3	05-16-1995	06:15 PM	49,232
+--LSO1.HD1	05-16-1995	06:15 PM	607
+--LSO1.HD2	05-16-1995	06:15 PM	483
+--LSO1.HD3	05-16-1995	06:15 PM	483
+--LSO1.UFS	05-16-1995	06:15 PM	3,239
+--LSO10.DT1	05-16-1995	06:15 PM	73,232
+--LSO10.DT2	05-16-1995	06:15 PM	49,232
+--LSO10.DT3	05-16-1995	06:15 PM	49,232
+--LSO10.HD1	05-16-1995	06:15 PM	607
+--LSO10.HD2	05-16-1995	06:15 PM	483
+--LSO10.HD3	05-16-1995	06:15 PM	483
+--LSO10.UFS	05-16-1995	06:15 PM	3,239
+--LSO11.DT1	05-16-1995	06:15 PM	73,232
+--LSO11.DT2	05-16-1995	06:15 PM	49,232
+--LSO11.DT3	05-16-1995	06:15 PM	49,232
+--LSO11.HD1	05-16-1995	06:15 PM	607
+--LSO11.HD2	05-16-1995	06:15 PM	483
+--LSO11.HD3	05-16-1995	06:15 PM	483
+--LSO11.UFS	05-16-1995	06:15 PM	3,239
+--LSO12.DT1	05-16-1995	06:15 PM	73,232
+--LSO12.DT2	05-16-1995	06:15 PM	49,232
+--LSO12.DT3	05-16-1995	06:15 PM	49,232
+--LSO12.HD1	05-16-1995	06:15 PM	607
+--LSO12.HD2	05-16-1995	06:15 PM	483
+--LSO12.HD3	05-16-1995	06:15 PM	483
+--LSO12.UFS	05-16-1995	06:15 PM	3,239
+--LSO13.DT1	05-16-1995	06:15 PM	73,232
+--LSO13.DT2	05-16-1995	06:15 PM	49,232
+--LSO13.DT3	05-16-1995	06:15 PM	49,232
+--LSO13.HD1	05-16-1995	06:15 PM	607
+--LSO13.HD2	05-16-1995	06:15 PM	483
+--LSO13.HD3	05-16-1995	06:15 PM	483
+--LSO13.UFS	05-16-1995	06:15 PM	3,239
+--LSO14.DT1	05-16-1995	06:15 PM	73,232
+--LSO14.DT2	05-16-1995	06:15 PM	49,232
+--LSO14.DT3	05-16-1995	06:15 PM	49,232
+--LSO14.HD1	05-16-1995	06:15 PM	607
+--LSO14.HD2	05-16-1995	06:15 PM	483
+--LSO14.HD3	05-16-1995	06:15 PM	483
+--LSO14.UFS	05-16-1995	06:15 PM	3,239
+--LSO15.DT1	05-16-1995	06:15 PM	86,042
+--LSO15.DT2	05-16-1995	06:15 PM	57,842
+--LSO15.DT3	05-16-1995	06:15 PM	57,842
+--LSO15.HD1	05-16-1995	06:15 PM	1,214
+--LSO15.HD2	05-16-1995	06:15 PM	483
+--LSO15.HD3	05-16-1995	06:15 PM	483
+--LSO15.UFS	05-16-1995	06:15 PM	3,239
+--LSO16.DT1	05-16-1995	06:15 PM	73,232

+--LSO16.DT2	05-16-1995	06:15 PM	49,232
+--LSO16.DT3	05-16-1995	06:15 PM	49,232
+--LSO16.HD1	05-16-1995	06:15 PM	607
+--LSO16.HD2	05-16-1995	06:15 PM	483
+--LSO16.HD3	05-16-1995	06:15 PM	483
+--LSO16.UFS	05-16-1995	06:15 PM	3,239
+--LSO17.DT1	05-16-1995	06:15 PM	73,232
+--LSO17.DT2	05-16-1995	06:15 PM	49,232
+--LSO17.DT3	05-16-1995	06:15 PM	49,232
+--LSO17.HD1	05-16-1995	06:15 PM	607
+--LSO17.HD2	05-16-1995	06:15 PM	483
+--LSO17.HD3	05-16-1995	06:15 PM	483
+--LSO17.UFS	05-16-1995	06:15 PM	3,239
+--LSO18.DT1	05-16-1995	06:15 PM	73,232
+--LSO18.DT2	05-16-1995	06:15 PM	49,232
+--LSO18.DT3	05-16-1995	06:15 PM	49,232
+--LSO18.HD1	05-16-1995	06:15 PM	607
+--LSO18.HD2	05-16-1995	06:15 PM	483
+--LSO18.HD3	05-16-1995	06:15 PM	483
+--LSO18.UFS	05-16-1995	06:15 PM	3,239
+--LSO4.DT1	05-16-1995	06:15 PM	73,232
+--LSO4.DT2	05-16-1995	06:15 PM	49,232
+--LSO4.DT3	05-16-1995	06:15 PM	49,232
+--LSO4.HD1	05-16-1995	06:15 PM	607
+--LSO4.HD2	05-16-1995	06:15 PM	483
+--LSO4.HD3	05-16-1995	06:15 PM	483
+--LSO4.UFS	05-16-1995	06:15 PM	3,239
+--LSO5.DT1	05-16-1995	06:15 PM	73,232
+--LSO5.DT2	05-16-1995	06:15 PM	49,232
+--LSO5.DT3	05-16-1995	06:15 PM	49,232
+--LSO5.HD1	05-16-1995	06:15 PM	607
+--LSO5.HD2	05-16-1995	06:15 PM	483
+--LSO5.HD3	05-16-1995	06:15 PM	483
+--LSO5.UFS	05-16-1995	06:15 PM	3,239
+--LSO6.DT1	05-16-1995	06:15 PM	73,232
+--LSO6.DT2	05-16-1995	06:15 PM	49,232
+--LSO6.DT3	05-16-1995	06:15 PM	49,232
+--LSO6.HD1	05-16-1995	06:15 PM	607
+--LSO6.HD2	05-16-1995	06:15 PM	483
+--LSO6.HD3	05-16-1995	06:15 PM	483
+--LSO6.UFS	05-16-1995	06:15 PM	3,239
+--LSO7.DT1	05-16-1995	06:15 PM	73,232
+--LSO7.DT2	05-16-1995	06:15 PM	49,232
+--LSO7.DT3	05-16-1995	06:15 PM	49,232
+--LSO7.HD1	05-16-1995	06:15 PM	607
+--LSO7.HD2	05-16-1995	06:15 PM	483
+--LSO7.HD3	05-16-1995	06:15 PM	483
+--LSO7.UFS	05-16-1995	06:15 PM	3,239
+--LSO8.DT1	05-16-1995	06:15 PM	73,232
+--LSO8.DT2	05-16-1995	06:15 PM	49,232
+--LSO8.DT3	05-16-1995	06:15 PM	49,232
+--LSO8.HD1	05-16-1995	06:15 PM	607
+--LSO8.HD2	05-16-1995	06:15 PM	483
+--LSO8.HD3	05-16-1995	06:15 PM	483
+--LSO8.UFS	05-16-1995	06:15 PM	3,239
+--LSO9.DT1	05-16-1995	06:15 PM	73,232
+--LSO9.DT2	05-16-1995	06:15 PM	49,232
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+--LSO9.HD1	05-16-1995	06:15 PM	607
+--LSO9.HD2	05-16-1995	06:15 PM	483

+--LSO9.HD3	05-16-1995	06:15	PM	483
+--LSO9.UFS	05-16-1995	06:15	PM	3,239
+--LWIN2.DT1	05-16-1995	06:15	PM	1,184,530
+--LWIN2.DT2	05-16-1995	06:15	PM	796,170
+--LWIN2.DT3	05-16-1995	06:15	PM	796,170
+--LWIN2.HD1	05-16-1995	06:15	PM	613
+--LWIN2.HD2	05-16-1995	06:15	PM	489
+--LWIN2.HD3	05-16-1995	06:15	PM	489
+--LWIN2.HFS	05-16-1995	06:15	PM	3,182
+--LWIN2.HSP	05-16-1995	06:15	PM	4,040
+--LWIN2.LFS	05-16-1995	06:15	PM	3,163
+--LWIN2.LSP	05-16-1995	06:15	PM	4,021
+--LWIN2.UFS	05-16-1995	06:15	PM	3,241
+--LWIN2.USP	05-16-1995	06:15	PM	3,941
+--LWIN3.DT1	05-16-1995	06:16	PM	1,184,530
+--LWIN3.DT2	05-16-1995	06:16	PM	796,170
+--LWIN3.DT3	05-16-1995	06:16	PM	796,170
+--LWIN3.HD1	05-16-1995	06:16	PM	613
+--LWIN3.HD2	05-16-1995	06:16	PM	489
+--LWIN3.HD3	05-16-1995	06:16	PM	489
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+--LWIN3.LSP	05-16-1995	06:16	PM	3,705
+--LWIN3.UFS	05-16-1995	06:16	PM	3,241
+--LWIN3.USP	05-16-1995	06:16	PM	3,941
+--LWIN4.DT1	05-16-1995	06:16	PM	1,184,530
+--LWIN4.DT2	05-16-1995	06:16	PM	796,170
+--LWIN4.DT3	05-16-1995	06:16	PM	796,170
+--LWIN4.HD1	05-16-1995	06:16	PM	613
+--LWIN4.HD2	05-16-1995	06:16	PM	489
+--LWIN4.HD3	05-16-1995	06:16	PM	489
+--LWIN4.HFS	05-16-1995	06:16	PM	3,182
+--LWIN4.HSP	05-16-1995	06:16	PM	4,040
+--LWIN4.LFS	05-16-1995	06:16	PM	3,163
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+--LWIN4.UFS	05-16-1995	06:16	PM	3,241
+--LWIN4.USP	05-16-1995	06:16	PM	3,941
+--TEST_L.TXT	05-16-1995	06:16	PM	1,923

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:26 PM
Print Date: 06-06-1995

Volume # 3 Volume label: DOS:HD_504 Volume size: 60,658
Created on 05-16-1995 at 10:52 PM Ver: 18.00-0.0
Volume title: ConfigM

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         +--MCUR2.DT3        05-16-1995  09:51 PM     796,170
         +--MCUR2.DT4        05-16-1995  09:51 PM     796,170
         +--MCUR2.HD1        05-16-1995  09:51 PM         613
         +--MCUR2.HD2        05-16-1995  09:51 PM         489
         +--MCUR2.HD3        05-16-1995  09:51 PM         489
         +--MCUR2.HD4        05-16-1995  09:51 PM         489
         +--MCUR2.HFS        05-16-1995  09:51 PM       3,814
         +--MCUR2.HSP        05-16-1995  09:51 PM       5,462
         +--MCUR2.LFS        05-16-1995  09:51 PM       3,795
         +--MCUR2.LSP        05-16-1995  09:51 PM       5,443
         +--MCUR2.UFS        05-16-1995  09:51 PM       3,873
         +--MCUR2.USP        05-16-1995  09:51 PM       5,363
         +--MCUR3.DT1        05-16-1995  09:51 PM   1,184,530
         +--MCUR3.DT2        05-16-1995  09:51 PM     796,170
         +--MCUR3.DT3        05-16-1995  09:51 PM     796,170
         +--MCUR3.DT4        05-16-1995  09:51 PM     796,170
         +--MCUR3.HD1        05-16-1995  09:51 PM         613
         +--MCUR3.HD2        05-16-1995  09:51 PM         489
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         +--MCUR3.HD4        05-16-1995  09:51 PM         489
         +--MCUR3.HFS        05-16-1995  09:51 PM       3,814
         +--MCUR3.HSP        05-16-1995  09:51 PM       5,462
         +--MCUR3.LFS        05-16-1995  09:51 PM       3,795
         +--MCUR3.LSP        05-16-1995  09:51 PM       5,443
         +--MCUR3.UFS        05-16-1995  09:51 PM       3,873
         +--MCUR3.USP        05-16-1995  09:51 PM       5,363
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         +--MD1.DT2          05-16-1995  09:51 PM     796,170
         +--MD1.DT3          05-16-1995  09:51 PM     796,170
         +--MD1.DT4          05-16-1995  09:51 PM     796,170
         +--MD1.HD1          05-16-1995  09:51 PM         607
         +--MD1.HD2          05-16-1995  09:51 PM         483
         +--MD1.HD3          05-16-1995  09:51 PM         483
         +--MD1.HD4          05-16-1995  09:51 PM         483
         +--MD1.HFS          05-16-1995  09:51 PM       3,813
         +--MD1.HSP          05-16-1995  09:51 PM       4,828
         +--MD1.LFS          05-16-1995  09:51 PM       3,794
         +--MD1.LSP          05-16-1995  09:51 PM       4,809
         +--MD1.UFS          05-16-1995  09:51 PM       3,871
         +--MD1.USP          05-16-1995  09:51 PM       4,729
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         +--MD2.DT2          05-16-1995  09:52 PM     450,950
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+--MD3.DT2	05-16-1995	09:52	PM	531,884
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+--MD3.DT4	05-16-1995	09:52	PM	531,884
+--MD3.HD1	05-16-1995	09:52	PM	607
+--MD3.HD2	05-16-1995	09:52	PM	483
+--MD3.HD3	05-16-1995	09:52	PM	483
+--MD3.HD4	05-16-1995	09:52	PM	483
+--MD3.UFS	05-16-1995	09:52	PM	3,871
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+--MD4.DT2	05-16-1995	09:52	PM	474,074
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+--MD4.HD3	05-16-1995	09:52	PM	483
+--MD4.HD4	05-16-1995	09:52	PM	483
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+--MD5.DT2	05-16-1995	09:53	PM	796,170
+--MD5.DT3	05-16-1995	09:53	PM	796,170
+--MD5.DT4	05-16-1995	09:53	PM	796,170
+--MD5.HD1	05-16-1995	09:53	PM	607
+--MD5.HD2	05-16-1995	09:53	PM	483
+--MD5.HD3	05-16-1995	09:53	PM	483
+--MD5.HD4	05-16-1995	09:53	PM	483
+--MD5.UFS	05-16-1995	09:53	PM	3,871
+--MPRE1.DT1	05-16-1995	09:53	PM	73,232
+--MPRE1.DT2	05-16-1995	09:53	PM	49,232
+--MPRE1.DT3	05-16-1995	09:53	PM	49,232
+--MPRE1.DT4	05-16-1995	09:53	PM	49,232
+--MPRE1.HD1	05-16-1995	09:53	PM	610
+--MPRE1.HD2	05-16-1995	09:53	PM	486
+--MPRE1.HD3	05-16-1995	09:53	PM	486
+--MPRE1.HD4	05-16-1995	09:53	PM	486
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+--MPRE1.USP	05-16-1995	09:53	PM	3,465
+--MRC2.DT1	05-16-1995	09:53	PM	1,184,530
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+--MRC2.DT4	05-16-1995	09:53	PM	796,170
+--MRC2.HD1	05-16-1995	09:53	PM	610
+--MRC2.HD2	05-16-1995	09:53	PM	486
+--MRC2.HD3	05-16-1995	09:53	PM	486
+--MRC2.HD4	05-16-1995	09:53	PM	486
+--MRC2.HFS	05-16-1995	09:53	PM	3,813
+--MRC2.HSP	05-16-1995	09:53	PM	5,460
+--MRC2.LFS	05-16-1995	09:53	PM	3,794
+--MRC2.LSP	05-16-1995	09:53	PM	5,441
+--MRC2.UFS	05-16-1995	09:53	PM	3,872
+--MRC2.USP	05-16-1995	09:53	PM	5,361
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+--MRC3-4.HD2	05-16-1995	09:54	PM	480
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+--MRC3.DT1	05-16-1995	09:56	PM	1,184,530
+--MRC3.DT2	05-16-1995	09:56	PM	796,170
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+--MRC3.DT4	05-16-1995	09:56	PM	796,170
+--MRC3.HD1	05-16-1995	09:56	PM	610
+--MRC3.HD2	05-16-1995	09:56	PM	486
+--MRC3.HD3	05-16-1995	09:56	PM	486
+--MRC3.HD4	05-16-1995	09:56	PM	486
+--MRC3.HFS	05-16-1995	09:56	PM	3,813
+--MRC3.HSP	05-16-1995	09:56	PM	5,460
+--MRC3.LFS	05-16-1995	09:56	PM	3,794
+--MRC3.LSP	05-16-1995	09:56	PM	5,441
+--MRC3.UFS	05-16-1995	09:56	PM	3,872
+--MRC3.USP	05-16-1995	09:56	PM	5,361
+--MRC4.DT1	05-16-1995	09:56	PM	1,184,530
+--MRC4.DT2	05-16-1995	09:56	PM	796,170
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+--MRC4.DT4	05-16-1995	09:56	PM	796,170
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+--MRC4.HD4	05-16-1995	09:56	PM	486
+--MRC4.HFS	05-16-1995	09:56	PM	3,813
+--MRC4.HSP	05-16-1995	09:56	PM	5,460
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+--MRC4.LSP	05-16-1995	09:56	PM	5,441
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+--MRCW3-4.DT4	05-16-1995	09:57	PM	1,592,308
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+--MRCW3-4.HD3	05-16-1995	09:57	PM	483
+--MRCW3-4.HD4	05-16-1995	09:57	PM	483
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+--MRCW3.DT3	05-16-1995	09:57	PM	796,170
+--MRCW3.DT4	05-16-1995	09:57	PM	796,170
+--MRCW3.HD1	05-16-1995	09:57	PM	613
+--MRCW3.HD2	05-16-1995	09:57	PM	489

+--MRCW3.HD3	05-16-1995	09:57 PM	489
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+--MRCW3.HFS	05-16-1995	09:57 PM	3,814
+--MRCW3.HSP	05-16-1995	09:57 PM	5,462
+--MRCW3.LFS	05-16-1995	09:57 PM	3,795
+--MRCW3.LSP	05-16-1995	09:57 PM	5,443
+--MRCW3.UFS	05-16-1995	09:57 PM	3,873
+--MRCW3.USP	05-16-1995	09:57 PM	5,363
+--MRCW4.DT1	05-16-1995	09:57 PM	1,184,530
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+--MRCW4.LSP	05-16-1995	09:58 PM	5,443
+--MRCW4.UFS	05-16-1995	09:58 PM	3,873
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+--MSO2.HD3	05-16-1995	09:58 PM	483
+--MSO2.HD4	05-16-1995	09:58 PM	483
+--MSO2.UFS	05-16-1995	09:58 PM	3,871
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+--MSO3.DT2	05-16-1995	09:58 PM	49,232
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+--MSO5.DT2	05-16-1995	09:58 PM	49,232
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+--MSO5.HD3	05-16-1995	09:58 PM	483
+--MSO5.HD4	05-16-1995	09:58 PM	483
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+--MSO6.DT1	05-16-1995	09:58 PM	73,232
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+--MSO6.HD2	05-16-1995	09:58 PM	483
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+--MSO8.HD3	05-16-1995	09:58 PM	483
+--MSO8.HD4	05-16-1995	09:58 PM	483
+--MSO8.UFS	05-16-1995	09:58 PM	3,871
+--MWIN3.DT1	05-16-1995	09:58 PM	1,184,530
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+--MWIN3.HD4	05-16-1995	09:58 PM	489
+--MWIN3.HFS	05-16-1995	09:58 PM	3,814
+--MWIN3.HSP	05-16-1995	09:58 PM	5,462
+--MWIN3.LFS	05-16-1995	09:58 PM	3,795
+--MWIN3.LSP	05-16-1995	09:58 PM	5,443
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+--MWIN3.USP	05-16-1995	09:58 PM	5,363
+--MWIN4.DT1	05-16-1995	09:58 PM	1,184,530
+--MWIN4.DT2	05-16-1995	09:58 PM	796,170
+--MWIN4.DT3	05-16-1995	09:58 PM	796,170
+--MWIN4.DT4	05-16-1995	09:58 PM	796,170
+--MWIN4.HD1	05-16-1995	09:58 PM	613
+--MWIN4.HD2	05-16-1995	09:58 PM	489
+--MWIN4.HD3	05-16-1995	09:58 PM	489
+--MWIN4.HD4	05-16-1995	09:58 PM	489
+--MWIN4.HFS	05-16-1995	09:59 PM	3,814
+--MWIN4.HSP	05-16-1995	09:59 PM	5,462
+--MWIN4.LFS	05-16-1995	09:59 PM	3,795
+--MWIN4.LSP	05-16-1995	09:59 PM	5,443
+--MWIN4.UFS	05-16-1995	09:59 PM	3,873
+--MWIN4.USP	05-16-1995	09:59 PM	5,363

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:34 PM
Print Date: 06-06-1995

olume # 4 Volume label: DOS:HD_504 Volume size: 8,448
Created on 05-16-1995 at 11:02 PM Ver: 18.00-0.0
olume title: ConfigN

```
+--DATA
    +--CONFIGN
        +--ND3.DT1          05-16-1995  10:12 PM     650,528
        +--ND3.DT2          05-16-1995  10:12 PM     127,808
        +--ND3.DT3          05-16-1995  10:12 PM     127,808
        +--ND3.HD1          05-16-1995  10:12 PM         576
        +--ND3.HD2          05-16-1995  10:12 PM         297
        +--ND3.HD3          05-16-1995  10:12 PM         297
        +--ND3.UFS          05-16-1995  10:13 PM       7,906
        +--ND4.DT1          05-16-1995  10:13 PM     620,960
        +--ND4.DT2          05-16-1995  10:13 PM     122,000
        +--ND4.DT3          05-16-1995  10:13 PM     122,000
        +--ND4.HD1          05-16-1995  10:13 PM         576
        +--ND4.HD2          05-16-1995  10:13 PM         297
        +--ND4.HD3          05-16-1995  10:13 PM         297
        +--ND4.UFS          05-16-1995  10:13 PM       1,975
        +--ND5.DT1          05-16-1995  10:13 PM     561,824
        +--ND5.DT2          05-16-1995  10:13 PM     110,384
        +--ND5.DT3          05-16-1995  10:13 PM     110,384
        +--ND5.HD1          05-16-1995  10:13 PM         576
        +--ND5.HD2          05-16-1995  10:13 PM         297
        +--ND5.HD3          05-16-1995  10:13 PM         297
        +--ND5.UFS          05-16-1995  10:13 PM       1,975
        +--NRAN1.DT1        05-16-1995  10:13 PM   1,087,440
        +--NRAN1.DT2        05-16-1995  10:13 PM     213,630
        +--NRAN1.DT3        05-16-1995  10:13 PM     213,630
        +--NRAN1.HD1        05-16-1995  10:13 PM         582
        +--NRAN1.HD2        05-16-1995  10:13 PM         303
        +--NRAN1.HD3        05-16-1995  10:13 PM         303
        +--NRAN1.UFS        05-16-1995  10:13 PM       1,977
        +--NRAN1.USP        05-16-1995  10:13 PM       2,203
        +--NRAN6.DT1        05-16-1995  10:13 PM   1,087,440
        +--NRAN6.DT2        05-16-1995  10:13 PM     213,630
        +--NRAN6.DT3        05-16-1995  10:13 PM     213,630
        +--NRAN6.HD1        05-16-1995  10:13 PM         582
        +--NRAN6.HD2        05-16-1995  10:13 PM         303
        +--NRAN6.HD3        05-16-1995  10:13 PM         303
        +--NRAN6.UFS        05-16-1995  10:13 PM       1,977
        +--NRAN6.USP        05-16-1995  10:13 PM       2,203
        +--NRAN8.DT1        05-16-1995  10:13 PM   1,087,440
        +--NRAN8.DT2        05-16-1995  10:13 PM     213,630
        +--NRAN8.DT3        05-16-1995  10:13 PM     213,630
        +--NRAN8.HD1        05-16-1995  10:13 PM         582
        +--NRAN8.HD2        05-16-1995  10:13 PM         303
        +--NRAN8.HD3        05-16-1995  10:13 PM         303
        +--NRAN8.UFS        05-16-1995  10:13 PM       1,977
```

+--NRAN8.USP	05-16-1995	10:13	PM	2,203
+--NRAN9.DT1	05-16-1995	10:13	PM	1,087,440
+--NRAN9.DT2	05-16-1995	10:13	PM	213,630
+--NRAN9.DT3	05-16-1995	10:13	PM	213,630
+--NRAN9.HD1	05-16-1995	10:13	PM	582
+--NRAN9.HD2	05-16-1995	10:13	PM	303
+--NRAN9.HD3	05-16-1995	10:13	PM	303
+--NRAN9.UFS	05-16-1995	10:13	PM	1,977
+--NRAN9.USP	05-16-1995	10:13	PM	2,203

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:35 PM
Print Date: 06-06-1995

Volume # 5 Volume label: DOS:HD_504 Volume size: 10,066
Created on 05-16-1995 at 11:05 PM Ver: 18.00-0.0
Volume title: Config0

```
\
 +--DATA
     +--CONFIG0
         +--0_SERIES.TXT          05-16-1995  10:17 PM        258
         +--OD3.DT1               05-16-1995  10:17 PM  1,087,440
         +--OD3.DT2               05-16-1995  10:17 PM    213,630
         +--OD3.DT3               05-16-1995  10:17 PM    407,810
         +--OD3.HD1               05-16-1995  10:17 PM        576
         +--OD3.HD2               05-16-1995  10:17 PM        297
         +--OD3.HD3               05-16-1995  10:17 PM        359
         +--OD3.UFS               05-16-1995  10:17 PM      1,817
         +--OD4.DT1               05-16-1995  10:20 PM  1,087,440
         +--OD4.DT2               05-16-1995  10:20 PM    213,630
         +--OD4.DT3               05-16-1995  10:20 PM    407,810
         +--OD4.HD1               05-16-1995  10:20 PM        576
         +--OD4.HD2               05-16-1995  10:20 PM        297
         +--OD4.HD3               05-16-1995  10:20 PM        359
         +--OD4.UFS               05-16-1995  10:20 PM      1,821
         +--OD5.DT1               05-16-1995  10:20 PM  1,087,440
         +--OD5.DT2               05-16-1995  10:20 PM    213,630
         +--OD5.DT3               05-16-1995  10:20 PM    407,810
         +--OD5.HD1               05-16-1995  10:20 PM        576
         +--OD5.HD2               05-16-1995  10:20 PM        297
         +--OD5.HD3               05-16-1995  10:20 PM        359
         +--OD5.UFS               05-16-1995  10:20 PM      1,821
         +--ORAN1.DT1             05-16-1995  10:20 PM  1,087,440
         +--ORAN1.DT2             05-16-1995  10:21 PM    213,630
         +--ORAN1.DT3             05-16-1995  10:21 PM    407,810
         +--ORAN1.HD1             05-16-1995  10:21 PM        582
         +--ORAN1.HD2             05-16-1995  10:21 PM        303
         +--ORAN1.HD3             05-16-1995  10:21 PM        365
         +--ORAN1.HFS             05-16-1995  10:21 PM      1,839
         +--ORAN1.HSP             05-16-1995  10:21 PM      2,618
         +--ORAN1.LFS             05-16-1995  10:21 PM      1,820
         +--ORAN1.LSP             05-16-1995  10:21 PM      2,599
         +--ORAN1.UFS             05-16-1995  10:21 PM      1,819
         +--ORAN1.USP             05-16-1995  10:21 PM      2,282
         +--ORAN6.DT1             05-16-1995  10:21 PM  1,087,440
         +--ORAN6.DT2             05-16-1995  10:21 PM    213,630
         +--ORAN6.DT3             05-16-1995  10:21 PM    407,810
         +--ORAN6.HD1             05-16-1995  10:21 PM        582
         +--ORAN6.HD2             05-16-1995  10:21 PM        303
         +--ORAN6.HD3             05-16-1995  10:21 PM        365
         +--ORAN6.HFS             05-16-1995  10:21 PM      1,839
         +--ORAN6.HSP             05-16-1995  10:21 PM      2,618
         +--ORAN6.LFS             05-16-1995  10:21 PM      1,820
         +--ORAN6.LSP             05-16-1995  10:21 PM      2,599
```

+--ORAN6.UFS	05-16-1995	10:21	PM	1,819
+--ORAN6.USP	05-16-1995	10:21	PM	2,282
+--ORAN8.DT1	05-16-1995	10:21	PM	1,087,440
+--ORAN8.DT2	05-16-1995	10:21	PM	213,630
+--ORAN8.DT3	05-16-1995	10:21	PM	407,810
+--ORAN8.HD1	05-16-1995	10:21	PM	582
+--ORAN8.HD2	05-16-1995	10:21	PM	303
+--ORAN8.HD3	05-16-1995	10:21	PM	365
+--ORAN8.HFS	05-16-1995	10:21	PM	1,839
+--ORAN8.HSP	05-16-1995	10:21	PM	2,618
+--ORAN8.LFS	05-16-1995	10:21	PM	1,820
+--ORAN8.LSP	05-16-1995	10:21	PM	2,599
+--ORAN8.UFS	05-16-1995	10:21	PM	1,819
+--ORAN8.USP	05-16-1995	10:21	PM	2,519

Colorado Backup - DOS

Tape Directory

Tape name:	SONY
Volumes recorded:	2
Print Time:	06:38 PM
Print Date:	06-06-1995

```
+- TITLE: ConfigP ----------------------------------------------------+
+- DOS:HD_504                 05-16-95     11:59 PM          77,412 -+

+- TITLE: Waves/WindCurrent ------------------------------------------+
+- DOS:HD_504                 05-17-95     12:11 AM          13,259 -+
```

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:38 PM
Print Date: 06-06-1995

olume # 1 Volume label: DOS:HD_504 Volume size: 77,410
Created on 05-16-1995 at 11:59 PM Ver: 18.00-0.0
olume title: ConfigP

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+--DATA
    +--CONFIGP
        +--PRAN10.DT1                    05-16-1995  11:09 PM   2,688,032
        +--PRAN10.DT2                    05-16-1995  11:10 PM   1,008,032
        +--PRAN10.HD1                    05-16-1995  11:10 PM         579
        +--PRAN10.HD2                    05-16-1995  11:10 PM         362
        +--PRAN10.UFS                    05-16-1995  11:10 PM       1,581
        +--PRAN11.DT1                    05-16-1995  11:10 PM   2,688,032
        +--PRAN11.DT2                    05-16-1995  11:10 PM   1,008,032
        +--PRAN11.HD1                    05-16-1995  11:10 PM         579
        +--PRAN11.HD2                    05-16-1995  11:10 PM         362
        +--PRAN11.UFS                    05-16-1995  11:10 PM       1,581
        +--PRAN12.DT1                    05-16-1995  11:10 PM   2,688,032
        +--PRAN12.DT2                    05-16-1995  11:10 PM   1,008,032
        +--PRAN12.HD1                    05-16-1995  11:10 PM         579
        +--PRAN12.HD2                    05-16-1995  11:10 PM         362
        +--PRAN12.UFS                    05-16-1995  11:10 PM       1,581
        +--PRAN13.DT1                    05-16-1995  11:11 PM   2,688,032
        +--PRAN13.DT2                    05-16-1995  11:11 PM   1,008,032
        +--PRAN13.HD1                    05-16-1995  11:11 PM         579
        +--PRAN13.HD2                    05-16-1995  11:11 PM         362
        +--PRAN13.UFS                    05-16-1995  11:11 PM       1,581
        +--PRAN14.DT1                    05-16-1995  11:11 PM   2,688,032
        +--PRAN14.DT2                    05-16-1995  11:12 PM   1,008,032
        +--PRAN14.HD1                    05-16-1995  11:12 PM         579
        +--PRAN14.HD2                    05-16-1995  11:12 PM         362
        +--PRAN14.UFS                    05-16-1995  11:12 PM       1,581
        +--PRAN16.DT1                    05-16-1995  11:12 PM   2,688,032
        +--PRAN16.DT2                    05-16-1995  11:12 PM   1,008,032
        +--PRAN16.HD1                    05-16-1995  11:12 PM         579
        +--PRAN16.HD2                    05-16-1995  11:12 PM         362
        +--PRAN16.UFS                    05-16-1995  11:12 PM       1,581
        +--PRAN17.DT1                    05-16-1995  11:12 PM   2,688,032
        +--PRAN17.DT2                    05-16-1995  11:12 PM   1,008,032
        +--PRAN17.HD1                    05-16-1995  11:12 PM         579
        +--PRAN17.HD2                    05-16-1995  11:12 PM         362
        +--PRAN17.UFS                    05-16-1995  11:12 PM       1,581
        +--PRAN18.DT1                    05-16-1995  11:13 PM   2,688,032
        +--PRAN18.DT2                    05-16-1995  11:13 PM   1,008,032
        +--PRAN18.HD1                    05-16-1995  11:13 PM         579
        +--PRAN18.HD2                    05-16-1995  11:13 PM         362
        +--PRAN18.UFS                    05-16-1995  11:13 PM       1,581
        +--PRAN20.DT1                    05-16-1995  11:13 PM   2,688,032
        +--PRAN20.DT2                    05-16-1995  11:13 PM   1,008,032
        +--PRAN20.HD1                    05-16-1995  11:13 PM         579
        +--PRAN20.HD2                    05-16-1995  11:13 PM         362
```

+--PRAN20.UFS	05-16-1995	11:13	PM	1,581
+--PRAN21.DT1	05-16-1995	11:13	PM	2,688,032
+--PRAN21.DT2	05-16-1995	11:14	PM	1,008,032
+--PRAN21.HD1	05-16-1995	11:14	PM	579
+--PRAN21.HD2	05-16-1995	11:14	PM	362
+--PRAN21.UFS	05-16-1995	11:14	PM	1,581
+--PRAN22.DT1	05-16-1995	11:14	PM	2,688,032
+--PRAN22.DT2	05-16-1995	11:14	PM	1,008,032
+--PRAN22.HD1	05-16-1995	11:14	PM	579
+--PRAN22.HD2	05-16-1995	11:14	PM	362
+--PRAN22.UFS	05-16-1995	11:14	PM	1,581
+--PRAN23.DT1	05-16-1995	11:14	PM	2,688,032
+--PRAN23.DT2	05-16-1995	11:14	PM	1,008,032
+--PRAN23.HD1	05-16-1995	11:14	PM	579
+--PRAN23.HD2	05-16-1995	11:14	PM	362
+--PRAN23.UFS	05-16-1995	11:14	PM	1,581
+--PRAN24.DT1	05-16-1995	11:15	PM	2,688,032
+--PRAN24.DT2	05-16-1995	11:15	PM	1,008,032
+--PRAN24.HD1	05-16-1995	11:15	PM	579
+--PRAN24.HD2	05-16-1995	11:15	PM	362
+--PRAN24.UFS	05-16-1995	11:15	PM	1,581
+--PRAN25.DT1	05-16-1995	11:15	PM	2,688,032
+--PRAN25.DT2	05-16-1995	11:15	PM	1,008,032
+--PRAN25.HD1	05-16-1995	11:15	PM	579
+--PRAN25.HD2	05-16-1995	11:15	PM	362
+--PRAN25.UFS	05-16-1995	11:15	PM	1,581
+--PRAN26.DT1	05-16-1995	11:15	PM	1,155,872
+--PRAN26.DT2	05-16-1995	11:15	PM	433,472
+--PRAN26.HD1	05-16-1995	11:15	PM	579
+--PRAN26.HD2	05-16-1995	11:15	PM	362
+--PRAN26.UFS	05-16-1995	11:15	PM	1,581
+--PRAN63.DT1	05-16-1995	11:15	PM	2,688,032
+--PRAN63.DT2	05-16-1995	11:16	PM	1,008,032
+--PRAN63.HD1	05-16-1995	11:16	PM	582
+--PRAN63.HD2	05-16-1995	11:16	PM	365
+--PRAN63.UFS	05-16-1995	11:16	PM	1,582
+--PRAN71.DT1	05-16-1995	11:16	PM	2,688,032
+--PRAN71.DT2	05-16-1995	11:16	PM	1,008,032
+--PRAN71.HD1	05-16-1995	11:16	PM	582
+--PRAN71.HD2	05-16-1995	11:16	PM	365
+--PRAN71.UFS	05-16-1995	11:16	PM	1,582
+--PRC61.DT1	05-16-1995	11:16	PM	2,688,032
+--PRC61.DT2	05-16-1995	11:16	PM	1,008,032
+--PRC61.HD1	05-16-1995	11:16	PM	579
+--PRC61.HD2	05-16-1995	11:16	PM	362
+--PRC61.UFS	05-16-1995	11:16	PM	1,581
+--PRC71.DT1	05-16-1995	11:17	PM	2,688,032
+--PRC71.DT2	05-16-1995	11:17	PM	1,008,032
+--PRC71.HD1	05-16-1995	11:17	PM	579
+--PRC71.HD2	05-16-1995	11:17	PM	362
+--PRC71.UFS	05-16-1995	11:17	PM	1,581
+--PUMP1.DT1	05-16-1995	11:17	PM	2,688,032
+--PUMP1.DT2	05-16-1995	11:17	PM	1,008,032
+--PUMP1.HD1	05-16-1995	11:17	PM	579
+--PUMP1.HD2	05-16-1995	11:17	PM	362
+--PUMP1.UFS	05-16-1995	11:17	PM	1,581
+--PUMP2.DT1	05-16-1995	11:17	PM	2,688,032
+--PUMP2.DT2	05-16-1995	11:18	PM	1,008,032
+--PUMP2.HD1	05-16-1995	11:18	PM	579
+--PUMP2.HD2	05-16-1995	11:18	PM	362

+--PUMP2.UFS	05-16-1995	11:18	PM	1,581
+--PUMP3.DT1	05-16-1995	11:21	PM	2,688,032
+--PUMP3.DT2	05-16-1995	11:21	PM	1,008,032
+--PUMP3.HD1	05-16-1995	11:21	PM	579
+--PUMP3.HD2	05-16-1995	11:21	PM	362
+--PUMP3.UFS	05-16-1995	11:21	PM	1,581
+--SUMMARY.UFS	05-16-1995	11:21	PM	1,582

Colorado Backup - DOS

Volume Directory

Tape name: SONY
Print Time: 06:39 PM
Print Date: 06-06-1995

Volume # 2 Volume label: DOS:HD_504 Volume size: 13,255
Created on 05-17-1995 at 12:11 AM Ver: 18.00-0.0
Volume title: Waves/WindCurrent

```
+--DATA
    +--CURRENT                          02-06-1995  05:53 AM
    |   +--C10D18.DAT                   05-16-1995  11:27 PM     407,810
    |   +--C10D18.HDR                   05-16-1995  11:27 PM         368
    |   +--C10D18.UFS                   05-16-1995  11:28 PM       1,497
    |   +--C10D48.DAT                   05-16-1995  11:28 PM     407,810
    |   +--C10D48.HDR                   05-16-1995  11:28 PM         368
    |   +--C10D48.UFS                   05-16-1995  11:28 PM       1,497
    |   +--C10D6.DAT                    05-16-1995  11:28 PM     407,810
    |   +--C10D6.HDR                    05-16-1995  11:28 PM         365
    |   +--C10D6.UFS                    05-16-1995  11:28 PM       1,495
    |   +--CGMD18.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CGMD18.HDR                   05-16-1995  11:28 PM         368
    |   +--CGMD18.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CGMD48.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CGMD48.HDR                   05-16-1995  11:28 PM         368
    |   +--CGMD48.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CGMD6.DAT                    05-16-1995  11:28 PM     407,810
    |   +--CGMD6.HDR                    05-16-1995  11:28 PM         365
    |   +--CGMD6.UFS                    05-16-1995  11:28 PM       1,495
    |   +--CNSD18.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CNSD18.HDR                   05-16-1995  11:28 PM         368
    |   +--CNSD18.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CNSD48.DAT                   05-16-1995  11:28 PM     407,810
    |   +--CNSD48.HDR                   05-16-1995  11:28 PM         368
    |   +--CNSD48.UFS                   05-16-1995  11:28 PM       1,497
    |   +--CNSD6.DAT                    05-16-1995  11:28 PM     407,810
    |   +--CNSD6.HDR                    05-16-1995  11:28 PM         365
    |   +--CNSD6.UFS                    05-16-1995  11:28 PM       1,495
    |   +--TEST_CUR.TXT                 05-16-1995  11:28 PM         340
    +--WIND                             02-06-1995  05:53 AM
    |   +--43KT1.DT1                    05-16-1995  11:25 PM     116,540
    |   +--43KT1.HD1                    05-16-1995  11:25 PM         269
    |   +--43KT1.RST                    05-16-1995  11:25 PM         475
    |   +--59KT1.DT1                    05-16-1995  11:25 PM     116,540
    |   +--59KT1.HD1                    05-16-1995  11:25 PM         269
    |   +--59KT1.RST                    05-16-1995  11:25 PM         475
    |   +--85KT2.DT1                    05-16-1995  11:25 PM     116,540
    |   +--85KT2.HD1                    05-16-1995  11:25 PM         269
    |   +--85KT2.RST                    05-16-1995  11:25 PM         475
    |   +--AFRW.DT1                     05-16-1995  11:25 PM     116,540
    |   +--AFRW.HD1                     05-16-1995  11:25 PM         269
    |   +--AFRW.RST                     05-16-1995  11:25 PM         475
    |   +--TEST_WIN.TXT                 05-16-1995  11:25 PM         146
    +--WAVES                            02-06-1995  03:08 PM
        +--10YR.DT1                     05-16-1995  11:22 PM     445,568
```

+--10YR.HD1	05-16-1995	11:22 PM	362
+--10YR.RST	05-16-1995	11:22 PM	1,418
+--10YRC.DT1	05-16-1995	11:22 PM	445,610
+--10YRC.HD1	05-16-1995	11:22 PM	365
+--10YRC.RST	05-16-1995	11:22 PM	1,420
+--10YRCW.DT1	05-16-1995	11:22 PM	445,610
+--10YRCW.HD1	05-16-1995	11:22 PM	368
+--10YRCW.RST	05-16-1995	11:22 PM	1,422
+--AFR.RST	05-16-1995	11:22 PM	1,416
+--AFRC.RST	05-16-1995	11:22 PM	1,418
+--AFRCW.RST	05-16-1995	11:22 PM	1,420
+--BC1.DT1	05-16-1995	11:22 PM	100,832
+--BC1.HD1	05-16-1995	11:22 PM	359
+--BC1.RST	05-16-1995	11:22 PM	1,416
+--BC10.DT1	05-16-1995	11:22 PM	100,832
+--BC10.HD1	05-16-1995	11:22 PM	362
+--BC10.RST	05-16-1995	11:22 PM	1,418
+--BC11.DT1	05-16-1995	11:22 PM	100,832
+--BC11.HD1	05-16-1995	11:22 PM	362
+--BC11.RST	05-16-1995	11:22 PM	1,418
+--BC12.DT1	05-16-1995	11:22 PM	100,832
+--BC12.HD1	05-16-1995	11:22 PM	362
+--BC12.RST	05-16-1995	11:22 PM	1,418
+--BC13.DT1	05-16-1995	11:22 PM	100,832
+--BC13.HD1	05-16-1995	11:22 PM	362
+--BC13.RST	05-16-1995	11:22 PM	1,418
+--BC14.DT1	05-16-1995	11:22 PM	50,432
+--BC14.HD1	05-16-1995	11:22 PM	362
+--BC14.RST	05-16-1995	11:22 PM	1,418
+--BC2.DT1	05-16-1995	11:22 PM	100,832
+--BC2.HD1	05-16-1995	11:22 PM	359
+--BC2.RST	05-16-1995	11:22 PM	1,416
+--BC3.DT1	05-16-1995	11:22 PM	100,832
+--BC3.HD1	05-16-1995	11:22 PM	359
+--BC3.RST	05-16-1995	11:22 PM	1,416
+--BC4.DT1	05-16-1995	11:22 PM	100,832
+--BC4.HD1	05-16-1995	11:22 PM	359
+--BC4.RST	05-16-1995	11:22 PM	1,416
+--BC5.DT1	05-16-1995	11:22 PM	100,832
+--BC5.HD1	05-16-1995	11:22 PM	359
+--BC5.RST	05-16-1995	11:22 PM	1,416
+--BC6.DT1	05-16-1995	11:22 PM	100,832
+--BC6.HD1	05-16-1995	11:22 PM	359
+--BC6.RST	05-16-1995	11:22 PM	1,416
+--BC7.DT1	05-16-1995	11:22 PM	100,832
+--BC7.HD1	05-16-1995	11:22 PM	359
+--BC7.RST	05-16-1995	11:22 PM	1,416
+--BC8.DT1	05-16-1995	11:22 PM	100,832
+--BC8.HD1	05-16-1995	11:22 PM	359
+--BC8.RST	05-16-1995	11:22 PM	1,416
+--BC9.DT1	05-16-1995	11:22 PM	100,832
+--BC9.HD1	05-16-1995	11:22 PM	359
+--BC9.RST	05-16-1995	11:22 PM	1,416
+--BCL1.DT1	05-16-1995	11:22 PM	50,432
+--BCL1.HD1	05-16-1995	11:22 PM	362
+--BCL1.RST	05-16-1995	11:22 PM	1,418
+--BCL10.DT1	05-16-1995	11:22 PM	50,432
+--BCL10.HD1	05-16-1995	11:22 PM	365
+--BCL10.RST	05-16-1995	11:23 PM	1,420
+--BCL11.DT1	05-16-1995	11:23 PM	50,432

+--BCL11.HD1	05-16-1995	11:23	PM	365
+--BCL11.RST	05-16-1995	11:23	PM	1,420
+--BCL12.DT1	05-16-1995	11:23	PM	50,432
+--BCL12.HD1	05-16-1995	11:23	PM	365
+--BCL12.RST	05-16-1995	11:23	PM	1,420
+--BCL13.DT1	05-16-1995	11:23	PM	50,432
+--BCL13.HD1	05-16-1995	11:23	PM	365
+--BCL13.RST	05-16-1995	11:23	PM	1,420
+--BCL2.DT1	05-16-1995	11:23	PM	50,432
+--BCL2.HD1	05-16-1995	11:23	PM	362
+--BCL2.RST	05-16-1995	11:23	PM	1,418
+--BCL3.DT1	05-16-1995	11:23	PM	50,432
+--BCL3.HD1	05-16-1995	11:23	PM	362
+--BCL3.RST	05-16-1995	11:23	PM	1,418
+--BCL4.DT1	05-16-1995	11:23	PM	50,432
+--BCL4.HD1	05-16-1995	11:23	PM	362
+--BCL4.RST	05-16-1995	11:23	PM	1,418
+--BCL5.DT1	05-16-1995	11:23	PM	50,432
+--BCL5.HD1	05-16-1995	11:23	PM	362
+--BCL5.RST	05-16-1995	11:23	PM	1,418
+--BCL6.DT1	05-16-1995	11:23	PM	50,432
+--BCL6.HD1	05-16-1995	11:23	PM	362
+--BCL6.RST	05-16-1995	11:23	PM	1,418
+--BCL7.DT1	05-16-1995	11:23	PM	50,432
+--BCL7.HD1	05-16-1995	11:23	PM	362
+--BCL7.RST	05-16-1995	11:23	PM	1,418
+--BCL8.DT1	05-16-1995	11:23	PM	50,432
+--BCL8.HD1	05-16-1995	11:23	PM	362
+--BCL8.RST	05-16-1995	11:23	PM	1,418
+--BCL9.DT1	05-16-1995	11:23	PM	50,432
+--BCL9.HD1	05-16-1995	11:23	PM	362
+--BCL9.RST	05-16-1995	11:23	PM	1,418
+--GOM1.DT1	05-16-1995	11:23	PM	445,568
+--GOM1.HD1	05-16-1995	11:23	PM	362
+--GOM1.RST	05-16-1995	11:23	PM	1,418
+--GOM2.DT1	05-16-1995	11:23	PM	445,568
+--GOM2.HD1	05-16-1995	11:23	PM	362
+--GOM2.RST	05-16-1995	11:23	PM	1,418
+--GOMC1.DT1	05-16-1995	11:23	PM	445,610
+--GOMC1.HD1	05-16-1995	11:23	PM	365
+--GOMC1.RST	05-16-1995	11:23	PM	1,420
+--GOMC2.DT1	05-16-1995	11:23	PM	445,610
+--GOMC2.HD1	05-16-1995	11:23	PM	365
+--GOMC2.RST	05-16-1995	11:23	PM	1,420
+--GOMCW1.DT1	05-16-1995	11:23	PM	445,610
+--GOMCW1.HD1	05-16-1995	11:23	PM	368
+--GOMCW1.RST	05-16-1995	11:23	PM	1,422
+--GOMCW2.DT1	05-16-1995	11:23	PM	445,610
+--GOMCW2.HD1	05-16-1995	11:23	PM	368
+--GOMCW2.RST	05-16-1995	11:23	PM	1,422
+--INSTALL.DT1	05-16-1995	11:23	PM	445,568
+--INSTALL.HD1	05-16-1995	11:23	PM	371
+--INSTALL.RST	05-16-1995	11:23	PM	1,424
+--NS.DT1	05-16-1995	11:23	PM	445,568
+--NS.HD1	05-16-1995	11:23	PM	356
+--NS.RST	05-16-1995	11:23	PM	1,414
+--NSC.DT1	05-16-1995	11:23	PM	445,610
+--NSC.HD1	05-16-1995	11:23	PM	359
+--NSC.RST	05-16-1995	11:23	PM	1,416
+--NSCW.DT1	05-16-1995	11:23	PM	445,610

+--NSCW.HD1	05-16-1995	11:23	PM	362
+--NSCW.RST	05-16-1995	11:23	PM	1,418
+--OP.DT1	05-16-1995	11:23	PM	445,568
+--OP.HD1	05-16-1995	11:23	PM	356
+--OP.RST	05-16-1995	11:23	PM	1,414
+--OPMDS.DT1	05-16-1995	11:23	PM	445,568
+--OPMDS.HD1	05-16-1995	11:23	PM	365
+--OPMDS.RST	05-16-1995	11:23	PM	1,420
+--RG10.DT1	05-16-1995	11:23	PM	50,432
+--RG10.HD1	05-16-1995	11:23	PM	362
+--RG10.RST	05-16-1995	11:23	PM	1,418
+--RG11.DT1	05-16-1995	11:23	PM	50,432
+--RG11.HD1	05-16-1995	11:23	PM	362
+--RG11.RST	05-16-1995	11:23	PM	1,418
+--RG12.DT1	05-16-1995	11:23	PM	50,432
+--RG12.HD1	05-16-1995	11:23	PM	362
+--RG12.RST	05-16-1995	11:23	PM	1,418
+--RG13.DT1	05-16-1995	11:23	PM	50,432
+--RG13.HD1	05-16-1995	11:23	PM	362
+--RG13.RST	05-16-1995	11:23	PM	1,418
+--RG14.DT1	05-16-1995	11:23	PM	50,432
+--RG14.HD1	05-16-1995	11:23	PM	362
+--RG14.RST	05-16-1995	11:23	PM	1,418
+--RG3.DT1	05-16-1995	11:23	PM	50,432
+--RG3.HD1	05-16-1995	11:23	PM	359
+--RG3.RST	05-16-1995	11:23	PM	1,891
+--RG4.DT1	05-16-1995	11:23	PM	50,432
+--RG4.HD1	05-16-1995	11:23	PM	359
+--RG4.RST	05-16-1995	11:23	PM	1,416
+--RG5.DT1	05-16-1995	11:23	PM	50,432
+--RG5.HD1	05-16-1995	11:23	PM	359
+--RG5.RST	05-16-1995	11:23	PM	1,416
+--RG6.DT1	05-16-1995	11:23	PM	50,432
+--RG6.HD1	05-16-1995	11:23	PM	359
+--RG6.RST	05-16-1995	11:23	PM	1,416
+--RG7.DT1	05-16-1995	11:23	PM	50,432
+--RG7.HD1	05-16-1995	11:23	PM	359
+--RG7.RST	05-16-1995	11:23	PM	1,416
+--RG8.DT1	05-16-1995	11:23	PM	50,432
+--RG8.HD1	05-16-1995	11:23	PM	359
+--RG8.RST	05-16-1995	11:23	PM	1,416
+--RG9.DT1	05-16-1995	11:23	PM	50,432
+--RG9.HD1	05-16-1995	11:23	PM	359
+--RG9.RST	05-16-1995	11:23	PM	1,416
+--TEST_WAV.TXT	05-16-1995	11:23	PM	3,141