APPENDIX G

DETAILED LISTING OF ASSET MODEL FOR MEDIUM SIZED CMD

LBHD NO.5

SEG				
1	34.24	18.98	1.11	1.20
2	35.47	16.07	1.07	1.42

PRINTED REPORT NO. 1 - APPENDAGE SUMMARY

APPENDAGE DISP, LTON	130.2
SHELL DISP, LTON	61.0
SKEG IND	NONE
SKEG DISP, LTON	0.0
SKEG AFT LIMIT/LBP	0.0000
SKEG THK, FT	0.00
SKEG PROJECTED AREA, FT2	0.0
BILGE KEEL IND	PRESENT
BILGE KEEL DISP, LTON	22.0
BILGE KEEL LGTH, FT	218.30
SHAFT SUPPORT TYPE IND	OPEN STRUT
SHAFT SUPPORT DISP, LTON	18.3
SHAFT DISP, LTON	11.7
PROP TYPE IND	FP
PROP BLADE DISP, LTON	3.1
NO PROP SHAFTS	2
PROP DIA, FT	17.55
SONAR DOME IND	NONE
SONAR DISP, LTON	0.0

RUDDER TYPE IND	SPADE
NO RUDDERS	2
AVG RUDDER CHORD, FT	14.01
RUDDER THK, FT	1.56
RUDDER SPAN, FT	17.04
RUDDER PROJECTED AREA, FT2	238.6
RUDDER DISP, LTON	14.2
FIN SIZE IND	CALC
NO FIN PAIRS	0
FWD FIN	
CHORD, FT	
THK, FT	
SPAN, FT	
PROJECTED AREA, FT2	
DISP, LTON (PER PAIR)	
AFT FIN	
CHORD, FT	
THK, FT	
SPAN, FT	
PROJECTED AREA, FT2	
DISP, LTON (PER PAIR)	

PRINTED REPORT NO. 2 - APPENDAGE BUOYANCY AND WEIGHT

APPENDAGE	DISP, LTON	----CENTER OF BUOYANCY---- X, FT	Y, FT	Z, FT
SHELL	61.0	322.51	0.00	13.72
BILGE KEELS*	22.0	315.00	42.65	12.50
OPEN STRUTS*	18.3	577.16	12.72	7.48
PROPULSION SHAFTS*	11.7	548.15	12.72	6.49
PROP BLADES*	3.1	605.51	12.72	4.67
RUDDERS*	14.2	621.29	12.72	9.59
TOTAL, LTON	130.2			

* TRANSVERSE C.B. PER SIDE IS SHOWN

SWBS114, SHLL APNDG, LTON 39.34 SWBS565, ROLL FINS, LTON 0.00

PRINTED REPORT NO. 1 - RESISTANCE SUMMARY

RESID RESIST IND	H+M	BILGE KEEL IND	PRESENT
FRICTION LINE IND	ITTC	SHAFT SUPPORT TYPE IND	OPEN STRUT
ENDUR DISP IND	FULL LOAD	PRPLN SYS RESIST IND	CALC
ENDUR CONFIG IND	NO TS	PROP TYPE IND	FP
SONAR DRAG IND		SONAR DOME IND	NONE
SKEG IND	NONE	RUDDER TYPE IND	SPADE
FULL LOAD WT, LTON	19668.3	CORR ALW	0.00050
AVG ENDUR DISP, LTON	19668.3	DRAG MARGIN FAC	0.080
USABLE FUEL WT, LTON	1775.1	TRAILSHAFT PWR FAC	1.15
NO RUDDERS	2.		
NO FIN PAIRS	0.	PRPLN SYS RESIST FRAC	
PROP TIP CLEAR RATIO	0.25	MAX SPEED	0.099
NO PROP SHAFTS	2.	SUSTN SPEED	0.109
PROP DIA, FT	17.55	ENDUR SPEED	0.185

CONDITION	SPEED	EFFECTIVE HORSEPOWER, HP						DRAG
	KT	FRIC	RESID	APPDG	WIND	MARGIN	TOTAL	LBF
MAX	30.65	29231.	24796.	8789.	1379.	5134.	69312.	736987.
SUSTN	29.25	25523.	17290.	7546.	1199.	4124.	55669.	620138.
ENDUR	16.00	4406.	699.	1373.	196.	534.	7207.	146786.

PRINTED REPORT NO. 2 - SPEED-POWER MATRIX

RESID RESIST IND H+M
ENDUR DISP IND FULL LOAD

SPEED AND POWER FOR FULL LOAD DISP

FULL LOAD WT, LTON 19668.3

SPEED	EFFECTIVE HORSEPOWER, HP						DRAG
KT	FRIC	RESID	APPDG	WIND	MARGIN	TOTAL	LBF
2.00	11.	2.	6.	0.	2.	20.	3312.
4.00	79.	16.	35.	3.	11.	143.	11674.
6.00	255.	49.	102.	10.	33.	449.	24383.
8.00	588.	103.	217.	25.	75.	1007.	41022.
10.00	1124.	178.	392.	48.	139.	1881.	61303.
12.00	1909.	279.	636.	83.	232.	3138.	85217.
14.00	2988.	431.	959.	131.	361.	4869.	113331.
16.00	4406.	699.	1373.	196.	534.	7207.	146786.
18.00	6206.	1167.	1890.	279.	763.	10305.	186552.
20.00	8433.	2108.	2532.	383.	1076.	14532.	236772.
22.00	11130.	3969.	3328.	510.	1515.	20450.	302909.
24.00	14340.	5607.	4229.	662.	1987.	26820.	364151.
26.00	18104.	7888.	5283.	842.	2569.	34680.	434658.
28.00	22467.	12506.	6578.	1051.	3407.	46001.	535361.
30.00	27469.	21009.	8190.	1293.	4636.	62582.	679779.
32.00	33153.	34460.	10170.	1570.	6346.	85675.	872457.

PRINTED REPORT NO. 3 - SHIP GEOMETRIC DATA FOR RESISTANCE COMPUTATIONS

RESID RESIST IND	H+M
ENDUR DISP IND	FULL LOAD

	FULL LOAD	AVE ENDUR DISP
BARE HULL DISP, LTON	19538.2	19538.2
APPENDAGE DISP, LTON	130.1	130.1
TOTAL DISP, LTON	19668.3	19668.3
LBP, FT	630.00	630.00
WL LENGTH, FT	630.00	630.00
BEAM AT MAX AREA STA, FT	89.95	89.95
DRAFT AT MAX AREA STA, FT	23.22	23.22
TAYLOR WETTED SURF AREA, FT2	57030.0	57030.0
SHIP WETTED SURF AREA, FT2	57030.0	57030.0
SKEG WETTED SURF AREA, FT2	0.0	0.0
WIND FRONT AREA, FT2	6583.2	6583.2
FROUDE WETTED SURF COEF	7.3507	7.3507
LENGTH-BEAM RATIO	7.0040	7.0040
BEAM-DRAFT RATIO	3.8743	3.8743
PRISMATIC COEF	0.5686	0.5686
MAX SECTION COEF	0.9136	0.9136
DISP-LENGTH RATIO	78.1399	78.1399
LCB-LENGTH RATIO	0.5085	0.5085
HALF ANG ENTRANCE, DEG	10.95	10.95
HALF ANG RUN, DEG	10.44	10.44
TRANSOM BUTTOCK ANG, DEG	3.70	3.70
BOW SECT AREA COEF	0.0000	0.0000
TRANSOM SECT AREA COEF	0.0896	0.0896
TRANSOM BREADTH COEF	0.6931	0.6931
TRANSOM DEPTH COEF	0.1749	0.1749

PRINTED REPORT NO. 4 - APPENDAGE DATA

SKEG IND	NONE
SKEG AREA, FT2	
BILGE KEEL IND	PRESENT
SHAFT SUPPORT TYPE IND	OPEN STRUT
NO STRUTS PER SHAFT	2.

STRUT DIMENSIONS	MAIN	INTMD
STRUT CHORD, FT	3.64	2.44
STRUT THICKNESS, FT	0.73	0.49
BARREL LENGTH, FT	14.04	16.41
BARREL DIA, FT	3.78	3.49

NO PROP SHAFTS	2.
WET SHAFT LGTH (PORT), FT	84.27
WET SHAFT LGTH (STBD), FT	84.27
INTRMDT SHAFT DIA, FT	1.75

PROP TYPE IND	FP
PROP DIA, FT	17.55
SONAR DOME IND	NONE
SONAR DRAG IND	
SONAR SECT AREA, FT2	
NO RUDDERS	2.
RUDDER AREA, FT2	238.6
NO FIN PAIRS	0.
ROLL FIN AREA, FT2	

PRINTED REPORT NO. 1 - PROPELLER SUMMARY

ENDUR CONFIG IND	NO TS		
PROP TYPE IND	FP	PROP SERIES IND	ANALYTIC
PROP DIA IND	CALC	PROP LOC IND	CALC
PROP AREA IND	CALC	PROP ID IND	
SHAFT SUPPORT TYPE IND	OPEN STRUT	RUDDER TYPE IND	
MAX SPEED, KT	30.65	ENDUR SPEED, KT	16.00
MAX EHP (/SHAFT), HP	34656.	ENDUR EHP (/SHAFT), HP	3604.
MAX SHP (/SHAFT), HP	48931.	ENDUR SHP (/SHAFT), HP	4930.
MAX PROP RPM	170.0	ENDUR PROP RPM	82.8
MAX PROP EFF	0.708	ENDUR PROP EFF	0.731
SUSTN SPEED, KT	29.25	PROP DIA, FT	17.55
SUSTN EHP (/SHAFT), HP	27835.	NO BLADES	5.
SUSTN SHP (/SHAFT), HP	38920.	PITCH RATIO	1.34
SUSTN PROP RPM	159.3	EXPAND AREA RATIO	0.996
SUSTN PROP EFF	0.715	CAVITATION NO	1.24
NO PROP SHAFTS	2.0		
TOTAL PROPELLER WT, LTON	66.10		

PRINTED REPORT NO. 2 - PROPELLER CHARACTERISTICS

PROP ID IND	
NO PROP SHAFTS	2.
PROP DIA, FT	17.55
NO BLADES	5.
PITCH RATIO	1.34
EXPAND AREA RATIO	0.996
THRUST DED COEF	0.000
TAYLOR WAKE FRAC	0.000
HULL EFFICIENCY	1.000
REL ROTATE EFF	1.000

CHARACTERISTICS	CONDITIONS MAXIMUM	SUSTAINED	ENDURANCE
SPEED, KT	30.65	29.25	16.00
RPM	170.0	159.3	82.8
THRUST/SHAFT, LBF	368498.	310073.	73394.
EHP/SHAFT, HP	34656.	27835.	3604.
TORQUE/SHAFT, FT-LBF	1511726.	1283279.	312785.
SHP/SHAFT, HP	48931.	38920.	4930.
ADVANCE COEF (J)	1.040	1.060	1.115
THRUST COEF (KT)	0.243	0.233	0.204
TORQUE COEF (10KQ)	0.569	0.550	0.496
OPEN WATER EFFY	0.708	0.715	0.731
PC	0.708	0.715	0.731

PRINTED REPORT NO. 3 - CAVITATION CHARACTERISTICS

MAX SPEED OF ADV, KT	30.65
MAX THRUST, LBF	368498.
MAX PROP RPM	170.0
PROP DIA, FT	17.55
HUB DEPTH, FT	18.55
STD CAV NO	1.24
LOCAL CAV NO (.7R)	0.23
MEAN THRUST LOADING COEF	0.14
EXPAND AREA RATIO	0.996
MIN EAR REQUIRED	0.996
BACK CAV ALLOWED, PERCENT	10.0

PRINTED REPORT NO. 4 - PROPELLER ARRANGEMENT

PROP DIA, FT	17.55
FULL LOAD DRAFT, FT	23.22
HUB DEPTH FROM DWL, FT	18.55
LONG LOC FROM AP, FT	24.49
HUB POS FROM CL, FT	12.72
TIP CLR FROM BL, FT	-4.11
TIP CLR FROM MAX HB, FT	30.65
TIP CLR FROM HULL BOT, FT	4.24
TOTAL PROPELLER WT, LTON	66.10

PRINTED REPORT NO. 1 - MACHINERY SUMMARY

TRANS TYPE IND	ELECT	MAX SPEED, KT	30.65
ELECT PRPLN TYPE IND	ACC-AC	SUSTN SPEED IND	CALC
SHAFT SUPPORT TYPE IND	OPEN STRUT	SUSTN SPEED, KT	29.25
NO PROP SHAFTS	2.	ENDUR SPEED IND	GIVEN
ENDUR CONFIG IND	NO TS	ENDUR SPEED, KT	16.00
SEC ENG USAGE IND		DESIGN MODE IND	ENDURANCE
MAX MARG ELECT LOAD, KW	12898.	ENDURANCE, NM	6000.
AVG 24 HR ELECT LOAD, KW	4354.	USABLE FUEL WT, LTON	1775.8
SWBS 200 GROUP WT, LTON	1058.4	SUSTN SPEED POWER FRAC	0.80
SWBS 300 GROUP WT, LTON	969.7		

ARRANGEMENT OR SS GEN	TYPE	NO INSTALLED	NO ONLINE MAX+SUSTN	NO ONLINE ENDURANCE
ELECT PG ARR 1 IND	M-PG	4	4	2
ELECT PG ARR 2 IND		0	0	0
ELECT DL ARR IND	MTR	2	2	2
SEP SS GEN	2000. KW	2	2	1
VSCF SS CYCLO	KW	0	0	0

	MAIN ENG	SEC ENG	SS ENG
ENG SELECT IND	GIVEN		GIVEN
ENG MODEL IND	GE-LM2500-30		MTU-16V538
ENG TYPE IND	GT		F DIESEL
ENG SIZE IND	GIVEN		GIVEN
NO INSTALLED	4	0	2
ENG PWR AVAIL, HP	26250.	.	3126.
ENG RPM	3600.0		1800.0
ENG SFC, LBM/HP-HR	0.393		.345
ENG LOAD FRAC	1.000		.893

PRINTED REPORT NO. 2 - MACHINERY EQUIPMENT LIST

NO EACH	ITEM	WEIGHT LTON	LENGTH FT	WIDTH FT	HEIGHT FT
	PROPULSION PLANT				
4	MAIN ENGINE (BARE)	3.1	15.65	5.20	5.20
4	MAIN ENGINE ENCLOSURE MODULE	12.0	26.57	8.70	8.00
0	MAIN ENGINE INTERCOOLER				
0	SEC ENGINE (BARE)				
0	SEC ENGINE ENCLOSURE MODULE				
0	SEC ENGINE INTERCOOLER				
0	RACER STEAM TURBINE				
0	RACER CONDENSER				
0	LTDR GEAR (01)				
0	EPIC REV PINION GEAR (02)				
0	FRANCO TOSI REV GEAR (03)				
0	VSCF COMB/STEP-UP GEAR (04)				
0	RACER REDUCTION GEAR (05)				
0	2 SPD SOLAR EPIC GEAR (06)				
0	OFFSET GEAR (07)				
0	OFFSET COMB (2-1) GEAR (08)				
0	OFFSET COMB (3-2) GEAR (09)				

0	CR EPIC GEAR (10)				
0	Z DRIVE SPIRAL BVL GEAR (11)				
0	PLANETARY REDUCTION GEAR(12)				
0	CR BI-COUPLED EPIC GEAR (13)				
0	STAR EPIC REV GEAR (14)				
0	STAR EPIC REDUCTION GEAR(15)				
0	COMBINING STEP-UP GEAR (16)				
4	PROPULSION GENERATOR	34.2	16.81	8.13	8.13
2	PROPULSION MOTOR	74.4	14.04	14.43	14.98
2	THRUST BEARING	14.2	4.09	5.72	5.72
2	PROPELLER SHAFT				
	ELECTRIC PLANT				
2	SS ENGINE (BARE)	6.6	10.37	5.38	7.56
0	SS ENGINE ENCLOSURE MODULE				
0	SS REDUCTION GEAR (17)				
2	SEPARATE SS GENERATOR	8.4	7.40	3.60	5.10
0	VSCF SS GENERATOR				
0	VSCF SS CYCLOCONVERTER				

PRINTED REPORT NO. 3 - ENGINES

	MAIN ENG	SEC ENG	SS ENG
ENG SELECT IND	GIVEN		GIVEN
ENG TYPE IND	GT		F DIESEL
ENG MODEL IND	GE-LM2500-30		MTU-16V538
ENG SIZE IND	GIVEN		GIVEN
NO INSTALLED	4	0	2
ENG BARE WT, LTON	3.1		6.6
ENG LENGTH, FT	15.65		10.37
ENG WIDTH, FT	5.20		5.38
ENG HEIGHT, FT	5.20		7.56
ENG PWR AVAIL, HP	26250.	.0	3126.3
ENG RPM	3600.0		1800.0
ENG MASS FL, LBM/SEC	135.5		8.3
ENG EXH TEMP, DEGF	1039.0		943.2
ENG SFC EQN IND	EXPNT		DIESEL
ENG SFC, LBM/HP-HR	0.393		.345
MAX SPEED CONDITION			
NO OPERATING	4	0	2
ENG PWR, HP	26250.		6562.4
ENG RPM	3600.0		1800.0
ENG MASS FL, LBM/SEC	135.5		11.0
ENG EXH TEMP, DEGF	1039.0		1357.3
ENG SFC, LBM/HP-HR	.393		.352
SUSTN SPEED CONDITION			
NO OPERATING	4	0	2
ENG PWR, HP	21000.		6562.4
ENG RPM	3373.2		1800.0
ENG MASS FL, LBM/SEC	124.3		11.0
ENG EXH TEMP, DEGF	986.8		1357.3
ENG SFC, LBM/HP-HR	.414		.352

ENDUR SPEED CONDITION

ENG ENDUR RPM IND	CALC		
NO OPERATING	2	0	1
ENG PWR, HP	6026.		6075.4
ENG RPM	2204.3		1800.0
ENG MASS FL, LBM/SEC	76.9		10.7
ENG EXH TEMP, DEGF	839.2		1293.1
ENG SFC, LBM/HP-HR	.628		.352

NOTE - ENGINE OPERATING DATA ARE BASED ON USE OF DFM FUEL.

PRINTED REPORT NO. 4 - GEARS

NO EACH	ITEM	WEIGHT LTON	LENGTH FT	WIDTH FT	HEIGHT FT
	2-STAGE REDUCTION GEARS				
0	LTDR GEAR (01)				
0	CR BI-COUPLED EPIC GEAR (13)				
	1ST STAGE REDUCTION GEARS				
0	OFFSET GEAR (07)				
0	OFFSET COMB (2-1) GEAR (08)				
0	OFFSET COMB (3-2) GEAR (09)				
0	STAR EPIC REDUCTION GEAR(15)				
	2ND STAGE REDUCTION GEARS				
0	CR EPIC GEAR (10)				
0	PLANETARY REDUCTION GEAR(12)				
	SPECIAL GEARS				
0	EPIC REV PINION GEAR (02)				
0	FRANCO TOSI REV GEAR (03)				
0	VSCF COMB/STEP-UP GEAR (04)				
0	RACER REDUCTION GEAR (05)				
0	2 SPD SOLAR EPIC GEAR (06)				
0	Z DRIVE SPIRAL BVL GEAR (11)				
0	STAR EPIC REV GEAR (14)				
0	COMBINING STEP-UP GEAR (16)				
0	SS REDUCTION GEAR (17)				

REDUCTION GEAR DESIGN FACTORS AND DIMENSIONS	1ST STAGE	2ND STAGE	SS
REDUCTION RATIO			
K FACTOR			
FACE WIDTH RATIO			
CASING WT FACTOR			
GEAR FACE WIDTH, FT			
PINION GEAR DIA, FT			
REDUCTION GEAR DIA, FT			
SUN GEAR DIA, FT			
PLANET GEAR DIA, FT			
RING GEAR DIA, FT			
RING GEAR THK, FT			
NO PLANETS			

PRINTED REPORT NO. 5 - ELECTRIC PROPULSION AND VSCF EQUIPMENT

TRANS TYPE IND-ELECT
ELECT PRPLN TYPE IND-ACC-AC
SWITCHGEAR TYPE IND-ADV
TRANS LINE NODE PT IND-CALC
ELECT PRPLN RATING IND-CALC

TRANS LINE NODE PT X, FT	345.19
TRANS LINE NODE PT Y, FT	.00
TRANS LINE NODE PT Z, FT	9.30

	MOTORS AND GENERATORS		
	PRPLN GENERATOR	PRPLN MOTOR	VSCF GENERATOR
INSTALLED NUMBER	4	2	0
TYPE	AC	AC	
FREQUENCY CONTROL	YES		
DRIVE		DIRECT	
ROTOR COOLING	AIR	AIR	
ROTOR TIP SPEED, FT/MIN	28500.	28500.	
STATOR COOLING	LIQUID	LIQUID	
ARM ELECT LOAD, AMP/IN	2400.	2400.	
POWER RATING, MW	31.07	36.49	
ROTATIONAL SPEED, RPM	3600.	170.	
NUMBER OF POLES	2.	42.	
LENGTH, FT	16.8	14.0	
WIDTH, FT	8.1	14.4	
HEIGHT, FT	8.1	15.0	
WEIGHT, LTON	34.2	74.4	

OTHER ELECTRIC PROPULSION AND VSCF EQUIPMENT

	WEIGHT LTON
CONTROLS	2.0
BRAKING RESISTORS	14.6
EXCITERS	20.2
SWITCHGEAR	2.6
POWER CONVERTERS	18.6
DEIONIZED COOL WATER SYS	20.1
PRPLN TRANS LINE	40.4
RECTIFIERS	.0
HELIUM REFRIGERATION SYS	.0
VSCF CYCLOCONVERTERS	.0

PRINTED REPORT NO. 6 - SHIP SERVICE GENERATORS

SS SYS TYPE IND-SEP
GEN SIZE IND-GIVEN

ELECT LOAD DES MARGIN FAC	0.200
ELECT LOAD SL MARGIN FAC	0.200
ELECT LOAD IMBAL FAC	0.900
MAX MARG ELECT LOAD, KW	12897.5
MAX STANDBY LOAD, KW	6970.3
24 HR AVG ELECT LOAD, KW	4353.7

VSCF SS CYCLOCONVERTERS

CONDITION	NO INSTALL	NO ONLINE	REQ KW/CYCLO	AVAIL KW/CYCLO	LOADING FRAC
WINTER BATTLE	0	0			0.000
WINTER CRUISE	0	0			0.000
SUMMER CRUISE	0	0			0.000
ENDURANCE(24 HR AVG)	0	0			0.000

SEPARATE SS GENERATORS

CONDITION	NO INSTALL	NO ONLINE	REQ KW/GEN	AVAIL KW/GEN	LOADING FRAC
WINTER BATTLE	2	2	4703.	2000.	2.351
WINTER CRUISE	2	1	12898.	2000.	6.449
SUMMER CRUISE	2	1	8090.	2000.	4.045
ENDURANCE(24 HR AVG)	2	1	4354.	2000.	2.177

TOTALS

CONDITION	REQ KW	AVAIL KW	LOADING FRAC
WINTER BATTLE	9405.	4000.	2.351
WINTER CRUISE	12898.	2000.	6.449
SUMMER CRUISE	8090.	2000.	4.045
ENDURANCE(24 HR AVG)	4354.	2000.	2.177

PRINTED REPORT NO. 7 - INTAKE DUCTS

INLET TYPE IND-PLENUM
DUCT SILENCING IND-BOTH
GT ENG ENCL IND-84 DBA

	MAIN ENG	SEC ENG	SS ENG
ENG TYPE	GT		F DIESEL
INLET DUCT XSECT AREA,FT2	99.6	.0	.0
INLET DUCT XSECT LTH, FT	11.45	.0	.0
INLET DUCT XSECT WID, FT	8.70	.0	.0

MMR1

	MAIN ENG WT,LTON	MAIN ENG VCG,FT	SEC ENG WT,LTON	SEC ENG VCG,FT
INLET	0.8	98.00		
INLET DUCTING	2.7	73.15		
INLET SILENCER	2.8	68.24		
GT COOLING SUPPLY	2.7	63.13		
GT BLEED AIR SUPPLY	3.9	56.34		

MMR2

	MAIN ENG WT,LTON	MAIN ENG VCG,FT	SEC ENG WT,LTON	SEC ENG VCG,FT
INLET	0.8	88.00		
INLET DUCTING	3.7	52.65		
INLET SILENCER	2.8	37.24		
GT COOLING SUPPLY	3.7	39.90		
GT BLEED AIR SUPPLY	3.9	30.80		

NOTE - NUMERIC DATA PRESENTED ABOVE ARE ON A PER ENGINE BASIS.

TRUNK AREA AND VOLUME REQUIREMENTS

ENGINE CATEGORY	AREA,FT2 HULL	AREA,FT2 DKHS	VOLUME,FT3 HULL	VOLUME,FT3 DKHS
MAIN ENGINES	1195.5	1673.7	10760.	16737.
SECONDARY ENGINES	0.0	0.0	0.	0.
SHIP-SERVICE ENGINES	0.0	0.0	0.	0.
TOTALS	1195.5	1673.7	10760.	16737.

PRINTED REPORT NO. 8 - EXHAUST DUCTS

EXHAUST IR SUPPRESS IND-PRESENT
DUCT SILENCING IND-BOTH
GT ENG ENCL IND-84 DBA

EXHAUST STACK TEMP, DEGF	350.0
EDUCTOR DESIGN FAC	1.000

	MAIN ENG	SEC ENG	SS ENG
ENG TYPE	GT		F DIESEL
ENG EXH TEMP, DEG	1039.		905.
ENG MASS FL, LBM/SEC	135.5		7.9
EXH DUCT GAS TEMP, DEG	927.		905.
EXH DUCT GAS DEN, LBM/FT3	0.0282		.0286
EXH DUCT MASS FL, LBM/SEC	154.5		7.9
EXH DUCT AREA, FT2	51.0		2.6

MMR1

	MAIN ENG WT,LTON	MAIN ENG VCG,FT	SEC ENG WT,LTON	SEC ENG VCG,FT
EXH DUCT (TO BOILER/REG)				
EXH BOILER (RACER)				
EXH REGENERATOR				
EXH DUCT (TO STACK)	11.4	73.15		
EXH SILENCER	11.2	76.57		
EXH STACK	3.0	108.30		
EXH SPRAY RING	1.3	81.64		
EXH EDUCTOR	13.7	111.81		

MMR2

	MAIN ENG WT,LTON	MAIN ENG VCG,FT	SEC ENG WT,LTON	SEC ENG VCG,FT
EXH DUCT (TO BOILER/REG)				
EXH BOILER (RACER)				
EXH REGENERATOR				
EXH DUCT (TO STACK)	15.6	52.65		
EXH SILENCER	11.2	45.57		
EXH STACK	3.0	98.30		
EXH SPRAY RING	1.3	64.71		
EXH EDUCTOR	13.7	101.81		

NOTE - NUMERIC DATA PRESENTED ABOVE ARE ON A PER ENGINE BASIS.

TRUNK AREA AND VOLUME REQUIREMENTS

ENGINE CATEGORY	AREA,FT2 HULL	AREA,FT2 DKHS	VOLUME,FT3 HULL	VOLUME,FT3 DKHS
MAIN ENGINES	1580.2	2212.3	14222.	22123.
SECONDARY ENGINES	0.0	0.0	0.	0.
SHIP-SERVICE ENGINES	106.4	53.2	958.	532.
TOTALS	1686.6	2265.5	15180.	22655.

PRINTED REPORT NO. 9 - PROPELLERS AND SHAFTS

SHAFT SUPPORT TYPE IND-OPEN STRUT
SHAFT SYS SIZE IND-CALC
PROP TYPE IND-FP

PROP DIA, FT	17.55
HUB DIA, FT	3.78
PROP BLADE WT, LTON	11.9
PROP HUB WT, LTON	21.1
BEND STRESS CON FAC	1.000
OVRHG PROP MOM ARM RATIO	0.340
EQUIV FP PROP WT, LTON	33.0
ALLOW BEND STRESS, LBF/IN2	6000.
FATIGUE LIMIT, LBF/IN2	47500.
YIELD POINT, LBF/IN2	75000.
TORQUE MARGIN FAC	1.200
OFF-CENTER THRUST FAC	1.000
NO STRUTS PER SHAFT	2

PORT SHAFT

	PROP SECTION	INTERMED SECTION	LINE SECTION
ANGLE, DEG	2.27	2.27	2.27
LENGTH, FT	14.91	122.55	12.52
DIAMETER, FT	2.26	1.75	1.53
BORE RATIO	.550	.667	.667
WEIGHT, LTON	12.2	47.7	3.2
LCG, FT	594.90	526.22	458.74
TCG, FT	-12.72	-12.72	-12.72
VCG, FT	5.09	7.80	10.47
FACTOR OF SAFETY		2.00	1.75

STBD SHAFT

	PROP SECTION	INTERMED SECTION	LINE SECTION
ANGLE, DEG	2.27	2.27	2.27
LENGTH, FT	14.91	122.55	12.52
DIAMETER, FT	2.26	1.75	1.53
BORE RATIO	.550	.667	.667
WEIGHT, LTON	12.2	47.7	3.2
LCG, FT	594.90	526.22	458.74
TCG, FT	12.72	12.72	12.72
VCG, FT	5.09	7.80	10.47
FACTOR OF SAFETY		2.00	1.75

PRINTED REPORT NO. 10 - STRUTS, PODS, AND RUDDERS

SHAFT SUPPORT TYPE IND-OPEN STRUT
SHAFT SYS SIZE IND-CALC

PROP DIA, FT	17.55
NO STRUTS PER SHAFT	2
NO SHAFTS	2
OVRHG PROP MOM ARM RATIO	0.340

STRUTS

	MAIN STRUT	INTERMED STRUT
WALL THICKNESS, FT	.27	.18
CHORD, FT	3.64	2.44
THICKNESS, FT	.73	.49
BARREL LTH, FT	14.04	16.41
BARREL DIA, FT	3.78	3.49

PODS

STRUT WALL THICKNESS, FT	
STRUT CHORD, FT	
STRUT THICKNESS, FT	
BARREL LTH, FT	
BARREL DIA, FT	

RUDDERS

RUDDER TYPE IND-SPADE	
RUDDER SIZE IND-CALC	
NO RUDDERS	2.
RUDDER WT (PER), LTON	48.0
RUDDER DISP (PER), LTON	7.1

	CHORD,FT	THICK,FT	SPAN,FT
SPADE RUDDER	14.01	1.56	17.04

PRINTED REPORT NO. 11 - ELECTRIC LOADS

400 HZ ELECT LOAD FAC 0.200

PAYLOAD LOADS	WINTER CRUISE KW	WINTER BATTLE KW	SUMMER CRUISE KW
COMMAND AND SURVEILLANCE (60 HZ)	0.0	0.0	0.0
COMMAND AND SURVEILLANCE (400 HZ)	0.0	0.0	0.0
ARMAMENT (60 HZ)	0.0	0.0	0.0
ARMAMENT (400 HZ)	0.0	0.0	0.0
OTHER PAYLOAD (60 HZ)	0.0	0.0	0.0
OTHER PAYLOAD (400 HZ)	0.0	0.0	0.0
SUB-TOTAL	0.0	0.0	0.0

NON-PAYLOAD LOADS (* INDICATES USER ADJUSTED VALUE)

PROPULSION AND STEERING	574.8	666.7	373.6
LIGHTING	717.0	702.6	717.0
MISCELLANEOUS ELECTRIC	46.1	40.1	46.1
HEATING	4078.7	2080.1	203.9
VENTILATION	1563.1	1203.6	1563.1
AIR CONDITIONING	1429.3	1343.5	2133.2
AUXILIARY BOILER AND FRESH WATER	0.0	0.0	0.0
FIREMAIN	349.2	492.4	349.2
UNREP AND HANDLING	53.8	12.9	53.8
MISC AUXILIARY MACHINERY	92.8	52.0	92.8
SERVICES AND WORK SPACES	147.7	48.7	147.7
SUBTOTAL	9052.4	6642.7	5680.5
TOTAL	9052.4	6642.7	5680.5
TOTAL (INCLUDING MARGINS)	12897.5	9405.5	8090.2

MAX MARG ELECT LOAD	12897.5
24 HR AVG ELECT LOAD	4353.7
CONNECTED ELECT LOAD	23988.9
ANCHOR ELECT LOAD	6970.3
VITAL ELECT LOAD	4158.1
EMERGENCY ELECT LOAD	3713.2
MAX STBY ELECT LOAD	6970.3

PRINTED REPORT NO. 12 - POWERING

SUSTN SPEED IND-CALC
ENDUR SPEED IND GIVEN
TRANS EFF IND-CALC

100 PCT POWER TRANS EFF	0.9320
25 PCT POWER TRANS EFF	0.9000

	MAX SPEED	SUSTN SPEED	ENDUR SPEED
SHIP SPEED, KT	30.65	29.25	16.00
PROP RPM	170.0	159.3	82.8
NO OF PROP SHAFTS	2	2	2
EHP (/SHAFT), HP	34655.	27834.	3604.
PROPULSIVE COEF	0.708	0.715	0.731
ENDUR PWR ALW	1.0	1.0	1.1
SHP (/SHAFT), HP	48930.	38919.	5423.
TRANS EFFY	0.932	0.927	0.900
CP PROP TRANS EFFY MULT	1.000	1.000	1.000
PROPUL PWR (/SHAFT), HP	52500.	42000.	6026.
PD GEN PWR (/SHAFT), HP	0.	0.	0.
BHP (/SHAFT), HP	52500.	42000.	6026.

PRINTED REPORT NO. 13 - HULL STRUCTURE AND MISCELLANEOUS WEIGHT

SWBS	COMPONENT	WT,LTON	LCG,FT	VCG,FT
160	SPECIAL STRUCTURES			
161	CASTINGS, FORGINGS, AND WELDMENTS	106.7	360.71	19.36
162	STACKS AND MASTS	12.1	258.59	103.30
180	FOUNDATIONS			
182	PROPULSION PLANT FOUNDATIONS	286.0	342.26	12.54
183	ELECTRIC PLANT FOUNDATIONS	27.4	245.13	28.29

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 14 - PROPULSION WEIGHT

MACHINERY

SWBS	COMPONENT	WT,LTON	LCG,FT	VCG,FT
200	PROPULSION PLANT	1058.4	366.77	26.68
210	ENERGY GENERATING SYSTEM (NUCLEAR)	0.0	0.00	0.00
220	ENERGY GENERATING SYSTEM (NON-NUCLEAR)	0.0	0.00	0.00
230	PROPULSION UNITS	502.2	340.48	17.99
233	PROPULSION INTERNAL COMBUSTION ENGINES	0.0	0.00	0.00
234	PROPULSION GAS TURBINES	100.1	248.23	24.80
235	ELECTRIC PROPULSION	402.1	363.43	16.29
240	TRANSMISSION AND PROPULSOR SYSTEMS	244.1	547.44	6.96
241	PROPULSION REDUCTION GEARS	0.0	0.00	0.00
242	PROPULSION CLUTCHES AND COUPLINGS	0.0	0.00	0.00
243	PROPULSION SHAFTING	126.1	536.14	7.41
244	PROPULSION SHAFT BEARINGS	51.9	500.94	8.80
245	PROPULSORS	66.1	605.51	4.67
250	PRPLN SUPPORT SYS (EXCEPT FUEL+LUBE OIL)	247.9	259.46	66.73
251	COMBUSTION AIR SYSTEM	55.9	245.91	53.87
252	PROPULSION CONTROL SYSTEM	28.9	248.23	40.30
256	CIRCULATING AND COOLING SEA WATER SYSTEM	4.4	396.90	22.32
259	UPTAKES (INNER CASING)	158.8	262.49	77.29
260	PRPLN SUPPORT SYS (FUEL+LUBE OIL)	33.2	238.49	14.75
261	FUEL SERVICE SYSTEM	9.4	216.73	18.80
262	MAIN PROPULSION LUBE OIL SYSTEM	17.0	248.23	12.00
264	LUBE OIL FILL, TRANSFER, AND PURIF	6.8	244.23	16.00
290	SPECIAL PURPOSE SYSTEMS	31.1	365.23	15.14
298	OPERATING FLUIDS	20.6	378.00	8.00
299	REPAIR PARTS AND SPECIAL TOOLS	10.5	340.20	29.14

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 15 - ELECTRIC PLANT WEIGHT

SWBS	COMPONENT	WT,LTON	LCG,FT	VCG,FT
300	ELECTRIC PLANT	969.7	316.93	30.16
310	ELECTRIC POWER GENERATION	136.0	228.51	17.00
311	SHIP SERVICE POWER GENERATION	40.4	228.51	27.90
313	BATTERIES AND SERVICE FACILITIES	95.6	228.51	12.40
314	POWER CONVERSION EQUIPMENT	0.0	0.00	0.00
320	POWER DISTRIBUTION SYSTEMS	713.6	335.47	29.43
321	SHIP SERVICE POWER CABLE	624.8	333.90	27.00
324	SWITCHGEAR AND PANELS	88.8	346.50	46.50
330	LIGHTING SYSTEM	83.5	330.21	56.53
331	LIGHTING DISTRIBUTION	34.6	333.90	55.80
332	LIGHTING FIXTURES	48.9	327.60	57.04
340	POWER GENERATION SUPPORT SYSTEMS	28.6	241.85	35.24
342	DIESEL SUPPORT SYSTEMS	28.6	241.85	35.24
343	TURBINE SUPPORT SYSTEMS	0.0	0.00	0.00
390	SPECIAL PURPOSE SYSTEMS	8.1	295.81	26.17
398	OPERATING FLUIDS	6.1	228.51	27.90
399	REPAIR PARTS AND SPECIAL TOOLS	2.0	497.70	21.00

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 16 - MACHINERY ROOMS

NO MAIN MACHINERY ROOMS	2
NO AUX MACHINERY ROOMS	3
NO OTHER MACHINERY ROOMS	1

BULKHEAD LOCATIONS

MR NO	MR ID	FWD BHD BHD NO	FWD BHD X, FT	FWD BHD X/LBP	AFT BHD BHD NO	AFT BHD X, FT	AFT BHD X/LBP
1	OMR1	2.	74.23	0.118	3.	116.96	0.186
2	MMR1	4.	159.68	0.253	5.	213.72	0.339
3	MMR2	7.	308.22	0.489	8.	362.25	0.575
4	AMR1	8.	362.25	0.575	9.	409.50	0.650
5	AMR2	9.	409.50	0.650	10.	453.60	0.720
6	AMR3	9.	409.50	0.650	10.	453.60	0.720

DIMENSIONS

MR NO	MR ID	LENGTH, FT AVAIL	LENGTH, FT REQ	WIDTH, FT AVAIL	WIDTH, FT REQ	HEIGHT, FT AVAIL	HEIGHT, FT REQ
1	OMR1	42.73	26.06	77.62	6.38	62.00	53.14
2	MMR1	54.03	46.38	92.52	20.90	53.00	45.37
3	MMR2	54.03	46.38	91.07	20.90	26.00	14.37
4	AMR1	47.25	26.06	90.74	6.38	26.00	12.22
5	AMR2	44.10	20.52	89.90	40.88	26.00	19.92
6	AMR3	44.10	20.52	89.90	40.88	26.00	19.92

ARRANGEMENTS

MR NO	MR ID	ROTATION ANGLE,DEG
1	OMR1	0.00
2	MMR1	0.00
3	MMR2	0.00
4	AMR1	0.00
5	AMR2	0.00
6	AMR3	0.00

PRINTED REPORT NO. 17 - MACHINERY ARRANGEMENTS

CLEARANCES (MACHINERY TO MACHINERY)

ENG TO ENG CLR, FT	1.00
ENG TO GEAR CLR, FT	1.00
OR ENG TO GEN CLR	
OR GEAR TO GEN CLR	
MTR TO GEAR CLR, FT	2.50
PRPLN ARR TO SS ARR CLR, FT	6.00
AISLE WIDTH CLR, FT	2.50
PORT/CL TB TO GEAR CLR, FT	.00
STBD TB TO GEAR CLR, FT	.00

SEPARATIONS (BETWEEN HULL AND MACHINERY)

LONG (TO BHD), FT	1.00
TRANS (TO SIDE SHELL), FT	1.00
VERT (TO HULL BOT), FT	1.00
RADIAL (TO POD), FT	1.00

ARRANGEMENTS

ARRANGEMENT	TYPE	NO INSTALLED	NO ONLINE MAX+SUSTN	NO ONLINE ENDURANCE
ELECT PG ARR 1 IND	M-PG	4	4	2
ELECT PG ARR 2 IND		0	0	0
ELECT DL ARR IND	MTR	2	2	2
SHIP SERVICE ARR	DIESEL	2	2	1

MACHINERY COMPONENT LOCATIONS

COMPONENT	MR ID	CG LOC, FT X	Y	Z
MAIN ENG	MMR1	173.97	-5.60	40.30
MAIN ENG	MMR1	173.97	5.60	40.30
MAIN ENG	MMR2	322.50	-5.60	9.30
MAIN ENG	MMR2	322.50	5.60	9.30
SS ENG	OMR1	80.41	0.00	48.36
SS ENG	AMR1	368.44	0.00	7.44
PRPLN MTR	AMR2	441.39	-12.72	11.16
PRPLN MTR	AMR2	441.39	12.72	11.16

SHAFTING

SHAFT TYPE	----END POINT LOC, FT----- X	Y	Z	SHAFT ANGLE, DEG
PORT SHAFT	452.49	-12.72	10.72	2.27
STBD SHAFT	452.49	12.72	10.72	2.27

PRINTED REPORT NO. 18 - MACHINERY SPACE REQUIREMENTS

MACHINERY ROOM VOLUME REQUIREMENTS

VOLUME CATEGORY	VOLUME, FT3
SWBS GROUP 200	202572.
PROPULSION POWER GENERATION	77043.
PROPULSION ENGINES	51442.
PROPULSION REDUCTION GEARS AND GENERATORS	25601.
DRIVELINE MACHINERY	15073.
REDUCTION AND BEVEL GEARS WITH Z-DRIVE	0.
ELECTRIC PROPULSION MOTORS AND GEARS	15073.
REMOTELY-LOCATED THRUST BEARINGS	0.
PROPELLER SHAFT	4591.
ELECTRIC PROPULSION MISCELLANEOUS EQUIPMENT	23362.
CONTROLS	2895.
BRAKING RESISTORS	2871.
MOTOR AND GENERATOR EXCITERS	5164.
SWITCHGEAR	2567.
POWER CONVERTERS	4623.
DEIONIZED COOLING WATER SYSTEMS	5241.
RECTIFIERS	0.
HELIUM REFRIGERATION SYSTEMS	0.
PROPULSION AUXILIARIES	82502.
PROPULSION LOCAL CONTROL CONSOLES	5056.
CP PROP HYDRAULIC OIL POWER MODULES	0.
FUEL OIL PUMPS	46625.
LUBE OIL PUMPS	4892.
LUBE OIL PURIFIERS	21438.
ENGINE LUBE OIL CONDITIONERS	1683.
SEAWATER COOLING PUMPS	2008.
SWBS GROUP 300	25252.
ELECTRIC PLANT POWER GENERATION	4315.
ELECTRIC PLANT ENGINES	2329.
ELECTRIC PLANT GENERATORS AND GEARS	1986.
SHIP SERVICE SWITCHBOARDS	20937.
CYCLOCONVERTERS	0.

SWBS GROUP 500	90575.
AUXILIARY MACHINERY	90575.
AIR CONDITIONING PLANTS	10416.
AUXILIARY BOILERS	17250.
FIRE PUMPS	6980.
DISTILLING PLANTS	29224.
AIR COMPRESSORS	21896.
ROLL FIN PAIRS	0.
SEWAGE PLANTS	4810.

ARRANGEABLE AREA REQUIREMENTS

SSCS	GROUP NAME	FT2 HULL/DKHS	FT2 DKHS ONLY
4.31	AUXILIARY MACHINERY DELTA	-9605.2	0.0
4.3311	SHIP SERVICE POWER GENERATION	1463.9	0.0
4.132	INTERNAL COMB ENG COMB AIR	0.0	0.0
4.133	INTERNAL COMB ENG EXHAUST	106.4	53.2
4.142	GAS TURBINE ENG COMB AIR	1195.5	1673.7
4.143	GAS TURBINE ENG EXHAUST	1580.2	2212.3

NOTE: * DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 19 - SURFACE SHIP ENDURANCE CALCULATION FORM

DESIGN MODE IND-ENDURANCE
ENDUR DISP IND-FULL LOAD
ENDUR DEF IND-USN
SHIP FUEL TYPE IND-DFM

ENG ENDUR RPM IND-CALC

SHIP FUEL LHV, BTU/LBM 18360.
DFM FUEL LHV, BTU/LBM 18360.

(1)	ENDURANCE REQUIRED, NM	6000.
(2)	ENDURANCE SPEED, KT	16.00
(3)	FULL LOAD DISPLACEMENT, LTON	19668.3
(3A)	AVERAGE ENDURANCE DISPLACEMENT, LTON	19668.3
(4)	RATED FULL POWER SHP, HP	97860.
(5)	DESIGN ENDURANCE POWER SHP @ (2)&(3A), HP	9861.
(6)	AVERAGE ENDURANCE POWER (SHP), HP (5) X 1.10	10847.
(7)	RATIO, AVG END SHP/RATED F.P. SHP (6)/(4)	0.11084
(8)	AVERAGE ENDURANCE BHP, HP (8A)+(8B)	12052.
(8A)	AVERAGE PRPLN ENDURANCE BHP, HP (6)/TRANSMISSION EFFICIENCY	12052.
(8B)	SHIP SERV PWR SUPPLIED BY PRPLN ENG, HP	0.
(9)	24 HOUR AVERAGE ELECTRIC LOAD, KW	4354.
(9A)	24 HOUR AVERAGE ELECTRIC LOAD PORTION SUPPLIED BY SS ENG, KW	4354.

(10)	CALCULATED PROPULSION FUEL RATE @(8), LBM/HP-HR	0.628
(11)	CALC PRPLN FUEL CONSUMPTION, LBM/HR (10)X(8)	7572.5
(12)	CALC SS GEN FUEL RATE @ (9A), LBM/KW-HR	0.492
(13)	CALC SS GEN FUEL CONSUMPTION, LBM/HR (12)X(9A)	2141.1
(14)	CALC FUEL CONSUMPTION FOR OTHER SERVICES, LBM/HR	0.0
(15)	TOTAL CALC ALL-PURPOSE FUEL CONSUMPTION, LBM/HR (11)+(13)+14)	9713.7
(16)	CALC ALL-PURPOSE FUEL RATE, LBM/HP-HR (15)/(6)	0.896
(17)	FUEL RATE CORRECTION FACTOR BASED ON (7)	1.0400
(18)	SPECIFIED FUEL RATE, LBM/HP-HR (16)X(17)	0.931
(19)	AVG ENDURANCE FUEL RATE, LBM/HP-HR (18)X1.05	0.978
(20)	ENDURANCE FUEL (BURNABLE), LTON (1)X(6)X(19)/(2)X2240	1775.8
(21)	TAILPIPE ALLOWANCE FACTOR	0.95
(22)	ENDURANCE FUEL LOAD, LTON (20)/(21)	1869.2

PRINTED REPORT NO. 20 - MACHINERY MARGINS

PROPULSION PLANT

MAIN ENG MAX LOAD FRAC	1.000
SEC ENG MAX LOAD FRAC	
TORQUE MARGIN FAC	1.200

ELECTRIC PLANT

SS ENG MAX LOAD FRAC	0.893
ELECT LOAD DES MARGIN FAC	0.200
ELECT LOAD SL MARGIN FAC	0.200
ELECT LOAD IMBAL FAC	0.900

PRINTED REPORT NO. 1 - WEIGHT SUMMARY

SWBS	G R O U P		W E I G H T LTON	PER CENT	LCG FT	VCG FT
100	HULL STRUCTURE		6764.7	34.4	308.52	43.44
200	PROPULSION PLANT		1058.4	5.4	366.77	26.68
300	ELECTRIC PLANT		973.7	4.9	316.79	30.23
400	COMMAND + SURVEILLANCE		169.8	0.9	271.04	63.37
500	AUXILIARY SYSTEMS		1008.8	5.1	330.81	40.96
600	OUTFIT + FURNISHINGS		1142.0	5.8	270.00	58.11
700	ARMAMENT		1134.0	5.8	392.44	44.05
	L I G H T S H I P		12251.4	62.3	319.70	42.44
M21	PD MARGIN	(WT = 2.4%)	+ 294.0		(KG = 2.4%)	+ 1.02
M22	CD MARGIN	(WT = 2.4%)	+ 301.1		(KG = 2.4%)	+ 1.04
M11	D & B MARGIN	(WT = 5.3%)	+ 680.9		(KG = 5.3%)	+ 2.36
M23	CON MOD MARGIN	(WT = 1.4%)	+ 179.9		(KG = 1.4%)	+ .62
M24	GFM MARGIN	(WT = .6%)	+ 77.1		(KG = .6%)	+ .27
	LIGHT SHIP WITH MARGINS		13784.3	70.1	319.70	47.75
F00	FULL LOADS		5887.7	29.9	343.22	21.75
F10	SHIPS FORCE + EFFECTS		46.2		175.22	91.86
F20	MISSION RELATED EXPENDABLES		391.5		233.45	11.26
F30	SHIPS STORES		60.5		128.52	50.41
F40	FUELS + LUBRICANTS		3548.7		334.91	11.43
F50	LIQUIDS + GASES (NON FUEL)		77.5		194.67	16.31
F60	CARGO		1763.3		402.62	42.27
	F U L L L O A D W T		19672.0	100.0	326.74	39.97

PRINTED REPORT NO. 2 - HULL STRUCTURES WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
100	HULL STRUCTURES	6764.7	43.44	308.52
110	SHELL + SUPPORTS	1616.6	28.42	293.82
111	PLATING	1024.9	35.61	337.87
113	INNER BOTTOM	167.0	3.00	3.00
114	SHELL APPENDAGES	39.3	12.50	315.00
115	STANCHIONS	18.3	31.00	315.00
116	LONGIT FRAMING	101.9	.94	252.00
117	TRANSV FRAMING	265.1	29.36	318.22
120	HULL STRUCTURAL BULKHDS	818.3	35.06	257.39
121	LONGIT STRUCTURAL BULKHDS	265.7	40.85	229.38
122	TRANSV STRUCTURAL BULKHDS	433.7	32.28	336.26
123	TRUNKS + ENCLOSURES	118.9	32.28	32.28
124	BULKHEADS, TORPEDO PROTECT SYS			
130	HULL DECKS	718.7	61.96	337.88
131	MAIN DECK	718.7	61.96	337.88
132	2ND DECK			
133	3RD DECK			
134	4TH DECK			
135	5TH DECK+DECKS BELOW			
136	01 HULL DECK			
137	02 HULL DECK			
138	03 HULL DECK			
139	04 HULL DECK			
140	HULL PLATFORMS/FLATS	1698.1	37.74	373.60
141	1ST PLATFORM	458.5	52.93	359.05
142	2ND PLATFORM	369.3	43.94	383.08
143	3RD PLATFORM	344.4	34.93	387.88
144	4TH PLATFORM	298.9	25.95	390.26
145	5TH PLAT+PLATS BELOW	117.0	17.05	336.73
149	FLATS	109.9	16.39	351.59
150	DECK HOUSE STRUCTURE	897.9	86.32	214.88
151	1ST DECKHOUSE LEVEL	120.5	71.31	216.13
152	2ND DECKHOUSE LEVEL	222.4	76.67	219.86
153	3RD DECKHOUSE LEVEL	202.2	86.22	216.05
154	4TH DECKHOUSE LEVEL	187.2	93.84	216.05
155	5TH DECKHOUSE LEVEL	165.6	101.84	204.55
156	6TH DECKHOUSE LEVEL			
157	7TH DECKHOUSE LEVEL			
158	8TH DECKHOUSE LEVEL			
159	9TH DECKHOUSE LEVEL			
160	SPECIAL STRUCTURES	353.7	36.38	342.26
161	CASTINGS+FORGINGS+EQUIV WELDMT	106.7	19.36	360.71
162	STACKS AND MACKS	12.1	103.30	258.59
163	SEA CHESTS	2.2	.53	298.74
164	BALLISTIC PLATING			
165	SONAR DOMES			
166	SPONSONS			
167	HULL STRUCTURAL CLOSURES	68.7	41.95	304.34
168	DKHS STRUCTURAL CLOSURES	13.7	81.15	205.65
169	SPECIAL PURPOSE CLOSURES+STRUCT	150.4	36.98	366.28
170	MASTS+KINGPOSTS+SERV PLATFORM	19.4	120.40	233.98
171	MASTS,TOWERS,TETRAPODS	19.4	120.40	233.98
172	KINGPOSTS AND SUPPORT FRAMES			
179	SERVICE PLATFORMS			
180	FOUNDATIONS	429.1	26.15	320.98

181 HULL STRUCTURE FOUNDATIONS			
182 PROPULSION PLANT FOUNDATIONS	286.0	12.54	342.26
183 ELECTRIC PLANT FOUNDATIONS	27.4	28.29	245.13
184 COMMAND+SURVEILLANCE FDNS	7.6	80.86	207.51
185 AUXILIARY SYSTEMS FOUNDATIONS	74.2	40.40	334.52
186 OUTFIT+FURNISHINGS FOUNDATIONS	8.9	67.99	224.70
187 ARMAMENT FOUNDATIONS	24.9	105.95	188.84
190 SPECIAL PURPOSE SYSTEMS	212.9	31.33	319.20
191 BALLAST+BOUYANCY UNITS			
196 MILL TOLERANCE			
197 WELDING AND RIVETS	97.3	35.48	312.03
198 FREE FLOODING LIQUIDS	25.6	3.88	373.01
199 HULL REPAIR PARTS+SPECIAL TOOLS	90.0	34.66	311.63

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 3 - PROPULSION PLANT WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
200	PROPULSION PLANT	1058.4	26.68	366.77
210	ENERGY GEN SYS (NUCLEAR)			
220	ENERGY GENERATING SYSTEM (NONNUC)			
221	PROPULSION BOILERS			
222	GAS GENERATORS			
223	MAIN PROPULSION BATTERIES			
224	MAIN PROPULSION FUEL CELLS			
230	PROPULSION UNITS	502.2	17.99	340.48
231	STEAM TURBINES			
232	STEAM ENGINES			
233	DIESEL ENGINES			
234	GAS TURBINES	100.1	24.80	248.23
235	ELECTRIC PROPULSION	402.1	16.29	363.43
236	SELF-CONTAINED PROPULSION SYS			
237	AUXILIARY PROPULSION DEVICES			
240	TRANSMISSION+PROPULSOR SYSTEMS	244.1	6.96	547.44
241	REDUCTION GEARS			
242	CLUTCHES + COUPLINGS			
243	SHAFTING	126.1	7.41	536.14
244	SHAFT BEARINGS	51.9	8.80	500.94
245	PROPULSORS	66.1	4.67	605.51
246	PROPULSOR SHROUDS AND DUCTS			
247	WATER JET PROPULSORS			
250	SUPPORT SYSTEMS	247.9	66.73	259.46
251	COMBUSTION AIR SYSTEM	55.9	53.87	245.91
252	PROPULSION CONTROL SYSTEM	28.9	40.30	248.23
253	MAIN STEAM PIPING SYSTEM			
254	CONDENSERS AND AIR EJECTORS			
255	FEED AND CONDENSATE SYSTEM			
256	CIRC + COOL SEA WATER SYSTEM	4.4	22.32	396.90
258	H.P. STEAM DRAIN SYSTEM			
259	UPTAKES (INNER CASING)	158.8	77.29	262.49
260	PROPUL SUP SYS- FUEL, LUBE OIL	33.2	14.75	238.49
261	FUEL SERVICE SYSTEM	9.4	18.80	216.73
262	MAIN PROPULSION LUBE OIL SYSTEM	17.0	12.00	248.23
264	LUBE OIL HANDLING	6.8	16.00	244.23

290 SPECIAL PURPOSE SYSTEMS	31.1	15.14	365.23
298 OPERATING FLUIDS	20.6	8.00	378.00
299 REPAIR PARTS + TOOLS	10.5	29.14	340.20

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 4 - ELECTRIC PLANT WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
300	ELECTRIC PLANT, GENERAL	973.7	30.23	316.79
310	ELECTRIC POWER GENERATION	136.0	17.00	228.51
311	SHIP SERVICE POWER GENERATION	40.4	27.90	228.51
312	EMERGENCY GENERATORS			
313	BATTERIES+SERVICE FACILITIES	95.6	12.40	228.51
314	POWER CONVERSION EQUIPMENT			
320	POWER DISTRIBUTION SYS	717.6	29.52	335.18
321	SHIP SERVICE POWER CABLE	624.8	27.00	333.90
322	EMERGENCY POWER CABLE SYS			
323	CASUALTY POWER CABLE SYS	4.0	47.26	283.73
324	SWITCHGEAR+PANELS	88.8	46.50	346.50
330	LIGHTING SYSTEM	83.5	56.53	330.21
331	LIGHTING DISTRIBUTION	34.6	55.80	333.90
332	LIGHTING FIXTURES	48.9	57.04	327.60
340	POWER GENERATION SUPPORT SYS	28.6	35.24	241.85
341	SSTG LUBE OIL			
342	DIESEL SUPPORT SYS	28.6	35.24	241.85
343	TURBINE SUPPORT SYS			
390	SPECIAL PURPOSE SYS	8.1	26.17	295.81
398	ELECTRIC PLANT OP FLUIDS	6.1	27.90	228.51
399	REPAIR PARTS+SPECIAL TOOLS	2.0	21.00	497.70

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 5 - COMMAND+SURVEILLANCE WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
400	COMMAND+SURVEILLANCE	169.8	63.37	271.04
410	COMMAND+CONTROL SYS	2.3	66.62	143.50
411	DATA DISPLAY GROUP	.4	108.48	127.21
412	DATA PROCESSING GROUP	1.9	56.98	147.26
413	DIGITAL DATA SWITCHBOARDS			
414	INTERFACE EQUIPMENT			
415	DIGITAL DATA COMMUNICATIONS			
417	COMMAND+CONTROL ANALOG SWBD			
420	NAVIGATION SYS	6.8	81.56	324.97
421	NON-ELECT NAVIGATION AIDS	.0	95.44	126.56
422	ELECTRICAL NAVIGATION AIDS	3.3	81.18	446.34
423	ELECTRONIC NAVIG AIDS, RADIO	.6	116.83	141.24
424	ELECTRONIC NAVIG AIDS, ACOUSTIC	.2	78.81	129.43
426	ELECTRICAL NAVIGATION SYS	2.7	74.29	232.96
427	INERTIAL NAVIGATION SYS			

430 INTERIOR COMMUNICATIONS	59.3	54.53	265.30
431 SWITCHBOARDS FOR I.C. SYSTEMS	1.2	82.31	277.38
432 TELEPHONE SYSTEMS	12.7	64.80	240.41
433 ANNOUNCING SYSTEMS	10.2	63.13	264.71
434 ENTERTAINMENT + TRAINING SYS	4.0	94.08	174.49
435 VOICE TUBES+MESSAGE PASSING SYS	1.2	111.63	117.07
436 ALARM, SAFETY, WARNING SYSTEMS	7.9	52.06	264.13
437 INDICATING, ORDER, METERING SYS	18.5	31.22	322.44
438 INTEGRATED CONTROL SYSTEMS	3.5	46.50	209.40
440 EXTERIOR COMMUNICATIONS	20.8	99.11	167.81
441 RADIO SYSTEMS	12.8	99.27	172.26
442 UNDERWATER SYSTEMS			
443 VISUAL + AUDIBLE SYSTEMS	.8	115.88	123.93
444 TELEMETRY SYSTEMS			
445 TTY + FACSIMILE SYSTEMS	1.7	95.45	162.18
446 SECURITY EQUIPMENT SYSTEMS	5.4	97.36	165.72
450 SURF SURV SYS (RADAR)	11.6	96.88	209.16
451 SURFACE SEARCH RADAR	3.3	97.93	210.98
452 AIR SEARCH RADAR (2D)	7.3	97.03	207.78
453 AIR SEARCH RADAR (3D)			
454 AIRCRAFT CONTROL APPROACH RADAR			
455 IDENTIFICATION SYSTEMS (IFF)	1.0	92.26	213.15
456 MULTIPLE MODE RADAR			
459 SPACE VEHICLE ELECTRONIC TRACKG			
460 UNDERWATER SURVEILLANCE SYSTEMS			
461 ACTIVE SONAR			
462 PASSIVE SONAR			
463 MULTIPLE MODE SONAR			
464 CLASSIFICATION SONAR			
465 BATHYTHERMOGRAPH			
466 MISC ELECTRONICS			
470 COUNTERMEASURES	60.4	46.04	329.23
471 ACTIVE + ACTIVE/PASSIVE ECM			
472 PASSIVE ECM	1.8	97.86	214.38
473 TORPEDO DECOYS	2.9	52.64	566.44
474 DECOYS (OTHER)			
475 DEGAUSSING	55.7	44.00	320.67
476 MINE COUNTERMEASURES			
480 FIRE CONTROL SYS	3.2	91.90	188.62
481 GUN FIRE CONTROL SYSTEMS	3.2	91.90	188.62
482 MISSILE FIRE CONTROL SYSTEMS			
483 UNDERWATER FIRE CONTROL SYSTEMS			
484 INTEGRATED FIRE CONTROL SYSTEMS			
489 WEAPON SYSTEM SWITCHBOARDS			
490 SPECIAL PURPOSE SYS	5.4	103.98	248.74
491 ELCTRNC TEST,CHKOUT,MONITR EQPT	.0	98.18	141.21
492 FLIGHT CNTRL+INSTR LANDING SYS			
493 NON-COMBAT DATA PROCESSING SYS			
494 METEOROLOGICAL SYSTEMS			
495 SPEC PURPOSE INTELLIGENCE SYS			
496 OPERATION SPACE ITEMS			
498 C+S OPERATING FLUIDS	.4	95.62	266.32
499 REPAIR PARTS+SPECIAL TOOLS	4.9	104.73	247.41

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 6 - AUXILIARY SYSTEMS WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
500	AUXILIARY SYSTEMS, GENERAL	1008.8	40.96	330.81
510	CLIMATE CONTROL	160.4	60.45	258.68
511	COMPARTMENT HEATING SYSTEM	9.1	76.67	217.23
512	VENTILATION SYSTEM	43.3	63.90	253.35
513	MACHINERY SPACE VENT SYSTEM	25.8	51.77	332.83
514	AIR CONDITIONING SYSTEM	56.0	65.40	218.02
516	REFRIGERATION SYSTEM	1.9	92.49	104.65
517	AUX BOILERS+OTHER HEAT SOURCES	24.4	43.65	310.37
520	SEA WATER SYSTEMS	231.1	34.40	305.51
521	FIREMAIN+SEA WATER FLUSHING SYS	76.5	47.70	280.57
522	SPRINKLING SYSTEM	1.5	57.38	193.06
523	WASHDOWN SYSTEM	3.5	69.93	452.75
524	AUXILIARY SEAWATER SYSTEM	48.4	16.23	278.95
526	SCUPPERS+DECK DRAINS	1.7	71.08	345.54
527	FIREMAIN ACTUATED SERV, OTHER			
528	PLUMBING DRAINAGE	18.7	60.37	213.50
529	DRAINAGE+BALLASTING SYSTEM	80.7	23.95	361.40
530	FRESH WATER SYSTEMS	60.8	32.58	284.76
531	DISTILLING PLANT	11.6	45.03	292.41
532	COOLING WATER	1.7	107.00	159.12
533	POTABLE WATER	13.1	60.78	225.66
* 534	AUX STEAM + DRAINS IN MACH BOX			
* 535	AUX STEAM + DRAINS OUT MACH BOX			
536	AUXILIARY FRESH WATER COOLING	34.4	14.04	310.80
540	FUELS/LUBRICANTS,HANDLING+STORAGE	106.9	45.27	329.92
541	SHIP FUEL+COMPENSATING SYSTEM	106.9	45.27	329.92
542	AVIATION+GENERAL PURPOSE FUELS			
543	AVIATION+GENERAL PURPOSE LUBO			
544	LIQUID CARGO			
545	TANK HEATING			
549	SPEC FUEL+LUBRICANTS HANDL+STOW			
550	AIR,GAS+MISC FLUID SYSTEM	182.0	42.86	318.87
551	COMPRESSED AIR SYSTEMS	105.1	42.74	314.39
552	COMPRESSED GASES	1.1	45.40	409.59
553	O2 N2 SYSTEM			
554	LP BLOW			
555	FIRE EXTINGUISHING SYSTEMS	75.4	43.01	322.73
556	HYDRAULIC FLUID SYSTEM			
557	LIQUID GASES, CARGO			
558	SPECIAL PIPING SYSTEMS	.4	36.60	500.83
560	SHIP CNTL SYS	104.7	20.50	602.26
561	STEERING+DIVING CNTL SYS	39.3	23.11	596.76
562	RUDDER	65.4	18.93	605.56
565	TRIM+HEEL SYSTEMS			
568	MANEUVERING SYSTEMS			
570	UNDERWAY REPLENISHMENT SYSTEMS	37.1	63.07	245.43
571	REPLENISHMENT-AT-SEA SYSTEMS	11.2	63.04	290.27
572	SHIP STORES+EQUIP HANDLING SYS	14.8	56.85	121.47
* 573	CARGO HANDLING SYSTEMS	10.0	72.00	360.00
574	VERTICAL REPLENISHMENT SYSTEMS	1.2	65.47	395.38
575	VEHICAL HANDLING+STOWAGE SYSTEMS			
* 580	MECHANICAL HANDLING SYSTEMS	10.0	72.00	360.00
581	ANCHOR HANDLING+STOWAGE SYSTEMS			
582	MOORING+TOWING SYSTEMS			
583	BOATS,HANDLING+STOWAGE SYSTEMS			

584 MECH OPER DOOR,GATE,RAMP,TTBL SYS			
585 ELEVATING + RETRACTING GEAR			
586 AIRCRAFT RECOVERY SUPPORT SYS			
588 AIRCRAFT HANDLING,SERVICE,STOWAGE			
589 MISC MECH HANDLING SYSTEMS			
590 SPECIAL PURPOSE SYSTEMS	115.9	33.21	304.43
591 SCIENTIFIC+OCEAN ENGINEERING SYS			
592 SWIMMER+DIVER SUPPORT+PROT SYS			
593 ENVIRONMENTAL POLLUTION CNTL SYS	16.1	23.18	315.78
594 SUBMARINE RESC+SALVG+SURVIVE SYS			
595 TOW,LAUNCH,HANDLE UNDERWATER SYS			
596 HANDLING SYS FOR DIVER+SUBMR VEH			
597 SALVAGE SUPPORT SYSTEMS			
598 AUX SYSTEMS OPERATING FLUIDS	84.9	35.56	300.92
599 AUX SYSTEMS REPAIR PARTS+TOOLS	14.9	30.65	312.14

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 7 - OUTFIT+FURNISHINGS WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
600	OUTFIT+FURNISHING,GENERAL	1142.0	58.11	270.00
610	SHIP FITTINGS	141.1	43.21	401.81
611	HULL FITTINGS	122.4	39.36	390.61
612	RAILS,STANCHIONS+LIFELINES	16.8	67.08	498.45
613	RIGGING+CANVAS	2.0	78.55	276.19
620	HULL COMPARTMENTATION	245.3	67.95	260.04
621	NON-STRUCTURAL BULKHEADS	97.4	80.03	195.47
622	FLOOR PLATES+GRATING	99.7	61.45	316.15
623	LADDERS	25.9	40.02	334.85
624	NON-STRUCTURAL CLOSURES	17.5	74.43	197.36
625	AIRPORTS,FIXED PORTLTS, WINDOWS	4.8	84.55	229.98
630	PRESERVATIVES+COVERINGS	483.2	51.45	275.64
631	PAINTING	128.3	37.67	311.90
632	ZINC COATING			
633	CATHODIC PROTECTION	29.3	12.78	371.81
634	DECK COVERINGS	198.2	54.20	275.10
635	HULL INSULATION	96.3	66.69	230.37
636	HULL DAMPING			
637	SHEATHING	25.3	87.51	193.51
638	REFRIGERATION SPACES	5.8	47.35	116.09
639	RADIATION SHIELDING			
640	LIVING SPACES	65.0	89.92	167.89
641	OFFICER BERTHING+MESSING	12.4	88.48	169.62
642	NON-COMM OFFICER B+M	4.2	103.04	170.08
643	ENLISTED PERSONNEL B+M	41.0	88.53	166.40
644	SANITARY SPACES+FIXTURES	4.8	92.55	173.88
645	LEISURE+COMMUNITY SPACES	2.6	92.76	168.58
650	SERVICE SPACES	24.9	75.27	243.77
651	COMMISSARY SPACES	12.0	84.48	177.93
652	MEDICAL SPACES	4.5	68.61	239.89
653	DENTAL SPACES	1.7	74.52	199.15
654	UTILITY SPACES	3.3	79.25	236.63
655	LAUNDRY SPACES	3.2	45.33	533.07
656	TRASH DISPOSAL SPACES	.2	89.48	167.18

660 WORKING SPACES	103.5	65.76	222.08
661 OFFICES	8.4	61.11	138.24
662 MACH CNTL CENTER FURNISHING	.4	58.27	248.82
663 ELECT CNTL CENTER FURNISHING	4.3	225.55	91.09
664 DAMAGE CNTL STATIONS	9.9	43.40	261.35
665 WORKSHOPS,LABS,TEST AREAS	80.6	60.42	232.89
670 STOWAGE SPACES	67.5	53.70	175.59
671 LOCKERS+SPECIAL STOWAGE	19.4	63.24	281.53
672 STOREROOMS+ISSUE ROOMS	48.1	49.86	132.92
673 CARGO STOWAGE			
690 SPECIAL PURPOSE SYSTEMS	11.4	51.26	51.26
698 OPERATING FLUIDS	3.9	61.13	211.51
699 REPAIR PARTS+SPECIAL TOOLS	7.5	46.18	264.84

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 8 - ARMAMENT WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
700	ARMAMENT	1134.0	44.05	392.44
710	GUNS+AMMUNITION	22.5	145.40	208.58
711	GUNS	11.8	205.10	182.49
712	AMMUNITION HANDLING	1.9	88.72	210.60
713	AMMUNITION STOWAGE	8.8	77.34	243.32
720	MISSLES+ROCKETS	2.2	97.32	150.25
721	LAUNCHING DEVICES	1.1	97.04	148.69
722	MISSILE+ROCKET,GUID CAP HAND SYS			
723	MISSILE+ROCKET STOWAGE	1.1	97.61	151.85
724	MISSILE HYDRAULICS			
725	MISSILE GAS			
726	MISSILE COMPENSATING			
727	MISSILE LAUNCHER CONTROL			
728	MISSILE HEAT,COOL,TEMP CNTRL			
729	MISSILE MONITOR,TEST,ALINEMENT			
730	MINES			
731	MINE LAUNCHING DEVICES			
732	MINE HANDLING			
733	MINE STOWAGE			
740	DEPTH CHARGES			
741	DEPTH CHARGE LAUNCHING DEVICES			
742	DEPTH CHARGE HANDLING			
743	DEPTH CHARGE STOWAGE			
750	TORPEDOES			
751	TORPEDO TUBES			
752	TORPEDO HANDLING			
753	TORPEDO STOWAGE			
760	SMALL ARMS+PYROTECHNICS	9.1	65.91	244.54
761	SMALL ARMS+PYRO LAUNCHING DEV	.4	51.33	487.39
762	SMALL ARMS+PYRO HANDLING			
763	SMALL ARMS+PYRO STOWAGE	8.6	66.66	232.15
770	CARGO MUNITIONS	16.1	38.92	123.52
772	CARGO MUNITIONS HANDLING	6.7	46.34	121.58
773	CARGO MUNITIONS STOWAGE	9.4	33.66	124.89

780 AIRCRAFT RELATED WEAPONS			
782 AIRCRAFT RELATED WEAPONS HANDL			
783 AIRCRAFT RELATED WEAPONS STOW			
790 SPECIAL PURPOSE SYSTEMS	1084.3	41.74	401.95
* 791 SPECIAL WEAPONS SYSTEMS	1058.0	40.29	406.96
792 SPECIAL WEAPONS HANDLING			
793 SPECIAL WEAPONS STOWAGE			
797 MISC ORDINANCE SPACES			
798 ARMAMENT OPERATING FLUIDS	2.0	87.74	163.80
799 ARMAMENT REPAIR PART+TOOLS	24.3	101.28	203.33

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 9 - LOADS WEIGHT (FULL LOAD CONDITION)

SWBS	COMPONENT	WT-LTON	VCG-FT	LCG-FT
F00	LOADS	5887.7	21.75	343.22
F10	SHIPS FORCE	46.2	91.86	175.22
F11	OFFICERS	6.8	89.68	145.74
F12	NON-COMMISSIONED OFFICERS	2.8	104.18	179.22
F13	ENLISTED MEN	26.3	96.40	199.91
F15	TROOPS	10.3	78.35	130.50
F20	MISSION RELATED EXPENDABLES+SYS	391.5	11.26	233.45
* F21	SHIP AMMUNITION	391.5	11.26	233.45
F22	ORD DEL SYS AMMO			
F23	ORD DEL SYS (AIRCRAFT)			
F24	ORD REPAIR PARTS (SHIP)			
F25	ORD REPAIR PARTS (ORD)			
F26	ORD DEL SYS SUPPORT EQUIP			
F29	SPECIAL MISSION RELATED SYS			
F30	STORES	60.5	50.41	128.52
F31	PROVISIONS+PERSONNEL STORES	51.8	51.16	128.26
F32	GENERAL STORES	8.7	45.95	130.05
F39	SPECIAL STORES			
F40	LIQUIDS, PETROLEUM BASED	3548.7	11.43	334.91
* F41	DIESEL FUEL MARINE	3040.1	12.60	341.59
* F42	JP-5	500.0	4.50	300.00
F43	GASOLINE			
F44	DISTILLATE FUEL			
F45	NAVY STANDARD FUEL OIL (NSFO)			
F46	LUBRICATING OIL	8.5		
F49	SPECIAL FUELS AND LUBRICANTS			
F50	LIQUIDS, NON-PETRO BASED	77.5	16.31	194.67
F51	SEA WATER			
F52	FRESH WATER	60.7	11.53	182.48
F53	RESERVE FEED WATER	6.9	17.31	310.21
F54	HYDRAULIC FLUID	3.2	48.30	210.02
F55	SANITARY TANK LIQUID	6.6	43.54	177.83
F56	GAS (NON FUEL TYPE)			
F59	MISC LIQUIDS, NON-PETROLEUM			

F60 CARGO	1763.3	42.27	402.62
F61 CARGO, ORDINANCE + DELVRY SYS	54.7	38.54	127.18
F62 CARGO, STORES			
F63 CARGO, FUELS + LUBRICANTS	117.9	17.54	364.24
F64 CARGO, LIQUIDS, NON PETROLEUM			
F65 CARGO, CRYOGENIC+LIQUEFIED GAS			
F66 CARGO, AMPHIBIOUS ASSAULT SYS	1590.8	44.23	414.93
F67 CARGO, GASES			
F69 CARGO, MISCELLANEOUS			

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 10 - WEIGHT AND KG MODIFICATION SUMMARY

ROW	WT KEY	P+A NAME	WT - LTON ORIGINAL	CHANGE	RESULT.	VCG - FT ORIG.	CHANGE	RESULT.	LCG -FT ORIG.	CHANGE	RESULT.
19	W534	AUX STEAM	0.0	0.0	0.0	UNKNOW	0.0	0.0	UNKNOW	0.0	0.0
20	W535	AUX STEAM	0.0	0.0	0.0	UNKNOW	0.0	0.0	UNKNOW	0.0	0.0
16	W573	CRANES	0.0	10.0	10.0	UNKNOW	72.0	72.0	UNKNOW	360.0	360.0
17	W580	CRANES	0.0	10.0	10.0	UNKNOW	72.0	72.0	UNKNOW	360.0	360.0
1	W791	WOLF EEL (2)	0.0	80.0		UNKNOW	50.0		UNKNOW	235.0	
2		WELL DECK PTX'S (2)		260.0			32.0			330.0	
3		WELL DECK PTX'S (2)		260.0			32.0			450.0	
4		WELL DECK PTX'S (2)		260.0			32.0			560.0	
5		FLIGHT DECK PTX'S (2 CH-53E)		66.0			69.0			250.0	
6		FLIGHT DECK PTX'S (2 CH-53E)		66.0			69.0			300.0	
7		FLIGHT DECK PTX'S (2 CH-53E)									

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                66.0   1058.0                69.0    40.3              410.0
407.0
  18   WF21   AMMO
     20.5    371.0    391.5      70.2      8.0    11.3     205.4    235.0
233.4
  12   WF41   DFM FOR PTX'S
   2580.1    115.0                11.6      4.5             188.6    240.0

  13          DFM FOR PTX'S
              115.0                          4.5                      280.0

  14          DFM FOR PTX'S
              115.0                          4.5                      320.0

  15          DFM FOR PTX'S
              115.0   3040.1                 4.5    12.6              360.0
341.6
   8   WF42   JP-5 FUEL
      0.0     125.0              UNKNOW      4.5            UNKNOW    240.0

   9          JP-5 FUEL
              125.0                          4.5                      280.0

  10          JP-5 FUEL
              125.0                          4.5                      320.0

  11          JP-5 FUEL
              125.0    500.0                 4.5     4.5              360.0
300.0
```

PRINTED REPORT NO. 11 - P+A WEIGHTS AND VCGS

```
 ROW    PAYLOAD NAME
 ---    ------------------------
 WT     WEIGHT     WEIGHT      VCG    VCG        VCG         LCG    LCG        LCG
 KEY    ADD,LTON   FAC         KEY    ADD,FT     FAC         KEY    ADD,FT     FAC
 ----   --------   --------    ----   --------   ========    ====   ========
========
  19    AUX STEAM
 W534       0.00       0.00    BL        0.00       1.00    FPRP       0.00
1.00

  20    AUX STEAM
 W535       0.00       0.00    BL        0.00       1.00    FPRP       0.00
1.00

  16    CRANES
 W573      10.00       0.00    BL       72.00       0.00    FPRP     360.00
0.00

  17    CRANES
 W580      10.00       0.00    BL       72.00       0.00    FPRP     360.00
0.00

   1    WOLF EEL (2)
 W791      80.00       0.00    BL       50.00       0.00    FPRP     235.00
0.00
```

2	WELL DECK PTX'S (2)							
W791	260.00	0.00	BL	32.00	0.00	FPRP	330.00	
0.00								
3	WELL DECK PTX'S (2)							
W791	260.00	0.00	BL	32.00	0.00	FPRP	450.00	
0.00								
4	WELL DECK PTX'S (2)							
W791	260.00	0.00	BL	32.00	0.00	FPRP	560.00	
0.00								
5	FLIGHT DECK PTX'S (2 CH-53E)							
W791	66.00	0.00	BL	69.00	0.00	FPRP	250.00	
0.00								
6	FLIGHT DECK PTX'S (2 CH-53E)							
W791	66.00	0.00	BL	69.00	0.00	FPRP	300.00	
0.00								
7	FLIGHT DECK PTX'S (2 CH-53E)							
W791	66.00	0.00	BL	69.00	0.00	FPRP	410.00	
0.00								
18	AMMO							
WF21	371.00	0.00	BL	8.00	0.00	FPRP	235.00	
0.00								
12	DFM FOR PTX'S							
WF41	115.00	0.00	BL	4.50	0.00	FPRP	240.00	
0.00								
13	DFM FOR PTX'S							
WF41	115.00	0.00	BL	4.50	0.00	FPRP	280.00	
0.00								
14	DFM FOR PTX'S							
WF41	115.00	0.00	BL	4.50	0.00	FPRP	320.00	
0.00								
15	DFM FOR PTX'S							
WF41	115.00	0.00	BL	4.50	0.00	FPRP	360.00	
0.00								
8	JP-5 FUEL							
WF42	125.00	0.00	BL	4.50	0.00	FPRP	240.00	
0.00								
9	JP-5 FUEL							
WF42	125.00	0.00	BL	4.50	0.00	FPRP	280.00	
0.00								
10	JP-5 FUEL							
WF42	125.00	0.00	BL	4.50	0.00	FPRP	320.00	
0.00								
11	JP-5 FUEL							
WF42	125.00	0.00	BL	4.50	0.00	FPRP	360.00	
0.00								

PRINTED REPORT NO. 1 - SPACE MODULE SUMMARY

COLL PROTECT SYSTEM-PRESENT
SONAR DOME-NONE

HAB STANDARD-NAVY
UNIT COMMANDER-FLAG

FULL LOAD WT, LTON	19672.0	HAB STANDARD FAC	0.000
TOTAL CREW ACC	422.	PASSWAY MARGIN FAC	0.000
HULL AVG DECK HT, FT	14.85	AC MARGIN FAC	0.200
MR VOLUME, FT3	460993.	SPACE MARGIN FAC	0.050

	PAYLOAD REQUIRED	AREA FT2 TOTAL REQUIRED	TOTAL AVAILABLE	VOL FT3 TOTAL ACTUAL
DKHS ONLY	0.0	21008.2	80230.2	802302.
HULL OR DKHS	0.0	161374.6	142336.0	2689995.
TOTAL	0.0	182382.8	222566.2	3492297.

SSCS GROUP	TOTAL AREA FT2	DKHS AREA FT2	PERCENT TOTAL AREA
1. MISSION SUPPORT	80195.2	1338.4	44.0
2. HUMAN SUPPORT	23007.6	1662.0	12.6
3. SHIP SUPPORT	58718.1	8311.3	32.2
4. SHIP MOBILITY SYSTEM	11777.0	8696.2	6.5
5. UNASSIGNED	8684.9	1000.4	4.8
TOTAL	182382.8	21008.2	100.0

PRINTED REPORT NO. 2 - MISSION SUPPORT AREA

SSCS	GROUP	TOTAL AREA FT2	DKHS AREA FT2
1.	MISSION SUPPORT	80195.2	1338.4
1.1	COMMAND,COMMUNICATION+SURV	3663.2	1232.0
1.11	EXTERIOR COMMUNICATIONS		
1.111	RADIO		
1.112	UNDERWATER SYSTEMS		
1.12	SURVEILLANCE SYS		
1.121	SURFACE SURV (RADAR)		
1.122	UNDERWATER SURV (SONAR)		
1.13	COMMAND+CONTROL	1232.0	1232.0
1.131	COMBAT INFO CENTER		
1.132	CONNING STATIONS	1232.0	1232.0
1.1321	PILOT HOUSE	1152.0	1152.0
1.1322	CHART ROOM	80.0	80.0
1.14	COUNTERMEASURES		
1.141	ELECTRONIC		
1.142	TORPEDO		
1.143	MISSILE		
1.15	INTERIOR COMMUNICATIONS	2409.7	
1.16	ENVIRONMENTAL CNTL SUP SYS	21.6	

1.2	WEAPONS		
1.21	GUNS		
1.22	MISSILES		
1.23	ROCKETS		
1.24	TORPEDOS		
1.25	DEPTH CHARGES		
1.26	MINES		
1.27	MULT EJECT RACK STOW		
1.28	WEAP MODULE STA & SERV INTER		
1.3	AVIATION		
1.31	AVIATION LAUNCH+RECOVERY		
1.311	LAUNCHING+RECOVERY AREAS		
1.312	LAUNCHING+RECOVERY EQUIP		
1.32	AVIATION CONTROL		
1.321	FLIGHT CONTROL		
1.322	NAVIGATION		
1.323	OPERATIONS		
1.33	AVIATION HANDLING		
1.34	AIRCRAFT STOWAGE		
1.35	AVIATION ADMINISTRATION		
1.36	AVIATION MAINTENANCE		
1.37	AVIATION ORDINANCE		
1.372	CONTROL		
1.373	HANDLING		
1.374	STOWAGE		
1.38	AVIATION FUEL SYS		
1.39	AVIATION STORES		
1.4	AMPHIBIOUS		
1.5	CARGO		
1.6	INTERMEDIATE MAINT FAC	75898.8	
1.64	STOWAGE	75898.8	
1.641	WEAPONS	75898.8	
1.7	FLAG FACILITIES	40.0	40.0
1.73	HANDLING		
1.74	STOWAGE	40.0	40.0
1.8	SPECIAL MISSIONS		
1.9	SM ARMS,PYRO+SALU BAT	593.1	66.4
1.91	SM ARMS (LOCKER)	289.9	
1.92	PYROTECHNICS (LOCKER)	66.4	66.4
1.93	SALUTING BAT (MAGAZINE)	97.8	
1.95	SECURITY FORCE EQUIP	139.1	

PRINTED REPORT NO. 3 - HUMAN SUPPORT AREA

HAB STD = NAVY

SSCS	GROUP	TOTAL AREA FT2	DKHS AREA FT2
2.	HUMAN SUPPORT	23007.6	1662.0
2.1	LIVING	14742.4	1602.4
2.11	OFFICER LIVING	5002.4	1602.4
2.111	BERTHING	4627.4	1477.4
2.1111	SHIP OFFICER	4068.7	918.7
2.1115	FLAG OFFICER	558.7	558.7
2.112	SANITARY	375.0	125.0
2.1121	SHIP OFFICER	330.0	80.0
2.1125	FLAG OFFICER	45.0	45.0
2.12	CPO LIVING	1158.4	
2.121	BERTHING	946.4	
2.122	SANITARY	212.0	
2.13	CREW LIVING	8336.5	
2.131	BERTHING	7020.0	
2.132	SANITARY	1158.3	
2.133	RECREATION	158.3	
2.1332	LIBRARY	158.3	
2.14	GENERAL SANITARY FACILITIES	110.0	
2.141	LADIES RETIRING ROOM	80.0	
2.142	BRIDGE WASHROOM+WC	15.0	
2.143	DECK WASHROOM+WC	15.0	
2.15	SHIP RECREATION FAC	135.0	
2.152	MOTION PIC FILM+EQUIP	84.4	
2.153	PHYSICAL FITNESS	50.6	
2.154	TV ROOM		
2.16	TRAINING		
2.2	COMMISSARY	6068.7	
2.21	FOOD SERVICE	3239.0	
2.211	OFFICER (MESS+LOUNGE)	961.5	
2.212	CPO (MESS+LOUNGE)	589.2	
2.213	CREW (MESS+LOUNGE)	1688.2	
2.22	COMMISSARY SERVICE SPACES	1708.6	
2.23	FOOD STORAGE+ISSUE	1121.1	
2.231	CHILL PROVISIONS	324.2	
2.232	FROZEN PROVISIONS	115.2	
2.233	DRY PROVISIONS	472.9	
2.234	ISSUE	208.9	
2.3	MEDICAL+DENTAL (MEDICAL)	300.0	
2.4	GENERAL SERVICES	1455.1	
2.41	SHIP STORE FACILITIES	541.9	
2.411	SHIP STORE	270.4	
2.416	SHIP STORE STORES	271.6	
2.42	LAUNDRY FACILITIES	645.7	
2.43	DRY CLEANING		
2.44	BARBER SERVICE	160.0	
2.46	POSTAL SERVICE	95.5	
2.47	BRIG		
2.48	RELIGIOUS	12.0	
2.5	PERSONNEL STORES	237.1	59.5
2.51	BAGGAGE	83.5	
2.52	MESSROOM STORES	83.5	29.5
2.55	FOUL WEATHER GEAR (LOCKER)	30.0	30.0

2.57	FOLDING CHAIR STOREROOM	40.0	
2.6	CBR PROTECTION	184.4	
2.61	CBR DECON STATIONS		
2.62	CBR DEFENSE EQP STRMS	184.4	
2.63	CPS AIRLOCKS		
2.7	LIFESAVING EQUIPMENT	20.0	
2.71	LIFEJACKET LOCKER	20.0	

PRINTED REPORT NO. 4 - SHIP SUPPORT AREA

SSCS	GROUP	TOTAL AREA FT2	DKHS AREA FT2
3.	SHIP SUPPORT	58718.1	8311.3
3.1	SHIP CNTL SYS(STEERING&DIVING)	1568.7	
3.2	DAMAGE CONTROL	2132.8	
3.22	REPAIR STATIONS	1274.7	
3.25	FIRE FIGHTING	858.1	
3.3	SHIP ADMINISTRATION	6810.0	
3.5	DECK AUXILIARIES	2159.2	
3.51	ANCHOR HANDLING	936.9	
3.52	LINE HANDLING	1222.3	
3.6	SHIP MAINTENANCE	3495.0	
3.61	ENGINEERING DEPT	2794.6	
3.611	AUX (FILTER CLEANING)	90.0	
3.612	ELECTRICAL	698.5	
3.613	MECH (GENERAL WK SHOP)	1946.1	
3.614	PROPULSION MAINTENANCE	60.0	
3.62	OPERATIONS DEPT (ELECT SHOP)	211.3	
3.63	WEAPONS DEPT (ORDINANCE SHOP)	419.1	
3.64	DECK DEPT (CARPENTER SHOP)	70.0	
3.7	STOWAGE	10618.0	974.9
3.71	SUPPLY DEPT	4542.6	
3.711	HAZARDOUS MATL (FLAM LIQ)	698.5	
3.712	SPECIAL CLOTHING	159.4	
3.713	GEN USE CONSUM+REPAIR PART	2563.7	
3.714	MISCELLANEOUS		
3.715	STORES HANDLING	1121.0	
3.72	ENGINEERING DEPT	1746.1	
3.73	OPERATIONS DEPT	455.0	244.5
3.74	DECK DEPT (BOATSWAIN STORES)	3873.5	730.4
3.8	ACCESS (INTERIOR-NORMAL)	31934.5	7336.5

PRINTED REPORT NO. 5 - SHIP MACHINERY SYSTEM AREA

SSCS	GROUP	TOTAL AREA FT2	DKHS AREA FT2
4.	SHIP MACHINERY SYSTEM	11777.0	8696.2
4.1	PROPULSION SYSTEM	8301.4	3939.2
4.13	INTERNAL COMBUSTION	699.6	53.2
4.132	COMBUSTION AIR		
4.133	EXHAUST	159.6	53.2
4.134	CONTROL	540.0	
4.14	GAS TURBINE	7601.8	3886.0
4.142	COMBUSTION AIR	2869.2	1673.7
4.143	EXHAUST	3792.5	2212.3
4.144	CONTROL	940.0	
4.17	AUX PROPULSION SYSTEMS		
4.2	PROPULSOR & TRANSMISSION SYST		
4.3	AUX MACHINERY	3475.6	4756.9
4.31	GENERAL (AUX MACH DELTA)	-9605.2	
4.32	A/C & REFRIGERATION	9392.3	4756.9
4.321	A/C (INCL VENT)	9290.9	4756.9
4.322	REFRIGERATION	101.4	
4.33	ELECTRICAL	1598.7	
4.331	POWER GENERATION	1463.9	
4.3311	SHIP SERVICE PWR GEN	1463.9	
4.3314	400 HERTZ		
4.332	PWR DIST & CNTRL	9.8	
4.334	DEGAUSSING	125.0	
4.34	POLUTION CONTROL SYSTEMS	243.6	
4.35	MECHANICAL SYSTEMS	1846.1	

PRINTED REPORT NO. 6 - REQUIRED TANKAGE

POLLUTION CNTRL IND-PRESENT

ENDURANCE FUEL, FT3	128597.
AVIATION FUEL, FT3	22050.
FRESH WATER, FT3	2437.
SEWAGE, FT3	846.
WASTE OIL WATER, FT3	2572.
CLEAN BALLAST, FT3	35493.
TANKAGE MARGIN, FT3	0.
TANKAGE VOL REQ, FT3	191995.

PRINTED REPORT NO. 1 - DESIGN SUMMARY

SHIP COMMENT TABLE

PRINCIPAL CHARACTERISTICS - FT	
LBP	630.0
LOA	653.8
BEAM, DWL	90.0
BEAM, WEATHER DECK	99.5
DEPTH @ STA 10	62.0
DRAFT TO KEEL DWL	23.2
DRAFT TO KEEL LWL	23.2
FREEBOARD @ STA 3	42.8
GMT	9.0
CP	0.570
CX	0.910

SPEED(KT): MAX= 30.6 SUST= 29.3
ENDURANCE: 6000.0 NM AT 16.0 KTS

TRANSMISSION TYPE: ELECT
MAIN ENG: 4 GT @ 26250.0 HP

SHAFT POWER/SHAFT: 48930.0 HP
PROPELLERS: 2 - FP - 17.5 FT DIA

SEP GEN: 2 F DIESEL @ 2000.0 KW

24 HR LOAD 4353.7
MAX MARG ELECT LOAD 12897.5

	OFF	CPO	ENL	TOTAL
MANNING	42	27	340	409
ACCOM	43	28	351	422

WEIGHT SUMMARY - LTON	
GROUP 1 - HULL STRUCTURE	6764.7
GROUP 2 - PROP PLANT	1058.4
GROUP 3 - ELECT PLANT	973.7
GROUP 4 - COMM + SURVEIL	169.8
GROUP 5 - AUX SYSTEMS	1008.8
GROUP 6 - OUTFIT + FURN	1142.0
GROUP 7 - ARMAMENT	1134.0
SUM GROUPS 1-7	12251.4
DESIGN MARGIN	1532.9
LIGHTSHIP WEIGHT	13784.3
LOADS	5887.7
FULL LOAD DISPLACEMENT	19672.0
FULL LOAD KG: FT	40.0
MILITARY PAYLOAD WT - LTON	1929.0
USABLE FUEL WT - LTON	1775.8

AREA SUMMARY - FT2	
HULL AREA -	142336.0
SUPERSTRUCTURE AREA -	80230.2
TOTAL AREA	222566.2

VOLUME SUMMARY - FT3	
HULL VOLUME -	2689995.3
SUPERSTRUCTURE VOLUME -	802301.8
TOTAL VOLUME	3492297.0

PRINTED REPORT NO. 2 - MANNING AND ACCOMMODATION SUMMARY

CREW ACCOM MARGIN FAC 0.05

	SHIPS CREW	FLAG STAFF /AIR DET	TROOPS	TOTAL MANNING	TOTAL ACCOMMODATION
OFFICERS	20.	18.	4.	42.	43.
CPO	16.	3.	8.	27.	28.
OEM	220.	36.	84.	340.	351.
TOTAL	256.	57.	96.	409.	422.

PRINTED REPORT NO. 3 - INDICATORS

MISSION
- DESIGN MODE IND-ENDURANCE
- ENDUR DISP IND -FULL LOAD
- ENDUR DEF IND -USN
- SUSTN SPEED IND-CALC
- ENDUR SPEED IND-GIVEN

HULL FORM FACTORS
- HULL OFFSETS IND-GENERATE
- HULL DIM IND -T

HULL BOUNDARY CONDITIONS
- HULL BC IND -GIVEN
- HULL STA IND -OPTIMUM

SHELL APPENDAGES
- BILGE KEEL IND -PRESENT
- SKEG IND -NONE

MARGIN LINE
- MARGIN LINE IND-CALC

HULL SUBDIVISION FACTORS
- HULL SUBDIV IND-GIVEN

INNER BOTTOM
- INNER BOTTOM IND-PRESENT

HULL LOADS
- HULL LOADS IND -CALC

STRUCTURAL ARANGEMENT
- BOT PLATE LIMIT IND-CALC

STIFFENERS
- STIFFENER SHAPE IND-CALC

DKHS GEOM FACTORS
- DKHS GEOM IND -GIVEN
- DKHS SIZE IND -

DKHS MATERIALS
- DKHS MTRL TYPE IND-MS
- FIRE PROTECT IND -NONE

DKHS LOADS
- BLAST RESIST IND-3 PSI

ARRANGEMENT TYPES
- MECH CL ARR IND -
- MECH PORT ARR IND -
- MECH STBD ARR IND -
- ELECT PG ARR 1 IND-M-PG
- ELECT PG ARR 2 IND-
- ELECT DL ARR IND -MTR

ARRANGEMENT CG
- MACHY KG IND -GIVEN

ENGINE CONFIG FACTORS
- ENG ENDUR RPM IND -CALC
- SEC ENG USAGE IND -
- ENDUR CONFIG IND -NO TS
- GT ENG ENCL IND -84 DBA
- DIESEL ENG MOUNT IND-COMPOUND

MAIN ENGINES
- MAIN ENG SELECT IND-GIVEN
- MAIN ENG MOD IND -GE-LM2500-30
- MAIN ENG TYPE IND -GT
- MAIN ENG SFC EQ IND-EXPNT
- MAIN ENG SIZE IND -GIVEN

SEC ENGINES

ELECTRICAL TRANSMISSION
- ELECT PRPLN TYPE IND -ACC-AC
- ELECT PRPLN RATIND IND-CALC
- AC SYNC ROTOR COOL IND-AIR
- TRANS LINE NODE PT IND-CALC
- SWITCHGEAR TYPE IND -ADV

GEARS
- SEC ENG 2 SPD GEAR IND-NONE
- GEAR IMPED MASS IND -PRESENT

PROPULSION SHAFTING
- SHAFT SUPPORT TYPE IND-OPEN STRUT
- SHAFT SYS SIZE IND -CALC

PROPULSION SHAFT BEARING
- THRUST BRG LOC IND CALC

PROPELLER FACTORS
- PROP TYPE IND -FP
- PROP SERIES IND-ANALYTIC
- PROP DIA IND -CALC
- PROP AREA IND -CALC
- PROP LOC IND -CALC
- PITCH RATIO IND-CALC

OPEN WATER PROP DATA
- PROP ID IND -

PROPULSION SUPPORT SYS
- INLET TYPE IND -PLENUM
- DUCT SILENCING IND -BOTH
- EXHAUST IR SUPP IND-PRESENT

SS GENERATOR FACTORS
- SS SYS TYPE IND-SEP

SS GENERATOR SIZE
- SS GEN SIZE IND-GIVEN

SS ENGINES
- SS ENG SELECT IND -GIVEN
- SS ENG MODEL IND -MTU-16V538
- SS ENG TYPE IND -F DIESEL
- SS ENG SFC EQN IND-DIESEL
- SS ENG SIZE IND -GIVEN

SONAR SYSTEM
- SONAR DOME IND -NONE
- SONAR DRAG IND -

CLIMATE CONTROL
- COLL PROTECT SYS IND-PRESENT
- REFER MACHY LOC IND -
- AUX BOILER TYPE IND -NONE

RUDDERS
- RUDDER SIZE IND-CALC
- RUDDER TYPE IND-SPADE

ROLL FINS
- FIN SIZE IND -CALC

SPECIAL PURPOSE SYSTEMS
- POLLUTION CNTL IND-PRESENT

OUTFIT AND FURNISHINGS
- UNIT CMDR IND -FLAG

FUELS AND LUBRICANTS
- SHIP FUEL TYPE IND-DFM

RESISTANCE FACTORS
- FRICTION LINE IND -ITTC

SEC ENG SELECT IND -	RESID RESIST IND -H+M
SEC ENG MODEL IND -	WORM CURVE IND -AUX REGR
SEC ENG TYPE IND -	PRPLN SYS RESIST IND-CALC
SEC ENG SFC EQN IND-	
SEC ENG SIZE IND	

TRANSMISSION FACTORS
- TRANS TYPE IND -ELECT
- TRANS EFF IND -CALC

PRINTED REPORT NO. 4 - MARGINS

HULL	
MIN FREEBOARD MARGIN, FT	.25
HULL MARGIN STRESS, KSI	2.24
PROPULSION PLANT	
TORQUE MARGIN FAC	1.200
ELECTRIC PLANT	
ELECT LOAD DES MARGIN FAC	.200
ELECT LOAD SL MARGIN FAC	.200
AUXILIARY SYSTEMS	
AC MARGIN FAC	.200
OUTFIT AND FURNISHINGS	
CREW ACCOM MARGIN FAC	.050
WEIGHT MARGINS	
PD WT MARGIN FAC	.024
PD KG MARGIN FAC	.024
CD WT MARGIN FAC	.024
CD KG MARGIN FAC	.024
D+B WT MARGIN FAC	.053
D+B KG MARGIN FAC	.053
CON MOD WT MARGIN FAC	.014
CON MOD KG MARGIN FAC	.014
GFM WT MARGIN FAC	.006
GFM KG MARGIN FAC	.006
GROWTH WT MARGIN, LTON	.0
RESISTANCE FACTORS	
DRAG MARGIN FAC	.080
SPACE FACTORS	
SPACE MARGIN FAC	.050
PASSWAY MARGIN FAC	.000
TANKAGE MARGIN FAC	.000

PRINTED REPORT NO. 5 - PAYLOAD AND ADJUSTMENTS

ROW	PAYLOAD AND ADJUSTMENT NAME
1	WOLF EEL (2)
2	WELL DECK PTX'S (2)
3	WELL DECK PTX'S (2)
4	WELL DECK PTX'S (2)
5	FLIGHT DECK PTX'S (2 CH-53E)
6	FLIGHT DECK PTX'S (2 CH-53E)
7	FLIGHT DECK PTX'S (2 CH-53E)
8	JP-5 FUEL
9	JP-5 FUEL
10	JP-5 FUEL
11	JP-5 FUEL
12	DFM FOR PTX'S
13	DFM FOR PTX'S
14	DFM FOR PTX'S
15	DFM FOR PTX'S
16	CRANES
17	CRANES
18	AMMO
19	AUX STEAM
20	AUX STEAM

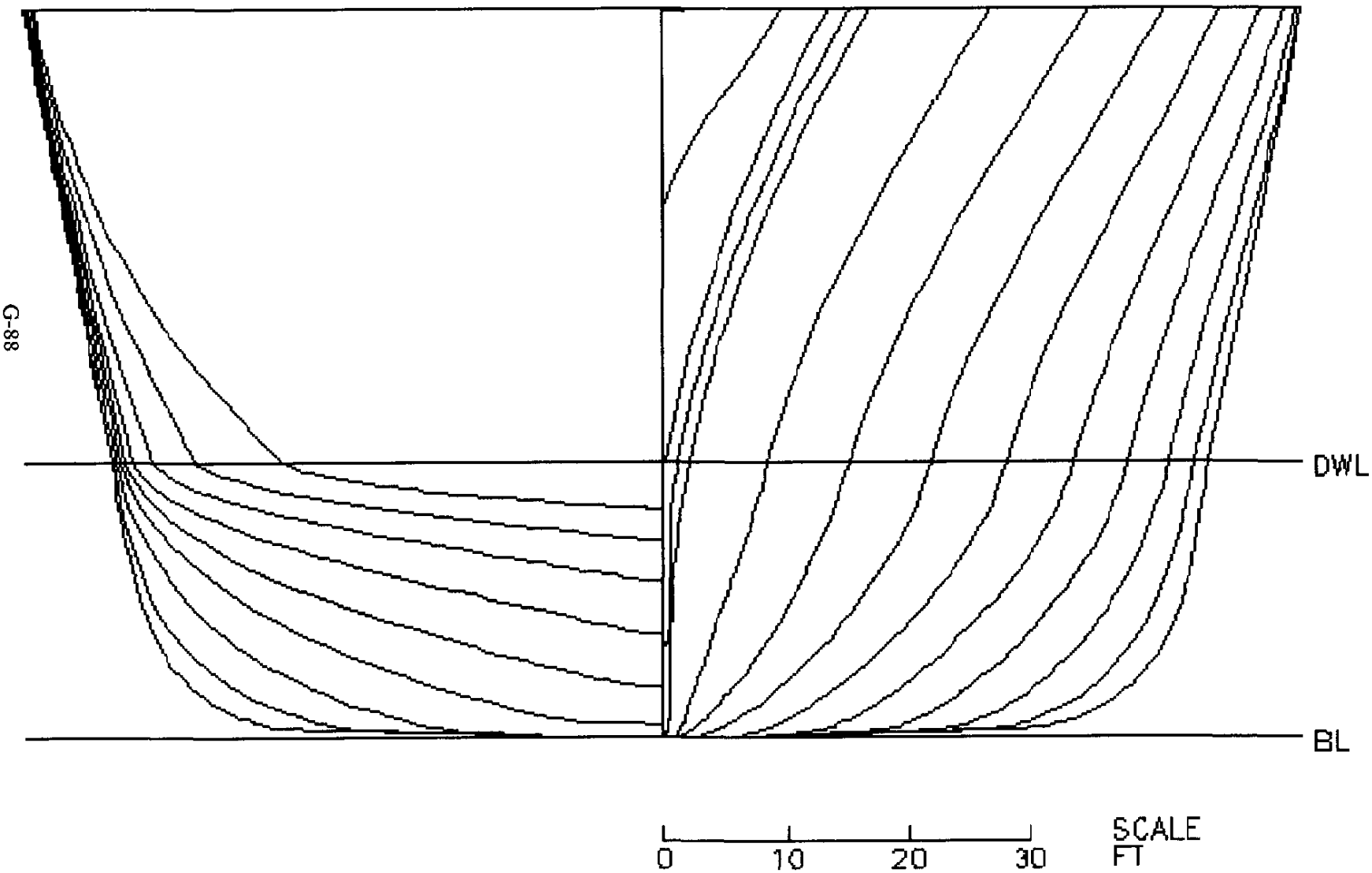
ROW	WT KEY	WT ADD LTON	WT FAC	VCG KEY	VCG ADD FT	VCG FAC
1	W791	80.00	.000	BL	50.00	.000
2	W791	260.00	.000	BL	32.00	.000
3	W791	260.00	.000	BL	32.00	.000
4	W791	260.00	.000	BL	32.00	.000
5	W791	66.00	.000	BL	69.00	.000
6	W791	66.00	.000	BL	69.00	.000
7	W791	66.00	.000	BL	69.00	.000
8	WF42	125.00	.000	BL	4.50	.000
9	WF42	125.00	.000	BL	4.50	.000
10	WF42	125.00	.000	BL	4.50	.000
11	WF42	125.00	.000	BL	4.50	.000
12	WF41	115.00	.000	BL	4.50	.000
13	WF41	115.00	.000	BL	4.50	.000
14	WF41	115.00	.000	BL	4.50	.000
15	WF41	115.00	.000	BL	4.50	.000
16	W573	10.00	.000	BL	72.00	.000
17	W580	10.00	.000	BL	72.00	.000
18	WF21	371.00	.000	BL	8.00	.000
19	W534	.00	.000	BL	.00	1.000
20	W535	.00	.000	BL	.00	1.000

ROW	AREA KEY	---AREA ADD, FT2-- HULL/SS	SS/ONLY	-----AREA FAC----- HULL/SS	SS/ONLY
1	NONE	.00	.00	.000	.000
2	NONE	.00	.00	.000	.000
3	NONE	.00	.00	.000	.000
4	NONE	.00	.00	.000	.000
5	NONE	.00	.00	.000	.000
6	NONE	.00	.00	.000	.000
7	NONE	.00	.00	.000	.000
8	NONE	.00	.00	.000	.000
9	NONE	.00	.00	.000	.000
10	NONE	.00	.00	.000	.000
11	NONE	.00	.00	.000	.000
12	NONE	.00	.00	.000	.000
13	NONE	.00	.00	.000	.000
14	NONE	.00	.00	.000	.000
15	NONE	.00	.00	.000	.000
16	NONE	.00	.00	.000	.000
17	NONE	.00	.00	.000	.000
18	NONE	.00	.00	.000	.000
19	NONE	.00	.00	.000	.000
20	NONE	.00	.00	.000	.000

ROW	KW KEY	--------KW ADD, KW--------- W CRUISE	W BATTLE	S CRUISE	----------KW FAC---------- W CRUISE	W BATTLE	S CRUISE
1	NONE	.00	.00	.00	.000	.000	.000
2	NONE	.00	.00	.00	.000	.000	.000
3	NONE	.00	.00	.00	.000	.000	.000
4	NONE	.00	.00	.00	.000	.000	.000
5	NONE	.00	.00	.00	.000	.000	.000
6	NONE	.00	.00	.00	.000	.000	.000
7	NONE	.00	.00	.00	.000	.000	.000
8	NONE	.00	.00	.00	.000	.000	.000
9	NONE	.00	.00	.00	.000	.000	.000
10	NONE	.00	.00	.00	.000	.000	.000
11	NONE	.00	.00	.00	.000	.000	.000
12	NONE	.00	.00	.00	.000	.000	.000
13	NONE	.00	.00	.00	.000	.000	.000
14	NONE	.00	.00	.00	.000	.000	.000
15	NONE	.00	.00	.00	.000	.000	.000
16	NONE	.00	.00	.00	.000	.000	.000
17	NONE	.00	.00	.00	.000	.000	.000
18	NONE	.00	.00	.00	.000	.000	.000
19	NONE	.00	.00	.00	.000	.000	.000
20	NONE	.00	.00	.00	.000	.000	.000

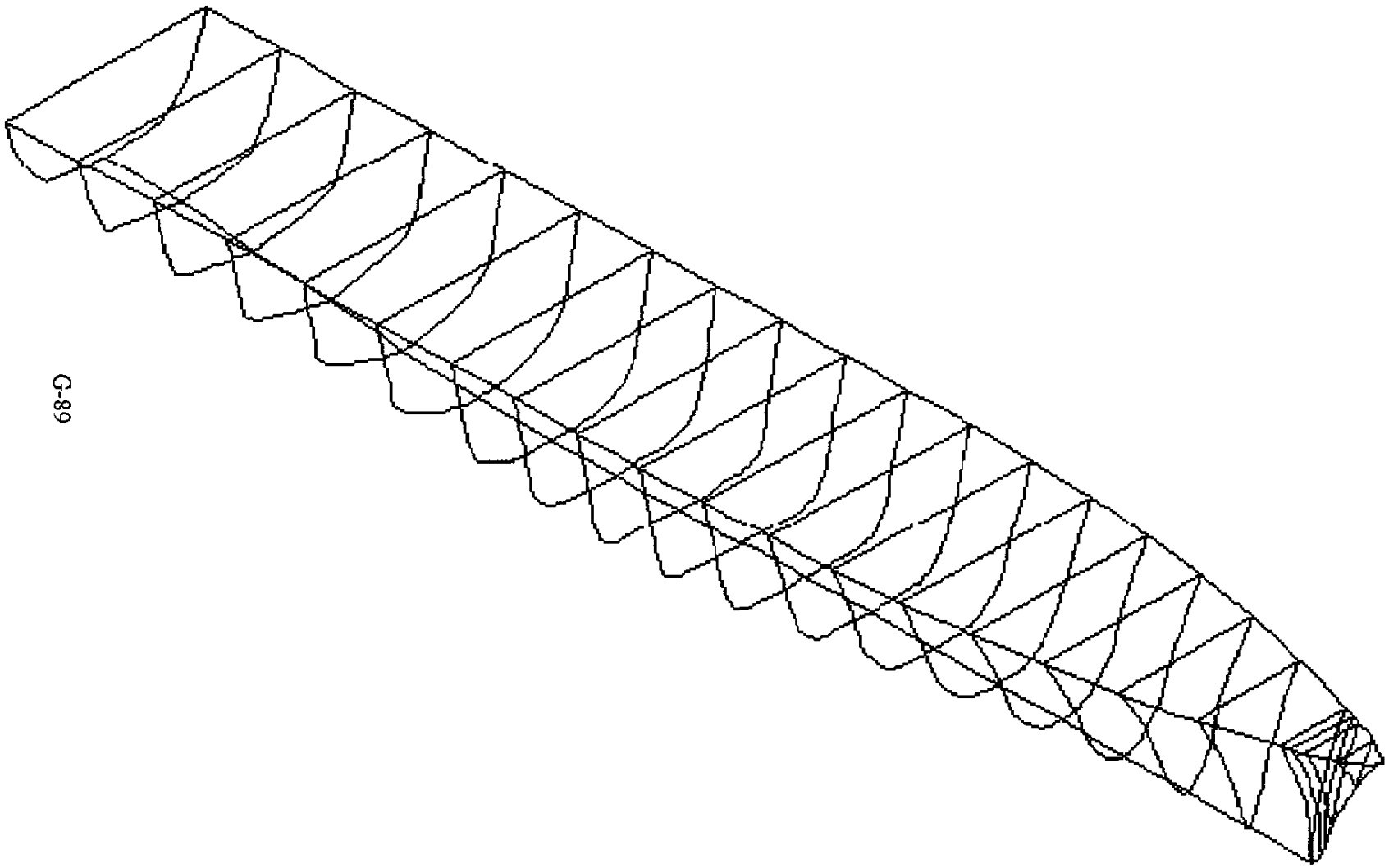
D)

ASSET/MONOLA VERSION 1.0 - HULL GEOM MODULE - 1/20/94 08.05.58.
GRAPHIC DISPLAY NO. 1 - BODY PLAN



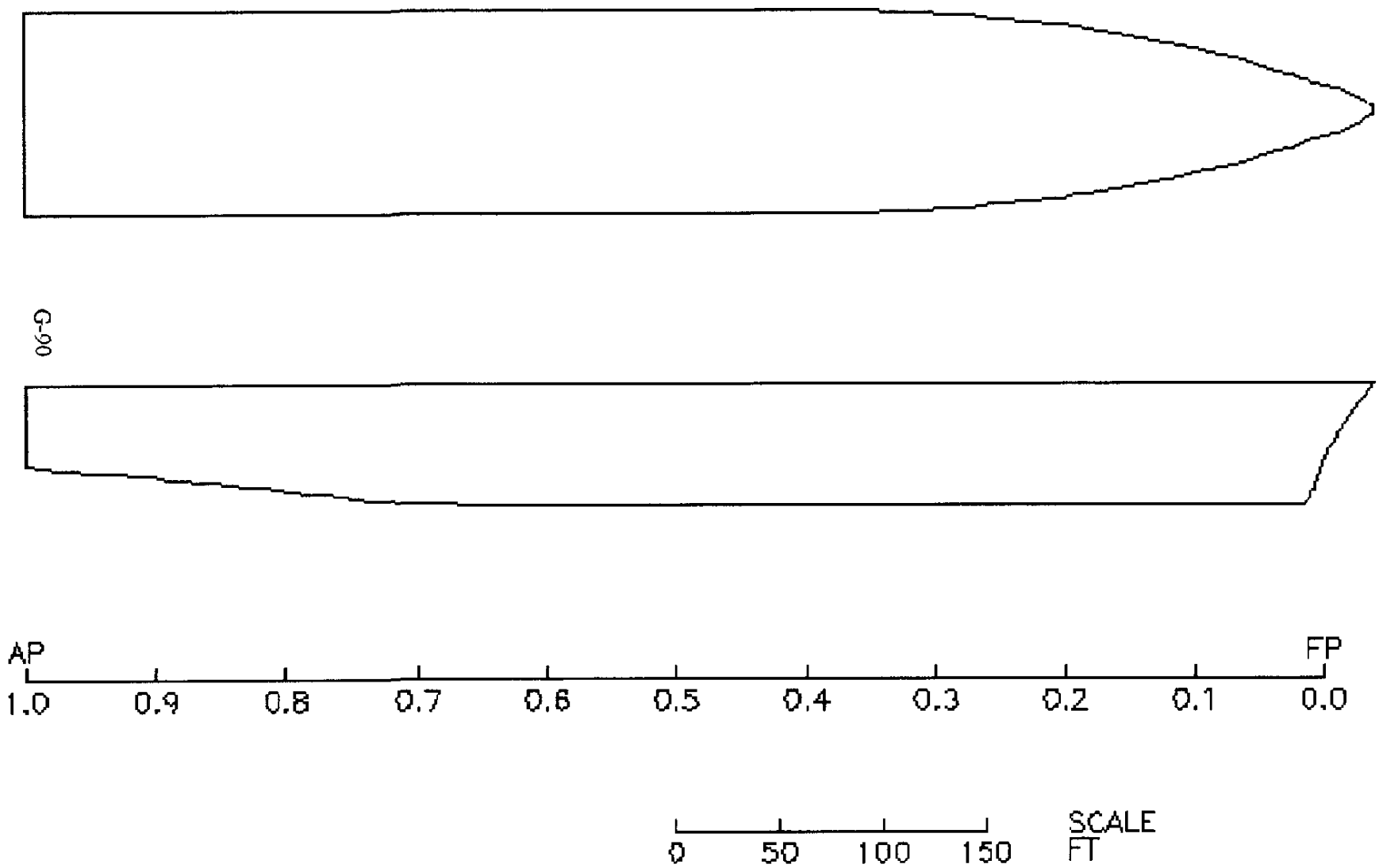
I)

ASSET/MONOLA VERSION 1.0 - HULL GEOM MODULE - 1/20/94 08.05.58.
GRAPHIC DISPLAY NO. 2 - HULL ISOMETRIC VIEW



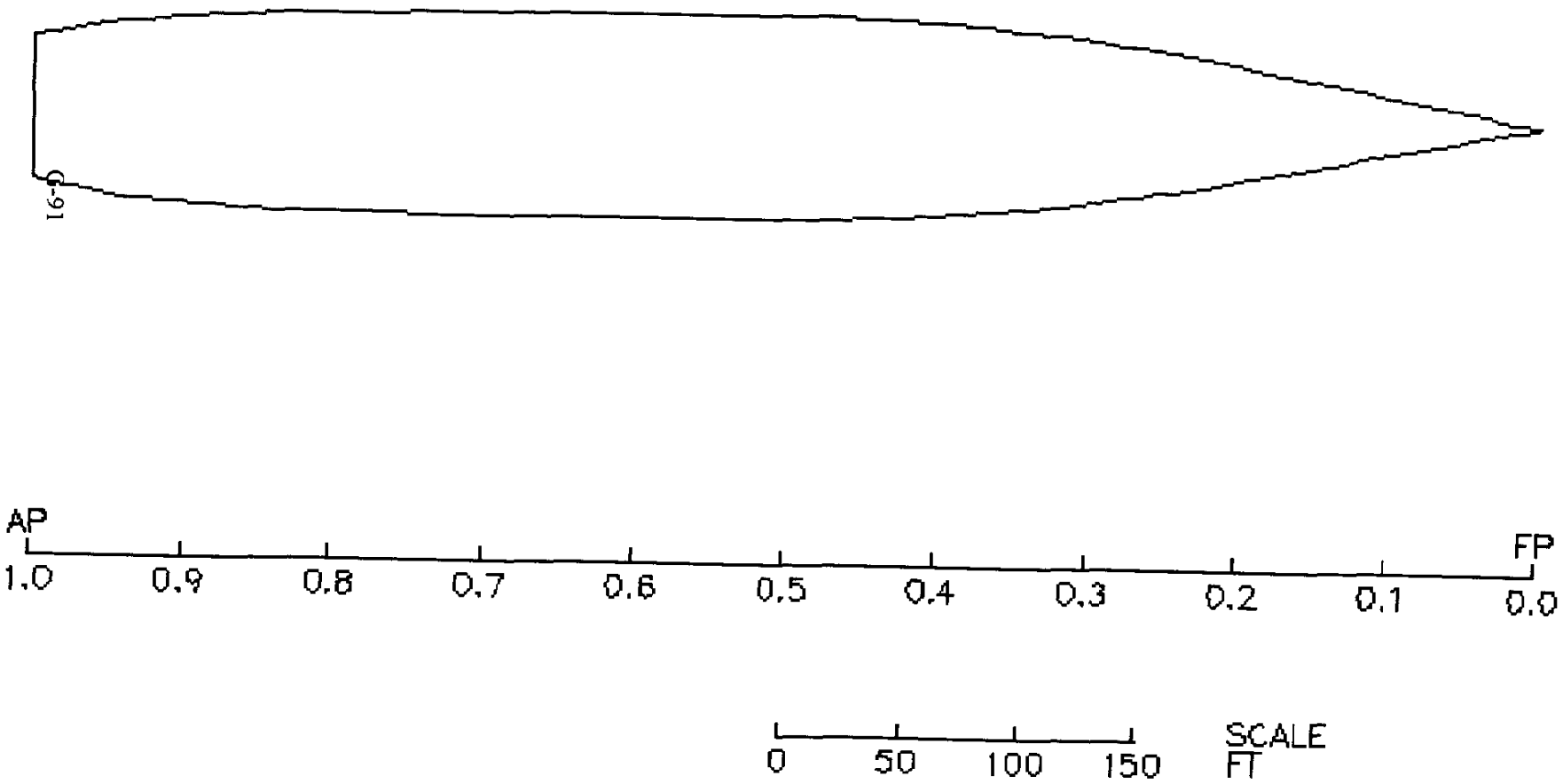
I)

ASSET/MONOLA VERSION 1.0 - HULL GEOM MODULE - 1/20/94 08.05.58.
GRAPHIC DISPLAY NO. 3 - HULL PROFILE AND WEATHER DECK PLAN VIEW



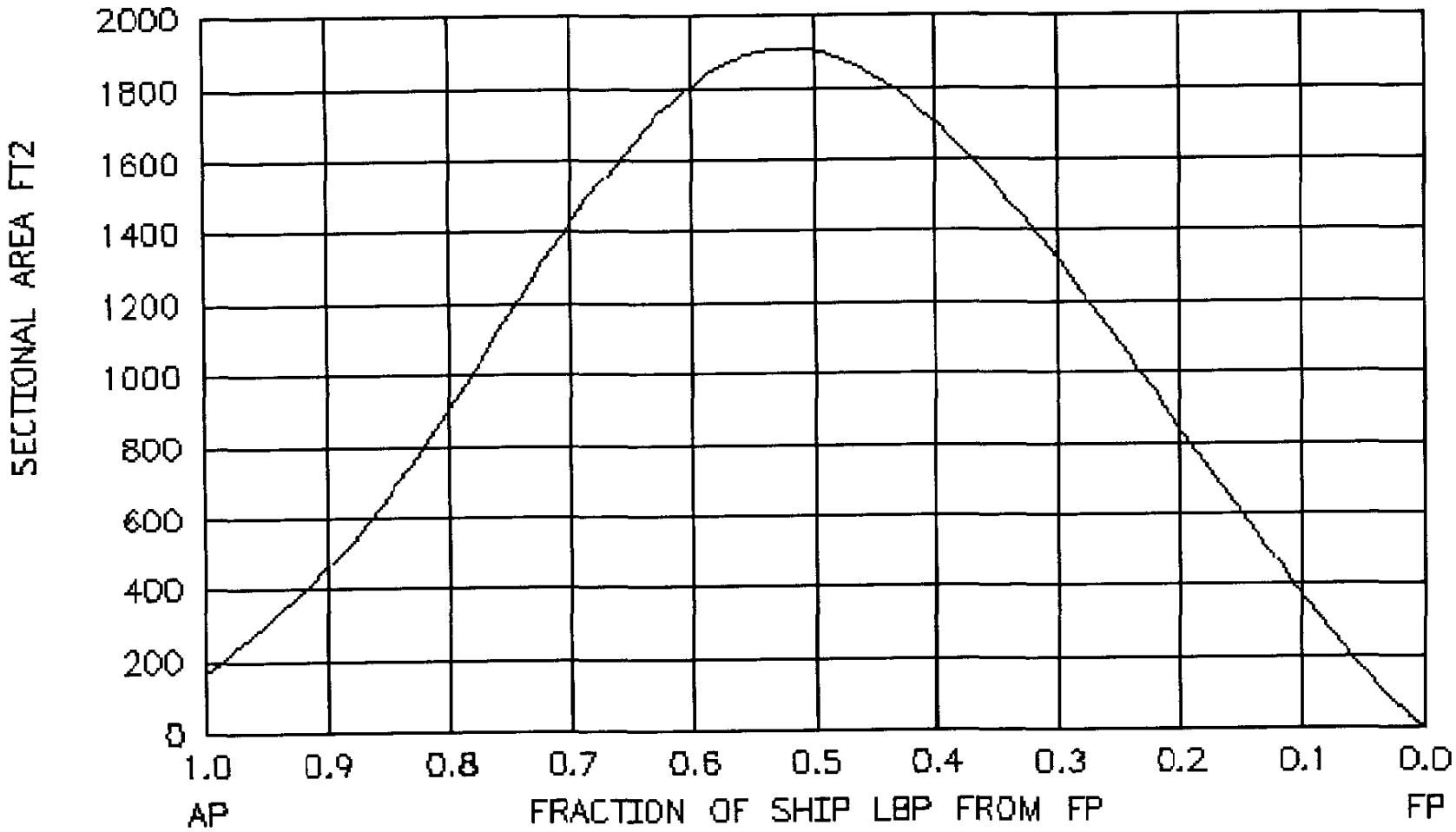
I)

ASSET/MONOLA VERSION 1.0 - HULL GEOM MODULE - 1/20/94 08.05.58.
GRAPHIC DISPLAY NO. 4 - DESIGN WATERLINE PLAN VIEW



D)

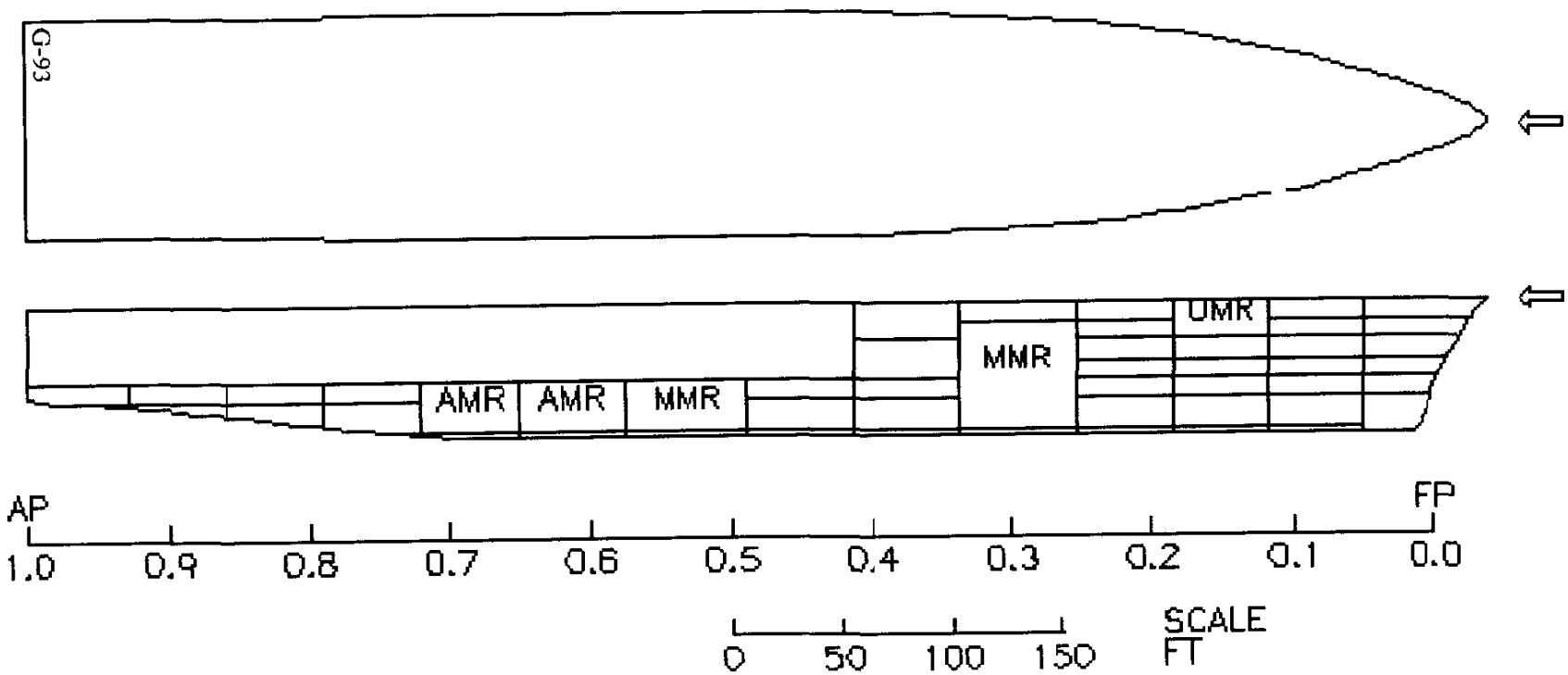
ASSET/MONOLA VERSION 1.0 - HULL GEOM MODULE - 1/20/94 08.05.58.
GRAPHIC DISPLAY NO. 5 - HULL SECTIONAL AREA CURVE



I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO. 1 - HULL DECKS AND PLATFORMS
MAIN DECK
(DECK NO. 1)

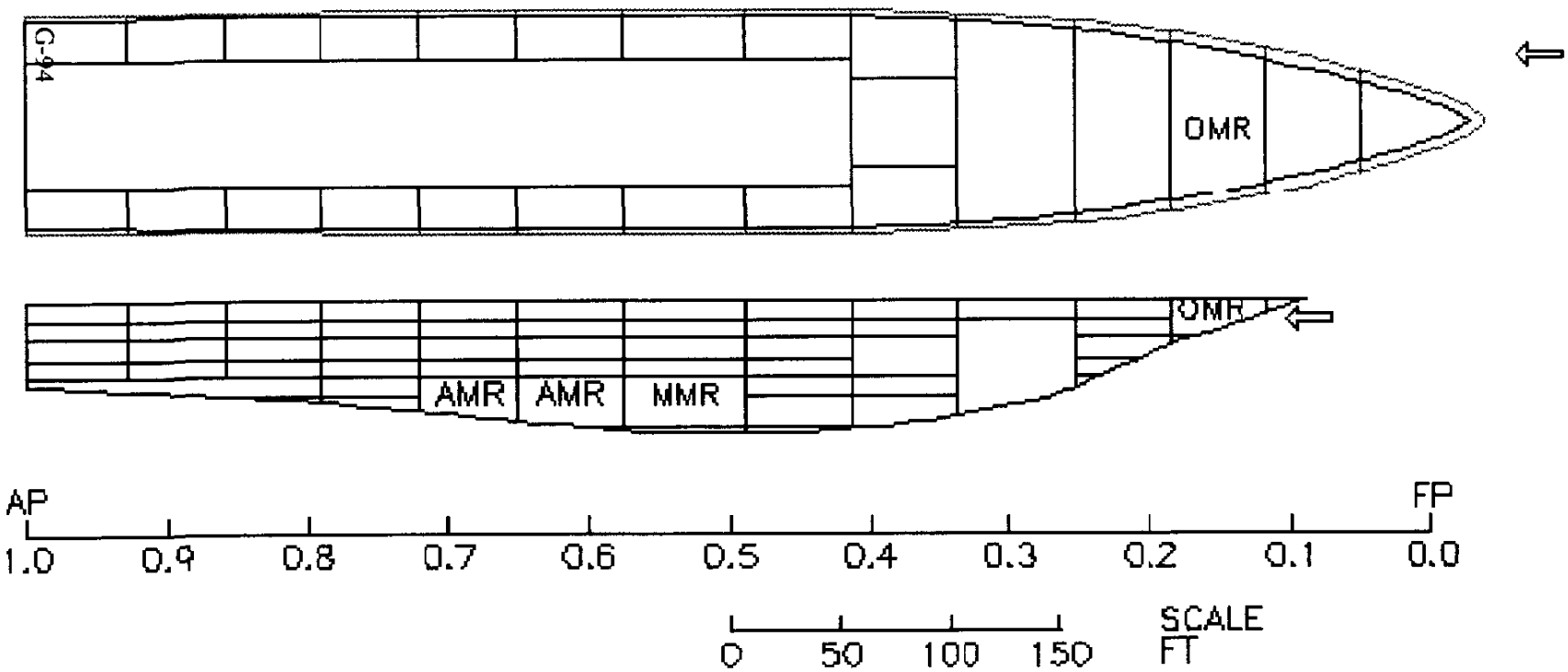
DECK AREA, FT2	59859.4
TOTAL SHIP DECK AREA, FT2	142340.5
TOTAL HULL VOLUME, FT3	2684147.



I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO. 2 - HULL DECKS AND PLATFORMS
1ST PLATFORM
(DECK NO. 2)

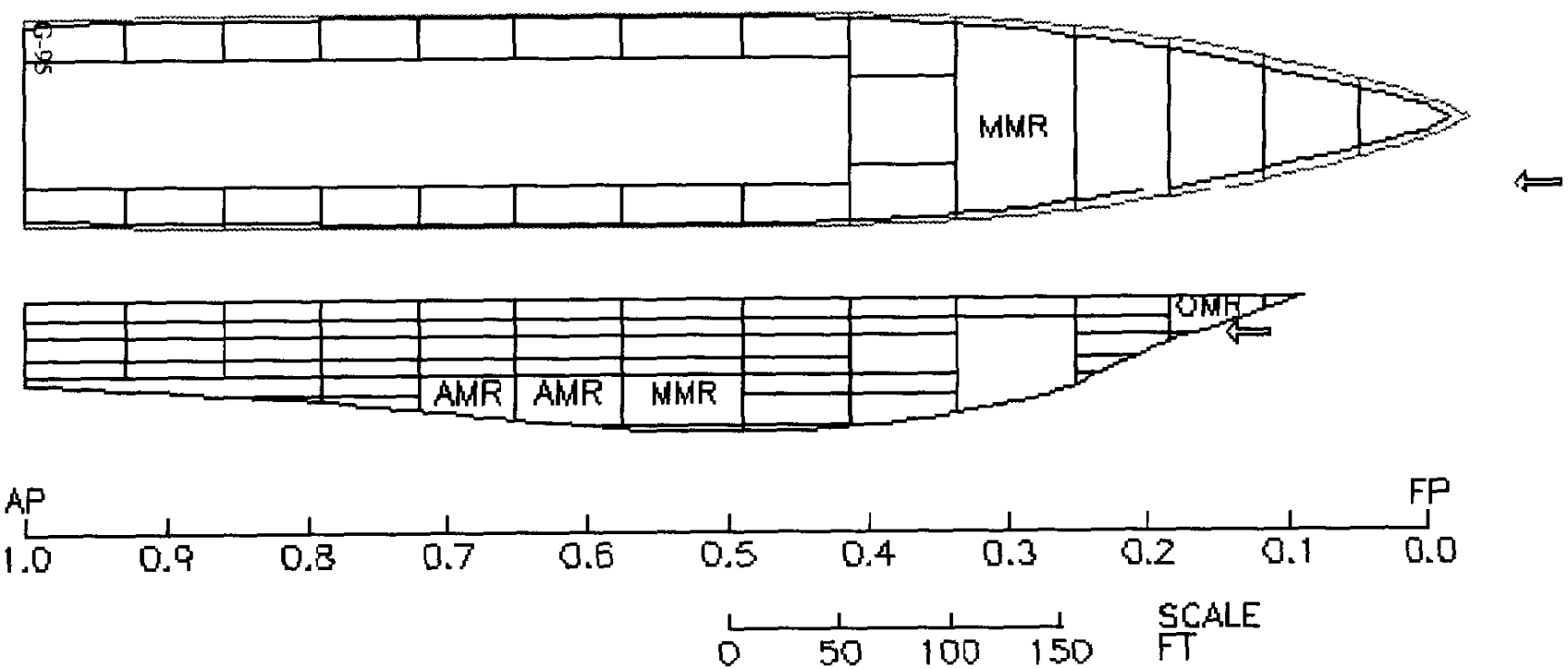
TOTAL DECK AREA, FT2	56054.6
LOST MR AREA, FT2	0.0
LOST LC OBJ AREA, FT2	26882.5
AVL ARR AREA, FT2	29172.1



D

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO. 3 - HULL DECKS AND PLATFORMS
2ND PLATFORM
(DECK NO. 3)

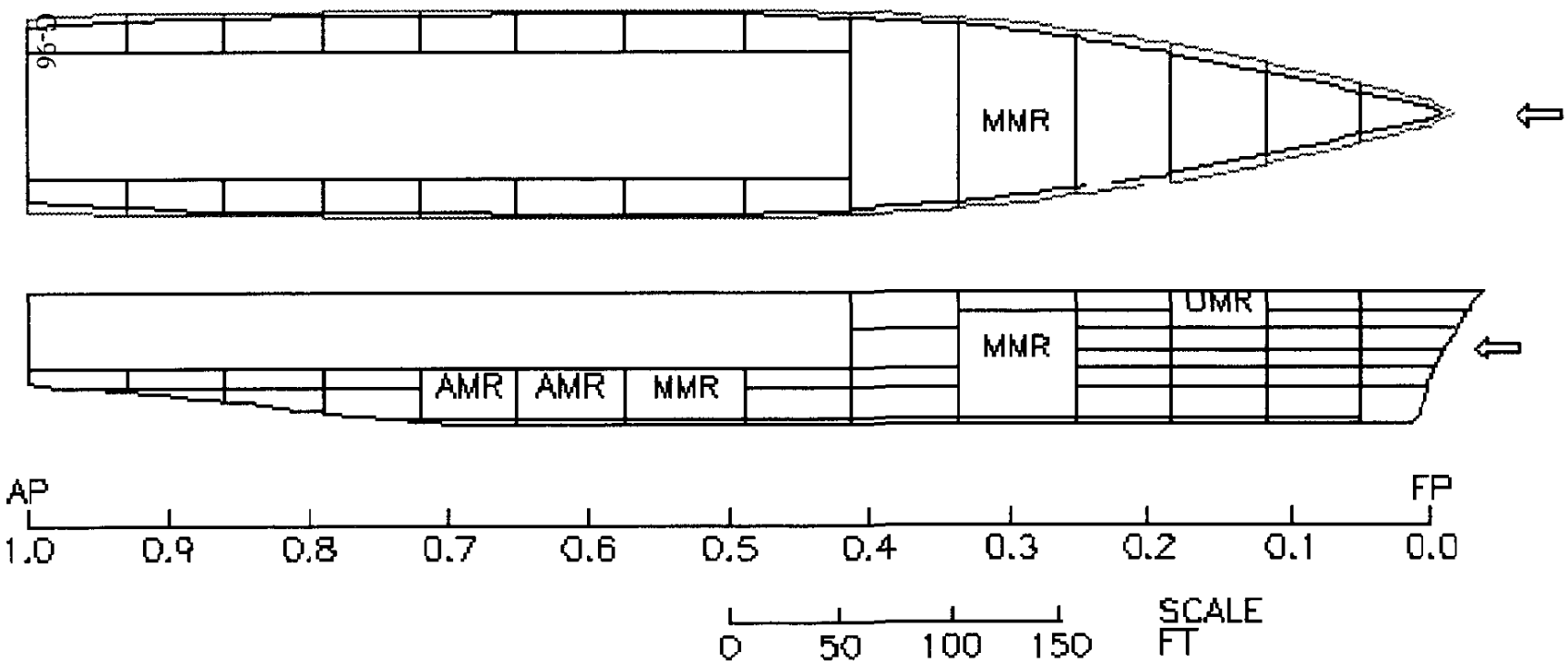
TOTAL DECK AREA, FT2	52320.9
LOST MR AREA, FT2	-4577.4
LOST LC OBJ AREA, FT2	22142.0
AVL ARR AREA, FT2	25601.5



I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO. 4 - HULL DECKS AND PLATFORMS
3RD PLATFORM
(DECK NO. 4)

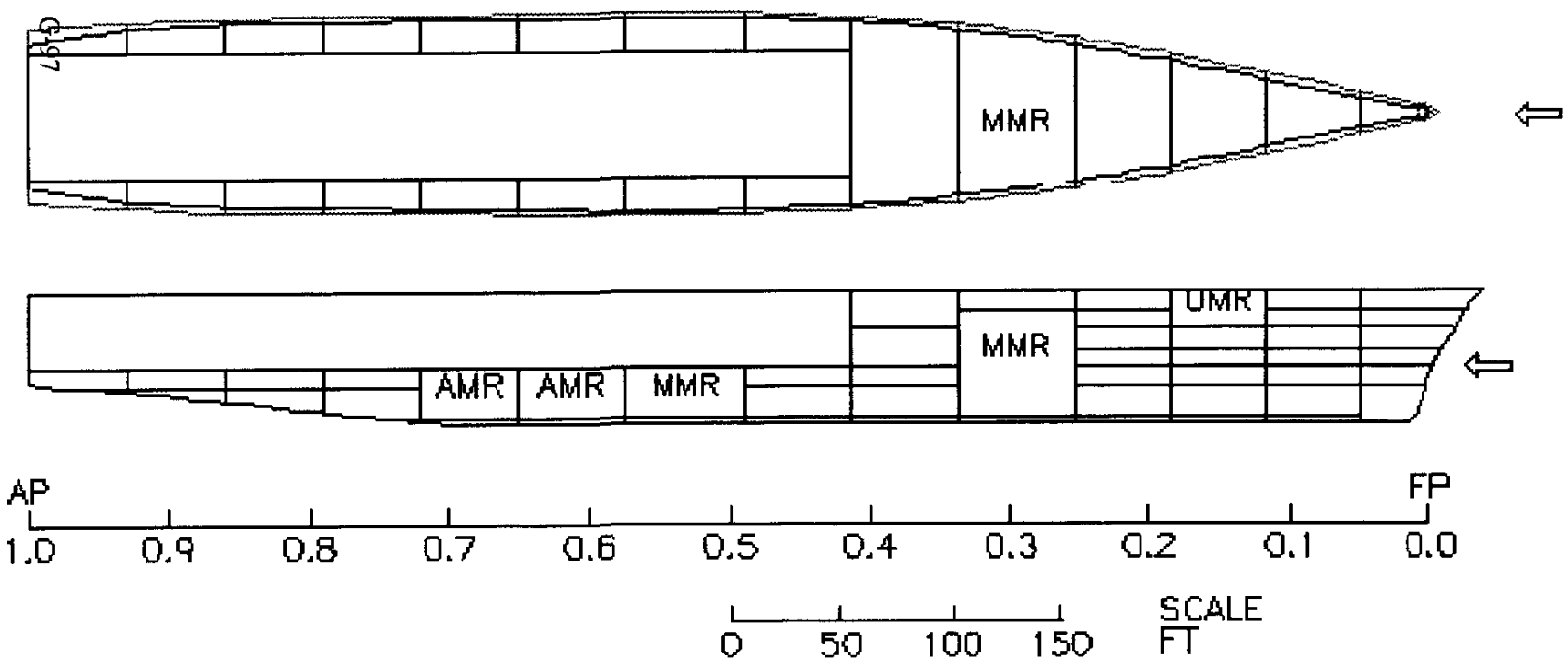
TOTAL DECK AREA, FT2	48699.1
LOST MR AREA, FT2	-4206.9
LOST LC OBJ AREA, FT2	26300.8
AVL ARR AREA, FT2	18191.4



I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO. 5 - HULL DECKS AND PLATFORMS
4TH PLATFORM
(DECK NO. 5)

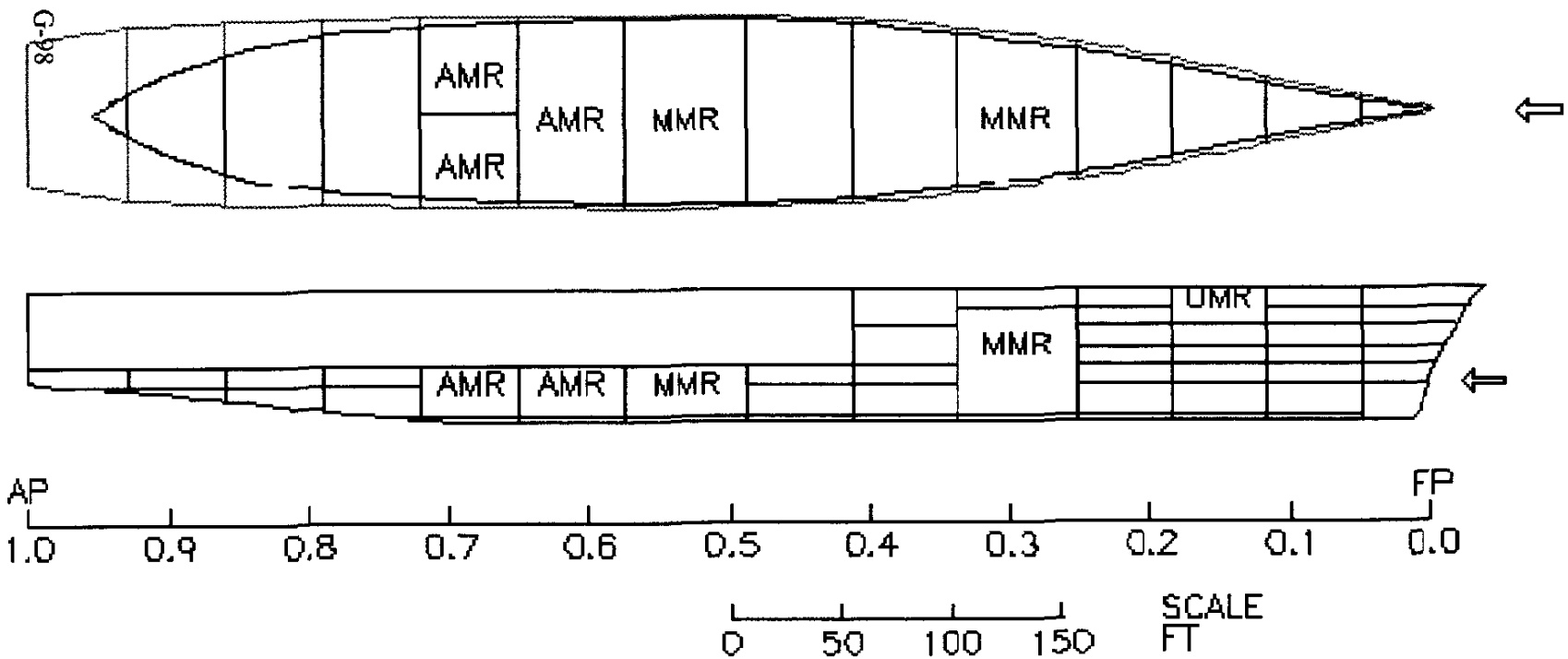
TOTAL DECK AREA, FT2	45023.7
LOST MR AREA, FT2	-3898.4
LOST LC OBJ AREA, FT2	0.0
AVL ARR AREA, FT2	41125.3



I)

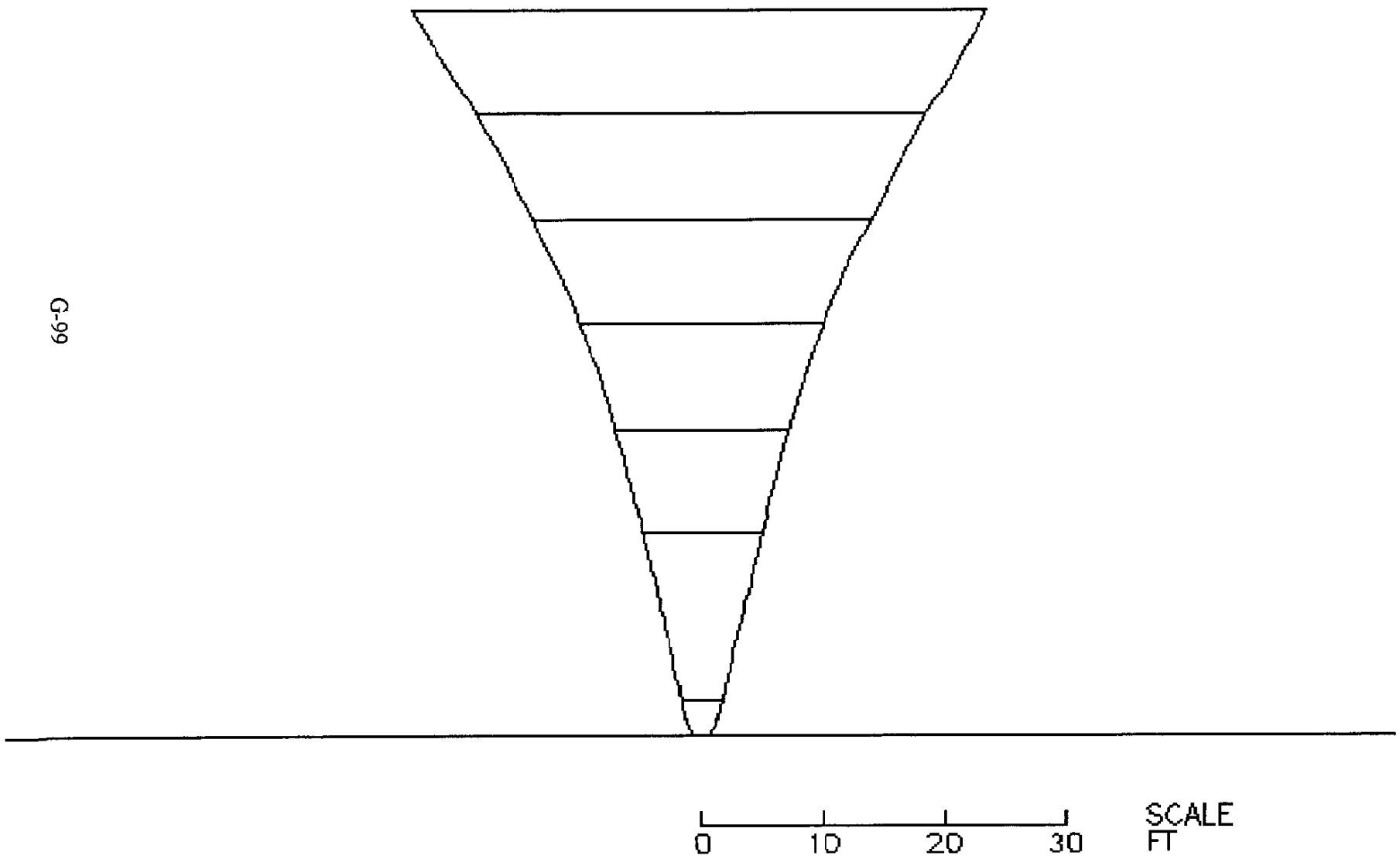
ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO. 6 - HULL DECKS AND PLATFORMS
5TH PLATFORM
(DECK NO. 6)

TOTAL DECK AREA, FT2	36297.0
LOST MR AREA, FT2	-15964.4
LOST LC OBJ AREA, FT2	0.0
AVL ARR AREA, FT2	20332.5



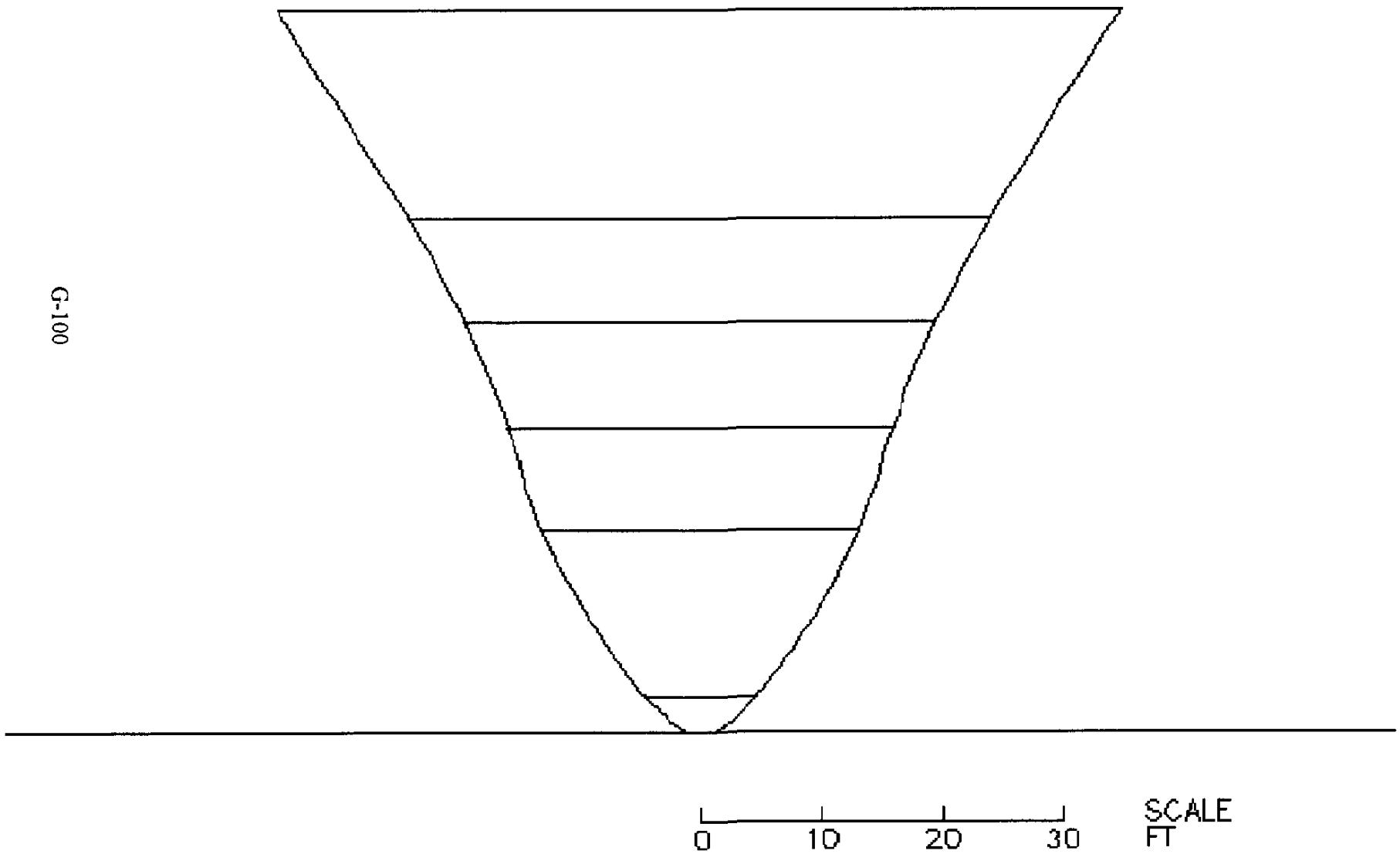
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.11 - SECTION AT 31.5 - TBKHD # 1



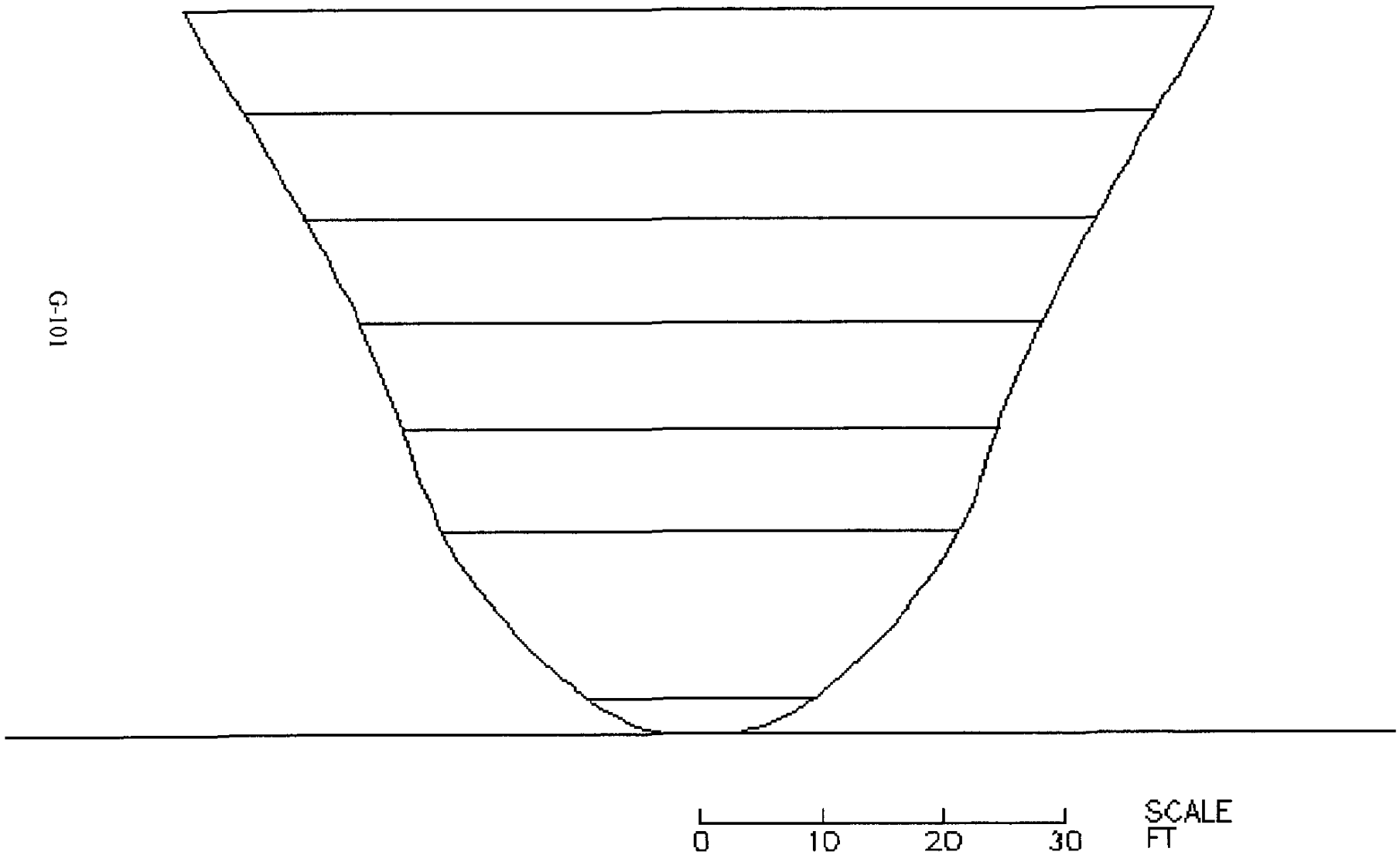
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.12 - SECTION AT 74.2 - TBKHD # 2



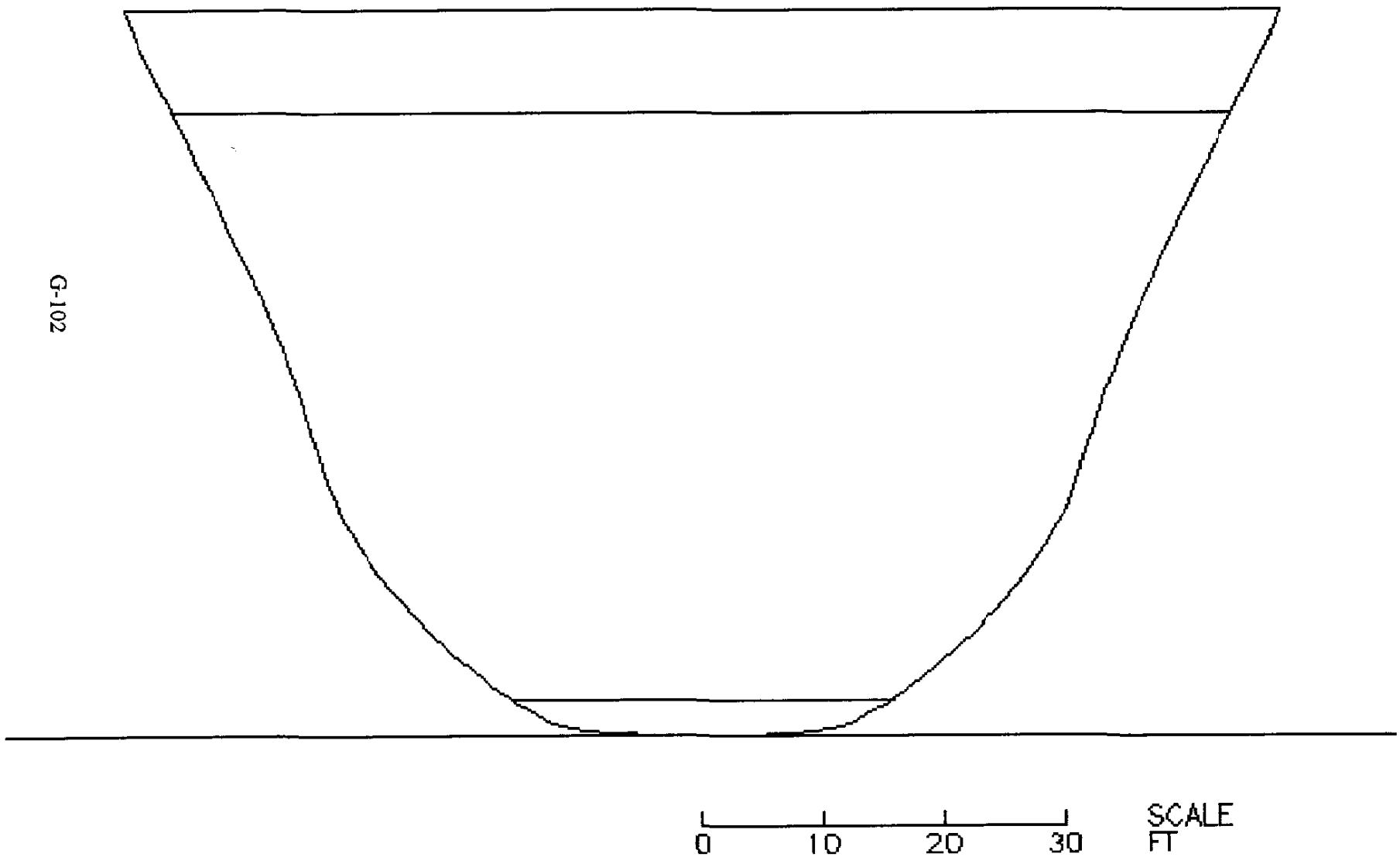
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.13 - SECTION AT 117.0 - TBKHD # 3



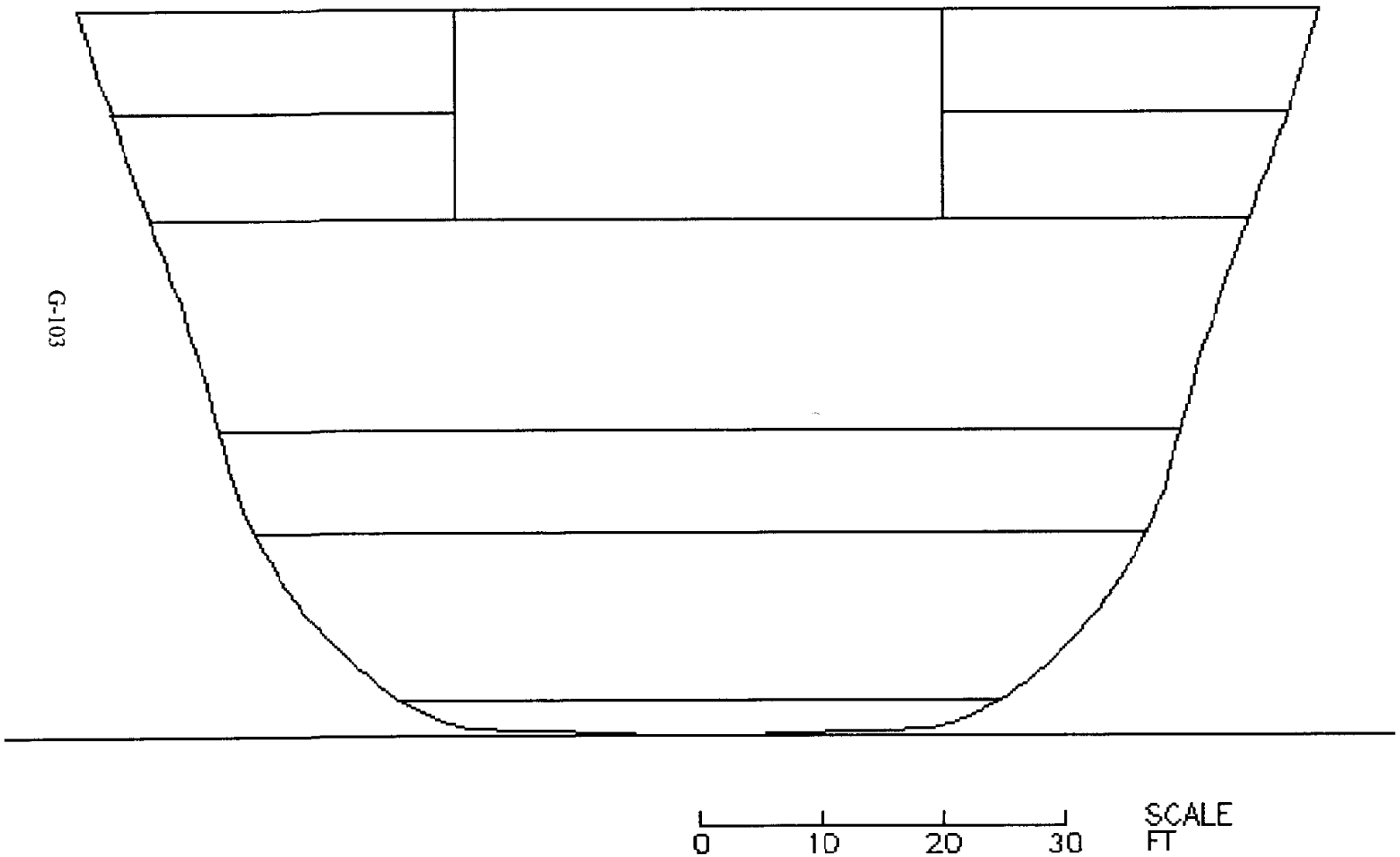
I)

ASSET/MONDLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.14 - SECTION AT 159.7 - TBKHD # 4



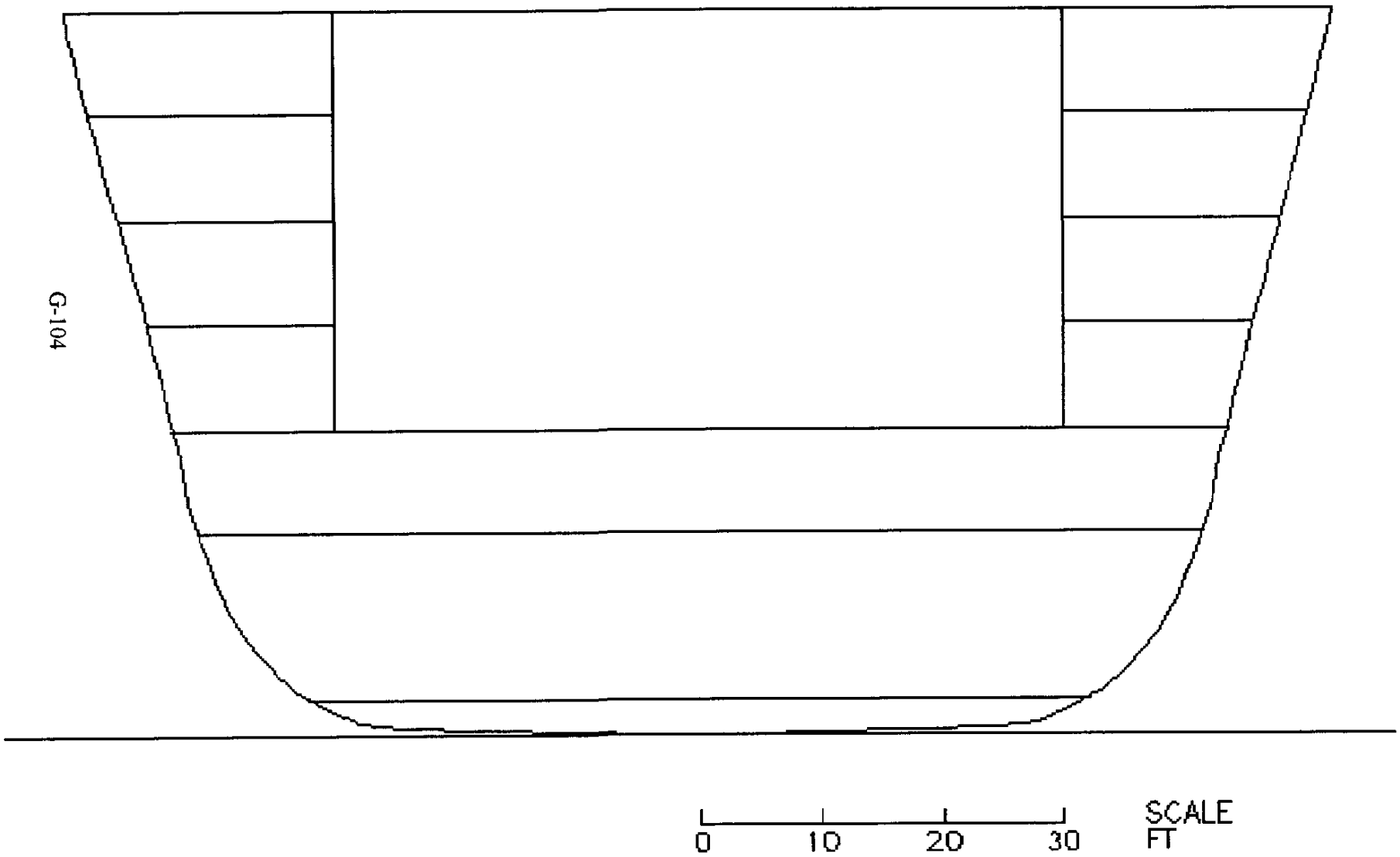
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.15 - SECTION AT 213.7 - TBKHD # 5



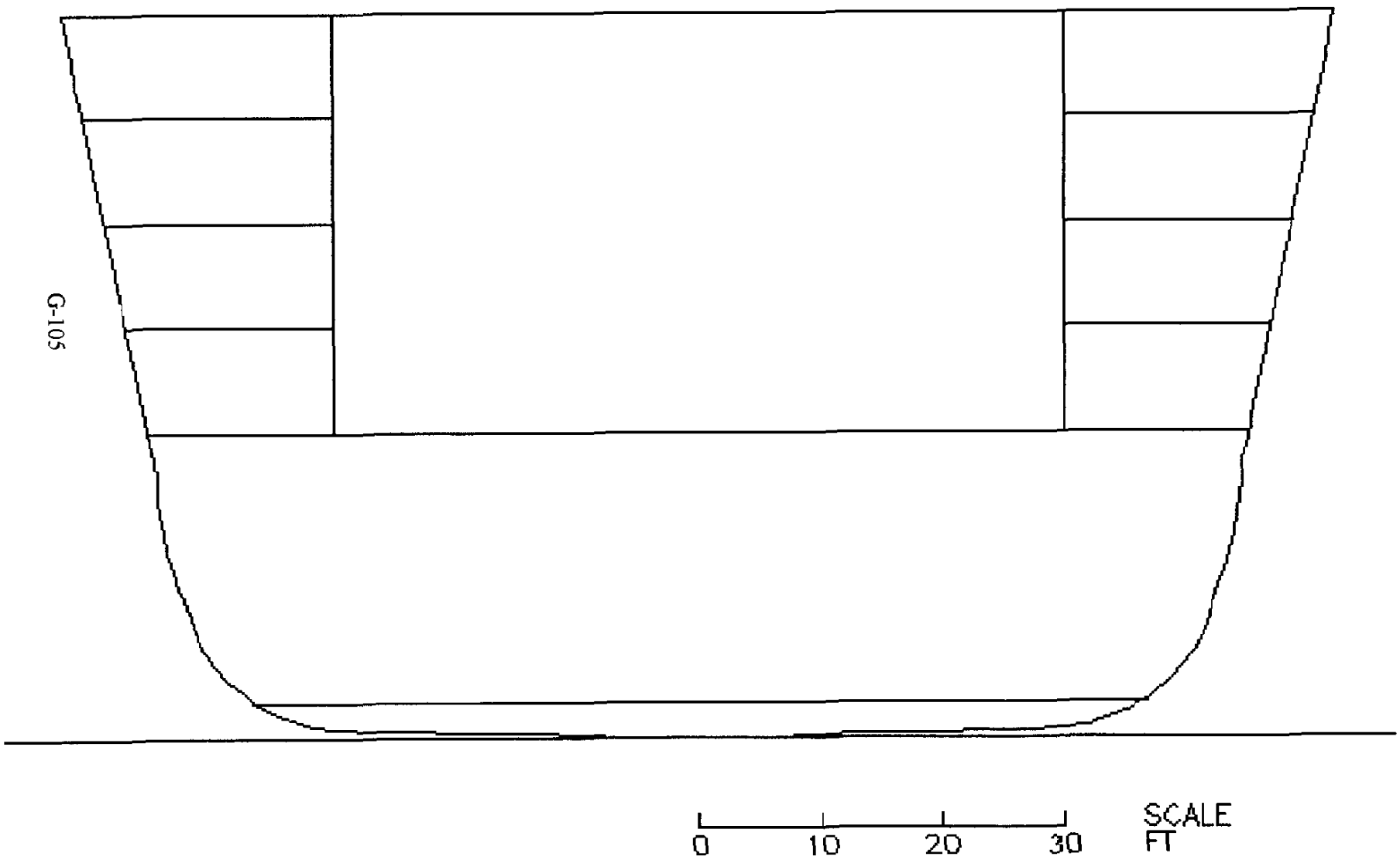
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.16 - SECTION AT 261.0 - TBKHD # 6



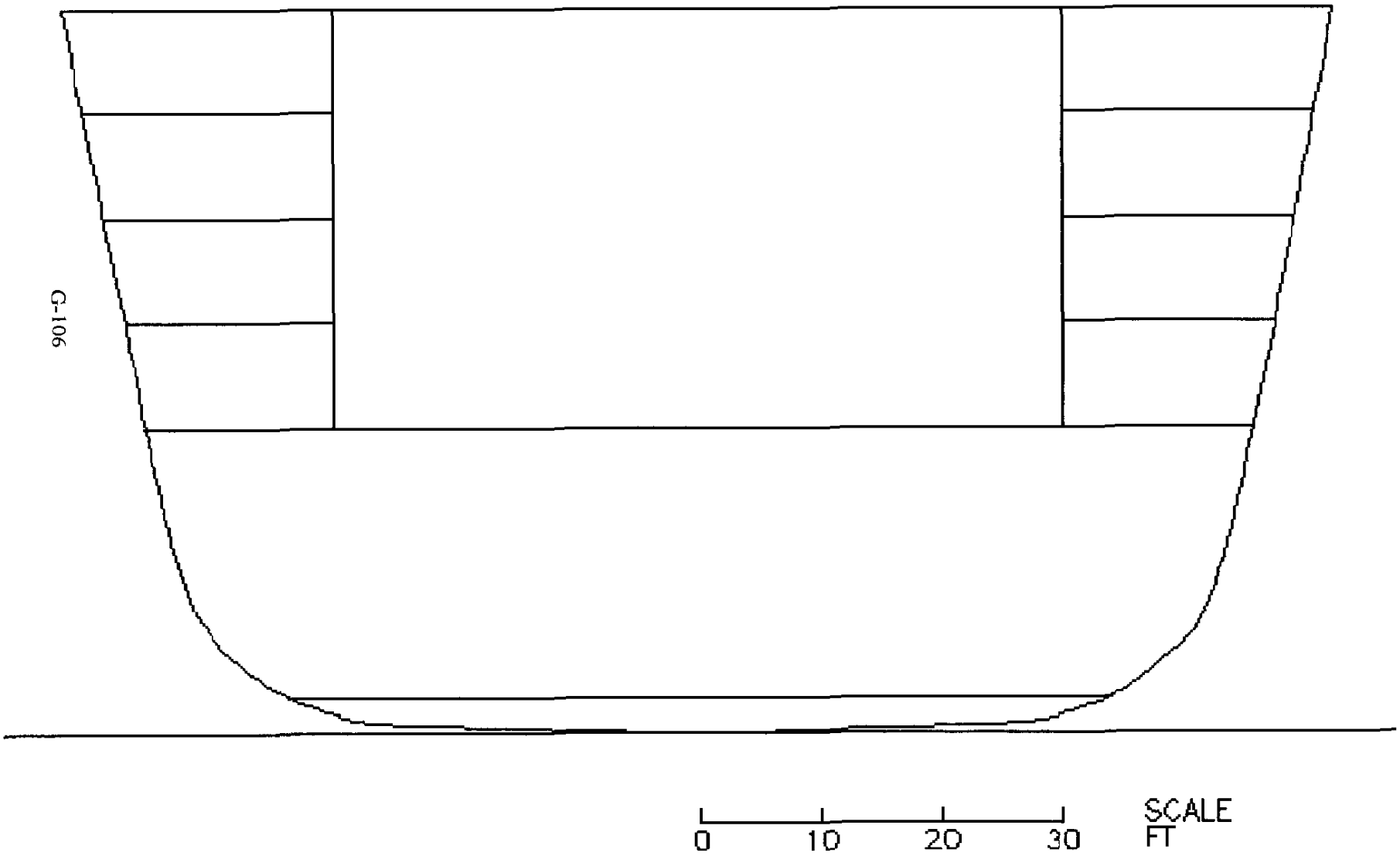
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.17 - SECTION AT 308.2 - TBKHD # 7



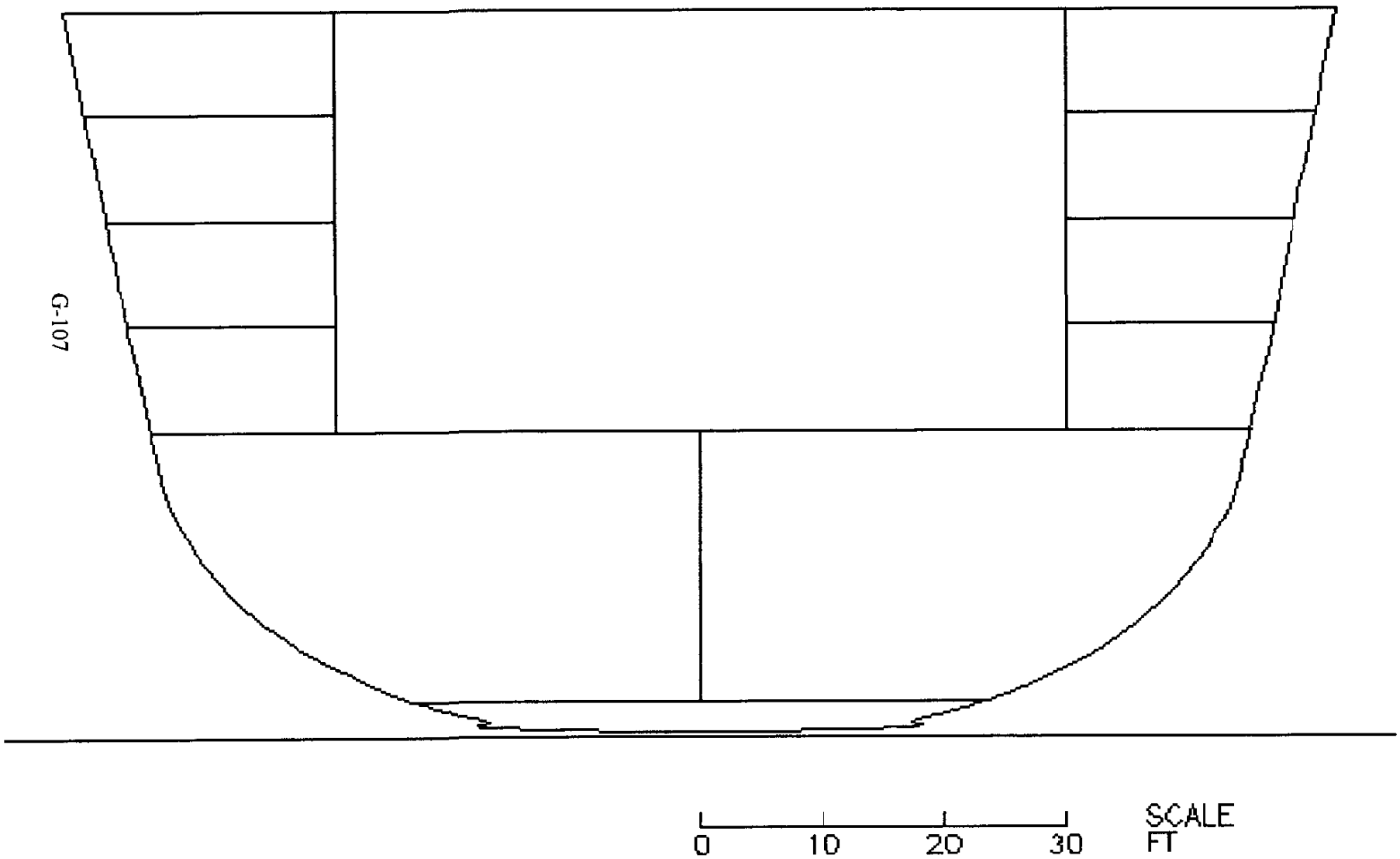
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.18 - SECTION AT 362.3 - TBKHD # 8



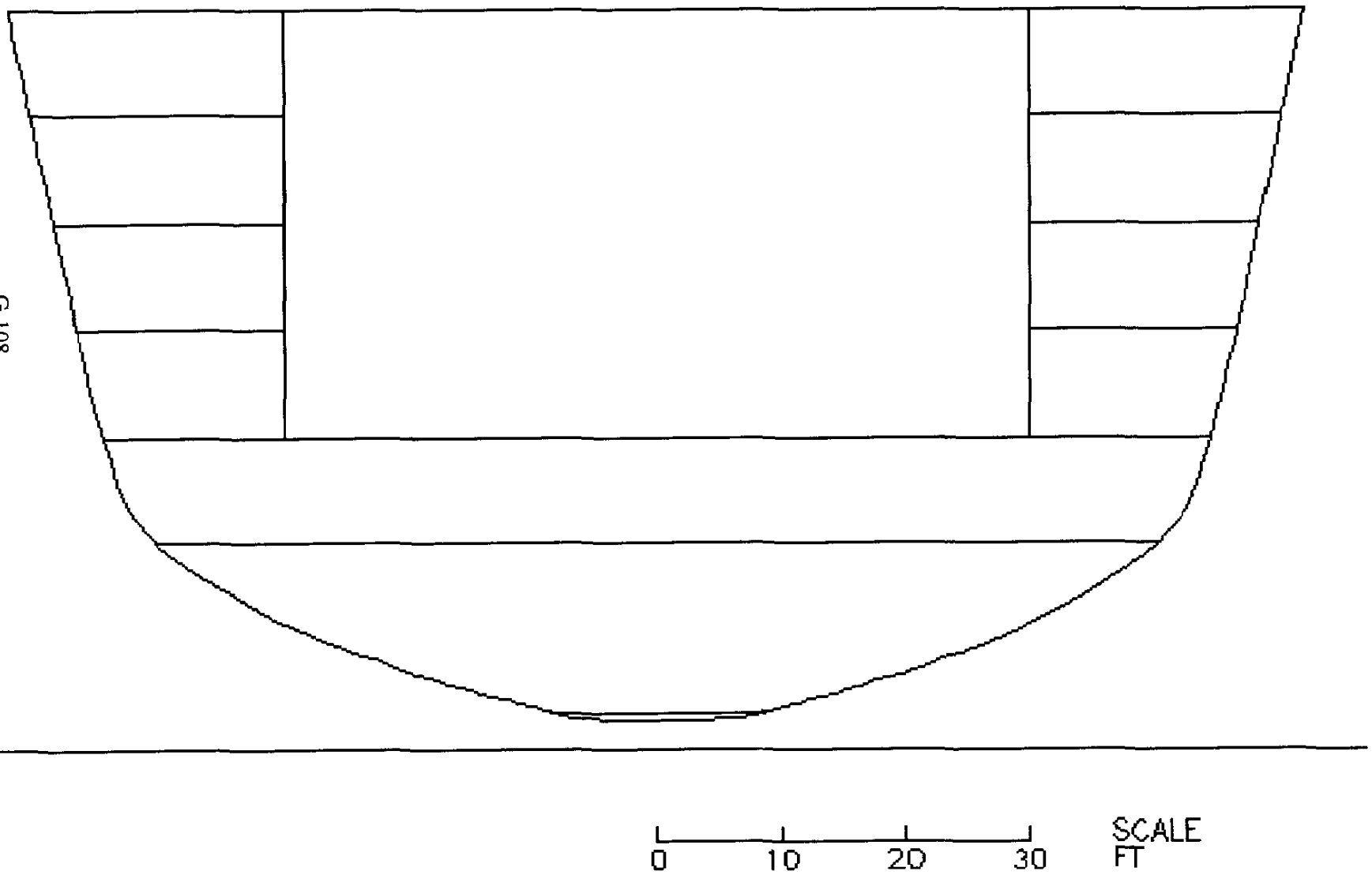
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.19 - SECTION AT 409.5 - TBKHD # 9



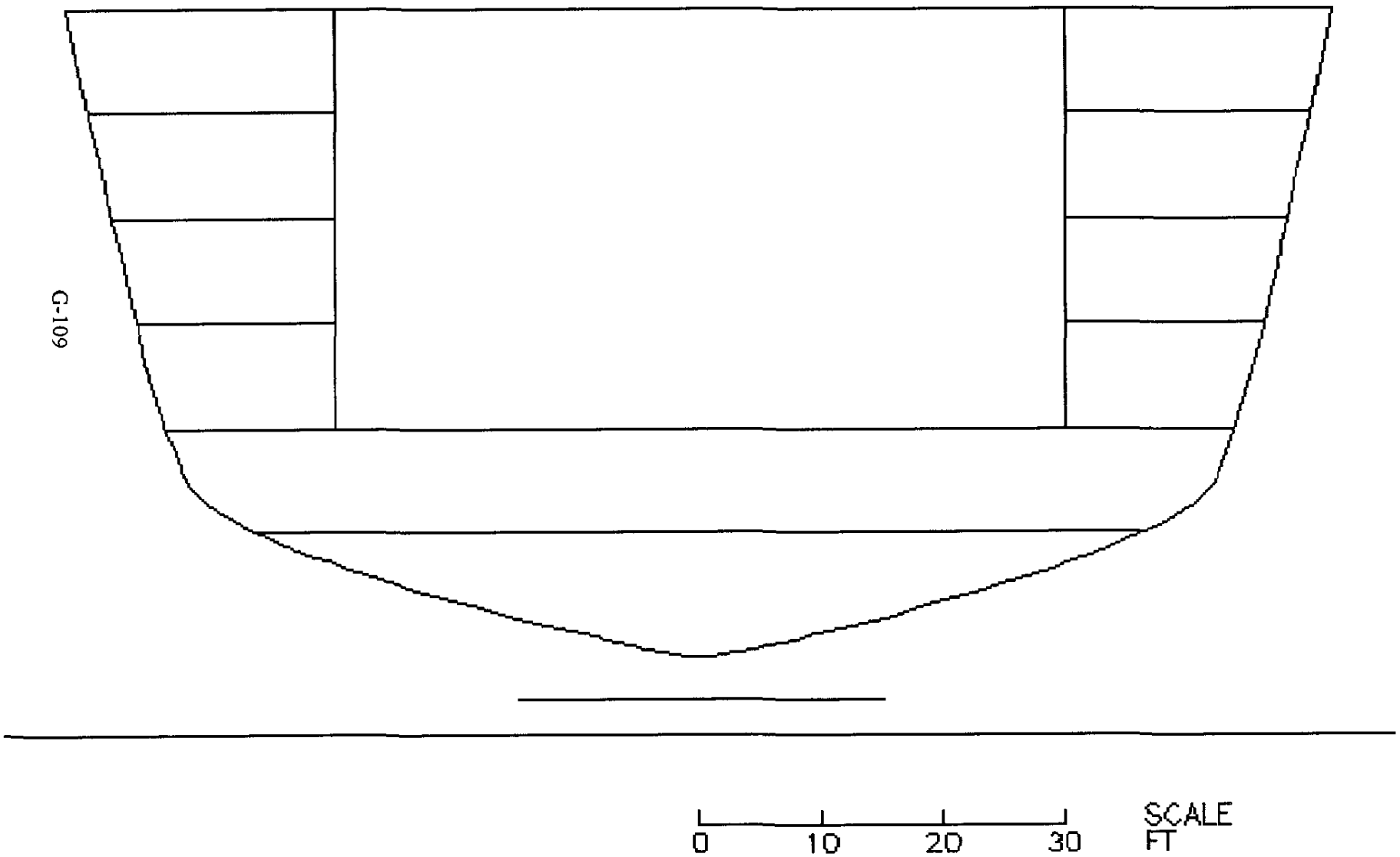
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.20 - SECTION AT 453.6 - TBKHD # 10



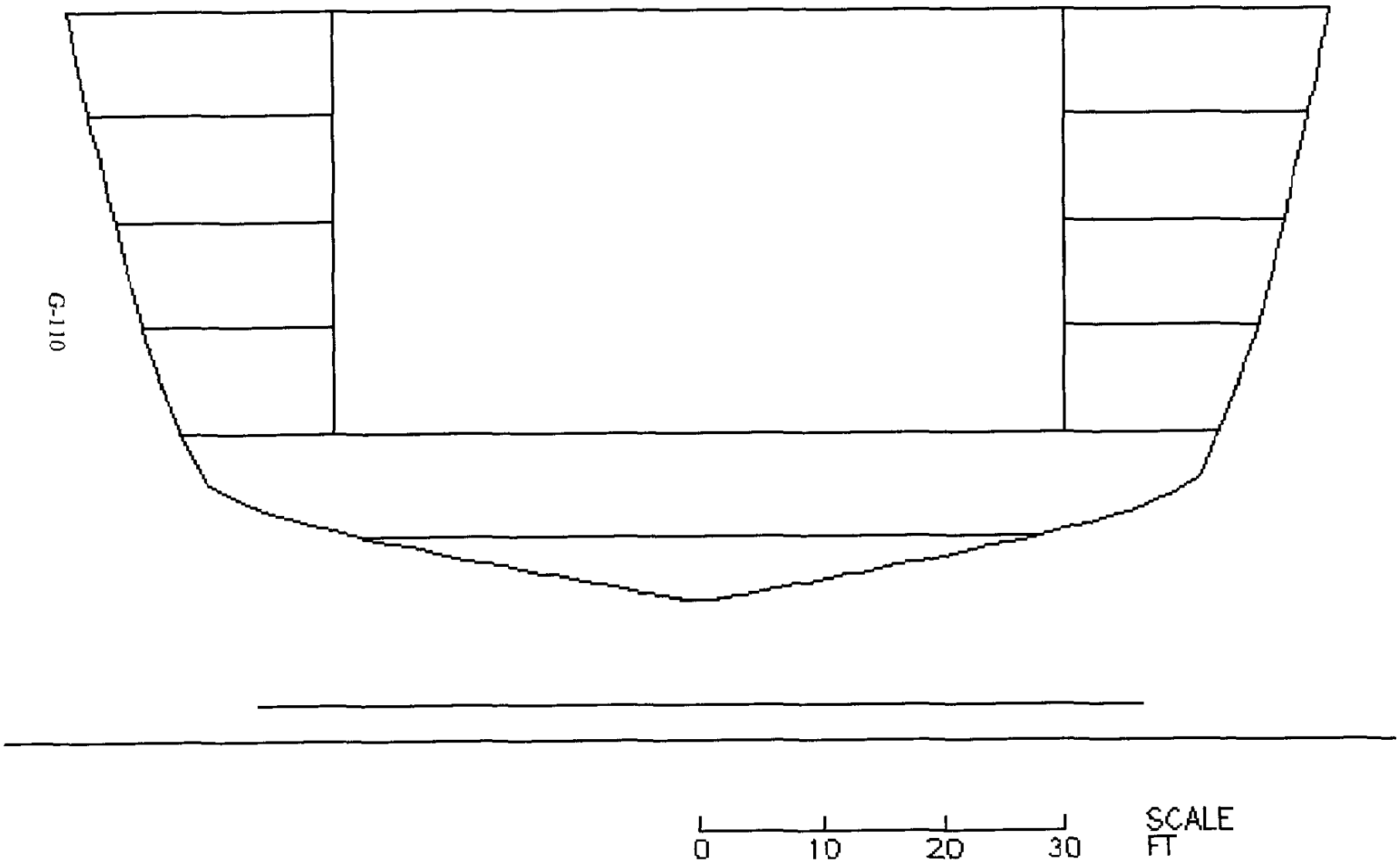
I)

ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.21 - SECTION AT 497.7 - TBKHD # 11



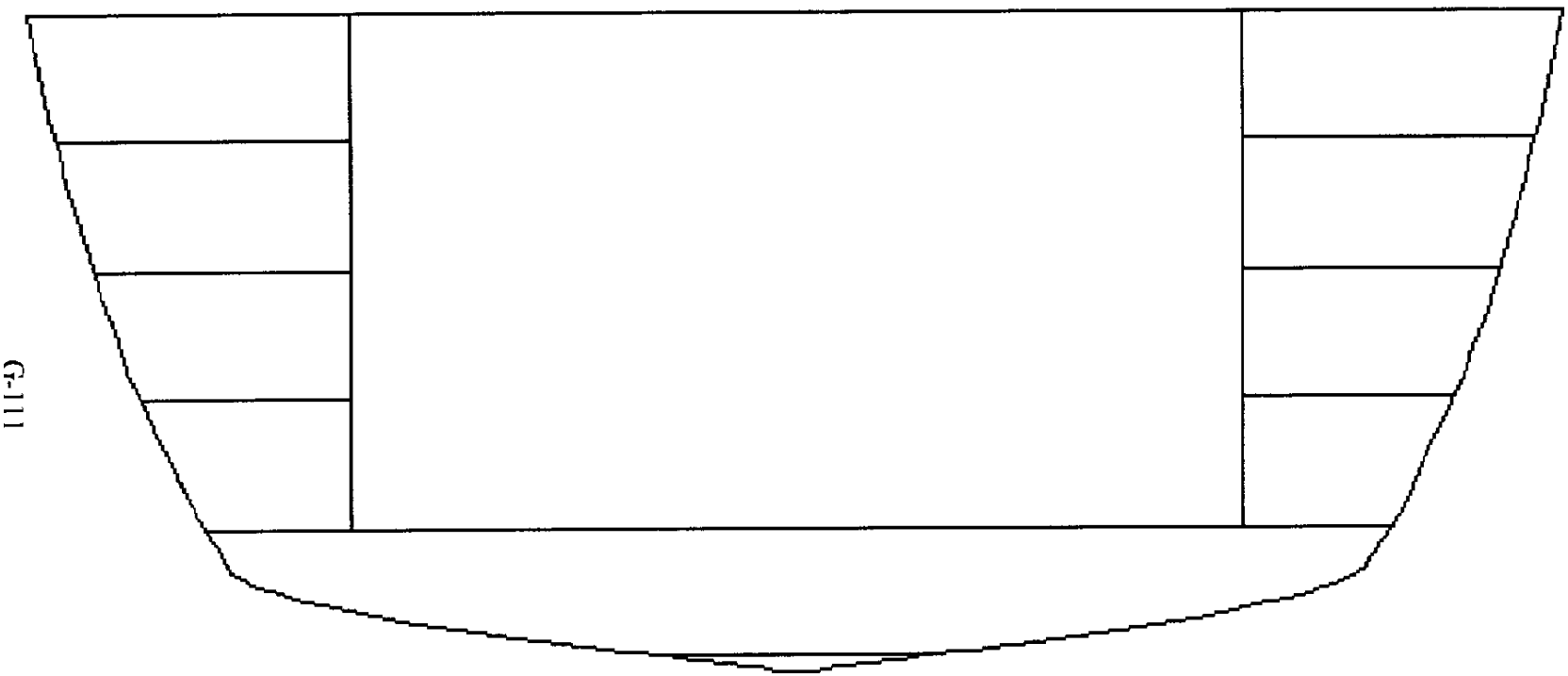
D)

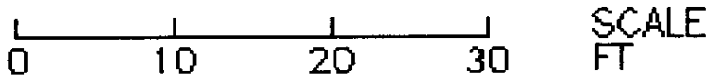
ASSET/MONOLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.22 - SECTION AT 541.8 - TBKHD # 12



I)

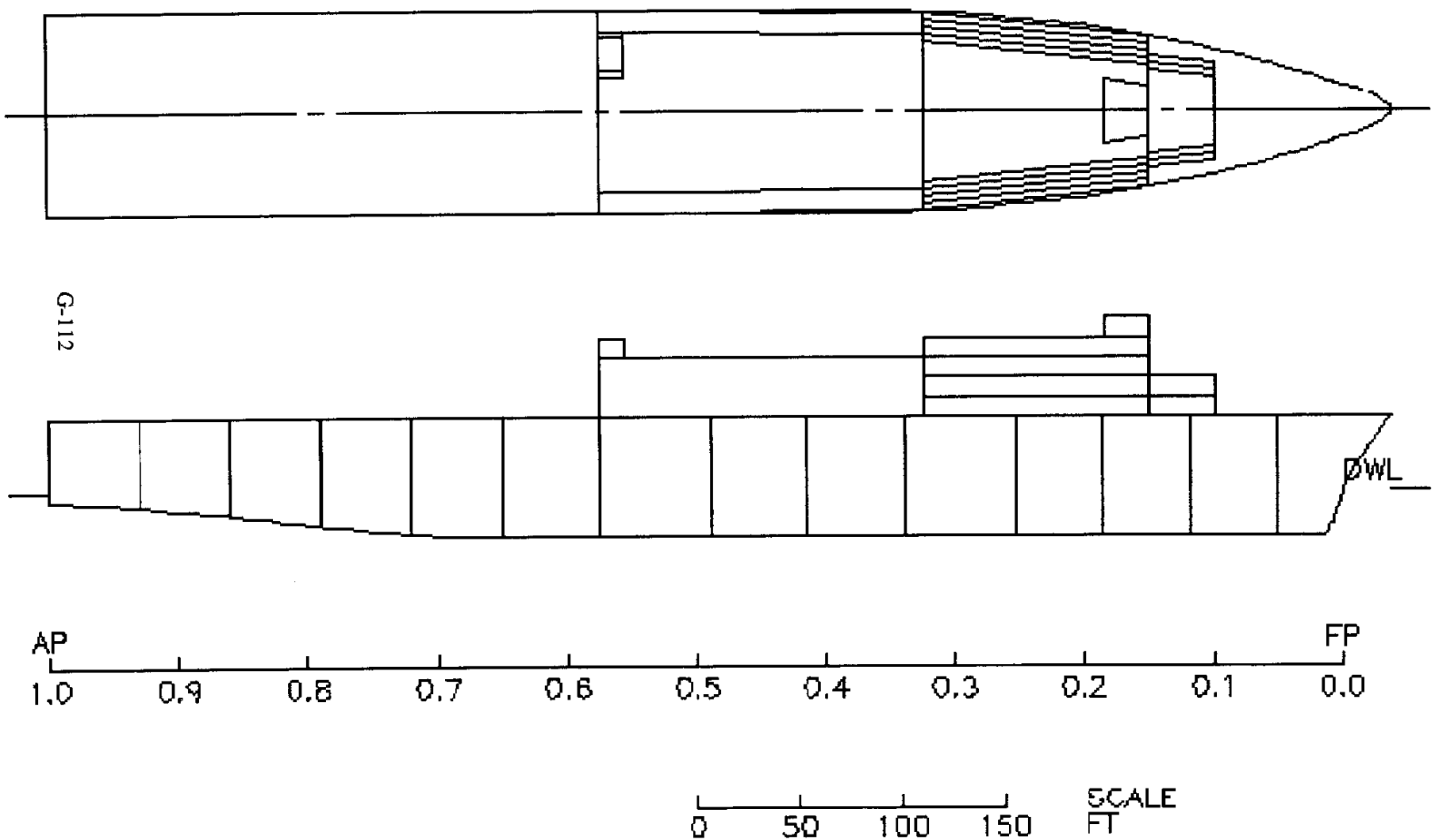
ASSET/MONDLA VERSION 1.0 - HULL SUBDIV MODULE - 1/20/94 08.22.02.
GRAPHIC DISPLAY NO.23 - SECTION AT 585.9 - TBKHD # 13





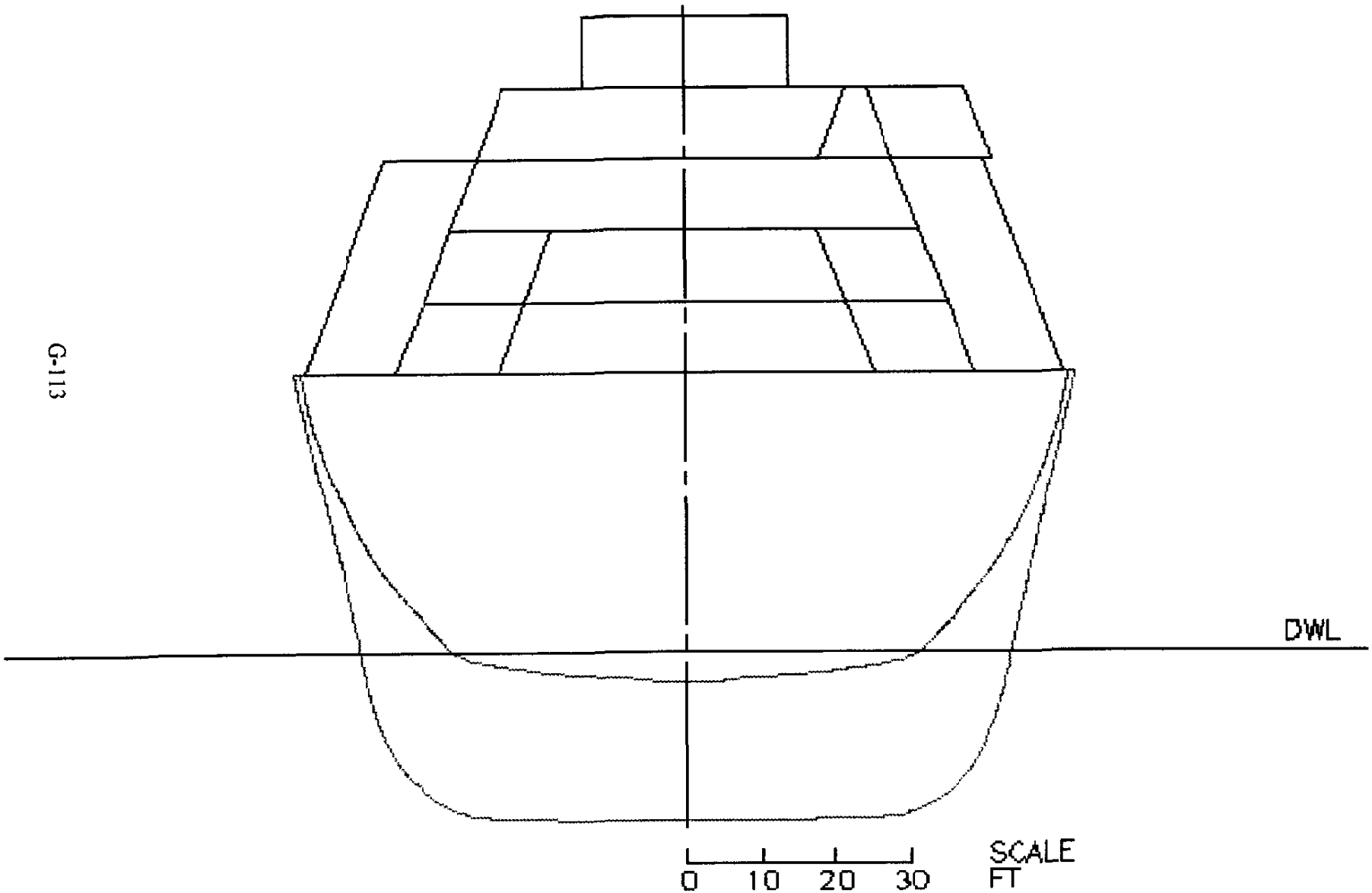
D)

ASSET/MONOLA VERSION 1.0 - DECKHOUSE MODULE - 1/20/94 09.34.52.
GRAPHIC DISPLAY NO. 1 - DECKHOUSE PROFILE AND PLAN VIEWS



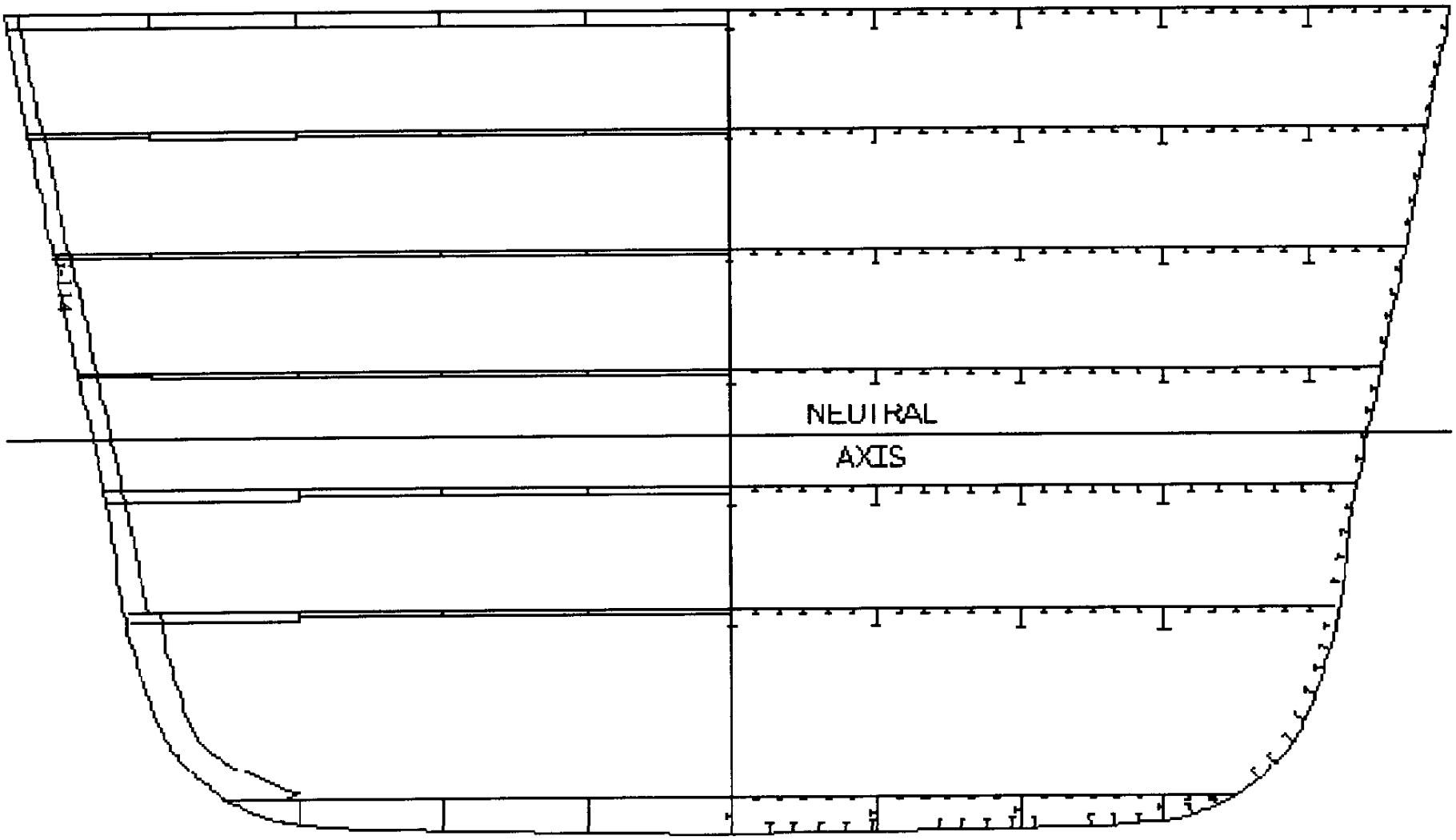
I)

ASSET/MONOLA VERSION 1.0 - DECKHOUSE MODULE - 1/20/94 09.34.52.
GRAPHIC DISPLAY NO. 2 - DECKHOUSE END VIEW



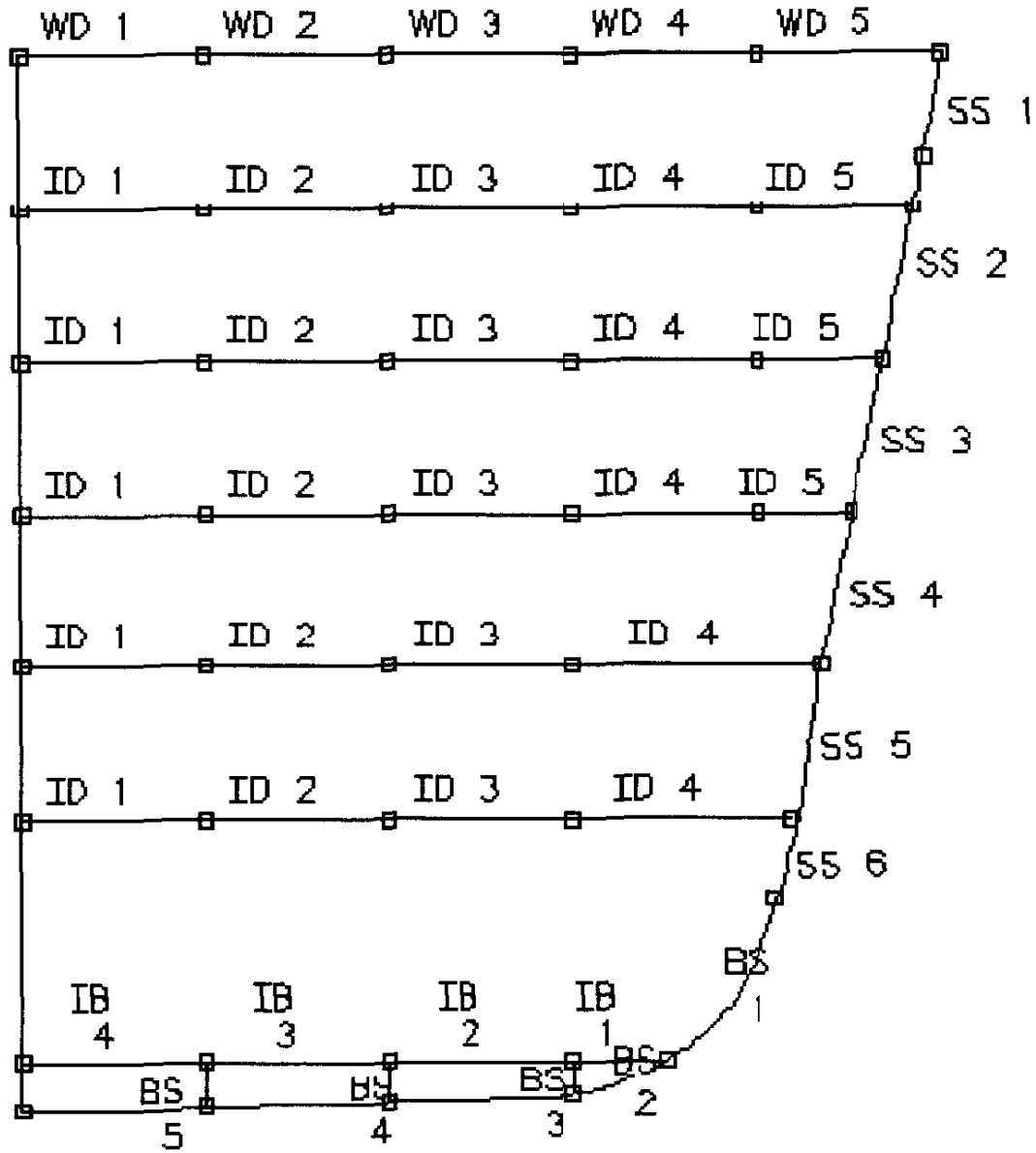
I)

ASSET/MONOLA VERSION 1.0 - HULL STRUCT MODULE - 1/20/94 09.40.33.
GRAPHIC DISPLAY NO. 1 - MIDSHIP SECTION



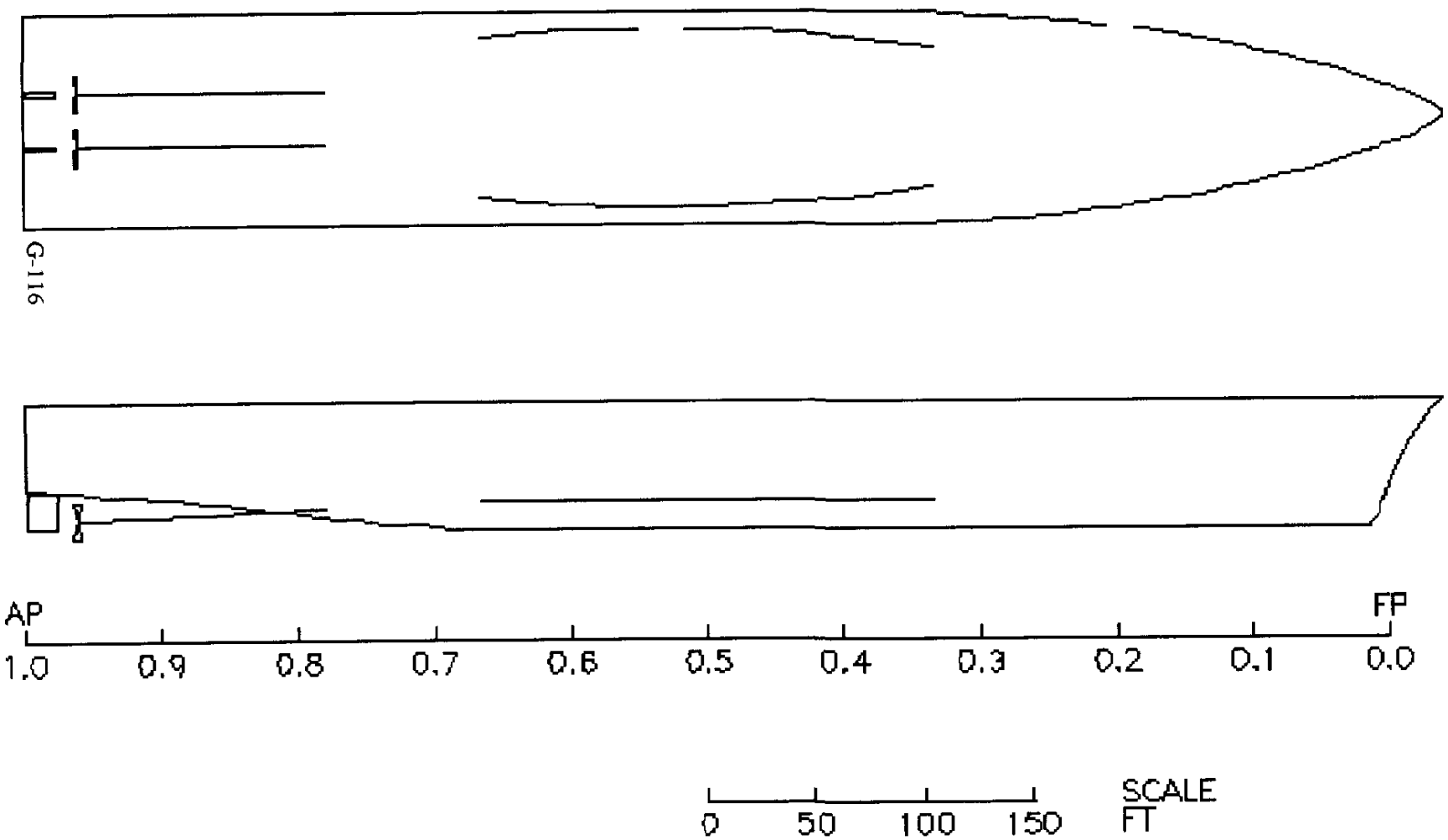
I)

ASSET/MONOLA VERSION 1.0 - HULL STRUCT MODULE - 1/20/94 09.40.33.
GRAPHIC DISPLAY NO. 2 - SEGMENT NODE POINTS



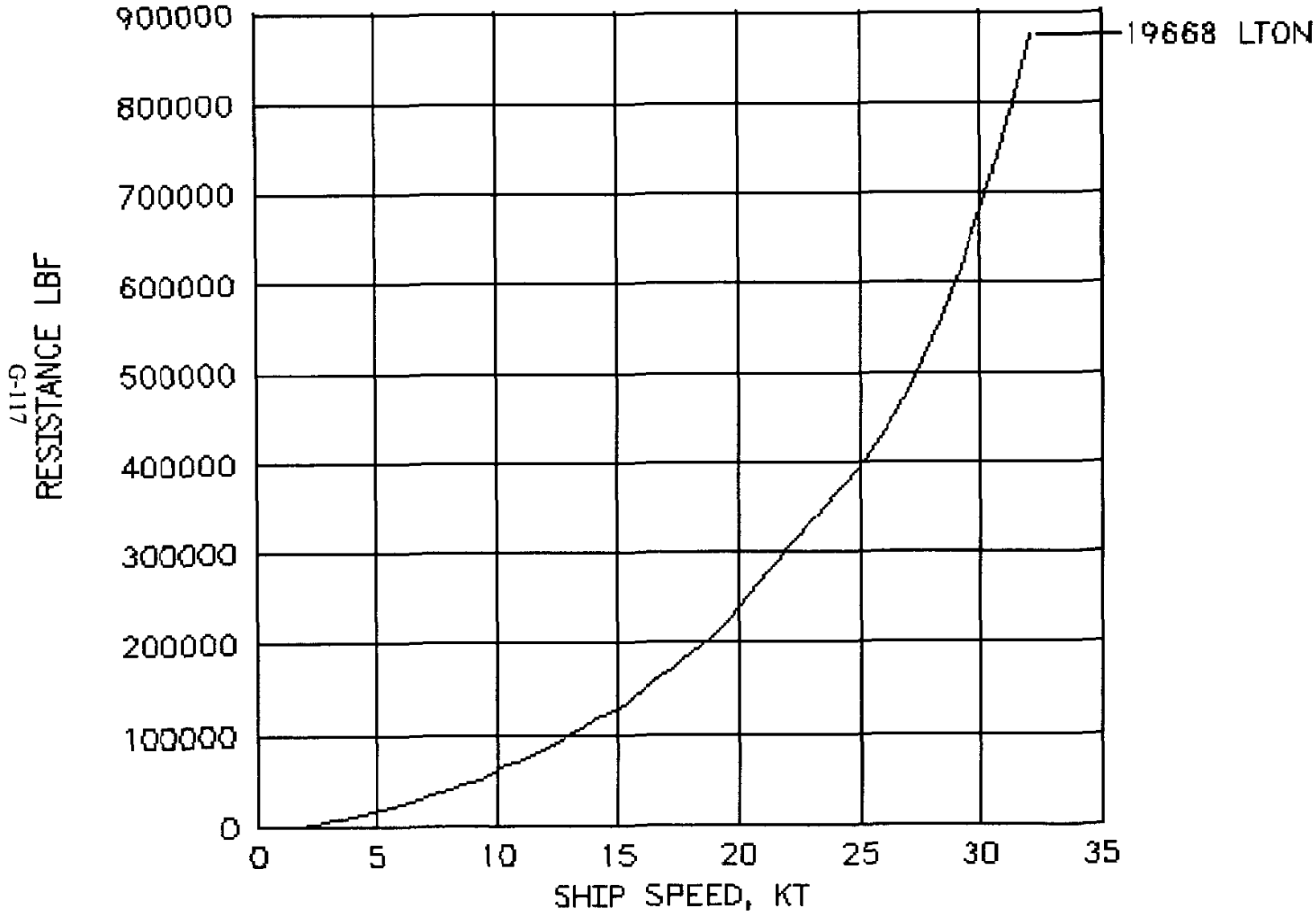
I)

ASSET/MONOLA VERSION 1.0 - APPENDAGE MODULE - 1/20/94 09.47.39.
GRAPHIC DISPLAY NO. 1 - HULL PROFILE AND PLAN VIEW WITH APPENDAGES



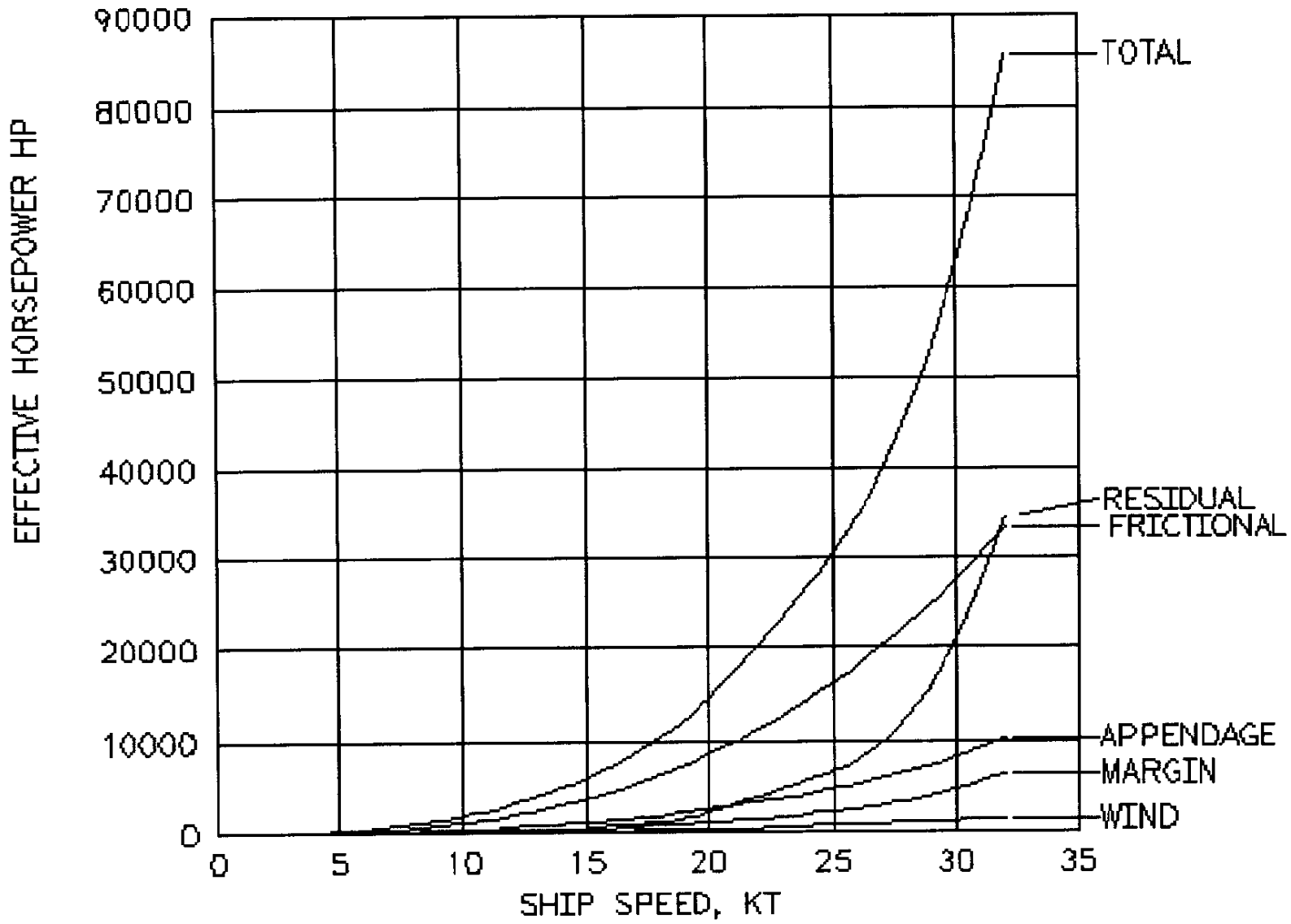
I)

ASSET/MONOLA VERSION 1.0 - RESISTANCE MODULE - 1/20/94 09.52.11.
GRAPHIC DISPLAY NO. 1 - RESISTANCE VERSUS SPEED



I)

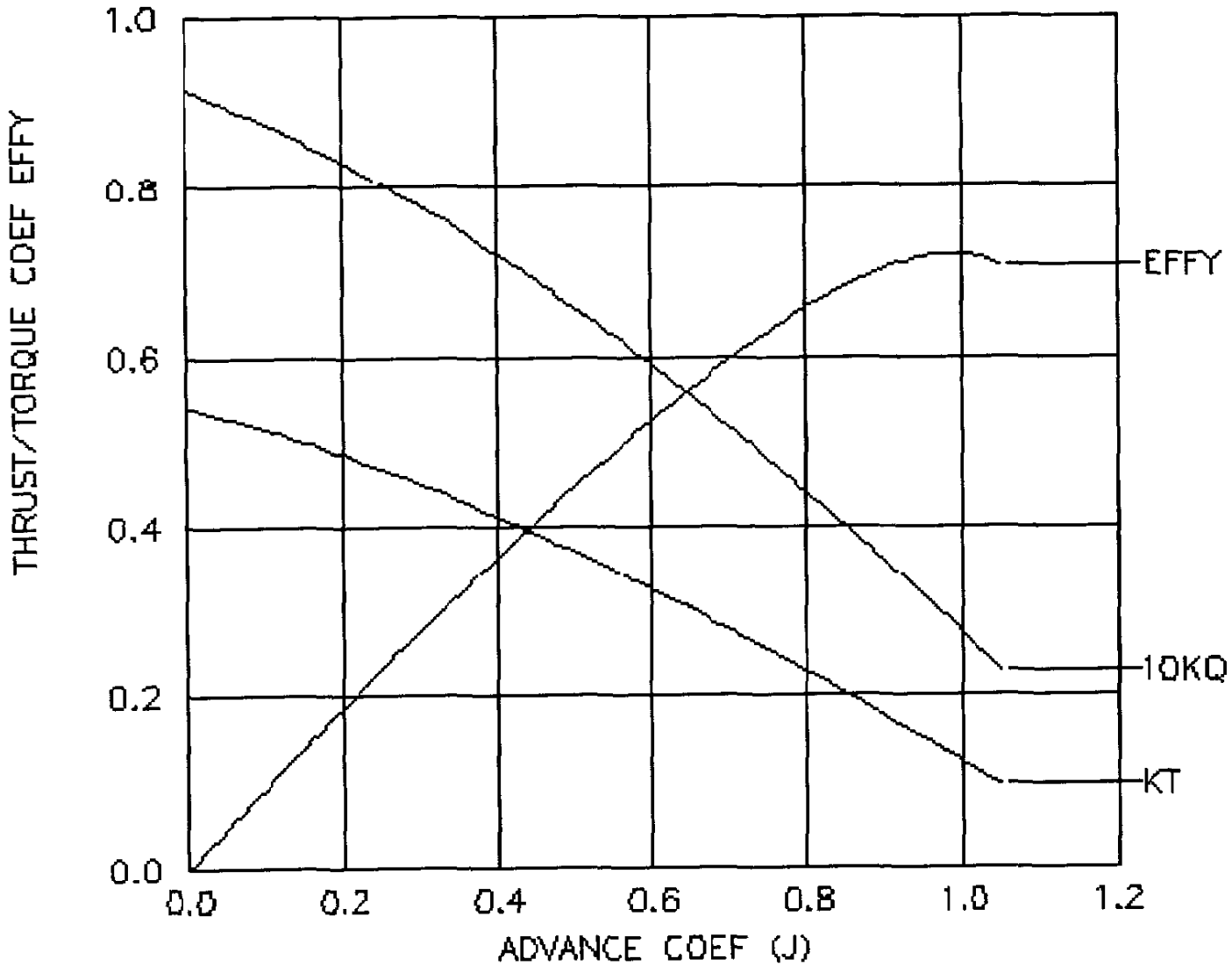
ASSET/MONOLA VERSION 1.0 - RESISTANCE MODULE - 1/20/94 09.55.20.
GRAPHIC DISPLAY NO. 2 - EHP VERSUS SPEED



DISPLACEMENT = 19668 LTON

I)

ASSET/MONOLA VERSION 1.0 - PROPELLER MODULE - 1/20/94 10.27.05.
GRAPHIC DISPLAY NO. 1 - OPEN WATER DIAGRAM



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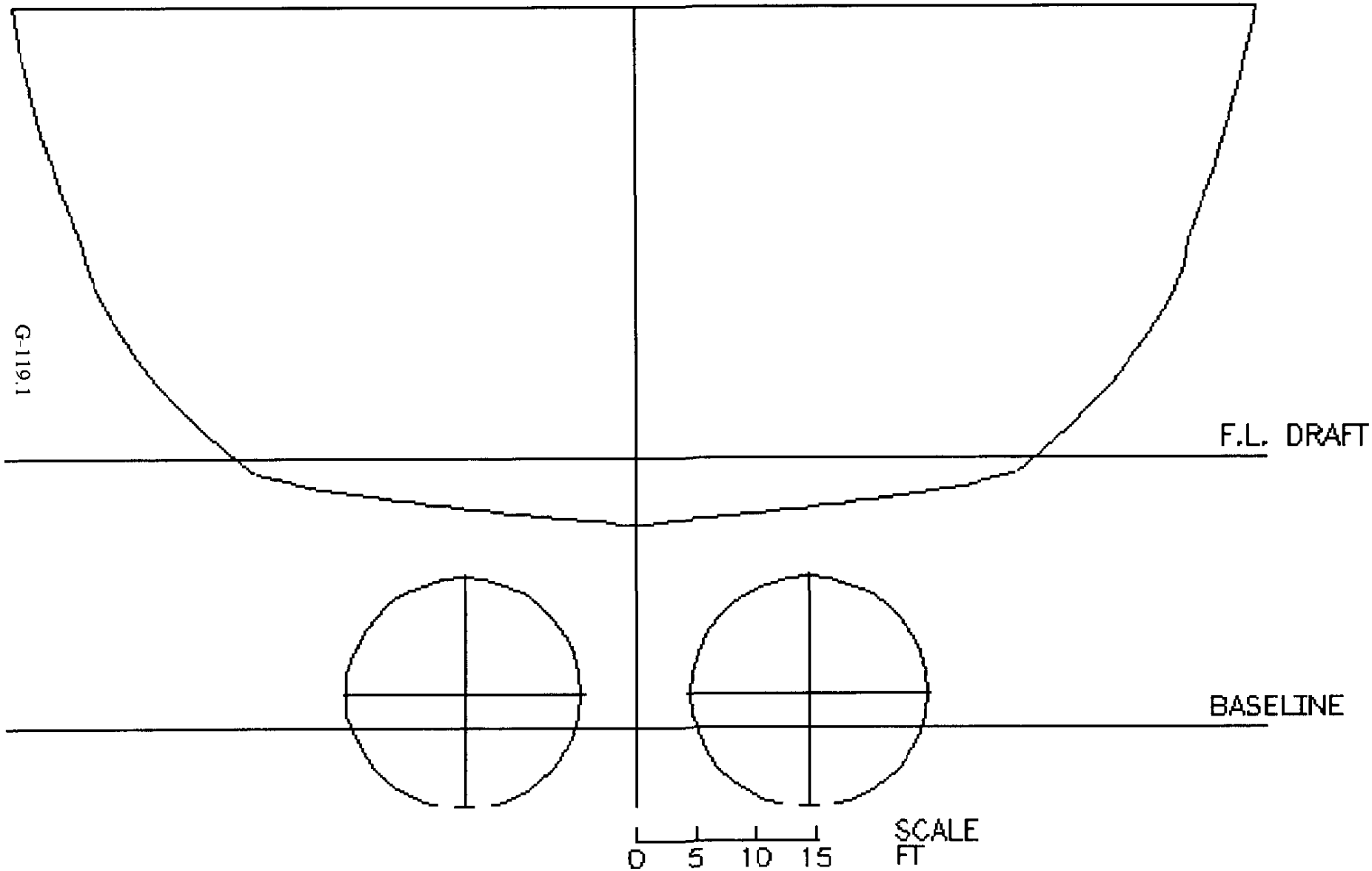
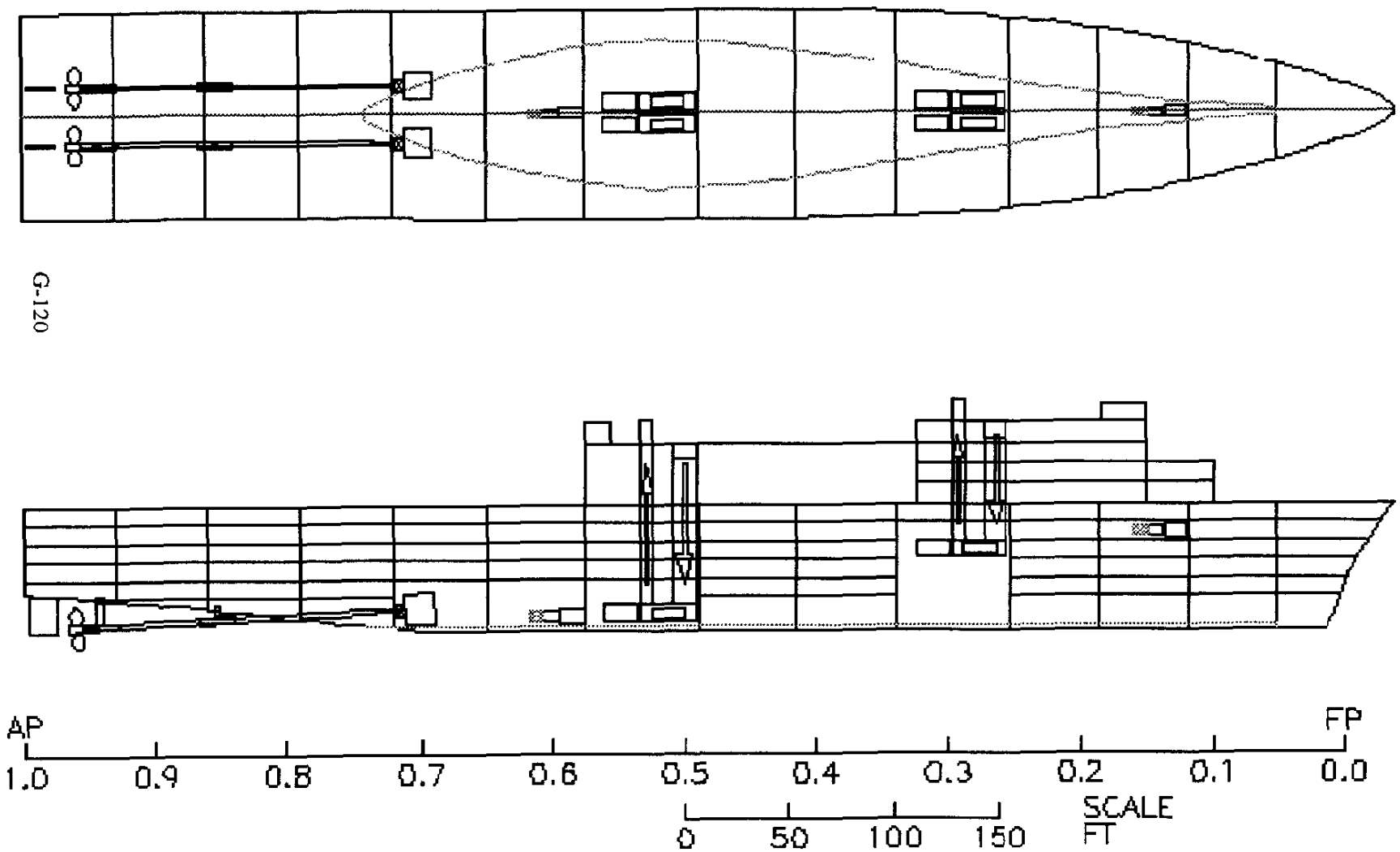
I)

ASSET/MONOLA VERSION 1.0 - PROPELLER MODULE - 1/20/94 10.20.23.
GRAPHIC DISPLAY NO. 2 - TRANSVERSE SECTION



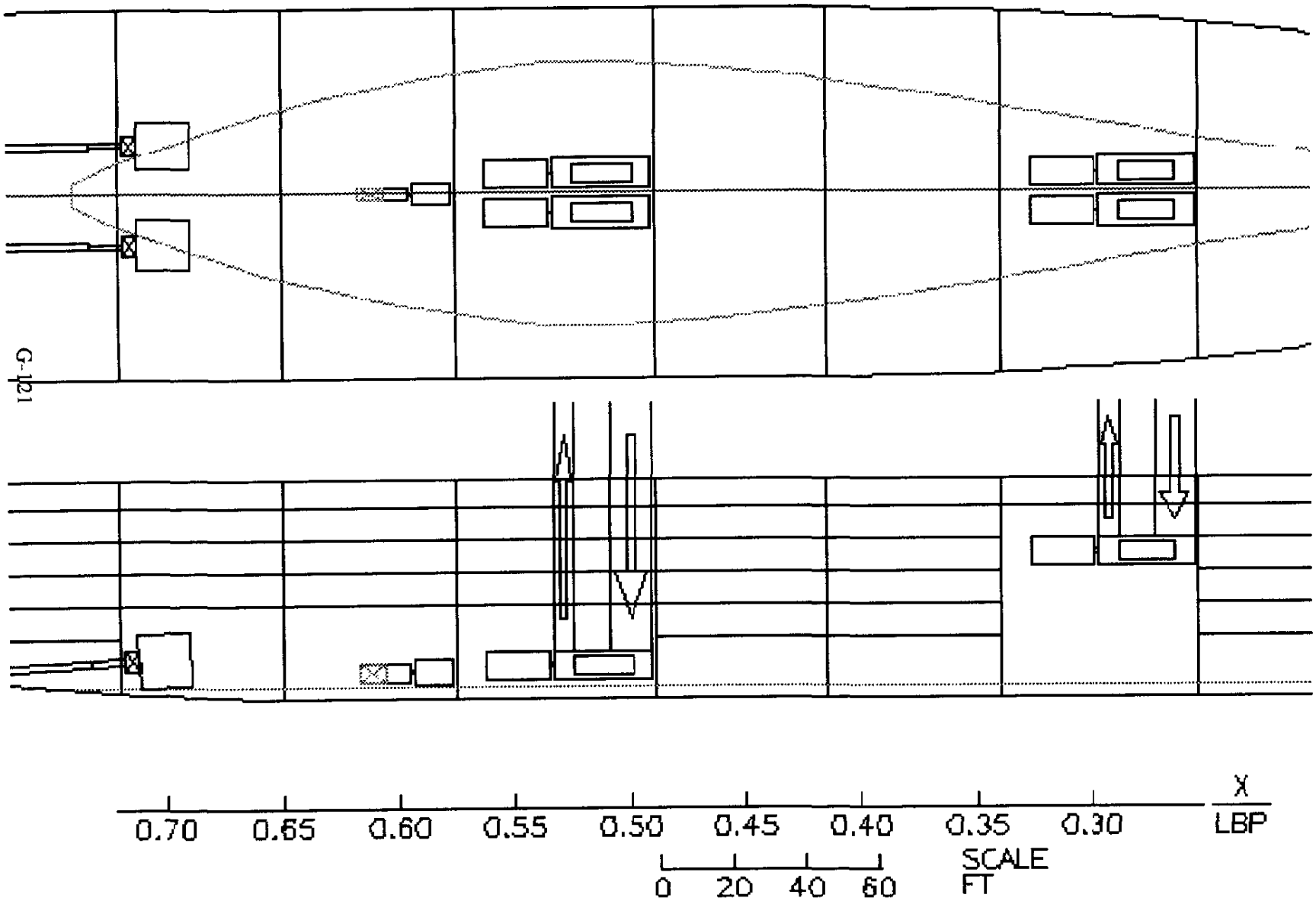
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 1 - SHIP MACHINERY LAYOUT



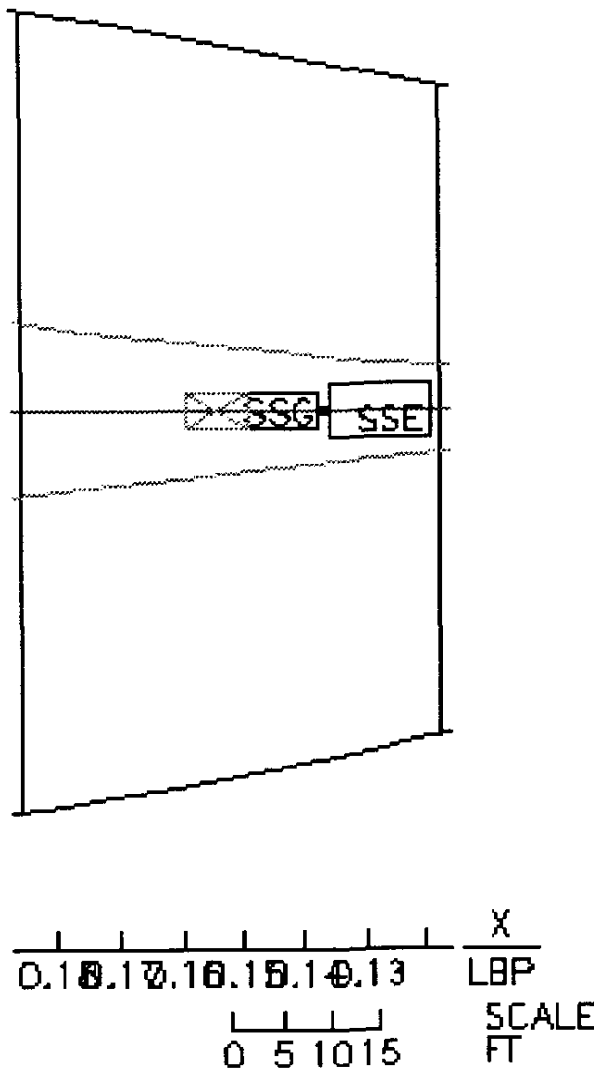
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 2 - MACHINERY BOX



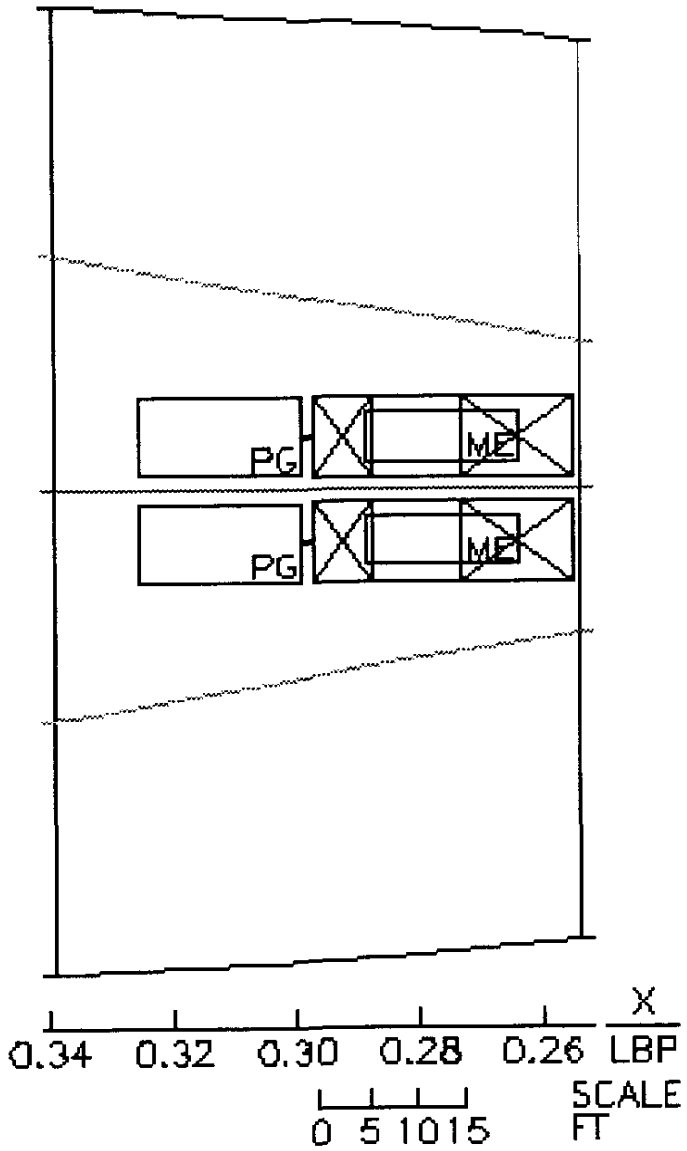
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 3 - MR PLAN VIEWS (OMR1)
PAGE 1 OF 6



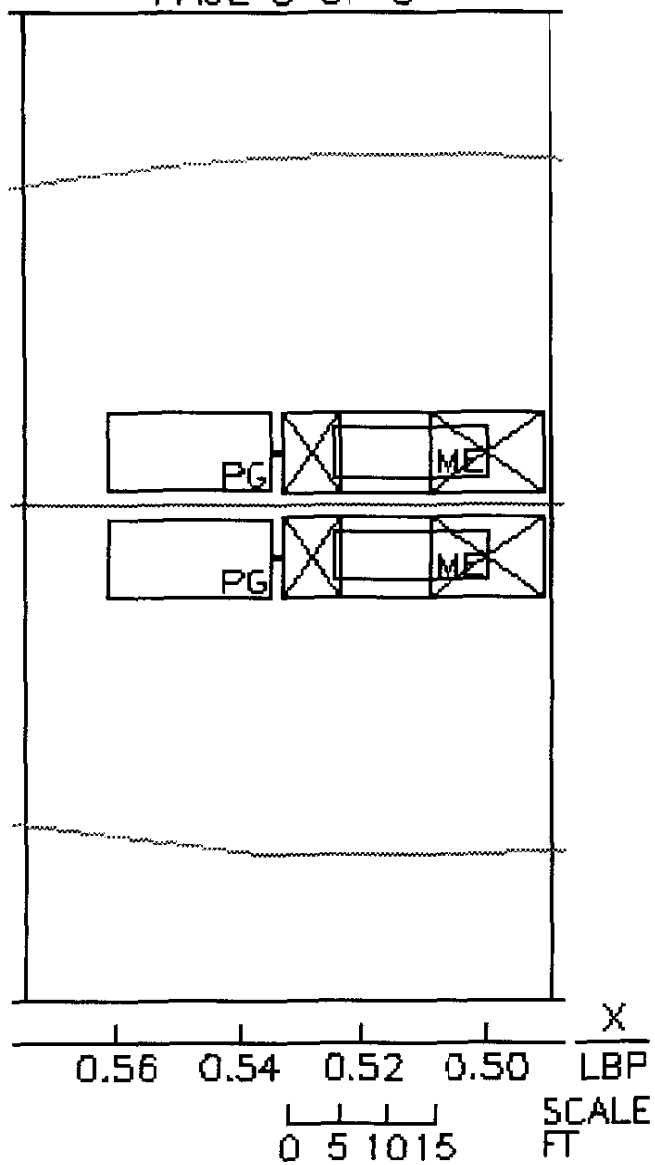
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 3 - MR PLAN VIEWS (MMR1)
PAGE 2 OF 6



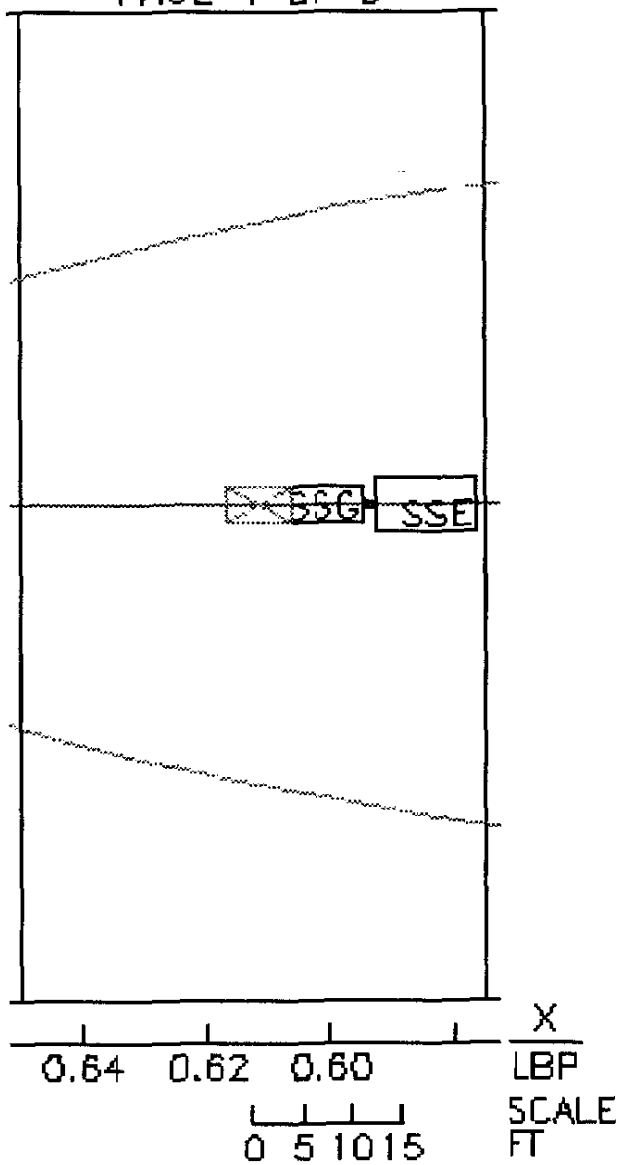
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 3 - MR PLAN VIEWS (MMR2)
PAGE 3 OF 6



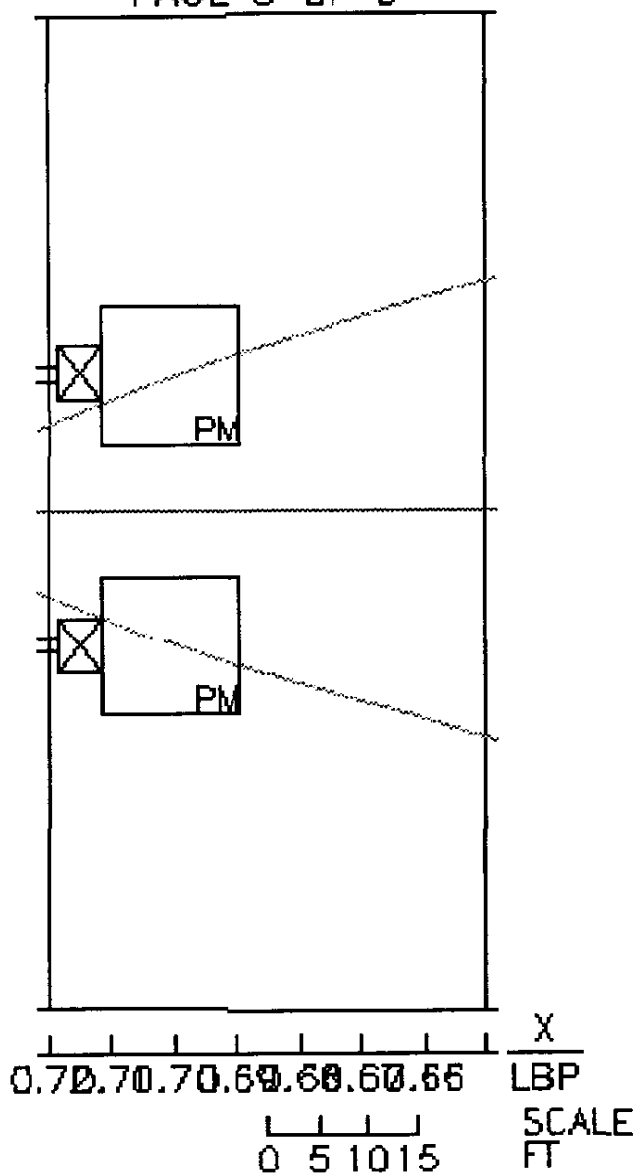
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 3 - MR PLAN VIEWS (AMR1)
PAGE 4 OF 6



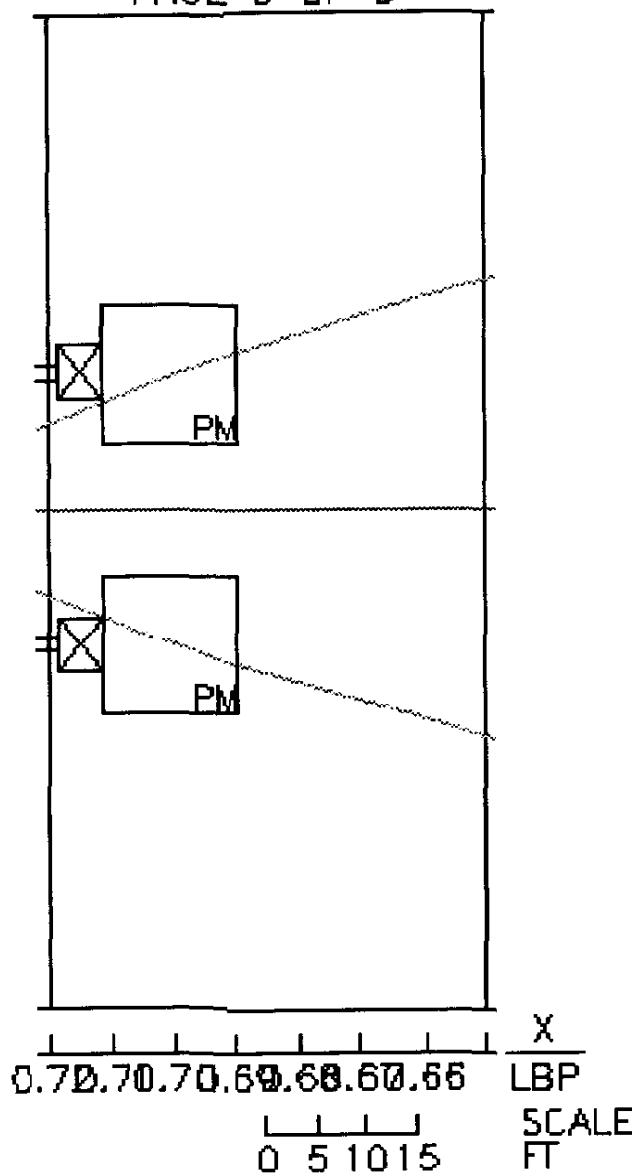
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 3 - MR PLAN VIEWS (AMR2)
PAGE 5 OF 6



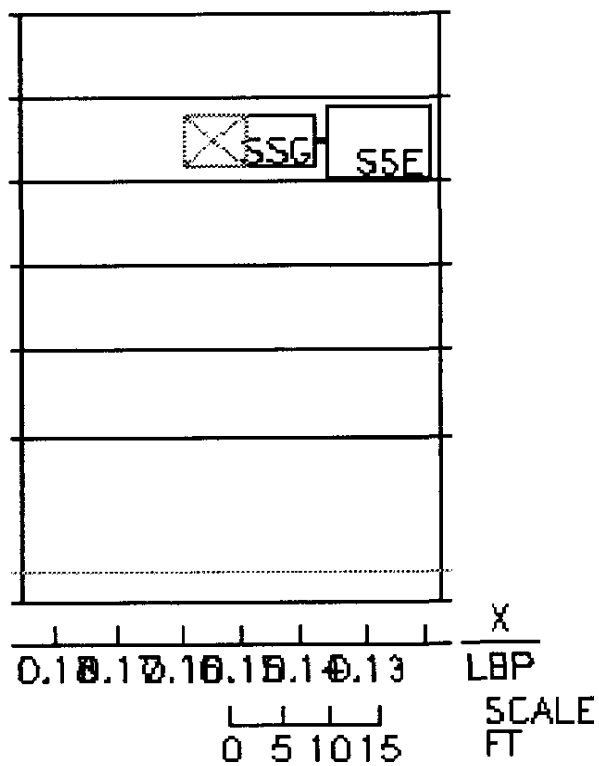
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 3 - MR PLAN VIEWS (AMR3)
PAGE 6 OF 6



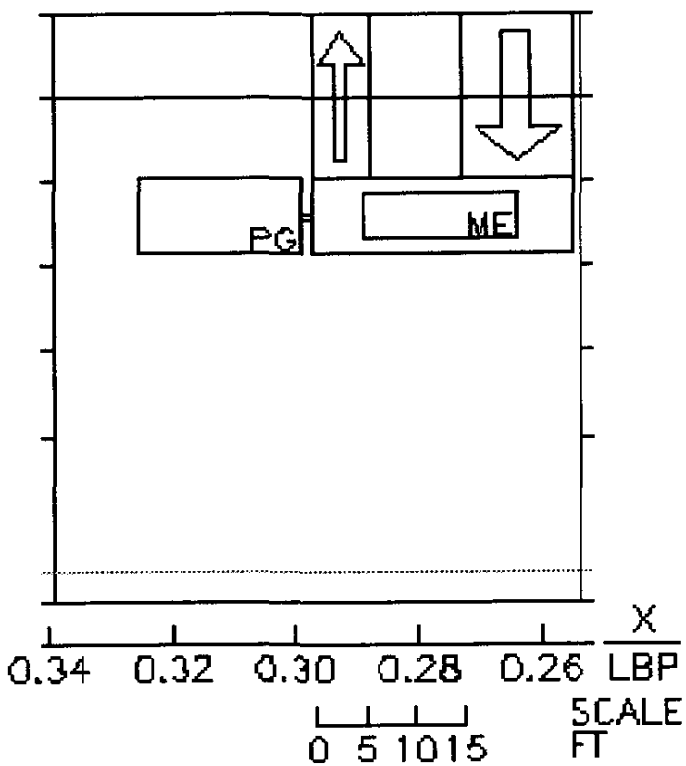
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 4 - MR PROFILE VIEWS (OMR1)
PAGE 1 OF 6



I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 4 - MR PROFILE VIEWS (MMR1)
PAGE 2 OF 6



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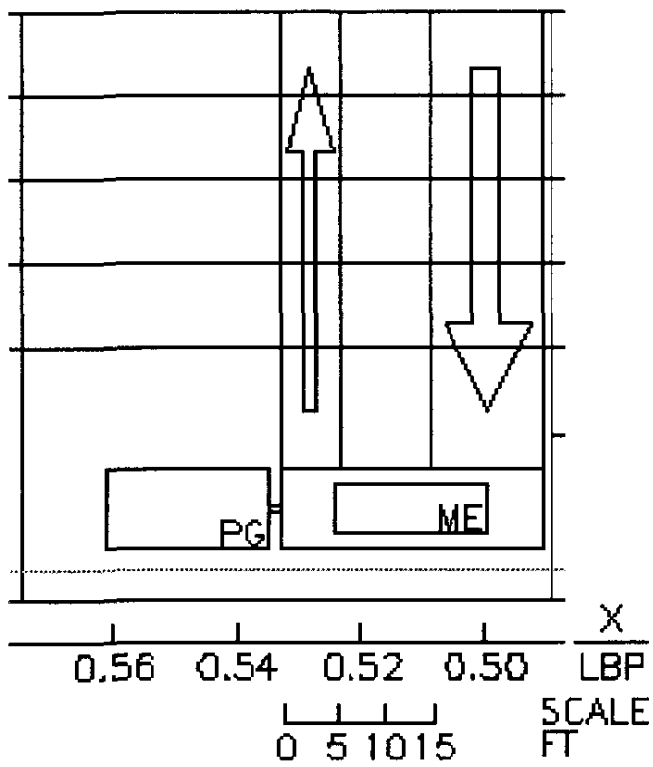
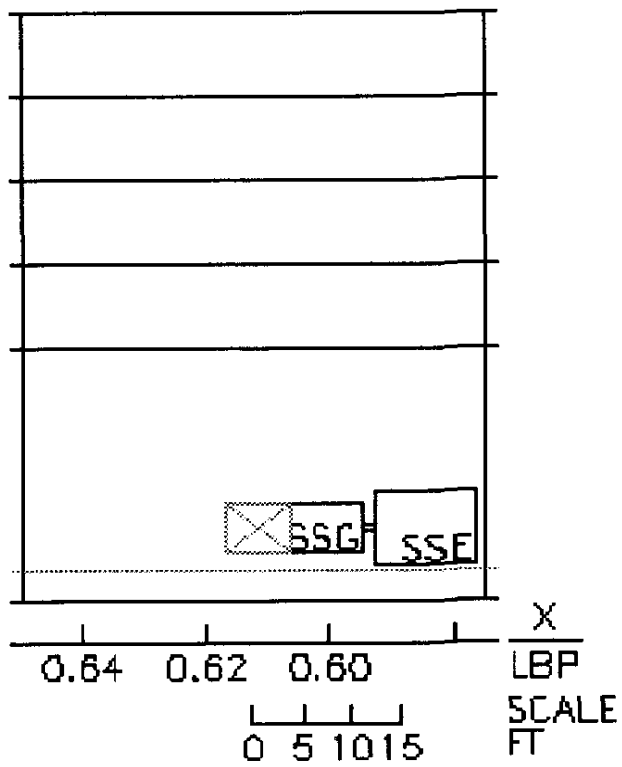
ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 4 - MR PROFILE VIEWS (MMR2)
PAGE 3 OF 6



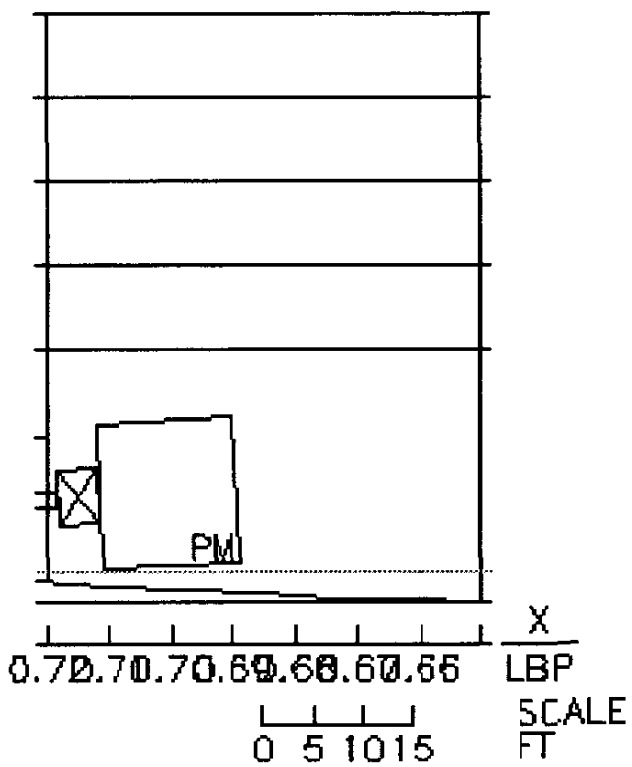
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 4 - MR PROFILE VIEWS (AMR1)
PAGE 4 OF 6



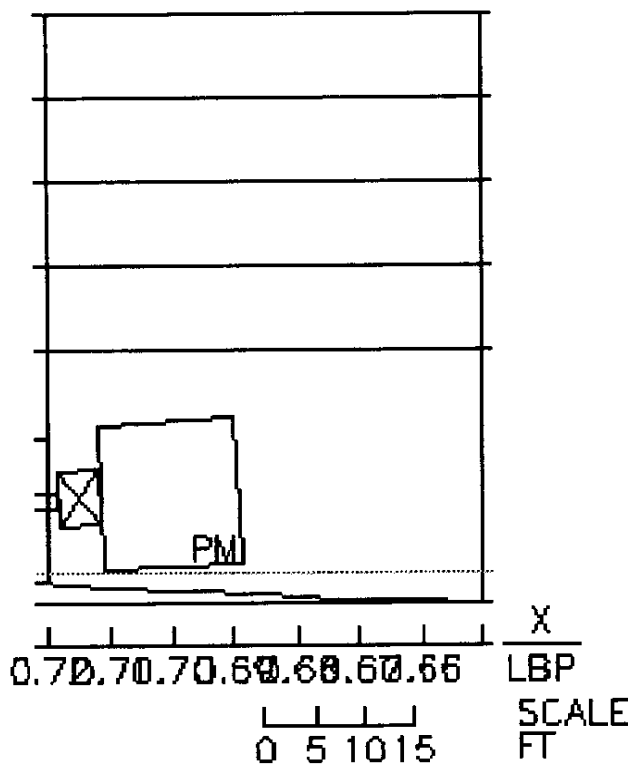
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 4 - MR PROFILE VIEWS (AMR2)
PAGE 5 OF 6



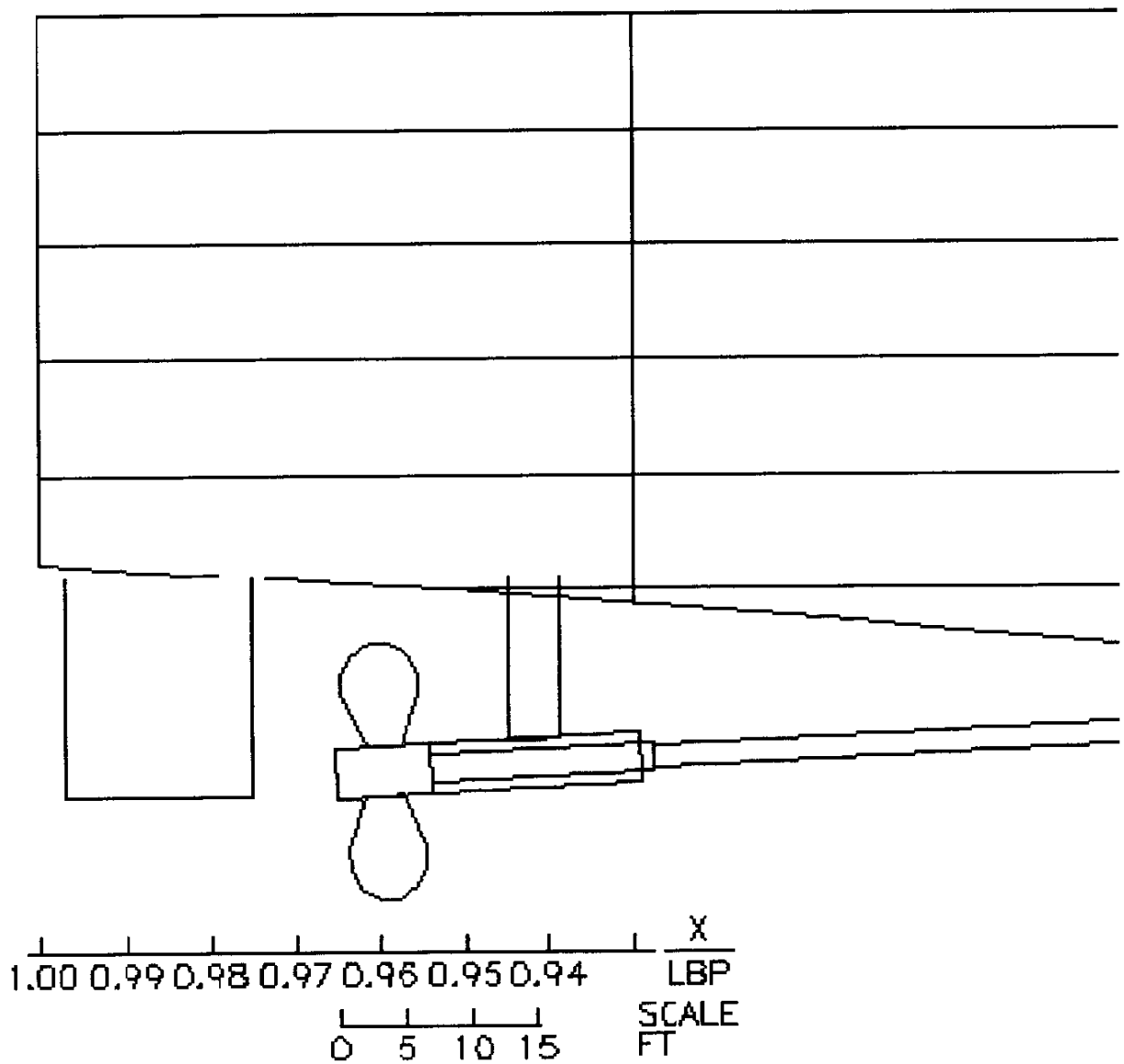
I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 4 - MR PROFILE VIEWS (AMR3)
PAGE 6 OF 6



I)

ASSET/MONOLA VERSION 1.0 - MACHINERY MODULE - 1/20/94 13.48.31.
GRAPHIC DISPLAY NO. 5 - PROPULSION APPENDAGES PROFILE VIEW



ADVANCED SURFACE SHIP EVALUATION TOOL (ASSET)
MONOHULL L AND A TYPE SHIPS (MONOLA)
VERSION 1.0
DATED OCTOBER 29,1993

SYNTHESIS

```
HULL GEOM MODULE                0.750 CPU SECONDS.
** WARNING - HULL SUBDIV MODULE ** (W-DECKLOCRESET-ADECKS)
HULL DECK LOC ARRAY ELEMENT NUMBER(S) 1     HAVE BEEN RESET TO MATCH THE
HULL OFFSETS.

** WARNING - HULL SUBDIV MODULE ** (W-MAINDEKHTRESET-ADECKS)
THE MAIN DECK HT HAS BEEN RE-SET TO  62.00
 TO MATCH ELEMENT #  1 IN THE DECK LOC ARRAY

HULL SUBDIV MODULE              3.750 CPU SECONDS.
DECKHOUSE MODULE                0.250 CPU SECONDS.
HULL STRUCT MODULE              2.000 CPU SECONDS.
APPENDAGE MODULE                0.125 CPU SECONDS.
RESISTANCE MODULE               0.375 CPU SECONDS.
PROPELLER MODULE                0.500 CPU SECONDS.

** WARNING - MACHINERY MODULE ** (W-TOTALSSGENLT3-MHYMSG)
TOTAL NUMBER OF SHIP SERVICE GENERATORS (INCLUDING VSCF, IF ANY),
IS LESS THAN THREE.
** WARNING - MACHINERY MODULE ** (W-ZEROSBYSSGEN-MHYMSG)
NO STANDBY SHIP-SERVICE GENERATORS EXIST AT BATTLE ELECTRICAL
LOADING CONDITION.
** WARNING - MACHINERY MODULE ** (W-OPSSGENENDURLT2-MHYMSG)
NUMBER OF SHIP SERVICE GENERATORS OPERATING AT ENDURANCE CONDITION IS
LESS THAN TWO.
** WARNING - MACHINERY MODULE ** (W-SEPSSGEN2SMALL-MHYMSG)
GENERATING CAPACITY OF SEPARATE SHIP-SERVICE GENERATORS  IS INADEQUATE
TO MEET REQUIRED LOAD AT ONE OR MORE CONDITIONS. INCREASE EITHER
NUMBER OF INSTALLED GENERATORS (SS ARR NO ARRAY), NUMBER OF OPERATING
GENERATORS (SEP SS GEN  OP ARRAY), OR INCREASE GENERATOR RATING (SEP SS
GEN KW).
    SEP SS GEN KW (AVAIL)       2000.0
    SEP SS GEN  KW REQ          14305.1
MACHINERY MODULE                4.500 CPU SECONDS.
WEIGHT MODULE                   4.625 CPU SECONDS.
SPACE MODULE                    1.125 CPU SECONDS.
DESIGN SUMMARY                  0.000 CPU SECONDS.

CONVERGENCE ACHIEVED IN  1 ITERATIONS FOR THE FOLLOWING SYNTHESIS LOOP:
   BEGINNING MODULE = HULL GEOM MODULE
   ENDING MODULE    = DESIGN SUMMARY
SYNTHESIS PROCESS SUCCESSFULLY COMPLETED.
```

PRINTED REPORT NO. 1 - HULL GEOMETRY SUMMARY

HULL OFFSETS IND-GENERATE		MIN BEAM, FT	88.00
HULL DIM IND-T		MAX BEAM, FT	110.00
MARGIN LINE IND-CALC		HULL FLARE ANGLE, DEG	7.00
HULL STA IND-OPTIMUM		FORWARD BULWARK, FT	4.00
HULL BC IND-GIVEN			

HULL PRINCIPAL DIMENSIONS (ON DWL)

LBP, FT	630.00	PRISMATIC COEF	0.570
LOA, FT	653.80	MAX SECTION COEF	0.910
BEAM, FT	90.00	WATERPLANE COEF	0.783
BEAM @ WEATHER DECK, FT	99.52	LCB/LCP	0.512
DRAFT, FT	23.24	HALF SIDING WIDTH, FT	1.00
DEPTH STA 0, FT	62.00	BOT RAKE, FT	0.00
DEPTH STA 3, FT	62.00	RAISED DECK HT, FT	0.00
DEPTH STA 10, FT	62.00	RAISED DECK FWD LIM, STA	
DEPTH STA 20, FT	62.00	RAISED DECK AFT LIM, STA	
FREEBOARD @ STA 3, FT	42.76	BARE HULL DISPL, LTON	19526.91

BARE HULL DATA ON LWL

LGTH ON WL, FT	630.00
BEAM, FT	89.95
DRAFT, FT	23.22
FREEBOARD @ STA 3, FT	42.78
PRISMATIC COEF	0.569
MAX SECTION COEF	0.914
WATERPLANE COEF	0.784
WATERPLANE AREA, FT2	44403.98
WETTED SURFACE, FT2	57029.98
BARE HULL DISPL, LTON	19538.06
APPENDAGE DISPL, LTON	130.23
FULL LOAD WT, LTON	19668.28

STABILITY DATA ON LWL

KB, FT	13.69
BMT, FT	35.24
KG, FT	39.97
FREE SURF COR, FT	0.00
SERV LIFE KG ALW, FT	0.00
GMT, FT	8.96
GML, FT	1505.82

PRINTED REPORT NO. 2 - HULL OFFSETS

STATION NO. 1, AT X = -23.797 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	0.000	61.697
2	0.473	61.773
3	1.006	61.849
4	1.546	61.924
5	1.815	62.000

STATION NO. 2, AT X = -11.898 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	0.000	45.112
2	1.667	49.334
3	4.104	53.556
4	6.934	57.778
5	9.556	62.000

STATION NO. 3, AT X = 0.000 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	0.225	23.236
2	2.258	32.927
3	5.041	42.618
4	8.727	52.309
5	13.469	62.000

STATION NO. 4, AT X = 4.905 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	0.000	7.278
2	0.007	7.294
3	0.052	7.405
4	0.157	7.709
5	0.319	8.299
6	0.499	9.273
7	0.629	10.725
8	0.656	12.752
9	0.606	15.449
10	0.649	18.911
11	1.142	23.236
12	3.333	32.927
13	6.353	42.618
14	10.281	52.309
15	15.196	62.000

STATION NO. 5, AT X = 9.810 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	0.000	0.000
2	0.036	0.023
3	0.162	0.186
4	0.316	0.627
5	0.456	1.487
6	0.556	2.905
7	0.610	5.019
8	0.647	7.970
9	0.758	11.897
10	1.129	16.939
11	2.067	23.236
12	4.406	32.927
13	7.647	42.618
14	11.799	52.309
15	16.873	62.000

STATION NO. 6, AT X = 42.461 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	0.768	0.000
2	0.826	0.023
3	1.038	0.186
4	1.325	0.627
5	1.674	1.487
6	2.133	2.905
7	2.797	5.019
8	3.765	7.970
9	5.089	11.897
10	6.713	16.939
11	8.447	23.236
12	11.529	32.927
13	15.850	42.618
14	21.061	52.309
15	26.810	62.000

STATION NO. 7, AT X = 75.112 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	1.002	0.001
3	1.128	0.032
4	1.634	0.255
5	2.495	0.861
6	3.750	2.040
7	5.445	3.984
8	7.583	6.885
9	10.083	10.933
10	12.728	16.320
11	15.117	23.236
12	18.560	32.927
13	23.346	42.618
14	28.928	52.309
15	34.760	62.000

STATION NO. 8, AT X = 107.764 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	2.371	0.036
3	2.574	0.068
4	3.382	0.291
5	4.749	0.896
6	6.705	2.073
7	9.259	4.014
8	12.334	6.910
9	15.725	10.952
10	19.067	16.330
11	21.772	23.236
12	25.271	32.927
13	30.038	42.618
14	35.461	52.309
15	40.926	62.000

STATION NO. 9, AT X = 140.415 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	5.826	0.128
3	6.123	0.160
4	7.224	0.382
5	8.906	0.984
6	11.141	2.157
7	13.972	4.090

8	17.398	6.975
9	21.257	11.001
10	25.089	16.358
11	28.023	23.236
12	31.360	32.927
13	35.779	42.618
14	40.693	52.309
15	45.513	62.000

STATION NO. 10, AT X = 173.066 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	10.665	0.256
3	11.039	0.288
4	12.362	0.509
5	14.235	1.108
6	16.555	2.274
7	19.384	4.197
8	22.791	7.065
9	26.679	11.069
10	30.583	16.396
11	33.505	23.236
12	36.552	32.927
13	40.446	42.618
14	44.673	52.309
15	48.724	62.000

STATION NO. 11, AT X = 205.718 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	16.187	0.403
3	16.586	0.434
4	17.993	0.654
5	19.959	1.249
6	22.338	2.408
7	25.130	4.318
8	28.352	7.168
9	31.891	11.146
10	35.358	16.439
11	37.957	23.236
12	40.664	32.927
13	43.978	42.618
14	47.483	52.309
15	50.765	62.000

STATION NO. 12, AT X = 238.369 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	21.689	0.549
3	22.088	0.580
4	23.514	0.798
5	25.540	1.309
6	27.981	2.541
7	30.723	4.439
8	33.636	7.271
9	36.540	11.223
10	39.192	16.483
11	41.253	23.236
12	43.630	32.927
13	46.395	42.618
14	49.236	52.309
15	51.839	62.000

STATION NO. 13, AT X = 271.020 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	26.470	0.676
3	26.868	0.707
4	28.306	0.923
5	30.373	1.511
6	32.839	2.656
7	35.470	4.544
8	37.988	7.360
9	40.159	11.291
10	41.910	16.521
11	43.413	23.236
12	45.509	32.927
13	47.793	42.618
14	50.071	52.309
15	52.150	62.000

STATION NO. 14, AT X = 303.672 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	29.829	0.765
3	30.225	0.796
4	31.656	1.012
5	33.698	1.597
6	36.087	2.738
7	38.527	4.618
8	40.673	7.423
9	42.287	11.338
10	43.426	16.547
11	44.583	23.236
12	46.504	32.927
13	48.453	42.618
14	50.358	52.309
15	52.150	62.000

STATION NO. 15, AT X = 336.323 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	30.015	0.770
3	30.488	0.791
4	31.800	0.938
5	33.523	1.338
6	35.503	2.116
7	37.609	3.398
8	39.680	5.312
9	41.495	7.982
10	42.727	11.536
11	45.002	23.236
12	46.858	32.927
13	48.663	42.618
14	50.425	52.309
15	52.150	62.000

STATION NO. 16, AT X = 368.974 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	24.186	0.615
3	24.592	0.646
4	26.176	0.863
5	28.713	1.453
6	32.010	2.601
7	35.671	4.494

8	39.103	7.318
9	41.785	11.259
10	43.581	16.503
11	44.945	23.236
12	46.808	32.927
13	48.630	42.618
14	50.408	52.309
15	52.140	62.000

STATION NO. 17, AT X = 401.626 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	0.000
2	15.492	0.385
3	15.907	0.416
4	17.582	0.635
5	20.420	1.231
6	24.355	2.391
7	29.103	4.303
8	34.117	7.155
9	38.742	11.136
10	42.399	16.434
11	44.673	23.236
12	46.575	32.927
13	48.481	42.618
14	50.344	52.309
15	52.115	62.000

STATION NO. 18, AT X = 439.688 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	1.061
2	5.773	1.187
3	6.144	1.218
4	7.732	1.429
5	10.639	2.004
6	15.007	3.123
7	20.784	4.968
8	27.589	7.720
9	34.665	11.561
10	40.825	16.673
11	44.322	23.236
12	46.252	32.927
13	48.263	42.618
14	50.238	52.309
15	52.062	62.000

STATION NO. 19, AT X = 477.750 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	4.169
2	1.024	4.169
3	1.282	4.195
4	2.500	4.378
5	4.991	4.875
6	9.110	5.843
7	15.083	7.439
8	22.793	9.819
9	31.505	13.140
10	39.551	17.561
11	43.979	23.236
12	45.973	32.927
13	48.071	42.618
14	50.123	52.309
15	51.980	62.000

STATION NO. 20, AT X = 515.813 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	8.572
2	1.121	8.587
3	1.734	8.689
4	3.061	8.968
5	5.425	9.511
6	9.230	10.405
7	14.837	11.740
8	22.285	13.602
9	30.921	16.080
10	39.003	19.262
11	43.363	23.236
12	45.641	32.927
13	47.888	42.618
14	49.998	52.309
15	51.863	62.000

STATION NO. 21, AT X = 553.875 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	12.988
2	1.077	12.999
3	1.516	13.070
4	2.585	13.265
5	4.639	13.644
6	8.122	14.269
7	13.446	15.202
8	20.706	16.503
9	29.275	18.235
10	37.389	20.459
11	41.794	23.236
12	44.847	32.927
13	47.519	42.618
14	49.806	52.309
15	51.708	62.000

STATION NO. 22, AT X = 591.938 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	16.414
2	1.056	16.420
3	1.451	16.468
4	2.537	16.598
5	4.668	16.850
6	8.179	17.266
7	13.289	17.887
8	19.917	18.754
9	27.428	19.907
10	34.367	21.387
11	38.201	23.236
12	42.938	32.927
13	46.648	42.618
14	49.462	52.309
15	51.510	62.000

STATION NO. 23, AT X = 630.000 FT

POINT	HALF BEAM,FT	WATERLINE,FT
1	1.000	19.157
2	1.048	19.161
3	1.459	19.189
4	2.665	19.267
5	4.978	19.418
6	8.514	19.667
7	13.139	20.038

8	18.466	20.556
9	23.874	21.245
10	28.505	22.131
11	31.191	23.236
12	39.458	32.927
13	45.218	42.618
14	48.983	52.309
15	51.264	62.000

PRINTED REPORT NO. 3 - HULL BOUNDARY CONDITIONS

HULL OFFSETS IND-GENERATE
HULL BC IND-GIVEN

HULL STA IND-OPTIMUM

LBP, FT	630.00	LCB/LBP	0.512
BEAM, FT	90.00	LCF/LBP	0.575
DRAFT, FT	23.24	HALF SIDING WIDTH, FT	1.00
DEPTH STA 0, FT	62.00	BOT RAKE, FT	0.00
DEPTH STA 3, FT	62.00	FWD RAISED DECK LIMIT	
DEPTH STA 10, FT	62.00	AFT RAISED DECK LIMIT	
DEPTH STA 20, FT	62.00	RAISED DECK HT, FT	0.00
PRISMATIC COEF	0.570	WATERPLANE COEF	0.783
MAX SECTION COEF	0.910		
NO POINTS BELOW DWL	11.	FWD KEEL/BL LIMIT	0.016
NO POINTS ABOVE DWL	4.	AFT KEEL/BL LIMIT	0.638
POINT DIST FAC ABOVE DWL	3.000	BOW ANGLE, DEG	66.00
POINT DIST FAC BELOW DWL	1.000	BOW SHAPE FAC	0.000
BOW OVERHANG	0.038	STA 20 SECTION COEF	0.677
STERN OVERHANG	0.031	HULL FLARE ANGLE, DEG	

SECTIONAL AREA AND DWL CURVES

	AREA	DWL
STA 0 ORDINATE	0.000	0.005
STA 0 SLOPE	-0.653	-1.303
STA 20 ORDINATE	0.090	0.693
STA 20 SLOPE	0.750	1.697
PARALLEL MID LGTH	0.000	0.000
STA MAX ORDINATE	10.400	11.000
STA MAX AREA SLOPE	0.000	0.000
TENSOR NO 1	0.000	0.000
TENSOR NO 2	0.000	0.000
TENSOR NO 3	0.000	0.000
TENSOR NO 4	0.000	0.000
TENSOR/POLY SWITCH	-1.000	-1.000

DECK AT EDGE CURVE		FLAT OF BOTTOM CURVE	
STATION 0 OFFSET	0.299	STA OF TRANS START	2.350
STA 0 SLOPE	-2.500	SLOPE-STA OF TRANS START	0.000
STA 10 OFFSET	1.158	STA OF START OF MID	10.000
STA 10 SLOPE	0.000	STA OF END OF MID	11.000
STATION 20 OFFSET	1.139	STA OF TRANS END	15.250
STA 20 SLOPE	0.050	SLOPE-STA OF TRANS END	0.000
PARALLEL MID LGTH	0.090	FLAT OF BOT ANGLE, DEG	1.520
STA OF PARALLEL MID	9.500	ELLIPSE RATIO	1.000

SLOPES AT SECTION CURVES

	BOT	DWL	DAE
STA 0 ORDINATE, DEG	30.000	80.000	61.233
STA 0 SLOPE	120.000	35.601	35.405
STA 10 ORDINATE, DEG	2.000	79.000	80.000
STA 10 SLOPE	0.000	-0.250	0.000
STA 20 ORDINATE, DEG	4.000	45.000	80.000
STA 20 SLOPE	20.000	165.000	0.000
PARALLEL MID LGTH	0.300	0.167	0.073
STA OF PARALLEL MID	10.000	11.253	10.506

PRINTED REPORT NO. 4 - MARGIN LINE

MARGIN LINE IND-CALC
MIN FREEBOARD MARGIN, FT 0.25

DIST FROM FP FT	HT ABOVE BL FT
-23.80	61.75
-11.90	61.75
0.00	61.75
4.90	61.75
9.81	61.75
42.46	61.75
75.11	61.75
107.76	61.75
140.42	61.75
173.07	61.75
205.72	61.75
238.37	61.75
271.02	61.75
303.67	61.75
336.32	61.75
368.97	61.75
401.63	61.75
439.69	61.75
477.75	61.75
515.81	61.75
553.88	61.75
591.94	61.75
630.00	61.75

PRINTED REPORT NO. 5 - HULL SECTIONAL AREA CURVE

STATION	LOCATION,FT	AREA,FT2
1	-23.80	0.00
2	-11.90	0.00
3	0.00	0.00
4	4.90	20.47
5	9.81	42.87
6	42.46	229.44
7	75.11	455.91
8	107.76	700.49
9	140.42	951.22
10	173.07	1198.38
11	205.72	1430.74
12	238.37	1634.02
13	271.02	1791.58
14	303.67	1886.73
15	336.32	1908.04
16	368.97	1839.92
17	401.63	1693.25
18	439.69	1437.86
19	477.75	1126.88
20	515.81	809.61
21	553.88	535.94
22	591.94	333.10
23	630.00	172.22

PRINTED REPORT NO. 1 - HULL SUBDIV SUMMARY

HULL SUBDIV IND-GIVEN

LBP, FT	630.00
DEPTH STA 10, FT	62.00
TOTAL HULL VOLUME, FT3	2689995.
MR VOLUME, FT3	460993.
TANKAGE VOL AVAIL, FT3	62711.
LARGE OBJECT VOL, FT3	957463.
TRUNK VOLUME, FT3	0.
HULL ARR AREA AVAIL, FT2	142336.0

INNER BOT IND PRESENT

HULL AVG DECK HT, FT	14.85
NO. OF DECKS	6
NO. OF TRANS BHDS	13
NO. OF LONG BHDS	5
NO. OF MACHY RMS	6
NO. OF LARGE OBJECT SPACES	4
NO. OF VERTICAL TRUNKS	0
NO. OF CARGO RAMPS	0

PRINTED REPORT NO. 2 - TRANSVERSE BULKHEADS

HULL SUBDIV IND-GIVEN
NO TRANS BHDS 13

BULKHEAD NO	DISTANCE FROM FP,FT	DISTANCE FROM FP/LBP	MR FWD BHD LOC
1	31.50	0.050	
2	74.23	0.118	OMR
3	116.96	0.186	
4	159.68	0.253	MMR
5	213.72	0.339	
6	260.97	0.414	
7	308.22	0.489	MMR
8	362.25	0.575	AMR
9	409.50	0.650	AMR,AMR
10	453.60	0.720	
11	497.70	0.790	
12	541.80	0.860	
13	585.90	0.930	

PRINTED REPORT NO. 3 - LONGITUDINAL BULKHEADS

NO. OF LONG BHDS 5
LBP, FT 630.00
HALF BREADTH, FT 52.15

BKHD NO.	BULKHEAD TYPE	DIST OFF CL, FT (- IS PORT,+ IS STBD) FWD/LOW	FWD/UPP	AFT/LOW	FWD BHD ID	AFT BHD ID	UPP DECK ID	LOW DECK ID
1	PLANAR	-30.0	-30.0	-30.0	6	STERN	1	5
2	PLANAR	30.0	30.0	30.0	6	STERN	1	5
3	PLANAR	-20.0	-20.0	-20.0	5	6	1	3
4	PLANAR	20.0	20.0	20.0	5	6	1	3
5	PLANAR	0.0	.0	.0	9	10	5	IB/IID

PRINTED REPORT NO. 4 - INTERNAL DECKS AND INNER BOTTOM

HULL SUBDIV IND-GIVEN

NO. INTERNAL DECKS	5
DEPTH STA 10, FT	62.00
HULL AVG DECK HT, FT	14.85
RAISED DECK HT, FT	0.00
MAIN DECK HT, FT	62.00

INNER BOT IND-PRESENT

--------- INNER BOTTOM ----------	
CVK HT, FT	3.00
HORZ OFFSET HT, FT	
HORZ OFFSET, FT	
FLAT FWD LOC, FT	31.50
FLAT AFT LOC, FT	585.90
OFFSET FWD LOC, FT	
OFFSET AFT LOC, FT	

INT DECK NO.	DIST FROM BL AT .5 LBP,FT	DECK SHEER FRAC	DECK TYPE	AVAIL AREA FT2	AVAIL VOL FT3
2	53.00	1.0	PLATFORM	29172.1	277281.
3	44.00	1.0	PLATFORM	25601.5	290245.
4	35.00	1.0	PLATFORM	18191.4	177309.
5	26.00	1.0	PLATFORM	41125.3	1022221.
6	17.00	1.0	PLATFORM	20327.7	228442.
IB	3.00			7917.9	186897.
HOLD					46608.
			TOTALS	142336.0	2229003.

PRINTED REPORT NO. 5 - MACHINERY ROOMS AND LARGE OBJECT SPACES

MACHINERY ROOMS:
MR AFT BHD POS, FT 453.60

MR NO.	TYPE	FWD BHD ID	UPR DECK ID	OUTER BHD ID P/S		LGTH AVL FT	LGTH RQD FT	HT AVL FT	HT RQD FT	MR VOL FT3
1	OMR	2	1	H	H					
2	MMR	4	2	H	H	54.03	46.38	53.00	45.37	193771.
3	MMR	7	5	H	H	54.03	46.38	26.00	14.37	105835.
4	AMR	8	5	H	H	47.25	26.06	26.00	12.22	87907.
5	AMR	9	5	5	H	44.10	20.52	26.00	19.92	36740.
6	AMR	9	5	H	5	44.10	20.52	26.00	19.92	36740.
									TOTAL	460993.

LARGE OBJECT SPACES:

LG OBJ NO.	FWD BHD ID	AFT BHD ID	UPR DECK ID	LOWER DECK ID	OUTER BHD ID P/S	AVAIL AREA FT2	AVAIL VOLUME FT3	COMPARTMENT ID (LOWER-FWD PT.)
1	6	TR	1	5	1 2	22142.0	797135.	5-261-0
2	5	6	1	3	3 4	1890.0	34022.	3-214-0
3	2	3	1	3	SH SH	2416.1	51350.	3- 74-0
4	5	6	3	5	SH SH	3940.7	74956.	5-214-0
					TOTALS	30388.8	957463.	

PRINTED REPORT NO. 6 - CARGO RAMPS AND VERTICAL TRUNKS

CARGO RAMPS:

RAMP NO.	UPR DECK ID	LWR DECK ID	UPR DECK X LOC FT	STBD EDGE LOC FT	RAMP WIDTH FT	INCLINE ANG, DEG + AFT	AREA UNDER FT2	AREA ON FT2

VERTICAL TRUNKS:

TRUNK NO.	UPR DECK ID	LWR DECK ID	TRUNK X LOC FT	TRUNK LENGTH FT	STBD EDGE LOC FT	TRUNK WIDTH FT	TRUNK AREA FT2	TRUNK VOLUME FT3

PRINTED REPORT NO. 7 - HULL COMPARTMENT AREA/VOLUME

NUMBER OF INTERNAL DECKS - 5
NUMBER OF TRANSVERSE BULKHEADS - 13
NUMBER OF LONGITUDINAL BULKHEADS - 5
INNER BOTTOM INDICATOR - PRESENT
MAIN DECK HT, FT - 62.0

COMPARTMENT NO.	AREA FT2	AREA CENTER X	AREA CENTER Y	AREA CENTER Z	VOLUME FT3	VOLUME CENTER X	VOLUME CENTER Y	VOLUME CENTER Z
2-FPK-0	1037.0	14.0	0.0	53.0	11684.	12.2	0.0	57.8
2- 32-0	2042.2	54.5	0.0	53.0	20433.	54.3	0.0	57.7
2-117-0	3467.7	138.8	0.0	53.0	32945.	138.8	0.0	57.6
2-160-0	4969.9	187.2	0.0	53.0	46421.	187.1	0.0	57.6
2-214-2	1382.7	237.6	-34.6	53.0	12967.	237.5	-35.3	57.6
2-214-1	1382.7	237.6	34.6	53.0	12967.	237.5	35.3	57.6
2-261-2	959.1	284.7	-40.1	53.0	9023.	284.6	-40.6	57.6
2-261-1	959.1	284.7	40.1	53.0	9023.	284.6	40.6	57.6
2-308-2	1109.6	335.2	-40.3	53.0	10380.	335.2	-40.7	57.6
2-308-1	1109.6	335.2	40.3	53.0	10380.	335.2	40.7	57.6
2-362-2	968.2	385.9	-40.2	53.0	9063.	385.9	-40.7	57.6
2-362-1	968.2	385.9	40.2	53.0	9063.	385.9	40.7	57.6

COMPARTMENT NO.	AREA FT2	AREA CENTER X	AREA CENTER Y	AREA CENTER Z	VOLUME FT3	VOLUME CENTER X	VOLUME CENTER Y	VOLUME CENTER Z
2-410-2	899.0	431.5	-40.2	53.0	8427.	431.5	-40.6	57.6
2-410-1	899.0	431.5	40.2	53.0	8427.	431.5	40.6	57.6
2-454-2	893.2	475.6	-40.1	53.0	8383.	475.6	-40.6	57.6
2-454-1	893.2	475.6	40.1	53.0	8383.	475.6	40.6	57.6
2-498-2	885.9	519.7	-40.0	53.0	8323.	519.7	-40.5	57.6
2-498-1	885.9	519.7	40.0	53.0	8323.	519.7	40.5	57.6
2-542-2	874.4	563.8	-39.9	53.0	8234.	563.8	-40.4	57.6
2-542-1	874.4	563.8	39.9	53.0	8234.	563.8	40.4	57.6
2-586-2	855.6	607.9	-39.7	53.0	8098.	607.9	-40.2	57.6
2-586-1	855.6	607.9	39.7	53.0	8098.	607.9	40.2	57.6
3-FPK-0	671.8	16.3	0.0	44.0	7750.	14.7	0.0	48.8
3- 32-0	1619.6	54.8	0.0	44.0	16470.	54.6	0.0	48.7
3 74 0	2416.1	96.7	0.0	44.0	51350.	96.5	0.0	53.5
3-117-0	3077.0	139.0	0.0	44.0	29451.	138.9	0.0	48.6
3-214-2	1257.4	237.7	-33.3	44.0	11883.	237.7	-34.0	48.6
3-214-0	1890.0	237.3	0.0	44.0	34022.	237.3	0.0	53.0
3-214-1	1257.4	237.7	33.3	44.0	11883.	237.7	34.0	48.6
3-261-2	865.8	284.8	-39.2	44.0	8213.	284.7	-39.7	48.6
3-261-1	865.8	284.8	39.2	44.0	8213.	284.7	39.7	48.6
3-308-2	1020.1	335.3	-39.4	44.0	9584.	335.3	-39.9	48.6
3-308-1	1020.1	335.3	39.4	44.0	9584.	335.3	39.9	48.6
3-362-2	888.2	385.8	-39.4	44.0	8357.	385.8	-39.8	48.6
3-362-1	888.2	385.8	39.4	44.0	8357.	385.8	39.8	48.6
3-410-2	819.9	431.5	-39.3	44.0	7737.	431.5	-39.8	48.6
3-410-1	819.9	431.5	39.3	44.0	7737.	431.5	39.8	48.6
3-454-2	810.3	475.6	-39.2	44.0	7669.	475.6	-39.7	48.6
3-454-1	810.3	475.6	39.2	44.0	7669.	475.6	39.7	48.6
3-498-2	799.6	519.7	-39.1	44.0	7590.	519.7	-39.6	48.6
3-498-1	799.6	519.7	39.1	44.0	7590.	519.7	39.6	48.6
3-542-2	776.2	563.7	-38.8	44.0	7436.	563.7	-39.4	48.6
3-542-1	776.2	563.7	38.8	44.0	7436.	563.7	39.4	48.6
3-586-2	726.2	607.6	-38.2	44.0	7132.	607.8	-39.0	48.6
3-586-1	726.2	607.6	38.2	44.0	7132.	607.8	39.0	48.6
4-FPK-0	416.8	18.2	0.0	35.0	4917.	16.8	0.0	39.8
4- 32-0	1257.2	55.1	0.0	35.0	12914.	54.9	0.0	39.7
4- 74-0	2030.0	96.9	0.0	35.0	19982.	96.8	0.0	39.6
4-117-0	2719.7	139.1	0.0	35.0	26067.	139.1	0.0	39.6
4-261-2	771.3	285.0	-38.2	35.0	7367.	284.9	-38.7	39.6
4-261-1	771.3	285.0	38.2	35.0	7367.	284.9	38.7	39.6
4-308-2	928.5	335.3	-38.6	35.0	8769.	335.3	-39.0	39.6
4-308-1	928.5	335.3	38.6	35.0	8769.	335.3	39.0	39.6
4-362-2	807.0	385.8	-38.5	35.0	7630.	385.8	-39.0	39.6
4-362-1	807.0	385.8	38.5	35.0	7630.	385.8	39.0	39.6
4-410-2	739.0	431.5	-38.4	35.0	7013.	431.5	-38.8	39.6
4-410-1	739.0	431.5	38.4	35.0	7013.	431.5	38.8	39.6
4-454-2	724.9	475.6	-38.2	35.0	6909.	475.6	-38.7	39.6
4-454-1	724.9	475.6	38.2	35.0	6909.	475.6	38.7	39.6
4-498-2	706.8	519.6	-38.0	35.0	6784.	519.7	-38.6	39.6
4-498-1	706.8	519.6	38.0	35.0	6784.	519.7	38.6	39.6
4-542-2	658.4	563.4	-37.5	35.0	6472.	563.6	-38.2	39.6
4-542-1	658.4	563.4	37.5	35.0	6472.	563.6	38.2	39.6
4-586-2	547.9	607.0	-36.2	35.0	5771.	607.4	-37.3	39.7
4-586-1	547.9	607.0	36.2	35.0	5771.	607.4	37.3	39.7
5-FPK-0	247.5	20.0	0.0	26.0	2963.	18.8	0.0	30.9
5- 32-0	982.2	55.6	0.0	26.0	10008.	55.4	0.0	30.7
5- 74-0	1731.3	97.1	0.0	26.0	16855.	97.0	0.0	30.6
5-117-0	2435.2	139.3	0.0	26.0	23137.	139.2	0.0	30.6

COMPARTMENT NO.	AREA FT2	AREA CENTER X	AREA CENTER Y	AREA CENTER Z	VOLUME FT3	VOLUME CENTER X	VOLUME CENTER Y	VOLUME CENTER Z
5-214-0	3940.7	237.7	0.0	26.0	74956.	237.6	0.0	35.2
5-261 2	680.9	285.1	-37.2	26.0	6531.	285.0	-37.7	30.6
5-261-0	22142.0	445.5	0.0	26.0	797135.	445.5	0.0	44.0
5-261-1	680.9	285.1	37.2	26.0	6531.	285.0	37.7	30.6
5-308-2	835.2	335.3	-37.7	26.0	7938.	335.3	-38.2	30.6
5-308-1	835.2	335.3	37.7	26.0	7938.	335.3	38.2	30.6
5-362-2	724.1	385.8	-37.7	26.0	6890.	385.8	-38.1	30.6
5-362-1	724.1	385.8	37.7	26.0	6890.	385.8	38.1	30.6
5-410-2	656.5	431.4	-37.4	26.0	6280.	431.4	-37.9	30.6
5-410-1	656.5	431.4	37.4	26.0	6280.	431.4	37.9	30.6
5-454-2	635.3	475.5	-37.2	26.0	6128.	475.5	-37.7	30.6
5-454-1	635.3	475.5	37.2	26.0	6128.	475.5	37.7	30.6
5-498-2	567.5	519.4	-36.4	26.0	5851.	519.5	-37.4	30.7
5-498-1	567.5	519.4	36.4	26.0	5851.	519.5	37.4	30.7
5-542-2	469.5	562.9	-35.4	26.0	5201.	563.2	-36.6	30.7
5-542-1	469.5	562.9	35.4	26.0	5201.	563.2	36.6	30.7
5-586-2	254.2	604.0	-33.2	26.0	3763.	606.1	-35.0	31.0
5-586-1	254.2	604.0	33.2	26.0	3763.	606.1	35.0	31.0
6-FPK-0	139.7	21.7	0.0	17.0	1701.	20.8	0.0	21.9
6- 32-0	746.8	56.1	0.0	17.0	7759.	55.8	0.0	21.7
6- 74-0	1447.6	97.3	0.0	17.0	14317.	97.2	0.0	21.6
6-117-0	2129.6	139.4	0.0	17.0	20596.	139.3	0.0	21.6
6-214-0	3695.2	237.8	0.0	17.0	34409.	237.8	0.0	21.5
6-261-0	4019.0	284.8	0.0	17.0	36970.	284.8	0.0	21.5
6-454-0	3399.5	475.3	0.0	17.0	33564.	475.5	0.0	21.6
6-498-0	2866.6	518.8	0.0	17.0	31492.	519.5	0.0	21.7
6-542-0	1735.3	560.5	0.0	17.0	27821.	563.1	0.0	21.9
6-586-0	148.3	590.7	0.0	17.0	19814.	606.3	0.0	22.7
IB- 32-0	254.6	56.3	0.0	3.0	7229.	56.4	0.0	11.1
IB- 74-0	575.6	98.0	0.0	3.0	15011.	97.5	0.0	10.9
IB-117-0	1039.7	140.2	0.0	3.0	23303.	139.6	0.0	10.8
IB-214-0	2682.2	238.4	0.0	3.0	46080.	238.0	0.0	10.4
IB-261-0	3255.1	285.1	0.0	3.0	52488.	284.9	0.0	10.2
IB-454-0	110.8	457.7	0.0	3.0	26682.	473.7	0.0	12.2
IB-498-0	0.0	0.0	0.0	0.0	12875.	516.2	0.0	14.0
IB-542-0	0.0	0.0	0.0	0.0	3228.	556.4	0.0	15.6
HB-FPK-0					1408.	21.7	0.0	10.3
HB- 32-0					570.	56.2	0.0	2.1
HB- 74-0					1312.	98.3	0.0	2.1
HB-117-0					2546.	140.4	0.0	2.0
HB-160-0					5480.	188.8	0.0	1.9
HB-214-0					6870.	238.4	0.0	1.8
HB-261-0					8290.	285.1	0.0	1.7
HB-308-0					9935.	334.8	0.0	1.8
HB-362-0					6768.	384.2	0.0	1.8
HB-410-0					2750.	426.3	0.0	2.6
HB-454-0					559.	471.4	0.0	7.6
HB-498-0					54.	512.0	0.0	14.6
HB-542-0					7.	557.6	0.0	18.3
HB-586-0					59.	589.5	0.0	16.7

PRINTED REPORT NO. 1 - DECKHOUSE SUMMARY

DKHS GEOM IND-GIVEN		DKHS SIZE IND-	
DKHS FWD LIMIT-	STA 2.0	DKHS LENGTH OA, FT	299.25
DKHS AFT LIMIT-	STA 11.5	DKHS MAX WIDTH, FT	101.44
DKHS NO PRISMS	9	DKHS HT (W/O PLTHS), FT	102.00
DKHS NO LVLS		DKHS AVG DECK HT, FT	10.00
DKHS AVG SIDE CLR, FT		DKHS ARR AREA AVAIL, FT2	80230.18
DKHS AVG SIDE ANG, DEG		DKHS VOLUME, FT3	802301.81
LBP, FT	630.00	BRIDGE L-O-S OVER BOW, FT	101.90
BEAM, FT	89.95		

PRINTED REPORT NO. 2 - SUPERSTRUCTURE DECKHOUSES

NO OF SS DECKHOUSE BLKS	9
DKHS VOLUME, FT3	802302.
DKHS ARR AREA AVAIL, FT2	80230.2

	DECKHOUSE NUMBER				
	1	2	3	4	5
DIST FROM BOW, FT	94.50	94.50	94.50	94.50	94.50
LENGTH, FT	110.25	110.25	110.25	110.25	20.96
DIST FROM CL, FT					
FWD/PORT/BTM	-38.61	-34.97	-31.33	-27.69	-13.61
AFT/PORT/BTM	-50.72	-47.08	-43.44	-39.80	-17.15
FWD/STBD/BTM	38.61	34.97	31.33	27.69	13.61
AFT/STBD/BTM	50.72	47.08	43.44	39.80	17.15
FWD/PORT/TOP	-34.97	-31.33	-27.69	-24.05	-13.61
AFT/PORT/TOP	-47.08	-43.44	-39.80	-36.16	-17.15
FWD/STBD/TOP	34.97	31.33	27.69	24.05	13.61
AFT/STBD/TOP	47.08	43.44	39.80	36.16	17.15
DIST ABV BASELINE FWD, FT	62.00	72.00	82.00	92.00	102.00
DIST ABV BASELINE AFT, FT	62.00	72.00	82.00	92.00	102.00
HEIGHT, FT	10.00	10.00	10.00	10.00	10.00
VOLUME, FT3	94477.	86452.	78426.	70400.	6449.
ARR AREA, FT2	9447.7	8645.2	7842.6	7040.0	644.9

	DECKHOUSE NUMBER			
	6	7	8	9
DIST FROM BOW, FT	63.00	63.00	204.75	349.65
LENGTH, FT	31.50	31.50	157.50	12.60
DIST FROM CL, FT				
FWD/PORT/BTM	-25.04	-21.40	-50.72	-41.14
AFT/PORT/BTM	-28.61	-24.97	-52.14	-41.14
FWD/STBD/BTM	25.04	21.40	50.72	-17.86
AFT/STBD/BTM	28.61	24.97	52.14	-17.86
FWD/PORT/TOP	-21.40	-17.76	-39.80	-37.50
AFT/PORT/TOP	-24.97	-21.33	-41.22	-37.50
FWD/STBD/TOP	21.40	17.76	39.80	-21.50
AFT/STBD/TOP	24.97	21.33	41.22	-21.50
DIST ABV BASELINE FWD, FT	62.00	72.00	62.00	92.00
DIST ABV BASELINE AFT, FT	62.00	72.00	62.00	92.00
HEIGHT, FT	10.00	10.00	30.00	10.00
VOLUME, FT3	15755.	13462.	434407.	2474.
ARR AREA, FT2	1575.5	1346.2	43440.7	247.4

PRINTED REPORT NO. 3 - DECKHOUSE STRUCTURE WEIGHT SUMMARY

DKHS MTRL TYPE IND-MS
FIRE PROTECT IND-NONE
BLAST RESIST IND-3 PSI

DKHS STRUCT DENSITY, LBM/FT3 4.18
HANGER VOL, FT3 0.

	WT-LTON	VCG-FT	LCG-FT
CALCULATED SWBS150	1497.2	78.30	221.27

DECK HOUSE	VOLUME FT3	VCG FROM BL FT
NO. 1	94477.	66.93
NO. 2	86452.	76.92
NO. 3	78426.	86.91
NO. 4	70400.	96.90
NO. 5	6449.	107.00
NO. 6	15755.	66.88
NO. 7	13462.	76.86
NO. 8	434407.	76.41
NO. 9	2474.	96.69
	802302.	78.30

PRINTED REPORT NO. 1 - HULL STRUCTURE SUMMARY

INNER BOT IND-PRESENT
STIFFENER SHAPE IND-CALC

HULL LOADS IND-CALC

HULL STRENGTH AND STRESS

HOGGING BM, FT-LTON	409523.	PRIM STRESS KEEL HOG, KSI	16.67
SAGGING BM, FT-LTON	341418.	PRIM STRESS KEEL-SAG, KSI	13.89
MIDSHIP MOI, FT2-IN2	1645076.	PRIM STRESS DECK-HOG, KSI	17.91
DIST N.A. TO KEEL, FT	29.89	PRIM STRESS DECK-SAG, KSI	14.93
DIST N.A. TO DECK, FT	32.11	HULL MARGIN STRESS, KSI	2.24
SEC MOD TO KEEL, FT-IN2	55041.	SEC MOD TO DECK, FT-IN2	51229.

HULL STRUCTURE COMPONENTS

	MATERIAL TYPE	NO OF SEGMENT	NO
WET. DECK	HTS	5	1
SIDE SHELL	HTS	6	1
BOTTOM SHELL	HTS	5	1
INNER BOTTOM	HTS	4	1
INT. DECK	HTS	5	5
STRINGER, SHEER	HTS	1	1
LONG BULKHEAD	HTS		5
TRANS BULKHEAD	HTS		13

HULL STRUCTURE WEIGHT

SWBS	COMPONENT	WEIGHT, LTON	VCG, FT
100	HULL STRUCTURE	4702.4	38.48
110	SHELL+SUPPORT	1577.2	28.81
120	HULL STRUCTURAL BHD	818.3	35.06
130	HULL DECKS	718.7	61.96
140	HULL PLATFORM/FLATS	1588.2	39.21

PRINTED REPORT NO. 2 - HULL STRUCTURES WEIGHT

SWBS	COMPONENT	WT-LTON	VCG-FT
100	HULL STRUCTURES	4702.4	38.48
110	SHELL + SUPPORTS	1577.2	28.81
111	PLATING	1024.9	35.61
113	INNER BOTTOM	167.0	3.00
115	STANCHIONS	18.3	31.00
116	LONG FRAMING	101.9	.94
117	TRANS FRAMING	265.1	29.36
120	HULL STRUCTURAL BULKHDS	818.3	35.06
121	LONG BULKHDS	265.7	40.85
122	TRANS BULKHDS	433.7	32.28
123	TRUNKS + ENCLOSURES	118.9	32.28
130	HULL DECKS	718.7	61.96
131	MAIN DECK	718.7	61.96
132	2ND DECK		
133	3RD DECK		
134	4TH DECK		
135	5TH DECK+DECKS BELOW		
136	01 HULL DECK		
140	HULL PLATFORMS/FLATS	1588.2	39.21
141	1ST PLATFORM	458.5	52.93
142	2ND PLATFORM	369.3	43.94
143	3RD PLATFORM	344.4	34.93
144	4TH PLATFORM	298.9	25.95
145	5TH PLAT+PLATS BELOW	117.0	17.05

* DENOTES INCLUSION OF PAYLOAD OR ADJUSTMENTS

PRINTED REPORT NO. 3 - WEATHER DECK

DECK MTRL TYPE-HTS
STRINGER PLATE MTRL TYPE-HTS

	SHELL	STRINGER PLATE
MODULUS OF ELASTICITY, KSI	29600.0	29600.0
DENSITY, LBM/FT3	489.02	489.02
YIELD STRENGTH, KSI	45.00	45.00
MAX PRIMARY STRENGTH, KSI	21.28	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00
STRINGER PLATE WIDTH, FT	6.00	

SEGMENT GEOMETRY

	--------NODE COORD, FT----------				SCND. LOAD, FT--	
SEG	YIB	ZIB	YOB	ZOB	HEAD1	HEAD2
1	0.00	62.00	10.43	62.00	8.27	
2	10.43	62.00	20.86	62.00	8.27	
3	20.86	62.00	31.29	62.00	8.27	
4	31.29	62.00	41.72	62.00	8.27	
5	41.72	62.00	52.15	62.00	8.27	

SEGMENT SCANTLINGS

SEG	STIFFENERS INXINXIN/IN				CATLG NO	NO.OF STIFF	PLATE TK, IN	SPACING IN
1 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.5625	20.86
2 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.5625	20.86
3 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.5625	20.86
4 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.5625	20.86
5 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.6875	20.86

NOTE: *R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

SEG	AREA TOTAL IN2	AREA SHEAR IN2	N.A. TO PLATE IN	SEC MOD PLATE IN3	SEC MOD FLANGE IN3	WT/FT LBF/FT	SMEAR RATIO
1	13.17	0.77	0.64	25.17	4.14	44.74	0.12
2	13.17	0.77	0.64	25.17	4.14	44.74	0.12
3	13.17	0.77	0.64	25.17	4.14	44.74	0.12
4	13.17	0.77	0.64	25.17	4.14	44.74	0.12
5	15.78	0.79	0.65	26.46	4.29	53.59	0.10

PRINTED REPORT NO. 4 - SIDE SHELL

SIDE SHELL MTRL TYPE-HTS
SHEER STRAKE MTRL TYPE-HTS

	SHELL	SHEER STRAKE
MODULUS OF ELASTICITY, KSI	29600.0	29600.0
DENSITY, LBM/FT3	489.02	489.02
YIELD STRENGTH, KSI	45.00	45.00
MAX PRIMARY STRENGTH, KSI	21.28	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00
SHEER STRAKE WIDTH, FT	6.00	

SEGMENT GEOMETRY

SEG	NODE COORD, FT YUPR	ZUPR	YLWR	ZLWR	SCND. LOAD, FT HEAD1	HEAD2
1	52.15	62.00	51.07	56.00	7.81	
2	51.07	56.00	48.80	44.00	16.00	
3	48.80	44.00	47.04	35.00	26.50	
4	47.04	35.00	45.27	26.00	35.50	
5	45.27	26.00	43.52	17.00	44.50	
6	43.52	17.00	42.63	12.40	51.30	

SEGMENT SCANTLINGS

SEG	STIFFENERS INXINXIN/IN				CATLG NO	NO.OF STIFF	PLATE TK, IN	SPACING IN
1 *R	3.745X	3.940X	0.170/	0.205	1.	4	0.6875	18.29
2 *R	3.745X	3.940X	0.170/	0.205	1.	6	0.3438	20.94
3 *R	4.730X	3.960X	0.190/	0.210	2.	4	0.3750	22.01
4 *R	4.730X	3.960X	0.190/	0.210	2.	4	0.4375	22.01

5 *F	5.685X	3.940X	0.170/	0.215	3.	4	0.3438	22.01
6 *F	5.685X	3.940X	0.170/	0.215	3.	3	0.3125	18.74

NOTE: *F STANDS FOR FABRICATED SHAPE
*R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

	PROPERTIES OF STIFFENED PLATES						
	AREA		N.A. TO	SEC MOD			SMEAR
SEG	TOTAL IN2	SHEAR IN2	PLATE IN	PLATE IN3	FLANGE IN3	WT/FT LBF/FT	RATIO
1	14.02	0.79	0.69	24.62	4.27	47.60	0.11
2	8.64	0.73	0.70	20.19	3.91	29.33	0.20
3	9.98	1.01	0.84	29.17	5.44	33.90	0.21
4	11.36	1.02	0.79	31.90	5.51	38.58	0.18
5	9.38	1.06	1.02	34.06	6.65	31.84	0.24
6	7.67	1.06	1.19	27.76	6.57	26.03	0.31

PRINTED REPORT NO. 5 - BOTTOM SHELL

BOTTOM SHELL MTRL TYPE-HTS

MODULUS OF ELASTICITY, KSI	29600.0
DENSITY, LBM/FT3	489.02
YIELD STRENGTH, KSI	45.00
MAX PRIMARY STRENGTH, KSI	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00

SEGMENT GEOMETRY

	NODE COORD, FT				SCND. LOAD, FT	
SEG	YUPR	ZUPR	YLWR	ZLWR	HEAD1	HEAD2
1	42.63	12.40	36.57	3.00	58.93	
2	36.57	3.00	31.29	0.96	64.26	
3	31.29	0.96	20.86	0.53	65.34	
4	20.86	0.53	10.43	0.25	65.70	
5	10.43	0.25	0.00	0.00	72.22	

SEGMENT SCANTLINGS

	SCANTLINGS OF STIFFENED PLATES							
	STIFFENERS				CATLG	NO.OF	PLATE	SPACING
SEG	INXINXIN/IN				NO	STIFF	TK, IN	IN
1 *F	9.660X	3.960X	0.190/	0.210	14.	5	0.4375	22.99
2 *F	9.660X	3.960X	0.190/	0.210	14.	2	0.4375	22.00
3 *F	9.660X	3.960X	0.190/	0.210	14.	3	0.5000	21.64
4 *F	9.660X	3.960X	0.190/	0.210	14.	5	0.5000	20.73
5 *F	9.660X	3.960X	0.190/	0.210	14.	6	0.5000	22.20

NOTE: *F STANDS FOR FABRICATED SHAPE

SEGMENT PROPERTIES

	PROPERTIES OF STIFFENED PLATES						
	AREA		N.A. TO	SEC MOD			SMEAR
SEG	TOTAL IN2	SHEAR IN2	PLATE IN	PLATE IN3	FLANGE IN3	WT/FT LBF/FT	RATIO
1	12.73	1.96	1.60	74.93	13.78	43.23	0.27
2	12.29	1.96	1.65	72.18	13.76	41.75	0.28
3	13.49	1.97	1.56	78.37	13.88	45.81	0.25
4	13.03	1.97	1.61	75.62	13.86	44.26	0.26
5	13.77	1.97	1.53	80.05	13.89	46.77	0.24

PRINTED REPORT NO. 6 - INNER BOTTOM

INNER BOT IND-PRESENT

INNER BOTTOM MTRL TYPE-HTS

MODULUS OF ELASTICITY, KSI	29600.0
DENSITY, LBM/FT3	489.02
YIELD STRENGTH, KSI	45.00
MAX PRIMARY STRENGTH, KSI	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00

SEGMENT GEOMETRY

	NODE COORD, FT				SCND. LOAD, FT	
SEG	YUPR	ZUPR	YLWR	ZLWR	HEAD1	HEAD2
1	36.57	3.00	31.29	3.00	2.83	68.34
2	31.29	3.00	20.86	3.00	2.82	64.41
3	20.86	3.00	10.43	3.00	2.82	59.19
4	10.43	3.00	0.00	3.00	2.82	53.98

SEGMENT SCANTLINGS

	SCANTLINGS OF STIFFENED PLATES							
	STIFFENERS				CATLG	NO.OF	PLATE	SPACING
SEG	INXINXIN/IN				NO	STIFF	TK, IN	IN
1 *F	5.685X	3.940X	0.170/	0.215	3.	2	0.3750	21.13
2 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.4375	20.86
3 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.4375	20.86
4 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.4375	20.86

NOTE: *F STANDS FOR FABRICATED SHAPE
*R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

	PROPERTIES OF STIFFENED PLATES						
	AREA		N.A. TO	SEC MOD			SMEAR
SEG	TOTAL IN2	SHEAR IN2	PLATE IN	PLATE IN3	FLANGE IN3	WT/FT LBF/FT	RATIO
1	9.73	1.07	1.01	34.96	6.68	33.06	0.23
2	10.86	1.02	0.82	30.64	5.51	36.87	0.19
3	10.86	1.02	0.82	30.64	5.51	36.87	0.19
4	10.86	1.02	0.82	30.64	5.51	36.87	0.19

PRINTED REPORT NO. 7 - INTERNAL DECKS

NUMBER OF INTERNAL DECKS 5

INTERNAL DECK MTRL TYPE-HTS

MODULUS OF ELASTICITY, KSI	29600.0
DENSITY, LBM/FT3	489.02
YIELD STRENGTH, KSI	45.00
MAX PRIMARY STRENGTH, KSI	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00

SEGMENT GEOMETRY

	--------NODE COORD, FT----------				SCND. LOAD, FT--	
SEG	YIB	ZIB	YOB	ZOB	HEAD1	HEAD2
DECK NO.1						
SEG						
1	0.00	53.00	10.43	53.00	2.67	41.70
2	10.43	53.00	20.86	53.00	2.67	46.92
3	20.86	53.00	31.29	53.00	2.67	52.13
4	31.29	53.00	41.72	53.00	2.67	57.80
5	41.72	53.00	50.51	53.00	2.67	45.70
DECK NO.2						
SEG						
1	0.00	44.00	10.43	44.00	2.67	41.70
2	10.43	44.00	20.86	44.00	2.67	46.92
3	20.86	44.00	31.29	44.00	2.67	52.13
4	31.29	44.00	41.72	44.00	2.67	57.80
5	41.72	44.00	48.80	44.00	2.67	45.70
DECK NO.3						
SEG						
1	0.00	35.00	10.43	35.00	2.67	41.70
2	10.43	35.00	20.86	35.00	2.67	46.92
3	20.86	35.00	31.29	35.00	2.67	52.13
4	31.29	35.00	41.72	35.00	2.67	57.80
5	41.72	35.00	47.04	35.00	2.67	45.70
DECK NO.4						
SEG						
1	0.00	26.00	10.43	26.00	2.67	41.70
2	10.43	26.00	20.86	26.00	2.67	46.92
3	20.86	26.00	31.29	26.00	2.67	52.13
4	31.29	26.00	45.27	26.00	2.67	57.80
DECK NO.5						
SEG						
1	0.00	17.00	10.43	17.00	2.67	41.70
2	10.43	17.00	20.86	17.00	2.67	46.92
3	20.86	17.00	31.29	17.00	2.67	52.13
4	31.29	17.00	43.52	17.00	2.67	57.80

SEGMENT SCANTLINGS

SEG	STIFFENERS INXINXIN/IN				CATLG NO	NO.OF STIFF	PLATE TK, IN	SPACING IN
	SCANTLINGS OF STIFFENED PLATES							
DECK NO.1								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.2813	20.86
2 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
3 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
4 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3438	20.86
5 *R	3.745X	3.940X	0.170/	0.205	1.	4	0.5000	21.10
DECK NO.2								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.2813	20.86
2 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
3 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
4 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3438	20.86
5 *R	3.745X	3.940X	0.170/	0.205	1.	3	0.5000	21.23
DECK NO.3								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.2813	20.86
2 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
3 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
4 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3438	20.86
5 *R	3.745X	3.940X	0.170/	0.205	1.	2	0.5000	21.27
DECK NO.4								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.2813	20.86
2 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
3 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
4 *F	5.685X	3.940X	0.170/	0.215	3.	6	0.3438	23.97
DECK NO.5								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1.	5	0.2813	20.86
2 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
3 *R	4.730X	3.960X	0.190/	0.210	2.	5	0.3125	20.86
4 *R	4.730X	3.960X	0.190/	0.210	2.	6	0.3438	20.96

NOTE: *F STANDS FOR FABRICATED SHAPE
*R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

SEG	AREA TOTAL IN2	AREA SHEAR IN2	N.A. TO PLATE IN	SEC MOD PLATE IN3	SEC MOD FLANGE IN3	WT/FT LBF/FT	SMEAR RATIO
	PROPERTIES OF STIFFENED PLATES						
DECK NO.1							
SEG							
1	7.31	0.72	0.76	17.72	3.85	24.82	0.25
2	8.25	1.00	0.93	24.77	5.35	28.01	0.27
3	8.25	1.00	0.93	24.77	5.35	28.01	0.27
4	8.90	1.00	0.90	26.44	5.39	30.23	0.24
5	11.99	0.76	0.64	24.36	4.08	40.71	0.14
DECK NO.2							
SEG							
1	7.31	0.72	0.76	17.72	3.85	24.82	0.25
2	8.25	1.00	0.93	24.77	5.35	28.01	0.27
3	8.25	1.00	0.93	24.77	5.35	28.01	0.27
4	8.90	1.00	0.90	26.44	5.39	30.23	0.24
5	12.05	0.76	0.64	24.45	4.08	40.93	0.14

DECK NO.3							
SEG							
1	7.31	0.72	0.76	17.72	3.85	24.82	0.25
2	8.25	1.00	0.93	24.77	5.35	28.01	0.27
3	8.25	1.00	0.93	24.77	5.35	28.01	0.27
4	8.90	1.00	0.90	26.44	5.39	30.23	0.24
5	12.07	0.76	0.64	24.48	4.08	41.00	0.14
DECK NO.4							
SEG							
1	7.31	0.72	0.76	17.72	3.85	24.82	0.25
2	8.25	1.00	0.93	24.77	5.35	28.01	0.27
3	8.25	1.00	0.93	24.77	5.35	28.01	0.27
4	10.05	1.06	0.96	36.54	6.66	34.13	0.22
DECK NO.5							
SEG							
1	7.31	0.72	0.76	17.72	3.85	24.82	0.25
2	8.25	1.00	0.93	24.77	5.35	28.01	0.27
3	8.25	1.00	0.93	24.77	5.35	28.01	0.27
4	8.94	1.00	0.89	26.54	5.39	30.35	0.24

PRINTED REPORT NO. 8 - STRENGTH AND STRESS OF STIFFENED PLATE AT DESIGN LOAD

INNER BOT IND-PRESENT

SEG	-PRIMARY STRESS-		-LOCAL STRESS-		--------STRENGTH--------		
	TENSION KSI	COMP. KSI	BEND. KSI	SHEAR KSI	BUCKL. KSI	ULTIMATE KSI	COLUMN KSI
WET DECK							
1	18.86	15.72	6.35	2.14	42.38	43.12	29.94
2	18.86	15.72	6.35	2.14	42.38	43.12	29.94
3	18.86	15.72	6.35	2.14	42.38	43.12	29.94
4	18.86	15.72	6.35	2.14	42.38	43.12	29.94
5	18.86	15.72	6.13	2.08	43.79	45.00	28.41
SIDE SHELL							
1	17.97	15.06	5.10	1.73	44.28	45.00	29.78
2	15.35	13.11	13.05	4.37	28.86	32.67	33.41
3	12.28	10.82	16.35	5.50	31.07	33.50	37.46
4	9.65	8.86	21.60	7.29	37.21	37.00	36.61
5	10.83	11.10	22.45	8.79	26.12	31.54	40.87
6	11.99	13.09	22.29	8.67	29.76	33.02	41.94
BOT SHELL							
1	13.29	15.32	14.99	6.59	36.02	36.02	45.00
2	14.20	16.88	15.66	6.88	37.23	37.01	45.00
3	14.38	17.19	15.53	6.84	40.37	40.25	45.00
4	14.44	17.30	14.98	6.58	41.04	41.11	45.00
5	15.56	19.21	17.59	7.75	39.93	39.72	45.00
INNER BOT							
1	13.98	16.51	32.94	12.90	33.70	34.43	40.69
2	13.98	16.51	37.19	12.53	38.50	38.19	36.97
3	13.98	16.51	34.18	11.51	38.50	38.19	36.97
4	13.98	16.51	31.16	10.50	38.50	38.19	36.97

INT DECK NO. 1							
1	0.00	0.00	34.43	11.52	19.46	28.29	34.67
2	0.00	0.00	27.87	9.34	24.02	30.60	38.67
3	0.00	0.00	30.97	10.38	24.02	30.60	38.67
4	0.00	0.00	34.08	11.44	29.07	32.75	38.22
5	0.00	0.00	36.05	12.14	40.78	40.76	30.72
INT DECK NO. 2							
1	0.00	0.00	34.43	11.52	19.46	28.29	34.67
2	0.00	0.00	27.87	9.34	24.02	30.60	38.67
3	0.00	0.00	30.97	10.38	24.02	30.60	38.67
4	0.00	0.00	34.08	11.44	29.07	32.75	38.22
5	0.00	0.00	36.27	12.22	40.68	40.64	30.66
INT DECK NO. 3							
1	0.00	0.00	34.43	11.52	19.46	28.29	34.67
2	0.00	0.00	27.87	9.34	24.02	30.60	38.67
3	0.00	0.00	30.97	10.38	24.02	30.60	38.67
4	0.00	0.00	34.08	11.44	29.07	32.75	38.22
5	0.00	0.00	36.33	12.24	40.65	40.60	30.64
INT DECK NO. 4							
1	0.00	0.00	34.43	11.52	19.46	28.29	34.67
2	0.00	0.00	27.87	9.34	24.02	30.60	38.67
3	0.00	0.00	30.97	10.38	24.02	30.60	38.67
4	0.00	0.00	31.69	12.43	22.02	29.64	40.45
INT DECK NO. 5							
1	0.00	0.00	34.43	11.52	19.46	28.29	34.67
2	0.00	0.00	27.87	9.34	24.02	30.60	38.67
3	0.00	0.00	30.97	10.38	24.02	30.60	38.67
4	0.00	0.00	34.25	11.50	28.78	32.63	38.19

PRINTED REPORT NO. 9 - FACTOR OF SAFETY OF STIFFENED PLATE AT DESIGN LOAD

INNER BOT IND-PRESENT

	--PLATE-	-STIFFENER-	--------STIFFENED PLATE----------		
SEG	BUCKLING	SHEAR	COMP+BEND	ULTIMATE	TENSION+BEND.
WET DECK					
1	2.61	10.65	1.05	1.41	1.51
2	2.61	10.65	1.05	1.41	1.51
3	2.61	10.65	1.05	1.41	1.51
4	2.61	10.65	1.05	1.41	1.51
5	2.70	10.94	1.01	1.40	1.52
SIDE SHELL					
1	2.85	13.21	1.12	1.54	1.65
2	2.00	5.21	1.08	1.35	1.34
3	2.51	4.14	1.16	1.80	1.33
4	3.45	3.13	1.08	2.23	1.22
5	1.96	2.59	1.07	1.72	1.14
6	1.88	2.63	1.02	1.56	1.11

BOT SHELL					
1	2.15	3.46	1.22	1.72	1.34
2	2.02	3.32	1.14	1.61	1.27
3	2.17	3.34	1.13	1.73	1.27
4	2.19	3.46	1.14	1.76	1.29
5	1.92	2.94	1.00	1.53	1.15
INNER BOT					
1	10.42	1.77	1.15	7.70	1.15
2	11.22	1.82	1.02	7.31	1.02
3	12.21	1.98	1.11	7.96	1.11
4	13.38	2.17	1.22	8.72	1.22
INT DECK NO. 1					
1	5.06	1.98	1.10	4.54	1.10
2	7.76	2.44	1.36	6.80	1.36
3	6.99	2.20	1.23	6.12	1.23
4	8.14	1.99	1.12	6.23	1.12
5	13.16	1.88	1.05	7.19	1.05
INT DECK NO. 2					
1	5.06	1.98	1.10	4.54	1.10
2	7.76	2.44	1.36	6.80	1.36
3	6.99	2.20	1.23	6.12	1.23
4	8.14	1.99	1.12	6.23	1.12
5	13.10	1.87	1.05	7.13	1.05
INT DECK NO. 3					
1	5.06	1.98	1.10	4.54	1.10
2	7.76	2.44	1.36	6.80	1.36
3	6.99	2.20	1.23	6.12	1.23
4	8.14	1.99	1.12	6.23	1.12
5	13.09	1.86	1.05	7.12	1.05
INT DECK NO. 4					
1	5.06	1.98	1.10	4.54	1.10
2	7.76	2.44	1.36	6.80	1.36
3	6.99	2.20	1.23	6.12	1.23
4	7.42	1.83	1.20	7.18	1.20
INT DECK NO. 5					
1	5.06	1.98	1.10	4.54	1.10
2	7.76	2.44	1.36	6.80	1.36
3	6.99	2.20	1.23	6.12	1.23
4	8.05	1.98	1.11	6.20	1.11

PRINTED REPORT NO. 10 - GIRDER PROPERTIES, STRENGTH ,STRESSES AND FACTOR OF SAFETY

DECK MTRL TYPE-HTS
BOT MTRL TYPE-HTS

HULL LOADS IND-CALC
GIRDER/STIFF.,POSITION

	------COORDINATE, FT-----		--SCND. LOAD, FT--	
	YLOC	ZLOC	HEAD1	HEAD2
WET DECK				
GIRDER				
1	0.00	62.00	8.77	
2	10.43	62.00	8.77	
3	20.86	62.00	8.77	
4	31.29	62.00	8.77	
5	41.72	62.00	8.77	
INT DECK 1.				
GIRDER				
1	0.00	53.00	2.81	8.06
2	10.43	53.00	2.81	13.27
3	20.86	53.00	2.86	18.54
4	31.29	53.00	2.86	23.76
5	41.72	53.00	2.92	29.03
INT DECK 2.				
GIRDER				
1	0.00	44.00	2.81	15.85
2	10.43	44.00	2.81	21.07
3	20.86	44.00	2.86	26.34
4	31.29	44.00	2.86	31.55
5	41.72	44.00	2.92	36.82
INT DECK 3.				
GIRDER				
1	0.00	35.00	2.81	23.65
2	10.43	35.00	2.81	28.86
3	20.86	35.00	2.86	34.13
4	31.29	35.00	2.86	39.35
5	41.72	35.00	2.92	44.61
INT DECK 4.				
GIRDER				
1	0.00	26.00	2.81	31.44
2	10.43	26.00	2.81	36.66
3	20.86	26.00	2.86	41.92
4	31.29	26.00	2.86	47.14
INT DECK 5.				
GIRDER				
1	0.00	17.00	2.81	39.24
2	10.43	17.00	2.81	44.45
3	20.86	17.00	2.86	49.72
4	31.29	17.00	2.86	54.93
BOTTOM				
GIRDER				
1	0.00	0.00	0.43	66.00
2	10.43	0.25	0.43	65.75
3	20.86	0.53	0.43	65.47
4	31.29	0.96	0.37	68.66

BOTTOM STIFF.				
1	0.00	1.50	0.37	64.50
2	10.43	1.63	0.37	64.37
3	20.86	1.76	0.37	64.24
4	31.29	1.98	0.32	67.73

----------SCANTLINGS OF GDR/STF AND PLATE----------

	GIRDER/STIFFENER INXINXIN/IN				CATLG NO	PLATE TK, IN	SUPPORT WIDTH IN
WET DECK							
GIRDER							
1 *F	15.345X	5.500X	0.250/	0.345	51.	0.5625	125.16
2 *F	15.345X	5.500X	0.250/	0.345	51.	0.5625	125.16
3 *F	15.345X	5.500X	0.250/	0.345	51.	0.5625	125.16
4 *F	15.345X	5.500X	0.250/	0.345	51.	0.5625	125.16
5 *F	15.345X	5.500X	0.250/	0.345	51.	0.5625	125.16
INT DECK 1.							
GIRDER							
1 *F	9.720X	4.000X	0.230/	0.270	25.	0.2813	125.16
2 *F	11.810X	4.010X	0.235/	0.350	35.	0.2813	125.16
3 *F	11.840X	6.490X	0.230/	0.380	45.	0.3125	125.16
4 *F	15.345X	5.500X	0.250/	0.345	51.	0.3125	125.16
5 *F	11.980X	6.560X	0.300/	0.520	63.	0.3438	115.32
INT DECK 2.							
GIRDER							
1 *F	11.885X	4.030X	0.260/	0.425	41.	0.2813	125.16
2 *F	13.490X	5.030X	0.255/	0.420	49.	0.2813	125.16
3 *F	11.980X	6.560X	0.300/	0.520	63.	0.3125	125.16
4 *F	15.430X	6.990X	0.295/	0.430	67.	0.3125	125.16
5 *F	15.430X	6.990X	0.295/	0.430	67.	0.3438	105.03
INT DECK 3.							
GIRDER							
1 *F	15.345X	5.500X	0.250/	0.345	51.	0.2813	125.16
2 *F	15.430X	6.990X	0.295/	0.430	67.	0.2813	125.16
3 *F	15.430X	6.990X	0.295/	0.430	67.	0.3125	125.16
4 *F	15.505X	7.000X	0.305/	0.505	71.	0.3125	125.16
5 *F	15.430X	6.990X	0.295/	0.430	67.	0.3438	94.48
INT DECK 4.							
GIRDER							
1 *F	15.430X	6.990X	0.295/	0.430	67.	0.2813	125.16
2 *F	17.275X	6.000X	0.300/	0.425	69.	0.2813	125.16
3 *F	17.375X	6.020X	0.315/	0.525	75.	0.3125	125.16
4 *F	17.420X	7.500X	0.355/	0.570	81.	0.3125	146.46
INT DECK 5.							
GIRDER							
1 *F	15.505X	7.000X	0.305/	0.505	71.	0.2813	125.16
2 *F	15.565X	7.040X	0.345/	0.565	77.	0.2813	125.16
3 *F	17.420X	7.500X	0.355/	0.570	81.	0.3125	125.16
4 *F	20.375X	8.240X	0.400/	0.615	87.	0.3125	135.96
BOTTOM							
GIRDER							
1	36.000X	21.875X	0.438/	0.438		0.5000	155.41
2	32.989X	21.875X	0.438/	0.438		0.5000	139.88
3	29.659X	21.875X	0.438/	0.438		0.5000	105.45
4	24.447X	18.750X	0.375/	0.375		0.4375	86.55

BOTTOM
STIFF.

1 *F	5.685X	3.940X	0.170/	0.215	3.	0.4375	18.00
2 *F	5.685X	3.940X	0.170/	0.215	3.	0.4375	18.00
3 *F	5.685X	3.940X	0.170/	0.215	3.	0.4375	18.00
4 *F	5.685X	3.940X	0.170/	0.215	3.	0.3750	18.00

NOTE: *F STANDS FOR FABRICATED SHAPE

----------PROPERTIES OF GDR/STF AND PLATES----------

	------AREA------		N.A. TO	-----SEC MOD-----			SMEAR
	TOTAL IN2	SHEAR IN2	PLATE IN	PLATE IN3	FLANGE IN3	WT/FT LBF/FT	RATIO
WET DECK							
GIRDER							
1	76.13	4.06	1.08	691.59	49.00	258.55	0.08
2	76.13	4.06	1.08	691.59	49.00	258.55	0.08
3	76.13	4.06	1.08	691.59	49.00	258.55	0.08
4	76.13	4.06	1.08	691.59	49.00	258.55	0.08
5	76.13	4.06	1.08	691.59	49.00	258.55	0.08
INT DECK 1.							
GIRDER							
1	38.53	2.36	0.71	237.65	17.70	130.84	0.09
2	39.39	2.92	1.00	311.53	27.21	133.76	0.12
3	44.30	2.88	1.21	372.10	39.69	150.45	0.13
4	44.84	4.00	1.49	468.07	48.00	152.28	0.15
5	46.66	3.85	1.55	396.19	54.55	158.45	0.18
INT DECK 2.							
GIRDER							
1	40.01	3.27	1.13	324.27	32.10	135.87	0.14
2	40.76	3.62	1.44	383.05	43.21	138.41	0.16
3	46.12	3.84	1.55	394.92	54.45	156.63	0.18
4	46.67	4.77	1.94	501.67	68.47	158.50	0.19
5	43.67	4.78	2.08	463.83	68.44	148.31	0.21
INT DECK 3.							
GIRDER							
1	40.94	3.99	1.60	430.29	47.83	139.02	0.16
2	42.77	4.76	2.09	459.34	68.21	145.24	0.21
3	46.67	4.77	1.94	501.67	68.47	158.50	0.19
4	47.37	4.98	2.13	516.14	77.58	160.88	0.21
5	40.04	4.78	2.26	421.82	68.25	135.98	0.23
INT DECK 4.							
GIRDER							
1	42.77	4.76	2.09	459.34	68.21	145.24	0.21
2	42.94	5.39	2.25	503.13	71.86	145.82	0.22
3	47.74	5.74	2.35	569.44	84.21	162.13	0.22
4	56.23	6.50	2.49	683.14	107.58	190.95	0.23
INT DECK 5.							
GIRDER							
1	43.47	4.97	2.29	472.03	77.28	147.62	0.23
2	44.55	5.66	2.52	479.34	86.98	151.28	0.27
3	49.57	6.50	2.80	592.11	107.11	168.35	0.27
4	55.71	8.52	3.57	759.29	152.64	189.18	0.31
BOTTOM							
GIRDER							
1	36.26	16.16	17.80	477.62	444.41	123.13	0.00
2	34.94	14.84	16.33	430.71	399.75	118.66	0.00
3	33.48	13.39	14.70	380.33	351.93	113.71	0.00
4	24.40	9.47	12.05	232.34	212.10	82.87	0.00

BOTTOM STIFF.							
1	9.68	1.08	1.05	33.98	6.73	32.89	0.23
2	9.68	1.08	1.05	33.98	6.73	32.89	0.23
3	9.68	1.08	1.05	33.98	6.73	32.89	0.23
4	8.56	1.07	1.12	30.64	6.65	29.07	0.27

----------STRENGTH AND STRESSES OF GDR.STF----------
AT DESIGN LOAD

	-PRIMARY STRESS-		-LOCAL STRESS-		--------STRENGTH--------		
	TENSION KSI	COMP. KSI	BEND. KSI	SHEAR KSI	BUCKL. KSI	ULTIMATE KSI	COLUMN KSI
WET DECK GIRDER							
1	18.86	15.72	13.23	5.07	28.40	32.49	37.75
2	18.86	15.72	13.23	5.07	28.40	32.49	37.75
3	18.86	15.72	13.23	5.07	28.40	32.49	37.75
4	18.86	15.72	13.23	5.07	28.40	32.49	37.75
5	18.86	15.72	13.23	5.07	28.40	32.49	37.75
INT DECK 1.							
GIRDER							
1	0.00	0.00	33.66	8.01	40.75	40.73	28.99
2	0.00	0.00	36.08	10.66	37.24	37.02	35.76
3	0.00	0.00	34.55	15.10	36.60	36.48	38.08
4	0.00	0.00	36.59	13.94	28.40	32.49	41.44
5	0.00	0.00	36.25	16.29	41.55	41.83	40.24
INT DECK 2.							
GIRDER							
1	0.00	0.00	36.52	11.37	39.38	39.10	37.20
2	0.00	0.00	36.06	13.67	35.83	35.87	40.42
3	0.00	0.00	35.77	16.08	41.55	41.83	40.29
4	0.00	0.00	34.07	15.52	36.16	36.12	43.38
5	0.00	0.00	33.39	15.17	36.16	36.12	43.73
INT DECK 3.							
GIRDER							
1	0.00	0.00	36.56	13.90	28.40	32.49	41.98
2	0.00	0.00	31.29	14.23	36.16	36.12	43.81
3	0.00	0.00	36.86	16.79	36.16	36.12	43.38
4	0.00	0.00	37.50	18.55	36.94	36.76	44.02
5	0.00	0.00	36.49	16.54	36.16	36.12	44.15
INT DECK 4.							
GIRDER							
1	0.00	0.00	34.08	15.50	36.16	36.12	43.81
2	0.00	0.00	37.72	15.95	32.27	33.94	44.72
3	0.00	0.00	36.81	17.15	34.55	34.92	45.00
4	0.00	0.00	37.91	19.93	37.84	37.55	45.00
INT DECK 5.							
GIRDER							
1	0.00	0.00	37.54	18.54	36.94	36.76	44.41
2	0.00	0.00	37.79	18.43	39.64	39.38	44.88
3	0.00	0.00	34.32	17.96	37.84	37.55	45.00
4	0.00	0.00	28.91	16.44	36.89	36.72	45.00
BOTTOM GIRDER							
1	14.50	17.39	13.64	11.90	41.15	41.26	45.00
2	14.45	17.31	13.59	11.62	42.21	42.85	45.00
3	14.41	17.23	11.59	9.67	43.14	44.41	45.00
4	14.33	17.11	16.55	11.77	43.40	44.84	45.00

BOTTOM STIFF.							
1	14.24	16.95	26.28	10.27	43.23	44.57	40.82
2	14.22	16.91	26.22	10.25	43.23	44.57	40.82
3	14.19	16.87	26.17	10.22	43.23	44.57	40.82
4	14.16	16.81	27.93	10.89	43.23	44.57	41.44

	----------FACTOR OF SAFETY OF GDR.STF---------- AT DESIGN LOAD				
	--PLATE-	-STIFFENER-	--------STIFFENED PLATE----------		
	BUCKLING	SHEAR	COMP+BEND	ULTIMATE	TENSION+BEND.
WET DECK GIRDER					
1	1.75	4.50	1.03	1.35	1.18
2	1.75	4.50	1.03	1.35	1.18
3	1.75	4.50	1.03	1.35	1.18
4	1.75	4.50	1.03	1.35	1.18
5	1.75	4.50	1.03	1.35	1.18
INT DECK	1.				
GIRDER					
1	31.65	2.85	1.13	16.30	1.13
2	23.02	2.14	1.05	14.55	1.05
3	19.35	1.51	1.10	13.05	1.10
4	14.74	1.64	1.04	12.42	1.04
5	16.21	1.40	1.05	11.67	1.05
INT DECK	2.				
GIRDER					
1	21.22	2.01	1.04	13.93	1.04
2	17.16	1.67	1.05	12.34	1.05
3	16.41	1.42	1.06	11.83	1.06
4	15.14	1.47	1.12	11.67	1.12
5	14.30	1.50	1.14	11.10	1.14
INT DECK	3.				
GIRDER					
1	13.61	1.64	1.04	11.62	1.04
2	15.16	1.60	1.21	11.79	1.21
3	14.00	1.36	1.03	10.78	1.03
4	12.76	1.23	1.01	9.94	1.01
5	11.93	1.38	1.04	9.35	1.04
INT DECK	4.				
GIRDER					
1	13.91	1.47	1.11	10.82	1.11
2	11.67	1.43	1.01	9.75	1.01
3	12.36	1.33	1.03	9.99	1.03
4	12.34	1.14	1.00	9.80	1.00
INT DECK	5.				
GIRDER					
1	11.70	1.23	1.01	9.20	1.01
2	11.26	1.24	1.01	8.92	1.01
3	11.87	1.27	1.11	9.42	1.11
4	12.36	1.39	1.31	9.84	1.31
BOTTOM GIRDER					
1	6.32	1.92	2.79	5.07	2.79
2	6.52	1.96	2.80	5.29	2.80
3	7.83	2.36	3.28	6.45	3.28
4	5.59	1.94	2.30	4.62	2.30

BOTTOM STIFF.					
1	16.17	2.22	1.45	12.09	1.45
2	16.20	2.23	1.45	12.12	1.45
3	16.23	2.23	1.45	12.14	1.45
4	13.88	2.09	1.36	10.54	1.36

PRINTED REPORT NO. 11 - LONGITUDINAL BULKHEADS

NUMBER OF LONG BHD 5

LONG BHD MTRL TYPE-HTS

MODULUS OF ELASTICITY, KSI	29600.0
DENSITY, LBM/FT3	489.02
YIELD STRENGTH, KSI	45.00
MAX PRIMARY STRENGTH, KSI	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00

SEGMENT GEOMETRY

	--------NODE COORD, FT----------				SCND. LOAD, FT--	
SEG	YUPR	ZUPR	YLWR	ZLWR	HEAD1	HEAD2
BHD NO.1						
SEG						
1	30.00	62.00	30.00	53.00	22.75	
2	30.00	53.00	30.00	44.00	30.54	
3	30.00	44.00	30.00	35.00	38.34	
4	30.00	35.00	30.00	26.00	46.13	
BHD NO.2						
SEG						
1	30.00	62.00	30.00	53.00	22.75	
2	30.00	53.00	30.00	44.00	30.54	
3	30.00	44.00	30.00	35.00	38.34	
4	30.00	35.00	30.00	26.00	46.13	
BHD NO.3						
SEG						
1	20.00	62.00	20.00	53.00	17.75	
2	20.00	53.00	20.00	44.00	25.54	
BHD NO.4						
SEG						
1	20.00	62.00	20.00	53.00	17.75	
2	20.00	53.00	20.00	44.00	25.54	
BHD NO.5						
SEG						
1	0.00	26.00	0.00	17.00	38.93	
2	0.00	17.00	0.00	3.00	51.05	

SEGMENT SCANTLINGS

SEG	STIFFENERS INXINXIN/IN				CATLG NO	NO.OF STIFF	PLATE TK, IN	SPACING IN
BHD NO.1								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1	4	0.3438	21.60
2 *R	3.745X	3.940X	0.170/	0.205	1	4	0.4375	21.60
3 *R	3.745X	3.940X	0.170/	0.205	1	4	0.4375	21.60
4 *R	3.745X	3.940X	0.170/	0.205	1	4	0.5000	21.60
BHD NO.2								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1	4	0.3438	21.60
2 *R	3.745X	3.940X	0.170/	0.205	1	4	0.4375	21.60
3 *R	3.745X	3.940X	0.170/	0.205	1	4	0.4375	21.60
4 *R	3.745X	3.940X	0.170/	0.205	1	4	0.5000	21.60
BHD NO.3								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1	4	0.3125	21.60
2 *R	3.745X	3.940X	0.170/	0.205	1	4	0.3438	21.60
BHD NO.4								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1	4	0.3125	21.60
2 *R	3.745X	3.940X	0.170/	0.205	1	4	0.3438	21.60
BHD NO.5								
SEG								
1 *R	3.745X	3.940X	0.170/	0.205	1	4	0.2813	21.60
2 *R	4.730X	3.960X	0.190/	0.210	2	6	0.3438	24.00

NOTE: *R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

SEG	AREA TOTAL IN2	AREA SHEAR IN2	N.A. TO PLATE IN	SEC MOD PLATE IN3	SEC MOD FLANGE IN3	WT/FT LBF/FT	SMEAR RATIO
BHD NO.1							
SEG							
1	8.87	0.73	0.68	20.68	3.92	30.11	0.19
2	10.89	0.75	0.64	23.43	4.01	36.98	0.15
3	10.89	0.75	0.64	23.43	4.01	36.98	0.15
4	12.24	0.76	0.63	24.73	4.08	41.57	0.13
BHD NO.2							
SEG							
1	8.87	0.73	0.68	20.68	3.92	30.11	0.19
2	10.89	0.75	0.64	23.43	4.01	36.98	0.15
3	10.89	0.75	0.64	23.43	4.01	36.98	0.15
4	12.24	0.76	0.63	24.73	4.08	41.57	0.13
BHD NO.3							
SEG							
1	8.19	0.72	0.71	19.52	3.89	27.81	0.21
2	8.87	0.73	0.68	20.68	3.92	30.11	0.19
BHD NO.4							
SEG							
1	8.19	0.72	0.71	19.52	3.89	27.81	0.21
2	8.87	0.73	0.68	20.68	3.92	30.11	0.19
BHD NO.5							
SEG							
1	7.52	0.72	0.74	18.23	3.85	25.52	0.24
2	9.98	1.00	0.82	29.58	5.41	33.90	0.21

----------STRENGTH AND STRESSES----------
AT DESIGN LOAD

	--LOCAL STRESS--		--------STRENGTH--------		
	BEND. KSI	SHEAR KSI	BUCKL. KSI	ULTIMATE KSI	COLUMN KSI
BHD NO. 1					
SEG					
1	19.12	6.41	27.11	31.96	33.17
2	25.05	8.43	37.69	37.42	31.49
3	31.44	10.58	37.69	37.42	31.49
4	37.24	12.55	40.40	40.28	30.49
BHD NO. 2					
SEG					
1	19.12	6.41	27.11	31.96	33.17
2	25.05	8.43	37.69	37.42	31.49
3	31.44	10.58	37.69	37.42	31.49
4	37.24	12.55	40.40	40.28	30.49
BHD NO. 3					
SEG					
1	15.04	5.04	22.40	29.82	33.79
2	21.47	7.20	27.11	31.96	33.17
BHD NO. 4					
SEG					
1	15.04	5.04	22.40	29.82	33.79
2	21.47	7.20	27.11	31.96	33.17
BHD NO. 5					
SEG					
1	33.25	11.14	18.15	27.54	34.43
2	34.51	11.63	21.96	29.61	37.39

----------FACTOR OF SAFETY----------
AT DESIGN LOAD

	--PLATE-	-STIFFENER-	--------STIFFENED PLATE----------		
	BUCKLING	SHEAR	COMP+BEND	ULTIMATE	TENSION+BEND.
BHD NO. 1					
SEG					
1	14.58	3.56	1.99	10.13	1.99
2	17.10	2.71	1.52	9.51	1.52
3	13.62	2.16	1.21	7.57	1.21
4	12.81	1.82	1.02	6.93	1.02
BHD NO. 2					
SEG					
1	14.58	3.56	1.99	10.13	1.99
2	17.10	2.71	1.52	9.51	1.52
3	13.62	2.16	1.21	7.57	1.21
4	12.81	1.82	1.02	6.93	1.02
BHD NO. 3					
SEG					
1	14.57	4.52	2.53	11.65	2.53
2	12.98	3.17	1.77	9.02	1.77
BHD NO. 4					
SEG					
1	14.57	4.52	2.53	11.65	2.53
2	12.98	3.17	1.77	9.02	1.77
BHD NO. 5					
SEG					
1	5.03	2.05	1.14	4.67	1.14
2	6.77	1.96	1.10	6.07	1.10

PRINTED REPORT NO. 12 - TRANSVERSE BULKHEADS

TRANS BHD MTRL TYPE-HTS

MODULUS OF ELASTICITY, KSI	29600.0
DENSITY, LBM/FT3	489.02
YIELD STRENGTH, KSI	45.00
MAX PRIMARY STRENGTH, KSI	21.28
ALLOWABLE WORKING STRENGTH, KSI	38.00

HULL LOADS IND-CALC

	MAX	MIN
STIFFENER SPACING, IN	24.00	24.00

SEGMENT GEOMETRY

	--------NODE COORD, FT----------				-SCND. LOAD, FT--	
SEG	YUPR	ZUPR	YLWR	ZLWR	HEAD1	HEAD2
1	0.00	62.00	0.00	53.00	33.00	
2	0.00	53.00	0.00	44.00	39.94	
3	0.00	44.00	0.00	35.00	46.86	
4	0.00	35.00	0.00	26.00	53.77	
5	0.00	26.00	0.00	17.00	60.69	
6	0.00	17.00	0.00	3.00	69.34	

SEGMENT SCANTLINGS

	----------SCANTLINGS OF STIFFENED PLATES----------							
	STIFFENERS				CATLG	NO.OF	PLATE	SPACING
SEG	------	-INXINXIN/IN----------			NO	STIFF	TK, IN	IN
1 *F	9.660X	3.960X	0.190/	0.210	14	30	0.2188	21.60
2 *F	9.660X	3.960X	0.190/	0.210	14	29	0.2188	21.60
3 *F	11.685X	3.970X	0.200/	0.225	24	28	0.2500	21.60
4 *F	11.685X	3.970X	0.200/	0.225	24	27	0.2500	21.60
5 *F	11.725X	3.990X	0.220/	0.265	28	26	0.2813	21.60
6 *F	15.430X	6.990X	0.295/	0.430	67	26	0.3438	24.00

NOTE: *F STANDS FOR FABRICATED SHAPE

SEGMENT PROPERTIES

	----------PROPERTIES OF STIFFENED PLATES----------						
	------AREA	----	N.A. TO	-----SEC MOD-----			SMEAR
	TOTAL	SHEAR	PLATE	PLATE	FLANGE	WT/FT	RATIO
SEG	IN2	IN2	IN	IN3	IN3	LBF/FT	
1	7.40	1.92	2.45	40.78	13.07	25.12	0.56
2	7.40	1.92	2.45	40.78	13.07	25.12	0.56
3	8.63	2.43	2.98	56.04	18.15	29.31	0.60
4	8.63	2.43	2.98	56.04	18.15	29.31	0.60
5	9.72	2.70	3.04	63.49	20.95	33.00	0.60
6	15.81	4.78	5.45	125.69	63.72	53.69	0.92

	----------STRENGTH AND STRESSES---------- AT DESIGN LOAD				
	--LOCAL STRESS--		--------STRENGTH--------		
	BEND.	SHEAR	BUCKL.	ULTIMATE	COLUMN
	KSI	KSI	KSI	KSI	KSI
SEG					
1	30.55	8.11	21.96	29.61	37.39
2	37.98	9.99	21.96	29.61	37.39
3	32.67	9.35	21.96	29.61	37.39
4	38.00	10.82	21.96	29.61	37.39
5	37.55	11.08	21.96	29.61	37.39
6	37.09	14.15	21.96	29.61	37.39

SEG	FACTOR OF SAFETY AT DESIGN LOAD: PLATE-BUCKLING	STIFFENER-SHEAR	STIFFENED PLATE COMP+BEND	STIFFENED PLATE ULTIMATE	STIFFENED PLATE TENSION+BEND.
1	6.77	2.81	1.24	6.07	1.10
2	6.77	2.28	1.00	6.07	1.10
3	6.77	2.44	1.16	6.07	1.10
4	6.77	2.11	1.00	6.07	1.10
5	6.77	2.06	1.01	6.07	1.10
6	6.77	1.61	1.02	6.07	1.10

PRINTED REPORT NO. 13 - SIDE AND BOTTOM FRAMES

FRAME SPACING, FT 8.00

SEGMENT GEOMETRY

SEG	NODE COORD, FT: YUPR	ZUPR	YLWR	ZLWR	SCND. LOAD, FT: HEAD1	HEAD2
SIDE FRAME						
SEG						
1	52.15	62.00	50.51	53.00	13.00	
2	50.51	53.00	48.80	44.00	22.00	
3	48.80	44.00	47.04	35.00	31.00	
4	47.04	35.00	45.27	26.00	40.00	
5	45.27	26.00	43.52	17.00	49.00	
6	43.52	17.00	36.57	3.00	63.00	
BOT FRAME						
SEG						
1	36.57	3.00	31.29	0.96	65.04	
2	31.29	0.96	20.86	0.53	65.47	
3	20.86	0.53	10.43	0.25	65.75	
4	10.43	0.25	0.00	0.00	66.00	

SEGMENT SCANTLINGS

SEG	STIFFENERS INXINXIN/IN				CATLG NO	PLATE TK, IN	SPAN FT
SIDE FRAME							
SEG							
1 *F	11.685X	3.970X	0.200/	0.225	24.	0.6875	9.00
2 *F	13.405X	5.000X	0.230/	0.335	40.	0.3438	9.00
3 *F	15.345X	5.500X	0.250/	0.345	51.	0.3750	9.00
4 *F	15.430X	6.990X	0.295/	0.430	67.	0.4375	9.00
5 *F	15.505X	7.000X	0.305/	0.505	71.	0.3438	9.00
6 *R	26.150X	9.990X	0.490/	0.750	109.	0.3125	14.00
BOT FRAME							
SEG							
1	12.223X	12.223X	0.375/	0.375		0.4375	5.71
2	27.053X	21.875X	0.438/	0.438		0.4375	10.46
3	31.324X	21.875X	0.438/	0.438		0.4375	9.36
4	34.495X	21.875X	0.438/	0.438		0.5000	10.43

NOTE: *F STANDS FOR FABRICATED SHAPE
*R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

SEC	AREA TOTAL IN2	AREA SHEAR IN2	N.A. TO PLATE IN	SEC MOD PLATE IN3	SEC MOD FLANGE IN3	WT/FT LBF/FT	SMEAR RATIO
	PROPERTIES OF STIFFENED PLATES						
SIDE FRAME							
SEG							
1	69.23	2.52	0.71	337.54	20.14	235.11	0.05
2	37.76	3.24	1.34	339.99	35.84	128.25	0.14
3	41.73	4.02	1.62	427.53	48.06	141.72	0.16
4	49.56	4.81	1.91	519.32	68.95	168.31	0.18
5	41.26	4.99	2.44	440.15	77.34	140.14	0.25
6	50.31	13.33	7.50	745.91	283.90	170.85	0.68
BOT FRAME							
SEG							
1	14.52	4.89	6.21	72.78	66.14	49.29	0.68
2	30.98	12.22	13.96	310.68	310.68	105.20	0.68
3	32.84	14.09	16.10	369.46	369.46	111.54	0.68
4	35.60	15.50	17.07	454.00	421.91	120.89	0.68

STRESS AND FACTOR OF SAFETY

	STRESS, KSI BENDING	STRESS, KSI SHEAR	FOS BENDING	FOS SHEAR
SIDE FRAME				
SEG				
1	34.24	11.96	1.11	1.91
2	33.96	15.74	1.12	1.45
3	35.91	17.89	1.06	1.27
4	32.89	19.28	1.16	1.18
5	37.28	22.76	1.02	1.00
6	37.11	17.03	1.02	1.34
BOT FRAME				
SEG				
1	37.80	19.56	1.01	1.17
2	28.47	14.42	1.33	1.58
3	19.26	11.25	1.97	2.03
4	20.31	11.44	1.87	1.99

PRINTED REPORT NO. 14 - DECK BEAMS

FRAME SPACING, FT 8.00

SEGMENT GEOMETRY

SEG	NODE COORD, FT YIB	ZIB	YOB	ZOB	SCND. LOAD, FT HEAD1	HEAD2
WET DECK						
SEG						
1	0.00	62.00	10.43	62.00	8.77	
2	10.43	62.00	20.86	62.00	8.77	
3	20.86	62.00	31.29	62.00	8.77	
4	31.29	62.00	41.72	62.00	8.77	
5	41.72	62.00	52.15	62.00	8.98	

DECK NO.	1				
SEG					
1	0.00	53.00	10.43	53.00	2.81
2	10.43	53.00	20.86	53.00	2.86
3	20.86	53.00	31.29	53.00	2.86
4	31.29	53.00	41.72	53.00	2.92
5	41.72	53.00	50.51	53.00	3.18
DECK NO.	2				
SEG					
1	0.00	44.00	10.43	44.00	2.81
2	10.43	44.00	20.86	44.00	2.86
3	20.86	44.00	31.29	44.00	2.86
4	31.29	44.00	41.72	44.00	2.92
5	41.72	44.00	48.80	44.00	3.18
DECK NO.	3				
SEG					
1	0.00	35.00	10.43	35.00	2.81
2	10.43	35.00	20.86	35.00	2.86
3	20.86	35.00	31.29	35.00	2.86
4	31.29	35.00	41.72	35.00	2.92
5	41.72	35.00	47.04	35.00	3.18
DECK NO.	4				
SEG					
1	0.00	26.00	10.43	26.00	2.81
2	10.43	26.00	20.86	26.00	2.86
3	20.86	26.00	31.29	26.00	2.86
4	31.29	26.00	45.27	26.00	2.92
DECK NO.	5				
SEG					
1	0.00	17.00	10.43	17.00	2.81
2	10.43	17.00	20.86	17.00	2.86
3	20.86	17.00	31.29	17.00	2.86
4	31.29	17.00	43.52	17.00	2.92

SEGMENT SCANTLINGS

	SCANTLINGS OF STIFFENED PLATES						
	STIFFENERS				CATLG	PLATE	SPAN
	INXINXIN/IN				NO	TK, IN	FT
WET DECK							
SEG							
1 *F	11.685X	3.970X	0.200/	0.225	24.	0.5625	10.43
2 *F	11.685X	3.970X	0.200/	0.225	24.	0.5625	10.43
3 *F	11.685X	3.970X	0.200/	0.225	24.	0.5625	10.43
4 *F	11.685X	3.970X	0.200/	0.225	24.	0.5625	10.43
5 *F	11.685X	3.970X	0.200/	0.225	24.	0.6875	10.43
DECK NO.	1						
SEG							
1 *R	4.730X	3.960X	0.190/	0.210	2.	0.2813	10.43
2 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
3 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
4 *F	5.685X	3.940X	0.170/	0.215	3.	0.3438	10.43
5 *R	4.730X	3.960X	0.190/	0.210	2.	0.5000	8.79
DECK NO.	2						
SEG							
1 *R	4.730X	3.960X	0.190/	0.210	2.	0.2813	10.43
2 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
3 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
4 *F	5.685X	3.940X	0.170/	0.215	3.	0.3438	10.43
5 *R	3.745X	3.940X	0.170/	0.205	1.	0.5000	7.08

DECK NO. 3

SEG							
1 *R	4.730X	3.960X	0.190/	0.210	2.	0.2813	10.43
2 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
3 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
4 *F	5.685X	3.940X	0.170/	0.215	3.	0.3438	10.43
5 *R	3.745X	3.940X	0.170/	0.205	1.	0.5000	5.32

DECK NO. 4

SEG							
1 *R	4.730X	3.960X	0.190/	0.210	2.	0.2813	10.43
2 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
3 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
4 *F	9.660X	3.960X	0.190/	0.210	14.	0.3438	13.98

DECK NO. 5

SEG							
1 *R	4.730X	3.960X	0.190/	0.210	2.	0.2813	10.43
2 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
3 *R	4.730X	3.960X	0.190/	0.210	2.	0.3125	10.43
4 *F	7.685X	3.940X	0.170/	0.205	6.	0.3438	12.23

NOTE: *F STANDS FOR FABRICATED SHAPE
*R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

	PROPERTIES OF STIFFENED PLATES						
	AREA		N.A. TO	SEC MOD			SMEAR
SEG	TOTAL IN2	SHEAR IN2	PLATE IN	PLATE IN3	FLANGE IN3	WT/FT LBF/FT	RATIO
WET DECK							
SEG							
1	57.23	2.49	0.72	325.03	19.91	194.35	0.06
2	57.23	2.49	0.72	325.03	19.91	194.35	0.06
3	57.23	2.49	0.72	325.03	19.91	194.35	0.06
4	57.23	2.49	0.72	325.03	19.91	194.35	0.06
5	69.23	2.52	0.71	337.54	20.14	235.11	0.05
DECK NO. 1							
SEG							
1	28.73	0.99	0.36	72.95	5.45	97.58	0.06
2	31.73	1.00	0.36	74.81	5.48	107.76	0.06
3	31.73	1.00	0.36	74.81	5.48	107.76	0.06
4	34.81	1.06	0.40	99.08	6.79	118.23	0.05
5	49.73	1.03	0.38	75.02	5.67	168.88	0.04
DECK NO. 2							
SEG							
1	28.73	0.99	0.36	72.95	5.45	97.58	0.06
2	31.73	1.00	0.36	74.81	5.48	107.76	0.06
3	31.73	1.00	0.36	74.81	5.48	107.76	0.06
4	34.81	1.06	0.40	99.08	6.79	118.23	0.05
5	49.44	0.76	0.34	49.25	4.13	167.90	0.03
DECK NO. 3							
SEG							
1	28.73	0.99	0.36	72.95	5.45	97.58	0.06
2	31.73	1.00	0.36	74.81	5.48	107.76	0.06
3	31.73	1.00	0.36	74.81	5.48	107.76	0.06
4	34.81	1.06	0.40	99.08	6.79	118.23	0.05
5	49.44	0.76	0.34	49.14	4.12	167.90	0.03

DECK NO. 4							
SEG							
1	28.73	0.99	0.36	72.95	5.45	97.58	0.06
2	31.73	1.00	0.36	74.81	5.48	107.76	0.06
3	31.73	1.00	0.36	74.81	5.48	107.76	0.06
4	35.67	1.94	0.66	202.52	14.03	121.15	0.08
DECK NO. 5							
SEG							
1	28.73	0.99	0.36	72.95	5.45	97.58	0.06
2	31.73	1.00	0.36	74.81	5.48	107.76	0.06
3	31.73	1.00	0.36	74.81	5.48	107.76	0.06
4	35.11	1.40	0.50	148.36	9.67	119.25	0.06

STRESS AND FACTOR OF SAFETY

	-STRESS, KSI-		------FOS-----	
	BENDING	SHEAR	BENDING	SHEAR
WET DECK				
SEG				
1	31.42	9.44	1.21	2.42
2	31.42	9.44	1.21	2.42
3	31.42	9.44	1.21	2.42
4	31.42	9.44	1.21	2.42
5	31.78	9.57	1.20	2.38
DECK NO. 1				
SEG				
1	37.27	7.61	1.02	3.00
2	37.73	7.71	1.01	2.96
3	37.73	7.71	1.01	2.96
4	30.88	7.38	1.23	3.09
5	28.85	6.97	1.32	3.27
DECK NO. 2				
SEG				
1	37.27	7.61	1.02	3.00
2	37.73	7.71	1.01	2.96
3	37.73	7.71	1.01	2.96
4	30.88	7.38	1.23	3.09
5	25.87	7.67	1.47	2.97
DECK NO. 3				
SEG				
1	37.27	7.61	1.02	3.00
2	37.73	7.71	1.01	2.96
3	37.73	7.71	1.01	2.96
4	30.88	7.38	1.23	3.09
5	14.64	5.76	2.60	3.96
DECK NO. 4				
SEG				
1	37.27	7.61	1.02	3.00
2	37.73	7.71	1.01	2.96
3	37.73	7.71	1.01	2.96
4	26.87	5.41	1.41	4.21
DECK NO. 5				
SEG				
1	37.27	7.61	1.02	3.00
2	37.73	7.71	1.01	2.96
3	37.73	7.71	1.01	2.96
4	29.71	6.56	1.28	3.47

PRINTED REPORT NO. 15 - LONGITUDINAL BULKHEAD VERTICAL STIFFENERS

NUMBER OF LONG BHD 5

FRAME SPACING, FT 8.00

SEGMENT GEOMETRY

SEG	NODE COORD, FT YUPR	ZUPR	YLWR	ZLWR	SCND. LOAD, FT HEAD1	HEAD2
LBHD NO.1						
SEG						
1	30.00	62.00	30.00	53.00	22.87	
2	30.00	53.00	30.00	44.00	30.75	
3	30.00	44.00	30.00	35.00	38.54	
4	30.00	35.00	30.00	26.00	46.39	
LBHD NO.2						
SEG						
1	30.00	62.00	30.00	53.00	22.87	
2	30.00	53.00	30.00	44.00	30.75	
3	30.00	44.00	30.00	35.00	38.54	
4	30.00	35.00	30.00	26.00	46.39	
LBHD NO.3						
SEG						
1	20.00	62.00	20.00	53.00	17.84	
2	20.00	53.00	20.00	44.00	25.67	
LBHD NO.4						
SEG						
1	20.00	62.00	20.00	53.00	17.84	
2	20.00	53.00	20.00	44.00	25.67	
LBHD NO.5						
SEG						
1	0.00	26.00	0.00	17.00	39.00	
2	0.00	17.00	0.00	3.00	51.17	

SEGMENT SCANTLINGS

SEG	STIFFENERS INXINXIN/IN				CATLG NO	PLATE TK, IN	SPAN FT
LBHD NO.1							
SEG							
1 *F	13.405X	5.000X	0.230/	0.335	40.	0.3438	9.00
2 *F	15.345X	5.500X	0.250/	0.345	51.	0.4375	9.00
3 *F	15.440X	5.530X	0.275/	0.440	60.	0.4375	9.00
4 *F	15.430X	6.990X	0.295/	0.430	67.	0.5000	9.00
LBHD NO.2							
SEG							
1 *F	13.405X	5.000X	0.230/	0.335	40.	0.3438	9.00
2 *F	15.345X	5.500X	0.250/	0.345	51.	0.4375	9.00
3 *F	15.440X	5.530X	0.275/	0.440	60.	0.4375	9.00
4 *F	15.430X	6.990X	0.295/	0.430	67.	0.5000	9.00
LBHD NO.3							
SEG							
1 *F	11.810X	4.010X	0.235/	0.350	35.	0.3125	9.00
2 *F	11.840X	6.490X	0.230/	0.380	45.	0.3438	9.00
LBHD NO.4							
SEG							
1 *F	11.810X	4.010X	0.235/	0.350	35.	0.3125	9.00
2 *F	11.840X	6.490X	0.230/	0.380	45.	0.3438	9.00

LBHD NO.5

SEG							
1	*F	15.430X	6.990X	0.295/	0.430	67.	0.2813	9.00
2	*R	23.310X	9.010X	0.470/	0.770	103.	0.3438	14.00

NOTE: *F STANDS FOR FABRICATED SHAPE
*R STANDS FOR ROLLED SHAPE

SEGMENT PROPERTIES

	PROPERTIES OF STIFFENED PLATES						
	AREA		N.A. TO	SEC MOD			SMEAR
SEG	TOTAL IN2	SHEAR IN2	PLATE IN	PLATE IN3	FLANGE IN3	WT/FT LBF/FT	RATIO
LBHD NO.1							
SEG							
1	37.76	3.24	1.34	339.99	35.84	128.25	0.14
2	47.73	4.03	1.48	479.22	48.35	162.09	0.14
3	48.68	4.49	1.70	503.24	58.71	165.32	0.16
4	55.56	4.83	1.76	573.99	69.33	188.68	0.16
LBHD NO.2							
SEG							
1	37.76	3.24	1.34	339.99	35.84	128.25	0.14
2	47.73	4.03	1.48	479.22	48.35	162.09	0.14
3	48.68	4.49	1.70	503.24	58.71	165.32	0.16
4	55.56	4.83	1.76	573.99	69.33	188.68	0.16
LBHD NO.3							
SEG							
1	34.18	2.93	1.15	268.23	27.18	116.08	0.14
2	38.19	2.89	1.39	317.76	39.65	129.71	0.16
LBHD NO.4							
SEG							
1	34.18	2.93	1.15	268.23	27.18	116.08	0.14
2	38.19	2.89	1.39	317.76	39.65	129.71	0.16
LBHD NO.5							
SEG							
1	34.56	4.76	2.55	361.02	67.70	117.38	0.28
2	50.89	11.48	5.97	714.98	231.25	172.84	0.54

STRESS AND FACTOR OF SAFETY

	STRESS, KSI		FOS	
	BENDING	SHEAR	BENDING	SHEAR
LBHD NO.1				
SEG				
1	35.31	16.36	1.08	1.39
2	35.04	17.67	1.08	1.29
3	36.69	19.90	1.04	1.15
4	37.54	22.27	1.01	1.02
LBHD NO.2				
SEG				
1	35.31	16.36	1.08	1.39
2	35.04	17.67	1.08	1.29
3	36.69	19.90	1.04	1.15
4	37.54	22.27	1.01	1.02
LBHD NO.3				
SEG				
1	36.19	14.11	1.05	1.62
2	36.44	20.58	1.04	1.11
LBHD NO.4				
SEG				
1	36.19	14.11	1.05	1.62
2	36.44	20.58	1.04	1.11