

STABILITETSBOK

FÖR

FÄRJA

"AROS VIKING"

2007-12-11

Utförd av Light Craft Design Group AB
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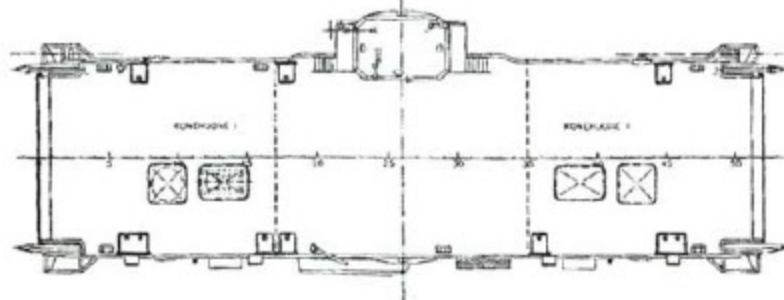
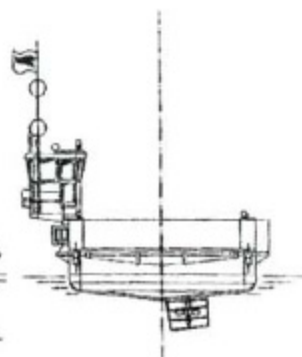
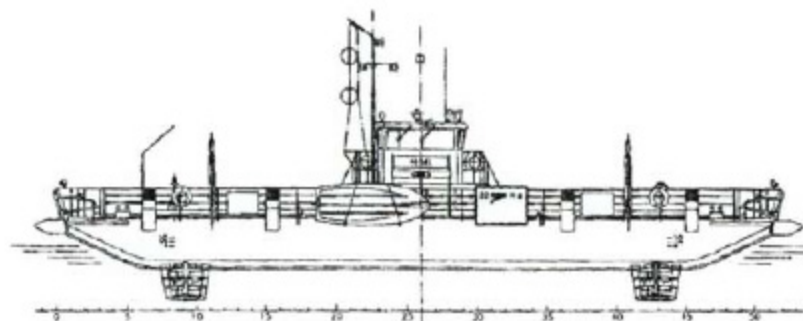
10. GEOMETRIBESKRIVNING (INDATA)

HUVUDDATA

Fartygets namn:	Aros Viking
Byggnadsvarv:	Parkano Finland
Byggnadsnummer:	--
Igenkänningssignal:	SMNP
Hemmahamn:	Västerås
Ägare:	Rederi Mälarstaden AB

Huvuddimensioner

Längd över allt:	19,00 m
Längd mellan PP:	---
Bredd mallad:	6.85 m
Djup mallat:	1.597 m



Sammanfattning av lastfall.

Följande lastkonditioner har beräknats, och presenteras här sammanfattningsvis. Detaljerad information finns under avsnitt 6. Lastfall.

1. Lätt fartyg

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,583 m	0	6,89 m	1,19 m	4,67 m	Area t. max GZ

2. 12 personbilar, full bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,791 m	0	4,81 m	1,40 m	3,85 m	Area t. max GZ

3. 12 personbilar, 10% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,760 m	0	4,88 m	1,45 m	4,04 m	Area t. max GZ

4. 22,5 ton Slambil, 8 personbilar, 14 personer, 100% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,923 m	0	3,47 m	1,88 m	3,19 m	Area t. max GZ

5. 22,5 ton Slambil, 8 personbilar, 14 personer, 10% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,892 m	0	3,57 m	1,93 m	3,34 m	Area t. max GZ

6. 25 ton Timmerbil, 6 personbilar, 14 personer, 100% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,918 m	0	3,44 m	1,94 m	3,21 m	Area t. max GZ

7. 25 ton Timmerbil, 6 personbilar, 14 personer, 10% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,887 m	0	3,54 m	2,00 m	3,34 m	Area t. max GZ

8. 40 ton Lastbil, tp 1,75 över däck, 14 personer, 100% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,961 m	0	3,13 m	2,05 m	3,01 m	Area t. max GZ

9. 40 ton Lastbil, tp 1,75 över däck, 14 personer, 10% bunker

Djupgående	Trim	GM	KG	KGmax	Begr. kriterium
0,931 m	0	3,21 m	2,11 m	3,15 m	Area t. max GZ

Handledning vid beräkning av trim och stabilitet.

1. DJUPGÅENDE OCH TRIM

1.1 Allmänt

Ett fartygs trim, skillnaden mellan djupgåendet för och akter, uppstår genom att fartygets viktstyngdpunkt i långskeppsled (LCG) inte sammanfaller med displacementstyngdpunkten (LCB) på jämn köl i långskeppsled för samma displacement.

1.2 Beräkningsgång

Vid beräkning av fartygets trim bestäms först viktstyngdpunktens läge. Aktuella hävarmar och vikter fås ur tabeller över kapacitet och tyngdpunktskoordinater för lätt fartyg, lastutrymmen och bunkertankar. Viktstyngdpunkten från L/2 erhålls genom dels summering av alla ingående delvikter (w) och dels summering av alla delvikters moment kring L/2 ($w \cdot x$) med avseende på sina tecken. Därvid beaktas att vikter placerade för om L/2 har positiva hävarmar och vikter placerade akter om L/2 har negativa hävarmar.
 $LCG = \frac{\sum(w \cdot x)}{\sum w}$.

Viktstyngdpunkten över köl (VCG) erhålls genom summering av alla delvikters moment över baslinjen ($w \cdot y$).
 $VCG = \frac{\sum(w \cdot y)}{\sum w}$.

Genom interpolation i de hydrostatiska tabellerna erhålls hydrostatiska data för fartyget. Därvid söks ett displacement som motsvarar totalvikten, och ett trimläge som motsvarar viktstyngdpunktens placering i långskeppsled.

Trimmets uppdelning för och akter är beroende av flytcentrums (LCF) läge med avseende på L/2. LCF's läge erhålls från de hydrostatiska tabellerna. Vid överslagsberäkningar antas flytcentrum ligga på L/2 och då erhålls:

Djupgående akter (d_a)	$d_a = d + t/2$
Djupgående för (d_f)	$d_f = d - t/2$

2. TVÄRSKEPPSSTABILITET

2.1 Allmänt

När fartyget ligger i upprätt läge ligger viktstyngdpunkten (G) och displacementstyngdpunkten (B) på samma vertikala linje i centerplanet, och momentet av tyngdkraft och flytkraft är således noll. Då fartyget kränger, ligger G och B ej på samma vertikala linje, varför tyngdkraft och flytkraft ger upphov till ett rätande moment. För att fartyget ej skall öka sin slagsida måste rätande momentet vara minst lika stort som det på fartyget verkande krängande momentet.

Vid små krängningsvinklar kallas skärningspunkten mellan lodlinjen genom B och centerlinjen genom G för metacentrum och betecknas M. avståndet gm kallas metacenterhöjd och är ett mått på fartygets initialstabilitet. Vid stora krängningsvinklar går uppdriftslinjen genom B inte längre genom M utan skärningspunkten rör sig utefter fartygets centerlinje. Skärningspunkten kallas virtuellt metacentrum och betecknas M'.

Det horisontella avståndet GZ kallas rätande hävarm. Om M ligger under G (negativ metacenterhöjd) får fartyget en permanent slagsida, i sämsta fall kantrar det.

Observera att slagsida beroende på negativ metacenterhöjd aldrig får korrigeras genom tömning av botten tankar, ty då ökar den negativa metacenterhöjden.

Avståndet KM och KM' beror av djupgåendet, KG beror av placering av last, bunker, färskvatten, förråd etc.

2.2 Beräkningsgång

KG kan beräknas genom momenträkning kring baslinjen K.

$$KG = VCG = \frac{\sum(w \cdot y)}{\sum w} \quad (\text{Se avsnitt 1.2 ovan})$$

Aktuella vikter och tyngdpunktslägen fås ur tabeller över kapacitet, och tyngdpunktskoordinater för lätt fartyg, last och bunkertankar.

Ur hydrostatiska data erhålls tvärskeppsmetacentrums läge över baslinjen KM.

$$\text{Metacenterhöjden } GM = KM - KG$$

Förekommer fria vätskeytor i tankarna skall GM reduceras.

$$\text{Reduktion } GG' = \frac{(\text{summa moment av fria vätskeytor})}{(\text{viktsdeplacement})}$$

$$\text{Då erhålls } G'M = GM - GG'$$

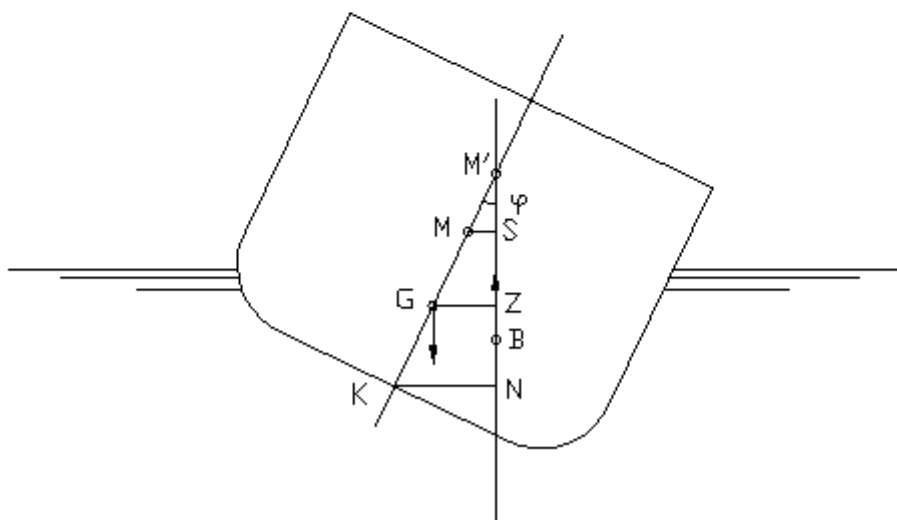
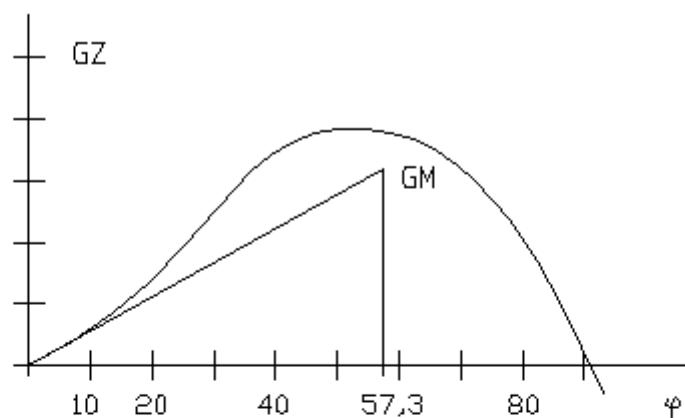
Den rätande hävarmen erhålls sedan som:

Alt 1.

$$G'Z = MS + G'M \cdot \sin \phi$$

Alt 2.

$$G'Z = KN - KG' \cdot \sin \phi$$



Ur $G'Z$ - kurvorna erhålls bl.a. den maximala rätande hävarmen, vinkeln vid vilken denna uppträder, samt stabilitetsvidden.

ALLMÄNNA RÅD.

Att fartyget uppfyller de allmänna stabilitetskriterierna och har godkända stabilitetshandlingar ombord är ingen garanti för att fartyget oberoende av omständigheterna inte kan kappsejsa och sjunka. Inte heller befriar det fartygets befälhavare från någon av hans skyldigheter i samband med lastning och framförande av fartyget. Befälhavaren skall hantera sitt fartyg med gott omdöme och gott sjömansskap med avseende på väderleksutsikter och geografiska förhållanden mm. och vidta lämpliga åtgärder avseende kurs och fart med hänsyn till rådande omständigheter.

Fartyget skall lastas och barlastas på sådant sätt att kraven på stabilitet, bärighet och styrka uppfylls under hela resan.

Innan resan påbörjas skall åtgärder för att förhindra lastförskjutning vidtas. Nödvändig trimning skall utföras och i förekommande fall, skott sättas upp i lastrummen. Nödvändiga lastsurrningar skall utföras.

I stabilitetsboken ingår stabilitetsinformation om ett antal för fartyget typiska lastfall och ytterligare information, som gör det möjligt för fartygets befälhavare att beräkna fartygets stabilitetsegenskaper i alla tänkbara lastkonditioner.

Instruktioner för lastning

Lastning och lossning skall ske på sådant sätt att fartyget trimmar och kränger så lite som möjligt. Särskilt vid halt väglag är det viktigt, för att inte last skall glida överbord. Maximalt axeltryck för rullande däckslast är 6,5 ton.

Fartyget skall lastas på sådant sätt, att det får i det närmaste 0 trim eller svagt akterligt trim. Detta för att undvika att vatten kommer upp på däck vid fart genom vattnet.

Vid lastning av styckegods eller annan ovanlig last kan maxvcg-kurvan i avsnitt 6 vara till hjälp. Diagrammet anger maximal tyngdpunktshöjd över däck för lasten, som funktion av lastens vikt.

LÄTT FARTYG.

Fartygets vikt har beräknats baserat på djupgåendemätning. Tyngdpunktens vertikala läge har beräknats med hjälp av ritning över midskeppssektion, samt bedömning av större enskilda vikter, med hänvisning till SJÖFS 2006:1 Bilaga 9 Regel 10.4.

Fartygets totalvikt har beräknats med hjälp av följande fribordsmätningar.

Babord för : 112,0 cm

Styrbord för : 90,5 cm

Babord akter : 111,0 cm

Styrbord akter : 91,5 cm

Dessa fribord ger en totalvikt på 57,86 ton. Korrigering för tillkommande och avgående vikter ger ett lätt fartyg på 57,58 ton. Detta värde har använts i bifogade beräkning av tyngdpunktsläge i höjdlängd.

Viktberäkning midskeppssektion	Aros Viking
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Delkomponent	Vikt	Tvärs	Vertikalt	-
Bottenplåtar 7mm	81	0,000	0,050	0,000
Slagplåt 7mm	13	0,000	0,200	0,000
Sidobordläggning 6,5 mm	31	0,000	1,000	0,000
Däcksplåt 10 mm	137	0,000	1,650	0,000
Bottenspant	30	0,000	0,120	0,000
Slagbricka	20	0,000	0,280	0,000
Sidospant	8,5	0,000	1,020	0,000
Däcksbalk	34	0,000	1,580	0,000
Centerskott 8 mm	55	0,000	0,850	0,000
Spant centerskott	12	0,000	0,850	0,000
Pelare	11	0,000	0,820	0,000
Bottenlongitudinal	9,3	0,000	0,230	0,000
Yttre däckslongitudinal	6,5	0,000	1,540	0,000
Inre däckslongitudinal	12	0,000	1,400	0,000
Avbärarprofil U220	15	0,000	1,500	0,000
Räcke/Brädgång	6	0,000	2,100	0,000
		0,000	0,000	0,000
Summa vikter	481,3	0,000	0,967	0,000

Beräkningen avser en spantsektion inklusive 0.5 meter bordläggning och däck

Viktberäkning lightweight	Aros Viking
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Delkomponent	Vikt	Tvärs	Vertikalt	-
Skrov enligt tabell ovan	36578,8	0,000	0,967	0,000
Motorbäddar, tankar, durkar etc.	3000	0,000	0,600	0,000
Ramper för och akter	4000	0,000	2,100	0,000
Styrhus	4500	3,400	3,200	0,000
Thruster för och akter	4000	-1,200	0,000	0,000
Huvudmaskiner	3500	-1,200	0,700	0,000
Stödben	2000	3,500	3,000	0,000
	0	0,000	0,000	0,000
Summa vikter	57578,8	0,231	1,188	0,000

Datum	2007-07-04
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LCGmom	VCGmom	TCGmom
0	4,05	0
0	2,6	0
0	31	0
0	226,05	0
0	3,6	0
0	5,6	0
0	8,67	0
0	53,72	0
0	46,75	0
0	10,2	0
0	9,02	0
0	2,139	0
0	10,01	0
0	16,8	0
0	22,5	0
0	12,6	0
0	0	0
0	465,309	0

Datum	2007-07-04
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LCGmom	VCGmom	TCGmom
0	35363,48	0
0	1800	0
0	8400	0
15300	14400	0
-4800	0	0
-4200	2450	0
7000	6000	0
0	0	0
13300	68413,48	0

Kommentarer och förklaringar till lastfall och tabeller.

Stabilitetsegenskaperna för lastfallen är beräknade enligt de svenska reglerna för vägfärjor, SJÖFS 2006:1, Bilaga 4, Regel 3.2 alternativa stabilitetskriterier.

I lastfallsberäkningarna är följande förkortningar använda:

MT	Metric Tonnes
LCB	Longitudinal Center of Buoyancy
TCB	Transversal Center of Buoyancy
VCB	Vertical Center of Buoyancy
GML	Longitudinal Metacentric Height
GMT	Transversal Metacentric Height
LCG	Longitudinal Center of Gravity
TCG	Transversal Center of Gravity
VCG	Vertical Center of Gravity
SpGr	Specific Gravity
FSM	Free Surface Moment
RefHt	Reference Point Height
WPA	Water Plane Area
LCF	Longitudinal Center of Flotation
TCF	Transversal Center of Flotation
BML	Longitudinal Metacenter above Center of Buoyancy
BMT	Transversal Metacenter above Center of Buoyancy
MT/CM	Metric Tonnes per Centimeter Immersion
M.-MT/CM	Metric Tonnes-Metres per Centimeter trim change

I samtliga tabeller och beräkningar i denna rapport refererar koordinater till en baslinje och ett origo enligt nedan. Se också de två första sidorna i geometribeskrivningen.

Definition av baslinje och origo.

Baslinjen ligger i den raka delen av köllinjen, utsida bottenbordläggning. Trimmets är angivet på en längd av 19 meter, lika med längd över allt. Origo ligger på baslinjen midskepps, det vill säga 9,5 meter från stävarna.

Placering av åmning.

Placeringen av åmningen är okänd.

Vid noggrannare beräkningar bör fribordet till överkant huvuddäck mätas, och vattenlinjens placering bestämmas med hjälp av geometribeskrivningen i slutet av stabilitetsbocken.

Skrovdefinition.

I beräkningarna har inte överbyggnadens volym tagits med. I geometribeskrivningen finns en enkel schematisk bild över skrovets och tankarnas geometri, och ett förminskat generalarrangemang. Position av "origin" (origo) finns också angivet.

Redovisning av lastfallsberäkningar

I rubriken till varje lastfall finns angivet djupgåendet till underkant köl vid L/2 (Origin), samt trimmet över en längd av 19 meter.

Stabilitetsegenskaper redovisas för ett antal intaktlastfall. Begränsande kriterier visas för samtliga fall. Kriterierna är definierade enligt de svenska reglerna för vägfärjor, SJÖFS 2006:1, Bilaga 4, Regel 3.2 alternativa stabilitetskriterier.

Undersökta lastfall är:

1. Lätt fartyg
2. 12 personbilar, full bunker
3. 12 personbilar 10% bunker
4. Fullast med slamsugbil, 8 personbilar, 100% bunker
5. Fullast med slamsugbil, 8 personbilar, 10% bunker
6. Fullast med timmerbil, 6 personbilar, 100% bunker
7. Fullast med timmerbil, 6 personbilar, 10% bunker
8. Lastbil 40 ton, tp 1.75 m över däck, 100% bunker
9. Lastbil 40 ton, tp 1.75 m över däck, 10% bunker

Kommentarer till Max VCG kurvorna.

Det begränsande kriteriet för VCG, är för samtliga displacement kravet att dynamiska hävarmen upp till GZ-max eller flödningsvinkeln skall vara större än 0,08 mrad.

Med hjälp av max VCG kurvorna har ett diagram tagits fram, som visar lastens maximalt tillåtna tyngdpunktshöjd över däck, som funktion av lastens vikt. En kurva visas i diagrammet, vilken representerar lägsta värdet för olika trim upp till 0,6 meter över fartygs-längden 19 meter. Eftersom fartyget är symmetriskt kring L/2, gäller kurvan lika för förligt och akterligt trim.

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.583 @ Origin

Trim: 0.000/19.000, Heel: Stbd 1.89 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	
WEIGHT	57.50	0.000	0.230s	1.190	
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----
Total Tanks----->		0.00			0.00
		Displ(MT)----	LCB-----	TCB-----	VCB-----
HULL	1.000	57.50	0.000	0.258s	0.329
					-0.583
	Righting Arms:	0.000	0.000s		
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----
HULL	1.000		115.1	0.000	0.059s
			MT/cm-----	m.-MT/cm-----	GML-----
			1.15	1.40	46.31
					6.885
Distances in METERS.-----					Moments in m.-MT.

RIGHTING ARMS vs HEEL ANGLE

LCG = 0.000 TCG = 0.230s VCG = 1.190

Origin Depth	Degrees of Trim	Degrees of Heel	Displacement Weight(MT)	Righting Arms in Trim	Righting Arms in Heel	Area	Flood Pt Height
0.583	0.00	1.89s	57.50	0.000	0.000	0.0000	1.602(2)
0.580	0.00	4.39s	57.50	0.000	0.307	0.0067	1.449(2)
0.572	0.00	6.89s	57.50	0.000	0.608	0.0267	1.297(2)
0.559	0.00	9.39s	57.50	0.000	0.881	0.0593	1.147(2)
0.530	0.00	11.89s	57.50	0.000	1.080	0.1022	1.009(2)
0.488	0.00	14.39s	57.50	0.000	1.222	0.1525	0.882(2)
0.436	0.00	16.89s	57.50	0.000	1.327	0.2081	0.763(1)
0.374	0.00	19.39s	57.50	0.000	1.404	0.2677	0.650(2)
0.309	0.00	21.89s	57.50	0.000	1.451	0.3301	0.538(2)
0.244	0.00	24.39s	57.50	0.000	1.469	0.3939	0.426(2)
0.214	0.00	25.49s	57.50	0.000	1.471	0.4222	0.377(2)
0.177	0.00	26.89s	57.50	0.000	1.468	0.4581	0.313(2)
0.111	0.00	29.39s	57.52	0.000	1.453	0.5218	0.199(2)
0.045	0.00	31.89s	57.51	0.000	1.426	0.5847	0.085(2)
-0.005	0.00	33.76s	57.51	0.000	1.400	0.6307	0.000(2)
-0.022	0.00	34.39s	57.50	0.000	1.390	0.6461	-0.029(2)
-0.089	0.00	36.89s	57.51	0.000	1.347	0.7058	-0.143(2)
-0.156	0.00	39.39s	57.51	0.000	1.297	0.7635	-0.256(2)
-0.223	0.00	41.89s	57.50	0.000	1.242	0.8189	-0.369(2)
-0.290	0.00	44.39s	57.50	0.000	1.182	0.8718	-0.481(2)
-0.356	0.00	46.89s	57.50	0.000	1.118	0.9220	-0.591(2)
-0.421	0.00	49.39s	57.50	0.000	1.050	0.9693	-0.701(2)
-0.486	0.00	51.89s	57.50	0.000	0.980	1.0136	-0.809(2)
-0.550	0.00	54.39s	57.51	0.000	0.906	1.0548	-0.916(2)
-0.613	0.00	56.89s	57.51	0.000	0.830	1.0927	-1.020(2)
-0.675	0.00	59.39s	57.51	0.000	0.751	1.1272	-1.123(2)
-0.736	0.00	61.89s	57.51	0.000	0.671	1.1582	-1.224(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

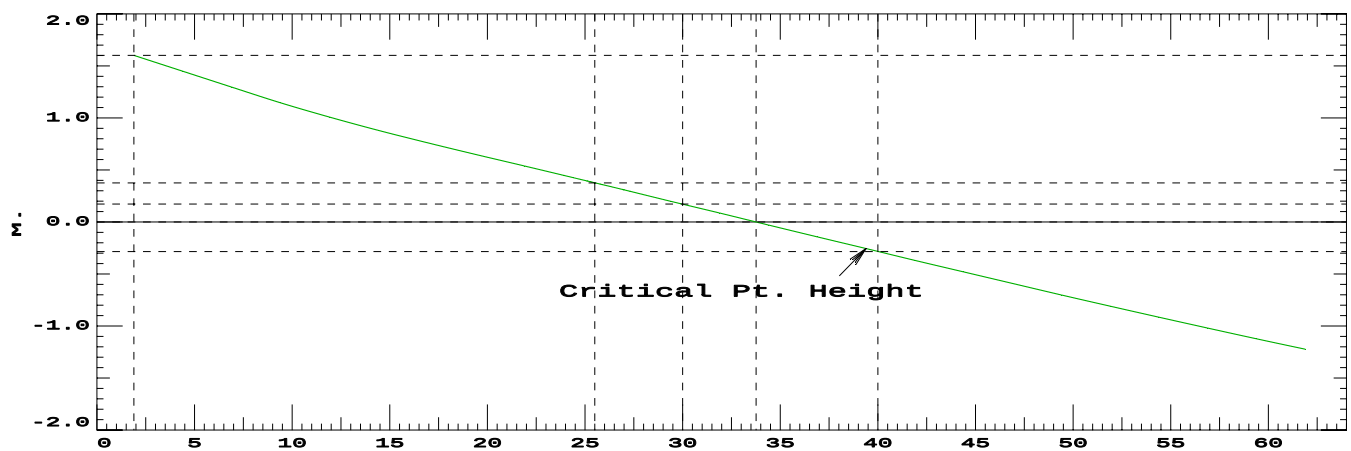
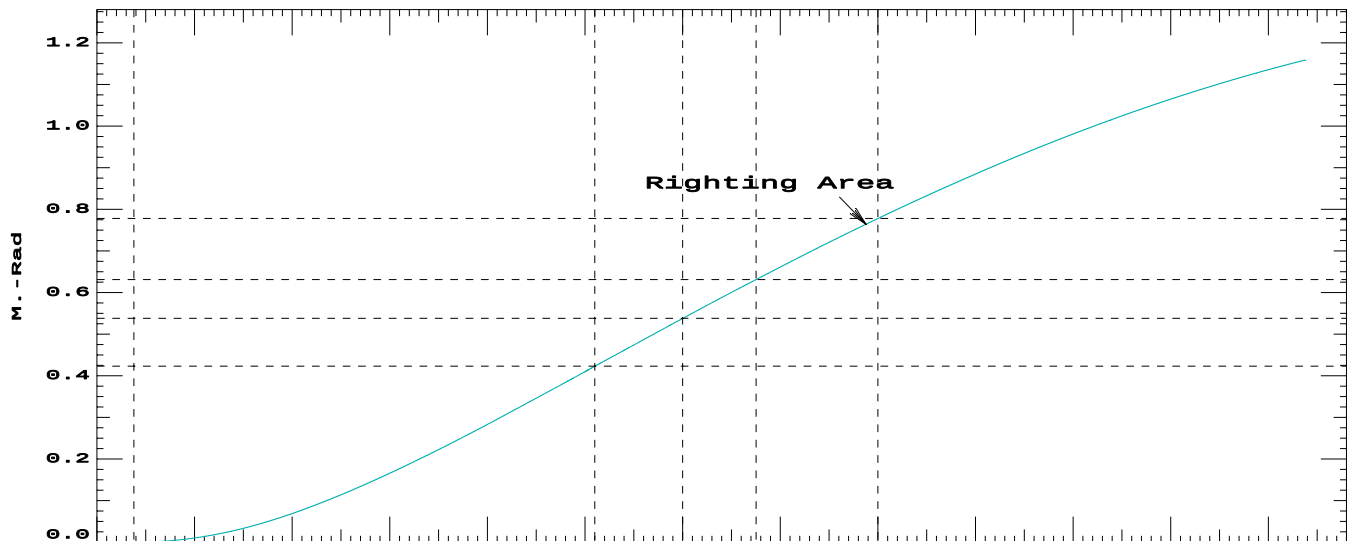
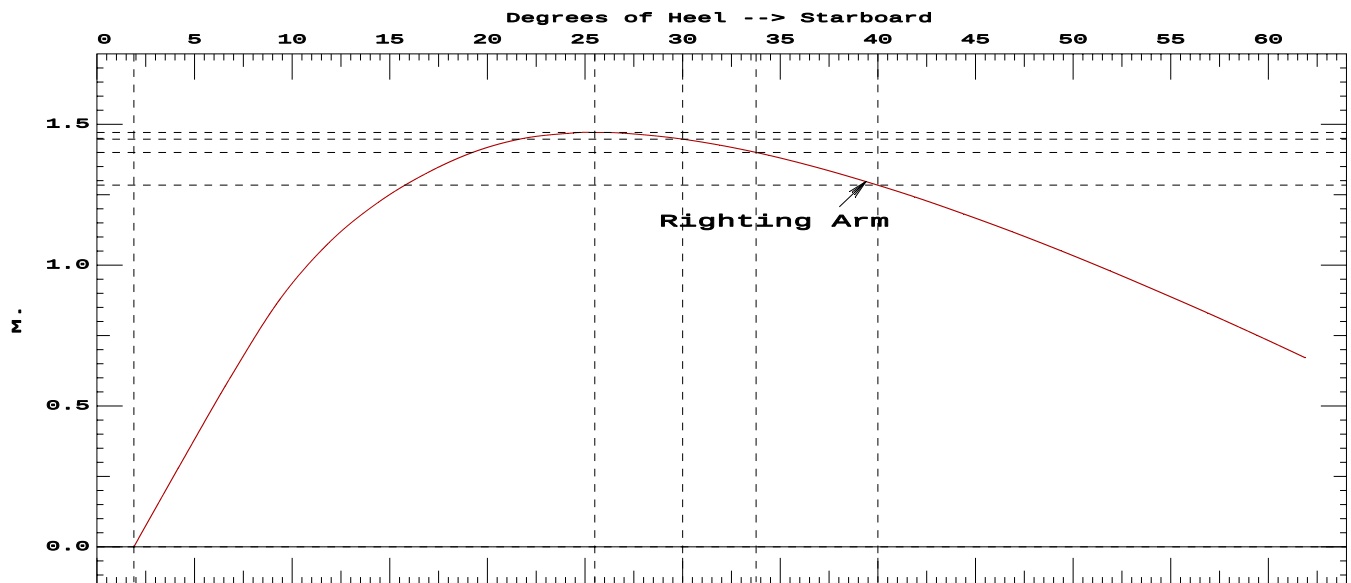
Critical Points-----LCP-----TCP-----VCP

(1) Vent. eng room aft FLOOD 6.750a 3.450 2.300
(2) Vent. eng room fwd FLOOD 6.750f 3.450 2.300

LIM-----STABILITY CRITERION-----Min/Max-----Margin

(1) Area from 0 deg to MaxRA or Flood > 0.0800 m.-Rad 428%
(2) Absolute Angle at RAZero > 20.00 deg LARGE

-----Relative angles measured from 1.893s-----



WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.791 @ Origin

Trim: 0.000/19.000, Heel: Stbd 1.32 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----		
LIGHT SHIP	57.50	0.000	0.230s	1.190		
12 Bilar	19.20	0.000	0.000	2.200		
14 personer	1.12	0.000	0.000	2.200		
Total Fixed----->	77.82	0.000	0.170s	1.454		
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	
FOAFT.P	1.000	0.870	2.09	3.975a	1.016p	0.441
FOFWD.P	1.000	0.870	2.09	3.975f	1.016p	0.441
Total Tanks----->		4.18	0.000	1.016p	0.441	0.00
Total Weight----->		82.00	0.000	0.109s	1.402	
		Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt
HULL	1.000	82.00	0.000	0.132s	0.435	-0.791

	Righting Arms:		0.000	0.000s		
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----
HULL	1.000		121.6	0.000	0.022s	38.97
			MT/cm-----	m.-	MT/cm-----	GML-----
			1.22		1.64	38.00
						4.807
Distances in METERS.-----			Moments in m.-MT.			

RIGHTING ARMS vs HEEL ANGLE

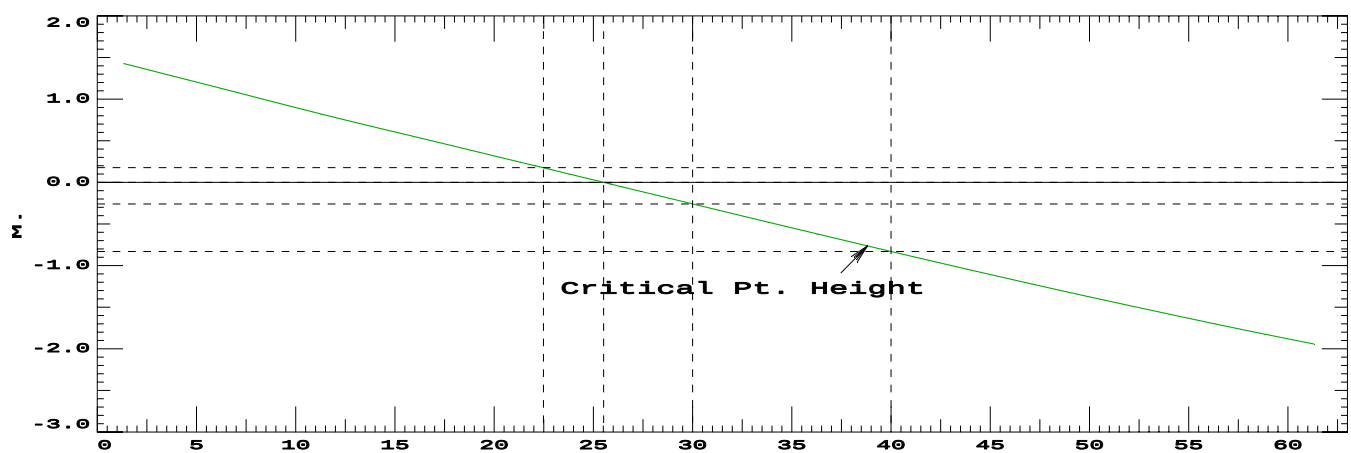
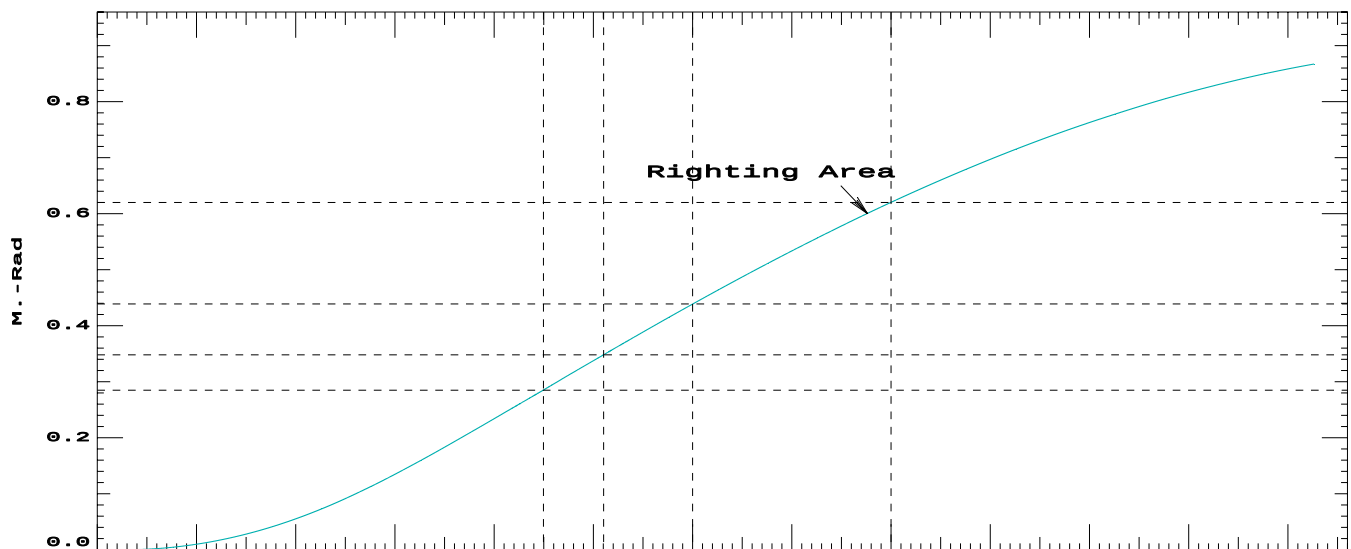
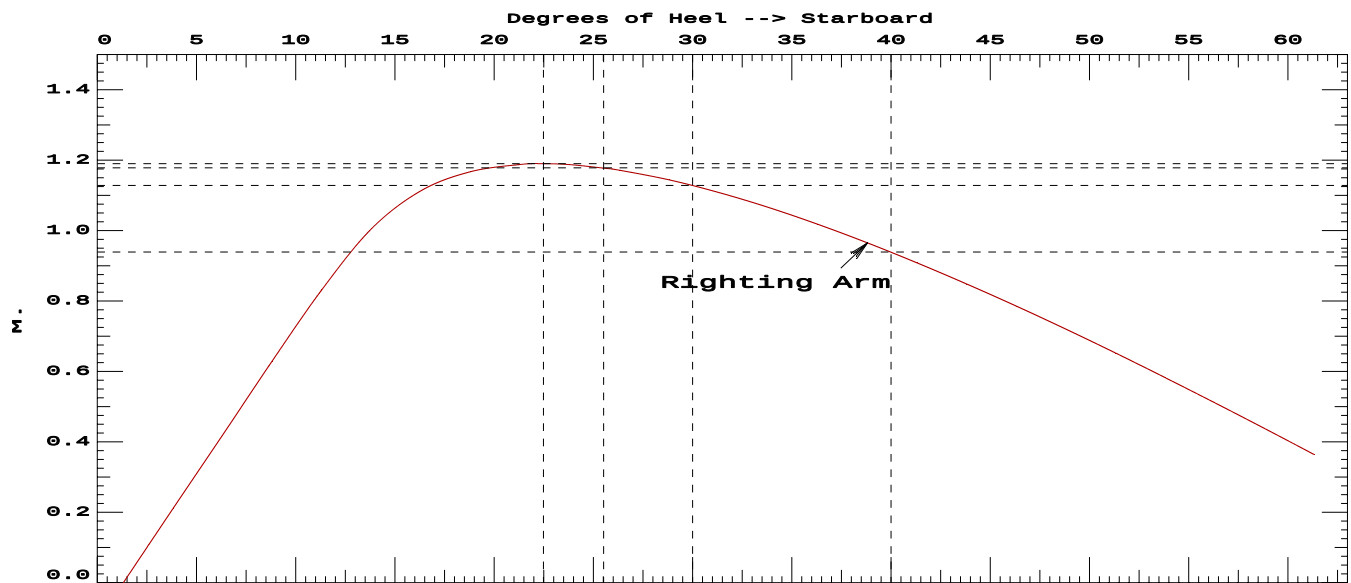
Fixed CG: LCG = 0.000 TCG = 0.170s VCG = 1.454

Origin Depth	Degrees of Trim	Displacement Heel	Weight(MT)	Righting Arms in Trim	in Heel	Area	Flood Pt Height
0.791	0.00	1.32s	82.00	0.000	0.000	0.0000	1.429(2)
0.788	0.00	3.82s	82.01	0.000	0.210	0.0046	1.277(2)
0.782	0.00	6.32s	82.00	0.000	0.419	0.0183	1.125(2)
0.772	0.00	8.82s	82.00	0.000	0.629	0.0412	0.972(2)
0.759	0.00	11.32s	82.02	0.000	0.832	0.0731	0.819(2)
0.737	0.00	13.82s	82.00	0.000	1.005	0.1132	0.673(2)
0.707	0.00	16.32s	82.00	0.000	1.113	0.1594	0.531(2)
0.677	0.00	18.82s	82.00	0.000	1.167	0.2093	0.387(2)
0.645	0.00	21.32s	82.02	0.000	1.188	0.2609	0.243(2)
0.630	0.00	22.46s	82.00	0.000	1.190	0.2847	0.177(2)
0.612	0.00	23.82s	82.00	0.000	1.187	0.3127	0.099(2)
0.589	0.00	25.52s	82.02	0.000	1.177	0.3479	-0.000(2)
0.578	0.00	26.32s	82.00	0.000	1.171	0.3642	-0.046(2)
0.543	0.00	28.82s	82.00	0.000	1.144	0.4147	-0.191(2)
0.507	0.00	31.32s	82.00	0.000	1.108	0.4639	-0.335(2)
0.469	0.00	33.82s	82.00	0.000	1.066	0.5114	-0.479(2)
0.432	0.00	36.32s	82.01	0.000	1.018	0.5568	-0.622(2)
0.393	0.00	38.82s	82.01	0.000	0.965	0.6001	-0.763(2)
0.353	0.00	41.32s	82.01	0.000	0.908	0.6409	-0.903(2)
0.313	0.00	43.82s	82.01	0.000	0.848	0.6793	-1.042(2)
0.272	0.00	46.32s	82.01	0.000	0.785	0.7149	-1.178(2)
0.231	0.00	48.82s	82.01	0.000	0.720	0.7478	-1.313(2)
0.189	0.00	51.32s	82.01	0.000	0.652	0.7777	-1.444(2)
0.147	0.00	53.82s	82.01	0.000	0.582	0.8046	-1.573(2)
0.104	0.00	56.32s	82.01	0.000	0.511	0.8285	-1.699(2)
0.062	0.00	58.82s	82.01	0.000	0.438	0.8492	-1.822(2)
0.019	0.00	61.32s	82.01	0.000	0.364	0.8667	-1.942(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 77.82 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point	LCP	TCP	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----STABILITY CRITERION-----	Min/Max		Margin
(1) Area from 0 deg to MaxRA or Flood	> 0.0800 m.-Rad		256%
(2) Absolute Angle at RAZero	> 20.00 deg		LARGE
-----Relative angles measured from 1.316s-----			



AROS VIKING

NO 3: 12 PERSONBILAR 10 % BUNKER

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.760 @ Origin

Trim: 0.000/19.000, Heel: Stbd 1.89 deg.

Part-----			Weight(MT)----	LCG-----	TCG-----	VCG-----	
LIGHT SHIP			57.50	0.000	0.230s	1.190	
12 Bilar			19.20	0.000	0.000	2.200	
14 personer			1.12	0.000	0.000	2.200	
Total Fixed----->			77.82	0.000	0.170s	1.454	
	Load----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	FSM-----
FOAFT.P	0.100	0.870	0.21	3.975a	0.749p	0.074	0.91
FOFWD.P	0.100	0.870	0.21	3.975f	0.748p	0.074	0.91
Total Tanks----->			0.42	0.000	0.749p	0.074	1.81
Total Weight----->			78.24	0.000	0.165s	1.446	
			Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt-----
HULL		1.000	78.24	0.000	0.199s	0.421	-0.760

	Righting Arms:			0.000	0.000s		
Part-----	Load----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----	BMT-----
HULL		1.000	119.4	0.000	0.062s	38.62	5.928
FOAFT.P	0.100	0.870				2.14	4.333
FOFWD.P	0.100	0.870				2.15	4.334
Total Waterplane---->	1.000		119.4	0.000	0.062s	38.61	5.905
			MT/cm-----	m.-MT/cm-----	GML-----	GMT-----	
			1.19		1.55	37.59	4.879
Distances in METERS.-----				Moments in m.-MT.-----			

RIGHTING ARMS vs HEEL ANGLE

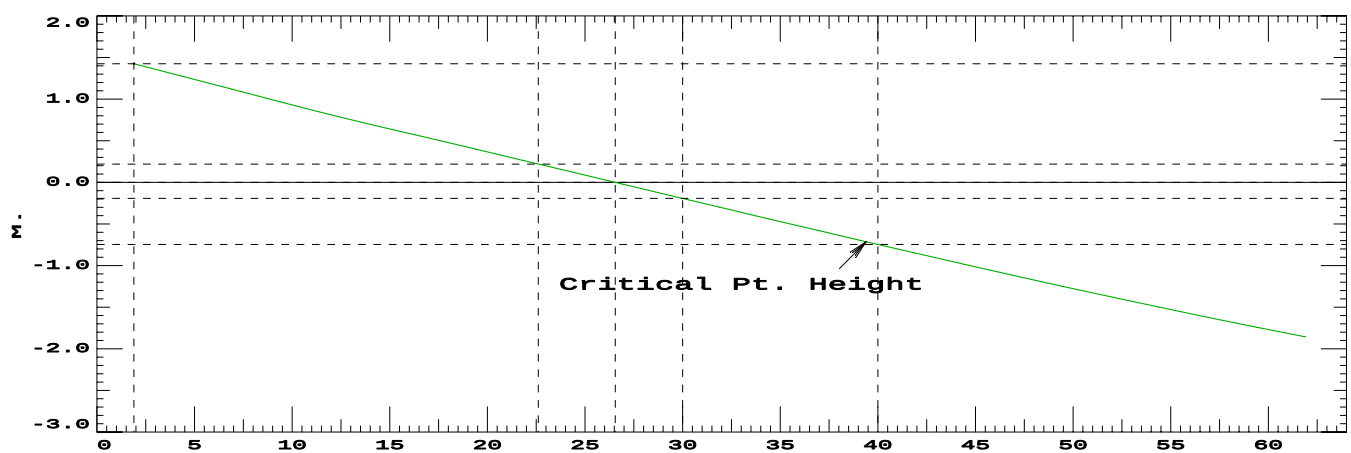
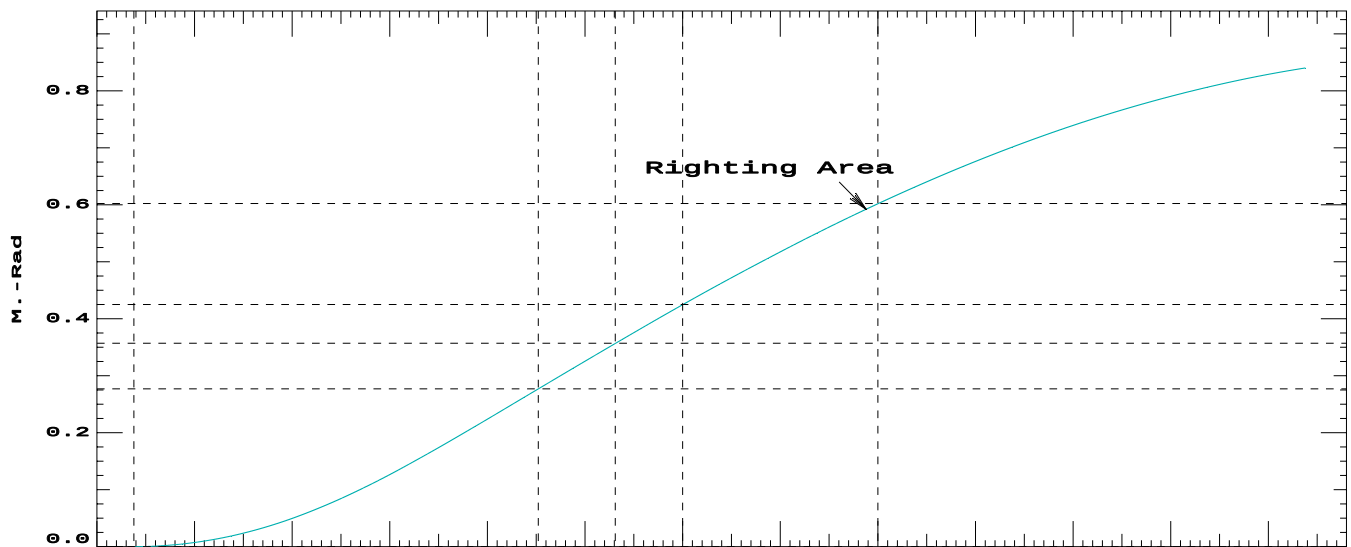
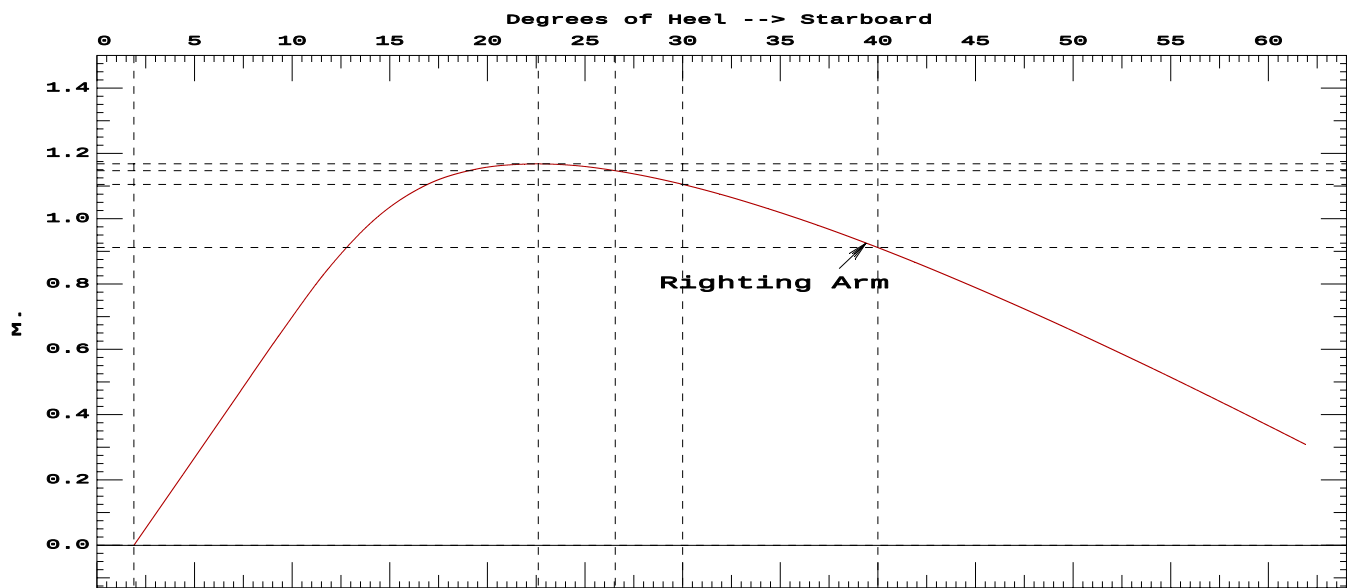
Fixed CG: LCG = 0.000 TCG = 0.170s VCG = 1.454

Origin	Degrees of		Displacement	Righting Arms		Flood Pt
Depth---	Trim----	Heel----	Weight(MT)---	in Trim--	in Heel----	Area --Height
0.760	0.00	1.89s	78.24	0.000	0.000	0.0000 1.425(2)
0.755	0.00	4.39s	78.24	0.000	0.216	0.0047 1.274(2)
0.749	0.00	6.89s	78.24	0.000	0.432	0.0188 1.121(2)
0.738	0.00	9.39s	78.24	0.000	0.648	0.0424 0.968(2)
0.723	0.00	11.89s	78.24	0.000	0.850	0.0751 0.817(2)
0.695	0.00	14.39s	78.24	0.000	1.006	0.1156 0.675(2)
0.660	0.00	16.89s	78.24	0.000	1.104	0.1617 0.538(2)
0.624	0.00	19.39s	78.24	0.000	1.151	0.2111 0.400(2)
0.587	0.00	21.89s	78.26	0.000	1.167	0.2618 0.260(2)
0.579	0.00	22.42s	78.24	0.000	1.168	0.2726 0.231(2)
0.549	0.00	24.39s	78.24	0.000	1.163	0.3127 0.121(2)
0.515	0.00	26.55s	78.24	0.000	1.147	0.3562 0.000(2)
0.510	0.00	26.89s	78.24	0.000	1.144	0.3630 -0.019(2)
0.470	0.00	29.39s	78.25	0.000	1.114	0.4123 -0.159(2)
0.429	0.00	31.89s	78.24	0.000	1.076	0.4601 -0.298(2)
0.387	0.00	34.39s	78.24	0.000	1.031	0.5060 -0.438(2)
0.344	0.00	36.89s	78.24	0.000	0.980	0.5499 -0.576(2)
0.301	0.00	39.39s	78.25	0.000	0.925	0.5915 -0.713(2)
0.257	0.00	41.89s	78.25	0.000	0.867	0.6306 -0.849(2)
0.213	0.00	44.39s	78.25	0.000	0.805	0.6671 -0.983(2)
0.168	0.00	46.89s	78.25	0.000	0.740	0.7008 -1.115(2)
0.123	0.00	49.39s	78.25	0.000	0.673	0.7316 -1.245(2)
0.078	0.00	51.89s	78.25	0.000	0.603	0.7595 -1.373(2)
0.033	0.00	54.39s	78.25	0.000	0.532	0.7842 -1.498(2)
-0.013	0.00	56.89s	78.25	0.000	0.459	0.8059 -1.621(2)
-0.058	0.00	59.39s	78.25	0.000	0.385	0.8243 -1.740(2)
-0.104	0.00	61.89s	78.24	0.000	0.309	0.8394 -1.856(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 77.82 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point-----	LCP-----	TCP-----	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----	STABILITY CRITERION-----	Min/Max-----	Margin
(1) Area from 0 deg to MaxRA or Flood	>	0.0800 m.-Rad	241%
(2) Absolute Angle at RAZero	>	20.00 deg	LARGE
-----Relative angles measured from 1.891s-----			



NO 4: FULLAST MED SLAMSUGBIL, 8 PERSONBILAR, 100 % BUNKER

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.923 @ Origin

Trim: 0.000/19.000, Heel: Stbd 1.47 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----			
LIGHT SHIP	57.50	0.000	0.230s	1.190			
Slamsugbil inkl. fri vaet	22.50	0.000	0.000	3.700			
8 Bilar	12.80	0.000	0.000	2.200			
14 personer	1.12	0.000	0.000	2.200			
Total Fixed----->	93.92	0.000	0.141s	1.941			
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	FSM-----	
FOAFT.P	1.000	0.870	2.09	3.975a	1.016p	0.441	0.00
FOFWD.P	1.000	0.870	2.09	3.975f	1.016p	0.441	0.00
Total Tanks----->			4.18	0.000	1.016p	0.441	0.00
Total Weight----->			98.10	0.000	0.091s	1.877	
		Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt-----	
HULL	1.000	98.10	0.000	0.127s	0.505	-0.923	

Righting Arms:			0.000	0.000s			
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----	BMT-----
HULL	1.000		123.2	0.000	0.054s	33.85	4.846
			MT/cm-----	m.-	MT/cm-----	GML-----	GMT-----
			1.23		1.68	32.47	3.473
Distances in METERS.-----				Moments in m.-MT.			

AROS VIKING

NO 4: FULLAST MED SLAMSUGBIL, 8 PERSONBILAR, 100 % BUNKER

RIGHTING ARMS vs HEEL ANGLE

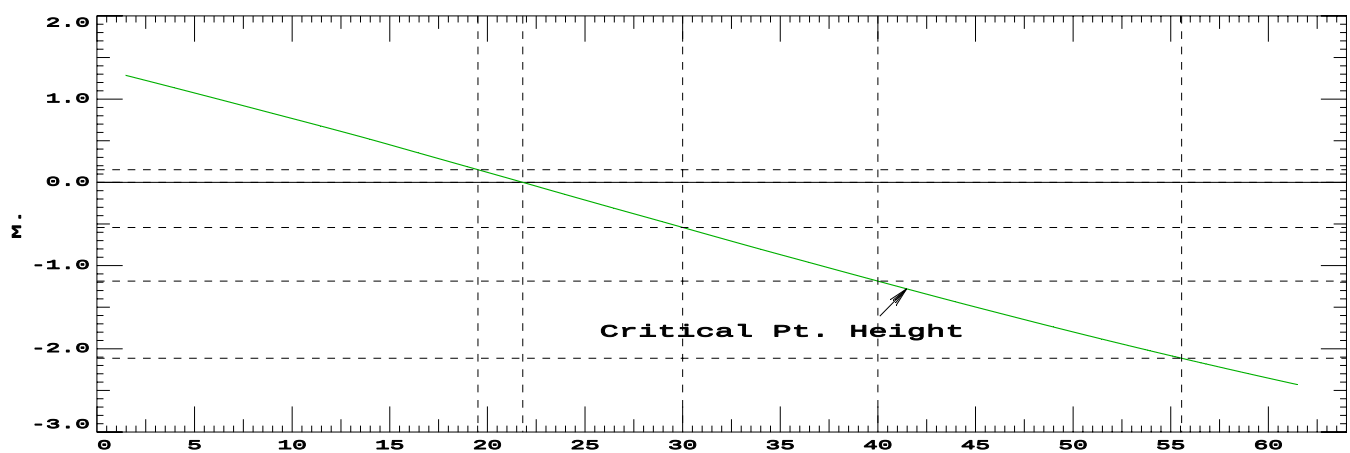
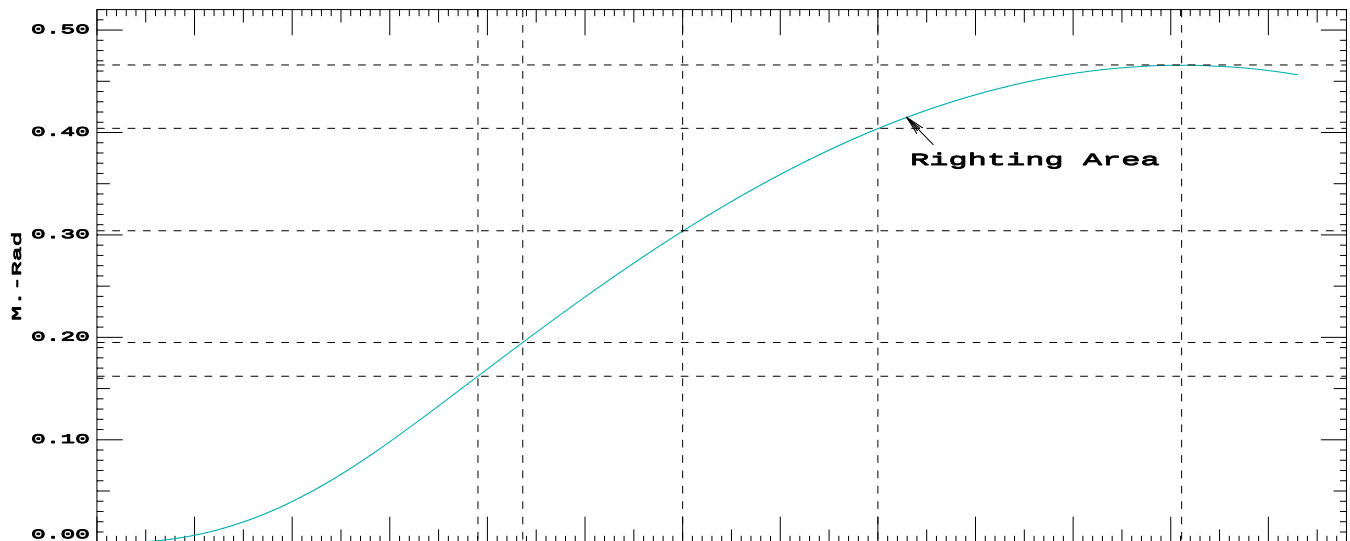
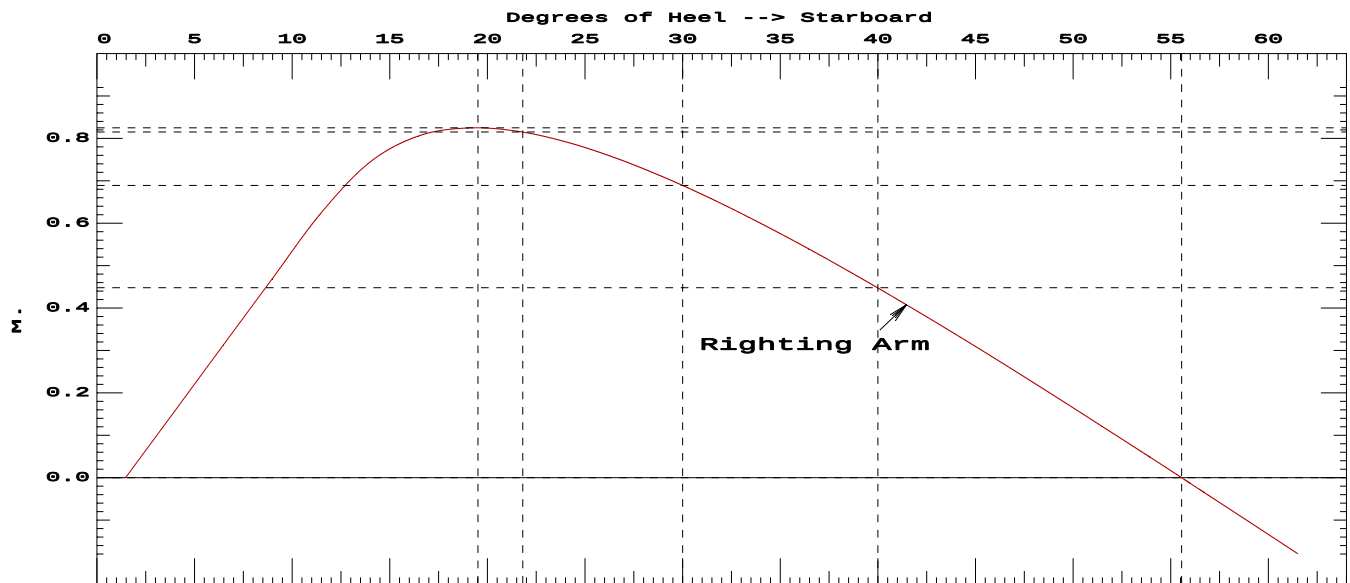
Fixed CG: LCG = 0.000 TCG = 0.141s VCG = 1.941

Origin Depth	Degrees of Trim	Displacement Heel	Weight(MT)	Righting Arms in Trim	in Heel	Area	Flood Pt Height
0.923	0.00	1.47s	98.10	0.000	0.000	0.0000	1.287(2)
0.919	0.00	3.97s	98.10	0.000	0.156	0.0034	1.136(2)
0.912	0.00	6.47s	98.10	0.000	0.313	0.0136	0.984(2)
0.903	0.00	8.97s	98.10	0.000	0.468	0.0307	0.831(2)
0.891	0.00	11.47s	98.12	0.000	0.624	0.0545	0.677(2)
0.881	0.00	13.97s	98.10	0.000	0.743	0.0843	0.519(2)
0.874	0.00	16.47s	98.10	0.000	0.806	0.1181	0.354(2)
0.865	0.00	18.97s	98.11	0.000	0.825	0.1538	0.188(2)
0.864	0.00	19.28s	98.10	0.000	0.825	0.1583	0.168(2)
0.855	0.00	21.47s	98.10	0.000	0.817	0.1898	0.023(2)
0.853	0.00	21.81s	98.10	0.000	0.815	0.1946	0.000(2)
0.843	0.00	23.97s	98.11	0.000	0.792	0.2249	-0.143(2)
0.830	0.00	26.47s	98.11	0.000	0.755	0.2587	-0.309(2)
0.815	0.00	28.97s	98.10	0.000	0.710	0.2906	-0.474(2)
0.799	0.00	31.47s	98.10	0.000	0.658	0.3205	-0.638(2)
0.781	0.00	33.97s	98.10	0.000	0.601	0.3480	-0.801(2)
0.761	0.00	36.47s	98.10	0.000	0.539	0.3729	-0.962(2)
0.740	0.00	38.97s	98.10	0.000	0.475	0.3950	-1.122(2)
0.718	0.00	41.47s	98.10	0.000	0.408	0.4142	-1.280(2)
0.695	0.00	43.97s	98.10	0.000	0.339	0.4305	-1.435(2)
0.670	0.00	46.47s	98.10	0.000	0.268	0.4438	-1.587(2)
0.644	0.00	48.97s	98.10	0.000	0.195	0.4539	-1.736(2)
0.616	0.00	51.47s	98.10	0.000	0.122	0.4608	-1.882(2)
0.588	0.00	53.97s	98.10	0.000	0.048	0.4645	-2.025(2)
0.569	0.00	55.56s	98.10	0.000	0.000	0.4651	-2.113(2)
0.558	0.00	56.47s	98.10	0.000	-0.027	0.4649	-2.163(2)
0.527	0.00	58.97s	98.10	0.000	-0.102	0.4621	-2.298(2)
0.495	0.00	61.47s	98.10	0.000	-0.178	0.4560	-2.428(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 93.92 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point	LCP	TCP	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----STABILITY CRITERION-----	Min/Max	-----	Margin
(1) Area from 0 deg to MaxRA or Flood	> 0.0800 m.-Rad		98%
(2) Absolute Angle at RAzero	> 20.00 deg		36 deg
-----Relative angles measured from 1.469s-----			



NO 5: FULLAST MED SLAMSUGBIL, 8 PERSONBILAR, 10 % BUNKER

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.892 @ Origin

Trim: 0.000/19.000, Heel: Stbd 2.15 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----			
LIGHT SHIP	57.50	0.000	0.230s	1.190			
Slamsugbil inkl. fri vaet	22.50	0.000	0.000	3.700			
8 Bilar	12.80	0.000	0.000	2.200			
14 personer	1.12	0.000	0.000	2.200			
Total Fixed----->	93.92	0.000	0.141s	1.941			
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	FSM-----	
FOAFT.P	0.100	0.870	0.21	3.975a	0.729p	0.075	0.91
FOFWD.P	0.100	0.870	0.21	3.975f	0.729p	0.075	0.91
Total Tanks----->			0.42	0.000	0.729p	0.075	1.81
Total Weight----->			94.34	0.000	0.137s	1.933	
		Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt-----	
HULL	1.000	94.34	0.000	0.191s	0.491	-0.892	

Righting Arms:			0.000	0.000s			
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----	BMT-----
HULL		1.000	122.6	0.000	0.073s	34.72	5.034
FOAFT.P	0.100	0.870				2.15	4.336
FOFWD.P	0.100	0.870				2.15	4.336
Total Waterplane---->	1.000		122.6	0.000	0.073s	34.71	5.014
			MT/cm-----	m.-	MT/cm-----	GML-----	GMT-----
			1.23		1.65	33.27	3.572
Distances in METERS.-----				Moments in m.-MT.			

AROS VIKING

NO 5: FULLAST MED SLAMSUGBIL, 8 PERSONBILAR, 10 % BUNKER

RIGHTING ARMS vs HEEL ANGLE

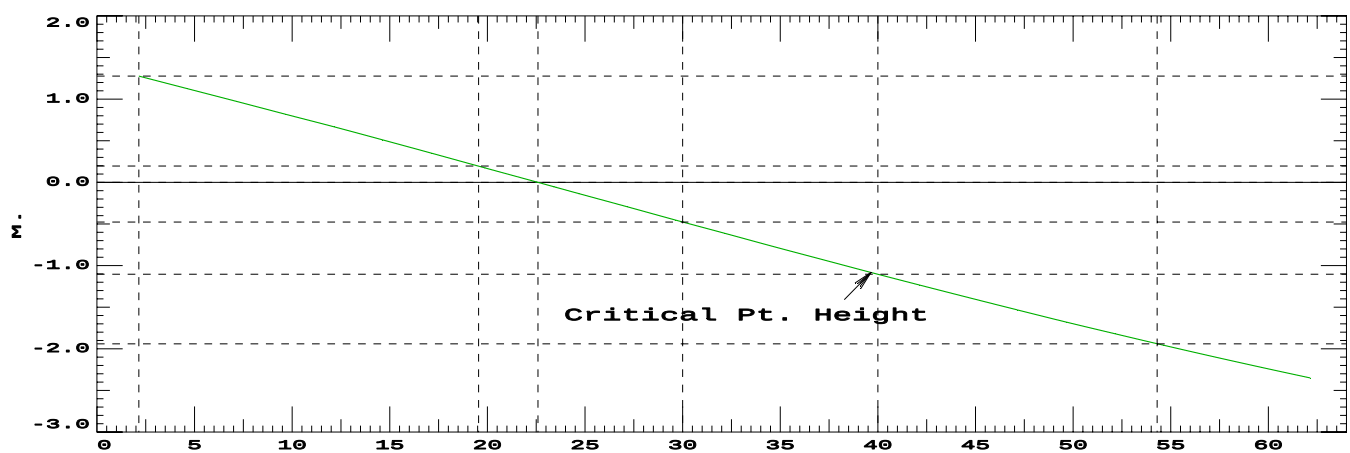
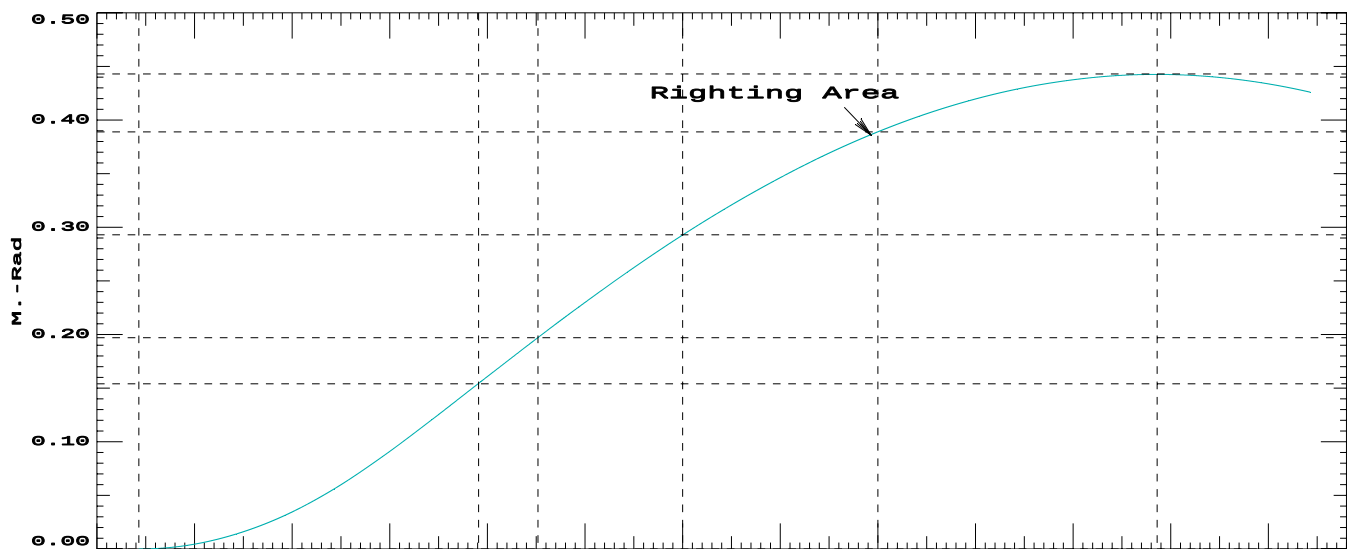
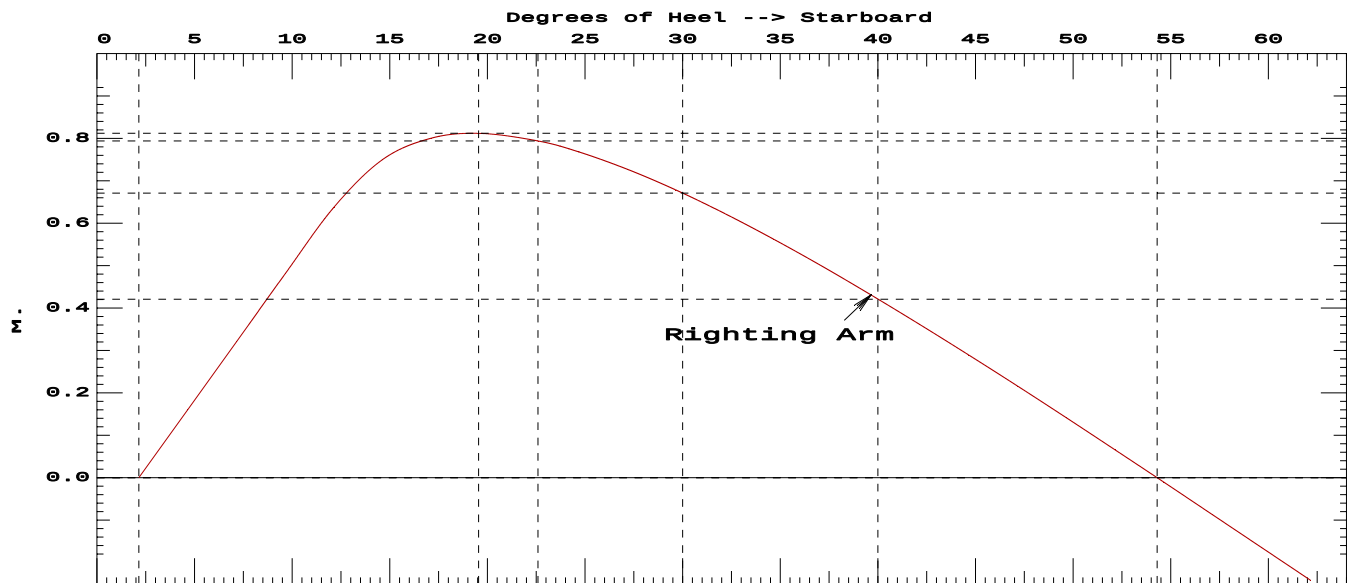
Fixed CG: LCG = 0.000 TCG = 0.141s VCG = 1.941

Origin	Degrees of	Displacement	Righting Arms	Flood Pt	
Depth---	Trim----	Heel----	Weight(MT)---	in Trim--in Heel----	Area --Height
0.892	0.00	2.15s	94.34	0.000 0.000	0.0000 1.277(2)
0.887	0.00	4.65s	94.33	0.000 0.160	0.0035 1.126(2)
0.880	0.00	7.15s	94.34	0.000 0.321	0.0140 0.973(2)
0.869	0.00	9.65s	94.34	0.000 0.481	0.0315 0.820(2)
0.856	0.00	12.15s	94.34	0.000 0.638	0.0559 0.667(2)
0.843	0.00	14.65s	94.34	0.000 0.751	0.0862 0.509(2)
0.831	0.00	17.15s	94.35	0.000 0.801	0.1200 0.350(2)
0.817	0.00	19.65s	94.35	0.000 0.812	0.1554 0.189(2)
0.813	0.00	20.27s	94.34	0.000 0.810	0.1642 0.149(2)
0.801	0.00	22.15s	94.34	0.000 0.798	0.1906 0.029(2)
0.798	0.00	22.59s	94.34	0.000 0.794	0.1967 0.000(2)
0.784	0.00	24.65s	94.34	0.000 0.769	0.2248 -0.132(2)
0.765	0.00	27.15s	94.34	0.000 0.728	0.2574 -0.293(2)
0.745	0.00	29.65s	94.34	0.000 0.678	0.2881 -0.453(2)
0.724	0.00	32.15s	94.34	0.000 0.623	0.3165 -0.612(2)
0.701	0.00	34.65s	94.34	0.000 0.563	0.3424 -0.770(2)
0.677	0.00	37.15s	94.33	0.000 0.499	0.3656 -0.927(2)
0.652	0.00	39.65s	94.34	0.000 0.431	0.3858 -1.082(2)
0.625	0.00	42.15s	94.34	0.000 0.361	0.4031 -1.235(2)
0.597	0.00	44.65s	94.34	0.000 0.290	0.4174 -1.385(2)
0.568	0.00	47.15s	94.34	0.000 0.216	0.4284 -1.533(2)
0.538	0.00	49.65s	94.34	0.000 0.142	0.4362 -1.678(2)
0.507	0.00	52.15s	94.34	0.000 0.066	0.4407 -1.820(2)
0.480	0.00	54.31s	94.34	0.000 0.000	0.4420 -1.940(2)
0.475	0.00	54.65s	94.34	0.000 -0.010	0.4419 -1.958(2)
0.442	0.00	57.15s	94.34	0.000 -0.087	0.4398 -2.093(2)
0.408	0.00	59.65s	94.34	0.000 -0.164	0.4343 -2.223(2)
0.374	0.00	62.15s	94.34	0.000 -0.242	0.4255 -2.350(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 93.92 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point-----	LCP-----	TCP-----	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----	STABILITY CRITERION-----	Min/Max-----	Margin
(1) Area from 0 deg to MaxRA or Flood	>	0.0800 m.-Rad	94%
(2) Absolute Angle at RAZero	>	20.00 deg	34 deg
-----Relative angles measured from 2.147s-----			



NO 6: FULLAST MED TIMMERBIL, 6 PERSONBILAR, 100 % BUNKER

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.918 @ Origin

Trim: 0.000/19.000, Heel: Stbd 1.50 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----			
LIGHT SHIP	57.50	0.000	0.230s	1.190			
Timmerbil	25.00	0.000	0.000	3.800			
6 Bilar	9.60	0.000	0.000	2.200			
14 personer	1.12	0.000	0.000	2.200			
Total Fixed----->	93.22	0.000	0.142s	2.006			
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	FSM-----	
FOAFT.P	1.000	0.870	2.09	3.975a	1.016p	0.441	0.00
FOFWD.P	1.000	0.870	2.09	3.975f	1.016p	0.441	0.00
Total Tanks----->			4.18	0.000	1.016p	0.441	0.00
Total Weight----->			97.40	0.000	0.092s	1.939	
		Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt-----	
HULL	1.000	97.40	0.000	0.130s	0.502	-0.917	

Righting Arms:			0.000	0.000s			
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----	BMT-----
HULL	1.000		123.0	0.000	0.055s	33.96	4.876
			MT/cm-----	m.-	MT/cm-----	GML-----	GMT-----
			1.23		1.67	32.53	3.439
Distances in METERS.-----				Moments in m.-MT.			

AROS VIKING

NO 6: FULLAST MED TIMMERBIL, 6 PERSONBILAR, 100 % BUNKER

RIGHTING ARMS vs HEEL ANGLE

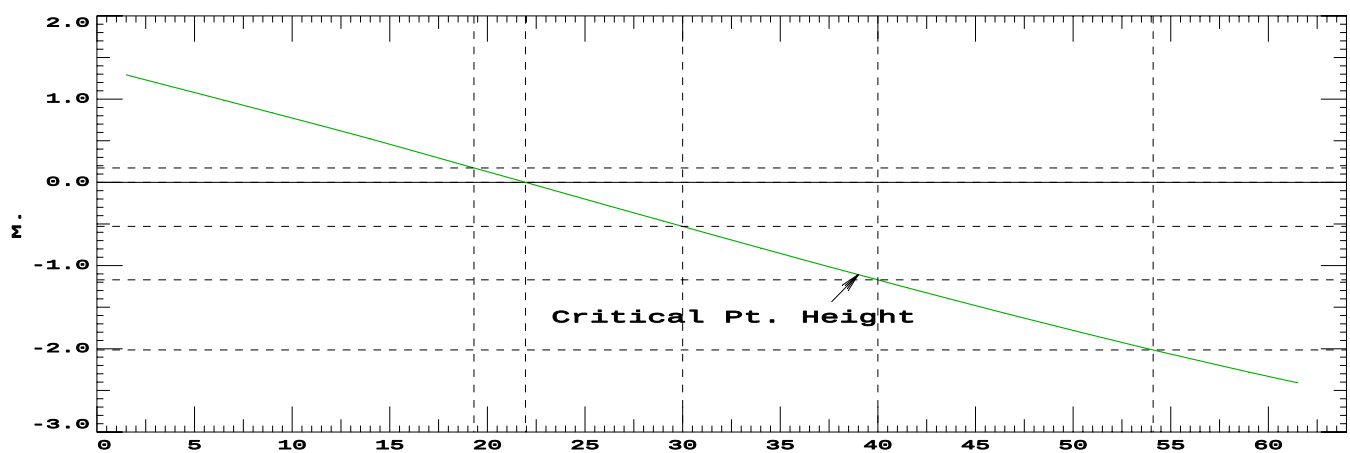
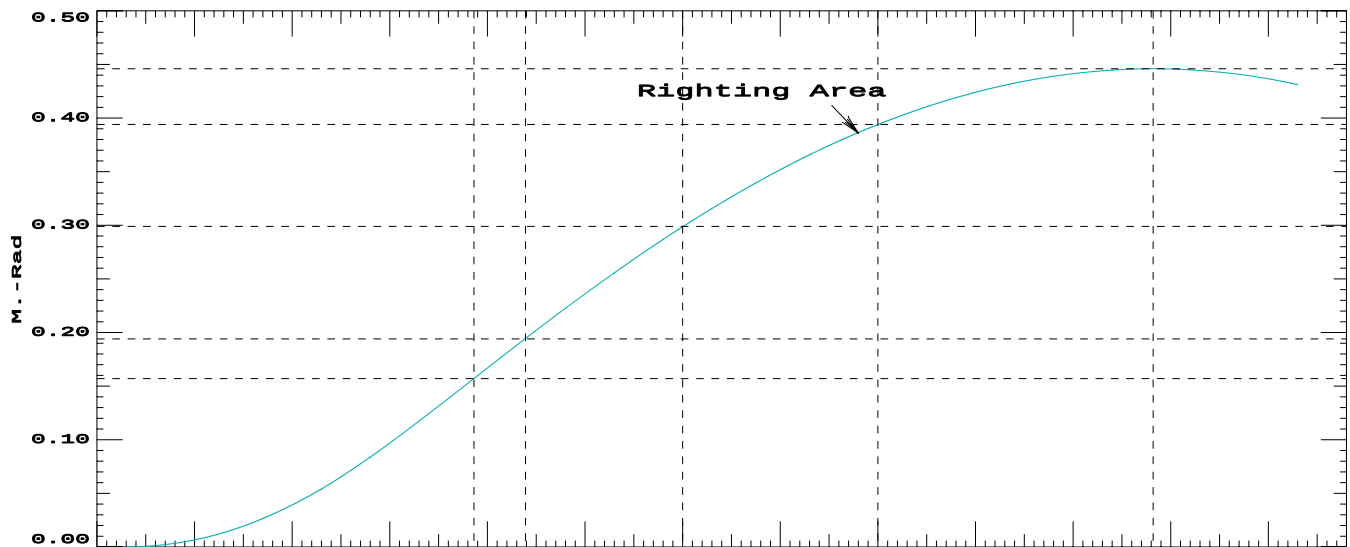
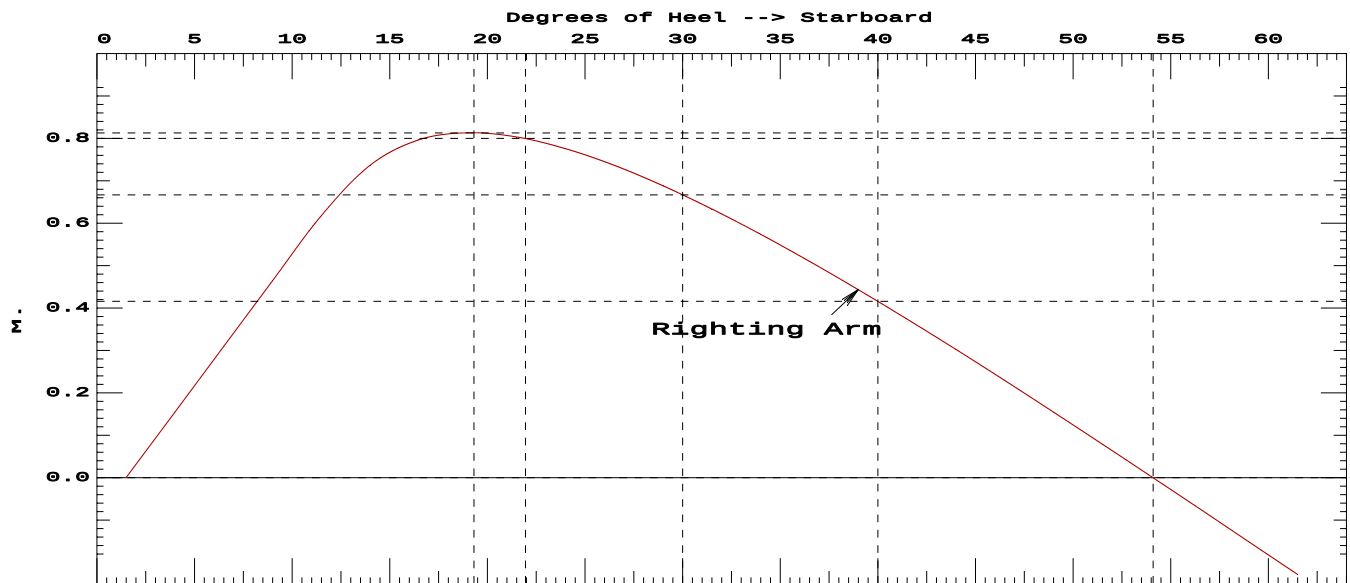
Fixed CG: LCG = 0.000 TCG = 0.142s VCG = 2.006

Origin	Degrees of		Displacement	Righting Arms		Flood Pt
Depth---	Trim----	Heel----	Weight(MT)---	in Trim--	in Heel---	Area --Height
0.917	0.00	1.50s	97.40	0.000	0.000	0.0000 1.292(2)
0.914	0.00	4.00s	97.40	0.000	0.155	0.0034 1.140(2)
0.907	0.00	6.50s	97.40	0.000	0.310	0.0135 0.988(2)
0.897	0.00	9.00s	97.40	0.000	0.464	0.0304 0.835(2)
0.885	0.00	11.50s	97.42	0.000	0.618	0.0540 0.682(2)
0.874	0.00	14.00s	97.40	0.000	0.737	0.0835 0.523(2)
0.866	0.00	16.50s	97.40	0.000	0.797	0.1170 0.359(2)
0.857	0.00	19.00s	97.41	0.000	0.813	0.1523 0.195(2)
0.856	0.00	19.19s	97.40	0.000	0.813	0.1551 0.182(2)
0.846	0.00	21.50s	97.40	0.000	0.803	0.1877 0.030(2)
0.843	0.00	21.95s	97.40	0.000	0.799	0.1941 0.000(2)
0.833	0.00	24.00s	97.41	0.000	0.776	0.2221 -0.135(2)
0.819	0.00	26.50s	97.41	0.000	0.736	0.2551 -0.300(2)
0.803	0.00	29.00s	97.40	0.000	0.688	0.2862 -0.464(2)
0.786	0.00	31.50s	97.40	0.000	0.634	0.3151 -0.627(2)
0.767	0.00	34.00s	97.40	0.000	0.574	0.3415 -0.789(2)
0.747	0.00	36.50s	97.40	0.000	0.510	0.3651 -0.950(2)
0.725	0.00	39.00s	97.40	0.000	0.444	0.3859 -1.108(2)
0.702	0.00	41.50s	97.40	0.000	0.374	0.4038 -1.265(2)
0.678	0.00	44.00s	97.40	0.000	0.303	0.4186 -1.420(2)
0.652	0.00	46.50s	97.40	0.000	0.229	0.4302 -1.571(2)
0.625	0.00	49.00s	97.40	0.000	0.155	0.4386 -1.720(2)
0.597	0.00	51.50s	97.40	0.000	0.079	0.4437 -1.865(2)
0.568	0.00	54.00s	97.40	0.000	0.003	0.4455 -2.007(2)
0.567	0.00	54.10s	97.40	0.000	0.000	0.4455 -2.013(2)
0.538	0.00	56.50s	97.40	0.000	-0.074	0.4439 -2.145(2)
0.506	0.00	59.00s	97.40	0.000	-0.151	0.4390 -2.279(2)
0.474	0.00	61.50s	97.40	0.000	-0.228	0.4308 -2.409(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 93.22 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point-----	LCP-----	TCP-----	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----	STABILITY CRITERION-----	Min/Max-----	Margin
(1) Area from 0 deg to MaxRA or Flood	>	0.0800 m.-Rad	94%
(2) Absolute Angle at RAZero	>	20.00 deg	34 deg
-----Relative angles measured from 1.496s-----			



AROS VIKING

NO 7: FULLAST MED TIMMERBIL, 6 PERSONBILAR, 10 % BUNKER

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.887 @ Origin

Trim: 0.000/19.000, Heel: Stbd 2.18 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----			
LIGHT SHIP	57.50	0.000	0.230s	1.190			
Timmerbil	25.00	0.000	0.000	3.800			
6 Bilar	9.60	0.000	0.000	2.200			
14 personer	1.12	0.000	0.000	2.200			
Total Fixed----->	93.22	0.000	0.142s	2.006			
	Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	FSM-----
FOAFT.P	0.100	0.870	0.21	3.975a	0.727p	0.075	0.91
FOFWD.P	0.100	0.870	0.21	3.975f	0.726p	0.075	0.91
Total Tanks----->			0.42	0.000	0.726p	0.075	1.81
Total Weight----->			93.64	0.000	0.138s	1.997	
			Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt-----
HULL	1.000		93.64	0.000	0.196s	0.488	-0.886

	Righting Arms:		0.000	0.000s			
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----	BMT-----
HULL	1.000		122.5	0.000	0.073s	34.89	5.068
FOAFT.P	0.100	0.870				2.15	4.336
FOFWD.P	0.100	0.870				2.15	4.337
Total Waterplane---->	1.000		122.5	0.000	0.073s	34.88	5.048
			MT/cm-----	m.-	MT/cm-----	GML-----	GMT-----
			1.23		1.64	33.37	3.538
Distances in METERS.-----Moments in m.-MT.							

AROS VIKING

NO 7: FULLAST MED TIMMERBIL, 6 PERSONBILAR, 10 % BUNKER

RIGHTING ARMS vs HEEL ANGLE

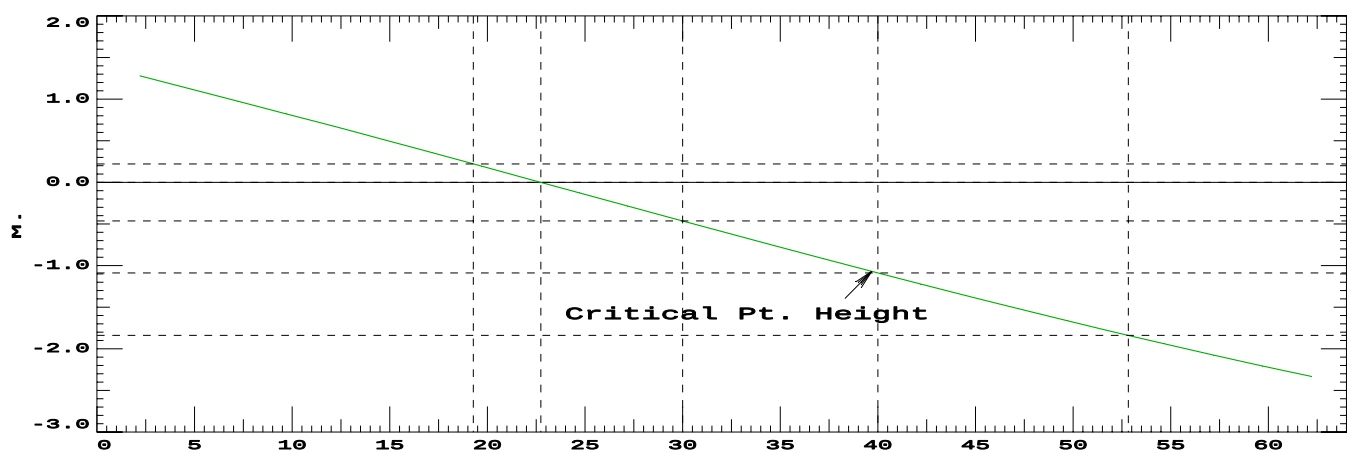
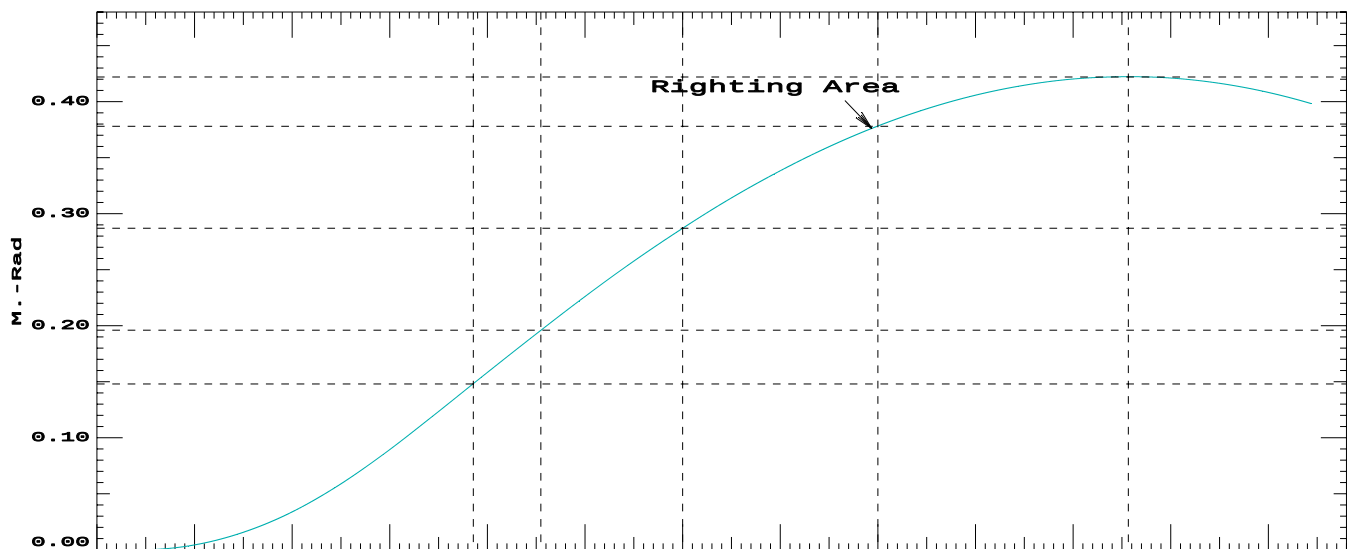
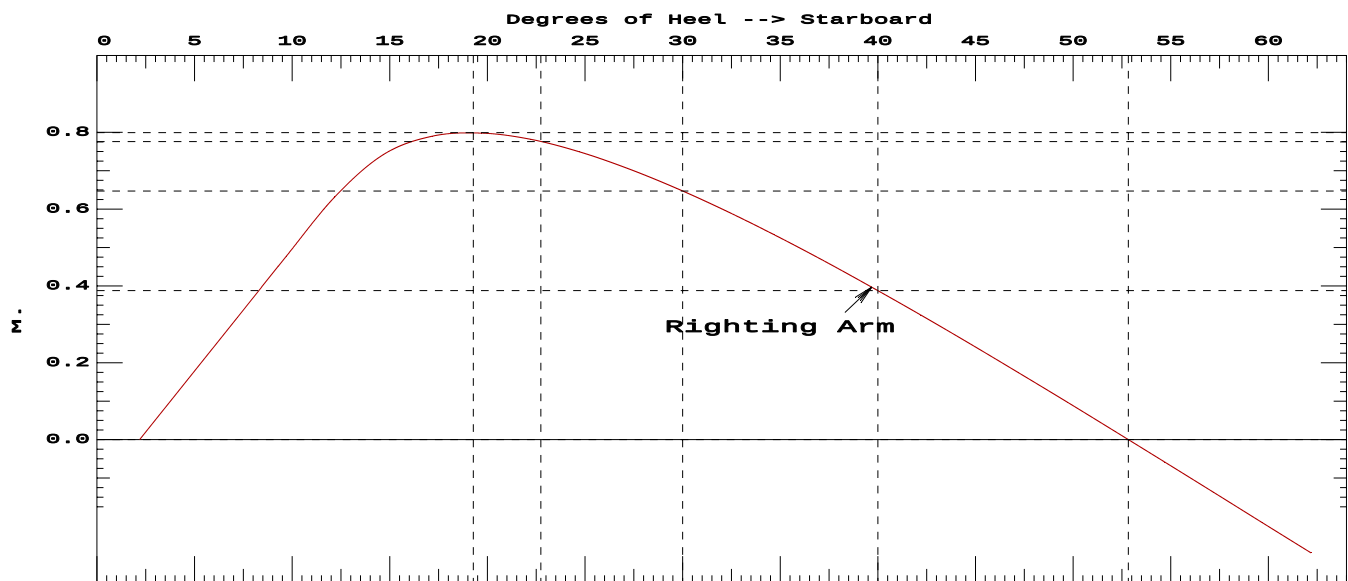
Fixed CG: LCG = 0.000 TCG = 0.142s VCG = 2.006

Origin	Degrees of		Displacement	Righting Arms		Flood Pt
Depth---	Trim----	Heel----	Weight(MT)---	in Trim--	in Heel----	Area --Height
0.886	0.00	2.18s	93.64	0.000	0.000	0.0000 1.281(2)
0.882	0.00	4.68s	93.63	0.000	0.159	0.0035 1.129(2)
0.874	0.00	7.18s	93.64	0.000	0.318	0.0139 0.977(2)
0.864	0.00	9.68s	93.64	0.000	0.477	0.0312 0.823(2)
0.850	0.00	12.18s	93.64	0.000	0.632	0.0554 0.670(2)
0.837	0.00	14.68s	93.64	0.000	0.743	0.0854 0.514(2)
0.823	0.00	17.18s	93.65	0.000	0.790	0.1188 0.355(2)
0.811	0.00	19.19s	93.64	0.000	0.799	0.1466 0.227(2)
0.808	0.00	19.68s	93.64	0.000	0.798	0.1536 0.196(2)
0.791	0.00	22.18s	93.65	0.000	0.782	0.1881 0.036(2)
0.787	0.00	22.74s	93.64	0.000	0.776	0.1957 0.000(2)
0.773	0.00	24.68s	93.64	0.000	0.750	0.2216 -0.124(2)
0.754	0.00	27.18s	93.64	0.000	0.706	0.2533 -0.284(2)
0.733	0.00	29.68s	93.64	0.000	0.654	0.2830 -0.443(2)
0.711	0.00	32.18s	93.64	0.000	0.596	0.3103 -0.602(2)
0.687	0.00	34.68s	93.64	0.000	0.533	0.3350 -0.759(2)
0.662	0.00	37.18s	93.64	0.000	0.466	0.3568 -0.915(2)
0.636	0.00	39.68s	93.64	0.000	0.397	0.3756 -1.069(2)
0.608	0.00	42.18s	93.64	0.000	0.325	0.3914 -1.221(2)
0.580	0.00	44.68s	93.64	0.000	0.250	0.4039 -1.371(2)
0.550	0.00	47.18s	93.64	0.000	0.175	0.4132 -1.518(2)
0.519	0.00	49.68s	93.64	0.000	0.098	0.4191 -1.662(2)
0.488	0.00	52.18s	93.64	0.000	0.020	0.4217 -1.803(2)
0.480	0.00	52.83s	93.64	0.000	0.000	0.4218 -1.839(2)
0.455	0.00	54.68s	93.64	0.000	-0.058	0.4209 -1.941(2)
0.422	0.00	57.18s	93.64	0.000	-0.137	0.4166 -2.075(2)
0.387	0.00	59.68s	93.64	0.000	-0.216	0.4089 -2.205(2)
0.352	0.00	62.18s	93.64	0.000	-0.295	0.3978 -2.331(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 93.22 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point-----	LCP-----	TCP-----	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----	STABILITY CRITERION-----	Min/Max-----	Margin
(1) Area from 0 deg to MaxRA or Flood	>	0.0800 m.-Rad	83%
(2) Absolute Angle at RAzero	>	20.00 deg	33 deg
-----Relative angles measured from 2.185s-----			



GHS 10.50A

AROS VIKING

NO 8: LASTBIL MED MAXIMAL VIKT 40 TON, TYNGDPUNKT 1.75 M OEVER DECK, 100 % BUNKE

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.961 @ Origin

Trim: 0.000/19.000, Heel: Stbd 1.55 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----		
LIGHT SHIP	57.50	0.000	0.230s	1.190		
Lastbil	40.00	0.000	0.000	3.450		
14 personer	1.12	0.000	0.000	2.200		
Total Fixed----->	98.62	0.000	0.134s	2.118		
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	
FOAFT.P	1.000	0.870	2.09	3.975a	1.016p	0.441
FOFWD.P	1.000	0.870	2.09	3.975f	1.016p	0.441
Total Tanks----->		4.18	0.000	1.016p	0.441	0.00
Total Weight----->		102.80	0.000	0.087s	2.050	
		Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt
HULL	1.000	102.80	0.000	0.128s	0.525	-0.961

Righting Arms:			0.000	0.000s		
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----
HULL	1.000		124.2	0.000	0.051s	33.13
			MT/cm-----	m.-	MT/cm-----	GML-----
			1.24		1.71	31.60
Distances in METERS.-----			Moments in m.-MT.			

GHS 10.50A

AROS VIKING

NO 8: LASTBIL MED MAXIMAL VIKT 40 TON, TYNGDPUNKT 1.75 M OEVER DECK, 100 % BUNKE

RIGHTING ARMS vs HEEL ANGLE

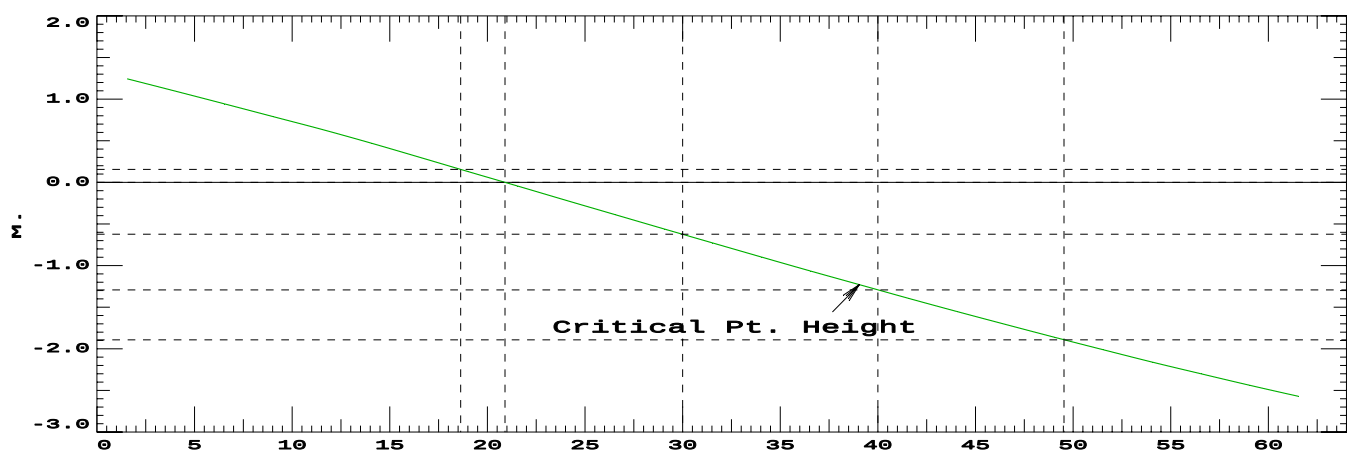
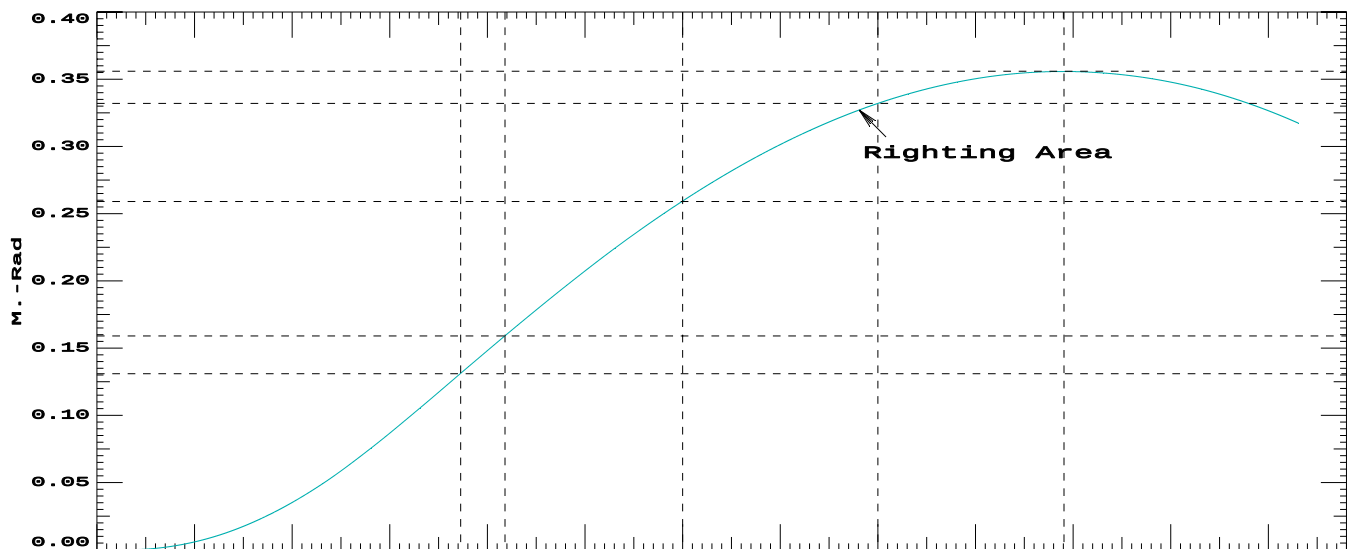
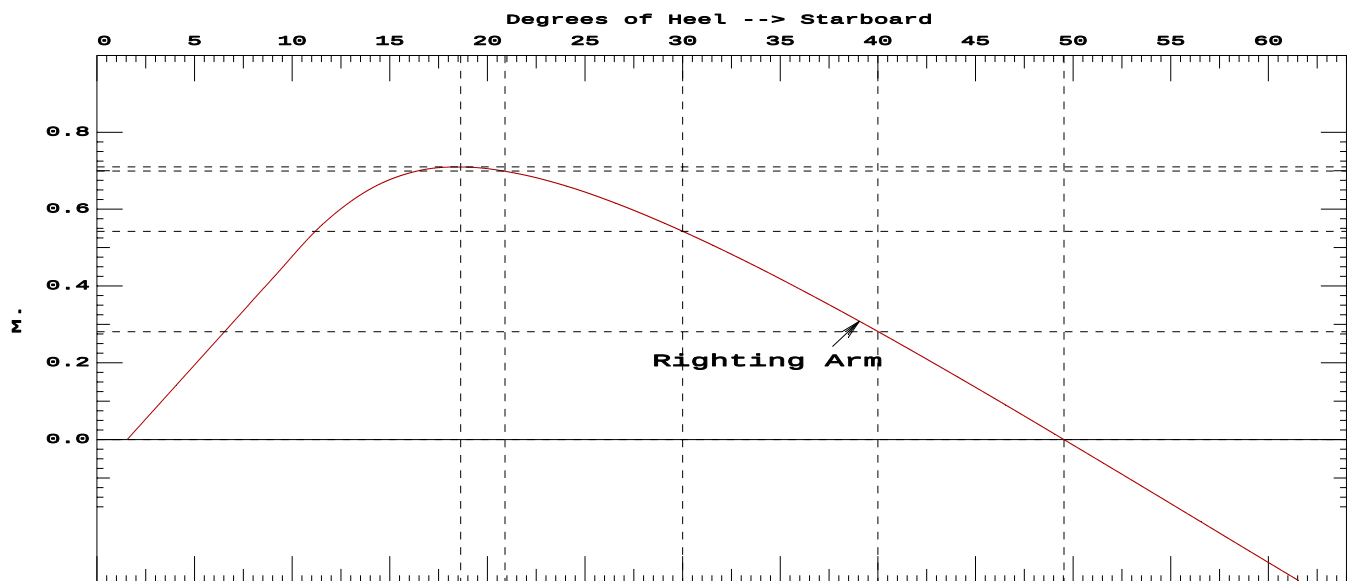
Fixed CG: LCG = 0.000 TCG = 0.134s VCG = 2.118

Origin Depth---	Trim----	Degrees of Heel----	Displacement Weight(MT)---	Righting Arms in Trim--in Heel---	Area -->	Flood Pt --Height
0.961	0.00	1.55s	102.80	0.000 0.000	0.0000	1.245(2)
0.957	0.00	4.05s	102.80	0.000 0.141	0.0031	1.094(2)
0.950	0.00	6.55s	102.80	0.000 0.282	0.0123	0.942(2)
0.940	0.00	9.05s	102.80	0.000 0.422	0.0277	0.789(2)
0.929	0.00	11.55s	102.80	0.000 0.560	0.0491	0.634(2)
0.923	0.00	14.05s	102.80	0.000 0.654	0.0756	0.470(2)
0.923	0.00	16.55s	102.81	0.000 0.701	0.1051	0.299(2)
0.921	0.00	18.42s	102.80	0.000 0.710	0.1283	0.171(2)
0.920	0.00	19.05s	102.80	0.000 0.709	0.1360	0.128(2)
0.918	0.00	20.90s	102.80	0.000 0.699	0.1588	0.000(2)
0.917	0.00	21.55s	102.80	0.000 0.693	0.1667	-0.044(2)
0.911	0.00	24.05s	102.81	0.000 0.660	0.1963	-0.216(2)
0.904	0.00	26.55s	102.80	0.000 0.616	0.2241	-0.388(2)
0.895	0.00	29.05s	102.80	0.000 0.564	0.2498	-0.559(2)
0.884	0.00	31.55s	102.80	0.000 0.506	0.2732	-0.729(2)
0.872	0.00	34.05s	102.80	0.000 0.443	0.2939	-0.898(2)
0.858	0.00	36.55s	102.80	0.000 0.377	0.3118	-1.064(2)
0.842	0.00	39.05s	102.80	0.000 0.308	0.3268	-1.229(2)
0.825	0.00	41.55s	102.80	0.000 0.237	0.3387	-1.392(2)
0.806	0.00	44.05s	102.80	0.000 0.164	0.3475	-1.552(2)
0.786	0.00	46.55s	102.80	0.000 0.090	0.3530	-1.709(2)
0.764	0.00	49.05s	102.80	0.000 0.015	0.3553	-1.862(2)
0.760	0.00	49.53s	102.80	0.000 0.000	0.3554	-1.892(2)
0.741	0.00	51.55s	102.80	0.000 -0.061	0.3543	-2.012(2)
0.716	0.00	54.05s	102.80	0.000 -0.138	0.3499	-2.159(2)
0.690	0.00	56.55s	102.80	0.000 -0.214	0.3423	-2.301(2)
0.663	0.00	59.05s	102.80	0.000 -0.291	0.3313	-2.439(2)
0.634	0.00	61.55s	102.80	0.000 -0.367	0.3169	-2.572(2)

Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 98.62 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point-----	LCP-----	TCP-----	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----	STABILITY CRITERION-----	Min/Max-----	Margin
(1) Area from 0 deg to MaxRA or Flood	>	0.0800 m.-Rad	60%
(2) Absolute Angle at RAzero	>	20.00 deg	30 deg
-----Relative angles measured from 1.546s-----			



GHS 10.50A

AROS VIKING

NO 9: LASTBIL MED MAXIMAL VIKT 40 TON, TYNGDPUNKT 1.75 M OEVER DECK, 10 % BUNKER

WEIGHT and DISPLACEMENT and WATERPLANE STATUS

Baseline draft: 0.931 @ Origin

Trim: 0.000/19.000, Heel: Stbd 2.27 deg.

Part-----	Weight(MT)----	LCG-----	TCG-----	VCG-----		
LIGHT SHIP	57.50	0.000	0.230s	1.190		
Lastbil	40.00	0.000	0.000	3.450		
14 personer	1.12	0.000	0.000	2.200		
Total Fixed----->	98.62	0.000	0.134s	2.118		
Load-----	SpGr-----	Weight(MT)----	LCG-----	TCG-----	VCG-----	
FOAFT.P	0.100	0.870	0.21	3.975a	0.721p	0.075
FOFWD.P	0.100	0.870	0.21	3.975f	0.720p	0.075
Total Tanks----->			0.42	0.000	0.720p	0.075
Total Weight----->			99.04	0.000	0.130s	2.109
		Displ(MT)----	LCB-----	TCB-----	VCB-----	RefHt
HULL	1.000	99.04	0.000	0.194s	0.511	-0.930

	Righting Arms:		0.000	0.000s		
Part-----	Load-----	SpGr-----	WPA-----	LCF-----	TCF-----	BML-----
HULL		1.000	123.5	0.000	0.078s	33.82
FOAFT.P	0.100	0.870				2.14
FOFWD.P	0.100	0.870				2.14
Total Waterplane---->	1.000		123.5	0.000	0.078s	33.81
			MT/cm-----	m.-	MT/cm-----	GML-----
			1.24		1.68	32.21
						3.212
Distances in METERS.-----Moments in m.-MT.						

GHS 10.50A

AROS VIKING

NO 9: LASTBIL MED MAXIMAL VIKT 40 TON, TYNGDPUNKT 1.75 M OEVER DECK, 10 % BUNKER

RIGHTING ARMS vs HEEL ANGLE

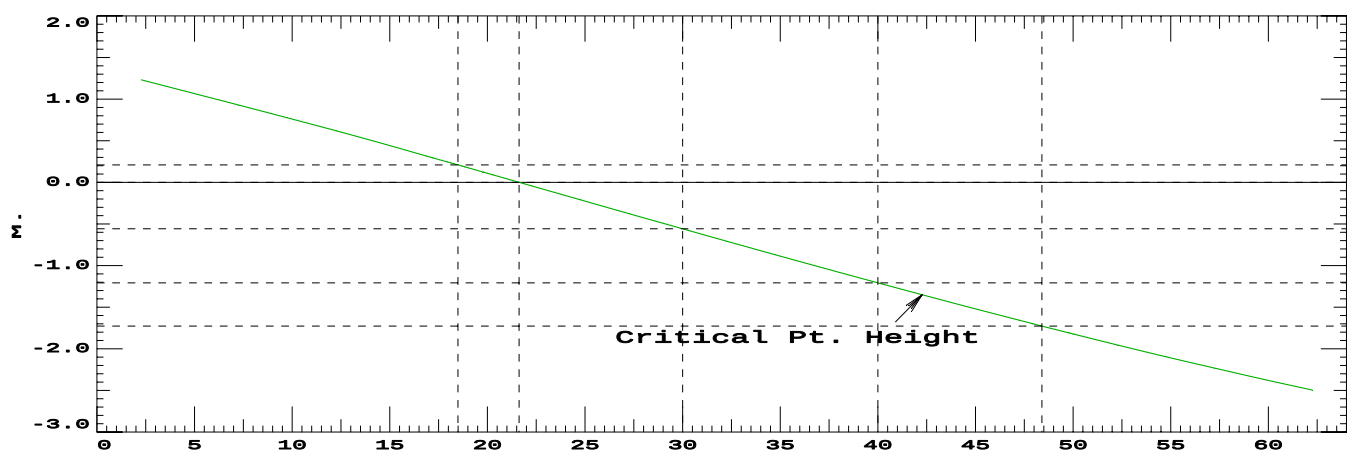
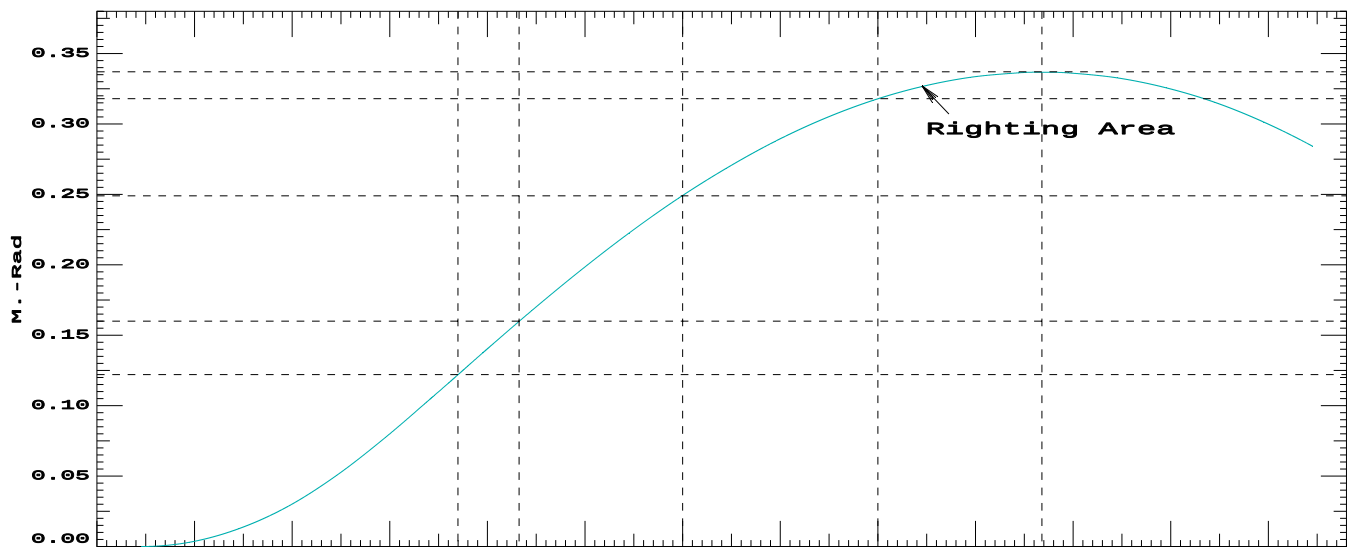
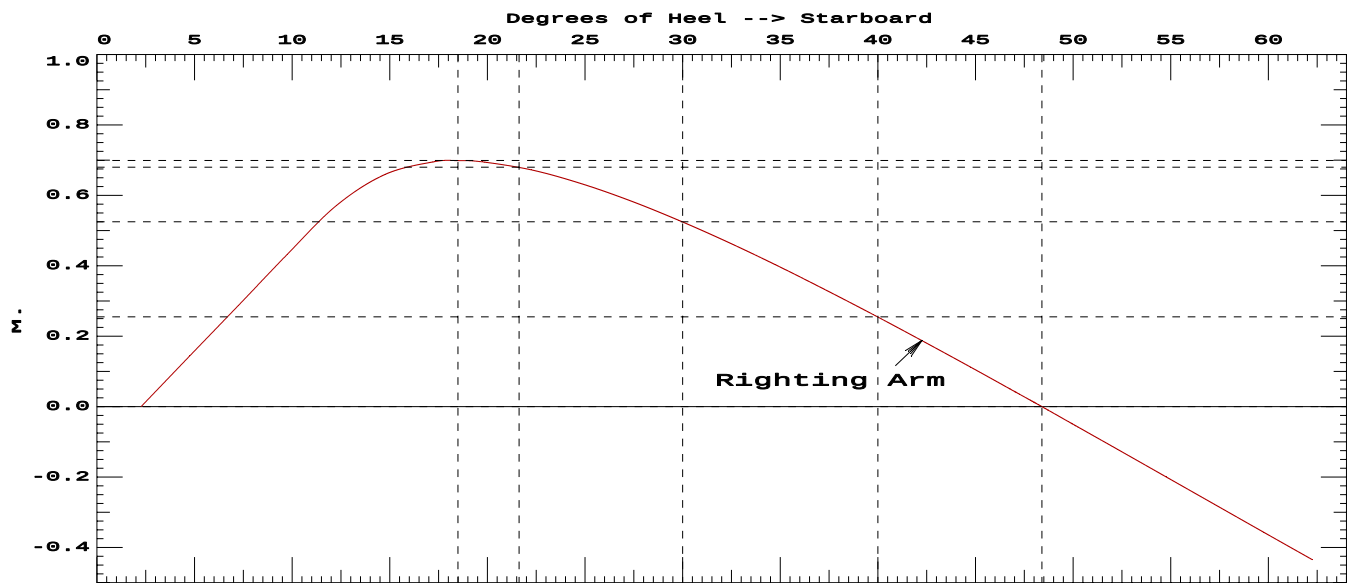
Fixed CG: LCG = 0.000 TCG = 0.134s VCG = 2.118

Origin Depth	Degrees of Trim	Displacement Heel	Weight(MT)	Righting Arms in Trim	in Heel	Area	Flood Pt Height
0.930	0.00	2.27s	99.04	0.000	0.000	0.0000	1.232(2)
0.925	0.00	4.77s	99.03	0.000	0.144	0.0031	1.081(2)
0.917	0.00	7.27s	99.04	0.000	0.288	0.0126	0.928(2)
0.907	0.00	9.77s	99.04	0.000	0.433	0.0283	0.775(2)
0.894	0.00	12.27s	99.04	0.000	0.571	0.0502	0.620(2)
0.887	0.00	14.77s	99.04	0.000	0.660	0.0771	0.457(2)
0.881	0.00	17.27s	99.04	0.000	0.695	0.1066	0.291(2)
0.878	0.00	18.49s	99.04	0.000	0.699	0.1215	0.209(2)
0.873	0.00	19.77s	99.04	0.000	0.695	0.1371	0.124(2)
0.867	0.00	21.62s	99.04	0.000	0.680	0.1594	-0.000(2)
0.864	0.00	22.27s	99.04	0.000	0.672	0.1670	-0.043(2)
0.853	0.00	24.77s	99.04	0.000	0.634	0.1956	-0.210(2)
0.840	0.00	27.27s	99.04	0.000	0.586	0.2222	-0.377(2)
0.826	0.00	29.77s	99.04	0.000	0.530	0.2465	-0.543(2)
0.811	0.00	32.27s	99.04	0.000	0.469	0.2683	-0.708(2)
0.793	0.00	34.77s	99.04	0.000	0.403	0.2874	-0.871(2)
0.774	0.00	37.27s	99.04	0.000	0.333	0.3034	-1.033(2)
0.754	0.00	39.77s	99.04	0.000	0.261	0.3164	-1.193(2)
0.733	0.00	42.27s	99.04	0.000	0.188	0.3262	-1.351(2)
0.709	0.00	44.77s	99.04	0.000	0.112	0.3327	-1.506(2)
0.685	0.00	47.27s	99.04	0.000	0.035	0.3360	-1.658(2)
0.674	0.00	48.40s	99.04	0.000	0.000	0.3363	-1.727(2)
0.659	0.00	49.77s	99.04	0.000	-0.043	0.3358	-1.808(2)
0.632	0.00	52.27s	99.04	0.000	-0.121	0.3322	-1.953(2)
0.604	0.00	54.77s	99.04	0.000	-0.199	0.3253	-2.095(2)
0.575	0.00	57.27s	99.04	0.000	-0.278	0.3148	-2.233(2)
0.545	0.00	59.77s	99.04	0.000	-0.357	0.3010	-2.367(2)
0.513	0.00	62.27s	99.04	0.000	-0.435	0.2837	-2.497(2)

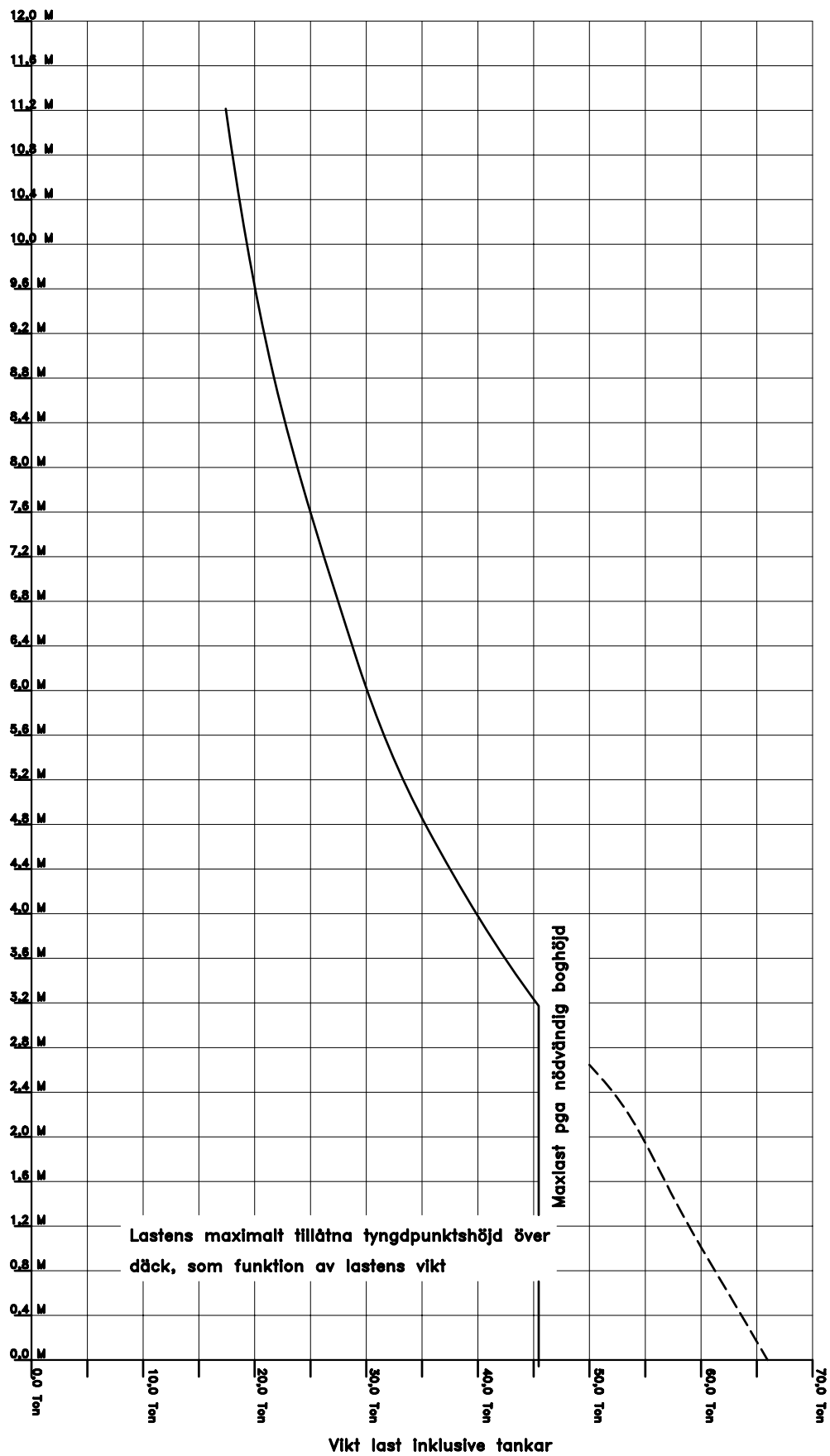
Distances in METERS.-----Specific Gravity = 1.000.-----Area in m.-Rad.

Note: The Center of Gravity shown above is for the Fixed Weight of 98.62 MT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Critical Point	LCP	TCP	VCP
(2) Vent. eng room fwd	FLOOD 6.750f	3.450	2.300
LIM-----STABILITY CRITERION-----	Min/Max	Margin	
(1) Area from 0 deg to MaxRA or Flood	> 0.0800 m.-Rad	52%	
(2) Absolute Angle at RAZero	> 20.00 deg	28 deg	
-----Relative angles measured from 2.266s-----			



Lastens tyngdpunkt över däck



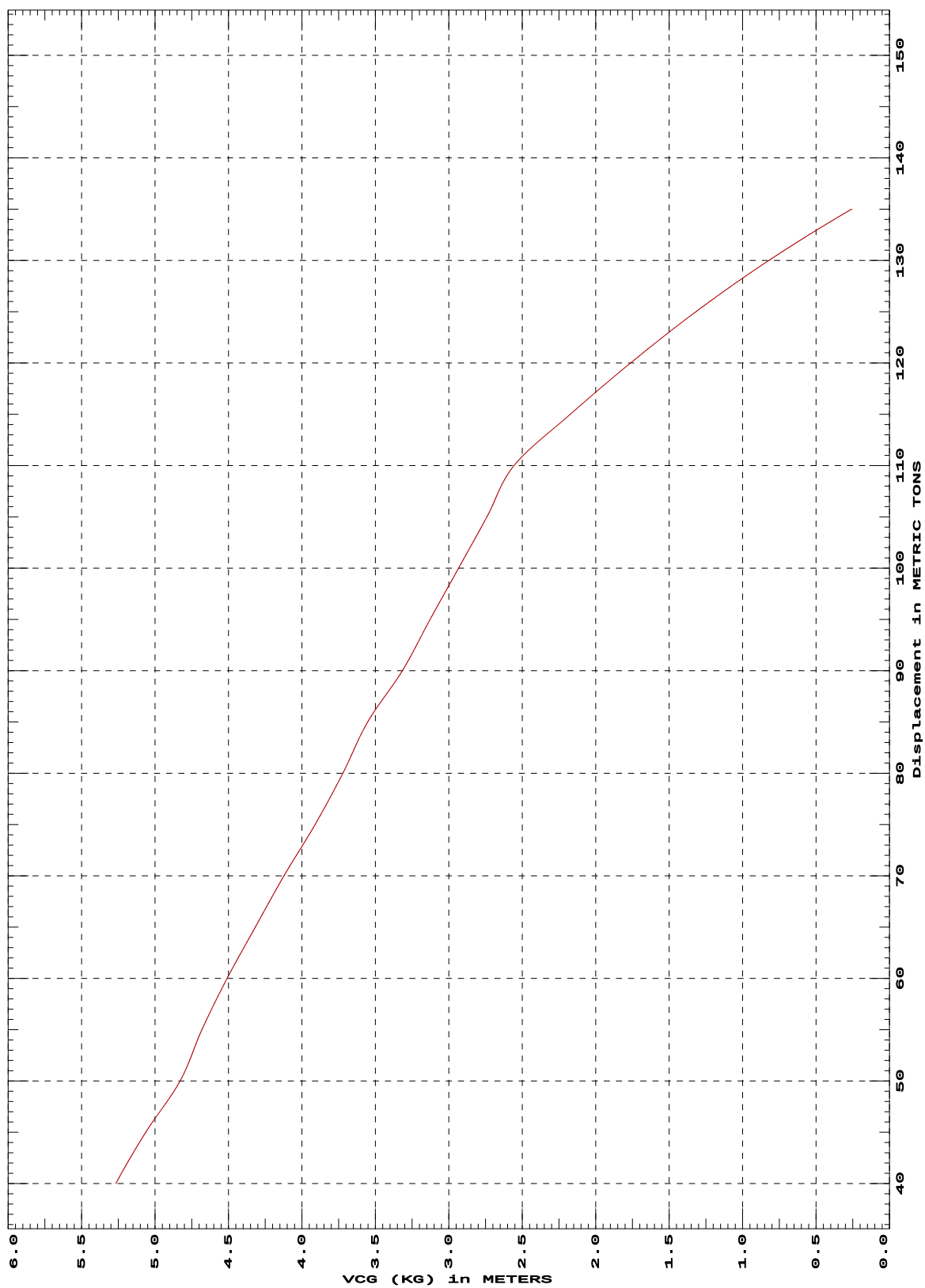
MAXIMUM VCG vs. DISPLACEMENT
Trim = Aft 0.600/19.000 at zero heel (trim righting arm held at zero)

Displacement METRIC TONS	Max VCG	Margins LIM1 LIM2	
40.00	5.268	0%	6d
45.00	5.064	0%	7d
50.00	4.829	0%	7d
55.00	4.681	0%	8d
60.00	4.509	0%	8d
65.00	4.317	0%	8d
70.00	4.122	0%	9d
75.00	3.910	0%	10d
80.00	3.721	0%	LARGE
85.00	3.552	0%	LARGE
90.00	3.316	0%	LARGE
95.00	3.127	0%	LARGE
100.00	2.934	0%	LARGE
105.00	2.740	0%	LARGE
110.00	2.556	0%	LARGE
115.00	2.173	0%	LARGE
120.00	1.763	0%	LARGE
125.00	1.318	0%	LARGE
130.00	0.822	0%	LARGE
135.00	0.258	0%	LARGE
140.00	<0.000		
145.00	<0.000		
150.00	<0.000		

Distances in METERS.---Specific Gravity = 1.000.---d = degrees.

LIM-----STABILITY CRITERION-----Min/Max
(1) Area from 0 deg to MaxRA or Flood > 0.0800 m.-Rad
(2) Absolute Angle at RAZero > 20.00 deg

MAXIMUM VCG (KG)
at 0.6 M. AFT TRIM (initial)



Specific Gravity = 1.000 "K" = BASELINE
Trim is per 19 M.

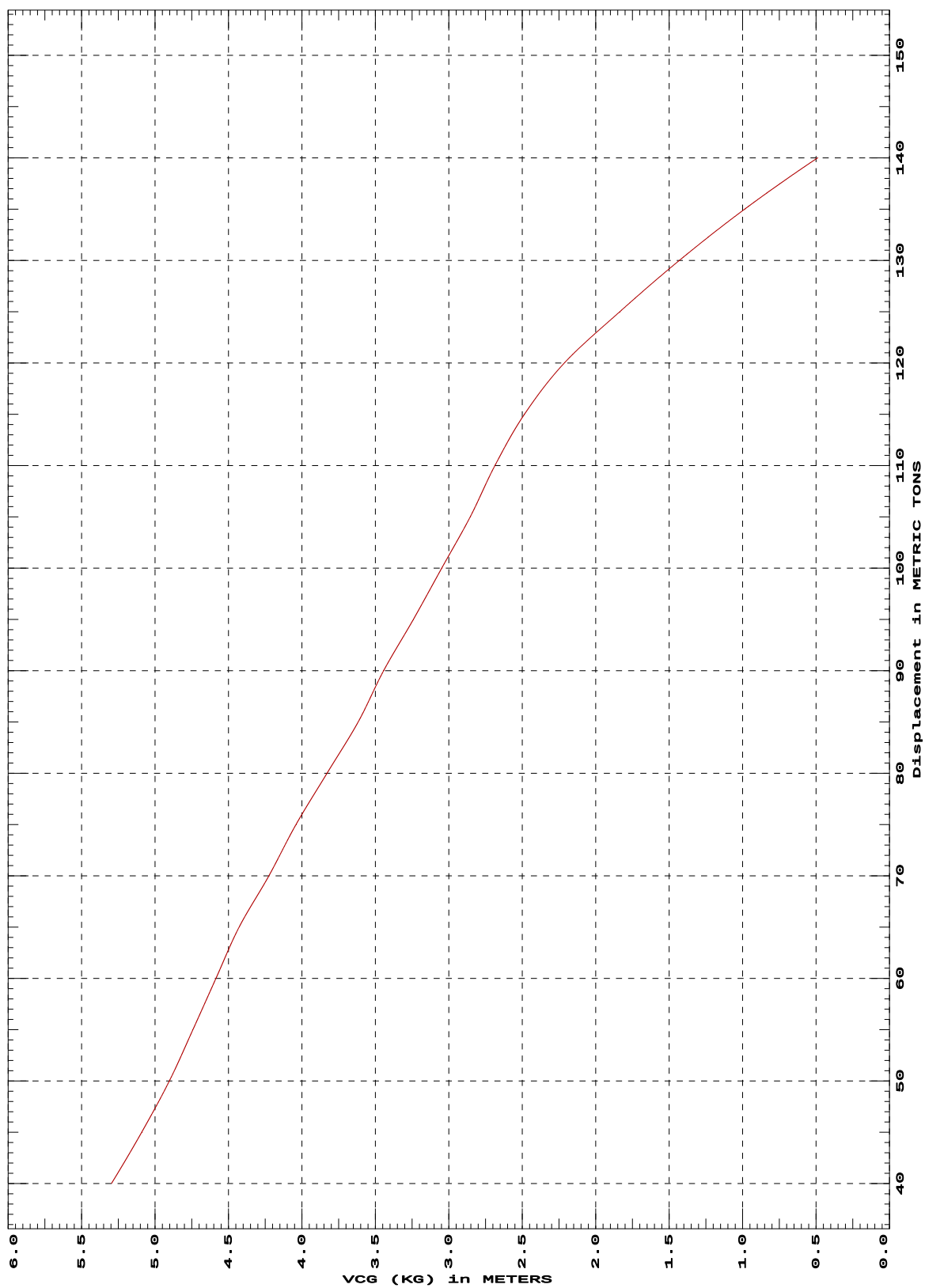
MAXIMUM VCG vs. DISPLACEMENT
Trim = Aft 0.400/19.000 at zero heel (trim righting arm held at zero)

Displacement METRIC TONS	Max VCG	Margins LIM1 LIM2	
40.00	5.298	0%	6d
45.00	5.091	0%	7d
50.00	4.902	0%	8d
55.00	4.742	0%	8d
60.00	4.585	0%	8d
65.00	4.427	0%	8d
70.00	4.225	0%	9d
75.00	4.040	0%	9d
80.00	3.829	0%	10d
85.00	3.617	0%	LARGE
90.00	3.444	0%	LARGE
95.00	3.242	0%	LARGE
100.00	3.048	0%	LARGE
105.00	2.854	0%	LARGE
110.00	2.686	0%	LARGE
115.00	2.485	0%	LARGE
120.00	2.214	0%	LARGE
125.00	1.836	0%	LARGE
130.00	1.431	0%	LARGE
135.00	0.987	0%	LARGE
140.00	0.489	0%	LARGE
145.00	<0.000		
150.00	<0.000		

Distances in METERS.---Specific Gravity = 1.000.---d = degrees.

LIM-----STABILITY CRITERION-----Min/Max
(1) Area from 0 deg to MaxRA or Flood > 0.0800 m.-Rad
(2) Absolute Angle at RAZero > 20.00 deg

MAXIMUM VCG (KG)
at 0.4 M. AFT TRIM (initial)



Specific Gravity = 1.000 "K" = BASELINE
Trim is per 19 M.

MAXIMUM VCG vs. DISPLACEMENT
Trim = Aft 0.200/19.000 at zero heel (trim righting arm held at zero)

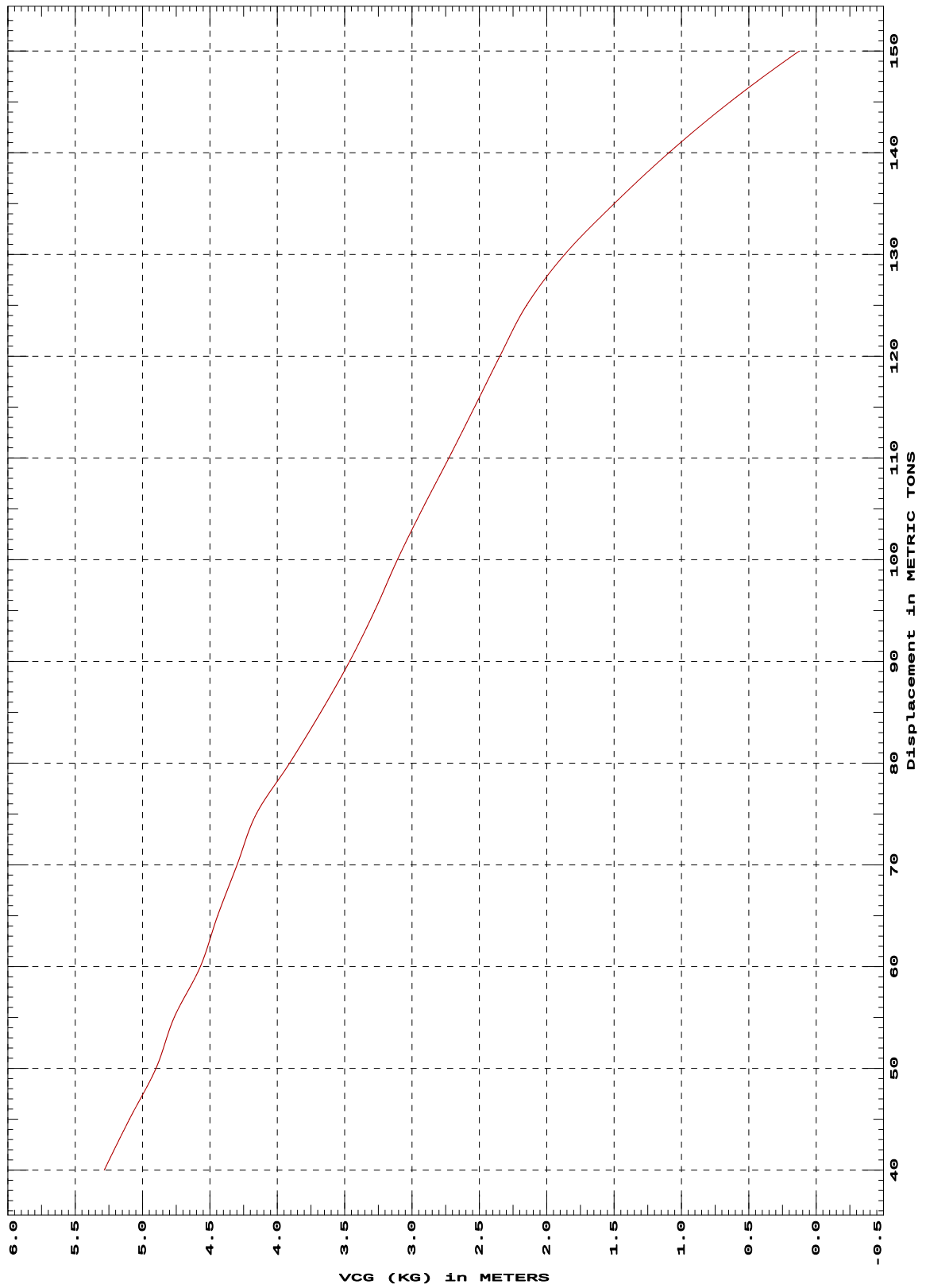
Displacement		Margins	
METRIC TONS	Max VCG	LIM1	LIM2

40.00	5.285	0%	7d
45.00	5.098	0%	7d
50.00	4.901	0%	8d
55.00	4.766	0%	8d
60.00	4.572	0%	9d
65.00	4.444	0%	9d
70.00	4.299	0%	9d
75.00	4.157	0%	9d
80.00	3.910	0%	10d
85.00	3.678	0%	LARGE
90.00	3.464	0%	LARGE
95.00	3.276	0%	LARGE
100.00	3.109	0%	LARGE
105.00	2.923	0%	LARGE
110.00	2.726	0%	LARGE
115.00	2.536	0%	LARGE
120.00	2.348	0%	LARGE
125.00	2.150	0%	LARGE
130.00	1.867	0%	LARGE
135.00	1.500	0%	LARGE
140.00	1.094	0%	LARGE
145.00	0.639	0%	LARGE
150.00	0.126	0%	LARGE

Distances in METERS.---Specific Gravity = 1.000.---d = degrees.

LIM-----STABILITY CRITERION-----Min/Max
(1) Area from 0 deg to MaxRA or Flood > 0.0800 m.-Rad
(2) Absolute Angle at RAZero > 20.00 deg

MAXIMUM VCG (KG)
at 0.2 M. AFT TRIM (initial)



Specific Gravity = 1.000 "K" = BASELINE
Trim is per 19 M.

MAXIMUM VCG vs. DISPLACEMENT
Trim = zero at zero heel (trim righting arm held at zero)

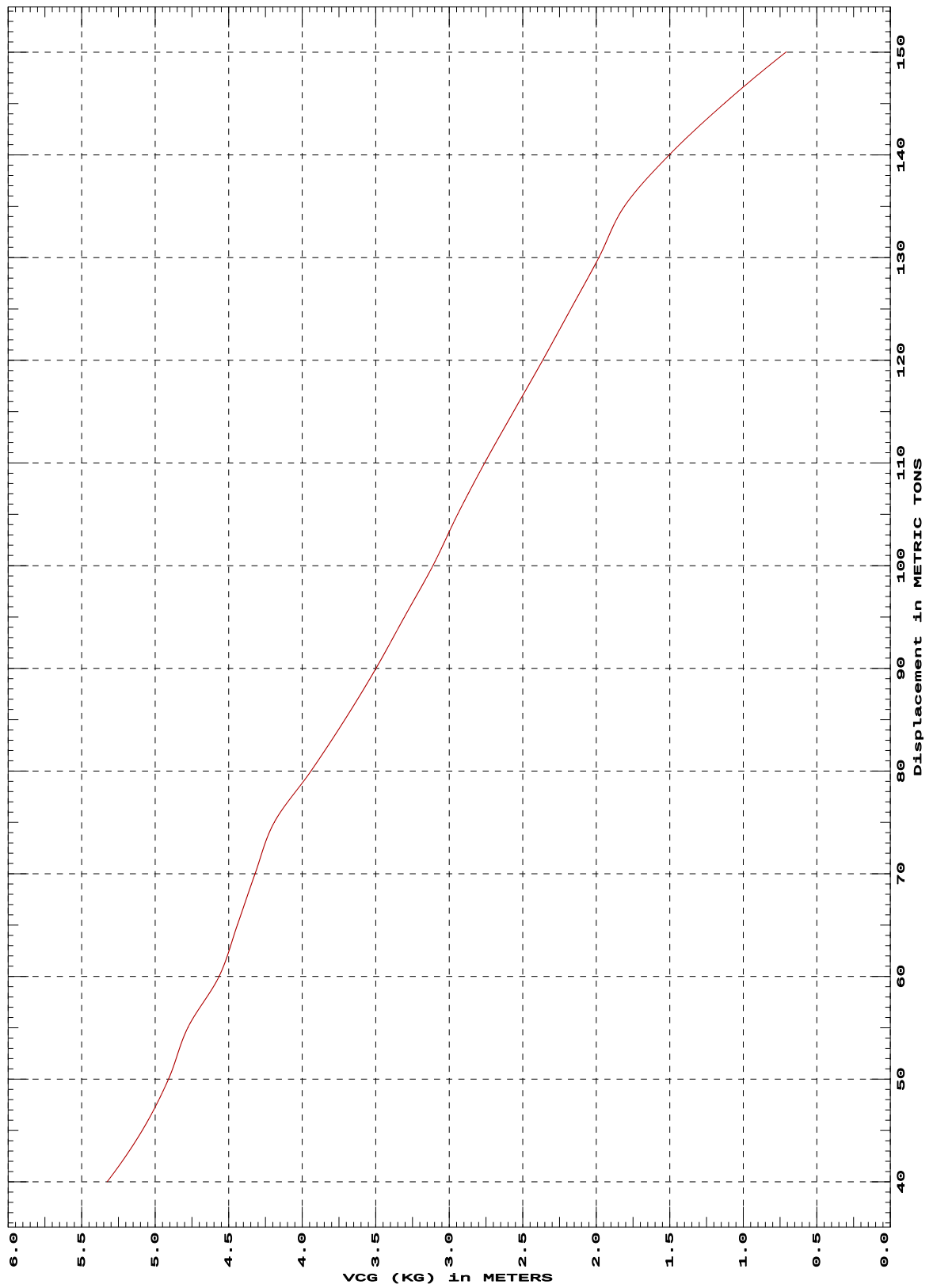
Displacement	Margins		
METRIC TONS	Max VCG	LIM1	LIM2

40.00	5.328	0%	7d
45.00	5.089	0%	8d
50.00	4.909	0%	8d
55.00	4.779	0%	8d
60.00	4.565	0%	9d
65.00	4.442	0%	9d
70.00	4.321	0%	9d
75.00	4.191	0%	9d
80.00	3.940	0%	10d
85.00	3.711	0%	LARGE
90.00	3.499	0%	LARGE
95.00	3.305	0%	LARGE
100.00	3.111	0%	LARGE
105.00	2.943	0%	LARGE
110.00	2.760	0%	LARGE
115.00	2.563	0%	LARGE
120.00	2.365	0%	LARGE
125.00	2.173	0%	LARGE
130.00	1.983	0%	LARGE
135.00	1.809	0%	LARGE
140.00	1.503	0%	LARGE
145.00	1.129	0%	LARGE
150.00	0.710	0%	LARGE

Distances in METERS.---Specific Gravity = 1.000.---d = degrees.

LIM-----STABILITY CRITERION-----Min/Max
(1) Area from 0 deg to MaxRA or Flood > 0.0800 m.-Rad
(2) Absolute Angle at RAZero > 20.00 deg

MAXIMUM VCG (KG)
at LEVEL TRIM (initial)



Specific Gravity = 1.000 "K" = BASELINE
Trim is per 19 M.

HYDROSTATIC PROPERTIES

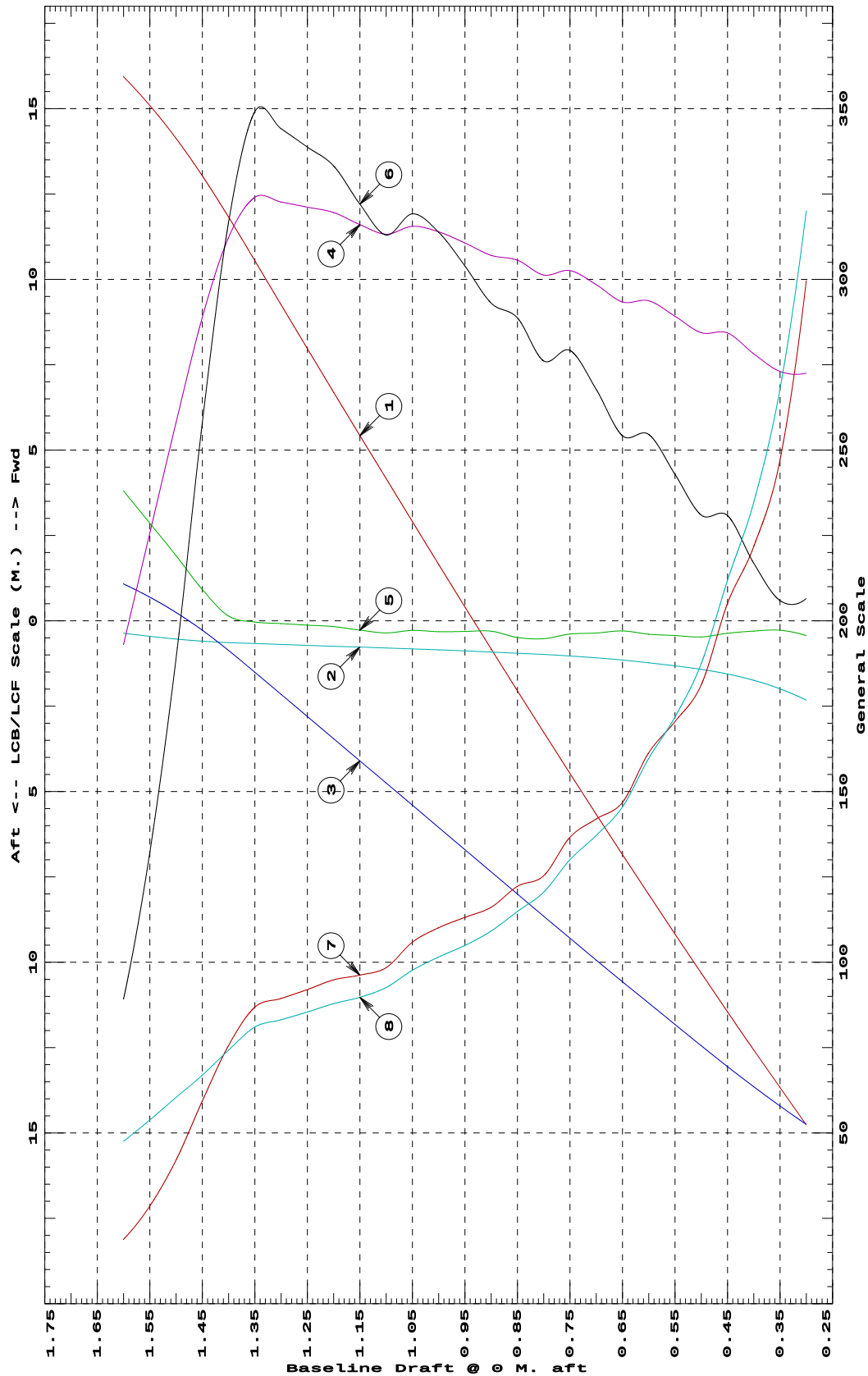
Trim: Aft 0.500/19.000, No Heel, VCG = 0.000

Draft@ Origin	Displacement ---Weight(MT)	Buoyancy-Ctr.		Weight/ -----cm	Moment/ ---cm trim		KML	KMT
---	---	LCB	VCB	---	LCF	---	---	---
0.300	26.18	2.321a	0.210	1.09	0.436a	1.24	89.91	16.006
0.350	31.65	1.991a	0.232	1.09	0.277a	1.24	74.16	13.399
0.400	37.14	1.742a	0.254	1.11	0.299a	1.30	66.54	11.739
0.450	42.74	1.558a	0.278	1.14	0.367a	1.38	61.54	10.595
0.500	48.40	1.425a	0.302	1.14	0.472a	1.39	54.38	9.375
0.550	54.11	1.320a	0.327	1.16	0.429a	1.46	51.15	8.592
0.600	59.92	1.230a	0.352	1.17	0.392a	1.53	48.42	7.986
0.650	65.75	1.150a	0.377	1.17	0.295a	1.53	44.06	7.275
0.700	71.65	1.083a	0.402	1.19	0.356a	1.61	42.59	6.857
0.750	77.63	1.029a	0.428	1.21	0.389a	1.68	40.98	6.501
0.800	83.68	0.984a	0.454	1.21	0.523a	1.66	37.61	6.027
0.850	89.73	0.950a	0.480	1.22	0.490a	1.73	36.67	5.744
0.900	95.86	0.917a	0.506	1.23	0.304a	1.76	34.84	5.458
0.950	102.02	0.881a	0.532	1.24	0.313a	1.82	33.95	5.246
1.000	108.25	0.850a	0.558	1.26	0.320a	1.88	33.04	5.077
1.050	114.53	0.821a	0.584	1.26	0.281a	1.92	31.76	4.883
1.100	120.82	0.794a	0.610	1.25	0.352a	1.88	29.52	4.631
1.150	127.11	0.771a	0.636	1.26	0.272a	1.93	28.87	4.487
1.200	133.46	0.745a	0.662	1.28	0.171a	2.00	28.45	4.395
1.250	139.85	0.719a	0.688	1.28	0.126a	2.03	27.60	4.271
1.300	146.27	0.693a	0.714	1.29	0.082a	2.06	26.81	4.158
1.350	152.72	0.667a	0.740	1.30	0.035a	2.09	26.05	4.051
1.400	159.12	0.638a	0.765	1.25	0.140f	1.90	22.69	3.713
1.450	165.16	0.598a	0.789	1.16	0.914f	1.55	17.81	3.346
1.500	170.63	0.533a	0.810	1.03	1.909f	1.13	12.63	3.020
1.550	175.47	0.453a	0.828	0.90	2.857f	0.79	8.59	2.691
1.600	179.66	0.365a	0.843	0.77	3.803f	0.54	5.66	2.379

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.5 M. AFT TRIM



- 1 Displacement 1=1.5 MT
 2 LCB (use top scale)
 3 VCB (KB) 1=0.004 M.
 4 Immersion 1=0.004 MT/cm
 4 WPA 1=1.4 Sq.M.
 5 LCF (use top scale)
 6 Moment/Trim 1=0.006 M.-MT/cm
 7 KML 1=0.3 M.
 8 KMT 1=0.05 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

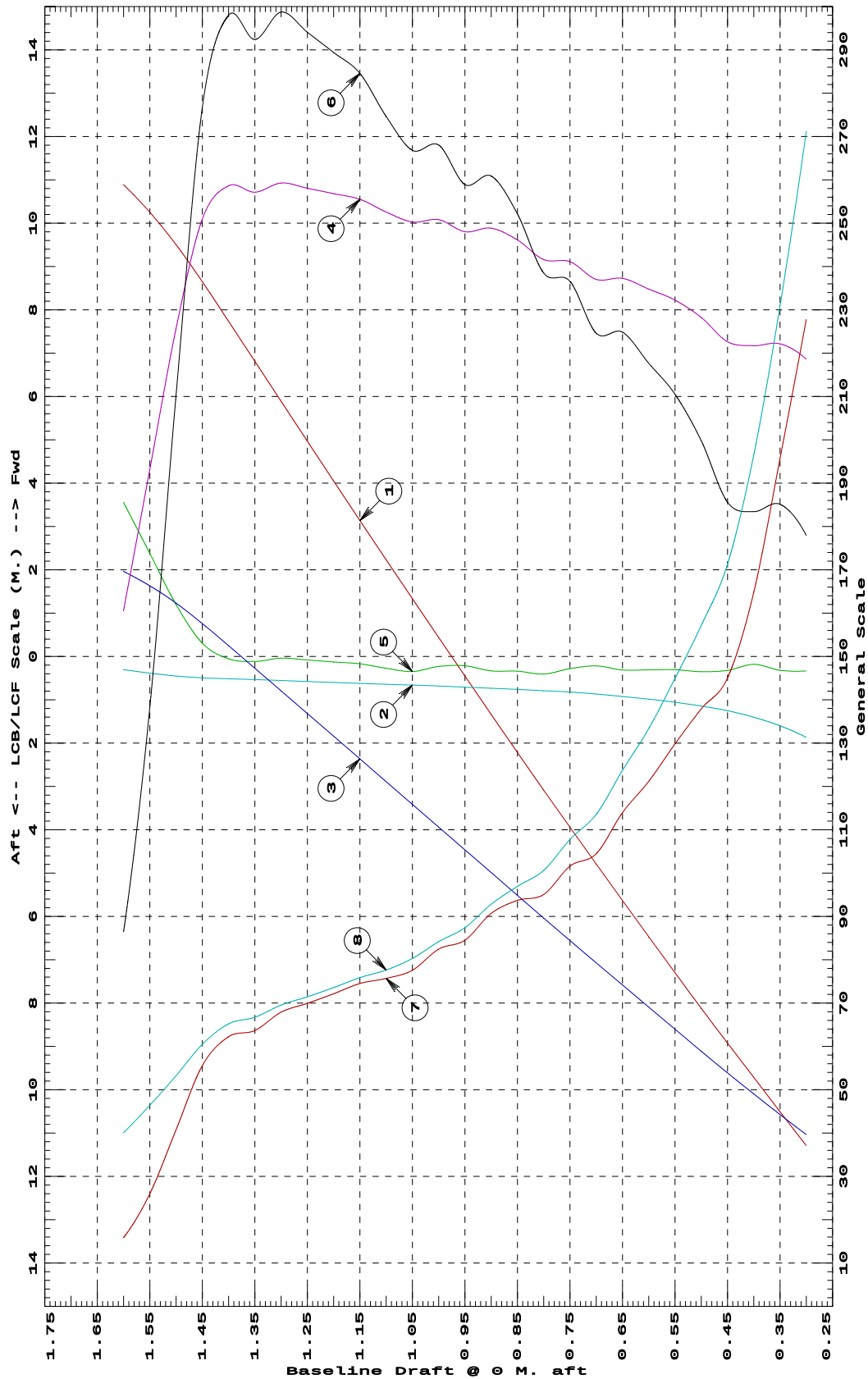
Trim: Aft 0.400/19.000, No Heel, VCG = 0.000

Draft@	Displacement	Buoyancy-Ctr.		Weight/	Moment/			
Origin----	Weight(MT)----	LCB-----	VCB-----	cm-----	LCF-----	cm trim----	KML-----	KMT-----
0.300	25.96	1.868a	0.198	1.09	0.335a	1.25	91.12	16.275
0.350	31.44	1.599a	0.221	1.11	0.318a	1.30	78.29	13.856
0.400	36.99	1.403a	0.245	1.11	0.182a	1.28	65.94	11.793
0.450	42.54	1.253a	0.269	1.11	0.322a	1.30	58.02	10.281
0.500	48.16	1.145a	0.294	1.14	0.352a	1.40	55.16	9.431
0.550	53.90	1.057a	0.320	1.16	0.307a	1.47	51.93	8.697
0.600	59.71	0.984a	0.345	1.17	0.309a	1.52	48.47	8.002
0.650	65.58	0.923a	0.371	1.19	0.313a	1.57	45.59	7.424
0.700	71.46	0.868a	0.396	1.19	0.218a	1.57	41.80	6.814
0.750	77.41	0.821a	0.422	1.21	0.281a	1.66	40.64	6.465
0.800	83.39	0.791a	0.448	1.21	0.406a	1.67	38.03	6.038
0.850	89.47	0.762a	0.474	1.23	0.338a	1.76	37.47	5.817
0.900	95.62	0.734a	0.501	1.24	0.333a	1.83	36.28	5.568
0.950	101.83	0.708a	0.527	1.24	0.215a	1.81	33.81	5.245
1.000	108.05	0.681a	0.553	1.25	0.229a	1.88	32.98	5.051
1.050	114.33	0.659a	0.579	1.25	0.349a	1.87	31.03	4.819
1.100	120.61	0.641a	0.605	1.26	0.274a	1.92	30.28	4.658
1.150	126.95	0.621a	0.632	1.28	0.171a	1.99	29.81	4.552
1.200	133.34	0.599a	0.658	1.28	0.126a	2.03	28.86	4.414
1.250	139.76	0.577a	0.684	1.29	0.082a	2.06	27.98	4.287
1.300	146.21	0.556a	0.710	1.30	0.039a	2.09	27.17	4.173
1.350	152.68	0.534a	0.736	1.29	0.117a	2.05	25.46	4.004
1.400	159.13	0.516a	0.762	1.29	0.055a	2.09	24.90	3.913
1.450	165.53	0.493a	0.788	1.25	0.307f	1.94	22.23	3.629
1.500	171.53	0.452a	0.811	1.13	1.198f	1.47	16.31	3.195
1.550	176.76	0.386a	0.831	0.97	2.377f	0.97	10.40	2.786
1.600	181.19	0.304a	0.848	0.80	3.554f	0.61	6.35	2.403

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.4 M. AFT TRIM



- 1 Displacement 1=7 MT
 2 LCB (use top scale)
 3 VCB (KB) 1=0.005 M.
 4 Immersion 1=0.005 MT/cm
 5 WPA 1=5 Sq.M.
 6 LCF (use top scale)
 7 KML 1=.4 M.
 8 KMT 1=0.06 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

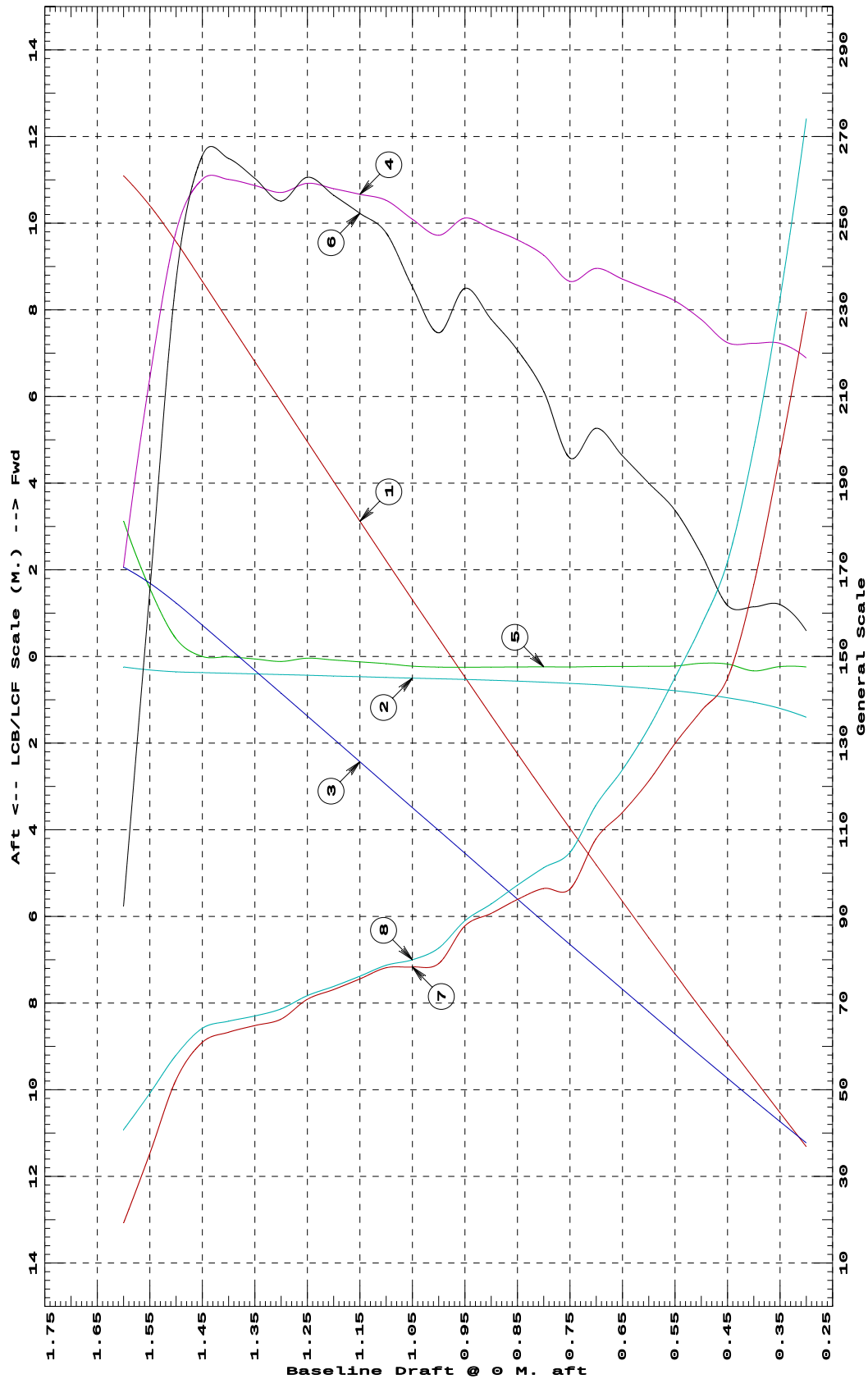
Trim: Aft 0.300/19.000, No Heel, VCG = 0.000

Draft@ Origin	Displacement ---Weight(MT)	Buoyancy-Ctr.		Weight/ -----cm	Moment/ ---cm trim		KML	KMT
---	---	LCB	VCB	---	LCF	---	---	---
0.300	25.80	1.404a	0.189	1.09	0.243a	1.25	91.85	16.449
0.350	31.28	1.200a	0.213	1.11	0.233a	1.30	78.70	13.959
0.400	36.83	1.056a	0.238	1.11	0.334a	1.29	66.63	11.892
0.450	42.39	0.953a	0.263	1.11	0.175a	1.29	58.00	10.314
0.500	48.01	0.862a	0.288	1.14	0.159a	1.39	54.98	9.431
0.550	53.74	0.791a	0.314	1.16	0.223a	1.47	51.96	8.709
0.600	59.54	0.736a	0.340	1.17	0.227a	1.52	48.50	8.012
0.650	65.41	0.690a	0.366	1.19	0.230a	1.57	45.61	7.433
0.700	71.33	0.652a	0.392	1.20	0.234a	1.62	43.18	6.946
0.750	77.22	0.621a	0.418	1.18	0.242a	1.57	38.54	6.288
0.800	83.19	0.594a	0.444	1.21	0.238a	1.69	38.58	6.074
0.850	89.28	0.570a	0.470	1.23	0.243a	1.77	37.57	5.833
0.900	95.44	0.549a	0.496	1.24	0.245a	1.82	36.28	5.572
0.950	101.65	0.530a	0.523	1.26	0.248a	1.88	35.13	5.341
1.000	107.91	0.514a	0.549	1.24	0.244a	1.80	31.65	4.961
1.050	114.13	0.499a	0.575	1.25	0.224a	1.88	31.33	4.801
1.100	120.46	0.484a	0.602	1.28	0.167a	1.98	31.26	4.724
1.150	126.84	0.468a	0.628	1.28	0.124a	2.02	30.23	4.573
1.200	133.26	0.451a	0.655	1.29	0.081a	2.05	29.25	4.431
1.250	139.71	0.434a	0.681	1.30	0.038a	2.08	28.35	4.303
1.300	146.18	0.417a	0.708	1.29	0.116a	2.04	26.53	4.120
1.350	152.62	0.403a	0.734	1.29	0.058a	2.08	25.92	4.022
1.400	159.11	0.388a	0.760	1.30	0.009a	2.12	25.31	3.950
1.450	165.61	0.373a	0.786	1.30	0.001	2.12	24.37	3.851
1.500	172.01	0.354a	0.812	1.24	0.410f	1.89	20.93	3.479
1.550	177.83	0.313a	0.835	1.07	1.570f	1.32	14.12	2.951
1.600	182.65	0.243a	0.853	0.85	3.128f	0.74	7.70	2.447

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.3 M. AFT TRIM



- 1 Displacement 1=7 MT
2 LCB (use top scale)
3 VCB (KB) 1=0.005 M.
4 Immersion 1=0.005 MT/cm
5 WPA 1=5 Sq.M.
6 LCF (use top scale)
7 KML 1=.4 M.
8 KMT 1=0.06 M.
6 Moment/Trim 1=.008 M.-MT/cm
7 KML 1=.4 M.
8 KMT 1=0.06 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

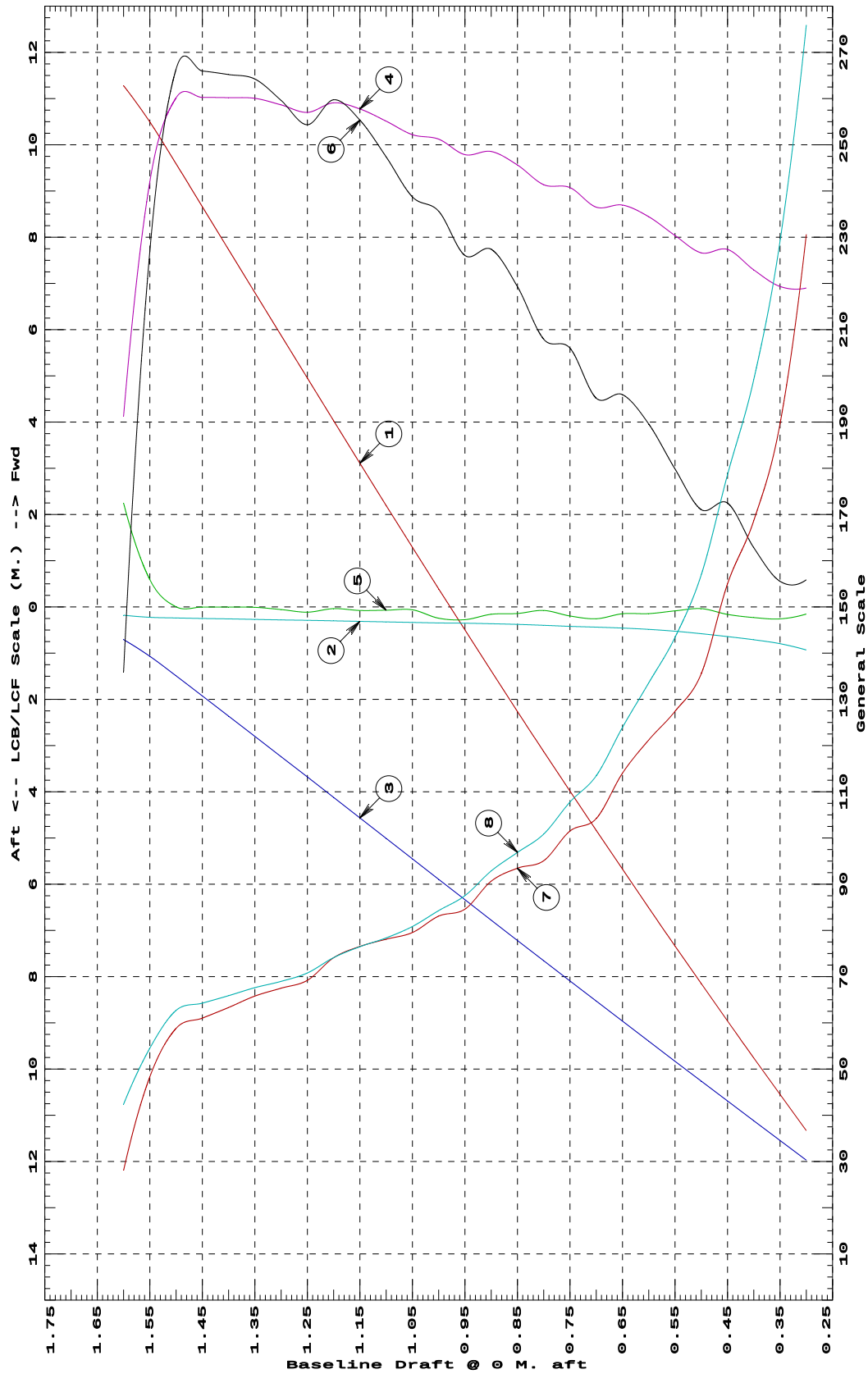
Trim: Aft 0.200/19.000, No Heel, VCG = 0.000

Draft@	Displacement	Buoyancy-Ctr.		Weight/	Moment/				
Origin----	Weight(MT)-----	LCB-----	VCB-----	cm-----	LCF-----	cm trim-----	KML-----	KMT-----	
0.300	25.68	0.932a	0.182	1.09	0.154a	1.25	92.25	16.556	
0.350	31.17	0.796a	0.207	1.10	0.259a	1.24	75.86	13.751	
0.400	36.68	0.711a	0.233	1.11	0.229a	1.30	67.47	11.953	
0.450	42.28	0.641a	0.259	1.14	0.163a	1.38	62.00	10.718	
0.500	47.94	0.579a	0.284	1.13	0.037a	1.37	54.22	9.418	
0.550	53.64	0.526a	0.310	1.15	0.085a	1.44	50.97	8.605	
0.600	59.43	0.487a	0.336	1.17	0.144a	1.52	48.48	8.015	
0.650	65.29	0.457a	0.362	1.18	0.148a	1.57	45.61	7.437	
0.700	71.16	0.438a	0.388	1.18	0.257a	1.56	41.69	6.808	
0.750	77.11	0.420a	0.414	1.20	0.195a	1.65	40.60	6.467	
0.800	83.09	0.397a	0.441	1.21	0.077a	1.66	38.04	6.051	
0.850	89.15	0.378a	0.467	1.23	0.141a	1.75	37.38	5.813	
0.900	95.31	0.364a	0.493	1.24	0.158a	1.82	36.27	5.573	
0.950	101.51	0.352a	0.520	1.24	0.276a	1.81	33.84	5.251	
1.000	107.73	0.345a	0.546	1.26	0.246a	1.88	33.24	5.057	
1.050	114.03	0.337a	0.573	1.26	0.062a	1.91	31.82	4.850	
1.100	120.36	0.323a	0.599	1.28	0.071a	1.98	31.24	4.704	
1.150	126.76	0.312a	0.626	1.29	0.076a	2.04	30.62	4.588	
1.200	133.20	0.301a	0.653	1.30	0.036a	2.08	29.64	4.448	
1.250	139.67	0.289a	0.679	1.29	0.114a	2.03	27.68	4.249	
1.300	146.12	0.280a	0.706	1.29	0.057a	2.08	27.00	4.139	
1.350	152.60	0.270a	0.732	1.30	0.008a	2.11	26.32	4.057	
1.400	159.10	0.259a	0.758	1.30	0.004a	2.12	25.33	3.952	
1.450	165.61	0.249a	0.784	1.30	0.003a	2.13	24.41	3.855	
1.500	172.12	0.239a	0.811	1.30	0.002f	2.13	23.53	3.763	
1.550	178.46	0.223a	0.836	1.21	0.590f	1.82	19.33	3.270	
1.600	183.94	0.179a	0.857	0.96	2.248f	1.09	11.23	2.543	

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.2 M. AFT TRIM



- ① Displacement 1=1.7 MT
- ② LCB (use top scale)
- ③ VCB (KB) 1=0.006 M.
- ④ Immersion 1=0.005 MT/cm
- ④ WPA 1=0.5 Sq.M.
- ⑤ LCF (use top scale)
- ⑥ Moment/Trim 1=0.008 M.-MT/cm
- ⑦ KML 1=0.4 M.
- ⑧ KMT 1=0.06 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

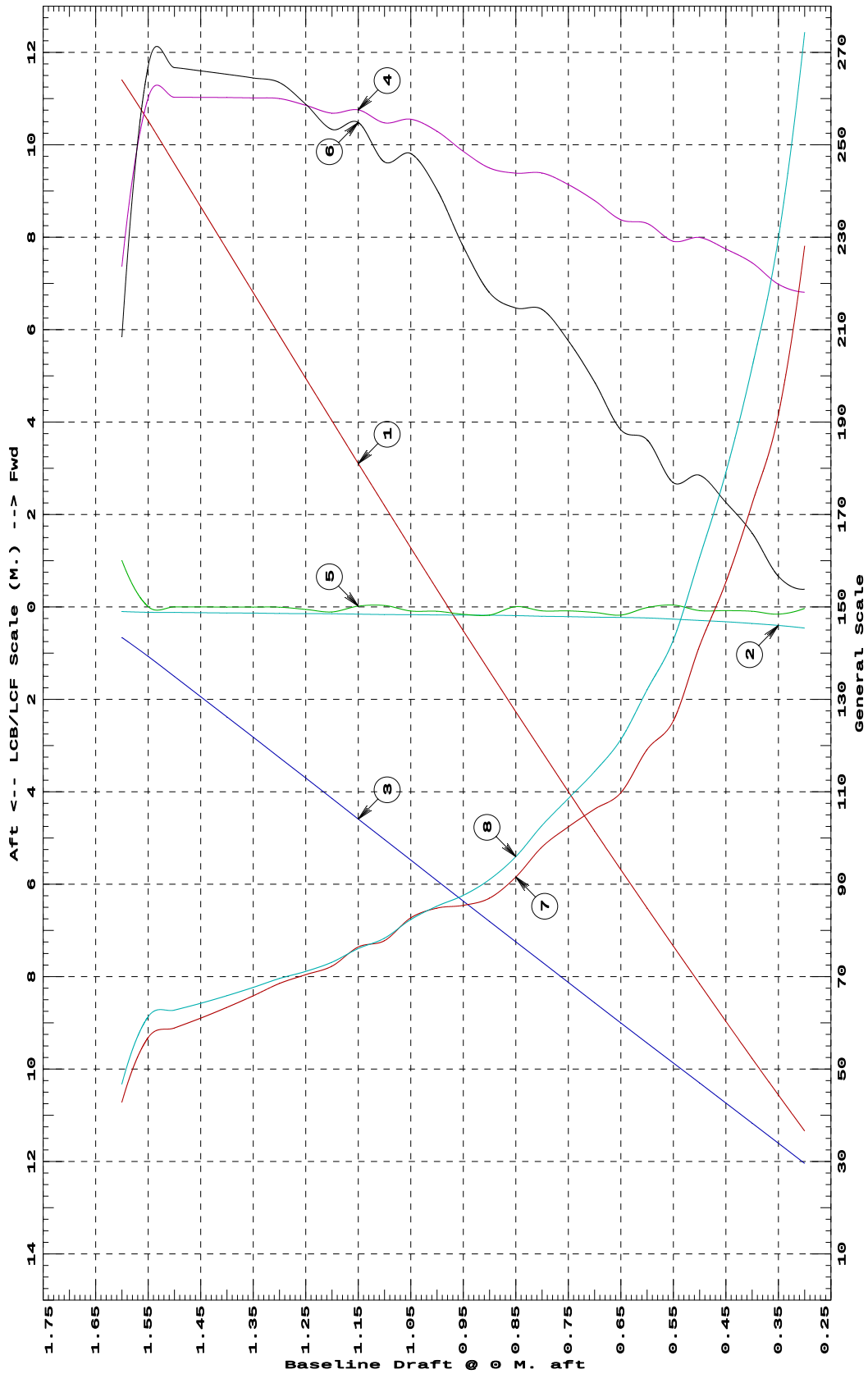
Trim: Aft 0.100/19.000, No Heel, VCG = 0.000

Draft@	Displacement	Buoyancy-Ctr.		Weight/	Moment/			
Origin----	Weight(MT)----	LCB-----	VCB-----	cm-----	LCF-----	cm trim----	KML-----	KMT-----
0.300	25.62	0.458a	0.178	1.09	0.030a	1.23	91.26	16.463
0.350	31.06	0.401a	0.204	1.10	0.156a	1.25	76.66	13.789
0.400	36.59	0.358a	0.230	1.12	0.095a	1.33	68.95	12.116
0.450	42.21	0.321a	0.256	1.14	0.079a	1.38	62.15	10.747
0.500	47.90	0.292a	0.282	1.15	0.080a	1.43	56.64	9.642
0.550	53.62	0.264a	0.308	1.15	0.039f	1.42	50.15	8.572
0.600	59.37	0.239a	0.334	1.16	0.013a	1.49	47.66	7.924
0.650	65.18	0.228a	0.360	1.17	0.176a	1.51	43.92	7.280
0.700	71.05	0.221a	0.386	1.19	0.119a	1.59	42.50	6.863
0.750	77.02	0.210a	0.413	1.21	0.085a	1.66	40.96	6.513
0.800	83.06	0.201a	0.439	1.22	0.085a	1.71	39.23	6.163
0.850	89.10	0.188a	0.465	1.22	0.006f	1.72	36.62	5.758
0.900	95.23	0.178a	0.492	1.22	0.177a	1.74	34.79	5.461
0.950	101.38	0.177a	0.518	1.24	0.159a	1.82	34.18	5.255
1.000	107.63	0.174a	0.545	1.26	0.094a	1.92	33.93	5.115
1.050	113.96	0.169a	0.571	1.28	0.089a	1.98	33.09	4.941
1.100	120.34	0.164a	0.598	1.27	0.031f	1.97	31.11	4.700
1.150	126.72	0.155a	0.625	1.29	0.018f	2.04	30.57	4.564
1.200	133.17	0.149a	0.651	1.28	0.108a	2.03	28.91	4.388
1.250	139.61	0.146a	0.678	1.29	0.054a	2.07	28.17	4.268
1.300	146.10	0.141a	0.704	1.30	0.006a	2.11	27.41	4.176
1.350	152.60	0.135a	0.731	1.30	0.003a	2.12	26.34	4.060
1.400	159.10	0.129a	0.757	1.30	0.002a	2.12	25.34	3.953
1.450	165.61	0.124a	0.783	1.30	0.001a	2.13	24.41	3.855
1.500	172.12	0.120a	0.810	1.30	0.001	2.13	23.55	3.766
1.550	178.62	0.115a	0.836	1.30	0.004f	2.14	22.72	3.680
1.600	184.81	0.099a	0.860	1.12	1.004f	1.67	17.15	2.809

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.1 M. AFT TRIM



- | | | |
|-------------------------|---------------------------|--------------------------------|
| 1 Displacement 1=1.7 MT | 4 Immersion 1=0.005 MT/cm | 6 Moment/Trim 1=0.008 M.-MT/cm |
| 2 LCB (use top scale) | 4 WPA 1=0.5 Sq.M. | 7 KML 1=0.4 M. |
| 3 VCB (KB) 1=0.006 M. | 5 LCF (use top scale) | 8 KMT 1=0.06 M. |

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

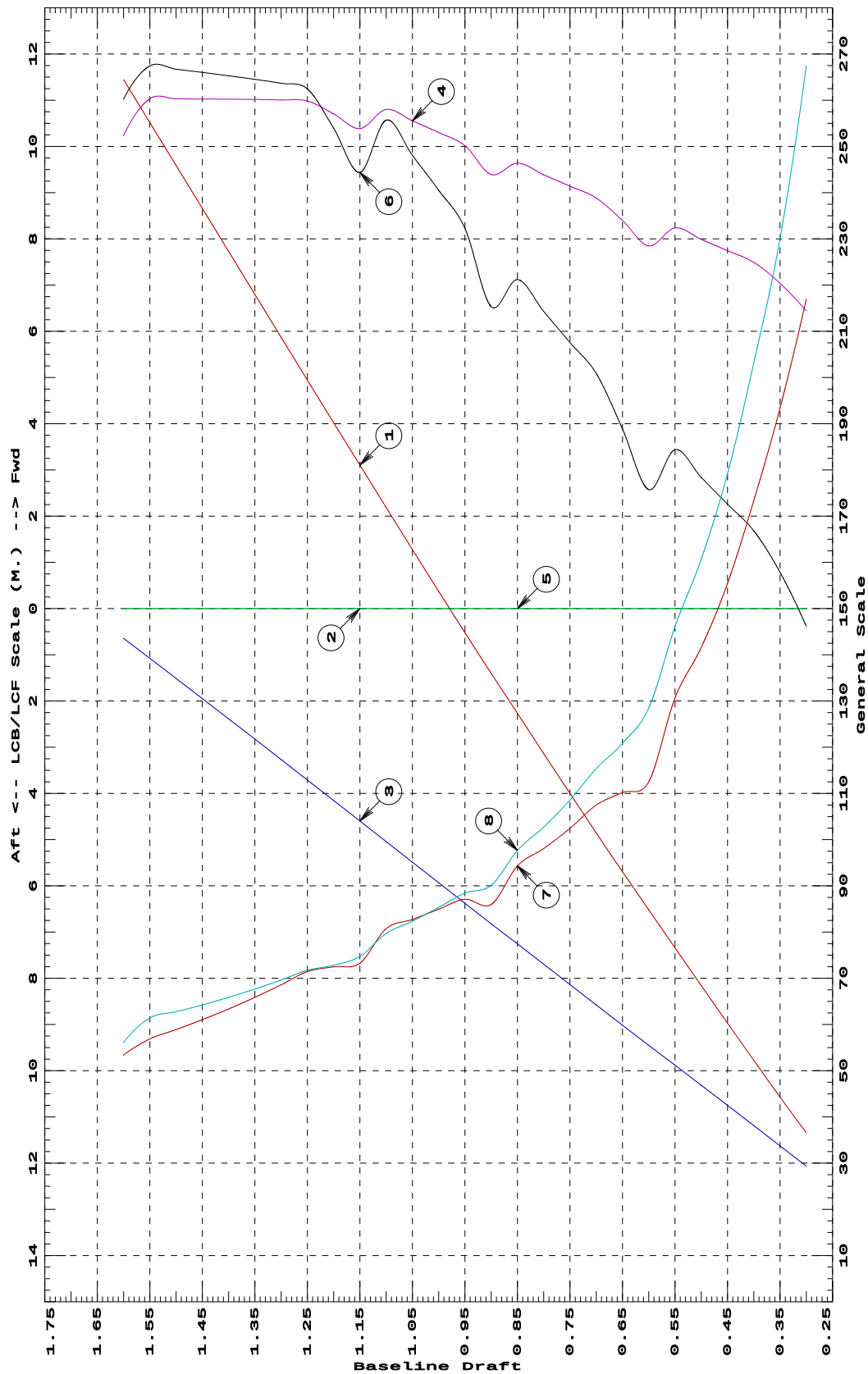
HYDROSTATIC PROPERTIES
No Trim, No Heel, VCG = 0.000

Draft@	Displacement	Buoyancy-Ctr.		Weight/		Moment/		
Origin----	Weight(MT)----	LCB-----	VCB-----	cm-----	LCF-----	cm trim----	KML-----	KMT-----
0.300	25.59	0.000	0.176	1.07	0.000	1.17	86.80	16.052
0.350	31.01	0.000	0.202	1.10	0.000	1.26	77.36	13.805
0.400	36.56	0.000	0.229	1.12	0.000	1.33	69.35	12.191
0.450	42.19	0.000	0.255	1.14	0.000	1.38	62.18	10.752
0.500	47.88	0.000	0.281	1.15	0.000	1.43	56.64	9.642
0.550	53.62	0.000	0.307	1.16	0.000	1.48	52.27	8.767
0.600	59.35	0.000	0.333	1.14	0.000	1.41	45.01	7.709
0.650	65.12	0.000	0.359	1.17	0.000	1.51	44.08	7.251
0.700	71.02	0.000	0.385	1.19	0.000	1.61	42.99	6.923
0.750	77.00	0.000	0.412	1.21	0.000	1.66	40.98	6.515
0.800	83.03	0.000	0.438	1.22	0.000	1.71	39.23	6.164
0.850	89.13	0.000	0.465	1.23	0.000	1.77	37.72	5.861
0.900	95.18	0.000	0.491	1.22	0.000	1.72	34.39	5.407
0.950	101.33	0.000	0.517	1.25	0.000	1.86	34.84	5.307
1.000	107.60	0.000	0.544	1.27	0.000	1.92	33.97	5.121
1.050	113.93	0.000	0.571	1.28	0.000	1.98	33.10	4.942
1.100	120.32	0.000	0.598	1.29	0.000	2.05	32.30	4.781
1.150	126.74	0.000	0.624	1.27	0.000	1.96	29.31	4.483
1.200	133.13	0.000	0.651	1.29	0.000	2.03	28.99	4.369
1.250	139.60	0.000	0.677	1.30	0.000	2.10	28.58	4.304
1.300	146.09	0.000	0.704	1.30	0.000	2.11	27.43	4.178
1.350	152.60	0.000	0.731	1.30	0.000	2.12	26.35	4.060
1.400	159.10	0.000	0.757	1.30	0.000	2.12	25.34	3.953
1.450	165.61	0.000	0.783	1.30	0.000	2.13	24.42	3.855
1.500	172.12	0.000	0.809	1.30	0.000	2.13	23.55	3.766
1.550	178.62	0.000	0.835	1.30	0.000	2.14	22.76	3.685
1.600	185.12	0.000	0.861	1.26	0.001a	2.08	21.37	3.367

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at LEVEL TRIM



- | | | |
|-------------------------|--------------------------|-------------------------------|
| ① Displacement 1=1.7 MT | ④ Immersion 1=.005 MT/cm | ⑥ Moment/Trim 1=.008 M.-MT/cm |
| ② LCB (use top scale) | ④ WPA 1=.5 Sq.M. | ⑦ KML 1=.4 M. |
| ③ VCB (KB) 1=.006 M. | ⑤ LCF (use top scale) | ⑧ KMT 1=.06 M. |

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

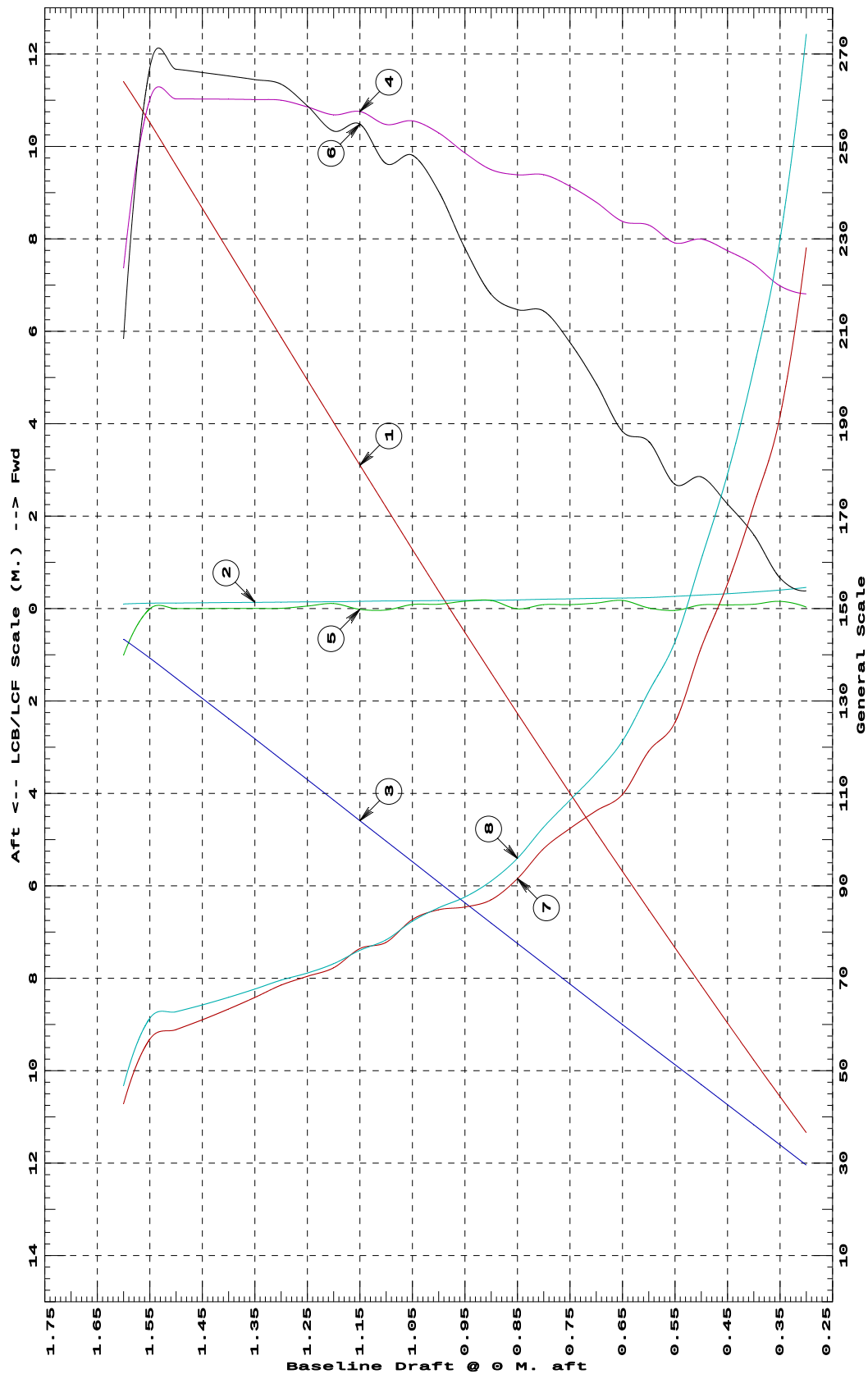
Trim: Fwd 0.100/19.000, No Heel, VCG = 0.000

Draft@ Origin	Displacement ---Weight(MT)	Buoyancy-Ctr.		Weight/ -----cm	Moment/ ---cm trim		KML	KMT
		LCB	VCB		LCF			
0.300	25.62	0.457f	0.178	1.09	0.030f	1.23	91.26	16.460
0.350	31.06	0.401f	0.204	1.10	0.156f	1.25	76.66	13.791
0.400	36.59	0.358f	0.230	1.12	0.095f	1.33	68.95	12.117
0.450	42.21	0.321f	0.256	1.14	0.079f	1.38	62.15	10.747
0.500	47.90	0.292f	0.282	1.15	0.080f	1.43	56.64	9.642
0.550	53.62	0.264f	0.308	1.15	0.039a	1.42	50.15	8.570
0.600	59.37	0.239f	0.334	1.16	0.013f	1.49	47.66	7.922
0.650	65.18	0.228f	0.360	1.17	0.176f	1.51	43.92	7.282
0.700	71.05	0.221f	0.386	1.19	0.119f	1.59	42.50	6.864
0.750	77.02	0.210f	0.413	1.21	0.085f	1.66	40.96	6.513
0.800	83.06	0.201f	0.439	1.22	0.085f	1.71	39.23	6.163
0.850	89.10	0.188f	0.465	1.22	0.006a	1.72	36.62	5.757
0.900	95.23	0.178f	0.492	1.22	0.177f	1.74	34.79	5.462
0.950	101.38	0.177f	0.518	1.24	0.159f	1.82	34.18	5.256
1.000	107.63	0.173f	0.545	1.26	0.094f	1.92	33.93	5.115
1.050	113.96	0.169f	0.571	1.28	0.089f	1.98	33.09	4.941
1.100	120.34	0.164f	0.598	1.27	0.031a	1.97	31.11	4.699
1.150	126.72	0.155f	0.625	1.29	0.018a	2.04	30.57	4.564
1.200	133.17	0.149f	0.651	1.28	0.108f	2.03	28.91	4.389
1.250	139.61	0.146f	0.678	1.29	0.054f	2.07	28.17	4.269
1.300	146.10	0.141f	0.704	1.30	0.006f	2.11	27.41	4.176
1.350	152.60	0.135f	0.731	1.30	0.003f	2.12	26.34	4.060
1.400	159.10	0.129f	0.757	1.30	0.002f	2.12	25.34	3.953
1.450	165.61	0.124f	0.783	1.30	0.001f	2.13	24.41	3.855
1.500	172.12	0.120f	0.810	1.30	0.001	2.13	23.55	3.766
1.550	178.62	0.115f	0.836	1.30	0.004a	2.14	22.72	3.680
1.600	184.81	0.099f	0.860	1.12	1.005a	1.67	17.14	2.808

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.1 M. FWD TRIM



- 1 Displacement 1=1.7 MT
 2 LCB (use top scale)
 3 VCB (KB) 1=0.006 M.
 4 Immersion 1=0.005 MT/cm
 4 WPA 1=1.5 Sq.M.
 5 LCF (use top scale)
 6 Moment/Trim 1=0.008 M.-MT/cm
 7 KML 1=0.4 M.
 8 KMT 1=0.06 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

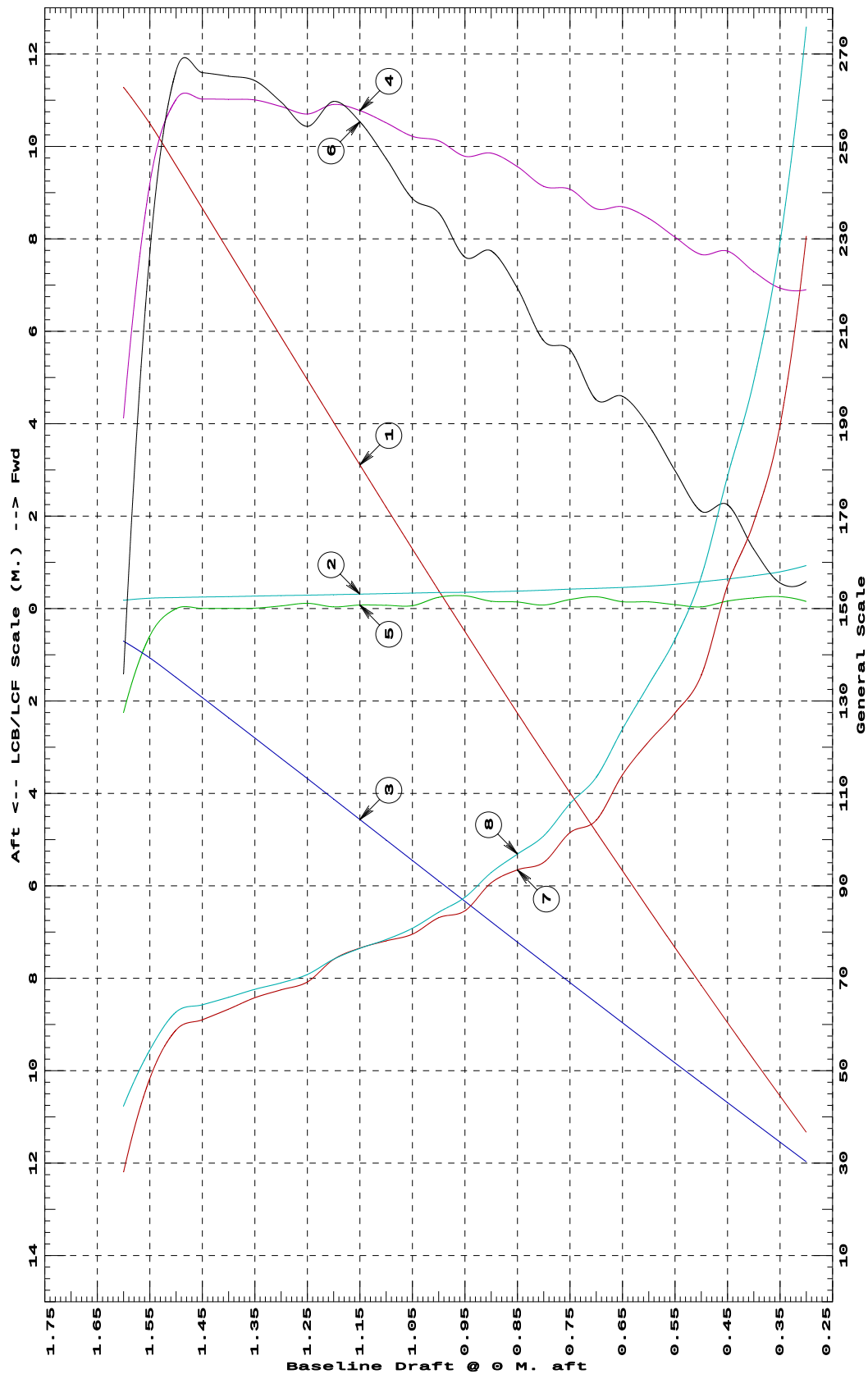
Trim: Fwd 0.200/19.000, No Heel, VCG = 0.000

Draft@ Origin	Displacement ---Weight(MT)	Buoyancy-Ctr.		Weight/ -----cm	Moment/ ---cm trim		KML	KMT
LCB	VCB	LCF						
0.300	25.68	0.932f	0.182	1.09	0.154f	1.25	92.25	16.555
0.350	31.17	0.796f	0.207	1.10	0.259f	1.24	75.86	13.754
0.400	36.68	0.710f	0.233	1.11	0.229f	1.30	67.47	11.956
0.450	42.28	0.641f	0.259	1.14	0.163f	1.38	62.00	10.718
0.500	47.94	0.579f	0.284	1.13	0.037f	1.37	54.22	9.416
0.550	53.64	0.526f	0.310	1.15	0.085f	1.44	50.97	8.603
0.600	59.43	0.487f	0.336	1.17	0.144f	1.52	48.48	8.014
0.650	65.29	0.457f	0.362	1.18	0.148f	1.57	45.61	7.436
0.700	71.16	0.437f	0.388	1.18	0.257f	1.56	41.69	6.810
0.750	77.11	0.420f	0.414	1.20	0.195f	1.65	40.60	6.468
0.800	83.09	0.397f	0.441	1.21	0.077f	1.66	38.04	6.050
0.850	89.15	0.378f	0.467	1.23	0.141f	1.75	37.38	5.813
0.900	95.31	0.363f	0.493	1.24	0.158f	1.82	36.27	5.573
0.950	101.51	0.352f	0.520	1.24	0.276f	1.81	33.84	5.252
1.000	107.73	0.345f	0.546	1.26	0.246f	1.88	33.24	5.058
1.050	114.03	0.336f	0.573	1.26	0.062f	1.91	31.82	4.850
1.100	120.36	0.323f	0.599	1.28	0.071f	1.98	31.24	4.703
1.150	126.76	0.312f	0.626	1.29	0.076f	2.04	30.62	4.588
1.200	133.20	0.301f	0.653	1.30	0.036f	2.08	29.64	4.448
1.250	139.67	0.289f	0.679	1.29	0.114f	2.03	27.68	4.249
1.300	146.12	0.280f	0.706	1.29	0.057f	2.08	27.00	4.140
1.350	152.60	0.270f	0.732	1.30	0.008f	2.11	26.32	4.057
1.400	159.10	0.259f	0.758	1.30	0.004f	2.12	25.33	3.952
1.450	165.61	0.249f	0.784	1.30	0.003f	2.13	24.41	3.855
1.500	172.12	0.239f	0.811	1.30	0.002a	2.13	23.53	3.763
1.550	178.46	0.223f	0.836	1.21	0.591a	1.82	19.33	3.269
1.600	183.94	0.179f	0.857	0.96	2.248a	1.09	11.23	2.544

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.2 M. FWD TRIM



- ① Displacement 1=1.7 MT
- ② LCB (use top scale)
- ③ VCB (KB) 1=0.006 M.
- ④ Immersion 1=0.005 MT/cm
- ④ WPA 1=0.5 Sq.M.
- ⑤ LCF (use top scale)
- ⑥ Moment/Trim 1=0.008 M.-MT/cm
- ⑦ KML 1=0.4 M.
- ⑧ KMT 1=0.06 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

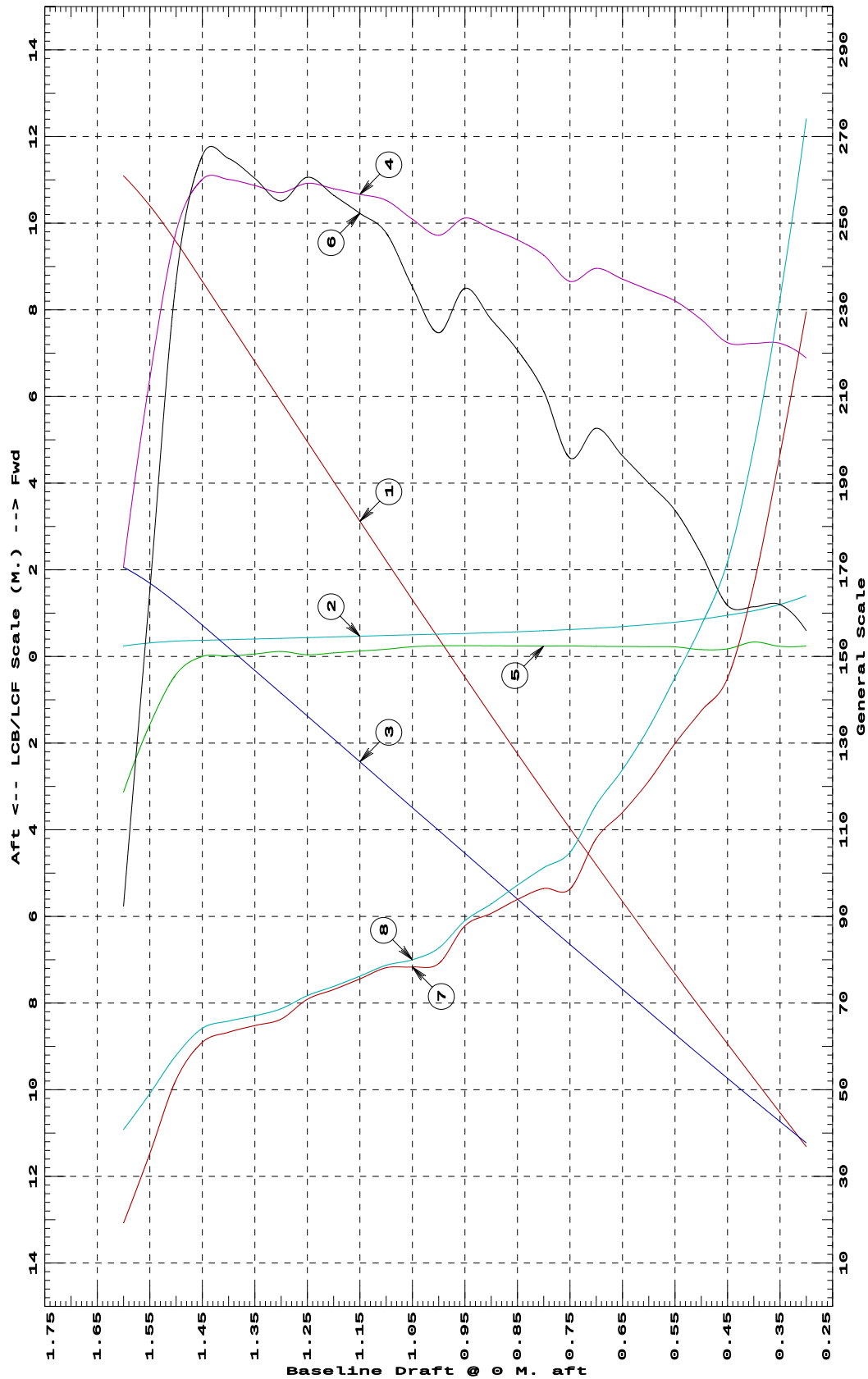
Trim: Fwd 0.300/19.000, No Heel, VCG = 0.000

Draft@ Origin	Displacement Weight(MT)	Buoyancy-Ctr.		Weight/ cm	Moment/ cm trim		KML	KMT
---	---	LCB	VCB	---	LCF	---	---	---
0.300	25.80	1.403f	0.189	1.09	0.243f	1.25	91.85	16.449
0.350	31.28	1.199f	0.213	1.11	0.233f	1.30	78.70	13.959
0.400	36.83	1.056f	0.238	1.11	0.334f	1.29	66.63	11.895
0.450	42.39	0.953f	0.263	1.11	0.175f	1.29	58.00	10.314
0.500	48.01	0.861f	0.288	1.14	0.159f	1.39	54.98	9.429
0.550	53.74	0.791f	0.314	1.16	0.223f	1.47	51.96	8.709
0.600	59.54	0.736f	0.340	1.17	0.227f	1.52	48.50	8.012
0.650	65.41	0.690f	0.366	1.19	0.230f	1.57	45.61	7.433
0.700	71.33	0.652f	0.392	1.20	0.234f	1.62	43.18	6.946
0.750	77.22	0.621f	0.418	1.18	0.242f	1.57	38.54	6.288
0.800	83.19	0.594f	0.444	1.21	0.238f	1.69	38.58	6.074
0.850	89.28	0.570f	0.470	1.23	0.243f	1.77	37.57	5.833
0.900	95.44	0.549f	0.496	1.24	0.245f	1.82	36.28	5.572
0.950	101.65	0.530f	0.523	1.26	0.248f	1.88	35.13	5.341
1.000	107.91	0.514f	0.549	1.24	0.244f	1.80	31.65	4.961
1.050	114.13	0.499f	0.575	1.25	0.224f	1.88	31.33	4.800
1.100	120.46	0.483f	0.602	1.28	0.167f	1.98	31.26	4.724
1.150	126.84	0.467f	0.628	1.28	0.124f	2.02	30.23	4.573
1.200	133.26	0.451f	0.655	1.29	0.081f	2.05	29.25	4.431
1.250	139.71	0.434f	0.681	1.30	0.038f	2.08	28.35	4.303
1.300	146.18	0.417f	0.708	1.29	0.116f	2.04	26.53	4.121
1.350	152.62	0.403f	0.734	1.29	0.058f	2.08	25.92	4.023
1.400	159.11	0.388f	0.760	1.30	0.009f	2.12	25.31	3.950
1.450	165.61	0.373f	0.786	1.30	0.001	2.12	24.37	3.851
1.500	172.01	0.354f	0.812	1.24	0.412a	1.89	20.92	3.476
1.550	177.83	0.312f	0.834	1.07	1.572a	1.32	14.11	2.947
1.600	182.64	0.243f	0.853	0.85	3.128a	0.74	7.70	2.448

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.3 M. FWD TRIM



HYDROSTATIC PROPERTIES

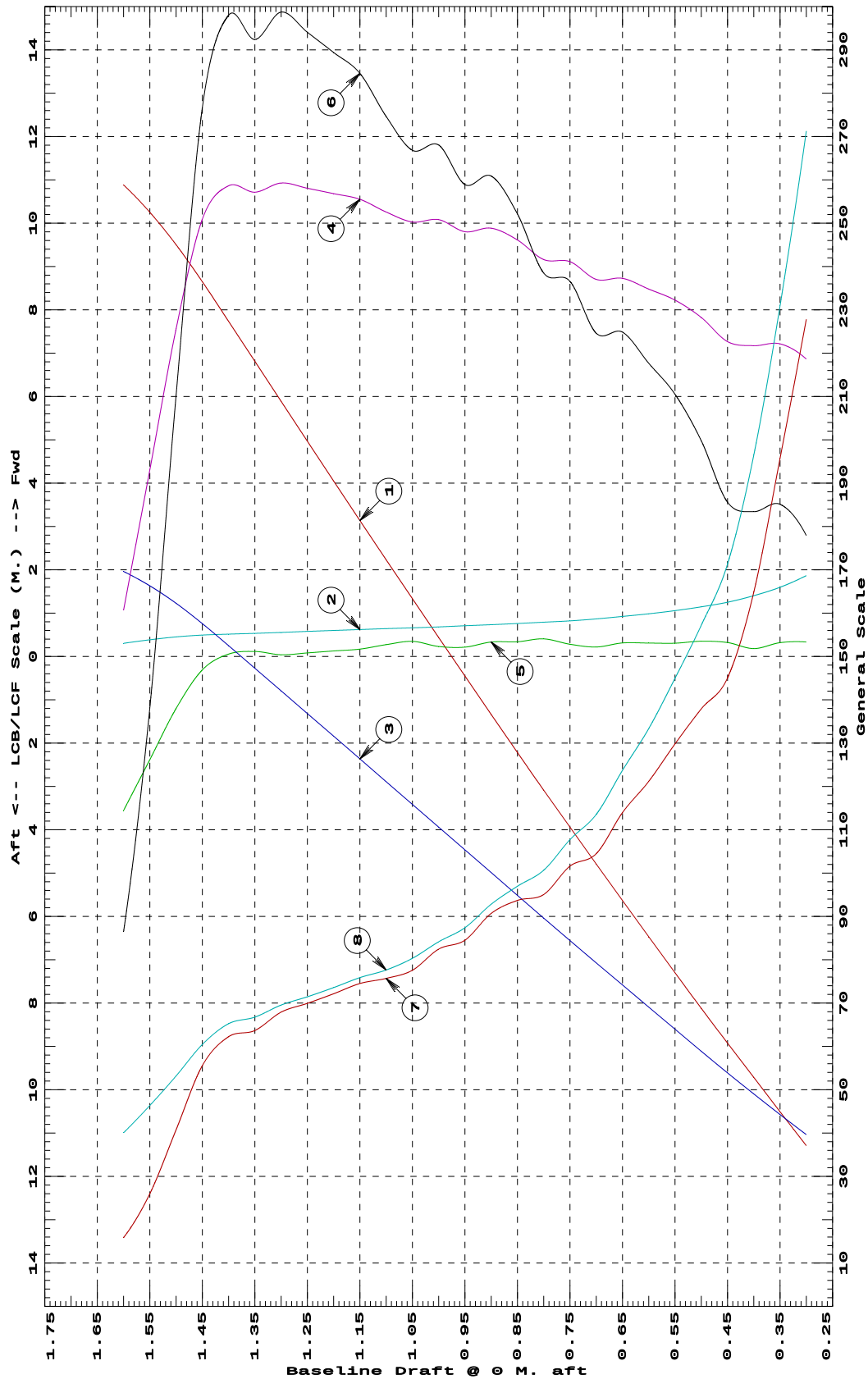
Trim: Fwd 0.400/19.000, No Heel, VCG = 0.000

Draft@	Displacement	Buoyancy-Ctr.		Weight/	Moment/			
Origin----	Weight(MT)-----	LCB-----	VCB-----	cm-----	LCF-----	cm trim-----	KML-----	KMT-----
0.300	25.96	1.867f	0.198	1.09	0.334f	1.25	91.12	16.276
0.350	31.44	1.598f	0.221	1.11	0.318f	1.30	78.29	13.856
0.400	36.99	1.403f	0.245	1.11	0.182f	1.28	65.94	11.790
0.450	42.54	1.252f	0.269	1.11	0.322f	1.30	58.02	10.281
0.500	48.16	1.145f	0.294	1.14	0.352f	1.40	55.16	9.432
0.550	53.90	1.057f	0.320	1.16	0.307f	1.47	51.93	8.697
0.600	59.71	0.984f	0.345	1.17	0.309f	1.52	48.47	8.002
0.650	65.58	0.923f	0.371	1.19	0.313f	1.57	45.59	7.424
0.700	71.46	0.867f	0.396	1.19	0.218f	1.57	41.80	6.812
0.750	77.41	0.821f	0.422	1.21	0.281f	1.66	40.64	6.464
0.800	83.39	0.790f	0.448	1.21	0.406f	1.67	38.03	6.040
0.850	89.47	0.761f	0.474	1.23	0.338f	1.76	37.47	5.817
0.900	95.62	0.734f	0.501	1.24	0.333f	1.83	36.28	5.568
0.950	101.83	0.708f	0.527	1.24	0.215f	1.81	33.81	5.243
1.000	108.05	0.681f	0.553	1.25	0.229f	1.88	32.98	5.050
1.050	114.33	0.659f	0.579	1.25	0.349f	1.87	31.03	4.820
1.100	120.61	0.641f	0.605	1.26	0.274f	1.92	30.28	4.658
1.150	126.95	0.621f	0.632	1.28	0.171f	1.99	29.81	4.552
1.200	133.34	0.599f	0.658	1.28	0.126f	2.03	28.86	4.414
1.250	139.76	0.577f	0.684	1.29	0.083f	2.06	27.98	4.287
1.300	146.21	0.555f	0.710	1.30	0.039f	2.09	27.17	4.173
1.350	152.68	0.534f	0.736	1.29	0.117f	2.05	25.46	4.005
1.400	159.13	0.516f	0.762	1.29	0.055f	2.09	24.90	3.914
1.450	165.53	0.493f	0.788	1.25	0.308a	1.94	22.23	3.628
1.500	171.52	0.452f	0.811	1.13	1.201a	1.47	16.30	3.191
1.550	176.76	0.386f	0.831	0.97	2.381a	0.97	10.40	2.782
1.600	181.18	0.304f	0.848	0.80	3.553a	0.61	6.35	2.404

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.4 M. FWD TRIM



- 1** Displacement 1=1.7 MT
2 LCB (use top scale)
3 VCB (KB) 1=0.005 M.
4 Immersion 1=0.005 MT/cm
4 WPA 1=5 Sq.M.
5 LCF (use top scale)
6 Moment/Trim 1=.007 M.-MT/cm
7 KML 1=.4 M.
8 KMT 1=0.06 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

HYDROSTATIC PROPERTIES

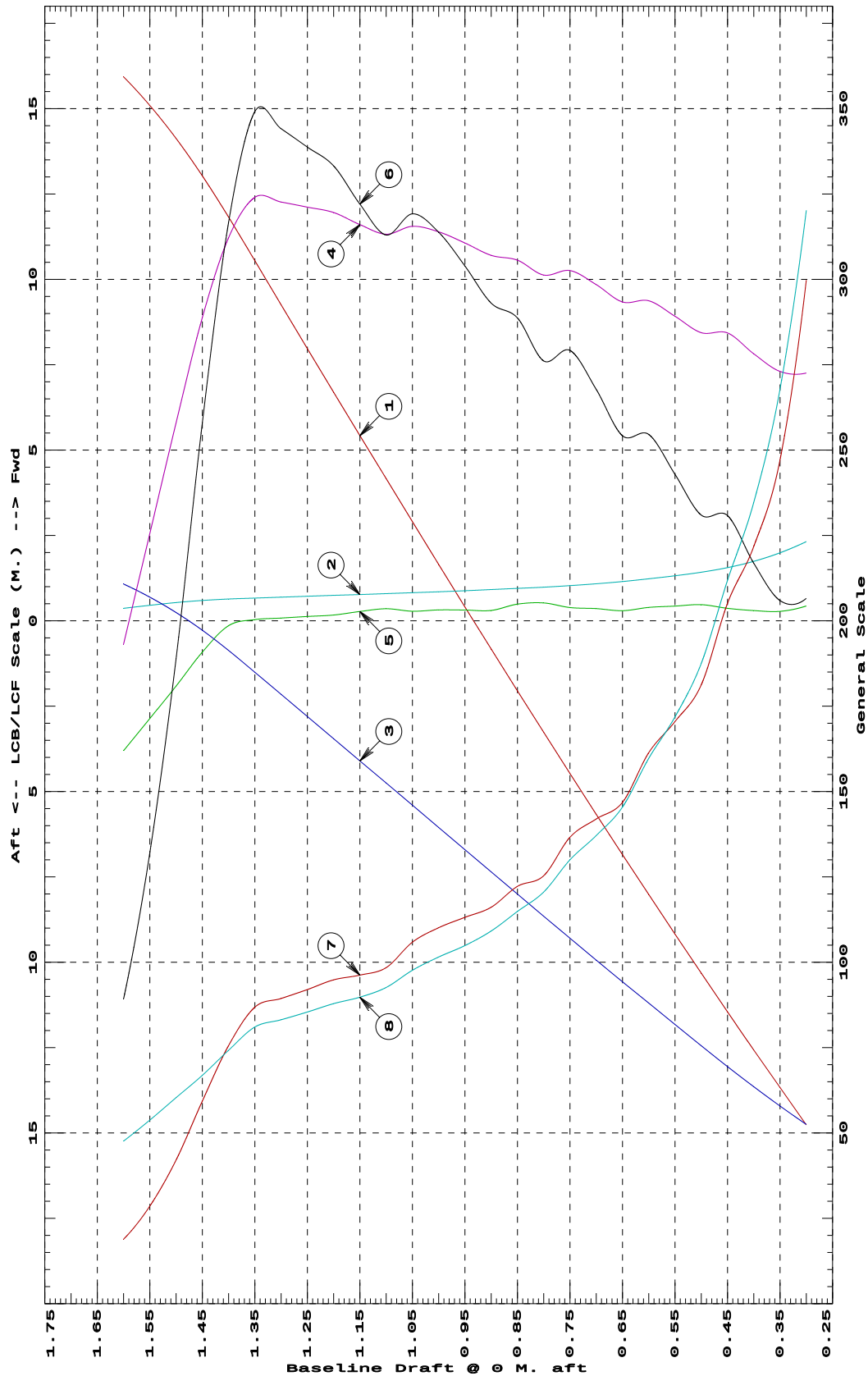
Trim: Fwd 0.500/19.000, No Heel, VCG = 0.000

Draft@	Displacement	Buoyancy-Ctr.		Weight/	Moment/			
Origin----	Weight(MT)-----	LCB-----	VCB-----	cm-----	LCF-----	cm trim-----	KML-----	KMT-----
0.300	26.18	2.321f	0.210	1.09	0.435f	1.24	89.94	16.012
0.350	31.65	1.991f	0.232	1.09	0.277f	1.24	74.16	13.396
0.400	37.14	1.741f	0.254	1.11	0.299f	1.30	66.54	11.736
0.450	42.74	1.558f	0.278	1.14	0.367f	1.38	61.54	10.594
0.500	48.40	1.424f	0.302	1.14	0.472f	1.39	54.38	9.377
0.550	54.11	1.320f	0.327	1.16	0.429f	1.46	51.15	8.594
0.600	59.92	1.230f	0.352	1.17	0.392f	1.53	48.42	7.986
0.650	65.75	1.150f	0.377	1.17	0.295f	1.53	44.06	7.273
0.700	71.65	1.083f	0.402	1.19	0.356f	1.61	42.59	6.856
0.750	77.63	1.029f	0.428	1.21	0.389f	1.68	40.98	6.501
0.800	83.68	0.984f	0.454	1.21	0.523f	1.66	37.60	6.029
0.850	89.73	0.950f	0.480	1.22	0.490f	1.73	36.67	5.745
0.900	95.86	0.917f	0.506	1.23	0.304f	1.76	34.84	5.457
0.950	102.02	0.881f	0.532	1.24	0.313f	1.82	33.95	5.245
1.000	108.25	0.850f	0.558	1.26	0.320f	1.88	33.04	5.077
1.050	114.53	0.821f	0.584	1.26	0.281f	1.92	31.76	4.883
1.100	120.82	0.794f	0.610	1.25	0.352f	1.88	29.52	4.632
1.150	127.11	0.771f	0.636	1.26	0.272f	1.93	28.87	4.488
1.200	133.46	0.745f	0.662	1.28	0.171f	2.00	28.45	4.395
1.250	139.85	0.719f	0.688	1.28	0.126f	2.03	27.60	4.271
1.300	146.27	0.693f	0.714	1.29	0.082f	2.06	26.81	4.158
1.350	152.72	0.667f	0.740	1.30	0.035f	2.09	26.05	4.051
1.400	159.12	0.638f	0.765	1.25	0.141a	1.90	22.68	3.712
1.450	165.16	0.597f	0.789	1.16	0.915a	1.55	17.80	3.344
1.500	170.63	0.533f	0.810	1.03	1.911a	1.13	12.62	3.017
1.550	175.47	0.453f	0.828	0.90	2.860a	0.79	8.58	2.688
1.600	179.65	0.365f	0.843	0.77	3.802a	0.54	5.66	2.380

Distances in METERS.-----Specific Gravity = 1.000.-----Moment in m.-MT.
Trim is per 19.00m.

Draft is from Baseline.

HYDROSTATIC PROPERTIES at 0.5 M. FWD TRIM



- 1 Displacement 1=1.5 MT
 2 LCB (use top scale)
 3 VCB (KB) 1=0.004 M.
 4 Immersion 1=0.004 MT/cm
 4 WPA 1=4 Sq.M.
 5 LCF (use top scale)
 6 Moment/Trim 1=0.006 M.-MT/cm
 7 KML 1=0.3 M.
 8 KMT 1=0.05 M.

Specific Gravity = 1.000 Assumed KG = 0.00 M.
Trim is per 19 M. "K" = BPL

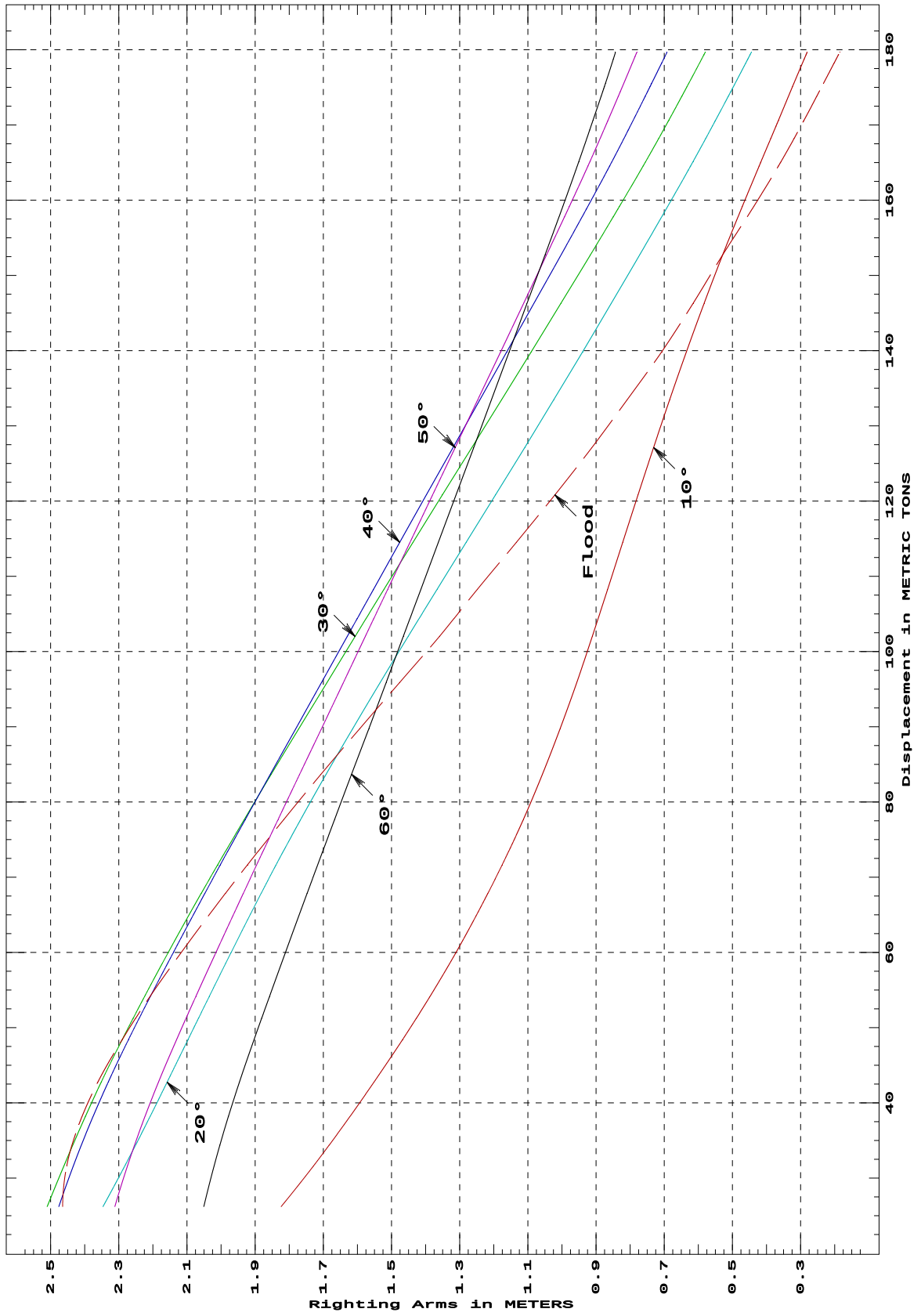
CROSS CURVES OF STABILITY

Showing righting arms in heel at VCG = 0.00

Trim: Aft 0.500/19.000 at zero heel (trim righting arm held at zero)

Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
	26.18	1.824s	2.347s	2.510s	2.476s	2.312s	2.051s	2.464s	41.02s
	31.65	1.728s	2.282s	2.461s	2.433s	2.274s	2.020s	2.452s	37.75s
	37.14	1.638s	2.220s	2.409s	2.385s	2.232s	1.986s	2.417s	34.95s
	42.74	1.552s	2.158s	2.352s	2.331s	2.184s	1.946s	2.362s	32.43s
	48.40	1.467s	2.097s	2.290s	2.272s	2.130s	1.903s	2.290s	30.00s
	54.11	1.387s	2.035s	2.225s	2.208s	2.074s	1.858s	2.209s	28.07s
	59.92	1.312s	1.971s	2.156s	2.141s	2.016s	1.812s	2.118s	26.22s
	65.75	1.242s	1.906s	2.084s	2.072s	1.956s	1.765s	2.023s	24.60s
	71.65	1.176s	1.838s	2.010s	2.002s	1.895s	1.716s	1.922s	23.13s
	77.63	1.114s	1.767s	1.932s	1.930s	1.833s	1.667s	1.817s	21.76s
	83.68	1.057s	1.692s	1.853s	1.856s	1.770s	1.617s	1.707s	20.51s
	89.73	1.005s	1.614s	1.772s	1.781s	1.706s	1.567s	1.593s	19.33s
	95.86	0.957s	1.533s	1.689s	1.705s	1.641s	1.516s	1.477s	18.22s
	102.02	0.911s	1.451s	1.607s	1.630s	1.577s	1.465s	1.359s	17.22s
	108.25	0.866s	1.366s	1.522s	1.553s	1.511s	1.414s	1.249s	16.44s
	114.53	0.822s	1.281s	1.437s	1.476s	1.446s	1.362s	1.133s	15.54s
	120.82	0.777s	1.195s	1.351s	1.398s	1.380s	1.311s	1.021s	14.64s
	127.11	0.731s	1.109s	1.264s	1.320s	1.313s	1.259s	0.912s	13.72s
	133.46	0.684s	1.024s	1.177s	1.241s	1.247s	1.207s	0.809s	12.80s
	139.85	0.635s	0.939s	1.090s	1.162s	1.180s	1.155s	0.707s	11.78s
	146.27	0.583s	0.855s	1.003s	1.082s	1.113s	1.102s	0.615s	10.87s
	152.72	0.529s	0.772s	0.917s	1.003s	1.045s	1.050s	0.529s	10.00s
	159.12	0.472s	0.690s	0.832s	0.925s	0.979s	0.998s	0.438s	8.89s
	165.16	0.416s	0.615s	0.754s	0.853s	0.918s	0.950s	0.357s	7.88s
	170.63	0.365s	0.549s	0.687s	0.791s	0.865s	0.909s	0.290s	7.01s
	175.47	0.320s	0.493s	0.629s	0.737s	0.819s	0.873s	0.234s	6.23s
	179.66	0.281s	0.445s	0.580s	0.692s	0.781s	0.843s	0.186s	5.49s
Distances in METERS.-----Specific Gravity = 1.000.-----									

CROSS CURVES OF STABILITY with - Stbd Heel
at 0.5 M. AFT TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

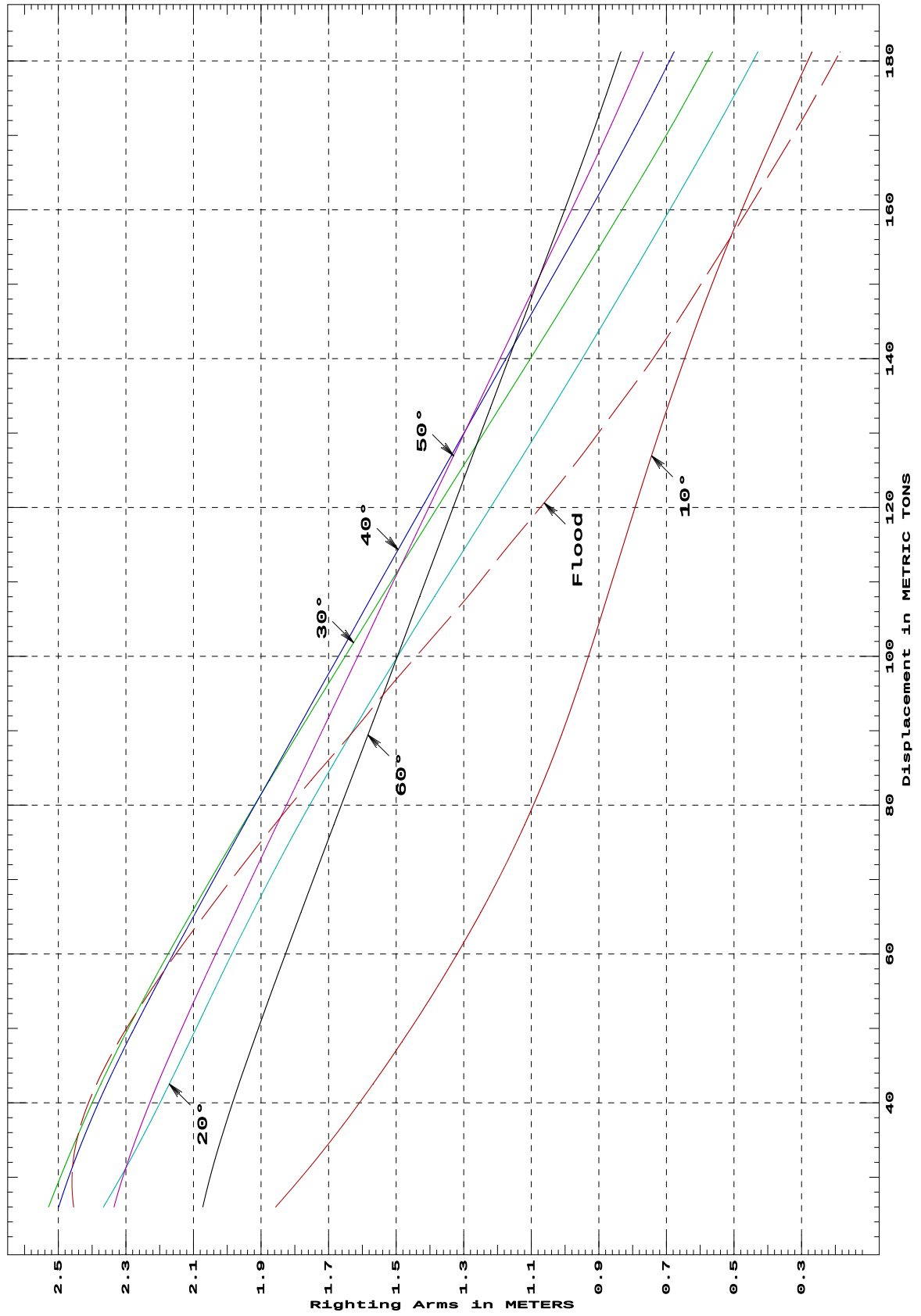
CROSS CURVES OF STABILITY

Showing righting arms in heel at VCG = 0.00

Trim: Aft 0.400/19.000 at zero heel (trim righting arm held at zero)

Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
	25.96	1.857s	2.367s	2.529s	2.499s	2.336s	2.073s	2.454s	43.55s
	31.44	1.754s	2.298s	2.481s	2.458s	2.299s	2.042s	2.458s	40.00s
	36.99	1.658s	2.233s	2.429s	2.410s	2.255s	2.006s	2.434s	36.73s
	42.54	1.569s	2.172s	2.374s	2.356s	2.206s	1.966s	2.387s	34.02s
	48.16	1.483s	2.112s	2.314s	2.296s	2.153s	1.922s	2.322s	31.59s
	53.90	1.401s	2.051s	2.248s	2.231s	2.096s	1.877s	2.244s	29.39s
	59.71	1.323s	1.989s	2.179s	2.163s	2.037s	1.830s	2.156s	27.42s
	65.58	1.250s	1.925s	2.105s	2.093s	1.976s	1.782s	2.061s	25.66s
	71.46	1.182s	1.858s	2.031s	2.022s	1.915s	1.733s	1.963s	24.10s
	77.41	1.119s	1.788s	1.953s	1.950s	1.852s	1.684s	1.859s	22.68s
	83.39	1.062s	1.713s	1.874s	1.876s	1.789s	1.634s	1.751s	21.35s
	89.47	1.010s	1.635s	1.793s	1.801s	1.724s	1.584s	1.635s	20.00s
	95.62	0.963s	1.554s	1.710s	1.725s	1.660s	1.532s	1.524s	19.00s
	101.83	0.918s	1.471s	1.626s	1.648s	1.594s	1.481s	1.405s	17.93s
	108.05	0.875s	1.386s	1.542s	1.572s	1.529s	1.430s	1.287s	16.95s
	114.33	0.832s	1.299s	1.456s	1.494s	1.463s	1.378s	1.176s	16.19s
	120.61	0.789s	1.212s	1.370s	1.416s	1.397s	1.326s	1.062s	15.28s
	126.95	0.744s	1.125s	1.282s	1.337s	1.330s	1.274s	0.952s	14.37s
	133.34	0.697s	1.038s	1.194s	1.258s	1.263s	1.221s	0.847s	13.46s
	139.76	0.648s	0.953s	1.106s	1.178s	1.195s	1.169s	0.743s	12.41s
	146.21	0.597s	0.868s	1.018s	1.097s	1.127s	1.116s	0.650s	11.51s
	152.68	0.542s	0.784s	0.930s	1.016s	1.058s	1.062s	0.561s	10.58s
	159.13	0.484s	0.701s	0.843s	0.936s	0.990s	1.009s	0.470s	9.52s
	165.53	0.424s	0.620s	0.758s	0.858s	0.923s	0.956s	0.385s	8.51s
	171.53	0.366s	0.546s	0.681s	0.787s	0.862s	0.908s	0.306s	7.48s
	176.76	0.314s	0.482s	0.617s	0.727s	0.811s	0.868s	0.240s	6.60s
	181.19	0.269s	0.430s	0.564s	0.678s	0.769s	0.835s	0.186s	5.82s
Distances in METERS.-----Specific Gravity = 1.000.-----									

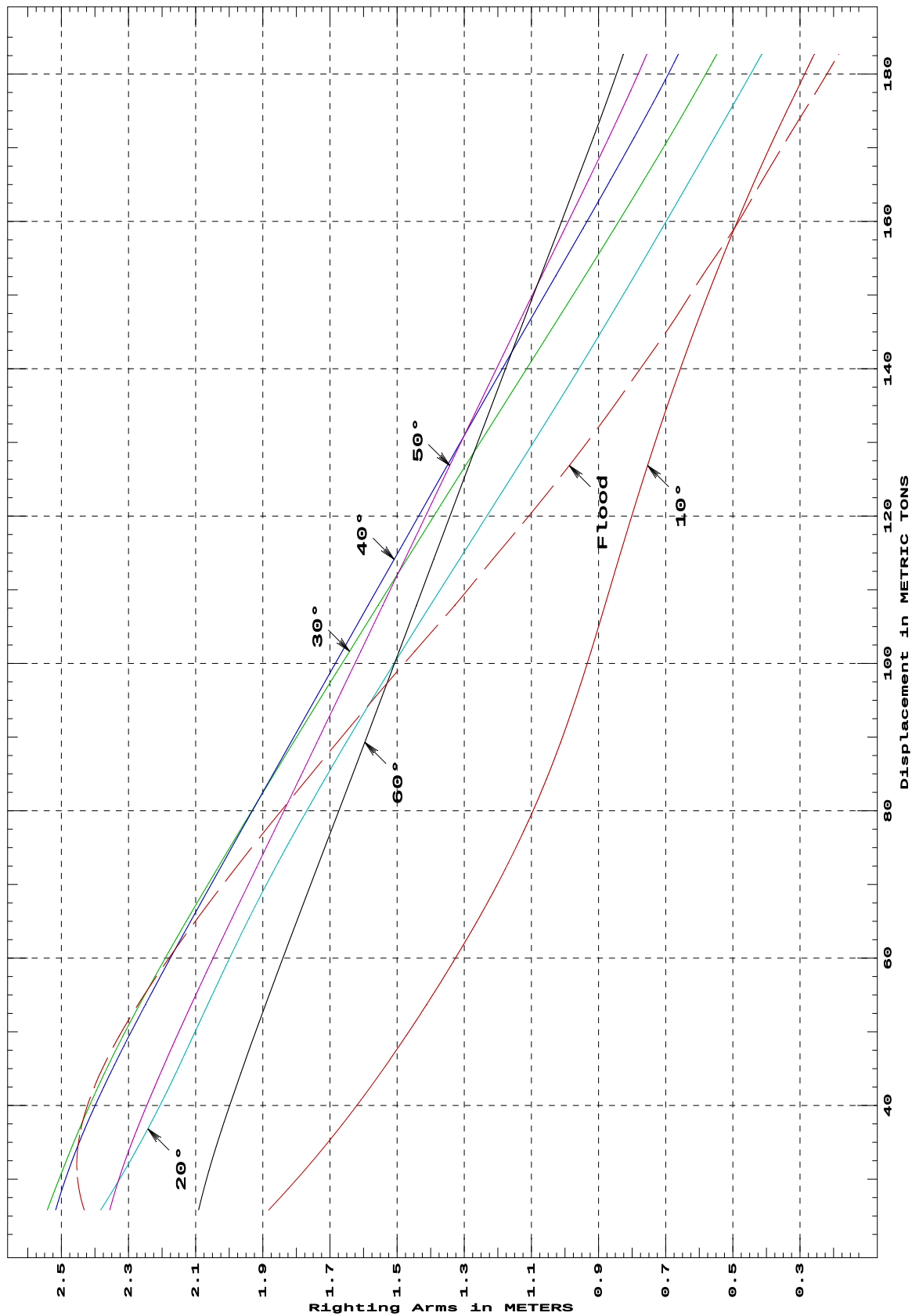
CROSS CURVES OF STABILITY with - Stbd Heel
at 0.4 M. AFT TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

Displacement	Heel Angles in Degrees								
	@ Flooding								
METRIC TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle	
25.80	1.883s	2.383s	2.542s	2.517s	2.356s	2.091s	2.432s	46.16s	
31.28	1.774s	2.310s	2.496s	2.478s	2.320s	2.060s	2.454s	42.18s	
36.83	1.674s	2.242s	2.446s	2.430s	2.274s	2.022s	2.442s	38.67s	
42.39	1.581s	2.180s	2.392s	2.375s	2.224s	1.981s	2.403s	35.66s	
48.01	1.495s	2.122s	2.333s	2.315s	2.170s	1.937s	2.345s	33.10s	
53.74	1.412s	2.064s	2.267s	2.249s	2.113s	1.892s	2.271s	30.79s	
59.54	1.332s	2.004s	2.196s	2.181s	2.053s	1.844s	2.187s	28.70s	
65.41	1.257s	1.941s	2.123s	2.110s	1.992s	1.796s	2.094s	26.82s	
71.33	1.187s	1.874s	2.046s	2.038s	1.929s	1.746s	1.996s	25.13s	
77.22	1.123s	1.804s	1.970s	1.965s	1.867s	1.697s	1.895s	23.62s	
83.19	1.065s	1.730s	1.890s	1.892s	1.803s	1.647s	1.789s	22.24s	
89.28	1.013s	1.651s	1.809s	1.817s	1.739s	1.596s	1.678s	20.98s	
95.44	0.966s	1.570s	1.726s	1.740s	1.674s	1.545s	1.565s	19.81s	
101.65	0.923s	1.487s	1.642s	1.663s	1.608s	1.494s	1.448s	18.70s	
107.91	0.881s	1.401s	1.556s	1.586s	1.543s	1.442s	1.328s	17.66s	
114.13	0.840s	1.314s	1.471s	1.509s	1.477s	1.391s	1.216s	16.85s	
120.46	0.798s	1.227s	1.384s	1.430s	1.411s	1.339s	1.100s	15.94s	
126.84	0.754s	1.138s	1.296s	1.351s	1.343s	1.286s	0.987s	15.03s	
133.26	0.708s	1.050s	1.208s	1.271s	1.276s	1.233s	0.881s	14.12s	
139.71	0.659s	0.962s	1.118s	1.190s	1.207s	1.180s	0.780s	13.20s	
146.18	0.607s	0.877s	1.029s	1.109s	1.138s	1.126s	0.681s	12.16s	
152.62	0.552s	0.793s	0.940s	1.027s	1.069s	1.072s	0.591s	11.24s	
159.11	0.495s	0.710s	0.852s	0.946s	1.000s	1.018s	0.495s	10.00s	
165.61	0.434s	0.628s	0.765s	0.865s	0.930s	0.963s	0.412s	9.13s	
172.01	0.370s	0.547s	0.681s	0.786s	0.863s	0.910s	0.327s	8.12s	
177.83	0.309s	0.474s	0.607s	0.718s	0.804s	0.864s	0.249s	7.05s	
182.65	0.258s	0.414s	0.548s	0.663s	0.757s	0.827s	0.186s	6.17s	
Distances in METERS.-----Specific Gravity = 1.000.-----									

CROSS CURVES OF STABILITY with - Stbd Heel
at 0.3 M. AFT TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

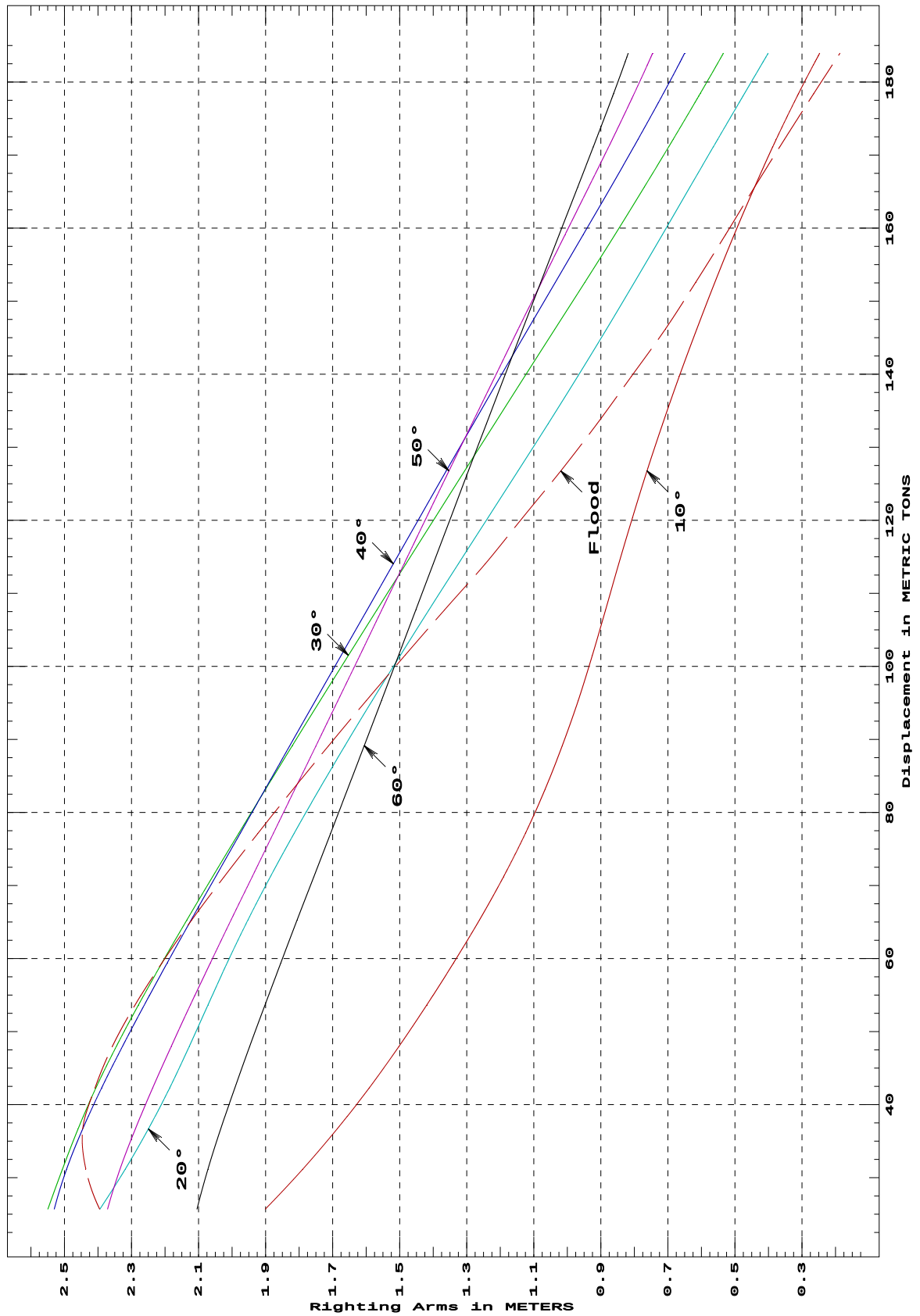
CROSS CURVES OF STABILITY

Showing righting arms in heel at VCG = 0.00

Trim: Aft 0.200/19.000 at zero heel (trim righting arm held at zero)

Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
	25.68	1.901s	2.395s	2.549s	2.531s	2.372s	2.105s	2.395s	48.93s
	31.17	1.789s	2.318s	2.506s	2.494s	2.334s	2.072s	2.436s	44.58s
	36.68	1.686s	2.249s	2.459s	2.445s	2.288s	2.034s	2.445s	40.00s
	42.28	1.591s	2.186s	2.406s	2.389s	2.237s	1.992s	2.409s	37.48s
	47.94	1.503s	2.128s	2.346s	2.327s	2.182s	1.948s	2.357s	34.68s
	53.64	1.419s	2.072s	2.280s	2.262s	2.124s	1.902s	2.290s	32.26s
	59.43	1.339s	2.014s	2.209s	2.193s	2.065s	1.854s	2.209s	30.00s
	65.29	1.262s	1.953s	2.135s	2.122s	2.003s	1.806s	2.120s	28.05s
	71.16	1.191s	1.886s	2.059s	2.050s	1.940s	1.756s	2.024s	26.24s
	77.11	1.125s	1.815s	1.981s	1.976s	1.877s	1.706s	1.923s	24.61s
	83.09	1.067s	1.741s	1.901s	1.902s	1.814s	1.656s	1.820s	23.18s
	89.15	1.015s	1.663s	1.820s	1.828s	1.749s	1.606s	1.712s	21.86s
	95.31	0.968s	1.582s	1.737s	1.751s	1.684s	1.555s	1.600s	20.64s
	101.51	0.926s	1.498s	1.653s	1.674s	1.619s	1.503s	1.484s	19.50s
	107.73	0.886s	1.413s	1.568s	1.597s	1.553s	1.452s	1.366s	18.41s
	114.03	0.847s	1.325s	1.481s	1.519s	1.487s	1.400s	1.245s	17.39s
	120.36	0.806s	1.237s	1.394s	1.441s	1.420s	1.348s	1.133s	16.62s
	126.76	0.762s	1.147s	1.306s	1.361s	1.353s	1.295s	1.020s	15.71s
	133.20	0.716s	1.057s	1.217s	1.281s	1.285s	1.242s	0.912s	14.80s
	139.67	0.666s	0.969s	1.128s	1.200s	1.216s	1.188s	0.809s	13.88s
	146.12	0.615s	0.884s	1.038s	1.118s	1.147s	1.134s	0.709s	12.81s
	152.60	0.560s	0.800s	0.947s	1.036s	1.077s	1.079s	0.617s	11.90s
	159.10	0.502s	0.717s	0.858s	0.953s	1.007s	1.024s	0.528s	10.96s
	165.61	0.442s	0.634s	0.771s	0.870s	0.936s	0.969s	0.442s	10.00s
	172.12	0.377s	0.552s	0.685s	0.790s	0.866s	0.914s	0.353s	8.88s
	178.46	0.310s	0.471s	0.603s	0.713s	0.800s	0.862s	0.264s	7.69s
	183.94	0.247s	0.401s	0.534s	0.650s	0.746s	0.818s	0.187s	6.59s
Distances in METERS.-----Specific Gravity = 1.000.-----									

CROSS CURVES OF STABILITY with - Stbd Heel
at 0.2 M. AFT TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

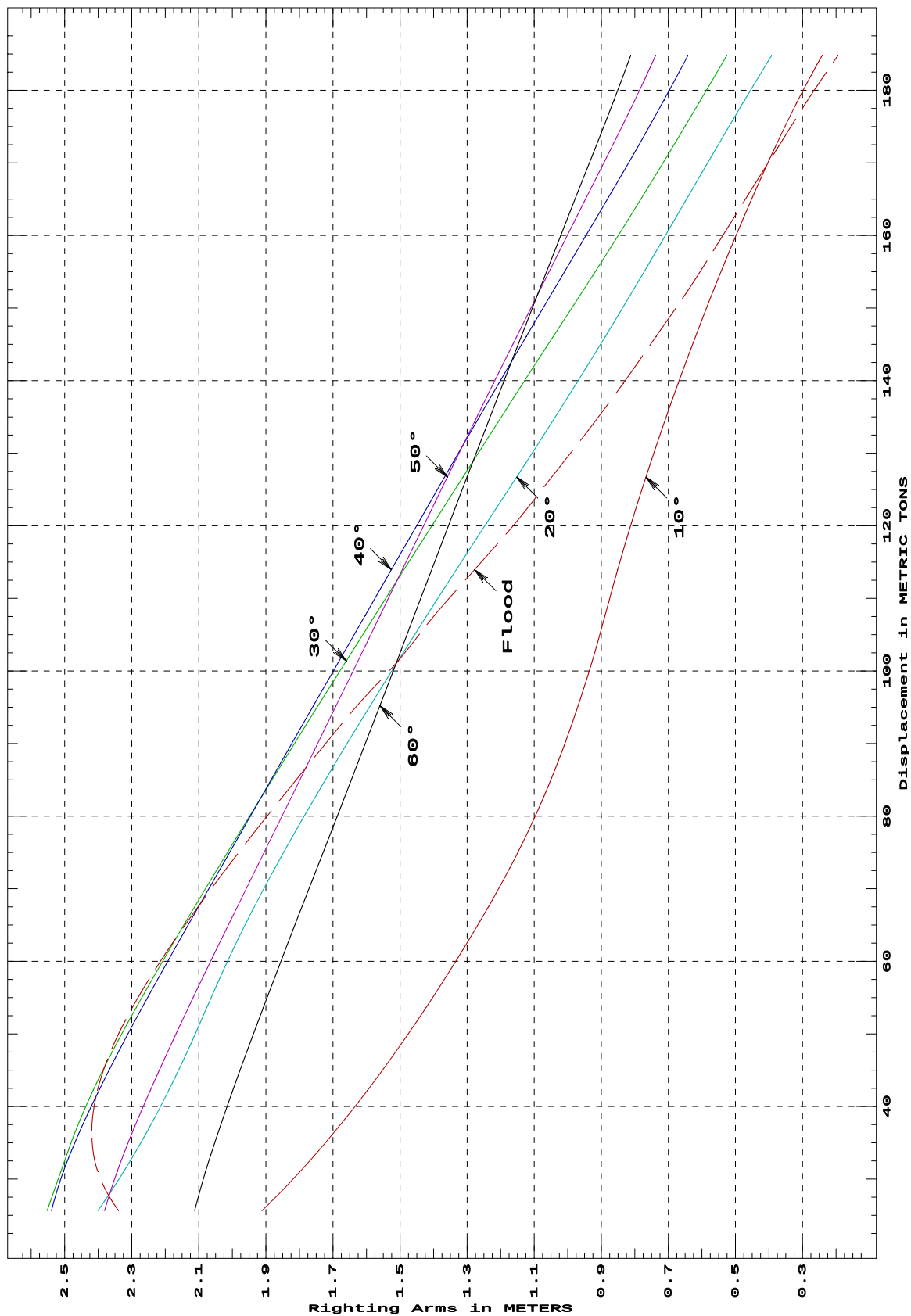
CROSS CURVES OF STABILITY

Showing righting arms in heel at VCG = 0.00

Trim: Aft 0.100/19.000 at zero heel (trim righting arm held at zero)

Displacement	Heel Angles in Degrees								
	@ Flooding								
METRIC TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s		Arm	Angle
25.62	1.912s	2.401s	2.553s	2.539s	2.381s	2.113s	2.339s		51.86s
31.06	1.798s	2.324s	2.511s	2.504s	2.343s	2.080s	2.401s		47.14s
36.59	1.694s	2.254s	2.468s	2.455s	2.297s	2.041s	2.419s		43.06s
42.21	1.597s	2.190s	2.415s	2.398s	2.245s	1.999s	2.402s		39.51s
47.90	1.507s	2.131s	2.354s	2.335s	2.189s	1.954s	2.360s		36.45s
53.62	1.423s	2.076s	2.287s	2.269s	2.131s	1.908s	2.299s		33.81s
59.37	1.343s	2.021s	2.216s	2.200s	2.071s	1.860s	2.223s		31.50s
65.18	1.266s	1.960s	2.142s	2.130s	2.010s	1.812s	2.138s		29.37s
71.05	1.193s	1.894s	2.066s	2.057s	1.948s	1.763s	2.046s		27.44s
77.02	1.127s	1.823s	1.988s	1.983s	1.884s	1.712s	1.947s		25.72s
83.06	1.068s	1.747s	1.908s	1.909s	1.819s	1.662s	1.844s		24.16s
89.10	1.016s	1.670s	1.827s	1.834s	1.755s	1.611s	1.738s		22.79s
95.23	0.969s	1.589s	1.744s	1.758s	1.691s	1.560s	1.628s		21.52s
101.38	0.927s	1.506s	1.660s	1.682s	1.625s	1.509s	1.506s		20.00s
107.63	0.889s	1.420s	1.575s	1.604s	1.560s	1.458s	1.398s		19.20s
113.96	0.851s	1.332s	1.488s	1.526s	1.493s	1.406s	1.278s		18.15s
120.34	0.810s	1.242s	1.400s	1.446s	1.426s	1.353s	1.157s		17.16s
126.72	0.767s	1.152s	1.312s	1.367s	1.359s	1.300s	1.048s		16.40s
133.17	0.720s	1.062s	1.223s	1.287s	1.290s	1.247s	0.939s		15.49s
139.61	0.671s	0.974s	1.134s	1.205s	1.222s	1.193s	0.835s		14.56s
146.10	0.619s	0.888s	1.043s	1.123s	1.152s	1.139s	0.737s		13.63s
152.60	0.564s	0.803s	0.952s	1.041s	1.082s	1.084s	0.639s		12.56s
159.10	0.506s	0.720s	0.862s	0.957s	1.011s	1.029s	0.550s		11.63s
165.61	0.446s	0.638s	0.774s	0.874s	0.940s	0.973s	0.462s		10.67s
172.12	0.382s	0.556s	0.688s	0.792s	0.869s	0.917s	0.374s		9.60s
178.62	0.314s	0.473s	0.604s	0.713s	0.800s	0.862s	0.285s		8.49s
184.81	0.241s	0.392s	0.525s	0.642s	0.738s	0.812s	0.194s		7.22s
Distances in METERS.-----Specific Gravity = 1.000.-----									

CROSS CURVES OF STABILITY with - Stbd Heel
at 0.1 M. AFT TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

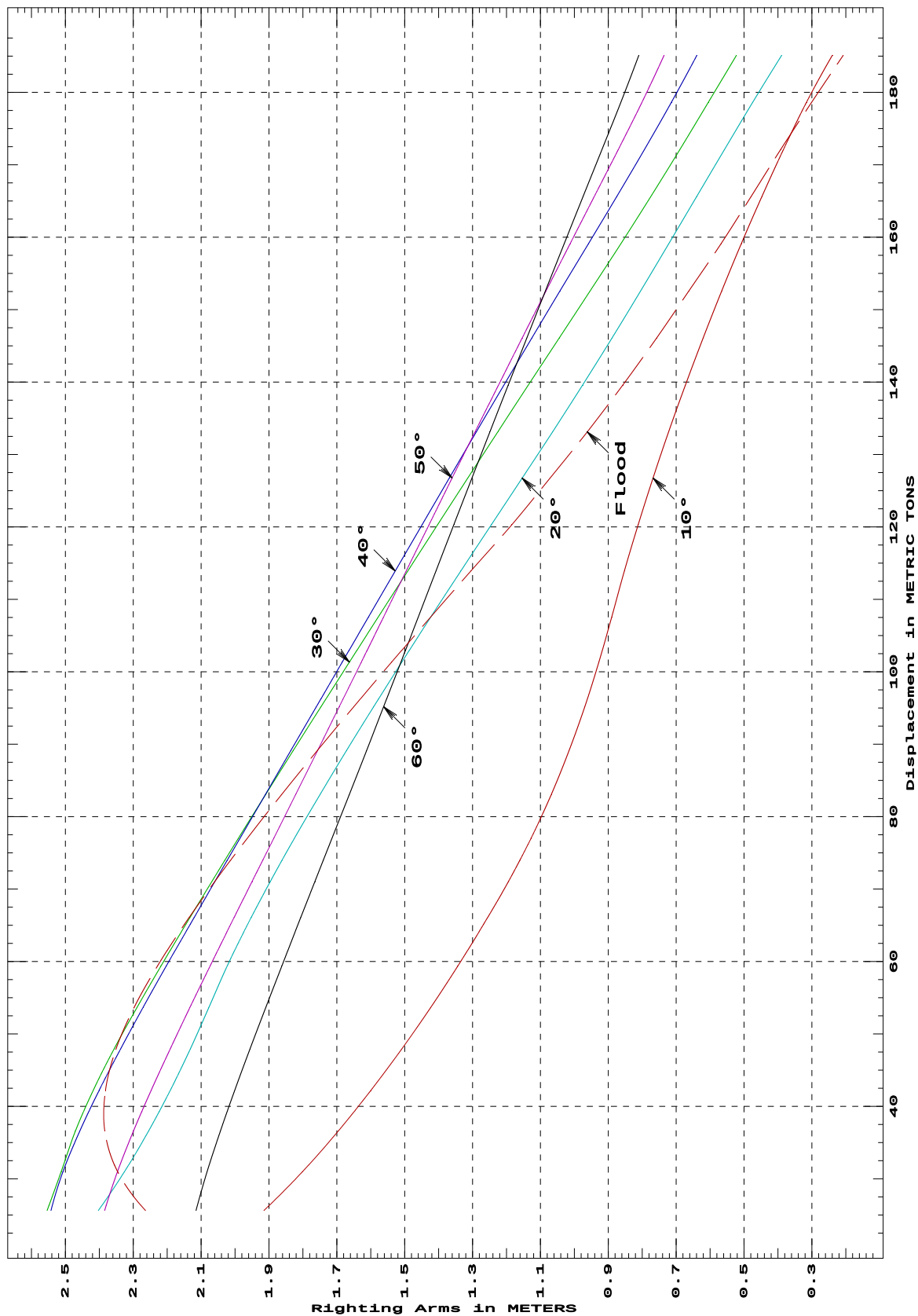
CROSS CURVES OF STABILITY

Showing righting arms in heel at VCG = 0.00

Trim: zero at zero heel (trim righting arm held at zero)

Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
25.59	1.916s	2.404s	2.554s	2.543s	2.384s	2.115s	2.263s	54.93s	
31.01	1.801s	2.326s	2.512s	2.507s	2.346s	2.082s	2.346s	50.00s	
36.56	1.696s	2.255s	2.471s	2.458s	2.300s	2.044s	2.384s	45.57s	
42.19	1.600s	2.191s	2.418s	2.401s	2.247s	2.001s	2.382s	41.74s	
47.88	1.509s	2.132s	2.357s	2.338s	2.192s	1.956s	2.351s	38.40s	
53.62	1.424s	2.077s	2.289s	2.271s	2.133s	1.910s	2.298s	35.51s	
59.35	1.344s	2.023s	2.218s	2.203s	2.074s	1.862s	2.229s	33.00s	
65.12	1.268s	1.963s	2.145s	2.132s	2.013s	1.814s	2.149s	30.77s	
71.02	1.195s	1.896s	2.069s	2.060s	1.950s	1.765s	2.060s	28.73s	
77.00	1.128s	1.825s	1.990s	1.986s	1.886s	1.714s	1.964s	26.90s	
83.03	1.068s	1.750s	1.910s	1.911s	1.822s	1.663s	1.863s	25.25s	
89.13	1.016s	1.671s	1.828s	1.835s	1.757s	1.612s	1.757s	23.76s	
95.18	0.969s	1.591s	1.747s	1.760s	1.693s	1.562s	1.650s	22.42s	
101.33	0.928s	1.508s	1.663s	1.684s	1.628s	1.511s	1.539s	21.18s	
107.60	0.890s	1.423s	1.577s	1.606s	1.562s	1.460s	1.423s	20.00s	
113.93	0.853s	1.335s	1.491s	1.528s	1.495s	1.408s	1.305s	18.95s	
120.32	0.812s	1.245s	1.403s	1.449s	1.428s	1.355s	1.184s	17.92s	
126.74	0.768s	1.154s	1.314s	1.369s	1.360s	1.302s	1.072s	17.10s	
133.13	0.722s	1.064s	1.225s	1.289s	1.293s	1.249s	0.962s	16.18s	
139.60	0.673s	0.976s	1.136s	1.207s	1.224s	1.195s	0.857s	15.26s	
146.09	0.620s	0.889s	1.045s	1.125s	1.154s	1.140s	0.757s	14.33s	
152.60	0.566s	0.804s	0.953s	1.042s	1.083s	1.085s	0.662s	13.38s	
159.10	0.508s	0.722s	0.863s	0.958s	1.013s	1.030s	0.568s	12.31s	
165.61	0.447s	0.640s	0.775s	0.875s	0.941s	0.974s	0.479s	11.36s	
172.12	0.384s	0.557s	0.689s	0.793s	0.870s	0.918s	0.392s	10.38s	
178.62	0.316s	0.474s	0.605s	0.714s	0.801s	0.863s	0.301s	9.20s	
185.12	0.239s	0.389s	0.522s	0.639s	0.735s	0.810s	0.207s	8.04s	
Distances in METERS.-----Specific Gravity = 1.000.-----									

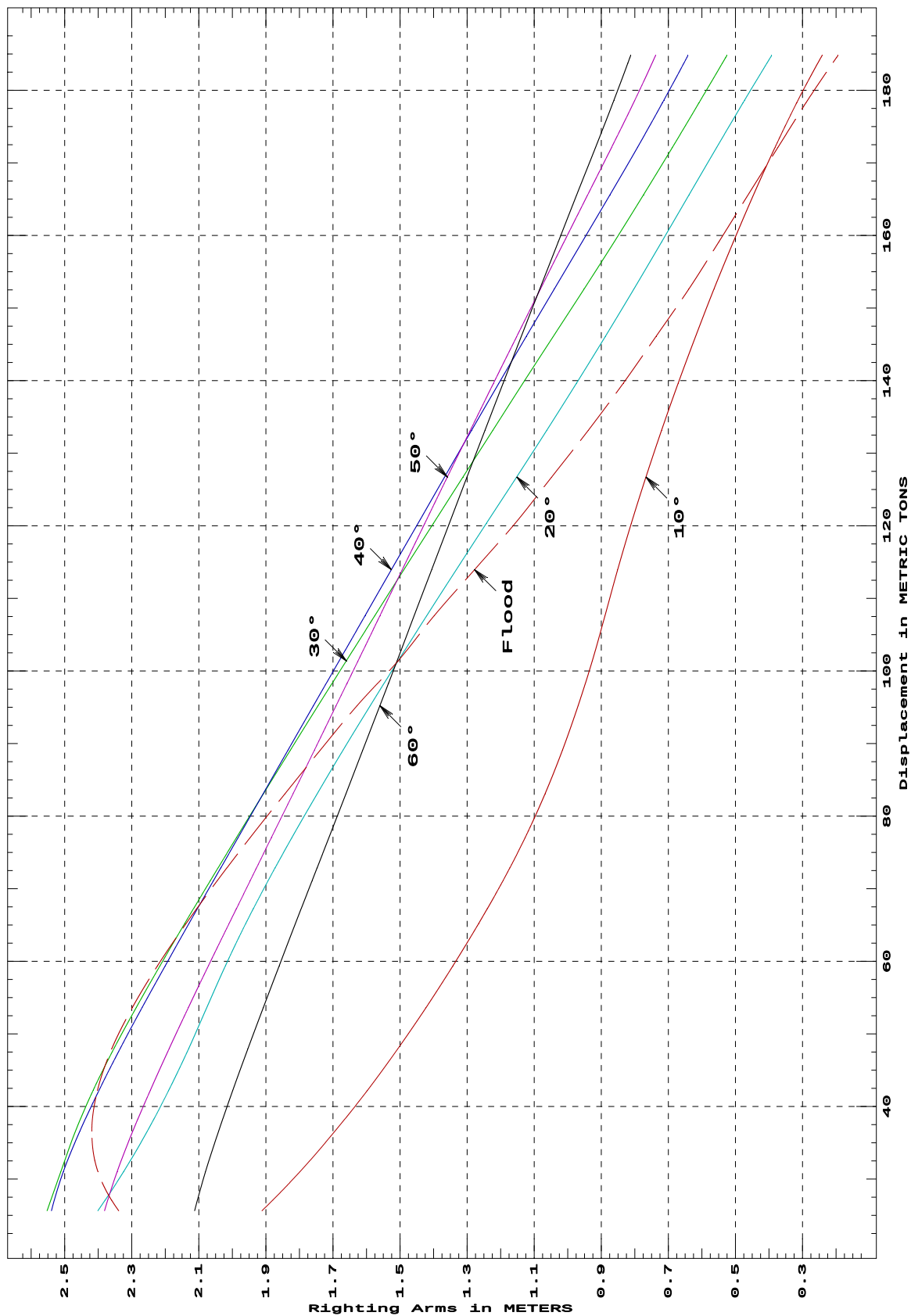
CROSS CURVES OF STABILITY with - Stbd Heel
at LEVEL TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

Displacement	Heel Angles in Degrees								
	@ Flooding								
METRIC TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s		Arm	Angle
25.62	1.912s	2.401s	2.553s	2.539s	2.381s	2.113s	2.339s		51.87s
31.06	1.798s	2.324s	2.511s	2.504s	2.343s	2.080s	2.401s		47.14s
36.59	1.694s	2.254s	2.468s	2.455s	2.297s	2.041s	2.419s		43.06s
42.21	1.597s	2.190s	2.415s	2.398s	2.245s	1.999s	2.402s		39.51s
47.90	1.507s	2.131s	2.354s	2.335s	2.189s	1.954s	2.360s		36.45s
53.62	1.423s	2.076s	2.287s	2.269s	2.131s	1.908s	2.299s		33.81s
59.37	1.343s	2.021s	2.216s	2.200s	2.071s	1.860s	2.223s		31.50s
65.18	1.266s	1.960s	2.142s	2.130s	2.010s	1.812s	2.138s		29.37s
71.05	1.193s	1.894s	2.066s	2.057s	1.948s	1.763s	2.046s		27.44s
77.02	1.127s	1.823s	1.988s	1.983s	1.884s	1.712s	1.947s		25.72s
83.06	1.068s	1.747s	1.908s	1.909s	1.819s	1.662s	1.844s		24.16s
89.10	1.016s	1.670s	1.827s	1.834s	1.755s	1.611s	1.738s		22.79s
95.23	0.969s	1.589s	1.744s	1.758s	1.691s	1.560s	1.628s		21.52s
101.38	0.927s	1.506s	1.660s	1.682s	1.625s	1.509s	1.506s		20.00s
107.63	0.889s	1.420s	1.575s	1.604s	1.560s	1.458s	1.398s		19.20s
113.96	0.851s	1.332s	1.488s	1.526s	1.493s	1.406s	1.278s		18.15s
120.34	0.810s	1.242s	1.400s	1.446s	1.426s	1.353s	1.157s		17.16s
126.72	0.767s	1.152s	1.312s	1.367s	1.359s	1.300s	1.048s		16.40s
133.17	0.720s	1.062s	1.223s	1.287s	1.290s	1.247s	0.939s		15.49s
139.61	0.671s	0.974s	1.134s	1.205s	1.222s	1.193s	0.835s		14.56s
146.10	0.619s	0.888s	1.043s	1.123s	1.152s	1.139s	0.737s		13.63s
152.60	0.564s	0.803s	0.952s	1.041s	1.082s	1.084s	0.639s		12.56s
159.10	0.506s	0.720s	0.862s	0.957s	1.011s	1.029s	0.550s		11.63s
165.61	0.446s	0.638s	0.774s	0.874s	0.940s	0.973s	0.462s		10.67s
172.12	0.382s	0.556s	0.688s	0.792s	0.869s	0.917s	0.374s		9.60s
178.62	0.314s	0.473s	0.604s	0.713s	0.800s	0.862s	0.285s		8.49s
184.81	0.241s	0.392s	0.525s	0.642s	0.738s	0.812s	0.194s		7.22s
Distances in METERS.-----Specific Gravity = 1.000.-----									

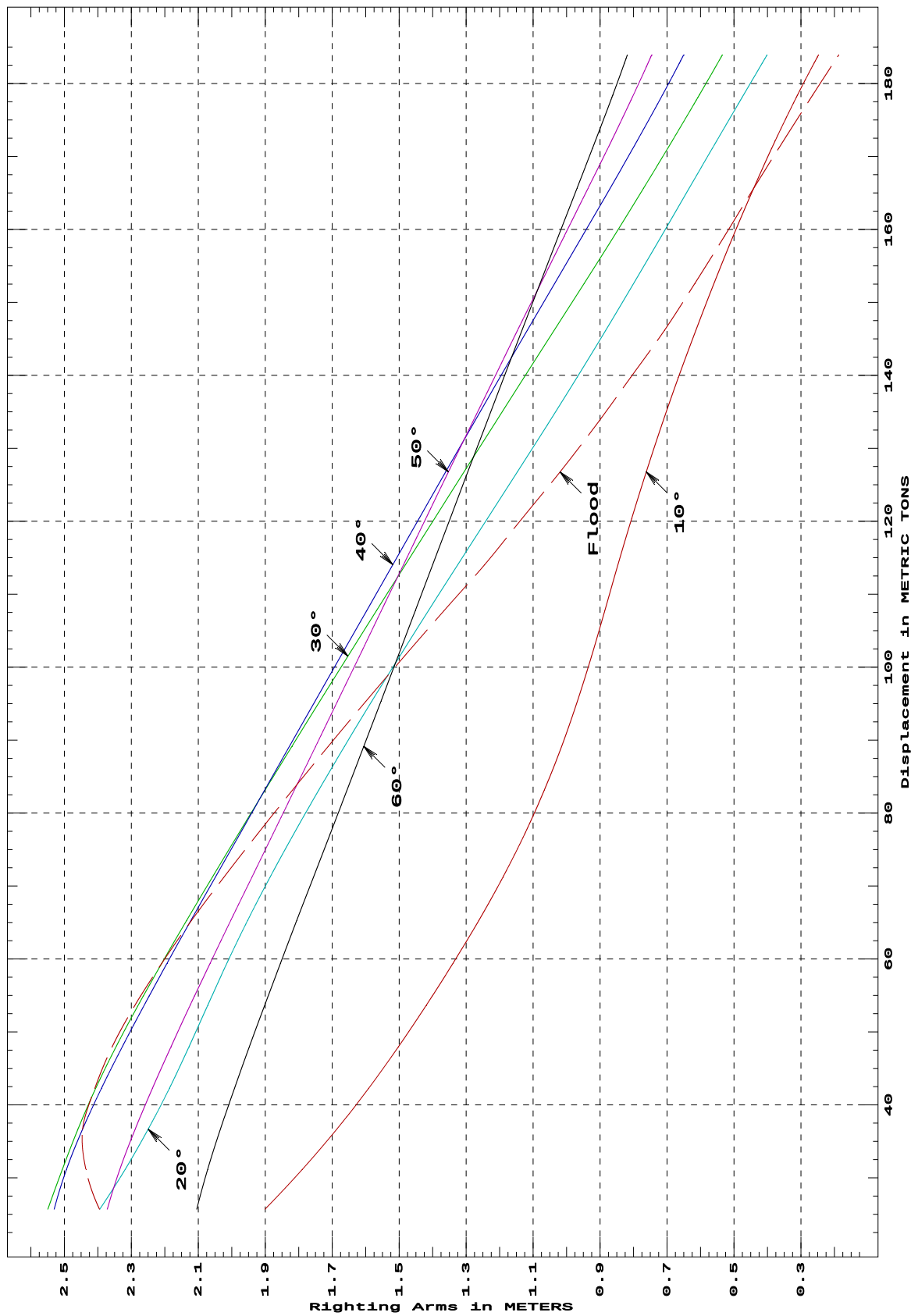
CROSS CURVES OF STABILITY with - Stbd Heel
at 0.1 M. FWD TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
	25.68	1.901s	2.395s	2.549s	2.531s	2.372s	2.105s	2.394s	48.93s
	31.17	1.789s	2.318s	2.506s	2.494s	2.334s	2.072s	2.436s	44.58s
	36.68	1.686s	2.249s	2.459s	2.445s	2.288s	2.034s	2.445s	40.00s
	42.28	1.591s	2.186s	2.406s	2.389s	2.237s	1.992s	2.409s	37.48s
	47.94	1.503s	2.128s	2.346s	2.327s	2.182s	1.948s	2.357s	34.69s
	53.64	1.419s	2.072s	2.280s	2.262s	2.124s	1.902s	2.290s	32.27s
	59.43	1.339s	2.014s	2.209s	2.193s	2.065s	1.854s	2.209s	30.00s
	65.29	1.262s	1.953s	2.135s	2.122s	2.003s	1.806s	2.120s	28.05s
	71.16	1.191s	1.886s	2.059s	2.050s	1.940s	1.756s	2.024s	26.24s
	77.11	1.125s	1.815s	1.981s	1.976s	1.877s	1.706s	1.923s	24.61s
	83.09	1.067s	1.741s	1.901s	1.902s	1.814s	1.656s	1.820s	23.18s
	89.15	1.015s	1.663s	1.820s	1.828s	1.749s	1.606s	1.712s	21.86s
	95.31	0.968s	1.582s	1.737s	1.751s	1.684s	1.555s	1.600s	20.64s
	101.51	0.926s	1.498s	1.653s	1.674s	1.619s	1.503s	1.484s	19.50s
	107.73	0.886s	1.413s	1.568s	1.597s	1.553s	1.452s	1.366s	18.41s
	114.03	0.847s	1.325s	1.481s	1.519s	1.487s	1.400s	1.245s	17.39s
	120.36	0.806s	1.237s	1.394s	1.441s	1.420s	1.348s	1.133s	16.62s
	126.76	0.762s	1.147s	1.306s	1.361s	1.353s	1.295s	1.020s	15.71s
	133.20	0.716s	1.057s	1.217s	1.281s	1.285s	1.242s	0.912s	14.80s
	139.67	0.666s	0.969s	1.128s	1.200s	1.216s	1.188s	0.809s	13.88s
	146.12	0.614s	0.884s	1.038s	1.118s	1.147s	1.134s	0.709s	12.81s
	152.60	0.560s	0.800s	0.947s	1.036s	1.077s	1.079s	0.617s	11.90s
	159.10	0.502s	0.717s	0.858s	0.953s	1.007s	1.024s	0.528s	10.96s
	165.61	0.442s	0.634s	0.771s	0.870s	0.936s	0.969s	0.442s	10.00s
	172.12	0.377s	0.552s	0.685s	0.790s	0.866s	0.914s	0.353s	8.88s
	178.46	0.310s	0.471s	0.603s	0.713s	0.800s	0.862s	0.264s	7.69s
	183.94	0.247s	0.401s	0.534s	0.650s	0.746s	0.818s	0.187s	6.60s
Distances in METERS.-----Specific Gravity = 1.000.-----									

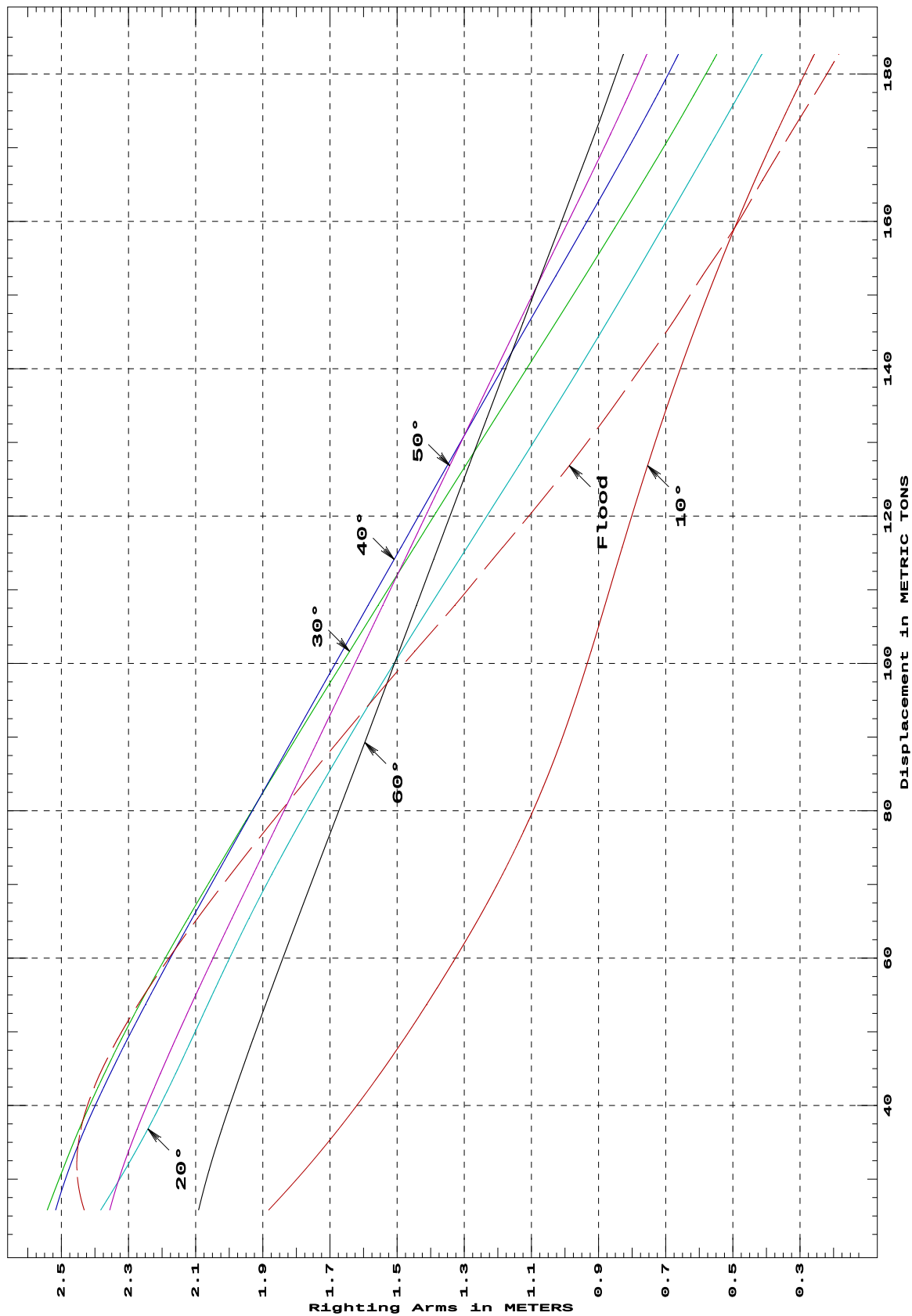
CROSS CURVES OF STABILITY with - Stbd Heel
at 0.2 M. FWD TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

Displacement	Heel Angles in Degrees								
	@ Flooding								
METRIC TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle	
25.80	1.883s	2.383s	2.542s	2.517s	2.356s	2.091s	2.431s	46.17s	
31.28	1.774s	2.310s	2.496s	2.478s	2.320s	2.060s	2.454s	42.18s	
36.83	1.674s	2.242s	2.446s	2.430s	2.274s	2.022s	2.442s	38.67s	
42.39	1.581s	2.180s	2.392s	2.375s	2.224s	1.981s	2.403s	35.66s	
48.01	1.495s	2.122s	2.333s	2.315s	2.170s	1.937s	2.345s	33.10s	
53.74	1.412s	2.064s	2.267s	2.249s	2.113s	1.892s	2.271s	30.79s	
59.54	1.332s	2.004s	2.196s	2.181s	2.053s	1.844s	2.187s	28.70s	
65.41	1.257s	1.941s	2.123s	2.110s	1.992s	1.796s	2.094s	26.82s	
71.33	1.187s	1.874s	2.046s	2.038s	1.929s	1.746s	1.996s	25.13s	
77.22	1.123s	1.804s	1.970s	1.965s	1.867s	1.697s	1.895s	23.62s	
83.19	1.065s	1.730s	1.890s	1.892s	1.803s	1.647s	1.789s	22.24s	
89.28	1.013s	1.651s	1.809s	1.817s	1.739s	1.596s	1.678s	20.98s	
95.44	0.966s	1.570s	1.726s	1.740s	1.674s	1.545s	1.565s	19.81s	
101.65	0.923s	1.486s	1.642s	1.663s	1.608s	1.494s	1.448s	18.69s	
107.91	0.881s	1.401s	1.556s	1.586s	1.543s	1.442s	1.328s	17.66s	
114.13	0.840s	1.314s	1.471s	1.509s	1.477s	1.391s	1.216s	16.85s	
120.46	0.798s	1.227s	1.384s	1.430s	1.411s	1.339s	1.100s	15.94s	
126.84	0.754s	1.138s	1.296s	1.351s	1.343s	1.286s	0.987s	15.03s	
133.26	0.708s	1.050s	1.208s	1.271s	1.276s	1.233s	0.881s	14.12s	
139.71	0.659s	0.963s	1.118s	1.190s	1.207s	1.180s	0.780s	13.20s	
146.18	0.607s	0.877s	1.029s	1.109s	1.138s	1.126s	0.681s	12.16s	
152.62	0.552s	0.793s	0.940s	1.027s	1.069s	1.072s	0.591s	11.24s	
159.11	0.495s	0.710s	0.852s	0.946s	1.000s	1.018s	0.495s	10.00s	
165.61	0.434s	0.628s	0.765s	0.865s	0.930s	0.963s	0.412s	9.13s	
172.01	0.370s	0.547s	0.681s	0.786s	0.863s	0.910s	0.327s	8.12s	
177.83	0.309s	0.474s	0.608s	0.718s	0.804s	0.864s	0.249s	7.05s	
182.64	0.258s	0.414s	0.548s	0.663s	0.757s	0.827s	0.186s	6.17s	
Distances in METERS.-----Specific Gravity = 1.000.-----									

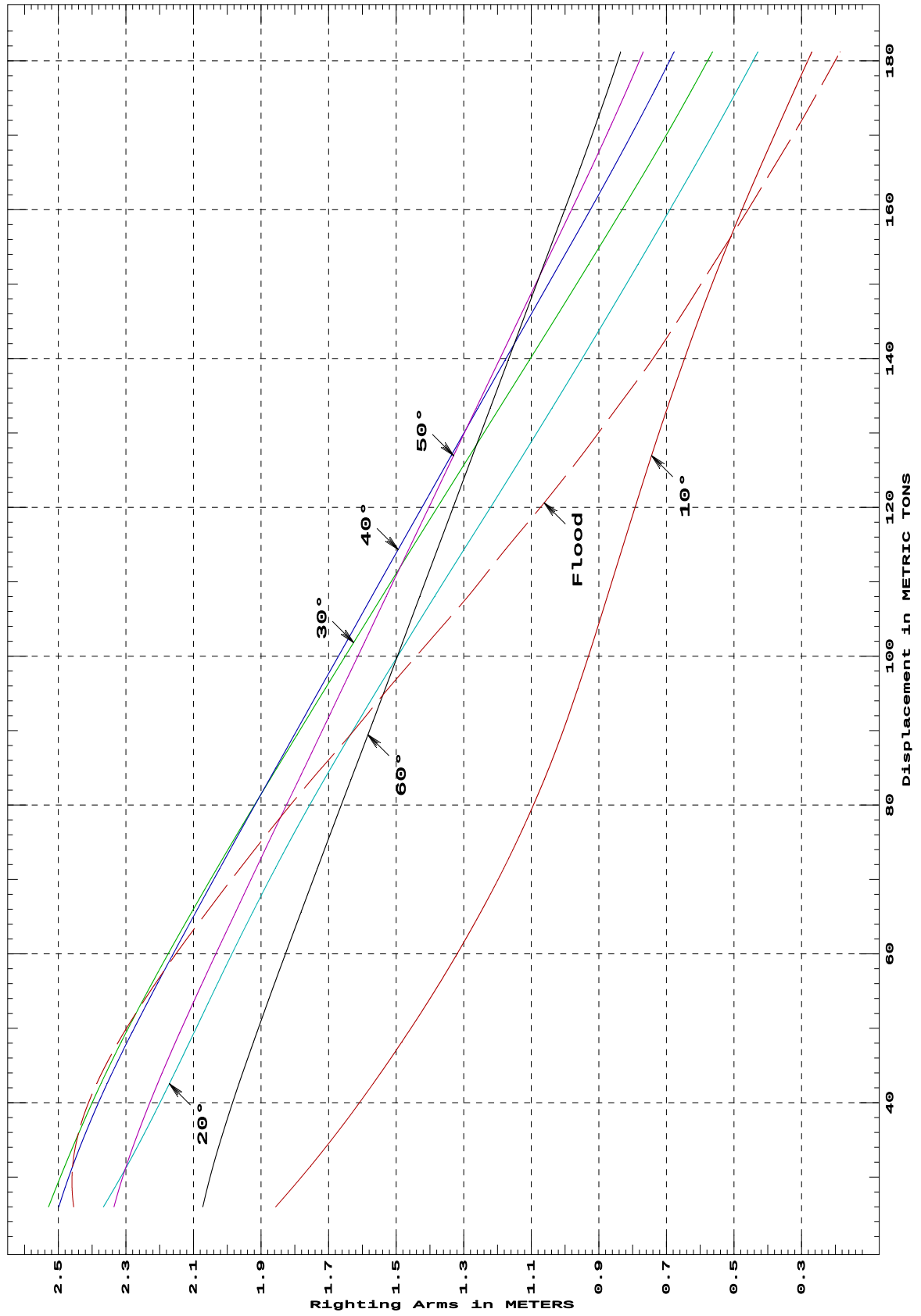
CROSS CURVES OF STABILITY with - Stbd Heel
at 0.3 M. FWD TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
	25.96	1.857s	2.367s	2.529s	2.499s	2.336s	2.073s	2.454s	43.54s
	31.44	1.754s	2.298s	2.481s	2.458s	2.299s	2.042s	2.458s	40.00s
	36.99	1.658s	2.233s	2.429s	2.410s	2.255s	2.006s	2.434s	36.73s
	42.54	1.568s	2.171s	2.374s	2.356s	2.206s	1.966s	2.387s	34.02s
	48.16	1.483s	2.112s	2.314s	2.296s	2.153s	1.922s	2.322s	31.59s
	53.90	1.401s	2.051s	2.248s	2.231s	2.096s	1.877s	2.244s	29.39s
	59.71	1.323s	1.989s	2.179s	2.163s	2.037s	1.830s	2.156s	27.42s
	65.58	1.250s	1.925s	2.105s	2.093s	1.976s	1.782s	2.061s	25.66s
	71.46	1.182s	1.858s	2.031s	2.022s	1.915s	1.733s	1.963s	24.10s
	77.41	1.119s	1.788s	1.953s	1.950s	1.852s	1.684s	1.859s	22.68s
	83.39	1.062s	1.713s	1.874s	1.876s	1.789s	1.634s	1.751s	21.35s
	89.47	1.010s	1.635s	1.793s	1.801s	1.724s	1.584s	1.635s	20.00s
	95.62	0.963s	1.554s	1.710s	1.725s	1.660s	1.532s	1.524s	19.00s
	101.83	0.918s	1.471s	1.626s	1.648s	1.594s	1.481s	1.405s	17.93s
	108.05	0.875s	1.386s	1.542s	1.572s	1.529s	1.430s	1.287s	16.95s
	114.33	0.832s	1.299s	1.456s	1.494s	1.463s	1.378s	1.176s	16.19s
	120.61	0.789s	1.212s	1.370s	1.416s	1.397s	1.326s	1.062s	15.28s
	126.95	0.744s	1.125s	1.282s	1.337s	1.330s	1.274s	0.952s	14.37s
	133.34	0.697s	1.038s	1.194s	1.258s	1.263s	1.221s	0.847s	13.46s
	139.76	0.648s	0.953s	1.106s	1.178s	1.195s	1.169s	0.743s	12.41s
	146.21	0.597s	0.868s	1.018s	1.097s	1.127s	1.116s	0.650s	11.51s
	152.68	0.542s	0.784s	0.930s	1.016s	1.058s	1.062s	0.561s	10.58s
	159.13	0.484s	0.701s	0.843s	0.936s	0.990s	1.009s	0.470s	9.52s
	165.53	0.424s	0.620s	0.758s	0.858s	0.923s	0.956s	0.385s	8.51s
	171.52	0.366s	0.546s	0.681s	0.787s	0.862s	0.908s	0.306s	7.48s
	176.76	0.314s	0.482s	0.617s	0.727s	0.811s	0.868s	0.240s	6.61s
	181.18	0.269s	0.430s	0.564s	0.678s	0.769s	0.835s	0.186s	5.82s
Distances in METERS.-----Specific Gravity = 1.000.-----									

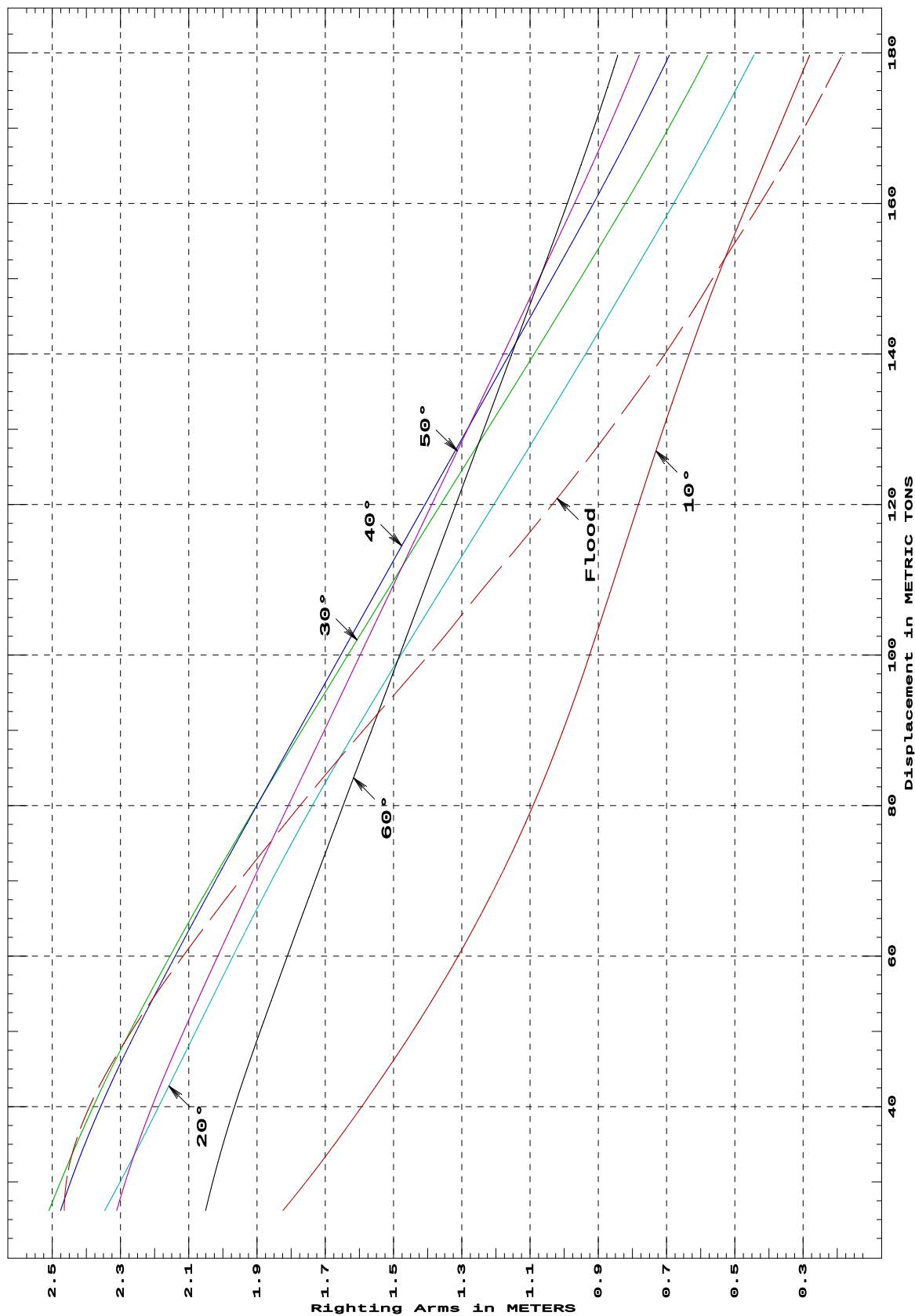
CROSS CURVES OF STABILITY with - Stbd Heel
at 0.4 M. FWD TRIM (initial)



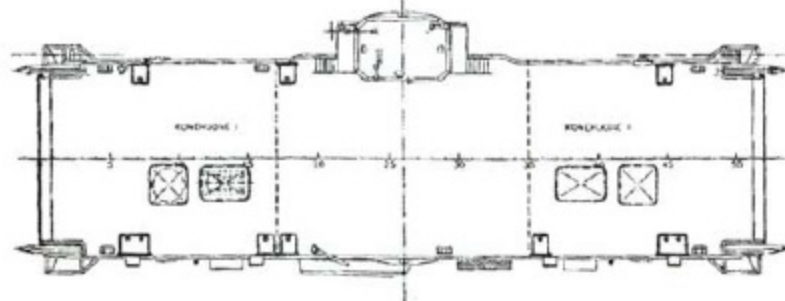
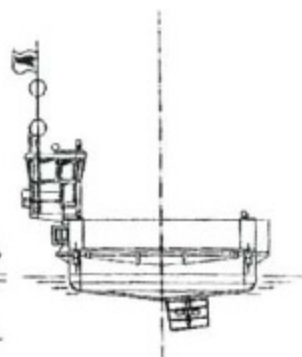
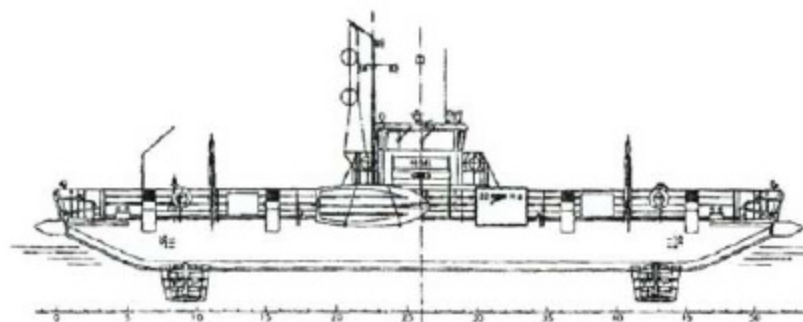
Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL

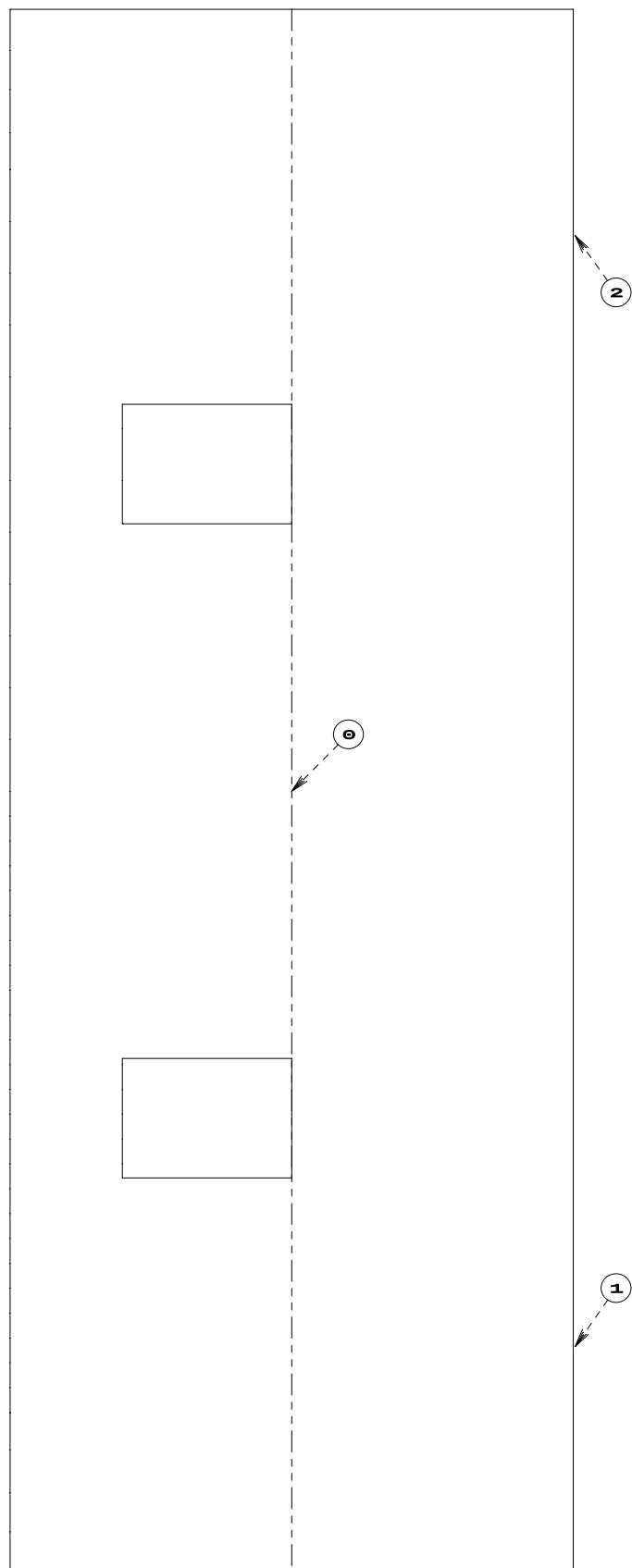
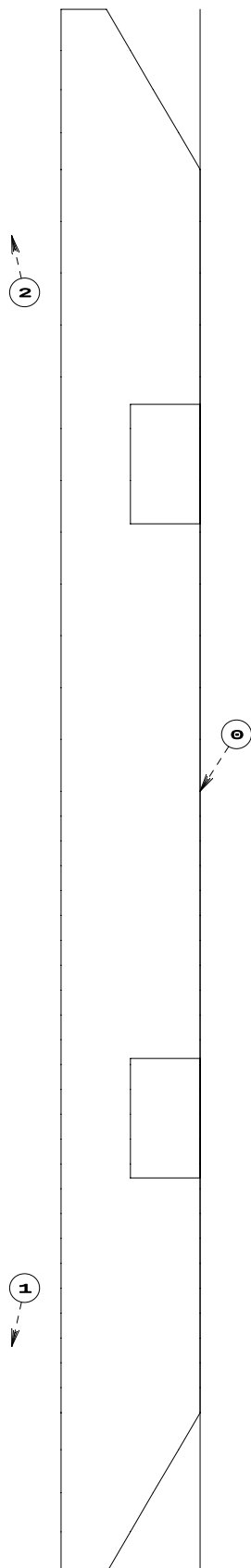
Displacement		Heel Angles in Degrees							
		@ Flooding							
METRIC	TONS	10.00s	20.00s	30.00s	40.00s	50.00s	60.00s	Arm	Angle
	26.18	1.824s	2.347s	2.510s	2.476s	2.311s	2.051s	2.465s	41.01s
	31.65	1.728s	2.282s	2.460s	2.433s	2.274s	2.020s	2.452s	37.75s
	37.14	1.638s	2.220s	2.408s	2.385s	2.232s	1.986s	2.417s	34.95s
	42.74	1.551s	2.158s	2.352s	2.331s	2.184s	1.946s	2.362s	32.43s
	48.40	1.467s	2.097s	2.290s	2.272s	2.130s	1.903s	2.290s	30.00s
	54.11	1.388s	2.035s	2.225s	2.208s	2.074s	1.858s	2.209s	28.07s
	59.92	1.312s	1.971s	2.156s	2.141s	2.016s	1.812s	2.118s	26.22s
	65.75	1.242s	1.906s	2.084s	2.072s	1.956s	1.765s	2.023s	24.60s
	71.65	1.176s	1.838s	2.010s	2.002s	1.895s	1.716s	1.922s	23.13s
	77.63	1.114s	1.767s	1.932s	1.930s	1.833s	1.667s	1.817s	21.76s
	83.68	1.057s	1.692s	1.853s	1.856s	1.770s	1.617s	1.707s	20.51s
	89.73	1.005s	1.614s	1.772s	1.781s	1.706s	1.567s	1.593s	19.33s
	95.86	0.957s	1.533s	1.689s	1.705s	1.641s	1.516s	1.477s	18.22s
	102.02	0.911s	1.451s	1.607s	1.630s	1.577s	1.465s	1.359s	17.22s
	108.25	0.866s	1.366s	1.522s	1.553s	1.511s	1.414s	1.249s	16.44s
	114.53	0.822s	1.281s	1.437s	1.476s	1.446s	1.362s	1.133s	15.54s
	120.82	0.777s	1.195s	1.351s	1.398s	1.380s	1.311s	1.021s	14.63s
	127.11	0.731s	1.109s	1.264s	1.320s	1.313s	1.259s	0.912s	13.72s
	133.46	0.684s	1.024s	1.177s	1.241s	1.247s	1.207s	0.809s	12.80s
	139.85	0.635s	0.939s	1.090s	1.162s	1.180s	1.155s	0.707s	11.78s
	146.27	0.583s	0.855s	1.003s	1.082s	1.113s	1.102s	0.615s	10.87s
	152.72	0.529s	0.772s	0.917s	1.003s	1.045s	1.050s	0.529s	10.00s
	159.12	0.472s	0.690s	0.832s	0.925s	0.979s	0.998s	0.438s	8.88s
	165.16	0.416s	0.615s	0.754s	0.853s	0.918s	0.950s	0.357s	7.88s
	170.63	0.365s	0.549s	0.687s	0.791s	0.865s	0.909s	0.290s	7.01s
	175.47	0.320s	0.493s	0.629s	0.737s	0.819s	0.873s	0.234s	6.23s
	179.65	0.281s	0.445s	0.580s	0.692s	0.780s	0.843s	0.186s	5.49s
Distances in METERS.-----Specific Gravity = 1.000.-----									

CROSS CURVES OF STABILITY with - Stbd Heel
at 0.5 M. FWD TRIM (initial)



Specific Gravity = 1.000 Assumed KG = 0.00 M.
"K" = BPL





Scale = 1:85

Origin Definition

Longitudinal: AT MIDSHIP
Transverse: SHIP CENTER
Vertical: BASELINE

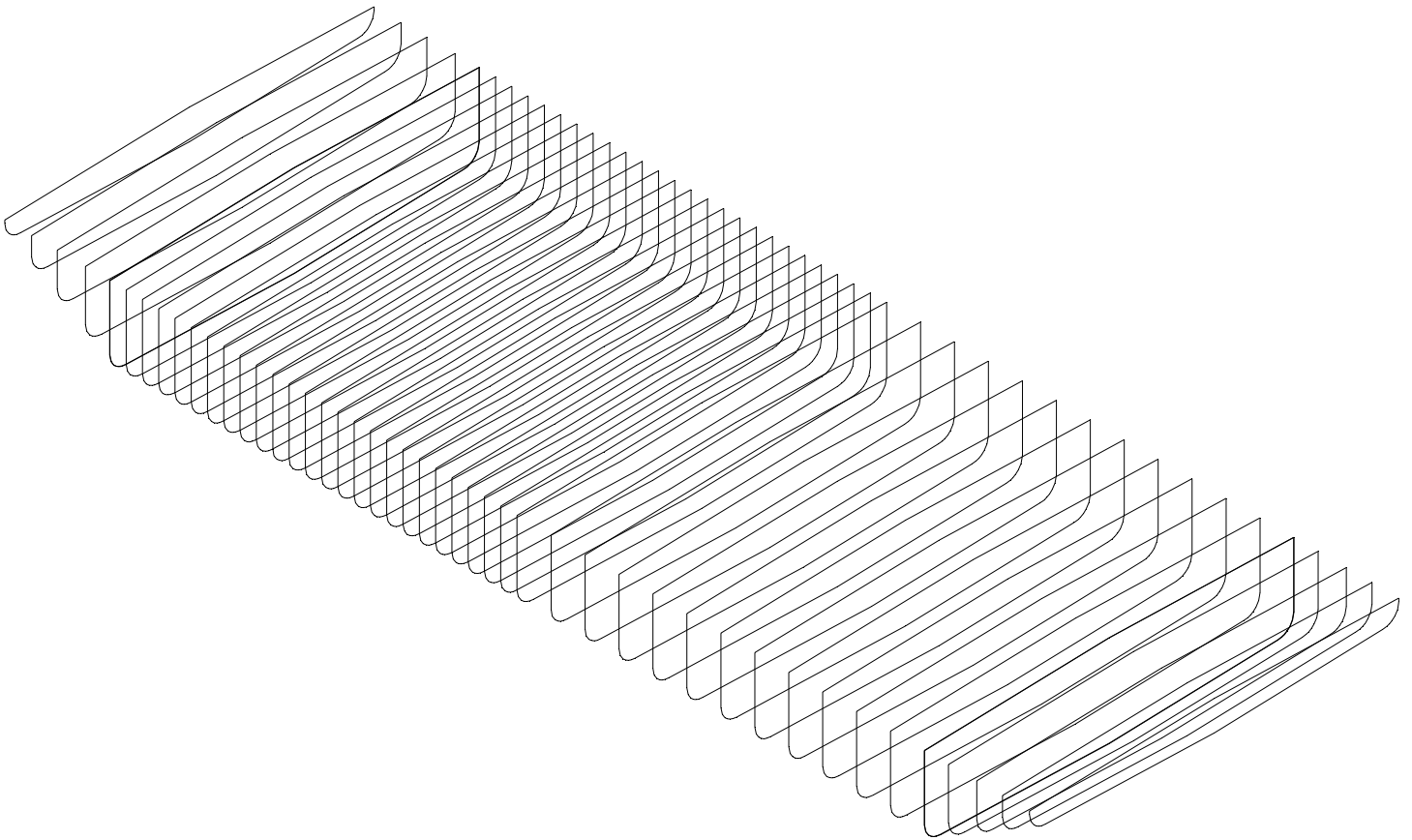
Note: The origin is marked with the symbol "(0)" on plan and profile views.

Critical Points	Long.	Trans.	Vert.
(1) Vent. eng room aft	6.750a	3.450s	2.300
(2) Vent. eng room fwd	6.750f	3.450s	2.300

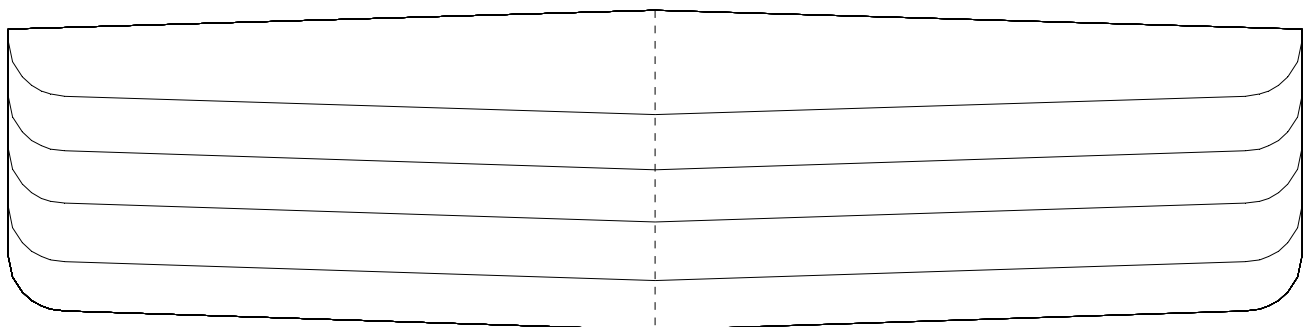
Coordinates in Meters.

Part Name	Class	Description	Location	Volume
HULL	HULL		9.500f to 9.500a	
FOAFT.P	TANK		3.250a to 4.700a	2.404
FOFWD.P	TANK		4.700f to 3.250f	2.403

Locations in Meters fwd/aft of the origin. Volumes in cubic Meters.



HULL Isometric Projection



Stbd

HULL Body Plan (1 component)
Scale = 1:40

Stbd

Component 1: HULL.C

Offsets in Meters. Read across --->

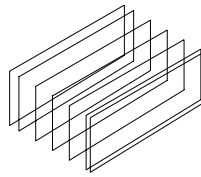
Section at	9.500 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	1.142	1.242	1.252	1.269	1.298	1.344	1.422	1.542	1.597	1.697	
Section at	9.000 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.850	0.950	0.960	0.977	1.006	1.053	1.130	1.250	1.597	1.697	
Section at	8.525 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.572	0.672	0.682	0.699	0.728	0.774	0.852	0.972	1.597	1.697	
Section at	8.000 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.263	0.363	0.373	0.390	0.419	0.465	0.543	0.663	1.597	1.697	
Section at	7.555 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	7.550 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	6.925 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	6.296 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	5.666 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	5.037 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	4.407 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	3.777 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	3.148 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	2.518 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	1.889 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	1.259 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	0.630 fwd										
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	

AROS VIKING

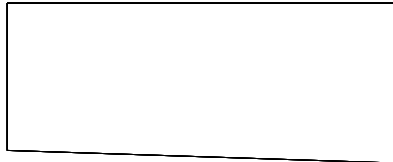
[illegible]

AROS VIKING

Section at	5.738	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	6.040	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	6.342	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	6.644	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	6.946	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	7.248	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	7.550	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	7.555	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.000	0.100	0.110	0.127	0.156	0.201	0.280	0.400	1.597	1.697	
Section at	8.000	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.263	0.363	0.373	0.390	0.419	0.465	0.543	0.663	1.597	1.697	
Section at	8.525	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.572	0.672	0.682	0.699	0.728	0.774	0.852	0.972	1.597	1.697	
Section at	9.000	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	0.850	0.950	0.960	0.977	1.006	1.053	1.130	1.250	1.597	1.697	
Section at	9.500	aft									
trans:	0.000	3.125	3.200	3.250	3.300	3.350	3.400	3.425	3.425	0.000	
vert:	1.142	1.242	1.252	1.269	1.298	1.344	1.422	1.542	1.597	1.697	



FOAFT.P Isometric Projection



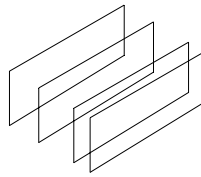
Port

FOAFT.P Body Plan (1 component)
Scale = 1:40

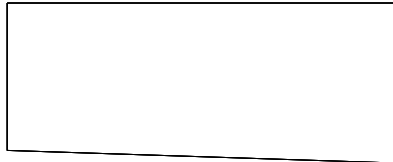
Component 1: FOAFT.P 98.50% permeability

Offsets in Meters. Read across --->

Section at	3.250 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	3.322 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	3.624 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	3.926 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	4.228 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	4.530 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	4.700 aft				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000



FOFWD.P Isometric Projection



Port

FOFWD.P Body Plan (1 component)
Scale = 1:40

Component 1: FOFWD.P 98.50% permeability

Offsets in Meters. Read across --->

Section at	4.700 fwd				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	4.407 fwd				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	3.777 fwd				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000
Section at	3.250 fwd				
trans:	0.000	2.060	2.060	0.000	0.000
vert:	0.000	0.066	0.850	0.850	0.000