

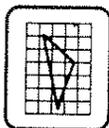
# GRAND PRIX PAC



Performance



Polar Plot



Wind Plot



Wind Equations



Upwind



Downwind

PDQ 36

FOR  
for PDQ YACHTS



Hydrostatics



Comparative  
Performance

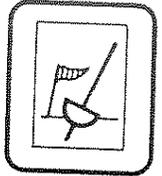
STEVE KILLING



YACHT DESIGN



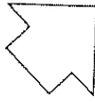
PDQ 36  
for PDO YACHTS



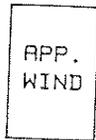
31 Jul 1991

Performance

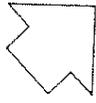
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TRUE



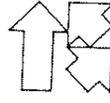
APP.  
WIND



APPARENT



BOAT  
SPEED



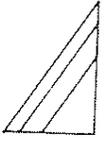
VMG



LEEWAY



FLAT



REEF

----- 4.0 knots True Wind Speed -----									
	TRUE	APP.	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF	
	36.0	5.3	20.5	1.322	1.069	.1	11.72	.74	1.00
	44.0	6.2	27.2	2.468	1.776	.2	7.01	1.00	1.00
OPT Tack	<b>51.5</b>	<b>6.5</b>	<b>31.0</b>	<b>3.039</b>	<b>1.893</b>	<b>.2</b>	<b>5.35</b>	<b>1.00</b>	<b>1.00</b>
	52.0	6.5	31.2	3.074	1.892	.2	5.27	1.00	1.00
	60.0	6.7	34.7	3.538	1.769	.2	4.28	1.00	1.00
	70.0	6.6	38.8	3.943	1.349	.2	3.48	1.00	1.00
	80.0	6.4	43.3	4.141	.719	.2	2.93	1.00	1.00
	85.0		^	Genoa	Spinnaker v				
	90.0	6.0	47.6	4.327	0.000	.2	2.45	1.00	1.00
	105.0	5.2	55.6	4.316	-1.117	.1	1.95	1.00	1.00
	120.0	4.0	68.9	3.795	-1.898	.1	1.37	1.00	1.00
	135.0	2.9	90.3	3.098	-2.190	0.0	.80	1.00	1.00
OPT Gybe	<b>140.7</b>	<b>2.7</b>	<b>100.6</b>	<b>2.852</b>	<b>-2.208</b>	<b>0.0</b>	<b>.59</b>	<b>1.00</b>	<b>1.00</b>
	150.0	2.4	119.5	2.485	-2.152	0.0	.36	1.00	1.00
	165.0	2.2	150.3	2.121	-2.049	0.0	.21	1.00	1.00
	180.0	2.2	179.9	1.961	-1.961	0.0	.08	1.00	1.00

Handicaps: (seconds/mile)

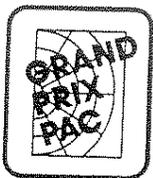
Optimum Tack: 1901.8 Gybe: 1630.5 60deg: 1017.6 ~100: 833.4 135: 1162.2  
 Linear-random: 1125.8 Circ: 1190.2 Olymp: 1658.5 W/L: 1766.2 ACC: 1580.6  
 BELL Versions: 1171.7 : 1220.1 : 1698.9 : 1809.0 GPH: 583.2

Master File: PDQM01

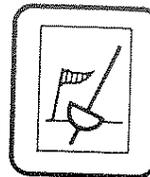
Service Code: DM2

Run Date: 31 Jul 1991

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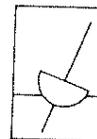
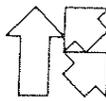
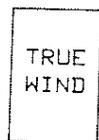
PDQ 36  
for PDQ YACHTS



31 Jul 1991

Performance

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TRUE

APPARENT

BOAT  
SPEED

VMG

LEEWAY

FLAT

REEF

	TRUE WIND	TRUE	APP. WIND	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF
----- 6.0 knots True Wind Speed -----									
	36.0	7.9	20.5	1.963	1.588	.2	11.81	.73	1.00
	44.0	9.3	27.2	3.771	2.713	.4	6.87	1.00	1.00
OPT Tack	<b>50.9</b>	<b>9.8</b>	<b>30.5</b>	<b>4.623</b>	<b>2.918</b>	<b>.4</b>	<b>5.30</b>	<b>1.00</b>	<b>1.00</b>
	52.0	9.9	31.0	4.731	2.913	.4	5.14	1.00	1.00
	60.0	10.0	34.6	5.341	2.671	.4	4.26	1.00	1.00
	70.0	9.9	39.0	5.848	2.000	.4	3.52	1.00	1.00
	80.0	9.4	43.7	6.098	1.059	.4	2.97	1.00	1.00
	84.2								
	90.0	8.9	48.2	6.368	0.000	.4	2.53	1.00	1.00
	105.0	7.6	56.5	6.314	-1.634	.3	1.98	1.00	1.00
	120.0	6.0	69.1	5.662	-2.831	.2	1.37	1.00	1.00
	135.0	4.4	89.0	4.751	-3.360	.1	.79	1.00	1.00
OPT Gybe	<b>139.9</b>	<b>4.0</b>	<b>97.7</b>	<b>4.433</b>	<b>-3.389</b>	<b>0.0</b>	<b>.62</b>	<b>1.00</b>	<b>1.00</b>
	150.0	3.5	118.9	3.775	-3.269	0.0	.35	1.00	1.00
	165.0	3.3	150.3	3.187	-3.078	0.0	.21	1.00	1.00
	180.0	3.3	179.9	2.941	-2.941	0.0	.08	1.00	1.00

Handicaps: (seconds/mile)

Optimum Tack: 1233.7 Gybe: 1062.2 60deg: 674.0 ~100: 568.5 135: 757.7  
 Linear-random: 763.1 Circ: 809.4 Olymp:1077.7 W/L:1148.0 ACC:1030.5  
 BELL Versions: 813.4 : 844.3 :1163.4 :1245.6 GPH: 583.2

Master File: PDQM01

Service Code: DM2

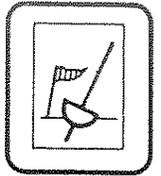
Run Date: 31 Jul 1991

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PDQ 36  
for PDQ YACHTS



31 Jul 1991

Performance

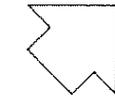
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TRUE



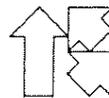
APP.  
WIND



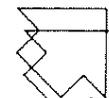
APPARENT



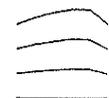
BOAT  
SPEED



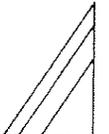
VMG



LEEWAY



FLAT



REEF

----- 8.0 knots True Wind Speed -----									
	TRUE WIND	APP. WIND	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF	
	36.0	10.5	20.4	2.584	2.091	.3	11.92	.73	1.00
	44.0	12.4	27.1	5.057	3.638	.6	6.83	1.00	1.00
OPT Tack	<b>50.7</b>	<b>13.0</b>	<b>30.6</b>	<b>6.030</b>	<b>3.818</b>	<b>.7</b>	<b>5.43</b>	<b>1.00</b>	<b>1.00</b>
	52.0	13.1	31.2	6.186	3.808	.7	5.24	1.00	1.00
	60.0	13.1	35.2	6.757	3.379	.7	4.48	1.00	1.00
	70.0	12.6	40.6	7.044	2.409	.7	3.86	1.00	1.00
	78.0								
	80.0	11.9	46.1	7.242	1.258	.7	3.32	1.00	1.00
	90.0	11.1	51.9	7.391	0.000	.7	2.98	1.00	1.00
	105.0	9.5	61.4	7.290	-1.887	.5	2.19	1.00	1.00
	120.0	7.7	72.7	6.967	-3.484	.3	1.43	1.00	1.00
	135.0	5.9	90.0	6.221	-4.399	.1	.79	1.00	1.00
OPT Gybe	<b>142.0</b>	<b>5.2</b>	<b>102.4</b>	<b>5.660</b>	<b>-4.457</b>	<b>.1</b>	<b>.55</b>	<b>1.00</b>	<b>1.00</b>
	150.0	4.7	118.7	5.052	-4.376	0.0	.35	1.00	1.00
	165.0	4.3	150.0	4.303	-4.157	0.0	.20	1.00	1.00
	180.0	4.3	179.9	3.962	-3.962	0.0	.08	1.00	1.00

Handicaps: (seconds/mile)

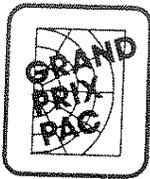
Optimum Tack: 942.8 Gybe: 807.6 60deg: 532.8 ~100: 491.5 135: 578.7  
 Linear-random: 616.0 Circ: 645.4 Olymp: 822.7 W/L: 875.2 ACC: 792.8  
 BELL Versions: 646.1 : 668.5 : 915.2 : 973.8 GPH: 583.2

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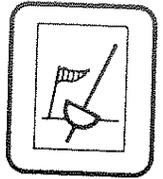
Service Code: DM2

Run Date: 31 Jul 1991

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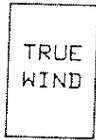
PDQ 36  
for PDQ YACHTS



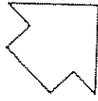
31 Jul 1991

Performance

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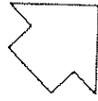
TRUE WIND



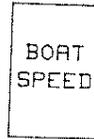
TRUE



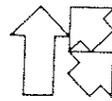
APP. WIND



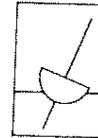
APPARENT



BOAT SPEED



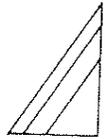
VMG



LEEWAY



FLAT



REEF

	TRUE WIND	APP. WIND	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF
----- 10.0 knots True Wind Speed -----								
	36.0	13.3	20.6	3.368	2.725	.5	11.55	.74
	44.0	15.5	27.2	6.222	4.476	1.0	6.94	1.00
OPT Tack	<b>46.4</b>	<b>15.7</b>	<b>28.6</b>	<b>6.581</b>	<b>4.542</b>	<b>1.1</b>	<b>6.44</b>	<b>1.00</b>
	52.0	15.7	31.9	7.048	4.339	1.1	5.76	1.00
	60.0	15.5	36.7	7.399	3.700	1.0	5.11	1.00
	70.0	14.8	42.7	7.646	2.615	.9	4.44	1.00
	71.7							
	80.0	14.2	48.7	8.014	1.392	1.1	3.97	1.00
	90.0	13.2	55.1	8.109	0.000	.9	3.37	1.00
	105.0	11.3	65.7	7.971	-2.063	.6	2.43	1.00
	120.0	9.3	78.4	7.621	-3.810	.3	1.57	1.00
	135.0	7.3	94.8	7.114	-5.030	.2	.84	1.00
OPT Gybe	<b>147.0</b>	<b>6.1</b>	<b>113.4</b>	<b>6.478</b>	<b>-5.435</b>	<b>.1</b>	<b>.41</b>	<b>1.00</b>
	150.0	5.9	119.3	6.244	-5.407	0.0	.35	1.00
	165.0	5.4	150.1	5.348	-5.166	0.0	.20	1.00
	180.0	5.4	179.9	4.958	-4.958	0.0	.08	1.00

Handicaps: (seconds/mile)

Optimum Tack: 792.5 Gybe: 662.4 60deg: 486.5 ~100: 449.1 135: 506.1  
 Linear-random: 538.4 Circ: 554.5 Olymp: 693.7 W/L: 727.5 ACC: 668.8  
 BELL Versions: 548.4 : 563.5 : 737.6 : 780.0 GPH: 583.2

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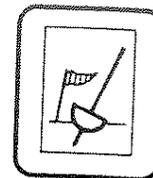
Service Code: DM2

Run Date: 31 Jul 1991

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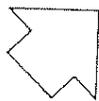
PDQ 36  
for PDQ YACHTS



31 Jul 1991

Performance

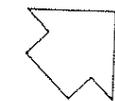
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TRUE



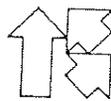
APP.  
WIND



APPARENT



BOAT  
SPEED



VMG



LEEWAY



FLAT



REEF

	----- 12.0 knots True Wind Speed -----								
	TRUE	APP.	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF	
OPT Tack	36.0	16.2	20.9	4.343	3.513	.8	10.93	.78	1.00
	<b>43.8</b>	<b>18.1</b>	<b>27.3</b>	<b>6.921</b>	<b>4.993</b>	<b>1.5</b>	<b>7.55</b>	<b>1.00</b>	<b>1.00</b>
	44.0	18.1	27.4	6.941	4.993	1.5	7.52	1.00	1.00
	52.0	18.1	32.6	7.551	4.649	1.5	6.50	1.00	1.00
	60.0	17.8	37.8	7.937	3.969	1.4	5.75	1.00	1.00
	67.7								
	70.0	17.2	44.0	8.404	2.874	1.6	4.86	1.00	1.00
	80.0	16.5	50.2	8.903	1.546	1.6	4.34	1.00	1.00
	90.0	15.4	56.9	9.006	0.000	1.3	3.62	1.00	1.00
	105.0	13.3	68.2	8.814	-2.281	.8	2.62	1.00	1.00
	120.0	11.0	82.2	8.299	-4.150	.4	1.70	1.00	1.00
	135.0	8.9	99.7	7.701	-5.446	.2	.90	1.00	1.00
	150.0	7.3	122.1	7.042	-6.099	.1	.39	1.00	1.00
OPT Gybe	<b>159.6</b>	<b>6.7</b>	<b>139.8</b>	<b>6.592</b>	<b>-6.180</b>	<b>0.0</b>	<b>.26</b>	<b>1.00</b>	<b>1.00</b>
	165.0	6.5	150.3	6.367	-6.150	0.0	.21	1.00	1.00
	180.0	6.5	179.9	5.910	-5.910	0.0	.08	1.00	1.00

Handicaps: (seconds/mile)

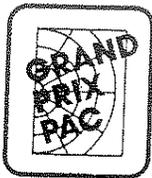
Optimum Tack: 721.0 Gybe: 582.6 60deg: 453.6 ~100: 405.5 135: 467.4  
 Linear-random: 484.5 Circ: 496.0 Olymp: 629.2 W/L: 651.8 ACC: 603.3  
 BELL Versions: 485.6 : 497.8 : 636.1 : 657.3 GPH: 583.2

Master File: PDQM01

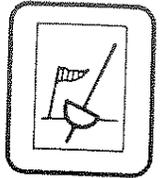
Service Code: DM2

Run Date: 31 Jul 1991

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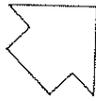
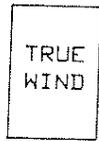
PDQ 36  
for PDQ YACHTS



31 Jul 1991

Performance

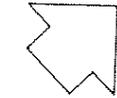
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TRUE



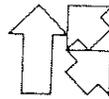
APP.  
WIND



APPARENT



BOAT  
SPEED



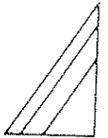
VMG



LEEWAY



FLAT



REEF

	----- 14.0 knots True Wind Speed -----									
	36.0	18.8	20.9	4.998	4.043	1.2	11.05			
OPT Tack	<b>42.8</b>	<b>20.4</b>	<b>26.6</b>	<b>7.217</b>	<b>5.298</b>	<b>2.2</b>	<b>8.61</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>
	44.0	20.5	27.5	7.353	5.289	2.2	8.38	1.00	1.00	1.00
	52.0	20.5	33.1	8.034	4.946	2.2	7.19	1.00	1.00	1.00
	60.0	20.2	38.4	8.578	4.289	2.1	6.26	1.00	1.00	1.00
	65.9									
	70.0	19.8	44.7	9.321	3.188	2.7	5.30	1.00	1.00	1.00
	80.0	18.8	51.3	9.710	1.686	2.5	4.67	1.00	1.00	1.00
	90.0	17.5	58.4	9.787	0.000	1.8	3.89	1.00	1.00	1.00
	105.0	15.2	70.2	9.614	-2.488	1.1	2.79	1.00	1.00	1.00
	120.0	12.7	84.4	9.124	-4.562	.6	1.80	1.00	1.00	1.00
	135.0	10.5	102.8	8.341	-5.898	.2	.97	1.00	1.00	1.00
	150.0	8.8	125.3	7.585	-6.569	.1	.46	1.00	1.00	1.00
	165.0	7.9	151.5	7.079	-6.838	0.0	.24	1.00	1.00	1.00
OPT Gybe	<b>167.7</b>	<b>7.8</b>	<b>156.7</b>	<b>7.004</b>	<b>-6.844</b>	<b>0.0</b>	<b>.21</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>
	180.0	7.8	179.9	6.750	-6.750	0.0	.09	1.00	1.00	1.00

Handicaps: (seconds/mile)

Optimum Tack: 679.4 Gybe: 526.0 60deg: 419.7 ~100: 372.2 135: 431.6  
 Linear-random: 445.3 Circ: 456.0 Olymp: 586.4 W/L: 602.7 ACC: 559.1  
 BELL Versions: 439.5 : 452.3 : 577.6 : 593.1 GPH: 583.2

Master File: PDQM01

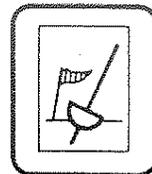
Service Code: DM2

Run Date: 31 Jul 1991

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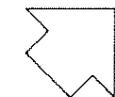
31 Jul 1991

Performance

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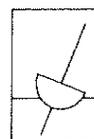
TRUE



APPARENT



VMG



LEEWAY



FLAT



REEF

----- 16.0 knots True Wind Speed -----

	TRUE	APP.	BOAT SPEED	VMG	LEEWAY	FLAT	REEF		
	36.0	21.3	20.7	5.544	4.485	1.6	11.31	.76	1.00
OPT Tack	<b>43.3</b>	<b>22.7</b>	<b>27.0</b>	<b>7.626</b>	<b>5.547</b>	<b>3.1</b>	<b>9.39</b>	<b>1.00</b>	<b>1.00</b>
	44.0	22.8	27.5	7.708	5.545	3.1	9.24	1.00	1.00
	52.0	22.9	33.3	8.621	5.308	3.2	7.72	1.00	1.00
	60.0	22.7	38.8	9.297	4.648	3.1	6.64	1.00	1.00
	64.6								
				^					
				Genoa	Spinnaker v				
	70.0	22.1	45.4	10.081	3.448	4.1	5.75	1.00	1.00
	80.0	21.1	52.1	10.549	1.832	3.6	4.92	1.00	1.00
	90.0	19.7	59.4	10.660	0.000	2.6	4.08	1.00	1.00
	105.0	17.1	71.8	10.367	-2.683	1.4	2.95	1.00	1.00
	120.0	14.5	86.5	9.819	-4.910	.7	1.90	1.00	1.00
	135.0	12.0	104.6	9.093	-6.430	.3	1.01	1.00	1.00
	150.0	10.4	127.5	8.138	-7.048	.1	.53	1.00	1.00
	165.0	9.5	152.8	7.606	-7.347	.1	.29	1.00	1.00
OPT Gybe	<b>170.5</b>	<b>9.3</b>	<b>162.8</b>	<b>7.471</b>	<b>-7.369</b>	<b>0.0</b>	<b>.21</b>	<b>1.00</b>	<b>1.00</b>
	180.0	9.3	179.9	7.312	-7.312	0.0	.11	1.00	1.00

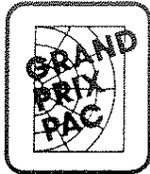
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Handicaps: (seconds/mile)

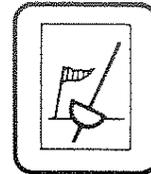
Optimum Tack: 649.1 Gybe: 488.5 60deg: 387.2 ~100: 344.0 135: 395.9  
 Linear-random: 413.4 Circ: 424.0 Olymp: 553.3 W/L: 568.8 ACC: 526.0  
 BELL Versions: 398.2 : 414.1 : 540.1 : 554.0 GPH: 583.2

Master File: PDQM01 Service Code: DM2 Run Date: 31 Jul 1991

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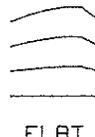
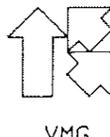
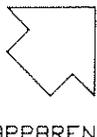
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for PDQ YACHTS



31 Jul 1991

Performance

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	TRUE WIND	TRUE	APP. WIND	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF
----- 18.0 knots True Wind Speed -----									
	36.0	23.9	20.6	6.115	4.948	2.2	11.46	.75	1.00
	44.0	25.1	27.3	8.072	5.806	4.3	10.03	1.00	1.00
OPT Tack	<b>47.7</b>	<b>25.3</b>	<b>30.2</b>	<b>8.679</b>	<b>5.843</b>	<b>4.4</b>	<b>9.02</b>	<b>1.00</b>	<b>1.00</b>
	52.0	25.4	33.4	9.274	5.710	4.4	8.12	1.00	1.00
	60.0	25.1	39.1	9.876	4.938	4.2	7.08	1.00	1.00
	61.7								
	70.0	24.8	45.5	11.176	3.822	5.8	5.85	1.00	1.00
	80.0	24.4	50.7	12.886	2.238	5.7	4.49	1.00	1.00
	90.0	22.9	57.0	13.364	0.000	4.5	3.65	1.00	1.00
	105.0	19.5	70.7	12.135	-3.141	2.1	2.84	1.00	1.00
	120.0	16.2	87.9	10.583	-5.291	.9	1.99	1.00	1.00
	135.0	13.7	106.4	9.737	-6.885	.4	1.07	1.00	1.00
	150.0	11.9	128.7	8.797	-7.619	.2	.58	1.00	1.00
	165.0	11.0	153.8	8.139	-7.862	.1	.33	1.00	1.00
OPT Gybe	<b>169.4</b>	<b>10.9</b>	<b>161.3</b>	<b>8.012</b>	<b>-7.874</b>	<b>.1</b>	<b>.27</b>	<b>1.00</b>	<b>1.00</b>
	180.0	10.9	179.9	7.805	-7.805	0.0	.13	1.00	1.00

Handicaps: (seconds/mile)

Optimum Tack: 616.1 Gybe: 457.2 60deg: 364.5 ~100: 287.0 135: 369.7  
 Linear-random: 375.2 Circ: 392.2 Olymp: 522.4 W/L: 536.6 ACC: 491.9  
 BELL Versions: 359.6 : 382.8 : 531.0 : 541.8 GPH: 583.2

Master File: PDQM01

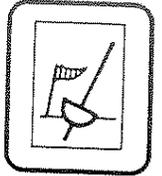
Service Code: DM2

Run Date: 31 Jul 1991

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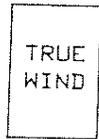
PDQ 36  
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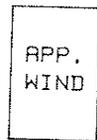
31 Jul 1991

Performance

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TRUE



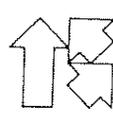
APP.  
WIND



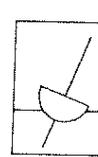
APPARENT



BOAT  
SPEED



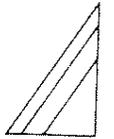
VMG



LEEWAY



FLAT



REEF

----- 20.0 knots True Wind Speed -----									
	TRUE	APP. WIND	APPARENT	BOAT SPEED	VMG	LEEWAY	FLAT	REEF	
	36.0	26.2	20.3	6.419	5.193	2.9	11.94	.72	1.00
	44.0	27.4	27.1	8.464	6.089	5.6	10.72	1.00	1.00
OPT Tack	<b>47.3</b>	<b>27.7</b>	<b>29.8</b>	<b>9.166</b>	<b>6.222</b>	<b>5.8</b>	<b>9.58</b>	<b>1.00</b>	<b>1.00</b>
	52.0	27.8	33.5	9.759	6.008	5.8	8.63	1.00	1.00
	60.0	27.5	39.3	10.527	5.263	5.6	7.41	1.00	1.00
	60.6								
	70.0	28.5	43.8	13.887	4.750	8.5	4.83	1.00	1.00
[NG:.02]	80.0	28.8	47.0	16.972	2.947	9.2	3.44	.95	1.00
	90.0	26.9	53.2	17.372	0.000	8.0	3.13	1.00	1.00
	105.0	22.3	67.0	15.287	-3.956	3.6	2.52	1.00	1.00
	120.0	18.1	86.3	12.355	-6.177	1.2	1.89	1.00	1.00
	135.0	15.3	107.8	10.391	-7.348	.4	1.13	1.00	1.00
	150.0	13.4	129.8	9.431	-8.168	.2	.63	1.00	1.00
	165.0	12.5	154.3	8.757	-8.459	.1	.37	1.00	1.00
OPT Gybe	<b>166.3</b>	<b>12.5</b>	<b>156.5</b>	<b>8.708</b>	<b>-8.460</b>	<b>.1</b>	<b>.34</b>	<b>1.00</b>	<b>1.00</b>
	180.0	12.4	179.8	8.337	-8.337	0.0	.16	1.00	1.00

Handicaps: (seconds/mile)

Optimum Tack: 578.6 Gybe: 425.5 60deg: 342.0 ~100: 225.3 135: 346.4  
 Linear-random: 326.7 Circ: 353.6 Olymp: 489.7 W/L: 502.1 ACC: 455.6  
 BELL Versions: 320.4 : 350.2 : 497.3 : 507.9 GPH: 583.2

Master File: PDQM01

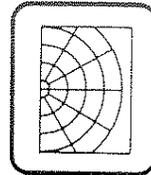
Service Code: DM2

Run Date: 31 Jul 1991

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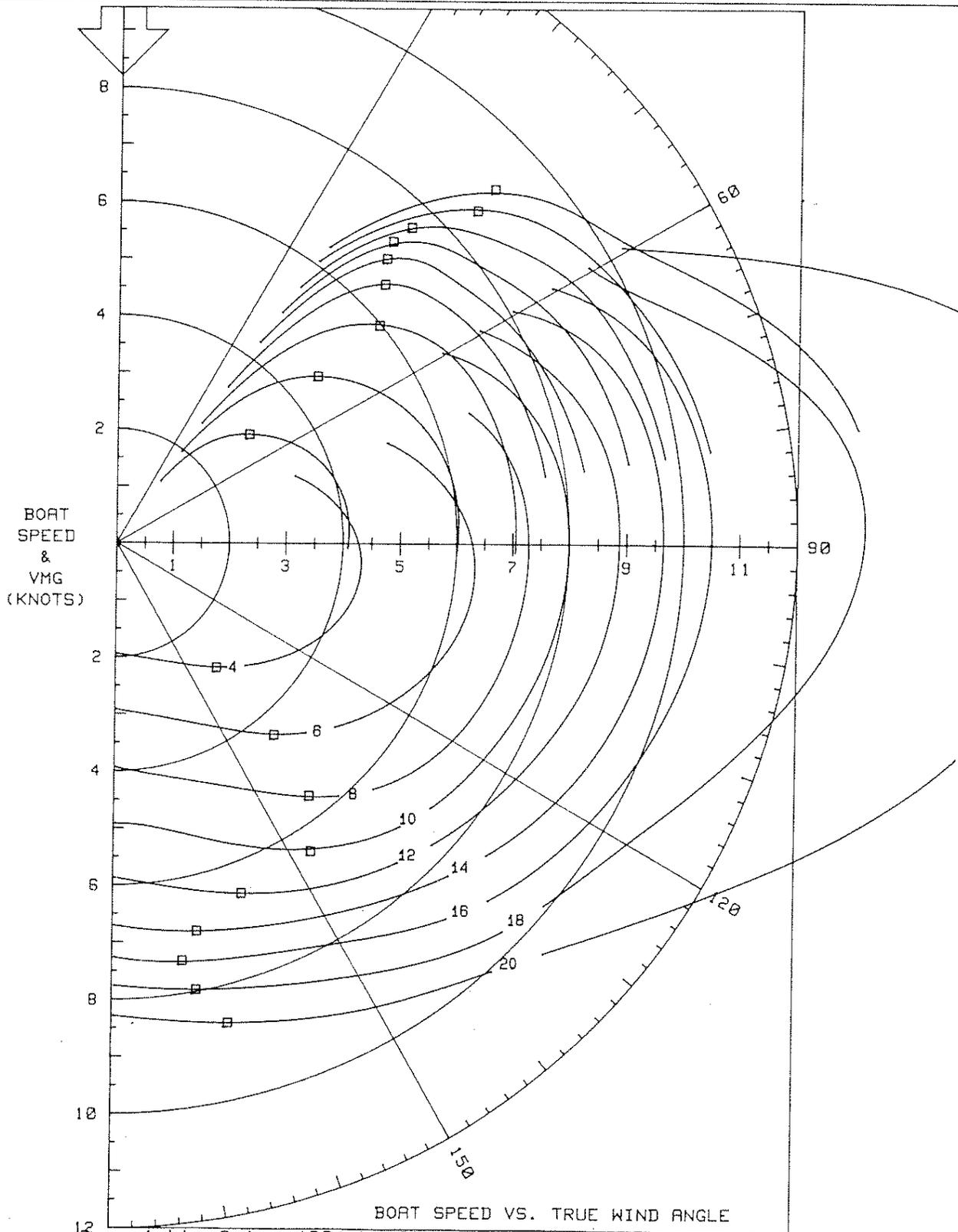
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for PDQ YACHTS



Polar Plot

31 Jul 1991

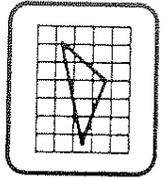
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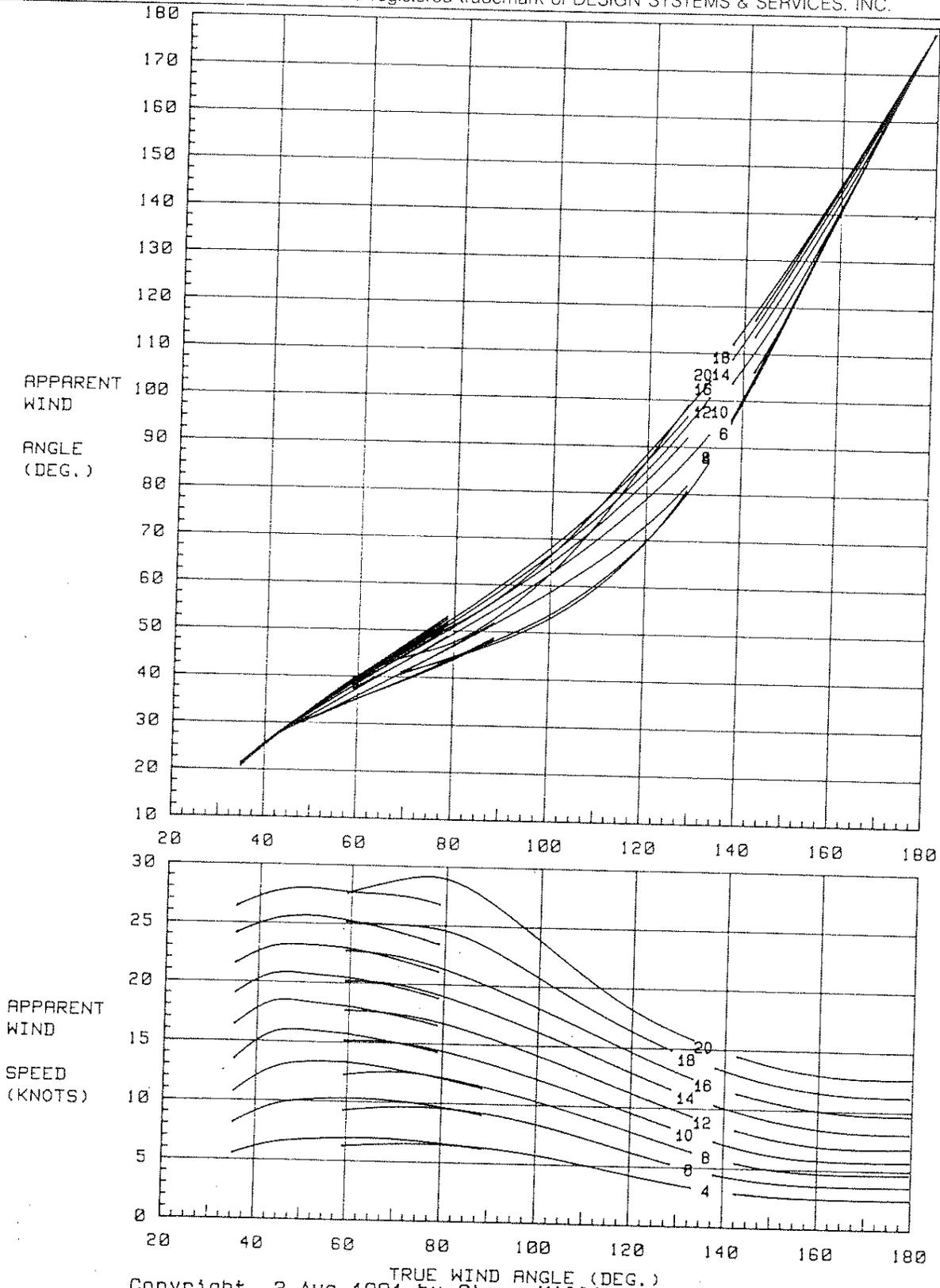
PDQ 36  
for PDQ YACHTS



31 Jul 1991

Wind Plot

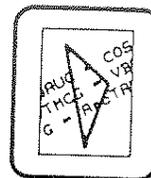
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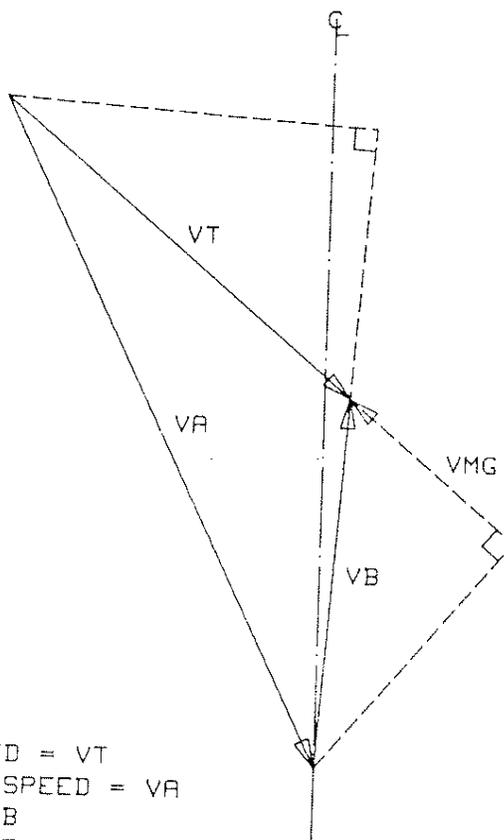
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for PDQ YACHTS



31 Jul 1991

Wind Equations

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TRUE WIND SPEED = VT  
 APPARENT WIND SPEED = VA  
 BOAT SPEED = VB  
 TRUE WIND ANGLE = G  
 APPARENT WIND ANGLE = B  
 LEEWAY ANGLE = L  
 UPWASH ANGLE = E  
 HEEL ANGLE = H

THE SYMBOL ^ INDICATES EXPONENTIATION.  
 THE SYMBOL \* INDICATES MULTIPLICATION.  
 THE LETTER m INDICATES A MEASURED QUANTITY.  
 THE LETTERS mh INDICATE A VALUE TAKEN AT THE MASTHEAD.

$$L = 1037.59 * H / [VB]^3$$

$$E = 6.29 * \sin[(180 - B_m) / 1.667]^2.5 * REEF^2 * FLAT$$

$$B = B_m + L - E$$

$$VBAUG = \cos(B) * VAm$$

$$VTMCG = VBAUG - VB$$

$$G = \text{ArcTAN} \{ \text{TAN}(B) * VBAUG / [\cos(H) * VTMCG] \}$$

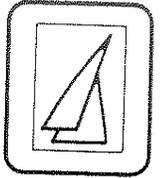
$$VTmh = VTMCG / \cos(G)$$

$$VT = VTmh / (.15055 * \cos(H) + .887)$$

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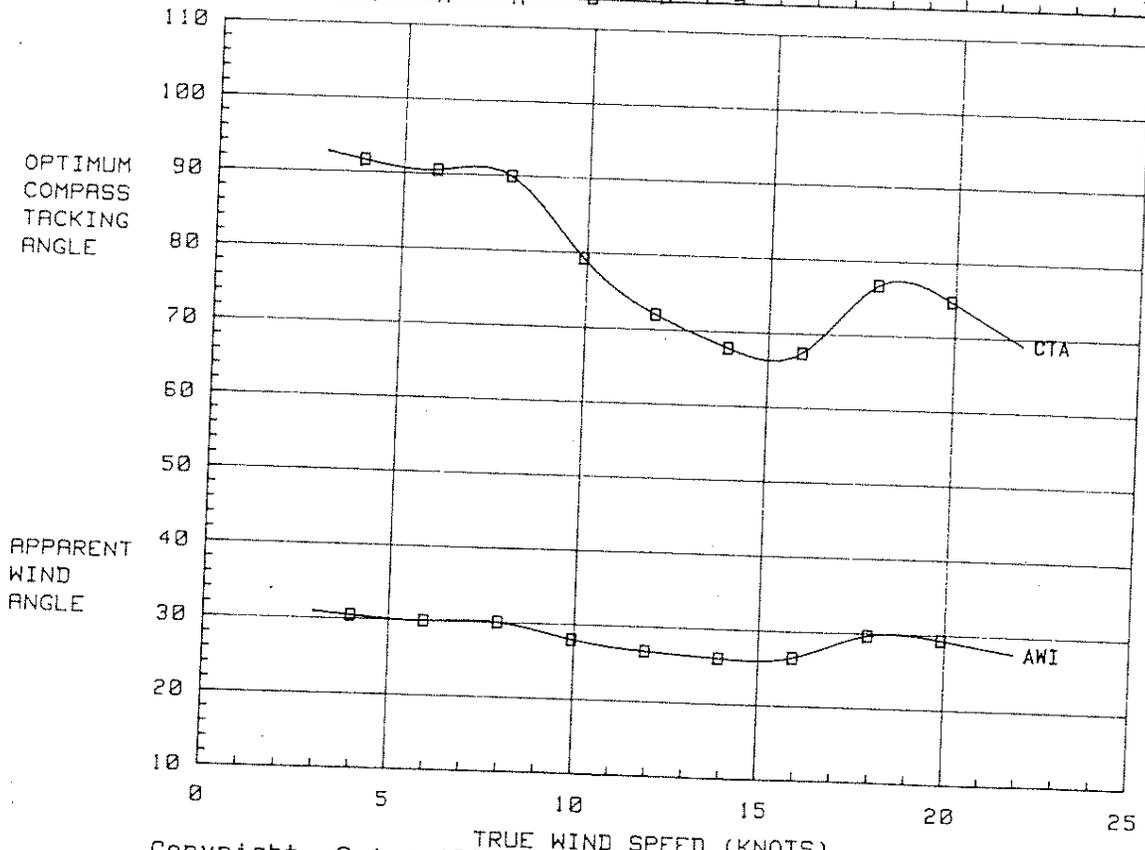
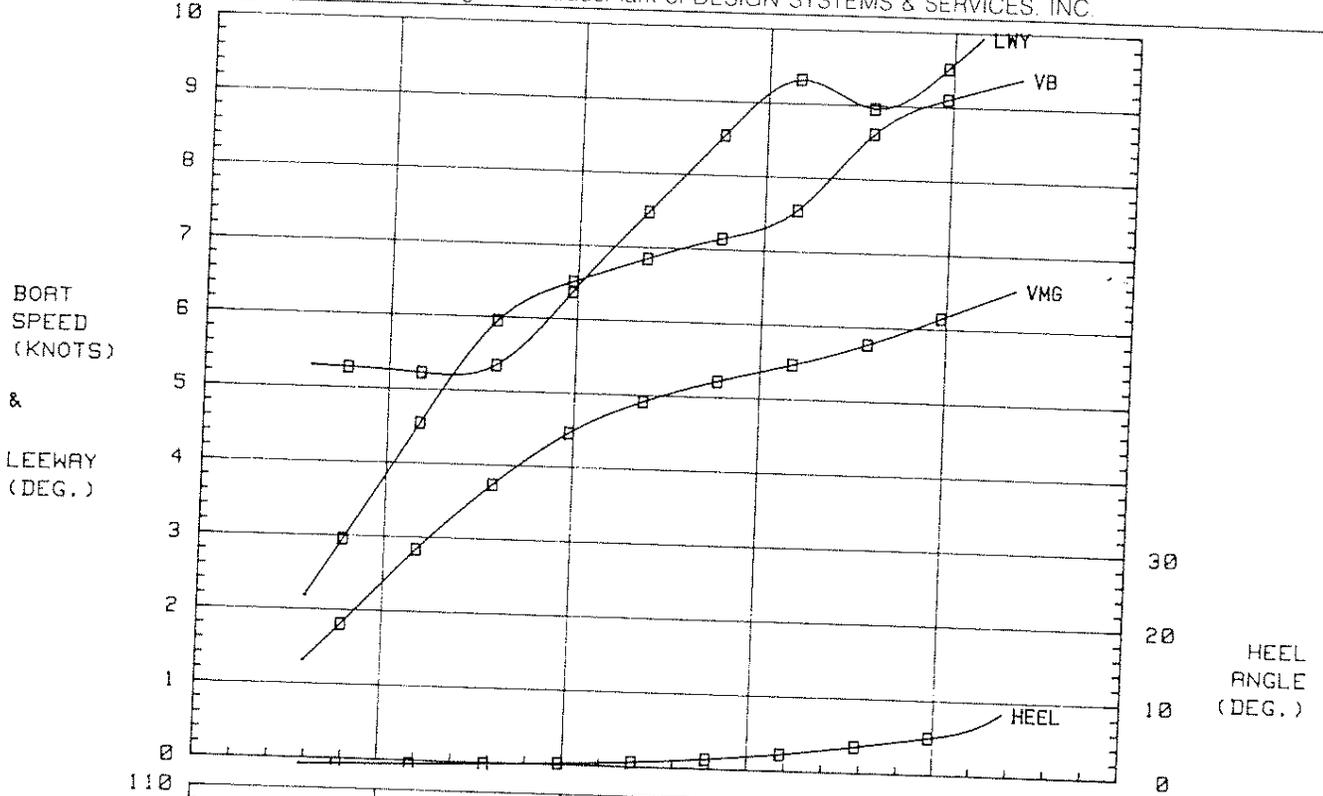
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Upwind

31 Jul 1991

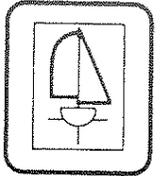
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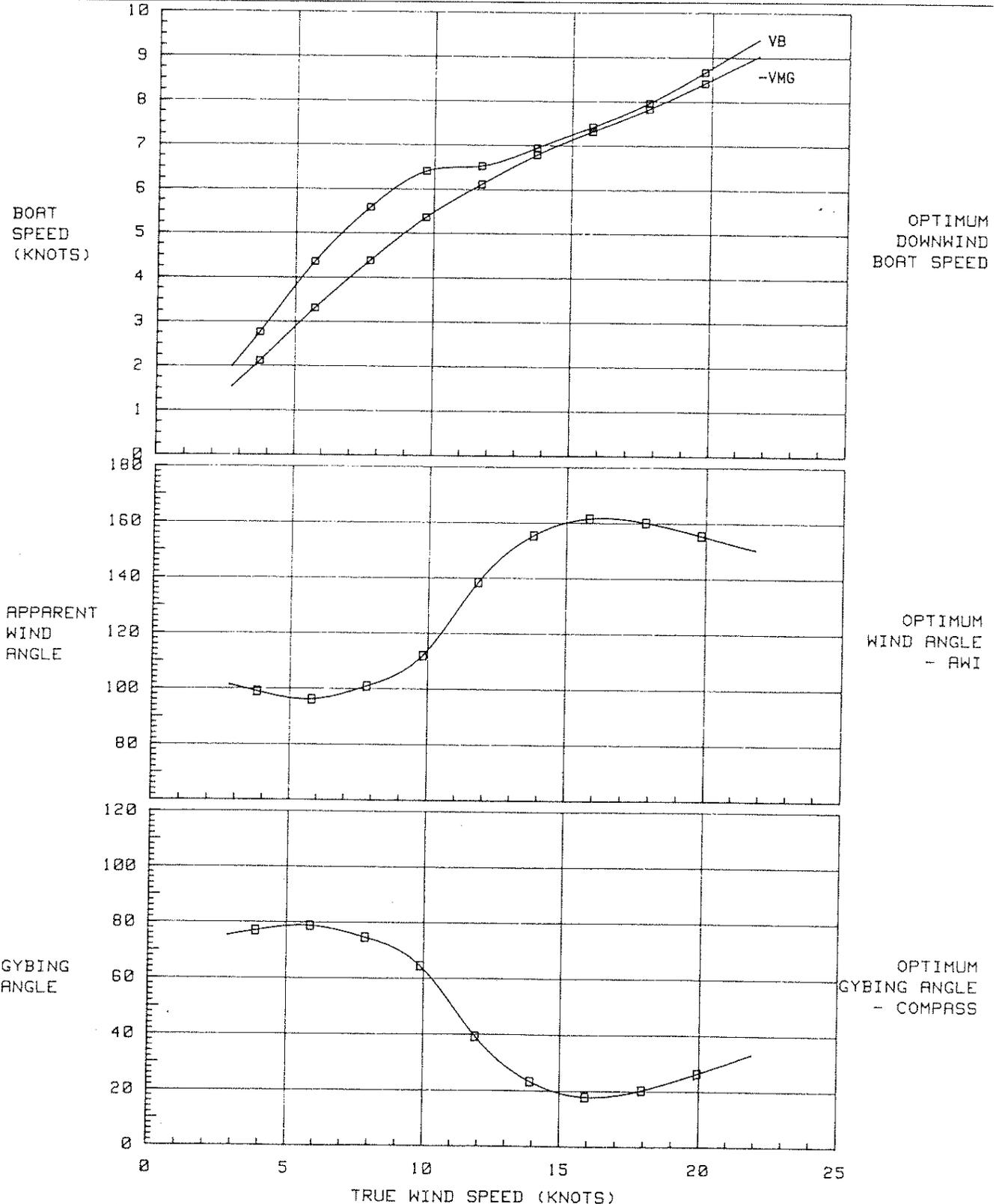
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31 Jul 1991

Downwind

A Performance Prediction By DESIGN SYSTEMS & SERVICES, INC., 222 Severn Ave., Annapolis, MD 21403 (301) 268-5551



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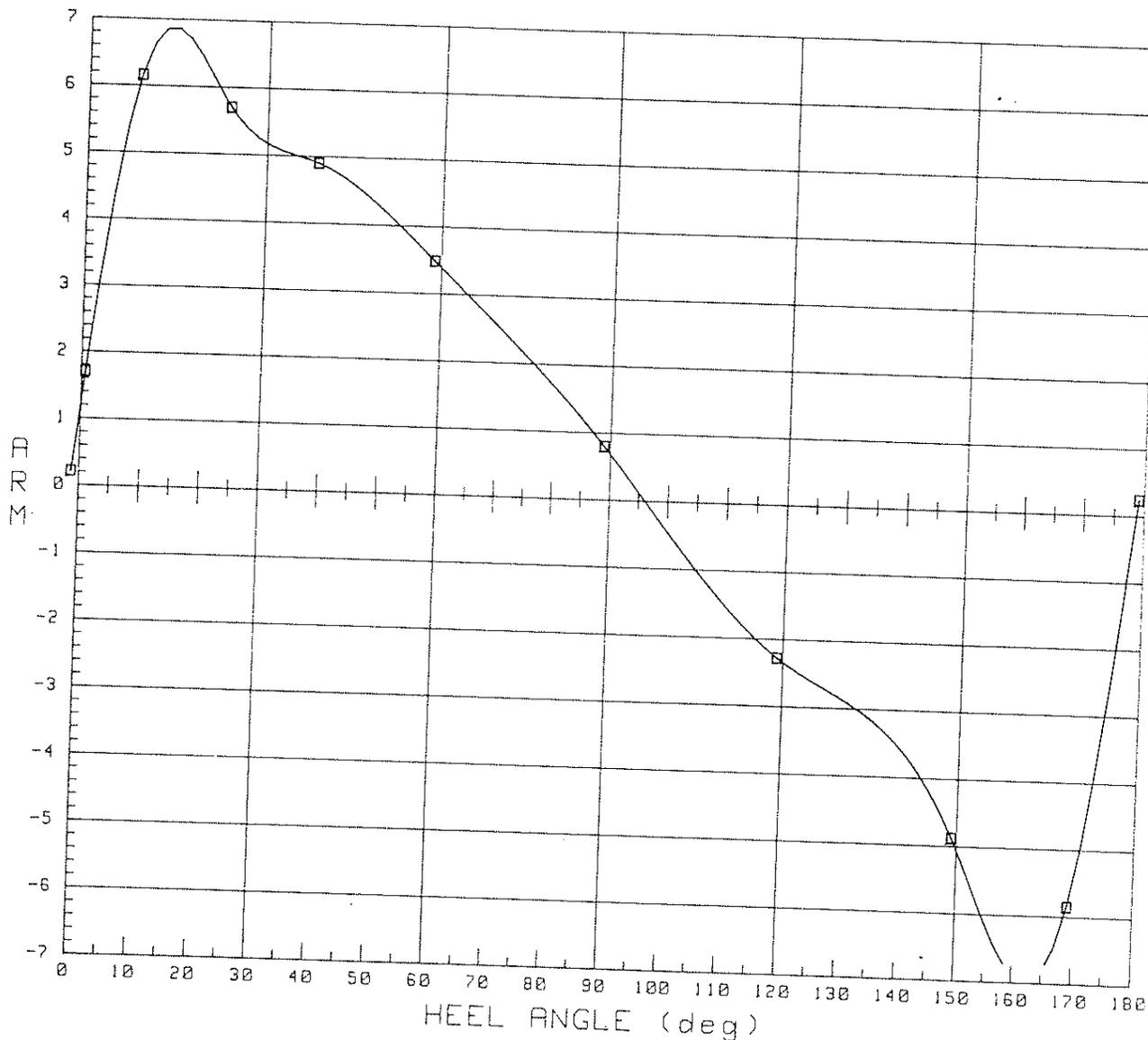


31 Jul 1991

Hydrostatics 2

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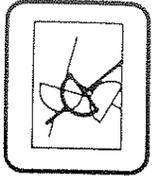
RIGHTING ARM vs.HEEL ANGLE



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for PDQ YACHTS



31 Jul 1991

Hydrostatics 1

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UPRIGHT MEASUREMENT TRIM

DISPL...lbs...	8604.4	WATER DENSITY.	62.40	FGO.....	1.500
LONG. CG.....	-1.247	LWL.....	32.504	FF.....	4.080
VERT. CG.....	-1.000	MTI.....	1546.121	FA.....	3.670
VERT. CB.....	.509	PPI.....	807.720	LBG.....	32.000
METACENTER....	-47.726	WETTED SURF...	269.220	TOTAL SURF....	1048.941
LONG. CF.....	-1.683	RM/DEG.....	7030.040	LCG TOT. SURF.	.666
VERT. CF.....	-.091	MAX. DRAFT....	3.932	VCG TOT. SURF.	-1.982

UPRIGHT SAILING TRIM

DISPL...lbs...	9679.4	WATER DENSITY.	64.00	FF.....	4.049
LONG. CG.....	-1.470	LWL.....	32.516	FA.....	3.543
VERT. CG.....	-1.271	MTI.....	1619.084	CREW WT.....	875.000
VERT. CB.....	.451	PPI.....	842.582	GEAR WT.....	200.000
METACENTER....	-44.202	WETTED SURF...	279.985	SAILING LEN...	34.362
LONG. CF.....	-1.710	RM/DEG.....	7281.673	RATED BEAM....	4.335
VERT. CF.....	-.176	MAX. DRAFT....	4.024	EFF. B/Tc.....	2.107
AMAX.....	7.405	EFF. DRAFT....	3.651	SUNK LENGTH...	37.985
RATED LENGTH..	34.148	SA/WETTED SURF	1.957	DISP/LENGTH...	108.518

SAILING TRIM WITH HEEL

HEEL ANGLE	DWL @ FF	DWL @ FA	RIGHT'G ARM	LONG. C.B.	WETTED SURF.	SAILING LEN.	EFF. B/Tc
0.0	.031	.287	-0.000	-1.484	279.985	34.362	2.107
2.0	.011	.292	1.509	-1.522	278.967	34.566	2.064
10.0	-.264	-.011	5.981	-1.482	221.807	37.069	1.459
25.0	-1.909	-1.728	5.523	-1.472	212.678	37.073	1.685
40.0	-3.486	-3.372	4.713	-1.468	184.297	36.902	2.230
60.0	-5.323	-5.326	3.293	-1.429	199.415		
90.0	-6.935	-7.028	.584	-1.452	205.950		
120.0	-7.063	-6.829	-2.517	-1.461	201.332		
150.0	-5.658	-5.209	-5.144	-1.488	240.330		
170.0	-4.004	-3.385	-6.131	-1.613	557.802		

NOTES

1. Long. positions are relative to dig. file origin (+Fwd,-Aft)
2. Vertical positions are relative to DWL (+Below -Aby), except DWL @FF and DWL @FA which locate the DWL relative to the LWL (positive=DWL Below LWL negative=DWL Above LWL)
3. Metacenter ht. is relative to the Center of Flotation, (CF)
4. Dimensions are in currently selected system units