FARR®

PERFORMANCE PREDICTION

DESIGN #354—Benetau First 40.7
Racing Version
for
Chantiers Beneteau

Farr Yacht Design, Ltd.

May 3, 2001

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DESCRIPTION OF SYMBOLS IN VPP OUTPUT

The accompanying document contains a large amount information about the predicted performance of your boat. To allow this document to be used as a valuable racing tool we have prepared the following explanation of the important terms it contains.

General Terms:

Vt or TWS	True Wind Speed
Bt or TWA	True Wind Angle
V or Vs	Boat Speed
VMG	Boat Velocity Made Good
HEEL	Heel Angle
REEF	Measure of Reduction in Sail Area
FLAT	Measure of Reduction in Sail Lift
Va, AWS	Apparent Wind Speed
Ba, AWA	Apparent Wind Angle
Lee	Leeway Angle
Sail	Sail Combination Designator (Upwind or Downwind)
Flot	Flotation Designator (Varies Only For Water Ballasted Boats)

VPP Polar diagram

This is a graphical representation of the boats performance across a range of windspeeds and true wind directions. Optimal upwind and downwind conditions are marked as small rectangles on the boat speed contours for each windspeed.

Best Boatspeeds

The upper portion of this page gives a numerical representation of the polar diagram. Boatspeeds in knots are given for a series of true windspeeds at masthead height, across a range of true wind angles. All boatspeeds and windspeeds are given in knots. The shaded cells lie beyond the upwind and downwind optimum points. The two tables on the lower portion of the page provide a ready reference of useful details about the optimum upwind and downwind sailing conditions as a function of the true windspeeds (Vt's) across the top of the page. In addition to indicating the optimum upwind and downwind boat speeds in knots, they are also expressed in seconds/mile and in seconds/boat length. VMG is also expressed in seconds/mile.

Course Times

This page shows the predicted boat performance over a series of 1.0 nautical mile courses in various windspeeds. Times around the course are expressed as seconds. The courses reflect five different course conditions:- LEEWARD, LINEAR RANDOM (LR), WINDWARD-LEEWARD (WL), WINDWARD and CIRCULAR-RANDOM (CR).

Times for 1 nm (secs)

This page is similar to the Best Boatspeeds page in that it represents the boatspeeds for a series of true windspeeds and true wind angles. Boatspeeds are expressed as seconds/nautical mile. Shaded areas again depict the off optimum conditions. Optimum upwind and downwind values, in terms of VMG, are presented underneath the table.

Best Performance

This page is a detailed representation of the polar diagram showing a list of predicted performance variables for each windspeed over the range of true wind angles. All of those items listed in the "General Terms" section are listed and optimum upwind and downwind settings are included in bold type.

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D354 - Beneteau 40.7 - Racing Version
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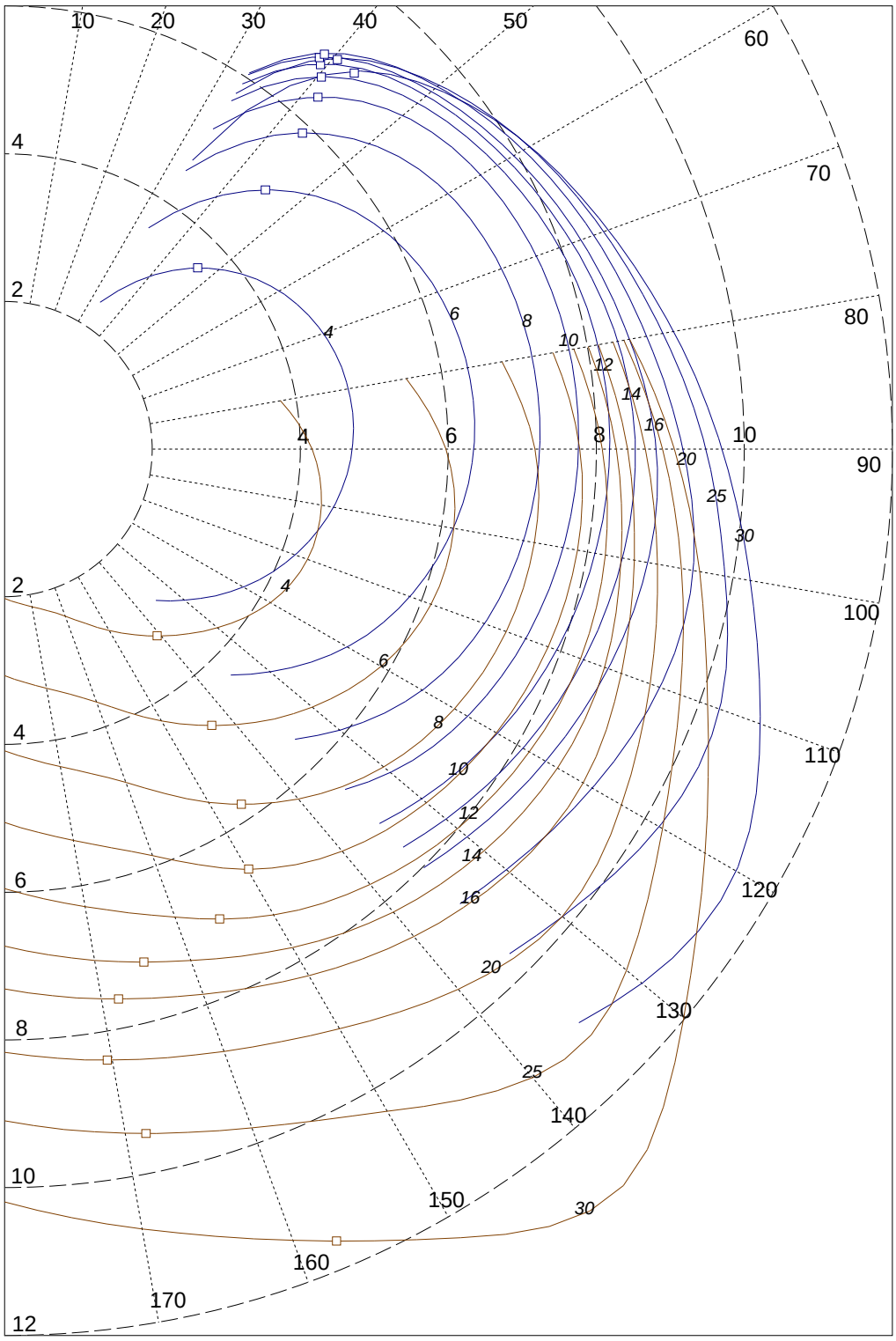

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Best Boatspeeds (kt)

	4	6	8	10	12	14	16	20	25	30
33.0	2.37	3.57	4.50	5.17	5.62	5.90	6.05	6.08	5.74	4.67
36.0	2.69	3.99	4.98	5.68	6.10	6.35	6.50	6.55	6.34	5.78
39.0	2.97	4.36	5.40	6.08	6.48	6.71	6.84	6.90	6.79	6.41
42.0	3.23	4.68	5.75	6.42	6.78	6.98	7.09	7.16	7.11	6.88
45.0	3.46	4.97	6.05	6.69	7.01	7.18	7.28	7.36	7.35	7.21
50.0	3.79	5.37	6.44	7.03	7.29	7.44	7.53	7.64	7.67	7.60
60.0	4.29	5.92	6.92	7.43	7.69	7.84	7.95	8.10	8.19	8.20
70.0	4.59	6.23	7.15	7.65	7.98	8.16	8.29	8.47	8.62	8.68
80.0	4.72	6.36	7.24	7.75	8.14	8.42	8.58	8.81	9.04	9.18
90.0	4.70	6.34	7.23	7.78	8.18	8.53	8.81	9.17	9.48	9.70
100.0	4.51	6.17	7.27	7.86	8.24	8.48	8.83	9.45	9.89	10.23
110.0	4.36	6.13	7.21	7.82	8.29	8.63	8.87	9.42	10.28	10.87
120.0	4.15	5.88	7.02	7.67	8.19	8.63	9.03	9.63	10.26	11.42
130.0	3.76	5.43	6.69	7.44	7.99	8.46	8.91	9.84	10.97	11.98
135.0	3.53	5.16	6.46	7.29	7.85	8.33	8.77	9.74	11.21	12.59
140.0	3.30	4.86	6.18	7.10	7.69	8.18	8.61	9.54	11.10	13.01
150.0	2.83	4.25	5.52	6.56	7.28	7.79	8.23	9.06	10.35	12.32
160.0	2.40	3.64	4.80	5.85	6.74	7.36	7.85	8.67	9.78	11.39
170.0	2.17	3.28	4.36	5.38	6.29	7.02	7.55	8.39	9.40	10.72
180.0	2.02	3.06	4.08	5.05	5.95	6.72	7.30	8.16	9.09	10.19
Up.Vs(kts)	3.58	4.98	5.88	6.38	6.61	6.73	6.80	6.88	6.93	6.95
Up.Vs(s/m)	1004.7	723.3	612.4	564.7	544.5	534.6	529.4	523.5	519.4	518.1
Up.Vs(s/L)	6.5	4.6	3.9	3.6	3.5	3.4	3.4	3.4	3.3	3.3
Up.Bt	46.8	45.2	43.3	41.7	40.4	39.4	38.8	39.0	40.5	42.9
Up.Vmg(kts)	2.45	3.51	4.28	4.76	5.04	5.21	5.30	5.35	5.27	5.09
Up.Vmg(s/m)	1467.5	1025.6	841.0	755.7	714.7	691.4	679.0	673.1	682.9	707.5
Up.Heel	2.8	6.2	10.6	16.0	18.8	20.9	22.5	23.7	24.0	24.5
Up.Reef	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.79	0.69
Up.Flat	1.00	1.00	1.00	0.95	0.82	0.70	0.61	0.56	0.60	0.66
Up.Va	6.96	10.13	12.88	15.25	17.39	19.42	21.38	25.21	29.88	34.38
Up.Ba	24.7	24.7	24.7	24.8	25.0	25.3	25.7	27.2	29.7	32.7
Up.Leewy	2.43	2.62	3.02	3.51	3.67	3.85	4.02	4.38	4.87	5.42
Dn.Vs(kts)	3.26	4.67	5.78	6.57	6.99	7.19	7.60	8.38	9.46	11.62
Dn.Vs(s/m)	1103.3	770.6	623.4	547.6	514.8	500.4	473.7	429.4	380.6	309.9
Dn.Vs(s/L)	7.1	5.0	4.0	3.5	3.3	3.2	3.0	2.8	2.4	2.0
Dn.Bt	140.7	143.2	146.3	149.9	155.4	164.8	168.3	170.5	168.3	157.3
Dn.Vmg(kts)	2.53	3.74	4.81	5.68	6.36	6.94	7.44	8.27	9.26	10.72
Dn.Vmg(s/m)	1424.7	962.8	749.1	633.3	566.2	518.5	483.8	435.4	388.7	336.0
Dn.Heel	0.5	0.9	1.2	1.4	1.2	0.8	0.8	1.1	2.3	7.8
Dn.Reef	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dn.Flat	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dn.Va	2.54	3.60	4.52	5.43	6.35	7.31	8.70	11.81	15.85	19.74
Dn.Ba	86.3	92.1	101.2	112.4	128.1	149.8	158.0	163.7	161.4	144.4
Dn.Leewy	0.44	0.39	0.33	0.28	0.21	0.14	0.12	0.13	0.20	0.36

Shaded cells lie outside upwind and downwind optimum sailing angles.

Times for 1 nm (secs)

	4	6	8	10	12	14	16	20	25	30
33.0	1517.2	1007.1	800.8	696.0	640.1	610.5	595.0	592.5	626.7	771.6
36.0	1340.7	901.7	722.4	633.8	590.5	566.5	554.0	550.0	567.7	623.3
39.0	1212.5	826.4	666.6	591.8	555.9	536.6	526.6	521.6	530.3	561.4
42.0	1115.9	769.4	625.8	561.0	531.3	515.9	508.1	502.7	506.3	523.2
45.0	1041.1	724.9	595.4	538.3	513.8	501.2	494.7	488.9	489.8	499.5
50.0	949.4	670.5	559.2	512.2	493.7	483.7	477.8	471.2	469.4	473.7
60.0	840.0	608.2	520.1	484.4	468.1	459.2	452.9	444.5	439.5	439.1
70.0	785.0	578.0	503.6	470.6	451.0	441.0	434.3	424.8	417.8	414.7
80.0	762.9	566.2	497.4	464.6	442.2	427.8	419.7	408.5	398.4	392.1
90.0	766.1	567.6	497.6	463.0	440.1	422.3	408.8	392.6	379.7	371.3
100.0	797.6	583.9	495.2	457.9	436.7	424.6	407.7	380.9	364.2	351.7
110.0	826.1	586.9	499.0	460.6	434.5	417.2	405.9	382.0	350.0	331.3
120.0	867.3	612.7	512.6	469.1	439.5	417.1	398.6	373.9	350.7	315.3
130.0	958.4	663.1	538.2	483.7	450.6	425.6	404.1	365.9	328.1	300.5
135.0	1019.9	697.7	557.6	493.8	458.5	432.2	410.4	369.7	321.1	285.9
140.0	1091.5	740.0	582.8	506.9	468.2	440.3	418.2	377.3	324.3	276.7
150.0	1270.5	847.5	652.2	548.4	494.6	462.4	437.6	397.5	347.9	292.1
160.0	1497.9	988.9	750.1	614.9	534.2	488.8	458.6	415.1	368.3	316.0
170.0	1662.8	1096.1	825.5	669.6	572.7	512.6	476.6	428.8	383.0	335.9
180.0	1783.4	1174.6	881.6	712.7	605.4	535.5	492.8	441.1	396.1	353.4
Up	1467.5	1025.6	841.0	755.7	714.7	691.4	679.0	673.1	682.9	707.5
Dn	1424.7	962.8	749.1	633.3	566.2	518.5	483.8	435.4	388.7	336.0

Equivalent ILC Average (using IMS formula): 673.26

Shaded cells lie outside upwind and downwind optimum sailing angles.

Best Performance

	TWS	TWA	V	VMG	Heel	Reef	Flat	AWS	AWA	Lee	Sail	Flot
	4.0	33.0	2.373	1.990	2.1	1.000	1.000	6.13	20.8	4.08	Up	35Rc
	4.0	36.0	2.685	2.172	2.3	1.000	1.000	6.37	21.6	3.50	Up	35Rc
	4.0	39.0	2.969	2.307	2.5	1.000	1.000	6.58	22.5	3.09	Up	35Rc
	4.0	42.0	3.226	2.397	2.6	1.000	1.000	6.75	23.3	2.78	Up	35Rc
	4.0	45.0	3.458	2.445	2.8	1.000	1.000	6.89	24.2	2.54	Up	35Rc
OptUp >	***4.0***	***46.8***	***3.583***	***2.453***	***2.8***	***1.000***	***1.000***	***6.96***	***24.7***	***2.43***	***Up***	***35Rc***
	4.0	50.0	3.792	2.437	2.9	1.000	1.000	7.06	25.7	2.24	Up	35Rc
	4.0	60.0	4.286	2.143	3.1	1.000	1.000	7.17	28.8	1.82	Up	35Rc
	4.0	70.0	4.586	1.568	2.9	1.000	1.000	7.04	32.2	1.52	Up	35Rc
	4.0	80.0	4.719	0.819	2.6	1.000	1.000	6.69	36.0	1.28	Up	35Rc
	4.0	90.0	4.699	-0.000	2.2	1.000	1.000	6.17	40.4	1.08	Up	35Rc
	4.0	100.0	4.514	-0.784	1.5	1.000	1.000	5.49	45.9	0.90	Up	35Rc
	4.0	110.0	4.358	-1.491	1.8	1.000	1.000	4.80	51.5	0.94	Dn	35Rc
	4.0	120.0	4.151	-2.075	1.4	1.000	1.000	4.08	58.2	0.80	Dn	35Rc
	4.0	130.0	3.756	-2.414	0.9	1.000	1.000	3.29	68.9	0.63	Dn	35Rc
	4.0	135.0	3.530	-2.496	0.7	1.000	1.000	2.91	76.1	0.54	Dn	35Rc
	4.0	140.0	3.298	-2.527	0.5	1.000	1.000	2.58	84.8	0.45	Dn	35Rc
OptDn >	***4.0***	***140.7***	***3.263***	***2.527***	***0.5***	***1.000***	***1.000***	***2.54***	***86.3***	***0.44***	***Dn***	***35Rc***
	4.0	150.0	2.833	-2.454	0.2	1.000	1.000	2.10	107.5	0.27	Dn	35Rc
	4.0	160.0	2.403	-2.258	0.1	1.000	1.000	1.93	134.7	0.15	Dn	35Rc
	4.0	170.0	2.165	-2.132	0.0	1.000	1.000	1.91	158.6	0.08	Dn	35Rc
	4.0	180.0	2.019	-2.019	-0.0	1.000	1.000	1.98	180.0	-0.00	Dn	35Rc
	6.0	33.0	3.575	2.998	4.8	1.000	1.000	9.20	20.7	4.04	Up	35Rc
	6.0	36.0	3.992	3.230	5.2	1.000	1.000	9.52	21.7	3.51	Up	35Rc
	6.0	39.0	4.356	3.386	5.6	1.000	1.000	9.77	22.6	3.14	Up	35Rc
	6.0	42.0	4.679	3.477	5.9	1.000	1.000	9.97	23.6	2.85	Up	35Rc
	6.0	45.0	4.966	3.512	6.2	1.000	1.000	10.13	24.6	2.63	Up	35Rc
OptUp >	***6.0***	***45.2***	***4.977***	***3.510***	***6.2***	***1.000***	***1.000***	***10.13***	***24.7***	***2.62***	***Up***	***35Rc***
	6.0	50.0	5.369	3.451	6.4	1.000	1.000	10.29	26.3	2.33	Up	35Rc
	6.0	60.0	5.919	2.960	6.5	1.000	1.000	10.31	30.1	1.90	Up	35Rc
	6.0	70.0	6.229	2.130	6.0	1.000	1.000	10.00	34.1	1.59	Up	35Rc
	6.0	80.0	6.358	1.104	5.2	1.000	1.000	9.45	38.5	1.33	Up	35Rc
	6.0	90.0	6.342	-0.000	4.3	1.000	1.000	8.72	43.3	1.11	Up	35Rc
	6.0	100.0	6.165	-1.071	5.0	1.000	1.000	7.80	49.0	1.14	Dn	35Rc
	6.0	110.0	6.134	-2.098	4.3	1.000	1.000	6.95	54.0	0.99	Dn	35Rc
	6.0	120.0	5.876	-2.938	3.2	1.000	1.000	5.93	61.0	0.81	Dn	35Rc
	6.0	130.0	5.429	-3.490	2.1	1.000	1.000	4.85	71.1	0.63	Dn	35Rc
	6.0	135.0	5.160	-3.648	1.4	1.000	1.000	4.34	77.8	0.54	Dn	35Rc
	6.0	140.0	4.865	-3.727	1.1	1.000	1.000	3.87	86.0	0.44	Dn	35Rc
OptDn >	***6.0***	***143.2***	***4.672***	***3.739***	***0.9***	***1.000***	***1.000***	***3.60***	***92.1***	***0.39***	***Dn***	***35Rc***
	6.0	150.0	4.248	-3.679	0.5	1.000	1.000	3.15	107.5	0.27	Dn	35Rc
	6.0	160.0	3.640	-3.421	0.2	1.000	1.000	2.86	134.2	0.14	Dn	35Rc
	6.0	170.0	3.285	-3.235	0.1	1.000	1.000	2.82	158.3	0.07	Dn	35Rc
	6.0	180.0	3.065	-3.065	-0.0	1.000	1.000	2.94	180.0	-0.00	Dn	35Rc

Best Performance (cont)

	TWS	TWA	V	VMG	Heel	Reef	Flat	AWS	AWA	Lee	Sail	Flot
	8.0	33.0	4.495	3.770	8.5	1.000	1.000	12.00	21.0	4.36	Up	35Rc
	8.0	36.0	4.983	4.032	9.3	1.000	1.000	12.36	22.1	3.81	Up	35Rc
	8.0	39.0	5.401	4.197	9.9	1.000	1.000	12.63	23.1	3.42	Up	35Rc
	8.0	42.0	5.752	4.275	10.5	1.000	1.000	12.83	24.2	3.12	Up	35Rc
OptUp >	***8.0***	***43.3***	***5.878***	***4.281***	***10.6***	***1.000***	***1.000***	***12.88***	***24.7***	***3.02***	***Up***	***35Rc***
	8.0	45.0	6.046	4.275	10.8	1.000	1.000	12.95	25.4	2.89	Up	35Rc
	8.0	50.0	6.438	4.138	11.1	1.000	1.000	13.05	27.4	2.58	Up	35Rc
	8.0	60.0	6.921	3.461	10.7	1.000	1.000	12.87	31.9	2.12	Up	35Rc
	8.0	70.0	7.148	2.445	9.4	1.000	1.000	12.36	36.9	1.77	Up	35Rc
	8.0	80.0	7.238	1.257	7.9	1.000	1.000	11.63	42.1	1.47	Up	35Rc
	8.0	90.0	7.234	-0.000	6.4	1.000	1.000	10.75	47.7	1.21	Up	35Rc
	8.0	100.0	7.270	-1.262	8.8	1.000	1.000	9.76	52.9	1.33	Dn	35Rc
	8.0	110.0	7.214	-2.467	7.1	1.000	1.000	8.70	59.0	1.11	Dn	35Rc
	8.0	120.0	7.023	-3.511	5.2	1.000	1.000	7.53	66.3	0.87	Dn	35Rc
	8.0	130.0	6.689	-4.300	3.4	1.000	1.000	6.31	75.8	0.65	Dn	35Rc
	8.0	135.0	6.456	-4.565	2.6	1.000	1.000	5.71	82.0	0.55	Dn	35Rc
	8.0	140.0	6.177	-4.732	2.0	1.000	1.000	5.14	89.5	0.45	Dn	35Rc
OptDn >	***8.0***	***146.3***	***5.775***	***4.806***	***1.2***	***1.000***	***1.000***	***4.52***	***101.2***	***0.33***	***Dn***	***35Rc***
	8.0	150.0	5.520	-4.780	0.8	1.000	1.000	4.24	109.4	0.27	Dn	35Rc
	8.0	160.0	4.799	-4.510	0.3	1.000	1.000	3.86	134.8	0.15	Dn	35Rc
	8.0	170.0	4.361	-4.295	0.1	1.000	1.000	3.78	158.4	0.07	Dn	35Rc
	8.0	180.0	4.083	-4.083	-0.0	1.000	1.000	3.92	180.0	-0.00	Dn	35Rc
	10.0	33.0	5.172	4.338	12.6	1.000	0.929	14.56	21.4	4.57	Up	35Rc
	10.0	36.0	5.680	4.595	14.0	1.000	0.938	14.90	22.5	4.07	Up	35Rc
	10.0	39.0	6.083	4.728	15.1	1.000	0.943	15.13	23.7	3.71	Up	35Rc
OptUp >	***10.0***	***41.7***	***6.375***	***4.764***	***16.0***	***1.000***	***0.955***	***15.25***	***24.8***	***3.51***	***Up***	***35Rc***
	10.0	42.0	6.417	4.769	16.2	1.000	0.956	15.27	24.9	3.48	Up	35Rc
	10.0	45.0	6.688	4.729	17.1	1.000	0.972	15.33	26.2	3.31	Up	35Rc
	10.0	50.0	7.028	4.518	18.0	1.000	1.000	15.30	28.4	3.08	Up	35Rc
	10.0	60.0	7.432	3.716	16.3	1.000	1.000	14.96	33.8	2.52	Up	35Rc
	10.0	70.0	7.650	2.616	13.6	1.000	1.000	14.35	39.5	2.06	Up	35Rc
	10.0	80.0	7.748	1.345	10.9	1.000	1.000	13.54	45.6	1.68	Up	35Rc
	10.0	90.0	7.775	-0.000	16.2	1.000	1.000	12.35	51.0	1.89	Dn	35Rc
	10.0	100.0	7.862	-1.365	13.6	1.000	1.000	11.36	57.4	1.61	Dn	35Rc
	10.0	110.0	7.817	-2.673	10.3	1.000	1.000	10.24	64.6	1.29	Dn	35Rc
	10.0	120.0	7.674	-3.837	7.3	1.000	1.000	9.00	72.7	0.99	Dn	35Rc
	10.0	130.0	7.443	-4.784	4.8	1.000	1.000	7.70	82.4	0.72	Dn	35Rc
	10.0	135.0	7.290	-5.155	3.8	1.000	1.000	7.06	88.2	0.59	Dn	35Rc
	10.0	140.0	7.102	-5.441	2.8	1.000	1.000	6.44	95.0	0.47	Dn	35Rc
OptDn >	***10.0***	***149.9***	***6.574***	***5.685***	***1.4***	***1.000***	***1.000***	***5.43***	***112.4***	***0.28***	***Dn***	***35Rc***
	10.0	150.0	6.564	-5.685	1.2	1.000	1.000	5.42	112.7	0.27	Dn	35Rc
	10.0	160.0	5.855	-5.502	0.5	1.000	1.000	4.92	136.0	0.15	Dn	35Rc
	10.0	170.0	5.377	-5.295	0.2	1.000	1.000	4.80	158.8	0.07	Dn	35Rc
	10.0	180.0	5.051	-5.051	-0.0	1.000	1.000	4.95	180.0	-0.00	Dn	35Rc

Best Performance (cont)

	TWS	TWA	V	VMG	Heel	Reef	Flat	AWS	AWA	Lee	Sail	Flot
	12.0	33.0	5.624	4.716	15.9	1.000	0.804	16.90	21.8	4.57	Up	35Rc
	12.0	36.0	6.097	4.932	17.3	1.000	0.806	17.18	23.1	4.10	Up	35Rc
	12.0	39.0	6.476	5.033	18.4	1.000	0.810	17.35	24.4	3.77	Up	35Rc
OptUp >	***12.0***	***40.4***	***6.611***	***5.037***	***18.8***	***1.000***	***0.816***	***17.39***	***25.0***	***3.67***	***Up***	***35Rc***
	12.0	42.0	6.775	5.035	19.3	1.000	0.821	17.43	25.8	3.55	Up	35Rc
	12.0	45.0	7.007	4.955	20.0	1.000	0.835	17.42	27.2	3.39	Up	35Rc
	12.0	50.0	7.291	4.687	20.9	1.000	0.867	17.29	29.8	3.21	Up	35Rc
	12.0	60.0	7.691	3.846	21.8	1.000	0.958	16.75	35.2	2.95	Up	35Rc
	12.0	70.0	7.983	2.730	19.3	1.000	1.000	16.10	41.4	2.45	Up	35Rc
	12.0	80.0	8.141	1.414	15.0	1.000	1.000	15.33	48.2	1.93	Up	35Rc
	12.0	90.0	8.179	-0.000	11.2	1.000	1.000	14.33	55.2	1.52	Up	35Rc
	12.0	100.0	8.243	-1.431	20.2	1.000	1.000	12.69	61.0	1.95	Dn	35Rc
	12.0	110.0	8.285	-2.834	14.6	1.000	1.000	11.69	69.0	1.49	Dn	35Rc
	12.0	120.0	8.192	-4.096	9.9	1.000	1.000	10.47	77.9	1.12	Dn	35Rc
	12.0	130.0	7.990	-5.136	6.4	1.000	1.000	9.14	88.3	0.80	Dn	35Rc
	12.0	135.0	7.852	-5.552	5.0	1.000	1.000	8.48	94.3	0.66	Dn	35Rc
	12.0	140.0	7.689	-5.890	3.7	1.000	1.000	7.84	101.1	0.52	Dn	35Rc
	12.0	150.0	7.278	-6.303	1.6	1.000	1.000	6.76	117.4	0.29	Dn	35Rc
OptDn >	***12.0***	***155.4***	***6.993***	***6.358***	***1.2***	***1.000***	***1.000***	***6.35***	***128.1***	***0.21***	***Dn***	***35Rc***
	12.0	160.0	6.739	-6.332	0.8	1.000	1.000	6.12	137.9	0.16	Dn	35Rc
	12.0	170.0	6.286	-6.191	0.3	1.000	1.000	5.91	159.4	0.08	Dn	35Rc
	12.0	180.0	5.946	-5.946	-0.0	1.000	1.000	6.05	180.0	-0.00	Dn	35Rc
	14.0	33.0	5.897	4.946	18.6	1.000	0.695	19.06	22.3	4.67	Up	35Rc
	14.0	36.0	6.354	5.141	19.8	1.000	0.693	19.30	23.7	4.18	Up	35Rc
	14.0	39.0	6.709	5.214	20.8	1.000	0.698	19.42	25.1	3.86	Up	35Rc
OptUp >	***14.0***	***39.4***	***6.734***	***5.207***	***20.9***	***1.000***	***0.700***	***19.42***	***25.3***	***3.85***	***Up***	***35Rc***
	14.0	42.0	6.978	5.186	21.6	1.000	0.707	19.44	26.6	3.65	Up	35Rc
	14.0	45.0	7.182	5.079	22.1	1.000	0.720	19.39	28.2	3.50	Up	35Rc
	14.0	50.0	7.443	4.784	22.8	1.000	0.750	19.19	31.0	3.31	Up	35Rc
	14.0	60.0	7.840	3.920	23.4	0.989	0.851	18.55	36.9	3.03	Up	35Rc
	14.0	70.0	8.164	2.792	23.3	0.979	0.985	17.72	43.0	2.77	Up	35Rc
	14.0	80.0	8.415	1.461	20.2	1.000	1.000	16.88	50.0	2.26	Up	35Rc
	14.0	90.0	8.525	-0.000	14.7	1.000	1.000	16.00	57.8	1.72	Up	35Rc
	14.0	100.0	8.479	-1.472	10.3	1.000	1.000	14.85	66.0	1.31	Up	35Rc
	14.0	110.0	8.629	-2.951	20.3	1.000	1.000	12.93	72.7	1.76	Dn	35Rc
	14.0	120.0	8.630	-4.315	13.3	1.000	1.000	11.91	82.1	1.27	Dn	35Rc
	14.0	130.0	8.458	-5.437	8.3	1.000	1.000	10.63	92.9	0.89	Dn	35Rc
	14.0	135.0	8.330	-5.890	6.4	1.000	1.000	9.96	99.1	0.73	Dn	35Rc
	14.0	140.0	8.177	-6.264	4.7	1.000	1.000	9.32	105.9	0.57	Dn	35Rc
	14.0	150.0	7.786	-6.743	2.4	1.000	1.000	8.23	121.8	0.33	Dn	35Rc
	14.0	160.0	7.365	-6.921	1.1	1.000	1.000	7.51	140.4	0.19	Dn	35Rc
OptDn >	***14.0***	***164.8***	***7.195***	***6.943***	***0.8***	***1.000***	***1.000***	***7.31***	***149.8***	***0.14***	***Dn***	***35Rc***
	14.0	170.0	7.023	-6.917	0.5	1.000	1.000	7.19	160.2	0.09	Dn	35Rc
	14.0	180.0	6.723	-6.723	-0.0	1.000	1.000	7.28	180.0	-0.00	Dn	35Rc

Best Performance (cont)

	TWS	TWA	V	VMG	Heel	Reef	Flat	AWS	AWA	Lee	Sail	Flot
	16.0	33.0	6.050	5.074	20.5	1.000	0.602	21.11	22.7	4.81	Up	35Rc
	16.0	36.0	6.498	5.257	21.6	1.000	0.600	21.32	24.2	4.29	Up	35Rc
OptUp >	***16.0***	***38.8***	***6.800***	***5.302***	***22.5***	***1.000***	***0.605***	***21.38***	***25.7***	***4.02***	***Up***	***35Rc***
	16.0	39.0	6.836	5.313	22.6	1.000	0.605	21.40	25.8	3.98	Up	35Rc
	16.0	42.0	7.086	5.266	23.2	1.000	0.613	21.38	27.4	3.77	Up	35Rc
	16.0	45.0	7.278	5.146	23.5	0.991	0.638	21.29	29.2	3.62	Up	35Rc
	16.0	50.0	7.534	4.843	23.6	0.957	0.719	21.07	32.2	3.43	Up	35Rc
	16.0	60.0	7.949	3.974	23.5	0.916	0.878	20.39	38.6	3.12	Up	35Rc
	16.0	70.0	8.290	2.835	23.4	0.914	1.000	19.49	45.1	2.84	Up	35Rc
	16.0	80.0	8.577	1.489	23.6	0.975	1.000	18.37	51.8	2.52	Up	35Rc
	16.0	90.0	8.807	-0.000	19.2	1.000	1.000	17.49	59.8	1.95	Up	35Rc
	16.0	100.0	8.829	-1.533	13.0	1.000	1.000	16.50	68.5	1.44	Up	35Rc
	16.0	110.0	8.870	-3.034	23.9	0.970	1.000	14.16	76.1	1.95	Dn	35Rc
	16.0	120.0	9.031	-4.516	17.9	1.000	1.000	13.22	85.5	1.43	Dn	35Rc
	16.0	130.0	8.909	-5.726	10.6	1.000	1.000	12.13	96.5	0.98	Dn	35Rc
	16.0	135.0	8.772	-6.203	8.0	1.000	1.000	11.49	102.8	0.80	Dn	35Rc
	16.0	140.0	8.609	-6.595	5.9	1.000	1.000	10.86	109.6	0.63	Dn	35Rc
	16.0	150.0	8.227	-7.125	3.0	1.000	1.000	9.77	125.2	0.37	Dn	35Rc
	16.0	160.0	7.850	-7.376	1.5	1.000	1.000	9.03	142.7	0.22	Dn	35Rc
OptDn >	***16.0***	***168.3***	***7.600***	***7.441***	***0.8***	***1.000***	***1.000***	***8.70***	***158.0***	***0.12***	***Dn***	***35Rc***
	16.0	170.0	7.553	-7.438	0.6	1.000	1.000	8.66	161.3	0.10	Dn	35Rc
	16.0	180.0	7.305	-7.305	-0.0	1.000	1.000	8.70	180.0	-0.00	Dn	35Rc
	20.0	33.0	6.076	5.096	22.7	0.975	0.487	24.96	23.7	5.31	Up	35Rc
	20.0	36.0	6.546	5.295	23.3	0.944	0.525	25.16	25.4	4.72	Up	35Rc
OptUp >	***20.0***	***39.0***	***6.877***	***5.348***	***23.7***	***0.920***	***0.563***	***25.21***	***27.2***	***4.38***	***Up***	***35Rc***
	20.0	39.0	6.902	5.363	23.7	0.919	0.563	25.23	27.2	4.35	Up	35Rc
	20.0	42.0	7.161	5.321	23.8	0.893	0.612	25.20	29.1	4.11	Up	35Rc
	20.0	45.0	7.363	5.206	23.8	0.869	0.663	25.10	31.0	3.93	Up	35Rc
	20.0	50.0	7.640	4.911	23.8	0.837	0.752	24.83	34.4	3.71	Up	35Rc
	20.0	60.0	8.099	4.049	23.7	0.803	0.914	24.07	41.2	3.32	Up	35Rc
	20.0	70.0	8.474	2.898	23.8	0.816	1.000	23.03	48.3	2.98	Up	35Rc
	20.0	80.0	8.813	1.530	24.0	0.873	1.000	21.78	55.7	2.62	Up	35Rc
	20.0	90.0	9.171	-0.000	24.3	0.949	1.000	20.41	63.3	2.27	Up	35Rc
	20.0	100.0	9.451	-1.641	20.6	1.000	1.000	19.39	72.0	1.76	Up	35Rc
	20.0	110.0	9.425	-3.223	13.3	1.000	1.000	18.47	82.0	1.27	Up	35Rc
	20.0	120.0	9.628	-4.814	25.5	0.964	1.000	15.64	91.4	1.71	Dn	35Rc
	20.0	130.0	9.838	-6.324	17.4	1.000	1.000	14.93	101.7	1.13	Dn	35Rc
	20.0	135.0	9.738	-6.886	12.4	1.000	1.000	14.50	107.7	0.90	Dn	35Rc
	20.0	140.0	9.541	-7.309	8.9	1.000	1.000	13.95	114.5	0.72	Dn	35Rc
	20.0	150.0	9.057	-7.844	4.8	1.000	1.000	12.95	129.7	0.45	Dn	35Rc
	20.0	160.0	8.672	-8.149	2.7	1.000	1.000	12.21	146.0	0.28	Dn	35Rc
	20.0	170.0	8.395	-8.267	1.1	1.000	1.000	11.82	162.9	0.13	Dn	35Rc
OptDn >	***20.0***	***170.5***	***8.384***	***8.268***	***1.1***	***1.000***	***1.000***	***11.81***	***163.7***	***0.13***	***Dn***	***35Rc***
	20.0	180.0	8.161	-8.161	-0.0	1.000	1.000	11.84	180.0	-0.00	Dn	35Rc

Best Performance (cont)

	TWS	TWA	V	VMG	Heel	Reef	Flat	AWS	AWA	Lee	Sail	Flot
	25.0	33.0	5.744	4.818	23.2	0.869	0.479	29.50	25.1	6.67	Up	35Rc
	25.0	36.0	6.342	5.131	23.7	0.834	0.526	29.78	26.9	5.65	Up	35Rc
	25.0	39.0	6.788	5.276	23.9	0.804	0.576	29.90	28.7	5.03	Up	35Rc
OptUp >	***25.0***	***40.5***	***6.931***	***5.271***	***24.0***	***0.792***	***0.603***	***29.88***	***29.7***	***4.87***	***Up***	***35Rc***
	25.0	42.0	7.110	5.284	24.1	0.779	0.630	29.89	30.7	4.66	Up	35Rc
	25.0	45.0	7.350	5.197	24.2	0.757	0.687	29.77	32.8	4.42	Up	35Rc
	25.0	50.0	7.670	4.930	24.1	0.728	0.781	29.48	36.4	4.11	Up	35Rc
	25.0	60.0	8.191	4.095	24.1	0.703	0.931	28.61	43.7	3.62	Up	35Rc
	25.0	70.0	8.616	2.947	24.3	0.720	1.000	27.44	51.3	3.20	Up	35Rc
	25.0	80.0	9.036	1.569	24.6	0.772	1.000	26.07	59.1	2.77	Up	35Rc
	25.0	90.0	9.481	-0.000	25.1	0.843	1.000	24.54	67.3	2.37	Up	35Rc
	25.0	100.0	9.885	-1.717	25.6	0.936	1.000	22.89	76.0	2.03	Up	35Rc
	25.0	110.0	10.285	-3.518	22.0	1.000	1.000	21.85	85.4	1.52	Up	35Rc
	25.0	120.0	10.265	-5.132	26.9	0.849	1.000	19.44	96.6	1.70	Dn	35Rc
	25.0	130.0	10.972	-7.053	28.3	0.998	1.000	17.61	106.8	1.30	Dn	35Rc
	25.0	135.0	11.212	-7.928	21.4	1.000	1.000	17.68	111.4	0.94	Dn	35Rc
	25.0	140.0	11.101	-8.504	14.9	1.000	1.000	17.49	117.4	0.72	Dn	35Rc
	25.0	150.0	10.348	-8.962	7.7	1.000	1.000	16.77	132.4	0.50	Dn	35Rc
	25.0	160.0	9.776	-9.186	4.5	1.000	1.000	16.15	148.1	0.34	Dn	35Rc
OptDn >	***25.0***	***168.3***	***9.458***	***9.263***	***2.3***	***1.000***	***1.000***	***15.85***	***161.4***	***0.20***	***Dn***	***35Rc***
	25.0	170.0	9.400	-9.258	1.8	1.000	1.000	15.83	164.1	0.17	Dn	35Rc
	25.0	180.0	9.089	-9.089	-0.0	1.000	1.000	15.91	180.0	-0.00	Dn	35Rc
	30.0	33.0	4.665	3.913	22.4	0.791	0.470	33.43	26.9	10.82	Up	35Rc
	30.0	36.0	5.775	4.672	23.8	0.751	0.530	34.10	28.2	7.51	Up	35Rc
	30.0	39.0	6.413	4.984	24.1	0.721	0.583	34.36	30.1	6.22	Up	35Rc
	30.0	42.0	6.881	5.113	24.4	0.696	0.640	34.43	32.1	5.50	Up	35Rc
OptUp >	***30.0***	***42.9***	***6.948***	***5.089***	***24.5***	***0.689***	***0.658***	***34.38***	***32.7***	***5.42***	***Up***	***35Rc***
	30.0	45.0	7.207	5.096	24.5	0.674	0.699	34.36	34.2	5.06	Up	35Rc
	30.0	50.0	7.599	4.885	24.5	0.648	0.792	34.06	37.9	4.61	Up	35Rc
	30.0	60.0	8.199	4.100	24.7	0.628	0.935	33.10	45.5	3.97	Up	35Rc
	30.0	70.0	8.681	2.969	25.0	0.645	1.000	31.81	53.5	3.47	Up	35Rc
	30.0	80.0	9.181	1.594	25.4	0.692	1.000	30.32	61.7	2.97	Up	35Rc
	30.0	90.0	9.697	-0.000	26.0	0.758	1.000	28.65	70.2	2.52	Up	35Rc
	30.0	100.0	10.235	-1.777	26.7	0.843	1.000	26.86	79.2	2.11	Up	35Rc
	30.0	110.0	10.867	-3.717	27.3	0.947	1.000	25.06	88.6	1.69	Up	35Rc
	30.0	120.0	11.418	-5.709	22.2	1.000	1.000	24.32	98.5	1.16	Up	35Rc
	30.0	130.0	11.978	-7.699	29.8	0.899	1.000	21.23	110.1	1.17	Dn	35Rc
	30.0	135.0	12.593	-8.904	30.8	0.992	1.000	20.15	115.3	0.96	Dn	35Rc
	30.0	140.0	13.011	-9.967	23.7	1.000	1.000	20.28	119.4	0.66	Dn	35Rc
	30.0	150.0	12.325	-10.673	11.8	1.000	1.000	20.05	132.9	0.44	Dn	35Rc
OptDn >	***30.0***	***157.3***	***11.617***	***10.716***	***7.8***	***1.000***	***1.000***	***19.74***	***144.4***	***0.36***	***Dn***	***35Rc***
	30.0	160.0	11.394	-10.707	6.6	1.000	1.000	19.65	148.8	0.33	Dn	35Rc
	30.0	170.0	10.716	-10.554	2.9	1.000	1.000	19.53	164.6	0.17	Dn	35Rc
	30.0	180.0	10.187	-10.187	-0.0	1.000	1.000	19.81	180.0	-0.00	Dn	35Rc

Best Performance (cont)