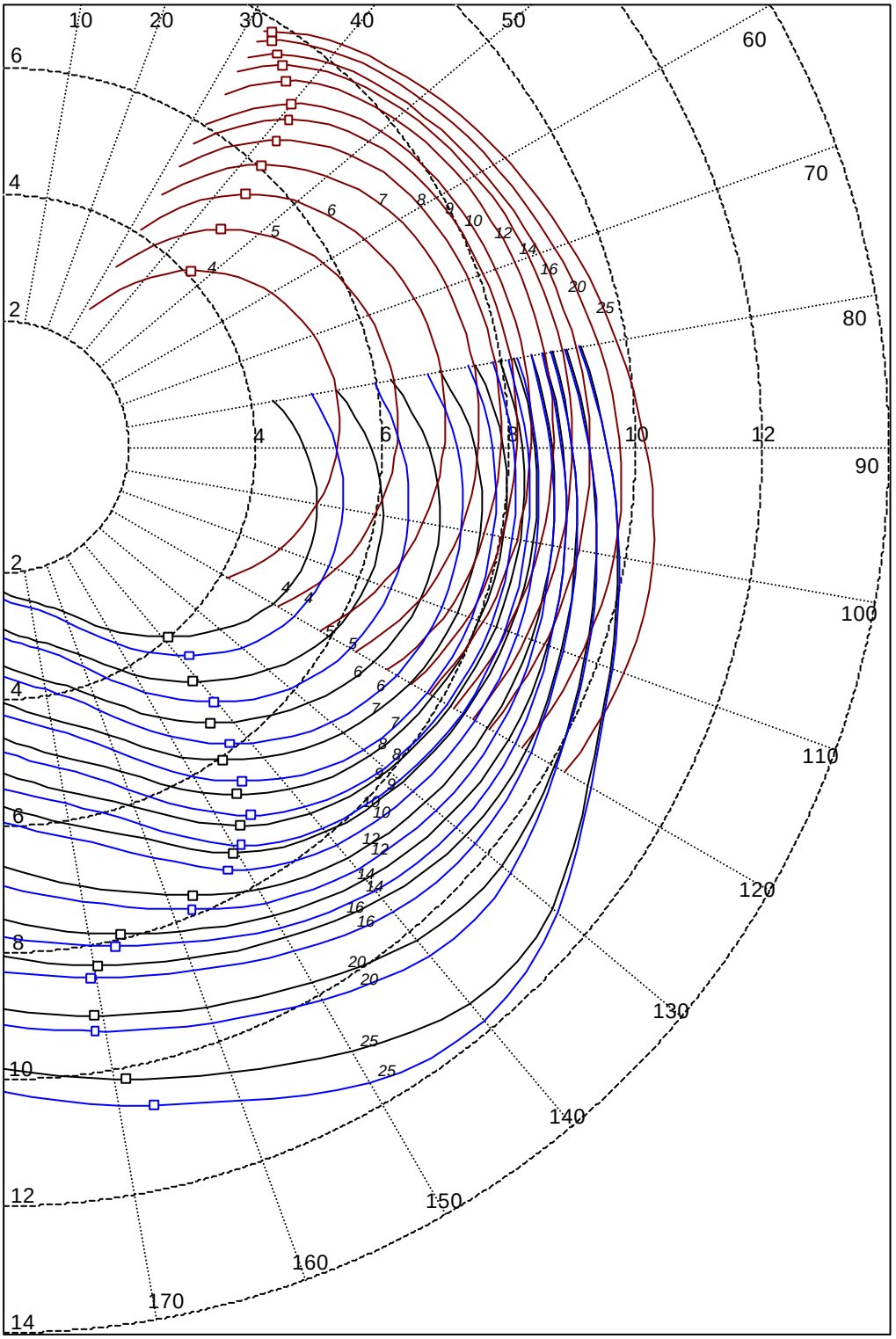
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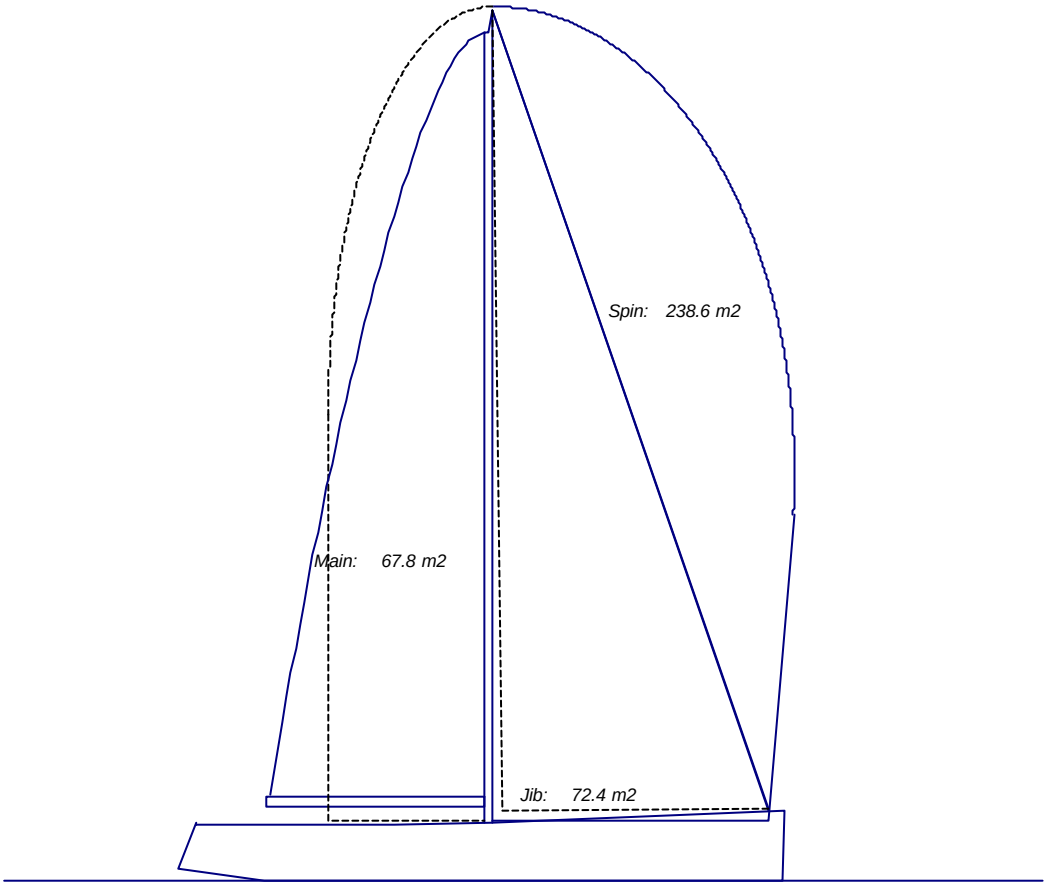

Spin: 238.6 m2
Main: 67.8 m2
Jib: 72.4 m2

WINDESIGN Flotation Input Data for Condition Erik
Erik

Basics		Heel Functions				Appendages			
							ws	cm	tc
Dspl	17688.0	Heel	WSc	ra	lwl				
Dsplc	0.0	0	42.081	0.000	13.429	Fin	6.152	1.763	0.100
Lwl	13.429	2	42.081	0.061	13.429	Bulb	1.358	2.159	0.160
Lsunk	13.429	10	42.081	0.303	13.429	Rud	2.581	0.668	0.100
Bwl	4.030	25	42.081	0.758	13.429	Other	0.000	0.000	0.000
Bmax	4.030	40	42.081	1.212	13.429				
Tc	0.727								
Tmax	2.700	Factors							
Trud	1.851								
Ax	7.024		Wing/CB Eff		0.333				
Cp	0.547		Tot Eff Span		1.000				
Awp	36.78		Lift Slope		1.000				
LCB	-4.13		+ Heel Drag		1.000				
LCF	-5.51		- Heel Drag		1.000				
GYR	0.25		Canoe Form		0.100				
Ad+/-	0.000		Vt Grad		0.100		Crew Wt		0.0
PIPA	0.000		RawMeth		Delft		Crew Arm		0.000
HBI,f	1.512		RawFact		1.000		KEEL CANT		0.0
ClxLimit	None		RawOff		0.000				

Rig and Sail Plan Dimensions

Main		Fore		Spin	
P	19.745	IG	20.979	SPL	7.134
E	5.541	J	7.134	SMW	12.841
BAD	0.658	LP	6.535	SLU	22.853
		HBI	1.512	SLE	21.741
				ISP	21.050

Sail Inventory

Name	Area	Span	BaseHt	AFx	Aero	Base
Spin	238.596	21.050	0.000	0.750	Spin_0	SPIN
Main	67.789	19.745	0.658	1.000	Main_0	MAIN
Jib	72.404	20.979	0.000	1.000	Jib_0	HEAD

Windage Elements

Name	Ax	Ay	Cdx	Cdy	Ht	Type
MainRigging	1.922	1.922	1.000	1.000	8.569	other
MastSail	3.203	6.203	0.400	1.000	8.569	mast w/sail
MastBare	3.203	6.203	0.800	1.100	8.569	mast bare

Sail Sets and Member Sails

downwind2 [d2]	Upwind [Up]	Downwind [Dn]
Spin	Jib	Jib
Main	Main	Spin
		Main

Opsets

Name	Flotation	SailSet	VtLo	VtHi	BtLo	BtHi	VaLim	UpOpt	DnOpt
Ops_Down2	Erik	Downwind2	4.0	25.0	80.0	180.0	99.0		*
Ops_Upwind	Erik	Upwind	4.0	25.0	0.0	130.0	99.0	*	
Ops_Down	Erik	Downwind	4.0	25.0	80.0	180.0	99.0		*

Notes

Best Boatspeeds (kt)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	2.57	3.38	4.08	4.71	5.23	5.67	6.03	6.59	7.00	7.27	7.58	7.75
36.0	3.06	3.91	4.67	5.31	5.84	6.27	6.61	7.15	7.48	7.68	7.91	8.07
40.0	3.49	4.39	5.17	5.81	6.33	6.76	7.10	7.53	7.79	7.95	8.16	8.32
45.0	3.95	4.88	5.67	6.29	6.82	7.23	7.52	7.85	8.06	8.21	8.40	8.54
52.0	4.47	5.41	6.18	6.81	7.31	7.64	7.86	8.16	8.35	8.47	8.67	8.85
60.0	4.89	5.83	6.59	7.21	7.62	7.89	8.10	8.40	8.60	8.74	8.95	9.15
70.0	5.21	6.14	6.90	7.46	7.81	8.06	8.27	8.59	8.82	9.00	9.25	9.50
80.0	5.33	6.25	7.01	7.54	7.88	8.13	8.34	8.68	8.95	9.18	9.54	9.83
90.0	5.27	6.29	7.16	7.73	8.06	8.27	8.42	8.69	8.99	9.26	9.74	10.15
100.0	5.44	6.49	7.34	7.86	8.17	8.39	8.55	8.80	9.00	9.23	9.79	10.41
110.0	5.47	6.51	7.36	7.86	8.18	8.43	8.63	8.94	9.18	9.40	9.80	10.43
120.0	5.31	6.33	7.17	7.73	8.08	8.37	8.60	9.00	9.34	9.62	10.09	10.71
135.0	4.61	5.60	6.44	7.15	7.67	8.03	8.33	8.81	9.25	9.69	10.53	11.69
150.0	3.56	4.45	5.26	5.99	6.65	7.25	7.69	8.29	8.75	9.17	10.06	11.57
160.0	2.92	3.67	4.40	5.08	5.73	6.32	6.87	7.75	8.32	8.78	9.65	10.98
170.0	2.57	3.22	3.88	4.52	5.13	5.71	6.26	7.27	7.98	8.49	9.35	10.54
180.0	2.40	3.01	3.62	4.23	4.81	5.38	5.91	6.91	7.71	8.26	9.11	10.17
Up.Vs	4.07	4.87	5.53	6.04	6.49	6.87	7.08	7.31	7.48	7.57	7.70	7.83
Up.Bt	46.7	44.9	43.6	42.2	41.6	41.0	39.9	37.5	36.0	34.8	33.3	32.8
Up.Vmg	2.79	3.45	4.01	4.47	4.86	5.18	5.44	5.80	6.05	6.22	6.44	6.58
Dn.Vs	4.40	5.21	5.87	6.47	6.99	7.31	7.55	7.87	8.06	8.48	9.32	10.65
Dn.Bt	138.1	140.3	142.6	144.3	146.1	149.1	152.0	157.8	167.3	170.6	171.0	167.1
Dn.Vmg	3.28	4.01	4.67	5.25	5.80	6.27	6.67	7.29	7.86	8.36	9.21	10.38

Best Heel Angles (deg)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	2.16	3.49	5.53	7.47	9.57	11.32	12.88	15.50	17.62	19.30	21.86	22.57
36.0	2.47	4.10	6.18	8.24	10.44	12.71	14.46	17.05	19.00	20.60	22.66	22.96
40.0	2.74	4.46	6.69	8.83	11.06	13.39	15.72	18.19	20.06	21.53	22.93	23.24
45.0	3.01	5.12	7.15	9.30	11.55	13.83	16.06	19.25	21.00	22.35	23.18	22.80
52.0	3.27	5.43	7.42	9.54	11.67	13.71	15.71	19.69	21.80	22.63	22.99	23.42
60.0	3.35	5.45	7.33	9.29	11.13	12.89	14.65	18.21	21.85	23.31	23.60	24.00
70.0	3.20	5.10	6.77	8.40	9.90	11.36	12.83	15.87	19.00	22.20	24.15	24.57
80.0	2.84	4.08	5.86	7.18	8.38	9.57	10.77	13.27	15.90	18.64	24.25	24.93
90.0	2.33	6.57	9.47	12.83	16.36	19.83	22.04	10.62	12.73	14.99	19.76	25.26
100.0	3.85	6.56	9.42	12.52	15.54	18.40	21.10	22.26	22.50	11.45	15.37	20.64
110.0	3.59	6.04	8.50	10.96	13.25	15.43	17.56	21.87	22.98	23.31	23.93	15.82
120.0	3.01	4.60	6.81	8.57	10.19	11.80	13.47	16.97	20.65	23.98	24.76	25.63
135.0	1.64	2.45	3.33	4.27	5.55	6.47	7.43	9.48	11.75	14.22	19.49	26.28
150.0	0.49	0.77	1.08	1.43	1.80	2.18	2.55	3.31	4.22	5.74	8.82	13.56
160.0	0.16	0.24	0.35	0.48	0.62	0.79	0.97	1.43	2.05	2.82	5.13	8.38
170.0	0.06	0.10	0.14	0.19	0.26	0.33	0.41	0.62	0.90	1.25	2.17	3.63
180.0	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.05	0.07	0.14	0.27
Up	3.38	5.11	7.03	9.07	11.25	13.51	15.69	17.51	19.01	20.24	22.27	22.67
Dn	1.44	1.88	2.19	2.50	2.71	2.55	2.30	1.84	1.27	1.26	2.07	5.16

Best Flat

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	1.000	1.000	1.000	1.000	1.000	0.962	0.914	0.816	0.726	0.645	0.518	0.501
36.0	1.000	1.000	1.000	1.000	1.000	1.000	0.960	0.852	0.754	0.672	0.562	0.574
40.0	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.887	0.788	0.702	0.632	0.647
45.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.940	0.837	0.746	0.718	0.948
52.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.915	1.000	1.000	1.000
60.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
70.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
80.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
90.0	1.000	1.000	1.000	1.000	1.000	1.000	0.948	1.000	1.000	1.000	1.000	1.000
100.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
110.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
135.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
150.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
160.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
170.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
180.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Up	1.000	1.000	1.000	1.000	1.000	1.000	0.998	0.864	0.754	0.663	0.525	0.516
Dn	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Best Reef or Twist

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.899
36.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.979	0.859
40.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.945	0.830
45.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.915	0.722
52.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.919	0.825	0.734
60.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.964	0.866	0.772
70.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.928	0.829
80.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.900
90.0	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	0.991
100.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.930	0.861	1.000	1.000	1.000
110.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.943	0.882	0.783	1.000
120.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.993	0.887	0.787
135.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
150.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
160.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
170.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
180.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Up	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.890
Dn	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Best Leeway

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	4.84	4.50	4.44	4.48	4.62	4.64	4.66	4.69	4.72	4.80	5.06	5.41
36.0	3.90	3.77	3.76	3.85	4.01	4.24	4.32	4.35	4.44	4.58	4.86	5.20
40.0	3.32	3.26	3.31	3.42	3.60	3.80	4.05	4.16	4.30	4.45	4.72	5.05
45.0	2.84	2.84	2.91	3.04	3.19	3.39	3.65	4.03	4.19	4.32	4.57	5.13
52.0	2.39	2.43	2.52	2.63	2.77	2.97	3.22	3.79	4.04	4.34	4.54	4.81
60.0	2.04	2.09	2.17	2.26	2.40	2.59	2.79	3.25	3.77	4.04	4.20	4.42
70.0	1.71	1.75	1.81	1.89	2.02	2.16	2.32	2.66	3.04	3.46	3.79	3.94
80.0	1.44	1.47	1.51	1.58	1.67	1.78	1.89	2.15	2.42	2.71	3.34	3.47
90.0	1.21	1.95	2.11	2.40	2.80	3.23	3.48	1.70	1.89	2.09	2.50	3.02
100.0	1.67	1.79	1.94	2.22	2.52	2.84	3.15	3.31	3.36	1.59	1.88	2.22
110.0	1.51	1.60	1.72	1.91	2.10	2.30	2.50	2.93	3.04	3.07	3.13	1.65
120.0	1.33	1.38	1.44	1.53	1.64	1.75	1.88	2.16	2.45	2.72	2.73	2.68
135.0	0.95	0.95	0.95	0.96	0.99	1.04	1.09	1.22	1.36	1.48	1.68	1.80
150.0	0.48	0.47	0.47	0.47	0.47	0.47	0.49	0.53	0.59	0.67	0.82	0.89
160.0	0.23	0.22	0.22	0.22	0.23	0.23	0.24	0.27	0.33	0.40	0.53	0.62
170.0	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.14	0.16	0.19	0.26	0.33
180.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03
Up	2.72	2.85	3.02	3.24	3.46	3.71	4.06	4.26	4.44	4.63	4.98	5.36
Dn	0.85	0.78	0.70	0.65	0.59	0.50	0.42	0.31	0.20	0.18	0.24	0.42

Best Flotation

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
36.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
40.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
45.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
52.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
60.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
70.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
80.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
90.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
100.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
110.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
120.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
135.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
150.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
160.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
170.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
180.0	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
Up	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF
Dn	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF	MBF

Best SailSet

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
36.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
40.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
45.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
52.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
60.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
70.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
80.0	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
90.0	Up	Dn	Dn	Dn	Dn	Dn	Dn	Up	Up	Up	Up	Up
100.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Up	Up	Up
110.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Up
120.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn
135.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn
150.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn
160.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn
170.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn
180.0	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn
Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up	Up
Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn	Dn

Best Apparent Wind Speed

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	6.3	8.1	9.7	11.3	12.7	14.1	15.4	17.8	20.1	22.2	26.3	31.2
36.0	6.7	8.5	10.1	11.7	13.1	14.5	15.7	18.1	20.3	22.3	26.3	31.2
40.0	7.0	8.8	10.5	12.0	13.4	14.7	16.0	18.2	20.3	22.2	26.1	31.0
45.0	7.3	9.1	10.8	12.3	13.6	14.9	16.1	18.1	20.1	22.0	25.9	30.7
52.0	7.6	9.4	10.9	12.4	13.7	14.8	15.9	17.9	19.7	21.6	25.4	30.0
60.0	7.7	9.4	10.9	12.3	13.4	14.5	15.5	17.4	19.1	20.9	24.6	29.1
70.0	7.6	9.1	10.6	11.8	12.9	13.9	14.8	16.7	18.4	20.0	23.4	27.8
80.0	7.2	8.7	10.0	11.1	12.1	13.0	14.0	15.7	17.4	19.1	22.0	26.2
90.0	6.6	8.0	9.3	10.3	11.1	11.8	12.5	14.6	16.3	18.0	21.1	24.6
100.0	6.2	7.4	8.6	9.4	10.2	10.8	11.4	12.8	14.3	16.7	20.0	23.7
110.0	5.6	6.7	7.7	8.5	9.1	9.7	10.3	11.5	12.8	14.3	17.3	22.6
120.0	4.8	5.8	6.6	7.3	7.9	8.5	9.1	10.3	11.5	12.7	15.6	19.4
135.0	3.3	4.1	4.8	5.4	6.0	6.5	7.1	8.4	9.7	11.0	13.7	16.7
150.0	2.0	2.5	3.0	3.5	4.0	4.5	5.1	6.4	7.7	9.2	12.2	15.7
160.0	1.6	2.0	2.4	2.8	3.3	3.7	4.2	5.4	6.8	8.3	11.4	15.1
170.0	1.5	1.9	2.3	2.7	3.1	3.5	4.0	5.0	6.3	7.8	10.9	14.7
180.0	1.6	2.0	2.4	2.8	3.2	3.6	4.1	5.1	6.3	7.7	10.9	14.8
Up	7.4	9.1	10.7	12.1	13.5	14.8	16.0	18.2	20.3	22.3	26.3	31.2
Dn	3.0	3.5	3.8	4.2	4.5	4.6	4.9	5.6	6.4	7.8	10.9	14.8

Best Apparent Wind Angle

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	19.6	19.2	19.0	19.1	19.2	19.4	19.6	20.0	20.5	21.0	21.8	22.9
36.0	20.5	20.2	20.2	20.3	20.6	20.8	21.1	21.8	22.4	23.1	24.2	25.5
40.0	21.4	21.3	21.4	21.7	22.0	22.4	22.7	23.6	24.5	25.3	26.7	28.2
45.0	22.7	22.7	23.0	23.5	23.9	24.4	24.9	26.1	27.2	28.1	29.9	31.8
52.0	24.4	24.8	25.4	26.0	26.8	27.6	28.4	29.7	31.0	32.3	34.6	36.6
60.0	26.7	27.3	28.2	29.2	30.3	31.5	32.6	34.4	35.7	37.1	39.8	42.3
70.0	29.7	30.8	32.0	33.4	35.0	36.6	38.0	40.4	42.3	43.8	46.7	49.7
80.0	33.2	34.6	36.1	38.0	40.0	42.0	43.8	46.8	49.3	51.2	53.9	57.4
90.0	37.2	38.3	39.5	41.4	43.5	45.5	47.5	53.6	56.6	59.0	62.5	65.6
100.0	39.7	41.0	42.7	45.3	48.1	50.7	53.2	58.2	62.5	67.3	71.5	75.1
110.0	42.5	44.2	46.4	49.7	53.2	56.6	59.6	64.9	69.8	73.8	79.9	85.1
120.0	46.3	48.4	51.0	54.8	59.0	63.0	66.7	73.0	78.1	82.3	89.3	94.9
135.0	57.8	59.7	62.7	65.9	70.3	75.2	79.8	87.7	93.7	98.3	104.9	110.3
150.0	87.2	87.3	88.8	91.1	94.0	97.0	101.0	109.3	115.8	120.4	126.2	129.6
160.0	121.5	121.1	121.2	122.0	123.2	124.8	126.4	130.7	135.3	138.8	143.3	145.9
170.0	153.2	152.9	152.9	152.9	153.2	153.6	154.2	155.4	157.3	159.1	161.4	162.9
180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
Up	23.1	22.7	22.5	22.5	22.6	22.8	22.7	22.5	22.5	22.4	22.5	23.4
Dn	61.9	66.8	73.1	79.1	85.6	95.1	105.2	125.6	151.3	160.4	163.4	158.0

Raw Added Resistance in Waves (kg)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	3.4	3.6	4.0	4.3	4.6	4.9	5.0	5.3	5.5	5.6	5.8	5.8
36.0	3.3	3.8	4.2	4.5	4.8	5.0	5.2	5.4	5.6	5.6	5.7	5.8
40.0	3.2	3.6	3.9	4.2	4.5	4.6	4.8	5.0	5.1	5.1	5.2	5.3
45.0	2.8	3.2	3.5	3.7	3.9	4.1	4.2	4.3	4.4	4.4	4.5	4.6
52.0	2.3	2.6	2.9	3.1	3.2	3.3	3.2	3.2	3.1	3.1	3.0	2.9
60.0	1.6	1.8	2.0	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.8	1.7
70.0	0.8	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
80.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Up	2.8	3.2	3.7	4.1	4.3	4.6	4.9	5.3	5.6	5.7	5.8	5.9
Dn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Resistance, Total (kg)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	21.4	35.2	51.3	70.2	91.4	111.9	132.2	171.1	206.6	238.2	290.1	334.7
36.0	27.1	43.5	63.4	86.4	112.0	139.6	165.0	211.1	252.7	290.2	350.4	404.9
40.0	33.0	52.6	76.1	103.1	133.0	165.0	198.4	251.9	300.5	343.3	410.9	476.5
45.0	40.4	63.8	91.7	123.4	158.2	195.3	233.9	303.6	360.2	409.7	487.6	563.3
52.0	50.3	78.2	111.3	148.6	189.3	232.3	277.1	370.0	442.9	502.5	597.1	699.5
60.0	59.7	91.7	129.4	171.6	216.9	264.9	315.2	421.0	529.7	609.4	725.4	853.5
70.0	67.4	102.6	143.7	189.1	237.5	289.2	343.9	461.0	585.2	711.9	884.9	1048.3
80.0	70.1	106.2	147.8	193.5	242.5	295.3	351.7	474.5	608.2	749.2	1036.8	1245.2
90.0	67.4	111.7	165.9	233.5	309.9	387.3	450.9	460.5	596.1	743.2	1059.0	1444.4
100.0	74.7	120.2	179.0	251.0	328.3	407.5	487.1	604.9	712.6	694.6	1016.0	1453.3
110.0	74.8	120.1	177.1	244.4	318.4	397.3	480.8	659.7	802.3	933.3	1188.1	1358.3
120.0	68.9	109.2	158.7	217.2	283.5	358.3	441.6	630.7	841.9	1058.2	1380.5	1759.1
135.0	49.1	77.1	112.0	153.2	203.1	262.8	332.2	499.9	703.4	937.0	1472.6	2196.8
150.0	28.7	44.9	65.3	90.7	121.2	157.5	201.9	316.2	461.6	640.2	1088.8	1762.2
160.0	19.5	30.2	43.6	60.1	80.2	104.4	132.8	209.8	322.6	471.1	861.4	1484.3
170.0	15.3	23.5	33.7	46.1	61.2	79.5	101.7	158.5	246.8	370.6	713.4	1283.0
180.0	13.4	20.6	29.5	40.1	53.0	68.5	87.0	134.6	204.4	307.9	605.8	1118.0
Up	42.7	63.5	87.2	112.3	141.1	171.2	197.3	226.6	253.0	274.0	310.0	349.1
Dn	44.3	64.5	86.4	112.5	140.3	162.9	185.6	228.4	262.5	365.9	700.7	1334.8

Heel Force (mast plane) kg.

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	116	188	270	365	466	552	628	757	861	944	1071	1201
36.0	133	211	302	402	509	620	706	833	929	1009	1129	1265
40.0	148	232	327	431	540	654	768	890	982	1055	1175	1313
45.0	162	251	350	455	565	676	786	942	1029	1096	1218	1424
52.0	176	266	364	467	571	671	769	965	1069	1184	1306	1447
60.0	181	268	360	455	545	632	718	893	1073	1179	1295	1434
70.0	173	251	333	412	486	557	630	780	935	1093	1261	1396
80.0	154	220	288	353	412	471	530	654	784	919	1197	1336
90.0	126	294	419	559	706	849	939	524	629	740	977	1260
100.0	186	287	408	536	660	777	888	988	1059	567	761	1022
110.0	170	260	363	464	557	647	735	912	1003	1071	1203	783
120.0	140	211	288	360	426	492	561	704	856	998	1126	1280
135.0	75	112	151	193	231	269	308	392	485	586	804	1086
150.0	22	35	49	64	81	98	115	149	189	239	366	563
160.0	7	11	16	21	28	35	44	65	93	128	215	349
170.0	3	5	6	9	12	15	19	28	41	57	99	166
180.0	0	0	0	0	1	1	1	1	2	3	7	12
Up	166	251	344	443	550	660	767	856	930	991	1091	1215
Dn	61	79	92	104	113	106	96	77	53	53	88	217

Lead-ce ahead of clr (m)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	0.000	0.000	0.118	0.163	0.212	0.267	0.324	0.440	0.551	0.650	0.809	0.780
36.0	0.000	0.109	0.170	0.232	0.301	0.372	0.447	0.595	0.733	0.855	1.013	0.945
40.0	0.000	0.144	0.222	0.302	0.389	0.482	0.576	0.754	0.918	1.063	1.175	1.108
45.0	0.000	0.199	0.287	0.387	0.497	0.613	0.731	0.954	1.151	1.325	1.381	1.087
52.0	0.000	0.259	0.369	0.495	0.632	0.775	0.923	1.224	1.479	1.463	1.481	1.462
60.0	0.000	0.316	0.448	0.596	0.755	0.922	1.096	1.459	1.830	1.988	2.013	1.997
70.0	0.000	0.365	0.513	0.677	0.851	1.036	1.231	1.647	2.087	2.539	2.812	2.810
80.0	0.000	0.352	0.538	0.705	0.884	1.075	1.279	1.722	2.203	2.713	3.768	3.845
90.0	0.000	0.472	0.717	1.035	1.400	1.772	2.094	1.686	2.177	2.710	3.865	5.228
100.0	0.000	0.539	0.820	1.174	1.561	1.961	2.367	2.659	2.797	2.542	3.712	5.333
110.0	0.000	0.564	0.847	1.191	1.572	1.979	2.413	3.353	3.744	3.935	4.190	4.974
120.0	0.000	0.495	0.787	1.091	1.437	1.830	2.268	3.270	4.406	5.522	6.040	6.404
135.0	0.000	0.000	0.000	0.739	1.062	1.381	1.753	2.648	3.728	4.968	7.843	11.941
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.269	3.368	5.680	9.227
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.461	7.659
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Up	0.134	0.198	0.268	0.341	0.424	0.508	0.571	0.656	0.734	0.792	0.888	0.814
Dn	0.228	0.336	0.455	0.597	0.749	0.873	0.995	1.210	1.373	1.888	3.563	6.790

Course Times

(Time in secs for 1 nm course, otherwise decimal hours)

	WL	LR	OLYMPIC	CR
	1.00	1.00	1.00	1.00
4.0	1194	844	1121	891
5.0	970	700	912	733
6.0	835	611	786	637
7.0	745	556	704	577
8.0	681	521	648	536
9.0	634	496	608	508
10.0	601	478	580	488
12.0	557	453	542	461
14.0	527	435	516	443
16.0	505	421	497	429
20.0	475	399	471	407
25.0	447	374	448	386

Times for 1 nm (secs)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	1399.3	1064.7	882.8	764.8	687.8	634.7	596.7	546.1	514.2	495.0	475.2	464.4
36.0	1175.9	921.1	770.9	677.8	616.4	574.6	544.3	503.7	481.6	468.7	455.1	446.0
40.0	1032.4	819.4	697.0	619.9	569.1	532.7	507.2	477.8	462.3	452.7	441.4	432.8
45.0	911.8	737.0	635.4	571.9	527.7	497.8	479.0	458.4	446.6	438.7	428.5	421.5
52.0	805.2	664.9	582.5	528.4	492.7	471.5	457.9	441.2	431.3	425.0	415.1	406.8
60.0	735.9	617.3	546.4	499.4	472.5	456.1	444.5	428.6	418.6	412.1	402.4	393.5
70.0	691.2	586.6	521.8	482.7	460.9	446.4	435.4	419.2	408.1	400.0	389.2	378.9
80.0	675.0	575.6	513.5	477.5	457.0	442.7	431.6	414.7	402.2	392.1	377.6	366.2
90.0	682.8	572.0	502.8	466.0	446.7	435.1	427.7	414.4	400.6	388.7	369.6	354.7
100.0	661.5	555.0	490.3	458.3	440.7	429.1	420.8	409.2	399.9	390.2	367.6	346.0
110.0	658.3	552.8	489.5	458.2	440.0	427.0	417.1	402.8	392.2	382.9	367.4	345.2
120.0	678.3	568.8	501.9	466.0	445.3	430.3	418.4	400.0	385.6	374.4	356.8	336.2
135.0	780.7	643.0	559.4	503.3	469.4	448.2	432.4	408.4	389.1	371.7	341.9	307.9
150.0	1010.4	809.0	684.2	600.7	541.2	496.9	468.3	434.2	411.3	392.4	357.7	311.1
160.0	1233.1	981.9	818.7	708.1	628.8	570.0	523.6	464.5	432.7	409.9	372.9	327.9
170.0	1402.5	1116.5	928.8	797.3	702.2	630.5	575.2	495.4	451.2	423.9	385.0	341.6
180.0	1501.8	1195.7	993.9	851.7	748.1	669.7	609.0	521.1	466.8	435.6	395.2	353.9
Up	1288.7	1042.9	898.0	805.1	741.3	694.7	662.2	620.9	595.3	578.6	559.3	547.3
Dn	1099.0	897.8	771.6	685.3	620.6	573.8	539.9	494.0	457.8	430.5	390.9	346.9

Deltas against Trialhorse (s/nm) Trialhorse:

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Up	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Performance Numbers for Ops_Down2

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	80.0	4.332	0.752	2.6	1.000	1.000	6.39	38.1	1.69	1.80	117	2
4.0	90.0	4.765	0.000	2.9	1.000	1.000	6.22	40.0	1.49	1.60	126	1
4.0	100.0	5.025	-0.873	2.9	1.000	1.000	5.85	42.3	1.35	1.44	126	1
4.0	110.0	5.089	-1.741	2.7	1.000	1.000	5.29	45.3	1.20	1.29	116	1
4.0	120.0	4.913	-2.457	2.2	1.000	1.000	4.53	49.9	1.05	1.12	94	1
4.0	135.0	4.185	-2.959	1.1	1.000	1.000	3.14	64.4	0.73	0.78	47	1
4.0	150.0	3.296	-2.854	0.3	1.000	1.000	2.01	94.8	0.37	0.39	14	1
4.0	160.0	2.750	-2.584	0.1	1.000	1.000	1.70	126.4	0.19	0.20	5	1
4.0	170.0	2.457	-2.420	0.1	1.000	1.000	1.64	154.9	0.10	0.11	2	1
4.0	180.0	2.279	-2.279	0.0	1.000	1.000	1.72	180.0	0.01	0.01	0	1
5.0	80.0	5.330	0.925	4.1	1.000	1.000	7.91	38.4	1.72	1.84	183	2
5.0	90.0	5.812	0.000	4.6	1.000	1.000	7.66	40.6	1.55	1.66	198	1
5.0	100.0	6.086	-1.057	4.6	1.000	1.000	7.16	43.2	1.41	1.51	198	1
5.0	110.0	6.129	-2.096	4.2	1.000	1.000	6.44	46.7	1.26	1.34	179	1
5.0	120.0	5.930	-2.965	3.4	1.000	1.000	5.52	51.6	1.07	1.15	143	1
5.0	135.0	5.143	-3.637	1.7	1.000	1.000	3.88	65.5	0.73	0.78	72	1
5.0	150.0	4.129	-3.576	0.5	1.000	1.000	2.51	94.6	0.36	0.39	23	1
5.0	160.0	3.456	-3.248	0.2	1.000	1.000	2.11	126.0	0.19	0.20	8	1
5.0	170.0	3.088	-3.041	0.1	1.000	1.000	2.03	154.7	0.10	0.11	4	1
5.0	180.0	2.864	-2.864	0.0	1.000	1.000	2.14	180.0	0.01	0.01	0	1
6.0	80.0	6.214	1.079	6.5	1.000	1.000	9.33	39.0	1.80	1.93	264	2
6.0	90.0	6.719	0.000	7.1	1.000	1.000	8.97	41.5	1.65	1.76	286	1
6.0	100.0	6.991	-1.214	7.1	1.000	1.000	8.35	44.6	1.50	1.60	283	1
6.0	110.0	7.001	-2.394	6.4	1.000	1.000	7.47	48.5	1.32	1.42	251	1
6.0	120.0	6.755	-3.378	4.9	1.000	1.000	6.39	54.0	1.11	1.19	195	1
6.0	135.0	5.977	-4.226	2.3	1.000	1.000	4.58	67.8	0.73	0.78	99	1
6.0	150.0	4.913	-4.255	0.8	1.000	1.000	3.01	95.4	0.36	0.39	32	1
6.0	160.0	4.152	-3.902	0.3	1.000	1.000	2.53	125.9	0.18	0.20	12	1
6.0	170.0	3.714	-3.658	0.1	1.000	1.000	2.43	154.6	0.10	0.11	5	1
6.0	180.0	3.448	-3.448	0.0	1.000	1.000	2.55	180.0	0.01	0.01	0	1
7.0	80.0	6.990	1.214	8.9	1.000	1.000	10.66	39.7	1.92	2.05	361	2
7.0	90.0	7.452	0.000	9.7	1.000	1.000	10.15	42.8	1.80	1.92	389	1
7.0	100.0	7.634	-1.326	9.5	1.000	1.000	9.34	46.6	1.65	1.76	378	1
7.0	110.0	7.615	-2.604	8.3	1.000	1.000	8.34	51.2	1.43	1.53	326	1
7.0	120.0	7.416	-3.708	6.3	1.000	1.000	7.18	56.9	1.15	1.23	249	1
7.0	135.0	6.707	-4.743	3.1	1.000	1.000	5.25	70.5	0.74	0.79	129	1
7.0	150.0	5.630	-4.876	1.0	1.000	1.000	3.53	97.0	0.36	0.39	43	1
7.0	160.0	4.817	-4.527	0.4	1.000	1.000	2.97	126.3	0.18	0.20	16	1
7.0	170.0	4.332	-4.267	0.2	1.000	1.000	2.84	154.6	0.10	0.11	7	1
7.0	180.0	4.027	-4.027	0.0	1.000	1.000	2.97	180.0	0.01	0.01	0	1
8.0	80.0	7.573	1.315	11.7	1.000	1.000	11.81	40.7	2.11	2.26	472	1
8.0	90.0	7.904	0.000	12.6	1.000	1.000	11.10	44.6	2.05	2.19	502	1
8.0	100.0	8.018	-1.392	12.0	1.000	1.000	10.15	49.2	1.86	1.99	472	1
8.0	110.0	7.992	-2.733	10.1	1.000	1.000	9.07	54.6	1.56	1.67	396	1
8.0	120.0	7.839	-3.919	7.6	1.000	1.000	7.86	60.7	1.23	1.31	300	1
8.0	135.0	7.335	-5.187	3.8	1.000	1.000	5.90	73.5	0.76	0.81	160	1
8.0	150.0	6.275	-5.434	1.3	1.000	1.000	4.05	99.3	0.36	0.39	55	1
8.0	160.0	5.443	-5.115	0.5	1.000	1.000	3.43	127.2	0.19	0.20	21	1
8.0	170.0	4.925	-4.850	0.2	1.000	1.000	3.26	154.8	0.10	0.11	9	1
8.0	180.0	4.592	-4.592	0.0	1.000	1.000	3.41	180.0	0.01	0.01	1	1

Ops_Down2 (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
9.0	80.0	7.942	1.379	14.8	1.000	1.000	12.77	41.9	2.41	2.58	593	1
9.0	90.0	8.195	0.000	15.5	1.000	1.000	11.91	46.5	2.34	2.50	615	1
9.0	100.0	8.287	-1.439	14.3	1.000	1.000	10.89	51.8	2.07	2.22	564	1
9.0	110.0	8.268	-2.828	11.9	1.000	1.000	9.76	57.8	1.70	1.82	465	1
9.0	120.0	8.150	-4.075	9.0	1.000	1.000	8.51	64.6	1.32	1.41	351	1
9.0	135.0	7.758	-5.486	4.8	1.000	1.000	6.49	77.6	0.79	0.84	189	1
9.0	150.0	6.873	-5.952	1.6	1.000	1.000	4.59	101.6	0.37	0.39	67	1
9.0	160.0	6.024	-5.661	0.6	1.000	1.000	3.92	128.3	0.19	0.21	27	1
9.0	170.0	5.492	-5.409	0.3	1.000	1.000	3.72	155.1	0.10	0.11	12	1
9.0	180.0	5.134	-5.134	0.0	1.000	1.000	3.87	180.0	0.01	0.01	1	1
10.0	80.0	8.189	1.422	18.0	1.000	1.000	13.61	43.2	2.76	2.96	717	1
10.0	90.0	8.399	0.000	18.4	1.000	1.000	12.64	48.3	2.64	2.82	726	1
10.0	100.0	8.493	-1.475	16.6	1.000	1.000	11.58	54.3	2.29	2.45	652	1
10.0	110.0	8.495	-2.906	13.6	1.000	1.000	10.43	60.8	1.85	1.97	534	1
10.0	120.0	8.409	-4.205	10.3	1.000	1.000	9.17	68.1	1.41	1.51	403	1
10.0	135.0	8.082	-5.715	5.6	1.000	1.000	7.11	81.8	0.83	0.89	219	1
10.0	150.0	7.384	-6.395	1.9	1.000	1.000	5.16	104.3	0.37	0.40	80	1
10.0	160.0	6.566	-6.170	0.8	1.000	1.000	4.44	129.6	0.20	0.21	33	1
10.0	170.0	6.027	-5.936	0.3	1.000	1.000	4.20	155.6	0.11	0.11	15	1
10.0	180.0	5.654	-5.654	0.0	1.000	1.000	4.35	180.0	0.01	0.01	1	1
12.0	80.0	8.474	1.472	22.6	0.969	1.000	15.11	45.8	3.37	3.60	920	1
12.0	90.0	8.658	0.000	23.1	0.987	1.000	13.96	51.7	3.20	3.43	917	1
12.0	100.0	8.791	-1.526	21.0	1.000	1.000	12.85	58.5	2.73	2.92	823	1
12.0	110.0	8.858	-3.030	17.3	1.000	1.000	11.73	66.0	2.15	2.30	676	1
12.0	120.0	8.836	-4.418	13.2	1.000	1.000	10.49	74.2	1.62	1.73	515	1
12.0	135.0	8.593	-6.076	7.2	1.000	1.000	8.41	89.2	0.93	1.00	282	1
12.0	150.0	8.055	-6.976	2.5	1.000	1.000	6.44	111.3	0.40	0.43	106	1
12.0	160.0	7.508	-7.055	1.2	1.000	1.000	5.57	132.6	0.22	0.24	49	1
12.0	170.0	7.017	-6.910	0.5	1.000	1.000	5.23	156.5	0.11	0.12	22	1
12.0	180.0	6.614	-6.614	0.0	1.000	1.000	5.39	180.0	0.01	0.01	1	1
14.0	80.0	8.651	1.502	22.9	0.878	1.000	16.76	48.7	3.52	3.76	1007	1
14.0	90.0	8.835	0.000	23.2	0.906	1.000	15.52	55.3	3.29	3.52	988	1
14.0	100.0	8.996	-1.562	23.4	0.966	1.000	14.17	62.3	3.02	3.22	944	1
14.0	110.0	9.144	-3.128	21.1	1.000	1.000	12.96	70.2	2.48	2.66	822	1
14.0	120.0	9.202	-4.601	16.3	1.000	1.000	11.80	79.1	1.84	1.96	635	1
14.0	135.0	9.019	-6.378	9.0	1.000	1.000	9.80	95.1	1.04	1.11	352	1
14.0	150.0	8.532	-7.389	3.2	1.000	1.000	7.87	117.2	0.46	0.49	137	1
14.0	160.0	8.117	-7.628	1.6	1.000	1.000	6.95	136.5	0.27	0.28	71	1
14.0	170.0	7.776	-7.658	0.7	1.000	1.000	6.48	158.0	0.13	0.14	31	1
14.0	180.0	7.454	-7.454	0.0	1.000	1.000	6.55	180.0	0.01	0.01	2	1
16.0	80.0	8.792	1.527	23.0	0.807	1.000	18.44	51.2	3.63	3.88	1079	1
16.0	90.0	8.987	0.000	23.3	0.842	1.000	17.12	58.3	3.37	3.60	1053	1
16.0	100.0	9.177	-1.594	23.6	0.900	1.000	15.69	65.8	3.07	3.28	1006	1
16.0	110.0	9.377	-3.207	24.0	0.984	1.000	14.18	73.8	2.75	2.94	948	1
16.0	120.0	9.535	-4.768	19.5	1.000	1.000	13.08	83.1	2.05	2.19	761	1
16.0	135.0	9.437	-6.673	11.0	1.000	1.000	11.24	99.5	1.14	1.22	429	1
16.0	150.0	8.932	-7.736	4.1	1.000	1.000	9.37	121.7	0.52	0.56	175	1
16.0	160.0	8.582	-8.064	2.3	1.000	1.000	8.46	139.7	0.32	0.34	98	1
16.0	170.0	8.296	-8.170	1.0	1.000	1.000	7.96	159.6	0.15	0.16	43	1
16.0	180.0	8.035	-8.035	0.1	1.000	1.000	7.97	180.0	0.01	0.01	3	1

Ops_Down2 (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
20.0	80.0	9.019	1.566	23.3	0.705	1.000	21.84	55.2	3.84	4.10	1210	1
20.0	90.0	9.255	0.000	23.6	0.741	1.000	20.39	63.0	3.51	3.75	1176	1
20.0	100.0	9.506	-1.651	24.0	0.795	1.000	18.84	71.2	3.16	3.38	1128	1
20.0	110.0	9.771	-3.342	24.5	0.873	1.000	17.21	80.0	2.80	3.00	1068	1
20.0	120.0	10.056	-5.028	25.2	0.986	1.000	15.52	89.4	2.44	2.61	994	1
20.0	135.0	10.256	-7.252	15.3	1.000	1.000	14.12	105.8	1.31	1.40	600	1
20.0	150.0	9.748	-8.442	6.9	1.000	1.000	12.47	127.3	0.66	0.71	274	1
20.0	160.0	9.394	-8.827	3.8	1.000	1.000	11.63	144.0	0.44	0.47	165	1
20.0	170.0	9.105	-8.966	1.7	1.000	1.000	11.15	161.8	0.21	0.23	74	1
20.0	180.0	8.856	-8.856	0.1	1.000	1.000	11.14	180.0	0.02	0.02	5	1
25.0	80.0	9.245	1.605	23.7	0.616	1.000	26.14	58.8	4.07	4.35	1358	1
25.0	90.0	9.541	0.000	24.0	0.649	1.000	24.56	67.1	3.67	3.93	1322	1
25.0	100.0	9.853	-1.711	24.5	0.699	1.000	22.88	76.0	3.28	3.50	1273	1
25.0	110.0	10.202	-3.489	25.1	0.771	1.000	21.13	85.3	2.86	3.06	1211	1
25.0	120.0	10.665	-5.332	26.0	0.875	1.000	19.33	95.1	2.40	2.57	1133	1
25.0	135.0	11.477	-8.115	21.3	1.000	1.000	17.45	110.4	1.40	1.50	835	1
25.0	150.0	10.991	-9.519	10.9	1.000	1.000	16.21	130.9	0.77	0.83	432	1
25.0	160.0	10.497	-9.864	6.8	1.000	1.000	15.51	146.8	0.54	0.58	270	1
25.0	170.0	10.122	-9.968	2.9	1.000	1.000	15.13	163.3	0.27	0.29	124	1
25.0	180.0	9.791	-9.791	0.2	1.000	1.000	15.21	180.0	0.02	0.03	10	1

Optimum Downwind Numbers for Ops_Down2

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	138.9	3.949	-2.976	0.9	1.000	1.000	2.79	70.4	0.63	0.68	36	1
5.0	141.1	4.744	-3.690	1.2	1.000	1.000	3.26	74.8	0.58	0.62	48	1
6.0	142.9	5.436	-4.338	1.5	1.000	1.000	3.67	79.8	0.53	0.57	59	1
7.0	145.0	6.016	-4.926	1.7	1.000	1.000	4.03	85.9	0.48	0.52	66	1
8.0	146.1	6.583	-5.462	2.0	1.000	1.000	4.46	90.7	0.46	0.49	77	1
9.0	147.9	7.040	-5.964	2.1	1.000	1.000	4.82	97.0	0.42	0.45	81	1
10.0	150.5	7.346	-6.393	1.9	1.000	1.000	5.11	105.4	0.36	0.38	76	1
12.0	157.1	7.673	-7.065	1.5	1.000	1.000	5.77	125.8	0.26	0.28	61	1
14.0	166.5	7.891	-7.672	1.1	1.000	1.000	6.59	150.2	0.18	0.19	44	1
16.0	169.7	8.305	-8.170	1.1	1.000	1.000	7.97	158.9	0.16	0.17	45	1
20.0	171.0	9.080	-8.967	1.6	1.000	1.000	11.12	163.6	0.19	0.20	66	1
25.0	169.1	10.150	-9.965	3.4	1.000	1.000	15.15	161.8	0.30	0.32	137	1

Performance Numbers for Ops_Upwind

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	32.0	2.573	2.182	2.2	1.000	1.000	6.33	19.6	4.84	5.17	116	3
4.0	36.0	3.062	2.477	2.5	1.000	1.000	6.72	20.5	3.90	4.17	133	3
4.0	40.0	3.487	2.671	2.7	1.000	1.000	7.04	21.4	3.32	3.55	148	3
4.0	45.0	3.948	2.792	3.0	1.000	1.000	7.34	22.7	2.84	3.04	162	3
4.0	52.0	4.471	2.753	3.3	1.000	1.000	7.62	24.4	2.39	2.55	176	3
4.0	60.0	4.892	2.446	3.4	1.000	1.000	7.71	26.7	2.04	2.18	181	2
4.0	70.0	5.209	1.781	3.2	1.000	1.000	7.58	29.7	1.71	1.83	173	2
4.0	80.0	5.333	0.926	2.8	1.000	1.000	7.20	33.2	1.44	1.54	154	2
4.0	90.0	5.272	0.000	2.3	1.000	1.000	6.62	37.2	1.21	1.30	126	1
4.0	100.0	5.044	-0.876	1.7	1.000	1.000	5.87	42.2	1.00	1.07	95	1
4.0	110.0	4.654	-1.592	1.2	1.000	1.000	4.99	48.8	0.80	0.86	64	1
4.0	120.0	4.087	-2.044	0.7	1.000	1.000	4.04	58.9	0.61	0.65	37	1
5.0	32.0	3.381	2.867	3.5	1.000	1.000	8.07	19.2	4.50	4.81	188	3
5.0	36.0	3.908	3.162	4.1	1.000	1.000	8.48	20.2	3.77	4.03	211	3
5.0	40.0	4.394	3.366	4.5	1.000	1.000	8.82	21.3	3.26	3.49	232	3
5.0	45.0	4.885	3.454	5.1	1.000	1.000	9.13	22.7	2.84	3.04	251	3
5.0	52.0	5.414	3.333	5.4	1.000	1.000	9.35	24.8	2.43	2.60	266	3
5.0	60.0	5.832	2.916	5.5	1.000	1.000	9.38	27.3	2.09	2.24	268	2
5.0	70.0	6.137	2.099	5.1	1.000	1.000	9.13	30.8	1.75	1.88	251	2
5.0	80.0	6.254	1.086	4.1	1.000	1.000	8.65	34.6	1.47	1.58	220	2
5.0	90.0	6.203	0.000	3.3	1.000	1.000	7.97	38.9	1.23	1.31	180	1
5.0	100.0	5.978	-1.038	2.5	1.000	1.000	7.10	43.9	1.01	1.08	137	1
5.0	110.0	5.587	-1.911	1.7	1.000	1.000	6.09	50.5	0.80	0.86	94	1
5.0	120.0	5.009	-2.504	1.0	1.000	1.000	5.00	59.9	0.60	0.64	56	1
6.0	32.0	4.078	3.458	5.5	1.000	1.000	9.69	19.0	4.44	4.75	270	3
6.0	36.0	4.670	3.778	6.2	1.000	1.000	10.15	20.2	3.76	4.02	302	3
6.0	40.0	5.165	3.957	6.7	1.000	1.000	10.48	21.4	3.31	3.54	327	3
6.0	45.0	5.666	4.006	7.1	1.000	1.000	10.76	23.0	2.91	3.12	350	3
6.0	52.0	6.180	3.805	7.4	1.000	1.000	10.93	25.4	2.52	2.69	364	2
6.0	60.0	6.589	3.294	7.3	1.000	1.000	10.88	28.2	2.17	2.32	360	2
6.0	70.0	6.899	2.360	6.8	1.000	1.000	10.55	32.0	1.81	1.93	333	2
6.0	80.0	7.010	1.217	5.9	1.000	1.000	9.97	36.1	1.51	1.62	288	2
6.0	90.0	6.954	0.000	4.4	1.000	1.000	9.17	40.7	1.25	1.34	235	1
6.0	100.0	6.739	-1.170	3.3	1.000	1.000	8.21	46.0	1.02	1.09	179	1
6.0	110.0	6.341	-2.169	2.3	1.000	1.000	7.08	52.7	0.80	0.86	124	1
6.0	120.0	5.781	-2.890	1.4	1.000	1.000	5.89	61.8	0.60	0.64	76	1
7.0	32.0	4.707	3.992	7.5	1.000	1.000	11.26	19.1	4.48	4.79	365	3
7.0	36.0	5.311	4.297	8.2	1.000	1.000	11.70	20.3	3.85	4.12	402	3
7.0	40.0	5.808	4.449	8.8	1.000	1.000	12.01	21.7	3.42	3.66	431	3
7.0	45.0	6.295	4.451	9.3	1.000	1.000	12.25	23.5	3.04	3.25	455	2
7.0	52.0	6.814	4.195	9.5	1.000	1.000	12.37	26.0	2.63	2.81	467	2
7.0	60.0	7.208	3.604	9.3	1.000	1.000	12.26	29.2	2.26	2.42	455	2
7.0	70.0	7.458	2.551	8.4	1.000	1.000	11.80	33.4	1.89	2.02	412	2
7.0	80.0	7.540	1.309	7.2	1.000	1.000	11.11	38.0	1.58	1.69	353	2
7.0	90.0	7.499	0.000	5.8	1.000	1.000	10.23	42.9	1.29	1.38	287	1
7.0	100.0	7.334	-1.274	4.1	1.000	1.000	9.20	48.3	1.04	1.11	220	1
7.0	110.0	6.997	-2.393	2.8	1.000	1.000	8.03	55.0	0.81	0.87	155	1
7.0	120.0	6.425	-3.213	1.8	1.000	1.000	6.73	64.2	0.60	0.65	96	1

Ops_Upwind (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
8.0	32.0	5.234	4.439	9.6	1.000	1.000	12.71	19.2	4.62	4.94	466	3
8.0	36.0	5.841	4.725	10.4	1.000	1.000	13.14	20.6	4.01	4.29	509	3
8.0	40.0	6.326	4.846	11.1	1.000	1.000	13.42	22.0	3.60	3.84	540	2
8.0	45.0	6.822	4.824	11.6	1.000	1.000	13.64	23.9	3.19	3.41	565	2
8.0	52.0	7.306	4.498	11.7	1.000	1.000	13.69	26.8	2.77	2.97	571	2
8.0	60.0	7.618	3.809	11.1	1.000	1.000	13.45	30.3	2.40	2.57	545	2
8.0	70.0	7.811	2.671	9.9	1.000	1.000	12.88	35.0	2.02	2.15	486	2
8.0	80.0	7.877	1.368	8.4	1.000	1.000	12.10	40.0	1.67	1.79	412	1
8.0	90.0	7.848	0.000	6.8	1.000	1.000	11.16	45.3	1.36	1.45	334	1
8.0	100.0	7.723	-1.341	5.2	1.000	1.000	10.08	51.1	1.08	1.15	256	1
8.0	110.0	7.483	-2.559	3.4	1.000	1.000	8.89	57.7	0.83	0.88	183	1
8.0	120.0	7.004	-3.502	2.1	1.000	1.000	7.55	66.6	0.61	0.65	116	1
9.0	32.0	5.672	4.810	11.3	1.000	0.962	14.09	19.4	4.64	4.96	552	3
9.0	36.0	6.265	5.069	12.7	1.000	1.000	14.47	20.8	4.24	4.53	620	3
9.0	40.0	6.758	5.177	13.4	1.000	1.000	14.74	22.4	3.80	4.06	654	3
9.0	45.0	7.231	5.113	13.8	1.000	1.000	14.91	24.4	3.39	3.63	676	2
9.0	52.0	7.636	4.701	13.7	1.000	1.000	14.85	27.6	2.97	3.18	671	2
9.0	60.0	7.893	3.946	12.9	1.000	1.000	14.52	31.5	2.59	2.77	632	2
9.0	70.0	8.065	2.758	11.4	1.000	1.000	13.87	36.6	2.16	2.31	557	2
9.0	80.0	8.131	1.412	9.6	1.000	1.000	13.04	42.0	1.78	1.90	471	1
9.0	90.0	8.109	0.000	7.7	1.000	1.000	12.05	47.7	1.44	1.54	379	1
9.0	100.0	8.003	-1.390	5.9	1.000	1.000	10.92	53.8	1.13	1.21	290	1
9.0	110.0	7.810	-2.671	3.8	1.000	1.000	9.69	60.8	0.85	0.91	209	1
9.0	120.0	7.447	-3.724	2.5	1.000	1.000	8.33	69.3	0.62	0.66	136	1
10.0	32.0	6.034	5.117	12.9	1.000	0.914	15.38	19.6	4.66	4.98	628	3
10.0	36.0	6.614	5.351	14.5	1.000	0.960	15.74	21.1	4.32	4.62	706	2
10.0	40.0	7.098	5.437	15.7	1.000	0.999	15.97	22.7	4.05	4.33	768	2
10.0	45.0	7.515	5.314	16.1	1.000	1.000	16.05	24.9	3.65	3.90	786	2
10.0	52.0	7.862	4.840	15.7	1.000	1.000	15.91	28.4	3.22	3.44	769	2
10.0	60.0	8.100	4.050	14.6	1.000	1.000	15.52	32.6	2.79	2.98	718	2
10.0	70.0	8.269	2.828	12.8	1.000	1.000	14.83	38.0	2.32	2.48	630	2
10.0	80.0	8.341	1.448	10.8	1.000	1.000	13.96	43.8	1.89	2.03	530	1
10.0	90.0	8.327	0.000	8.6	1.000	1.000	12.92	49.9	1.52	1.62	426	1
10.0	100.0	8.232	-1.429	6.6	1.000	1.000	11.74	56.4	1.18	1.27	325	1
10.0	110.0	8.049	-2.753	4.7	1.000	1.000	10.44	63.7	0.89	0.95	233	1
10.0	120.0	7.758	-3.879	2.8	1.000	1.000	9.09	72.3	0.64	0.69	154	1
12.0	32.0	6.592	5.590	15.5	1.000	0.816	17.81	20.0	4.69	5.01	757	3
12.0	36.0	7.147	5.782	17.0	1.000	0.852	18.10	21.8	4.35	4.66	833	3
12.0	40.0	7.534	5.772	18.2	1.000	0.887	18.20	23.6	4.16	4.45	890	2
12.0	45.0	7.853	5.553	19.2	1.000	0.940	18.13	26.1	4.03	4.31	942	2
12.0	52.0	8.160	5.024	19.7	1.000	1.000	17.85	29.7	3.79	4.05	965	2
12.0	60.0	8.400	4.200	18.2	1.000	1.000	17.41	34.4	3.25	3.47	893	2
12.0	70.0	8.587	2.937	15.9	1.000	1.000	16.66	40.4	2.66	2.84	780	2
12.0	80.0	8.680	1.507	13.3	1.000	1.000	15.73	46.8	2.15	2.29	654	1
12.0	90.0	8.687	0.000	10.6	1.000	1.000	14.63	53.6	1.70	1.82	524	1
12.0	100.0	8.610	-1.495	8.1	1.000	1.000	13.39	60.8	1.31	1.40	399	1
12.0	110.0	8.449	-2.890	5.8	1.000	1.000	12.03	68.8	0.98	1.05	286	1
12.0	120.0	8.207	-4.104	3.5	1.000	1.000	10.62	78.0	0.70	0.75	192	1

Ops_Upwind (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
14.0	32.0	7.001	5.937	17.6	1.000	0.726	20.09	20.5	4.72	5.05	861	3
14.0	36.0	7.475	6.047	19.0	1.000	0.754	20.27	22.4	4.44	4.75	929	2
14.0	40.0	7.787	5.965	20.1	1.000	0.788	20.27	24.5	4.30	4.60	982	3
14.0	45.0	8.061	5.700	21.0	1.000	0.837	20.11	27.2	4.19	4.48	1029	2
14.0	52.0	8.347	5.139	21.8	1.000	0.915	19.72	31.0	4.04	4.32	1069	2
14.0	60.0	8.601	4.300	21.8	1.000	1.000	19.14	35.7	3.77	4.04	1073	2
14.0	70.0	8.822	3.017	19.0	1.000	1.000	18.37	42.3	3.04	3.25	935	2
14.0	80.0	8.951	1.554	15.9	1.000	1.000	17.43	49.3	2.42	2.59	784	1
14.0	90.0	8.987	0.000	12.7	1.000	1.000	16.32	56.6	1.89	2.03	629	1
14.0	100.0	8.928	-1.550	9.7	1.000	1.000	15.05	64.4	1.45	1.55	479	1
14.0	110.0	8.780	-3.003	7.0	1.000	1.000	13.65	73.0	1.08	1.16	345	1
14.0	120.0	8.552	-4.276	4.7	1.000	1.000	12.18	82.7	0.78	0.83	234	1
16.0	32.0	7.273	6.167	19.3	1.000	0.645	22.24	21.0	4.80	5.14	944	3
16.0	36.0	7.680	6.213	20.6	1.000	0.672	22.32	23.1	4.58	4.90	1009	2
16.0	40.0	7.952	6.091	21.5	1.000	0.702	22.25	25.3	4.45	4.76	1055	2
16.0	45.0	8.206	5.802	22.4	1.000	0.746	22.03	28.1	4.32	4.62	1096	2
16.0	52.0	8.471	5.215	22.6	0.919	1.000	21.59	32.3	4.34	4.64	1184	2
16.0	60.0	8.735	4.368	23.3	0.964	1.000	20.90	37.1	4.04	4.32	1179	2
16.0	70.0	8.999	3.078	22.2	1.000	1.000	19.98	43.8	3.46	3.70	1093	2
16.0	80.0	9.182	1.594	18.6	1.000	1.000	19.06	51.2	2.71	2.89	919	1
16.0	90.0	9.263	0.000	15.0	1.000	1.000	17.97	59.0	2.09	2.24	740	1
16.0	100.0	9.227	-1.602	11.5	1.000	1.000	16.71	67.3	1.59	1.70	567	1
16.0	110.0	9.083	-3.106	8.3	1.000	1.000	15.30	76.3	1.19	1.27	411	1
16.0	120.0	8.861	-4.431	5.7	1.000	1.000	13.81	86.4	0.87	0.93	283	1
20.0	32.0	7.576	6.425	21.9	1.000	0.518	26.29	21.8	5.06	5.41	1071	2
20.0	36.0	7.911	6.400	22.7	0.979	0.562	26.27	24.2	4.86	5.20	1129	2
20.0	40.0	8.156	6.248	22.9	0.945	0.632	26.14	26.7	4.72	5.05	1175	2
20.0	45.0	8.401	5.940	23.2	0.915	0.718	25.87	29.9	4.57	4.89	1218	2
20.0	52.0	8.672	5.339	23.0	0.825	1.000	25.36	34.6	4.54	4.86	1306	2
20.0	60.0	8.945	4.473	23.6	0.866	1.000	24.56	39.8	4.20	4.49	1295	2
20.0	70.0	9.249	3.163	24.1	0.928	1.000	23.36	46.7	3.79	4.05	1261	2
20.0	80.0	9.535	1.656	24.2	1.000	1.000	22.02	53.9	3.34	3.57	1197	1
20.0	90.0	9.740	0.000	19.8	1.000	1.000	21.09	62.5	2.50	2.68	977	1
20.0	100.0	9.793	-1.700	15.4	1.000	1.000	19.95	71.5	1.88	2.01	761	1
20.0	110.0	9.689	-3.314	11.4	1.000	1.000	18.61	81.2	1.40	1.50	564	1
20.0	120.0	9.466	-4.733	8.1	1.000	1.000	17.14	91.8	1.05	1.12	402	1
25.0	32.0	7.752	6.574	22.6	0.899	0.501	31.24	22.9	5.41	5.78	1201	2
25.0	36.0	8.073	6.531	23.0	0.859	0.574	31.17	25.5	5.20	5.57	1265	2
25.0	40.0	8.317	6.371	23.2	0.830	0.647	30.98	28.2	5.05	5.40	1313	2
25.0	45.0	8.541	6.040	22.8	0.722	0.948	30.68	31.8	5.13	5.48	1424	2
25.0	52.0	8.850	5.448	23.4	0.734	1.000	30.04	36.6	4.81	5.14	1447	2
25.0	60.0	9.150	4.575	24.0	0.772	1.000	29.12	42.3	4.42	4.72	1434	2
25.0	70.0	9.502	3.250	24.6	0.829	1.000	27.76	49.7	3.94	4.21	1396	2
25.0	80.0	9.832	1.707	24.9	0.900	1.000	26.24	57.4	3.47	3.71	1336	1
25.0	90.0	10.149	0.000	25.3	0.991	1.000	24.58	65.6	3.02	3.23	1260	1
25.0	100.0	10.406	-1.807	20.6	1.000	1.000	23.68	75.1	2.22	2.38	1022	1
25.0	110.0	10.430	-3.567	15.8	1.000	1.000	22.60	85.1	1.65	1.76	783	1
25.0	120.0	10.236	-5.118	11.8	1.000	1.000	21.27	96.0	1.26	1.35	582	1

Optimum Upwind Numbers for Ops_Upwind

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	46.7	4.074	2.794	3.4	1.000	1.000	7.41	23.1	2.72	2.91	166	3
5.0	44.9	4.875	3.452	5.1	1.000	1.000	9.12	22.7	2.85	3.05	251	2
6.0	43.6	5.531	4.009	7.0	1.000	1.000	10.69	22.5	3.02	3.23	344	2
7.0	42.2	6.041	4.472	9.1	1.000	1.000	12.14	22.5	3.24	3.46	443	2
8.0	41.6	6.492	4.856	11.2	1.000	1.000	13.51	22.6	3.46	3.70	550	2
9.0	41.0	6.866	5.182	13.5	1.000	1.000	14.79	22.8	3.71	3.97	660	3
10.0	39.9	7.084	5.437	15.7	1.000	0.998	15.96	22.7	4.06	4.34	767	2
12.0	37.5	7.314	5.798	17.5	1.000	0.864	18.16	22.5	4.26	4.56	856	3
14.0	36.0	7.477	6.047	19.0	1.000	0.754	20.27	22.5	4.44	4.75	930	3
16.0	34.8	7.574	6.222	20.2	1.000	0.663	22.32	22.4	4.63	4.95	991	2
20.0	33.3	7.701	6.436	22.3	1.000	0.525	26.30	22.5	4.98	5.33	1091	2
25.0	32.8	7.828	6.578	22.7	0.890	0.516	31.24	23.4	5.36	5.73	1215	2

Performance Numbers for Ops_Down

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	80.0	4.932	0.856	3.8	1.000	1.000	6.87	35.0	2.07	2.22	187	2
4.0	90.0	5.265	0.000	3.9	1.000	1.000	6.61	37.2	1.84	1.96	190	1
4.0	100.0	5.442	-0.945	3.8	1.000	1.000	6.17	39.7	1.67	1.79	186	1
4.0	110.0	5.468	-1.870	3.6	1.000	1.000	5.56	42.5	1.51	1.62	170	1
4.0	120.0	5.308	-2.654	3.0	1.000	1.000	4.79	46.3	1.33	1.42	140	1
4.0	135.0	4.611	-3.261	1.6	1.000	1.000	3.34	57.8	0.95	1.01	75	1
4.0	150.0	3.563	-3.086	0.5	1.000	1.000	2.00	87.2	0.48	0.51	22	1
4.0	160.0	2.920	-2.743	0.2	1.000	1.000	1.60	121.5	0.23	0.24	7	1
4.0	170.0	2.567	-2.528	0.1	1.000	1.000	1.54	153.2	0.12	0.13	3	1
4.0	180.0	2.397	-2.397	0.0	1.000	1.000	1.60	180.0	0.01	0.01	0	1
5.0	80.0	5.941	1.032	6.3	1.000	1.000	8.38	35.7	2.16	2.30	287	2
5.0	90.0	6.293	0.000	6.6	1.000	1.000	8.02	38.3	1.95	2.09	294	1
5.0	100.0	6.486	-1.126	6.6	1.000	1.000	7.45	41.0	1.79	1.91	287	1
5.0	110.0	6.512	-2.227	6.0	1.000	1.000	6.70	44.2	1.60	1.72	260	1
5.0	120.0	6.330	-3.165	4.6	1.000	1.000	5.77	48.4	1.38	1.48	211	1
5.0	135.0	5.599	-3.959	2.5	1.000	1.000	4.09	59.7	0.95	1.01	112	1
5.0	150.0	4.450	-3.854	0.8	1.000	1.000	2.50	87.3	0.47	0.51	35	1
5.0	160.0	3.666	-3.445	0.2	1.000	1.000	2.00	121.1	0.22	0.24	11	1
5.0	170.0	3.224	-3.175	0.1	1.000	1.000	1.91	152.9	0.12	0.13	5	1
5.0	180.0	3.011	-3.011	0.0	1.000	1.000	1.99	180.0	0.01	0.01	0	1
6.0	80.0	6.798	1.180	9.0	1.000	1.000	9.77	36.6	2.29	2.45	405	2
6.0	90.0	7.160	0.000	9.5	1.000	1.000	9.28	39.5	2.11	2.26	419	1
6.0	100.0	7.342	-1.275	9.4	1.000	1.000	8.58	42.7	1.94	2.08	408	1
6.0	110.0	7.355	-2.516	8.5	1.000	1.000	7.69	46.4	1.72	1.84	363	1
6.0	120.0	7.173	-3.587	6.8	1.000	1.000	6.63	51.0	1.44	1.54	288	1
6.0	135.0	6.435	-4.551	3.3	1.000	1.000	4.78	62.7	0.95	1.02	151	1
6.0	150.0	5.261	-4.556	1.1	1.000	1.000	3.00	88.8	0.47	0.50	49	1
6.0	160.0	4.397	-4.132	0.3	1.000	1.000	2.40	121.2	0.22	0.24	16	1
6.0	170.0	3.876	-3.817	0.1	1.000	1.000	2.28	152.9	0.12	0.13	6	1
6.0	180.0	3.622	-3.622	0.0	1.000	1.000	2.38	180.0	0.01	0.01	0	1
7.0	80.0	7.451	1.294	12.1	1.000	1.000	10.97	37.8	2.51	2.69	540	1
7.0	90.0	7.725	0.000	12.8	1.000	1.000	10.30	41.4	2.40	2.57	559	1
7.0	100.0	7.855	-1.364	12.5	1.000	1.000	9.44	45.3	2.22	2.37	536	1
7.0	110.0	7.856	-2.687	11.0	1.000	1.000	8.45	49.7	1.91	2.04	464	1
7.0	120.0	7.726	-3.863	8.6	1.000	1.000	7.33	54.8	1.53	1.63	360	1
7.0	135.0	7.153	-5.058	4.3	1.000	1.000	5.40	65.9	0.96	1.03	193	1
7.0	150.0	5.993	-5.190	1.4	1.000	1.000	3.50	91.1	0.47	0.50	64	1
7.0	160.0	5.084	-4.777	0.5	1.000	1.000	2.82	122.0	0.22	0.24	21	1
7.0	170.0	4.515	-4.447	0.2	1.000	1.000	2.67	152.9	0.12	0.13	9	1
7.0	180.0	4.227	-4.227	0.0	1.000	1.000	2.77	180.0	0.01	0.01	0	1
8.0	80.0	7.843	1.362	15.5	1.000	1.000	11.93	39.3	2.89	3.09	687	1
8.0	90.0	8.060	0.000	16.4	1.000	1.000	11.11	43.5	2.80	2.99	706	1
8.0	100.0	8.169	-1.419	15.5	1.000	1.000	10.16	48.1	2.52	2.70	660	1
8.0	110.0	8.182	-2.799	13.3	1.000	1.000	9.11	53.2	2.10	2.25	557	1
8.0	120.0	8.084	-4.042	10.2	1.000	1.000	7.94	59.0	1.64	1.75	426	1
8.0	135.0	7.669	-5.423	5.6	1.000	1.000	5.98	70.3	0.99	1.06	231	1
8.0	150.0	6.652	-5.761	1.8	1.000	1.000	4.01	94.0	0.47	0.50	81	1
8.0	160.0	5.725	-5.380	0.6	1.000	1.000	3.27	123.2	0.23	0.24	28	1
8.0	170.0	5.127	-5.049	0.3	1.000	1.000	3.08	153.2	0.12	0.13	12	1
8.0	180.0	4.812	-4.812	0.0	1.000	1.000	3.19	180.0	0.01	0.01	1	1

Ops_Down (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
9.0	80.0	8.084	1.404	19.2	1.000	1.000	12.73	40.8	3.36	3.59	840	1
9.0	90.0	8.275	0.000	19.8	1.000	1.000	11.80	45.5	3.23	3.45	849	1
9.0	100.0	8.390	-1.457	18.4	1.000	1.000	10.80	50.7	2.84	3.03	777	1
9.0	110.0	8.430	-2.883	15.4	1.000	1.000	9.73	56.6	2.30	2.46	647	1
9.0	120.0	8.365	-4.183	11.8	1.000	1.000	8.54	63.0	1.75	1.88	492	1
9.0	135.0	8.032	-5.679	6.5	1.000	1.000	6.54	75.2	1.04	1.11	269	1
9.0	150.0	7.245	-6.274	2.2	1.000	1.000	4.53	97.0	0.47	0.51	98	1
9.0	160.0	6.316	-5.935	0.8	1.000	1.000	3.75	124.8	0.23	0.25	35	1
9.0	170.0	5.710	-5.623	0.3	1.000	1.000	3.52	153.6	0.12	0.13	15	1
9.0	180.0	5.375	-5.375	0.0	1.000	1.000	3.62	180.0	0.01	0.01	1	1
10.0	80.0	8.235	1.430	21.6	0.980	0.986	13.48	42.4	3.71	3.96	952	1
10.0	90.0	8.418	0.000	22.0	0.999	0.948	12.47	47.5	3.48	3.72	939	1
10.0	100.0	8.555	-1.486	21.1	1.000	1.000	11.40	53.2	3.15	3.37	888	1
10.0	110.0	8.630	-2.952	17.6	1.000	1.000	10.34	59.6	2.50	2.67	735	1
10.0	120.0	8.604	-4.302	13.5	1.000	1.000	9.14	66.7	1.88	2.01	561	1
10.0	135.0	8.326	-5.887	7.4	1.000	1.000	7.12	79.8	1.09	1.17	308	1
10.0	150.0	7.687	-6.657	2.6	1.000	1.000	5.09	101.0	0.49	0.52	115	1
10.0	160.0	6.875	-6.460	1.0	1.000	1.000	4.25	126.4	0.24	0.26	44	1
10.0	170.0	6.258	-6.163	0.4	1.000	1.000	3.99	154.2	0.13	0.13	19	1
10.0	180.0	5.911	-5.911	0.0	1.000	1.000	4.09	180.0	0.01	0.01	1	1
12.0	80.0	8.457	1.468	21.9	0.881	0.938	15.14	46.0	3.79	4.06	1035	1
12.0	90.0	8.638	0.000	22.0	0.884	0.977	14.02	52.0	3.57	3.82	1024	1
12.0	100.0	8.797	-1.528	22.3	0.930	1.000	12.77	58.2	3.31	3.53	988	1
12.0	110.0	8.938	-3.057	21.9	1.000	1.000	11.47	64.9	2.93	3.13	912	1
12.0	120.0	8.999	-4.500	17.0	1.000	1.000	10.35	73.0	2.16	2.31	704	1
12.0	135.0	8.814	-6.233	9.5	1.000	1.000	8.36	87.7	1.22	1.31	392	1
12.0	150.0	8.292	-7.181	3.3	1.000	1.000	6.36	109.3	0.53	0.57	149	1
12.0	160.0	7.750	-7.282	1.4	1.000	1.000	5.41	130.7	0.27	0.29	65	1
12.0	170.0	7.267	-7.156	0.6	1.000	1.000	5.01	155.4	0.14	0.14	28	1
12.0	180.0	6.908	-6.908	0.0	1.000	1.000	5.09	180.0	0.01	0.01	1	1
14.0	80.0	8.624	1.498	22.0	0.799	0.937	16.81	49.0	3.91	4.18	1116	1
14.0	90.0	8.820	0.000	22.1	0.803	1.000	15.61	55.6	3.66	3.91	1103	1
14.0	100.0	9.002	-1.563	22.5	0.861	1.000	14.25	62.5	3.36	3.59	1059	1
14.0	110.0	9.178	-3.139	23.0	0.943	1.000	12.80	69.8	3.04	3.25	1003	1
14.0	120.0	9.335	-4.668	20.7	1.000	1.000	11.52	78.1	2.45	2.62	856	1
14.0	135.0	9.252	-6.542	11.8	1.000	1.000	9.69	93.7	1.36	1.45	485	1
14.0	150.0	8.752	-7.579	4.2	1.000	1.000	7.75	115.8	0.59	0.63	189	1
14.0	160.0	8.320	-7.819	2.1	1.000	1.000	6.81	135.3	0.33	0.35	93	1
14.0	170.0	7.979	-7.858	0.9	1.000	1.000	6.30	157.3	0.16	0.17	41	1
14.0	180.0	7.713	-7.713	0.0	1.000	1.000	6.29	180.0	0.01	0.01	2	1
16.0	80.0	8.762	1.522	22.1	0.729	0.953	18.51	51.5	4.02	4.29	1192	1
16.0	90.0	8.978	0.000	22.3	0.747	1.000	17.22	58.6	3.74	4.00	1174	1
16.0	100.0	9.188	-1.596	22.8	0.803	1.000	15.78	66.0	3.41	3.65	1129	1
16.0	110.0	9.402	-3.216	23.3	0.882	1.000	14.26	73.8	3.07	3.28	1071	1
16.0	120.0	9.616	-4.808	24.0	0.993	1.000	12.66	82.3	2.72	2.91	998	1
16.0	135.0	9.685	-6.849	14.2	1.000	1.000	11.05	98.3	1.48	1.58	586	1
16.0	150.0	9.174	-7.945	5.7	1.000	1.000	9.23	120.4	0.67	0.72	239	1
16.0	160.0	8.782	-8.253	2.8	1.000	1.000	8.31	138.8	0.40	0.42	128	1
16.0	170.0	8.492	-8.363	1.3	1.000	1.000	7.78	159.1	0.19	0.21	57	1
16.0	180.0	8.264	-8.264	0.1	1.000	1.000	7.74	180.0	0.01	0.01	3	1

Ops_Down (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
20.0	80.0	8.990	1.561	22.2	0.624	0.995	21.96	55.5	4.24	4.53	1336	1
20.0	90.0	9.252	0.000	22.7	0.659	1.000	20.51	63.2	3.88	4.15	1309	1
20.0	100.0	9.523	-1.654	23.3	0.711	1.000	18.94	71.3	3.51	3.75	1264	1
20.0	110.0	9.798	-3.351	23.9	0.783	1.000	17.29	79.9	3.13	3.34	1203	1
20.0	120.0	10.089	-5.045	24.8	0.887	1.000	15.58	89.3	2.73	2.92	1126	1
20.0	135.0	10.530	-7.446	19.5	1.000	1.000	13.72	104.9	1.68	1.80	804	1
20.0	150.0	10.064	-8.715	8.8	1.000	1.000	12.24	126.2	0.82	0.88	366	1
20.0	160.0	9.655	-9.072	5.1	1.000	1.000	11.39	143.3	0.53	0.57	215	1
20.0	170.0	9.351	-9.209	2.2	1.000	1.000	10.91	161.4	0.26	0.28	99	1
20.0	180.0	9.110	-9.110	0.1	1.000	1.000	10.89	180.0	0.02	0.02	7	1
25.0	80.0	9.218	1.601	22.6	0.544	1.000	26.30	59.1	4.47	4.78	1494	1
25.0	90.0	9.541	0.000	23.2	0.577	1.000	24.70	67.3	4.05	4.33	1468	1
25.0	100.0	9.870	-1.714	23.9	0.625	1.000	23.00	76.0	3.63	3.88	1423	1
25.0	110.0	10.231	-3.499	24.7	0.692	1.000	21.22	85.2	3.18	3.40	1361	1
25.0	120.0	10.707	-5.354	25.6	0.787	1.000	19.39	94.9	2.68	2.87	1280	1
25.0	135.0	11.690	-8.266	26.3	1.000	1.000	16.71	110.3	1.80	1.92	1086	1
25.0	150.0	11.572	-10.021	13.6	1.000	1.000	15.72	129.6	0.89	0.95	563	1
25.0	160.0	10.979	-10.317	8.4	1.000	1.000	15.08	145.9	0.62	0.67	349	1
25.0	170.0	10.538	-10.378	3.6	1.000	1.000	14.74	162.9	0.33	0.35	166	1
25.0	180.0	10.172	-10.172	0.3	1.000	1.000	14.83	180.0	0.03	0.03	12	1

Optimum Downwind Numbers for Ops_Down

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	138.1	4.401	-3.276	1.4	1.000	1.000	3.03	61.9	0.85	0.91	61	1
5.0	140.3	5.213	-4.010	1.9	1.000	1.000	3.47	66.8	0.78	0.83	79	1
6.0	142.6	5.872	-4.666	2.2	1.000	1.000	3.80	73.1	0.70	0.75	92	1
7.0	144.3	6.468	-5.253	2.5	1.000	1.000	4.15	79.1	0.65	0.69	104	1
8.0	146.1	6.987	-5.800	2.7	1.000	1.000	4.47	85.6	0.59	0.63	113	1
9.0	149.1	7.311	-6.274	2.5	1.000	1.000	4.63	95.1	0.50	0.54	106	1
10.0	152.0	7.553	-6.668	2.3	1.000	1.000	4.86	105.2	0.42	0.45	96	1
12.0	157.8	7.871	-7.288	1.8	1.000	1.000	5.57	125.6	0.31	0.33	77	1
14.0	167.3	8.060	-7.864	1.3	1.000	1.000	6.39	151.3	0.20	0.22	53	1
16.0	170.6	8.476	-8.363	1.3	1.000	1.000	7.76	160.4	0.18	0.19	53	1
20.0	171.0	9.322	-9.209	2.1	1.000	1.000	10.89	163.4	0.24	0.25	88	1
25.0	167.1	10.647	-10.379	5.2	1.000	1.000	14.79	158.0	0.42	0.45	217	1

Best Performance

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Sail	Flot
4.0	32.0	2.573	2.182	2.2	1.000	1.000	6.33	19.6	4.84	Up	MBF
4.0	36.0	3.062	2.477	2.5	1.000	1.000	6.72	20.5	3.90	Up	MBF
4.0	40.0	3.487	2.671	2.7	1.000	1.000	7.04	21.4	3.32	Up	MBF
4.0	45.0	3.948	2.792	3.0	1.000	1.000	7.34	22.7	2.84	Up	MBF
4.0	***46.7***	***4.074***	***2.794***	***3.4***	***1.000***	***1.000***	***7.41***	***23.1***	***2.72***	***Up***	***MBF***
4.0	52.0	4.471	2.753	3.3	1.000	1.000	7.62	24.4	2.39	Up	MBF
4.0	60.0	4.892	2.446	3.4	1.000	1.000	7.71	26.7	2.04	Up	MBF
4.0	70.0	5.209	1.781	3.2	1.000	1.000	7.58	29.7	1.71	Up	MBF
4.0	80.0	5.333	0.926	2.8	1.000	1.000	7.20	33.2	1.44	Up	MBF
4.0	90.0	5.272	-0.000	2.3	1.000	1.000	6.62	37.2	1.21	Up	MBF
4.0	100.0	5.442	-0.945	3.8	1.000	1.000	6.17	39.7	1.67	Dn	MBF
4.0	110.0	5.468	-1.870	3.6	1.000	1.000	5.56	42.5	1.51	Dn	MBF
4.0	120.0	5.308	-2.654	3.0	1.000	1.000	4.79	46.3	1.33	Dn	MBF
4.0	135.0	4.611	-3.261	1.6	1.000	1.000	3.34	57.8	0.95	Dn	MBF
4.0	***138.1***	***4.401***	***-3.276***	***1.4***	***1.000***	***1.000***	***3.03***	***61.9***	***0.85***	***Dn***	***MBF***
4.0	150.0	3.563	-3.086	0.5	1.000	1.000	2.00	87.2	0.48	Dn	MBF
4.0	160.0	2.920	-2.743	0.2	1.000	1.000	1.60	121.5	0.23	Dn	MBF
4.0	170.0	2.567	-2.528	0.1	1.000	1.000	1.54	153.2	0.12	Dn	MBF
4.0	180.0	2.397	-2.397	0.0	1.000	1.000	1.60	180.0	0.01	Dn	MBF
5.0	32.0	3.381	2.867	3.5	1.000	1.000	8.07	19.2	4.50	Up	MBF
5.0	36.0	3.908	3.162	4.1	1.000	1.000	8.48	20.2	3.77	Up	MBF
5.0	40.0	4.394	3.366	4.5	1.000	1.000	8.82	21.3	3.26	Up	MBF
5.0	***44.9***	***4.875***	***3.452***	***5.1***	***1.000***	***1.000***	***9.12***	***22.7***	***2.85***	***Up***	***MBF***
5.0	45.0	4.885	3.454	5.1	1.000	1.000	9.13	22.7	2.84	Up	MBF
5.0	52.0	5.414	3.333	5.4	1.000	1.000	9.35	24.8	2.43	Up	MBF
5.0	60.0	5.832	2.916	5.5	1.000	1.000	9.38	27.3	2.09	Up	MBF
5.0	70.0	6.137	2.099	5.1	1.000	1.000	9.13	30.8	1.75	Up	MBF
5.0	80.0	6.254	1.086	4.1	1.000	1.000	8.65	34.6	1.47	Up	MBF
5.0	90.0	6.293	-0.000	6.6	1.000	1.000	8.02	38.3	1.95	Dn	MBF
5.0	100.0	6.486	-1.126	6.6	1.000	1.000	7.45	41.0	1.79	Dn	MBF
5.0	110.0	6.512	-2.227	6.0	1.000	1.000	6.70	44.2	1.60	Dn	MBF
5.0	120.0	6.330	-3.165	4.6	1.000	1.000	5.77	48.4	1.38	Dn	MBF
5.0	135.0	5.599	-3.959	2.5	1.000	1.000	4.09	59.7	0.95	Dn	MBF
5.0	***140.3***	***5.213***	***-4.010***	***1.9***	***1.000***	***1.000***	***3.47***	***66.8***	***0.78***	***Dn***	***MBF***
5.0	150.0	4.450	-3.854	0.8	1.000	1.000	2.50	87.3	0.47	Dn	MBF
5.0	160.0	3.666	-3.445	0.2	1.000	1.000	2.00	121.1	0.22	Dn	MBF
5.0	170.0	3.224	-3.175	0.1	1.000	1.000	1.91	152.9	0.12	Dn	MBF
5.0	180.0	3.011	-3.011	0.0	1.000	1.000	1.99	180.0	0.01	Dn	MBF
6.0	32.0	4.078	3.458	5.5	1.000	1.000	9.69	19.0	4.44	Up	MBF
6.0	36.0	4.670	3.778	6.2	1.000	1.000	10.15	20.2	3.76	Up	MBF
6.0	40.0	5.165	3.957	6.7	1.000	1.000	10.48	21.4	3.31	Up	MBF
6.0	***43.6***	***5.531***	***4.009***	***7.0***	***1.000***	***1.000***	***10.69***	***22.5***	***3.02***	***Up***	***MBF***
6.0	45.0	5.666	4.006	7.1	1.000	1.000	10.76	23.0	2.91	Up	MBF
6.0	52.0	6.180	3.805	7.4	1.000	1.000	10.93	25.4	2.52	Up	MBF
6.0	60.0	6.589	3.294	7.3	1.000	1.000	10.88	28.2	2.17	Up	MBF
6.0	70.0	6.899	2.360	6.8	1.000	1.000	10.55	32.0	1.81	Up	MBF
6.0	80.0	7.010	1.217	5.9	1.000	1.000	9.97	36.1	1.51	Up	MBF
6.0	90.0	7.160	-0.000	9.5	1.000	1.000	9.28	39.5	2.11	Dn	MBF
6.0	100.0	7.342	-1.275	9.4	1.000	1.000	8.58	42.7	1.94	Dn	MBF
6.0	110.0	7.355	-2.516	8.5	1.000	1.000	7.69	46.4	1.72	Dn	MBF
6.0	120.0	7.173	-3.587	6.8	1.000	1.000	6.63	51.0	1.44	Dn	MBF
6.0	135.0	6.435	-4.551	3.3	1.000	1.000	4.78	62.7	0.95	Dn	MBF
6.0	***142.6***	***5.872***	***-4.666***	***2.2***	***1.000***	***1.000***	***3.80***	***73.1***	***0.70***	***Dn***	***MBF***
6.0	150.0	5.261	-4.556	1.1	1.000	1.000	3.00	88.8	0.47	Dn	MBF
6.0	160.0	4.397	-4.132	0.3	1.000	1.000	2.40	121.2	0.22	Dn	MBF
6.0	170.0	3.876	-3.817	0.1	1.000	1.000	2.28	152.9	0.12	Dn	MBF
6.0	180.0	3.622	-3.622	0.0	1.000	1.000	2.38	180.0	0.01	Dn	MBF

Best Performance (cont)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Sail	Flot
7.0	32.0	4.707	3.992	7.5	1.000	1.000	11.26	19.1	4.48	Up	MBF
7.0	36.0	5.311	4.297	8.2	1.000	1.000	11.70	20.3	3.85	Up	MBF
7.0	40.0	5.808	4.449	8.8	1.000	1.000	12.01	21.7	3.42	Up	MBF
7.0	***42.2***	***6.041***	***4.472***	***9.1***	***1.000***	***1.000***	***12.14***	***22.5***	***3.24***	***Up***	***MBF***
7.0	45.0	6.295	4.451	9.3	1.000	1.000	12.25	23.5	3.04	Up	MBF
7.0	52.0	6.814	4.195	9.5	1.000	1.000	12.37	26.0	2.63	Up	MBF
7.0	60.0	7.208	3.604	9.3	1.000	1.000	12.26	29.2	2.26	Up	MBF
7.0	70.0	7.458	2.551	8.4	1.000	1.000	11.80	33.4	1.89	Up	MBF
7.0	80.0	7.540	1.309	7.2	1.000	1.000	11.11	38.0	1.58	Up	MBF
7.0	90.0	7.725	-0.000	12.8	1.000	1.000	10.30	41.4	2.40	Dn	MBF
7.0	100.0	7.855	-1.364	12.5	1.000	1.000	9.44	45.3	2.22	Dn	MBF
7.0	110.0	7.856	-2.687	11.0	1.000	1.000	8.45	49.7	1.91	Dn	MBF
7.0	120.0	7.726	-3.863	8.6	1.000	1.000	7.33	54.8	1.53	Dn	MBF
7.0	135.0	7.153	-5.058	4.3	1.000	1.000	5.40	65.9	0.96	Dn	MBF
7.0	***144.3***	***6.468***	***-5.253***	***2.5***	***1.000***	***1.000***	***4.15***	***79.1***	***0.65***	***Dn***	***MBF***
7.0	150.0	5.993	-5.190	1.4	1.000	1.000	3.50	91.1	0.47	Dn	MBF
7.0	160.0	5.084	-4.777	0.5	1.000	1.000	2.82	122.0	0.22	Dn	MBF
7.0	170.0	4.515	-4.447	0.2	1.000	1.000	2.67	152.9	0.12	Dn	MBF
7.0	180.0	4.227	-4.227	0.0	1.000	1.000	2.77	180.0	0.01	Dn	MBF
8.0	32.0	5.234	4.439	9.6	1.000	1.000	12.71	19.2	4.62	Up	MBF
8.0	36.0	5.841	4.725	10.4	1.000	1.000	13.14	20.6	4.01	Up	MBF
8.0	40.0	6.326	4.846	11.1	1.000	1.000	13.42	22.0	3.60	Up	MBF
8.0	***41.6***	***6.492***	***4.856***	***11.2***	***1.000***	***1.000***	***13.51***	***22.6***	***3.46***	***Up***	***MBF***
8.0	45.0	6.822	4.824	11.6	1.000	1.000	13.64	23.9	3.19	Up	MBF
8.0	52.0	7.306	4.498	11.7	1.000	1.000	13.69	26.8	2.77	Up	MBF
8.0	60.0	7.618	3.809	11.1	1.000	1.000	13.45	30.3	2.40	Up	MBF
8.0	70.0	7.811	2.671	9.9	1.000	1.000	12.88	35.0	2.02	Up	MBF
8.0	80.0	7.877	1.368	8.4	1.000	1.000	12.10	40.0	1.67	Up	MBF
8.0	90.0	8.060	-0.000	16.4	1.000	1.000	11.11	43.5	2.80	Dn	MBF
8.0	100.0	8.169	-1.419	15.5	1.000	1.000	10.16	48.1	2.52	Dn	MBF
8.0	110.0	8.182	-2.799	13.3	1.000	1.000	9.11	53.2	2.10	Dn	MBF
8.0	120.0	8.084	-4.042	10.2	1.000	1.000	7.94	59.0	1.64	Dn	MBF
8.0	135.0	7.669	-5.423	5.6	1.000	1.000	5.98	70.3	0.99	Dn	MBF
8.0	***146.1***	***6.987***	***-5.800***	***2.7***	***1.000***	***1.000***	***4.47***	***85.6***	***0.59***	***Dn***	***MBF***
8.0	150.0	6.652	-5.761	1.8	1.000	1.000	4.01	94.0	0.47	Dn	MBF
8.0	160.0	5.725	-5.380	0.6	1.000	1.000	3.27	123.2	0.23	Dn	MBF
8.0	170.0	5.127	-5.049	0.3	1.000	1.000	3.08	153.2	0.12	Dn	MBF
8.0	180.0	4.812	-4.812	0.0	1.000	1.000	3.19	180.0	0.01	Dn	MBF
9.0	32.0	5.672	4.810	11.3	1.000	0.962	14.09	19.4	4.64	Up	MBF
9.0	36.0	6.265	5.069	12.7	1.000	1.000	14.47	20.8	4.24	Up	MBF
9.0	40.0	6.758	5.177	13.4	1.000	1.000	14.74	22.4	3.80	Up	MBF
9.0	***41.0***	***6.866***	***5.182***	***13.5***	***1.000***	***1.000***	***14.79***	***22.8***	***3.71***	***Up***	***MBF***
9.0	45.0	7.231	5.113	13.8	1.000	1.000	14.91	24.4	3.39	Up	MBF
9.0	52.0	7.636	4.701	13.7	1.000	1.000	14.85	27.6	2.97	Up	MBF
9.0	60.0	7.893	3.946	12.9	1.000	1.000	14.52	31.5	2.59	Up	MBF
9.0	70.0	8.065	2.758	11.4	1.000	1.000	13.87	36.6	2.16	Up	MBF
9.0	80.0	8.131	1.412	9.6	1.000	1.000	13.04	42.0	1.78	Up	MBF
9.0	90.0	8.275	-0.000	19.8	1.000	1.000	11.80	45.5	3.23	Dn	MBF
9.0	100.0	8.390	-1.457	18.4	1.000	1.000	10.80	50.7	2.84	Dn	MBF
9.0	110.0	8.430	-2.883	15.4	1.000	1.000	9.73	56.6	2.30	Dn	MBF
9.0	120.0	8.365	-4.183	11.8	1.000	1.000	8.54	63.0	1.75	Dn	MBF
9.0	135.0	8.032	-5.679	6.5	1.000	1.000	6.54	75.2	1.04	Dn	MBF
9.0	***149.1***	***7.311***	***-6.274***	***2.5***	***1.000***	***1.000***	***4.63***	***95.1***	***0.50***	***Dn***	***MBF***
9.0	150.0	7.245	-6.274	2.2	1.000	1.000	4.53	97.0	0.47	Dn	MBF
9.0	160.0	6.316	-5.935	0.8	1.000	1.000	3.75	124.8	0.23	Dn	MBF
9.0	170.0	5.710	-5.623	0.3	1.000	1.000	3.52	153.6	0.12	Dn	MBF
9.0	180.0	5.375	-5.375	0.0	1.000	1.000	3.62	180.0	0.01	Dn	MBF

Best Performance (cont)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Sail	Flot
10.0	32.0	6.034	5.117	12.9	1.000	0.914	15.38	19.6	4.66	Up	MBF
10.0	36.0	6.614	5.351	14.5	1.000	0.960	15.74	21.1	4.32	Up	MBF
10.0	***39.9***	***7.084***	***5.437***	***15.7***	***1.000***	***0.998***	***15.96***	***22.7***	***4.06***	***Up***	***MBF***
10.0	40.0	7.098	5.437	15.7	1.000	0.999	15.97	22.7	4.05	Up	MBF
10.0	45.0	7.515	5.314	16.1	1.000	1.000	16.05	24.9	3.65	Up	MBF
10.0	52.0	7.862	4.840	15.7	1.000	1.000	15.91	28.4	3.22	Up	MBF
10.0	60.0	8.100	4.050	14.6	1.000	1.000	15.52	32.6	2.79	Up	MBF
10.0	70.0	8.269	2.828	12.8	1.000	1.000	14.83	38.0	2.32	Up	MBF
10.0	80.0	8.341	1.448	10.8	1.000	1.000	13.96	43.8	1.89	Up	MBF
10.0	90.0	8.418	-0.000	22.0	0.999	0.948	12.47	47.5	3.48	Dn	MBF
10.0	100.0	8.555	-1.486	21.1	1.000	1.000	11.40	53.2	3.15	Dn	MBF
10.0	110.0	8.630	-2.952	17.6	1.000	1.000	10.34	59.6	2.50	Dn	MBF
10.0	120.0	8.604	-4.302	13.5	1.000	1.000	9.14	66.7	1.88	Dn	MBF
10.0	135.0	8.326	-5.887	7.4	1.000	1.000	7.12	79.8	1.09	Dn	MBF
10.0	150.0	7.687	-6.657	2.6	1.000	1.000	5.09	101.0	0.49	Dn	MBF
10.0	***152.0***	***7.553***	***-6.668***	***2.3***	***1.000***	***1.000***	***4.86***	***105.2***	***0.42***	***Dn***	***MBF***
10.0	160.0	6.875	-6.460	1.0	1.000	1.000	4.25	126.4	0.24	Dn	MBF
10.0	170.0	6.258	-6.163	0.4	1.000	1.000	3.99	154.2	0.13	Dn	MBF
10.0	180.0	5.911	-5.911	0.0	1.000	1.000	4.09	180.0	0.01	Dn	MBF
12.0	32.0	6.592	5.590	15.5	1.000	0.816	17.81	20.0	4.69	Up	MBF
12.0	36.0	7.147	5.782	17.0	1.000	0.852	18.10	21.8	4.35	Up	MBF
12.0	***37.5***	***7.314***	***5.798***	***17.5***	***1.000***	***0.864***	***18.16***	***22.5***	***4.26***	***Up***	***MBF***
12.0	40.0	7.534	5.772	18.2	1.000	0.887	18.20	23.6	4.16	Up	MBF
12.0	45.0	7.853	5.553	19.2	1.000	0.940	18.13	26.1	4.03	Up	MBF
12.0	52.0	8.160	5.024	19.7	1.000	1.000	17.85	29.7	3.79	Up	MBF
12.0	60.0	8.400	4.200	18.2	1.000	1.000	17.41	34.4	3.25	Up	MBF
12.0	70.0	8.587	2.937	15.9	1.000	1.000	16.66	40.4	2.66	Up	MBF
12.0	80.0	8.680	1.507	13.3	1.000	1.000	15.73	46.8	2.15	Up	MBF
12.0	90.0	8.687	-0.000	10.6	1.000	1.000	14.63	53.6	1.70	Up	MBF
12.0	100.0	8.797	-1.528	22.3	0.930	1.000	12.77	58.2	3.31	Dn	MBF
12.0	110.0	8.938	-3.057	21.9	1.000	1.000	11.47	64.9	2.93	Dn	MBF
12.0	120.0	8.999	-4.500	17.0	1.000	1.000	10.35	73.0	2.16	Dn	MBF
12.0	135.0	8.814	-6.233	9.5	1.000	1.000	8.36	87.7	1.22	Dn	MBF
12.0	150.0	8.292	-7.181	3.3	1.000	1.000	6.36	109.3	0.53	Dn	MBF
12.0	***157.8***	***7.871***	***-7.288***	***1.8***	***1.000***	***1.000***	***5.57***	***125.6***	***0.31***	***Dn***	***MBF***
12.0	160.0	7.750	-7.282	1.4	1.000	1.000	5.41	130.7	0.27	Dn	MBF
12.0	170.0	7.267	-7.156	0.6	1.000	1.000	5.01	155.4	0.14	Dn	MBF
12.0	180.0	6.908	-6.908	0.0	1.000	1.000	5.09	180.0	0.01	Dn	MBF
14.0	32.0	7.001	5.937	17.6	1.000	0.726	20.09	20.5	4.72	Up	MBF
14.0	36.0	7.475	6.047	19.0	1.000	0.754	20.27	22.4	4.44	Up	MBF
14.0	***36.0***	***7.477***	***6.047***	***19.0***	***1.000***	***0.754***	***20.27***	***22.5***	***4.44***	***Up***	***MBF***
14.0	40.0	7.787	5.965	20.1	1.000	0.788	20.27	24.5	4.30	Up	MBF
14.0	45.0	8.061	5.700	21.0	1.000	0.837	20.11	27.2	4.19	Up	MBF
14.0	52.0	8.347	5.139	21.8	1.000	0.915	19.72	31.0	4.04	Up	MBF
14.0	60.0	8.601	4.300	21.8	1.000	1.000	19.14	35.7	3.77	Up	MBF
14.0	70.0	8.822	3.017	19.0	1.000	1.000	18.37	42.3	3.04	Up	MBF
14.0	80.0	8.951	1.554	15.9	1.000	1.000	17.43	49.3	2.42	Up	MBF
14.0	90.0	8.987	-0.000	12.7	1.000	1.000	16.32	56.6	1.89	Up	MBF
14.0	100.0	9.002	-1.563	22.5	0.861	1.000	14.25	62.5	3.36	Dn	MBF
14.0	110.0	9.178	-3.139	23.0	0.943	1.000	12.80	69.8	3.04	Dn	MBF
14.0	120.0	9.335	-4.668	20.7	1.000	1.000	11.52	78.1	2.45	Dn	MBF
14.0	135.0	9.252	-6.542	11.8	1.000	1.000	9.69	93.7	1.36	Dn	MBF
14.0	150.0	8.752	-7.579	4.2	1.000	1.000	7.75	115.8	0.59	Dn	MBF
14.0	160.0	8.320	-7.819	2.1	1.000	1.000	6.81	135.3	0.33	Dn	MBF
14.0	***167.3***	***8.060***	***-7.864***	***1.3***	***1.000***	***1.000***	***6.39***	***151.3***	***0.20***	***Dn***	***MBF***
14.0	170.0	7.979	-7.858	0.9	1.000	1.000	6.30	157.3	0.16	Dn	MBF
14.0	180.0	7.713	-7.713	0.0	1.000	1.000	6.29	180.0	0.01	Dn	MBF

Best Performance (cont)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Sail	Flot
16.0	32.0	7.273	6.167	19.3	1.000	0.645	22.24	21.0	4.80	Up	MBF
16.0	***34.8***	***7.574***	***6.222***	***20.2***	***1.000***	***0.663***	***22.32***	***22.4***	***4.63***	***Up***	***MBF***
16.0	36.0	7.680	6.213	20.6	1.000	0.672	22.32	23.1	4.58	Up	MBF
16.0	40.0	7.952	6.091	21.5	1.000	0.702	22.25	25.3	4.45	Up	MBF
16.0	45.0	8.206	5.802	22.4	1.000	0.746	22.03	28.1	4.32	Up	MBF
16.0	52.0	8.471	5.215	22.6	0.919	1.000	21.59	32.3	4.34	Up	MBF
16.0	60.0	8.735	4.368	23.3	0.964	1.000	20.90	37.1	4.04	Up	MBF
16.0	70.0	8.999	3.078	22.2	1.000	1.000	19.98	43.8	3.46	Up	MBF
16.0	80.0	9.182	1.594	18.6	1.000	1.000	19.06	51.2	2.71	Up	MBF
16.0	90.0	9.263	-0.000	15.0	1.000	1.000	17.97	59.0	2.09	Up	MBF
16.0	100.0	9.227	-1.602	11.5	1.000	1.000	16.71	67.3	1.59	Up	MBF
16.0	110.0	9.402	-3.216	23.3	0.882	1.000	14.26	73.8	3.07	Dn	MBF
16.0	120.0	9.616	-4.808	24.0	0.993	1.000	12.66	82.3	2.72	Dn	MBF
16.0	135.0	9.685	-6.849	14.2	1.000	1.000	11.05	98.3	1.48	Dn	MBF
16.0	150.0	9.174	-7.945	5.7	1.000	1.000	9.23	120.4	0.67	Dn	MBF
16.0	160.0	8.782	-8.253	2.8	1.000	1.000	8.31	138.8	0.40	Dn	MBF
16.0	170.0	8.492	-8.363	1.3	1.000	1.000	7.78	159.1	0.19	Dn	MBF
16.0	***170.6***	***8.476***	***-8.363***	***1.3***	***1.000***	***1.000***	***7.76***	***160.4***	***0.18***	***Dn***	***MBF***
16.0	180.0	8.264	-8.264	0.1	1.000	1.000	7.74	180.0	0.01	Dn	MBF
20.0	32.0	7.576	6.425	21.9	1.000	0.518	26.29	21.8	5.06	Up	MBF
20.0	***33.3***	***7.701***	***6.436***	***22.3***	***1.000***	***0.525***	***26.30***	***22.5***	***4.98***	***Up***	***MBF***
20.0	36.0	7.911	6.400	22.7	0.979	0.562	26.27	24.2	4.86	Up	MBF
20.0	40.0	8.156	6.248	22.9	0.945	0.632	26.14	26.7	4.72	Up	MBF
20.0	45.0	8.401	5.940	23.2	0.915	0.718	25.87	29.9	4.57	Up	MBF
20.0	52.0	8.672	5.339	23.0	0.825	1.000	25.36	34.6	4.54	Up	MBF
20.0	60.0	8.945	4.473	23.6	0.866	1.000	24.56	39.8	4.20	Up	MBF
20.0	70.0	9.249	3.163	24.1	0.928	1.000	23.36	46.7	3.79	Up	MBF
20.0	80.0	9.535	1.656	24.2	1.000	1.000	22.02	53.9	3.34	Up	MBF
20.0	90.0	9.740	-0.000	19.8	1.000	1.000	21.09	62.5	2.50	Up	MBF
20.0	100.0	9.793	-1.700	15.4	1.000	1.000	19.95	71.5	1.88	Up	MBF
20.0	110.0	9.798	-3.351	23.9	0.783	1.000	17.29	79.9	3.13	Dn	MBF
20.0	120.0	10.089	-5.045	24.8	0.887	1.000	15.58	89.3	2.73	Dn	MBF
20.0	135.0	10.530	-7.446	19.5	1.000	1.000	13.72	104.9	1.68	Dn	MBF
20.0	150.0	10.064	-8.715	8.8	1.000	1.000	12.24	126.2	0.82	Dn	MBF
20.0	160.0	9.655	-9.072	5.1	1.000	1.000	11.39	143.3	0.53	Dn	MBF
20.0	170.0	9.351	-9.209	2.2	1.000	1.000	10.91	161.4	0.26	Dn	MBF
20.0	***171.0***	***9.322***	***-9.209***	***2.1***	***1.000***	***1.000***	***10.89***	***163.4***	***0.24***	***Dn***	***MBF***
20.0	180.0	9.110	-9.110	0.1	1.000	1.000	10.89	180.0	0.02	Dn	MBF
25.0	32.0	7.752	6.574	22.6	0.899	0.501	31.24	22.9	5.41	Up	MBF
25.0	***32.8***	***7.828***	***6.578***	***22.7***	***0.890***	***0.516***	***31.24***	***23.4***	***5.36***	***Up***	***MBF***
25.0	36.0	8.073	6.531	23.0	0.859	0.574	31.17	25.5	5.20	Up	MBF
25.0	40.0	8.317	6.371	23.2	0.830	0.647	30.98	28.2	5.05	Up	MBF
25.0	45.0	8.541	6.040	22.8	0.722	0.948	30.68	31.8	5.13	Up	MBF
25.0	52.0	8.850	5.448	23.4	0.734	1.000	30.04	36.6	4.81	Up	MBF
25.0	60.0	9.150	4.575	24.0	0.772	1.000	29.12	42.3	4.42	Up	MBF
25.0	70.0	9.502	3.250	24.6	0.829	1.000	27.76	49.7	3.94	Up	MBF
25.0	80.0	9.832	1.707	24.9	0.900	1.000	26.24	57.4	3.47	Up	MBF
25.0	90.0	10.149	-0.000	25.3	0.991	1.000	24.58	65.6	3.02	Up	MBF
25.0	100.0	10.406	-1.807	20.6	1.000	1.000	23.68	75.1	2.22	Up	MBF
25.0	110.0	10.430	-3.567	15.8	1.000	1.000	22.60	85.1	1.65	Up	MBF
25.0	120.0	10.707	-5.354	25.6	0.787	1.000	19.39	94.9	2.68	Dn	MBF
25.0	135.0	11.690	-8.266	26.3	1.000	1.000	16.71	110.3	1.80	Dn	MBF
25.0	150.0	11.572	-10.021	13.6	1.000	1.000	15.72	129.6	0.89	Dn	MBF
25.0	160.0	10.979	-10.317	8.4	1.000	1.000	15.08	145.9	0.62	Dn	MBF
25.0	***167.1***	***10.647***	***-10.379***	***5.2***	***1.000***	***1.000***	***14.79***	***158.0***	***0.42***	***Dn***	***MBF***
25.0	170.0	10.538	-10.378	3.6	1.000	1.000	14.74	162.9	0.33	Dn	MBF
25.0	180.0	10.172	-10.172	0.3	1.000	1.000	14.83	180.0	0.03	Dn	MBF

Hydrodynamic Force Numbers for Ops_Down2

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	CFh	
4.0	80.0	4.33	2.63	0.058	0.657	0.231	0.000	0.053	0.004	44.6	117	0.088
4.0	90.0	4.77	2.88	0.086	0.645	0.226	0.000	0.043	0.000	54.2	126	0.079
4.0	100.0	5.02	2.92	0.106	0.636	0.222	0.000	0.036	0.000	60.6	126	0.071
4.0	110.0	5.09	2.70	0.112	0.637	0.222	0.000	0.029	0.000	62.0	116	0.064
4.0	120.0	4.91	2.20	0.099	0.651	0.228	0.000	0.022	0.000	56.8	94	0.055
4.0	135.0	4.18	1.11	0.054	0.693	0.243	0.000	0.010	0.000	39.7	47	0.038
4.0	150.0	3.30	0.34	0.020	0.722	0.255	0.000	0.003	0.000	24.6	14	0.019
4.0	160.0	2.75	0.12	0.005	0.733	0.262	0.000	0.001	0.000	17.4	5	0.010
4.0	170.0	2.46	0.05	0.000	0.738	0.265	-0.003	0.000	0.000	14.0	2	0.005
4.0	180.0	2.28	0.00	0.000	0.742	0.267	-0.009	0.000	0.000	12.2	0	0.000
5.0	80.0	5.33	4.14	0.129	0.603	0.211	0.001	0.057	0.003	71.3	183	0.091
5.0	90.0	5.81	4.56	0.175	0.576	0.201	0.001	0.047	0.000	87.5	198	0.083
5.0	100.0	6.09	4.61	0.206	0.559	0.194	0.001	0.039	0.000	98.1	198	0.076
5.0	110.0	6.13	4.20	0.213	0.560	0.194	0.001	0.031	0.000	99.2	179	0.068
5.0	120.0	5.93	3.35	0.193	0.582	0.202	0.000	0.023	0.000	89.8	143	0.058
5.0	135.0	5.14	1.70	0.119	0.645	0.225	0.000	0.011	0.000	62.4	72	0.039
5.0	150.0	4.13	0.54	0.052	0.700	0.245	0.000	0.003	0.000	38.4	23	0.019
5.0	160.0	3.46	0.19	0.026	0.720	0.254	0.000	0.001	0.000	26.9	8	0.010
5.0	170.0	3.09	0.08	0.014	0.727	0.258	0.000	0.000	0.000	21.7	4	0.005
5.0	180.0	2.86	0.00	0.008	0.731	0.261	0.000	0.000	0.000	18.8	0	0.000
6.0	80.0	6.21	6.49	0.215	0.534	0.186	0.003	0.062	0.002	106.7	264	0.097
6.0	90.0	6.72	7.13	0.270	0.500	0.173	0.004	0.052	0.000	131.7	286	0.089
6.0	100.0	6.99	7.12	0.301	0.483	0.167	0.005	0.043	0.000	146.7	283	0.082
6.0	110.0	7.00	6.35	0.306	0.488	0.168	0.004	0.034	0.000	145.7	251	0.072
6.0	120.0	6.76	4.95	0.283	0.513	0.177	0.002	0.025	0.000	129.5	195	0.061
6.0	135.0	5.98	2.35	0.200	0.586	0.203	0.000	0.011	0.000	90.6	99	0.040
6.0	150.0	4.91	0.77	0.101	0.665	0.232	0.000	0.003	0.000	55.7	32	0.019
6.0	160.0	4.15	0.27	0.053	0.701	0.246	0.000	0.001	0.000	38.7	12	0.010
6.0	170.0	3.71	0.12	0.035	0.713	0.251	0.000	0.000	0.000	31.0	5	0.005
6.0	180.0	3.45	0.01	0.026	0.720	0.254	0.000	0.000	0.000	26.8	0	0.000
7.0	80.0	6.99	8.93	0.292	0.468	0.163	0.008	0.068	0.001	151.2	361	0.104
7.0	90.0	7.45	9.75	0.359	0.424	0.147	0.012	0.058	0.000	187.9	389	0.098
7.0	100.0	7.63	9.54	0.398	0.403	0.139	0.012	0.048	0.000	206.9	378	0.091
7.0	110.0	7.61	8.28	0.400	0.412	0.142	0.009	0.037	0.000	201.3	326	0.079
7.0	120.0	7.42	6.34	0.368	0.448	0.154	0.004	0.026	0.000	176.4	249	0.064
7.0	135.0	6.71	3.05	0.282	0.525	0.181	0.000	0.011	0.000	125.0	129	0.041
7.0	150.0	5.63	1.02	0.165	0.618	0.214	0.000	0.003	0.000	76.9	43	0.019
7.0	160.0	4.82	0.37	0.094	0.671	0.234	0.000	0.001	0.000	53.1	16	0.010
7.0	170.0	4.33	0.16	0.061	0.695	0.243	0.000	0.000	0.000	42.2	7	0.005
7.0	180.0	4.03	0.01	0.048	0.705	0.247	0.000	0.000	0.000	36.4	0	0.000
8.0	80.0	7.57	11.75	0.371	0.396	0.138	0.019	0.076	0.001	207.2	472	0.115
8.0	90.0	7.90	12.63	0.444	0.346	0.120	0.026	0.064	0.000	257.0	502	0.111
8.0	100.0	8.02	11.98	0.478	0.332	0.115	0.025	0.051	0.000	275.2	472	0.102
8.0	110.0	7.99	10.10	0.483	0.344	0.119	0.016	0.038	0.000	263.5	396	0.087
8.0	120.0	7.84	7.65	0.456	0.380	0.131	0.008	0.026	0.000	230.6	300	0.069
8.0	135.0	7.34	3.80	0.361	0.467	0.161	0.000	0.011	0.000	165.9	160	0.042
8.0	150.0	6.27	1.29	0.236	0.565	0.195	0.000	0.003	0.000	102.7	55	0.020
8.0	160.0	5.44	0.49	0.147	0.633	0.220	0.000	0.001	0.000	70.6	21	0.010
8.0	170.0	4.93	0.21	0.102	0.665	0.232	0.000	0.000	0.000	55.8	9	0.005
8.0	180.0	4.59	0.01	0.077	0.684	0.239	0.000	0.000	0.000	47.8	1	0.000

Ops_Down2 (continued)

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
9.0	80.0	7.94	14.84	0.437	0.327	0.114	0.038	0.084	0.001	274.1	593	0.129
9.0	90.0	8.20	15.54	0.495	0.287	0.100	0.048	0.071	0.000	331.1	615	0.125
9.0	100.0	8.29	14.34	0.528	0.279	0.097	0.041	0.055	0.000	347.5	564	0.113
9.0	110.0	8.27	11.86	0.542	0.292	0.101	0.027	0.039	0.000	331.0	465	0.095
9.0	120.0	8.15	8.96	0.529	0.321	0.111	0.013	0.026	0.000	292.8	351	0.074
9.0	135.0	7.76	4.83	0.446	0.402	0.138	0.002	0.011	0.000	213.7	189	0.045
9.0	150.0	6.87	1.58	0.302	0.517	0.178	0.000	0.003	0.000	132.9	67	0.020
9.0	160.0	6.02	0.62	0.208	0.588	0.203	0.000	0.001	0.000	91.6	27	0.010
9.0	170.0	5.49	0.27	0.152	0.629	0.219	0.000	0.000	0.000	72.2	12	0.005
9.0	180.0	5.13	0.02	0.120	0.653	0.227	0.000	0.000	0.000	61.4	1	0.000
10.0	80.0	8.19	18.00	0.471	0.275	0.096	0.065	0.094	0.001	345.4	717	0.145
10.0	90.0	8.40	18.37	0.518	0.245	0.085	0.074	0.078	0.000	405.6	726	0.139
10.0	100.0	8.49	16.61	0.556	0.240	0.083	0.061	0.059	0.000	422.1	652	0.123
10.0	110.0	8.50	13.63	0.582	0.251	0.087	0.040	0.040	0.000	404.2	534	0.102
10.0	120.0	8.41	10.32	0.585	0.274	0.094	0.020	0.026	0.000	363.1	403	0.080
10.0	135.0	8.08	5.59	0.526	0.342	0.117	0.004	0.011	0.000	270.9	219	0.047
10.0	150.0	7.38	1.88	0.373	0.465	0.160	0.000	0.003	0.000	168.7	80	0.021
10.0	160.0	6.57	0.78	0.270	0.542	0.187	0.000	0.001	0.000	116.4	33	0.011
10.0	170.0	6.03	0.34	0.208	0.588	0.203	0.000	0.000	0.000	91.7	15	0.006
10.0	180.0	5.65	0.02	0.168	0.618	0.214	0.000	0.000	0.000	77.6	1	0.000
12.0	80.0	8.47	22.58	0.487	0.215	0.075	0.113	0.110	0.000	470.9	920	0.168
12.0	90.0	8.66	23.06	0.521	0.193	0.067	0.126	0.092	0.000	543.7	917	0.160
12.0	100.0	8.79	21.00	0.570	0.188	0.065	0.109	0.067	0.000	575.4	823	0.141
12.0	110.0	8.86	17.29	0.622	0.193	0.067	0.074	0.044	0.000	567.2	676	0.117
12.0	120.0	8.84	13.21	0.654	0.207	0.071	0.041	0.027	0.000	526.9	515	0.091
12.0	135.0	8.59	7.22	0.641	0.253	0.087	0.009	0.011	0.000	410.7	282	0.054
12.0	150.0	8.05	2.49	0.526	0.351	0.120	0.000	0.003	0.000	262.0	106	0.023
12.0	160.0	7.51	1.15	0.397	0.448	0.154	0.000	0.001	0.000	180.3	49	0.012
12.0	170.0	7.02	0.50	0.320	0.506	0.174	0.000	0.000	0.000	141.1	22	0.006
12.0	180.0	6.61	0.03	0.275	0.539	0.186	0.000	0.000	0.000	118.7	1	0.000
14.0	80.0	8.65	22.92	0.512	0.191	0.067	0.122	0.109	0.000	549.7	1007	0.176
14.0	90.0	8.83	23.20	0.546	0.173	0.060	0.132	0.088	0.000	630.7	988	0.165
14.0	100.0	9.00	23.43	0.573	0.160	0.056	0.141	0.070	0.000	707.3	944	0.152
14.0	110.0	9.14	21.05	0.623	0.156	0.054	0.119	0.048	0.000	745.8	822	0.130
14.0	120.0	9.20	16.30	0.681	0.164	0.057	0.070	0.028	0.000	716.8	635	0.102
14.0	135.0	9.02	9.00	0.711	0.195	0.067	0.017	0.011	0.000	582.8	352	0.061
14.0	150.0	8.53	3.21	0.639	0.267	0.091	0.000	0.003	0.000	383.8	137	0.027
14.0	160.0	8.12	1.65	0.542	0.340	0.117	0.000	0.001	0.000	274.5	71	0.015
14.0	170.0	7.78	0.72	0.457	0.404	0.139	0.000	0.000	0.000	213.4	31	0.007
14.0	180.0	7.45	0.04	0.387	0.457	0.157	0.000	0.000	0.000	174.7	2	0.000
16.0	80.0	8.79	23.03	0.530	0.175	0.061	0.127	0.107	0.000	619.6	1079	0.183
16.0	90.0	8.99	23.33	0.563	0.158	0.055	0.138	0.086	0.000	713.4	1053	0.170
16.0	100.0	9.18	23.59	0.591	0.145	0.050	0.147	0.067	0.000	809.6	1006	0.156
16.0	110.0	9.38	23.97	0.612	0.133	0.046	0.158	0.051	0.000	916.8	948	0.140
16.0	120.0	9.54	19.51	0.680	0.136	0.047	0.107	0.030	0.000	925.6	761	0.112
16.0	135.0	9.44	10.97	0.749	0.157	0.054	0.029	0.011	0.000	783.6	429	0.067
16.0	150.0	8.93	4.11	0.714	0.209	0.071	0.002	0.003	0.000	533.0	175	0.031
16.0	160.0	8.58	2.27	0.651	0.259	0.089	0.000	0.001	0.000	399.2	98	0.019
16.0	170.0	8.30	0.99	0.587	0.308	0.105	0.000	0.000	0.000	316.1	43	0.009
16.0	180.0	8.03	0.07	0.522	0.356	0.122	0.000	0.000	0.000	257.3	3	0.001

Ops_Down2 (continued)

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
20.0	80.0	9.02	23.30	0.554	0.152	0.053	0.135	0.106	0.000	747.4	1210	0.194
20.0	90.0	9.25	23.59	0.586	0.137	0.048	0.146	0.083	0.000	869.7	1176	0.179
20.0	100.0	9.51	23.97	0.612	0.124	0.043	0.157	0.063	0.000	1008.0	1128	0.162
20.0	110.0	9.77	24.48	0.631	0.113	0.039	0.170	0.047	0.000	1167.8	1068	0.145
20.0	120.0	10.06	25.18	0.644	0.102	0.035	0.185	0.034	0.000	1356.9	994	0.126
20.0	135.0	10.26	15.30	0.768	0.114	0.039	0.067	0.012	0.000	1256.7	600	0.078
20.0	150.0	9.75	6.92	0.795	0.143	0.049	0.010	0.004	0.000	914.1	274	0.041
20.0	160.0	9.39	3.83	0.775	0.167	0.057	0.000	0.002	0.000	733.6	165	0.027
20.0	170.0	9.10	1.70	0.743	0.191	0.065	0.000	0.000	0.000	603.7	74	0.013
20.0	180.0	8.86	0.13	0.705	0.220	0.075	0.000	0.000	0.000	499.0	5	0.001
25.0	80.0	9.25	23.66	0.570	0.134	0.047	0.143	0.107	0.000	888.7	1358	0.207
25.0	90.0	9.54	24.01	0.601	0.120	0.042	0.155	0.082	0.000	1051.0	1322	0.189
25.0	100.0	9.85	24.48	0.625	0.108	0.037	0.168	0.061	0.000	1241.5	1273	0.170
25.0	110.0	10.20	25.12	0.642	0.097	0.034	0.183	0.045	0.000	1467.0	1211	0.150
25.0	120.0	10.66	25.97	0.649	0.089	0.031	0.200	0.031	0.000	1734.6	1133	0.127
25.0	135.0	11.48	21.25	0.725	0.092	0.031	0.139	0.013	0.000	1922.1	835	0.084
25.0	150.0	10.99	10.88	0.820	0.108	0.037	0.031	0.004	0.000	1513.5	432	0.050
25.0	160.0	10.50	6.78	0.831	0.117	0.040	0.010	0.002	0.000	1280.2	270	0.035
25.0	170.0	10.12	2.85	0.827	0.128	0.044	0.000	0.001	0.000	1093.4	124	0.017
25.0	180.0	9.79	0.24	0.808	0.143	0.049	0.000	0.000	0.000	923.5	10	0.002

Optimum Downwind Hydro Forces for Ops_Down2

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
4.0	138.9	3.95	0.92	0.044	0.702	0.246	0.000	0.008	0.000	35.3	36	0.033
5.0	141.1	4.74	1.23	0.088	0.671	0.234	0.000	0.007	0.000	51.7	48	0.030
6.0	142.9	5.44	1.50	0.146	0.630	0.219	0.000	0.006	0.000	70.8	59	0.028
7.0	145.0	6.02	1.69	0.206	0.586	0.203	0.000	0.005	0.000	91.7	66	0.026
8.0	146.1	6.58	1.95	0.271	0.539	0.186	0.000	0.004	0.000	117.7	77	0.025
9.0	147.9	7.04	2.05	0.322	0.502	0.173	0.000	0.004	0.000	143.1	81	0.023
10.0	150.5	7.35	1.93	0.366	0.469	0.161	0.000	0.003	0.000	165.4	76	0.020
12.0	157.1	7.67	1.52	0.432	0.422	0.145	0.000	0.001	0.000	199.4	61	0.015
14.0	166.5	7.89	1.10	0.485	0.383	0.131	0.000	0.001	0.000	231.4	44	0.010
16.0	169.7	8.30	1.11	0.589	0.306	0.105	0.000	0.000	0.000	318.3	45	0.009
20.0	171.0	9.08	1.63	0.740	0.194	0.066	0.000	0.000	0.000	593.0	66	0.011
25.0	169.1	10.15	3.40	0.827	0.127	0.043	0.002	0.001	0.000	1109.6	137	0.019

Hydrodynamic Force Numbers for Ops_Upwind

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	CFk	
4.0	32.0	2.57	2.16	0.000	0.527	0.196	0.000	0.277	0.160	21.4	116	0.250
4.0	36.0	3.06	2.47	0.011	0.572	0.209	0.000	0.209	0.124	27.1	133	0.202
4.0	40.0	3.49	2.74	0.022	0.597	0.215	0.000	0.166	0.096	33.0	148	0.173
4.0	45.0	3.95	3.01	0.038	0.612	0.218	0.000	0.132	0.070	40.4	162	0.148
4.0	52.0	4.47	3.27	0.062	0.619	0.219	0.000	0.101	0.045	50.3	176	0.125
4.0	60.0	4.89	3.35	0.092	0.615	0.216	0.000	0.077	0.027	59.7	181	0.108
4.0	70.0	5.21	3.20	0.119	0.611	0.214	0.000	0.056	0.012	67.4	173	0.091
4.0	80.0	5.33	2.84	0.131	0.614	0.214	0.000	0.041	0.003	70.1	154	0.077
4.0	90.0	5.27	2.33	0.128	0.625	0.218	0.000	0.029	0.000	67.4	126	0.064
4.0	100.0	5.04	1.75	0.110	0.645	0.225	0.000	0.020	0.000	60.2	95	0.053
4.0	110.0	4.65	1.18	0.081	0.672	0.235	0.000	0.013	0.000	49.8	64	0.042
4.0	120.0	4.09	0.68	0.050	0.698	0.245	0.000	0.007	0.000	37.8	37	0.032
5.0	32.0	3.38	3.49	0.017	0.528	0.193	0.000	0.261	0.102	35.2	188	0.233
5.0	36.0	3.91	4.10	0.034	0.558	0.201	0.000	0.207	0.087	43.5	211	0.196
5.0	40.0	4.39	4.46	0.054	0.573	0.204	0.001	0.169	0.068	52.6	232	0.170
5.0	45.0	4.88	5.12	0.085	0.574	0.203	0.001	0.137	0.049	63.8	251	0.149
5.0	52.0	5.41	5.43	0.129	0.565	0.199	0.001	0.106	0.033	78.2	266	0.128
5.0	60.0	5.83	5.45	0.171	0.553	0.193	0.002	0.081	0.020	91.7	268	0.111
5.0	70.0	6.14	5.10	0.207	0.543	0.189	0.002	0.059	0.009	102.6	251	0.094
5.0	80.0	6.25	4.08	0.224	0.544	0.189	0.001	0.042	0.002	106.2	220	0.080
5.0	90.0	6.20	3.32	0.222	0.556	0.193	0.000	0.030	0.000	102.3	180	0.067
5.0	100.0	5.98	2.51	0.198	0.580	0.201	0.000	0.021	0.000	91.6	137	0.054
5.0	110.0	5.59	1.73	0.159	0.614	0.213	0.000	0.013	0.000	76.3	94	0.043
5.0	120.0	5.01	1.03	0.108	0.656	0.229	0.000	0.007	0.000	58.5	56	0.032
6.0	32.0	4.08	5.53	0.036	0.512	0.186	0.001	0.265	0.078	51.3	270	0.230
6.0	36.0	4.67	6.18	0.065	0.531	0.191	0.001	0.212	0.066	63.4	302	0.196
6.0	40.0	5.17	6.69	0.100	0.533	0.189	0.002	0.176	0.052	76.1	327	0.173
6.0	45.0	5.67	7.15	0.144	0.524	0.185	0.003	0.144	0.038	91.7	350	0.154
6.0	52.0	6.18	7.42	0.199	0.507	0.178	0.004	0.112	0.026	111.3	364	0.134
6.0	60.0	6.59	7.33	0.248	0.491	0.171	0.004	0.086	0.016	129.4	360	0.117
6.0	70.0	6.90	6.77	0.286	0.481	0.167	0.004	0.062	0.007	143.7	333	0.099
6.0	80.0	7.01	5.86	0.304	0.482	0.167	0.003	0.044	0.001	147.8	288	0.083
6.0	90.0	6.95	4.36	0.302	0.494	0.171	0.001	0.031	0.000	141.9	235	0.069
6.0	100.0	6.74	3.29	0.283	0.518	0.179	0.000	0.021	0.000	127.9	179	0.056
6.0	110.0	6.34	2.27	0.241	0.554	0.192	0.000	0.013	0.000	106.9	124	0.044
6.0	120.0	5.78	1.39	0.180	0.603	0.209	0.000	0.008	0.000	82.7	76	0.032
7.0	32.0	4.71	7.47	0.061	0.487	0.177	0.002	0.273	0.062	70.2	365	0.232
7.0	36.0	5.31	8.24	0.104	0.494	0.177	0.003	0.222	0.052	86.4	402	0.201
7.0	40.0	5.81	8.83	0.148	0.488	0.173	0.005	0.186	0.041	103.1	431	0.180
7.0	45.0	6.29	9.30	0.200	0.473	0.167	0.007	0.153	0.030	123.4	455	0.161
7.0	52.0	6.81	9.54	0.258	0.455	0.159	0.009	0.120	0.021	148.6	467	0.141
7.0	60.0	7.21	9.29	0.310	0.437	0.152	0.009	0.091	0.012	171.6	455	0.123
7.0	70.0	7.46	8.40	0.359	0.422	0.146	0.008	0.064	0.005	189.1	412	0.104
7.0	80.0	7.54	7.18	0.383	0.421	0.145	0.006	0.045	0.001	193.5	353	0.088
7.0	90.0	7.50	5.82	0.381	0.434	0.150	0.003	0.031	0.000	185.7	287	0.072
7.0	100.0	7.33	4.06	0.357	0.461	0.159	0.001	0.021	0.000	167.8	220	0.058
7.0	110.0	7.00	2.83	0.314	0.501	0.173	0.000	0.013	0.000	141.8	155	0.045
7.0	120.0	6.43	1.75	0.252	0.550	0.190	0.000	0.008	0.000	110.3	96	0.033

Ops_Upwind (continued)

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
8.0	32.0	5.23	9.57	0.090	0.455	0.165	0.004	0.286	0.051	91.4	466	0.239
8.0	36.0	5.84	10.44	0.141	0.454	0.162	0.007	0.235	0.043	112.0	509	0.209
8.0	40.0	6.33	11.06	0.191	0.443	0.157	0.010	0.198	0.033	133.0	540	0.188
8.0	45.0	6.82	11.55	0.244	0.428	0.151	0.013	0.164	0.025	158.2	565	0.169
8.0	52.0	7.31	11.67	0.308	0.406	0.142	0.016	0.128	0.017	189.3	571	0.149
8.0	60.0	7.62	11.13	0.373	0.383	0.133	0.017	0.094	0.010	216.9	545	0.131
8.0	70.0	7.81	9.90	0.428	0.366	0.127	0.014	0.065	0.004	237.5	486	0.111
8.0	80.0	7.88	8.38	0.455	0.364	0.126	0.010	0.045	0.001	242.5	412	0.093
8.0	90.0	7.85	6.77	0.457	0.377	0.130	0.006	0.031	0.000	233.0	334	0.076
8.0	100.0	7.72	5.17	0.433	0.404	0.139	0.003	0.021	0.000	210.9	256	0.061
8.0	110.0	7.48	3.35	0.387	0.446	0.154	0.000	0.013	0.000	180.0	183	0.046
8.0	120.0	7.00	2.13	0.316	0.503	0.173	0.000	0.008	0.000	141.4	116	0.034
9.0	32.0	5.67	11.32	0.119	0.431	0.156	0.008	0.288	0.043	111.9	552	0.239
9.0	36.0	6.27	12.71	0.172	0.415	0.148	0.013	0.252	0.036	139.6	620	0.219
9.0	40.0	6.76	13.39	0.222	0.403	0.143	0.017	0.214	0.028	165.0	654	0.198
9.0	45.0	7.23	13.83	0.279	0.386	0.136	0.022	0.177	0.021	195.3	676	0.179
9.0	52.0	7.64	13.71	0.355	0.359	0.126	0.027	0.134	0.014	232.3	671	0.159
9.0	60.0	7.89	12.89	0.425	0.335	0.117	0.027	0.098	0.008	264.9	632	0.140
9.0	70.0	8.06	11.36	0.482	0.319	0.111	0.022	0.067	0.004	289.2	557	0.119
9.0	80.0	8.13	9.57	0.513	0.317	0.110	0.015	0.046	0.001	295.3	471	0.100
9.0	90.0	8.11	7.69	0.519	0.328	0.113	0.009	0.031	0.000	284.0	379	0.081
9.0	100.0	8.00	5.87	0.501	0.353	0.121	0.004	0.020	0.000	257.7	290	0.064
9.0	110.0	7.81	3.82	0.459	0.393	0.135	0.000	0.013	0.000	221.2	209	0.049
9.0	120.0	7.45	2.49	0.382	0.454	0.156	0.000	0.008	0.000	175.4	136	0.035
10.0	32.0	6.03	12.88	0.145	0.408	0.147	0.012	0.287	0.038	132.2	628	0.239
10.0	36.0	6.61	14.46	0.198	0.388	0.139	0.019	0.256	0.031	165.0	706	0.222
10.0	40.0	7.10	15.72	0.244	0.367	0.131	0.027	0.231	0.024	198.4	768	0.209
10.0	45.0	7.52	16.06	0.308	0.346	0.122	0.035	0.189	0.018	233.9	786	0.190
10.0	52.0	7.86	15.71	0.391	0.318	0.111	0.040	0.141	0.012	277.1	769	0.170
10.0	60.0	8.10	14.65	0.462	0.295	0.103	0.039	0.102	0.007	315.2	718	0.150
10.0	70.0	8.27	12.83	0.522	0.281	0.097	0.031	0.069	0.003	343.9	630	0.128
10.0	80.0	8.34	10.77	0.557	0.279	0.096	0.021	0.046	0.001	351.7	530	0.106
10.0	90.0	8.33	8.64	0.568	0.289	0.099	0.013	0.031	0.000	339.0	426	0.086
10.0	100.0	8.23	6.57	0.556	0.311	0.107	0.006	0.020	0.000	308.4	325	0.068
10.0	110.0	8.05	4.69	0.517	0.348	0.119	0.003	0.013	0.000	264.1	233	0.051
10.0	120.0	7.76	2.82	0.449	0.405	0.139	0.000	0.007	0.000	212.2	154	0.036
12.0	32.0	6.59	15.50	0.188	0.372	0.134	0.022	0.285	0.031	171.1	757	0.238
12.0	36.0	7.15	17.05	0.239	0.350	0.125	0.032	0.254	0.026	211.1	833	0.222
12.0	40.0	7.53	18.19	0.292	0.323	0.115	0.044	0.226	0.020	251.9	890	0.212
12.0	45.0	7.85	19.25	0.353	0.289	0.102	0.059	0.196	0.014	303.6	942	0.205
12.0	52.0	8.16	19.69	0.424	0.255	0.090	0.073	0.159	0.009	370.0	965	0.194
12.0	60.0	8.40	18.21	0.499	0.236	0.083	0.069	0.112	0.005	421.0	893	0.171
12.0	70.0	8.59	15.87	0.567	0.225	0.078	0.056	0.074	0.002	461.0	780	0.145
12.0	80.0	8.68	13.27	0.613	0.223	0.077	0.039	0.049	0.000	474.5	654	0.120
12.0	90.0	8.69	10.62	0.636	0.230	0.079	0.023	0.032	0.000	460.5	524	0.097
12.0	100.0	8.61	8.06	0.636	0.247	0.085	0.012	0.020	0.000	421.9	399	0.076
12.0	110.0	8.45	5.76	0.612	0.276	0.095	0.005	0.013	0.000	364.1	286	0.057
12.0	120.0	8.21	3.51	0.561	0.321	0.110	0.000	0.007	0.000	296.4	192	0.041

Ops_Upwind (continued)

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
14.0	32.0	7.00	17.62	0.216	0.344	0.123	0.032	0.285	0.027	206.6	861	0.238
14.0	36.0	7.48	19.00	0.273	0.317	0.113	0.046	0.250	0.022	252.7	929	0.224
14.0	40.0	7.79	20.06	0.329	0.288	0.102	0.061	0.220	0.017	300.5	982	0.216
14.0	45.0	8.06	21.00	0.385	0.256	0.091	0.078	0.191	0.012	360.2	1029	0.210
14.0	52.0	8.35	21.80	0.445	0.222	0.078	0.096	0.159	0.007	442.9	1069	0.203
14.0	60.0	8.60	21.85	0.501	0.196	0.069	0.107	0.127	0.004	529.7	1073	0.191
14.0	70.0	8.82	19.00	0.580	0.186	0.065	0.087	0.081	0.002	585.2	935	0.161
14.0	80.0	8.95	15.90	0.638	0.184	0.064	0.062	0.053	0.000	608.2	784	0.134
14.0	90.0	8.99	12.73	0.674	0.189	0.065	0.038	0.034	0.000	596.1	629	0.108
14.0	100.0	8.93	9.68	0.688	0.202	0.069	0.020	0.021	0.000	551.1	479	0.084
14.0	110.0	8.78	6.96	0.676	0.225	0.077	0.009	0.013	0.000	479.7	345	0.063
14.0	120.0	8.55	4.71	0.638	0.261	0.090	0.003	0.008	0.000	393.5	234	0.045
16.0	32.0	7.27	19.30	0.237	0.320	0.115	0.043	0.285	0.024	238.2	944	0.239
16.0	36.0	7.68	20.60	0.299	0.290	0.104	0.060	0.247	0.019	290.2	1009	0.227
16.0	40.0	7.95	21.53	0.353	0.262	0.093	0.076	0.216	0.015	343.3	1055	0.221
16.0	45.0	8.21	22.35	0.405	0.233	0.083	0.093	0.186	0.011	409.7	1096	0.214
16.0	52.0	8.47	22.63	0.455	0.201	0.071	0.106	0.167	0.006	502.5	1184	0.216
16.0	60.0	8.74	23.31	0.507	0.175	0.062	0.125	0.131	0.003	609.4	1179	0.202
16.0	70.0	9.00	22.20	0.571	0.159	0.056	0.124	0.091	0.002	711.9	1093	0.178
16.0	80.0	9.18	18.64	0.641	0.156	0.054	0.091	0.057	0.000	749.2	919	0.147
16.0	90.0	9.26	14.99	0.691	0.160	0.055	0.058	0.036	0.000	743.2	740	0.118
16.0	100.0	9.23	11.45	0.718	0.170	0.059	0.031	0.022	0.000	694.6	567	0.093
16.0	110.0	9.08	8.29	0.720	0.188	0.064	0.014	0.014	0.000	610.8	411	0.070
16.0	120.0	8.86	5.71	0.696	0.216	0.074	0.005	0.008	0.000	508.1	283	0.051
20.0	32.0	7.58	21.86	0.266	0.283	0.102	0.062	0.287	0.020	290.1	1071	0.246
20.0	36.0	7.91	22.66	0.328	0.254	0.091	0.080	0.246	0.016	350.4	1129	0.237
20.0	40.0	8.16	22.93	0.380	0.229	0.082	0.093	0.216	0.013	410.9	1175	0.231
20.0	45.0	8.40	23.18	0.431	0.204	0.073	0.107	0.185	0.009	487.6	1218	0.225
20.0	52.0	8.67	22.99	0.482	0.177	0.063	0.115	0.163	0.005	597.1	1306	0.227
20.0	60.0	8.95	23.60	0.532	0.154	0.054	0.134	0.126	0.002	725.4	1295	0.211
20.0	70.0	9.25	24.15	0.574	0.134	0.047	0.151	0.094	0.001	884.9	1261	0.191
20.0	80.0	9.54	24.25	0.607	0.121	0.042	0.160	0.069	0.000	1036.8	1197	0.171
20.0	90.0	9.74	19.76	0.682	0.123	0.043	0.110	0.041	0.000	1059.0	977	0.138
20.0	100.0	9.79	15.37	0.736	0.130	0.045	0.065	0.025	0.000	1016.0	761	0.109
20.0	110.0	9.69	11.39	0.763	0.141	0.048	0.032	0.015	0.000	915.8	564	0.084
20.0	120.0	9.47	8.10	0.764	0.158	0.054	0.014	0.009	0.000	783.9	402	0.063
25.0	32.0	7.75	22.57	0.283	0.256	0.093	0.070	0.299	0.017	334.7	1201	0.262
25.0	36.0	8.07	22.96	0.348	0.228	0.082	0.086	0.255	0.014	404.9	1265	0.254
25.0	40.0	8.32	23.24	0.399	0.205	0.074	0.100	0.222	0.011	476.5	1313	0.248
25.0	45.0	8.54	22.80	0.440	0.182	0.066	0.104	0.208	0.008	563.3	1424	0.256
25.0	52.0	8.85	23.42	0.500	0.157	0.056	0.124	0.164	0.004	699.5	1447	0.241
25.0	60.0	9.15	24.00	0.547	0.136	0.048	0.142	0.126	0.002	853.5	1434	0.222
25.0	70.0	9.50	24.57	0.587	0.119	0.042	0.160	0.092	0.001	1048.3	1396	0.200
25.0	80.0	9.83	24.93	0.615	0.107	0.037	0.173	0.068	0.000	1245.2	1336	0.178
25.0	90.0	10.15	25.26	0.635	0.098	0.034	0.184	0.050	0.000	1444.4	1260	0.157
25.0	100.0	10.41	20.64	0.707	0.102	0.035	0.127	0.029	0.000	1453.3	1022	0.126
25.0	110.0	10.43	15.82	0.764	0.109	0.037	0.072	0.018	0.000	1358.3	783	0.098
25.0	120.0	10.24	11.76	0.793	0.119	0.041	0.036	0.011	0.000	1205.9	582	0.077

Optimum Upwind Hydro Forces for Ops_Upwind

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
4.0	46.7	4.07	3.38	0.043	0.614	0.218	0.000	0.124	0.065	42.7	166	0.142
5.0	44.9	4.87	5.11	0.084	0.574	0.203	0.001	0.137	0.051	63.5	251	0.149
6.0	43.6	5.53	7.03	0.131	0.528	0.187	0.003	0.152	0.042	87.2	344	0.159
7.0	42.2	6.04	9.07	0.172	0.482	0.170	0.006	0.170	0.036	112.3	443	0.171
8.0	41.6	6.49	11.25	0.209	0.438	0.155	0.011	0.186	0.031	141.1	550	0.182
9.0	41.0	6.87	13.51	0.234	0.400	0.142	0.019	0.206	0.027	171.2	660	0.194
10.0	39.9	7.08	15.69	0.242	0.368	0.131	0.027	0.232	0.025	197.3	767	0.209
12.0	37.5	7.31	17.51	0.259	0.340	0.121	0.037	0.243	0.023	226.6	856	0.217
14.0	36.0	7.48	19.01	0.274	0.317	0.113	0.046	0.250	0.022	253.0	930	0.223
16.0	34.8	7.57	20.24	0.281	0.300	0.107	0.055	0.258	0.021	274.0	991	0.230
20.0	33.3	7.70	22.27	0.287	0.273	0.098	0.069	0.272	0.019	310.0	1091	0.242
25.0	32.8	7.83	22.67	0.298	0.250	0.090	0.074	0.288	0.017	349.1	1215	0.260

Hydrodynamic Force Numbers for Ops_Down

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	CFk	
4.0	80.0	4.93	3.78	0.095	0.611	0.215	0.000	0.079	0.003	60.9	187	0.110
4.0	90.0	5.26	3.86	0.122	0.603	0.211	0.000	0.064	0.000	69.7	190	0.098
4.0	100.0	5.44	3.85	0.139	0.598	0.209	0.000	0.054	0.000	74.7	186	0.089
4.0	110.0	5.47	3.59	0.143	0.602	0.210	0.000	0.045	0.000	74.8	170	0.081
4.0	120.0	5.31	3.01	0.130	0.619	0.216	0.000	0.035	0.000	68.9	140	0.071
4.0	135.0	4.61	1.64	0.077	0.670	0.235	0.000	0.018	0.000	49.1	75	0.050
4.0	150.0	3.56	0.49	0.030	0.714	0.252	0.000	0.004	0.000	28.7	22	0.025
4.0	160.0	2.92	0.16	0.010	0.730	0.260	0.000	0.001	0.000	19.5	7	0.012
4.0	170.0	2.57	0.06	0.000	0.736	0.264	-0.000	0.000	0.000	15.3	3	0.006
4.0	180.0	2.40	0.00	0.000	0.740	0.265	-0.005	0.000	0.000	13.4	0	0.000
5.0	80.0	5.94	6.32	0.181	0.542	0.189	0.003	0.086	0.002	96.9	287	0.115
5.0	90.0	6.29	6.57	0.221	0.522	0.182	0.003	0.071	0.000	111.7	294	0.105
5.0	100.0	6.49	6.56	0.244	0.513	0.178	0.003	0.061	0.000	120.2	287	0.096
5.0	110.0	6.51	6.04	0.250	0.518	0.180	0.003	0.050	0.000	120.1	260	0.087
5.0	120.0	6.33	4.60	0.234	0.540	0.187	0.001	0.038	0.000	109.2	211	0.075
5.0	135.0	5.60	2.45	0.159	0.610	0.212	0.000	0.018	0.000	77.1	112	0.051
5.0	150.0	4.45	0.77	0.068	0.687	0.240	0.000	0.005	0.000	44.9	35	0.025
5.0	160.0	3.67	0.24	0.034	0.714	0.251	0.000	0.001	0.000	30.2	11	0.012
5.0	170.0	3.22	0.10	0.018	0.725	0.257	0.000	0.000	0.000	23.5	5	0.006
5.0	180.0	3.01	0.00	0.012	0.729	0.259	0.000	0.000	0.000	20.6	0	0.000
6.0	80.0	6.80	8.97	0.264	0.470	0.164	0.008	0.094	0.001	143.2	405	0.123
6.0	90.0	7.16	9.47	0.308	0.446	0.155	0.010	0.081	0.000	165.9	419	0.114
6.0	100.0	7.34	9.42	0.337	0.433	0.150	0.010	0.069	0.000	179.0	408	0.106
6.0	110.0	7.36	8.50	0.345	0.440	0.152	0.008	0.055	0.000	177.1	363	0.094
6.0	120.0	7.17	6.81	0.325	0.468	0.162	0.005	0.040	0.000	158.7	288	0.079
6.0	135.0	6.44	3.33	0.251	0.543	0.188	0.000	0.018	0.000	112.0	151	0.052
6.0	150.0	5.26	1.08	0.130	0.642	0.223	0.000	0.005	0.000	65.3	49	0.025
6.0	160.0	4.40	0.35	0.065	0.692	0.242	0.000	0.001	0.000	43.6	16	0.012
6.0	170.0	3.88	0.14	0.042	0.709	0.249	0.000	0.000	0.000	33.7	6	0.006
6.0	180.0	3.62	0.01	0.032	0.716	0.252	0.000	0.000	0.000	29.5	0	0.000
7.0	80.0	7.45	12.05	0.337	0.399	0.139	0.019	0.106	0.001	199.7	540	0.135
7.0	90.0	7.73	12.83	0.392	0.365	0.127	0.025	0.091	0.000	233.5	559	0.130
7.0	100.0	7.86	12.52	0.428	0.350	0.121	0.025	0.075	0.000	251.0	536	0.120
7.0	110.0	7.86	10.96	0.440	0.360	0.124	0.019	0.058	0.000	244.4	464	0.105
7.0	120.0	7.73	8.57	0.422	0.392	0.135	0.010	0.040	0.000	217.2	360	0.085
7.0	135.0	7.15	4.27	0.331	0.482	0.166	0.001	0.019	0.000	153.2	193	0.053
7.0	150.0	5.99	1.43	0.203	0.588	0.204	0.000	0.005	0.000	90.7	64	0.025
7.0	160.0	5.08	0.48	0.115	0.656	0.228	0.000	0.001	0.000	60.1	21	0.012
7.0	170.0	4.52	0.19	0.072	0.687	0.240	0.000	0.000	0.000	46.1	9	0.006
7.0	180.0	4.23	0.01	0.056	0.699	0.245	0.000	0.000	0.000	40.1	0	0.000
8.0	80.0	7.84	15.53	0.398	0.329	0.115	0.040	0.118	0.001	266.0	687	0.153
8.0	90.0	8.06	16.36	0.447	0.297	0.104	0.049	0.103	0.000	309.9	706	0.148
8.0	100.0	8.17	15.54	0.483	0.288	0.100	0.047	0.082	0.000	328.3	660	0.135
8.0	110.0	8.18	13.25	0.507	0.298	0.103	0.033	0.060	0.000	318.4	557	0.115
8.0	120.0	8.08	10.19	0.503	0.327	0.113	0.017	0.040	0.000	283.5	426	0.091
8.0	135.0	7.67	5.55	0.422	0.414	0.142	0.003	0.018	0.000	203.1	231	0.056
8.0	150.0	6.65	1.80	0.278	0.533	0.184	0.000	0.005	0.000	121.2	81	0.026
8.0	160.0	5.73	0.62	0.175	0.612	0.212	0.000	0.001	0.000	80.2	28	0.012
8.0	170.0	5.13	0.26	0.119	0.653	0.227	0.000	0.000	0.000	61.2	12	0.006
8.0	180.0	4.81	0.01	0.093	0.672	0.234	0.000	0.000	0.000	53.0	1	0.000

Ops_Down (continued)

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
9.0	80.0	8.08	19.18	0.424	0.275	0.097	0.069	0.135	0.001	336.4	840	0.172
9.0	90.0	8.27	19.83	0.467	0.250	0.087	0.080	0.116	0.000	387.3	849	0.166
9.0	100.0	8.39	18.40	0.510	0.244	0.085	0.073	0.089	0.000	407.5	777	0.149
9.0	110.0	8.43	15.43	0.548	0.252	0.087	0.051	0.062	0.000	397.3	647	0.125
9.0	120.0	8.37	11.80	0.563	0.276	0.095	0.027	0.040	0.000	358.3	492	0.098
9.0	135.0	8.03	6.47	0.509	0.348	0.120	0.006	0.017	0.000	262.8	269	0.059
9.0	150.0	7.25	2.18	0.350	0.480	0.165	0.000	0.005	0.000	157.5	98	0.027
9.0	160.0	6.32	0.79	0.242	0.563	0.194	0.000	0.001	0.000	104.4	35	0.013
9.0	170.0	5.71	0.33	0.174	0.613	0.213	0.000	0.000	0.000	79.5	15	0.007
9.0	180.0	5.38	0.02	0.141	0.638	0.222	0.000	0.000	0.000	68.5	1	0.000
10.0	80.0	8.24	21.60	0.435	0.242	0.085	0.092	0.146	0.001	395.9	952	0.186
10.0	90.0	8.42	22.04	0.476	0.221	0.078	0.104	0.120	0.000	450.9	939	0.175
10.0	100.0	8.55	21.10	0.517	0.211	0.074	0.102	0.096	0.000	487.1	888	0.161
10.0	110.0	8.63	17.56	0.571	0.217	0.075	0.072	0.064	0.000	480.8	735	0.134
10.0	120.0	8.60	13.47	0.604	0.235	0.081	0.040	0.040	0.000	441.6	561	0.105
10.0	135.0	8.33	7.43	0.579	0.295	0.101	0.009	0.017	0.000	332.2	308	0.063
10.0	150.0	7.69	2.55	0.434	0.418	0.144	0.000	0.004	0.000	201.9	115	0.028
10.0	160.0	6.87	0.97	0.303	0.517	0.178	0.000	0.001	0.000	132.8	44	0.013
10.0	170.0	6.26	0.41	0.235	0.568	0.196	0.000	0.000	0.000	101.7	19	0.007
10.0	180.0	5.91	0.02	0.195	0.598	0.207	0.000	0.000	0.000	87.0	1	0.000
12.0	80.0	8.46	21.89	0.474	0.212	0.075	0.102	0.137	0.000	474.0	1035	0.191
12.0	90.0	8.64	22.00	0.514	0.194	0.068	0.111	0.113	0.000	539.5	1024	0.181
12.0	100.0	8.80	22.26	0.546	0.179	0.063	0.120	0.092	0.000	604.9	988	0.168
12.0	110.0	8.94	21.87	0.580	0.169	0.059	0.122	0.070	0.000	659.7	912	0.151
12.0	120.0	9.00	16.97	0.644	0.179	0.062	0.073	0.041	0.000	630.7	704	0.118
12.0	135.0	8.81	9.48	0.673	0.217	0.075	0.018	0.016	0.000	499.9	392	0.071
12.0	150.0	8.29	3.31	0.584	0.307	0.105	0.000	0.004	0.000	316.2	149	0.031
12.0	160.0	7.75	1.43	0.450	0.409	0.140	0.000	0.001	0.000	209.8	65	0.015
12.0	170.0	7.27	0.62	0.354	0.480	0.165	0.000	0.000	0.000	158.5	28	0.008
12.0	180.0	6.91	0.03	0.307	0.515	0.177	0.000	0.000	0.000	134.6	1	0.000
14.0	80.0	8.62	22.03	0.500	0.191	0.068	0.108	0.132	0.000	545.3	1116	0.198
14.0	90.0	8.82	22.08	0.540	0.174	0.061	0.117	0.108	0.000	626.8	1103	0.187
14.0	100.0	9.00	22.50	0.572	0.159	0.055	0.128	0.086	0.000	712.6	1059	0.172
14.0	110.0	9.18	22.98	0.597	0.146	0.051	0.140	0.067	0.000	802.3	1003	0.156
14.0	120.0	9.34	20.65	0.646	0.144	0.050	0.117	0.044	0.000	841.9	856	0.131
14.0	135.0	9.25	11.75	0.724	0.169	0.058	0.033	0.016	0.000	703.4	485	0.079
14.0	150.0	8.75	4.22	0.682	0.232	0.080	0.002	0.004	0.000	461.6	189	0.035
14.0	160.0	8.32	2.05	0.592	0.303	0.104	0.000	0.002	0.000	322.6	93	0.019
14.0	170.0	7.98	0.90	0.507	0.366	0.126	0.000	0.000	0.000	246.8	41	0.009
14.0	180.0	7.71	0.05	0.442	0.416	0.143	0.000	0.000	0.000	204.4	2	0.001
16.0	80.0	8.76	22.05	0.520	0.176	0.062	0.112	0.130	0.000	612.0	1192	0.204
16.0	90.0	8.98	22.28	0.559	0.158	0.056	0.123	0.104	0.000	711.6	1174	0.192
16.0	100.0	9.19	22.75	0.590	0.143	0.050	0.135	0.082	0.000	818.5	1129	0.175
16.0	110.0	9.40	23.31	0.613	0.131	0.046	0.148	0.063	0.000	933.3	1071	0.158
16.0	120.0	9.62	23.98	0.629	0.121	0.042	0.162	0.047	0.000	1058.2	998	0.140
16.0	135.0	9.69	14.22	0.744	0.138	0.047	0.054	0.016	0.000	937.0	586	0.086
16.0	150.0	9.17	5.74	0.745	0.183	0.062	0.006	0.004	0.000	640.2	239	0.040
16.0	160.0	8.78	2.82	0.691	0.229	0.078	0.000	0.002	0.000	471.1	128	0.024
16.0	170.0	8.49	1.25	0.632	0.274	0.094	0.000	0.000	0.000	370.6	57	0.011
16.0	180.0	8.26	0.07	0.579	0.313	0.107	0.000	0.000	0.000	307.9	3	0.001

Ops_Down (continued)

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
20.0	80.0	8.99	22.15	0.547	0.153	0.054	0.118	0.128	0.000	736.9	1336	0.218
20.0	90.0	9.25	22.68	0.583	0.136	0.048	0.132	0.100	0.000	872.1	1309	0.201
20.0	100.0	9.52	23.26	0.611	0.123	0.043	0.146	0.077	0.000	1021.3	1264	0.182
20.0	110.0	9.80	23.93	0.631	0.111	0.039	0.161	0.058	0.000	1188.1	1203	0.163
20.0	120.0	10.09	24.76	0.644	0.101	0.035	0.178	0.042	0.000	1380.5	1126	0.143
20.0	135.0	10.53	19.49	0.731	0.103	0.035	0.114	0.018	0.000	1472.6	804	0.097
20.0	150.0	10.06	8.82	0.806	0.128	0.043	0.018	0.005	0.000	1088.8	366	0.051
20.0	160.0	9.65	5.13	0.793	0.149	0.051	0.005	0.002	0.000	861.4	215	0.033
20.0	170.0	9.35	2.17	0.771	0.170	0.058	0.000	0.001	0.000	713.4	99	0.016
20.0	180.0	9.11	0.14	0.744	0.191	0.065	0.000	0.000	0.000	605.8	7	0.001
25.0	80.0	9.22	22.56	0.563	0.134	0.048	0.126	0.128	0.000	878.3	1494	0.231
25.0	90.0	9.54	23.20	0.598	0.119	0.042	0.142	0.098	0.000	1055.9	1468	0.211
25.0	100.0	9.87	23.87	0.624	0.107	0.037	0.158	0.074	0.000	1257.1	1423	0.190
25.0	110.0	10.23	24.66	0.641	0.096	0.033	0.175	0.054	0.000	1488.9	1361	0.168
25.0	120.0	10.71	25.63	0.649	0.089	0.031	0.193	0.038	0.000	1759.1	1280	0.143
25.0	135.0	11.69	26.28	0.660	0.083	0.028	0.208	0.019	0.000	2196.8	1086	0.101
25.0	150.0	11.57	13.56	0.806	0.102	0.035	0.052	0.006	0.000	1762.2	563	0.058
25.0	160.0	10.98	8.38	0.834	0.110	0.037	0.016	0.003	0.000	1484.3	349	0.041
25.0	170.0	10.54	3.63	0.841	0.118	0.040	0.000	0.001	0.000	1283.0	166	0.021
25.0	180.0	10.17	0.27	0.830	0.127	0.043	0.000	0.000	0.000	1118.0	12	0.002

Optimum Downwind Hydro Forces for Ops_Down

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	Fh	Clk
4.0	138.1	4.40	1.44	0.064	0.682	0.239	0.000	0.014	0.000	44.3	61	0.045
5.0	140.3	5.21	1.88	0.125	0.640	0.223	0.000	0.012	0.000	64.5	79	0.041
6.0	142.6	5.87	2.19	0.189	0.595	0.206	0.000	0.010	0.000	86.4	92	0.038
7.0	144.3	6.47	2.50	0.257	0.546	0.188	0.000	0.009	0.000	112.5	104	0.035
8.0	146.1	6.99	2.71	0.314	0.504	0.174	0.000	0.007	0.000	140.3	113	0.033
9.0	149.1	7.31	2.55	0.360	0.472	0.162	0.000	0.005	0.000	162.9	106	0.028
10.0	152.0	7.55	2.30	0.405	0.440	0.151	0.000	0.003	0.000	185.6	96	0.024
12.0	157.8	7.87	1.84	0.479	0.386	0.132	0.000	0.002	0.000	228.4	77	0.018
14.0	167.3	8.06	1.27	0.528	0.351	0.120	0.000	0.001	0.000	262.5	53	0.012
16.0	170.6	8.48	1.26	0.629	0.276	0.095	0.000	0.000	0.000	365.9	53	0.011
20.0	171.0	9.32	2.07	0.768	0.172	0.059	0.000	0.001	0.000	700.7	88	0.014
25.0	167.1	10.65	5.16	0.839	0.115	0.039	0.005	0.001	0.000	1334.8	217	0.027

Aerodynamic Force Numbers for Ops_Down2

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	FxW	FyW	zce
4.0	80.0	38.6	169	0.694	0.133	0.069	0.000	0.202	-2	3	10.60
4.0	90.0	40.6	160	0.806	0.141	0.092	0.000	0.233	-2	3	10.78
4.0	100.0	43.0	142	0.934	0.150	0.124	0.000	0.274	-1	3	10.91
4.0	110.0	46.2	116	1.073	0.166	0.165	0.000	0.332	-1	3	10.99
4.0	120.0	51.1	85	1.210	0.205	0.213	0.000	0.418	-1	2	11.09
4.0	135.0	66.1	41	1.345	0.363	0.264	0.000	0.626	-0	1	11.19
4.0	150.0	97.1	17	1.302	0.723	0.249	0.000	0.972	0	1	11.20
4.0	160.0	128.2	13	0.815	1.023	0.098	0.000	1.122	0	0	11.02
4.0	170.0	155.7	12	0.310	1.097	0.015	0.000	1.112	0	0	10.91
4.0	180.0	180.0	13	0.000	0.899	0.000	0.000	0.899	0	-0	10.99
5.0	80.0	38.9	260	0.711	0.134	0.072	0.000	0.207	-3	5	10.63
5.0	90.0	41.2	243	0.839	0.143	0.100	0.000	0.243	-2	5	10.82
5.0	100.0	44.0	213	0.980	0.154	0.138	0.000	0.292	-2	5	10.94
5.0	110.0	47.6	172	1.121	0.176	0.182	0.000	0.358	-2	4	11.02
5.0	120.0	52.8	126	1.241	0.221	0.224	0.000	0.445	-1	3	11.11
5.0	135.0	67.3	63	1.350	0.375	0.265	0.000	0.641	-0	2	11.20
5.0	150.0	96.9	27	1.304	0.720	0.249	0.000	0.970	0	1	11.21
5.0	160.0	127.8	20	0.824	1.020	0.100	0.000	1.121	0	0	11.02
5.0	170.0	155.5	19	0.312	1.097	0.015	0.000	1.113	0	0	10.91
5.0	180.0	180.0	21	0.000	0.899	0.000	0.000	0.899	0	-0	10.99
6.0	80.0	39.5	362	0.743	0.137	0.079	0.000	0.216	-4	7	10.68
6.0	90.0	42.2	334	0.888	0.147	0.113	0.000	0.260	-3	7	10.87
6.0	100.0	45.3	289	1.040	0.161	0.156	0.000	0.318	-3	7	10.97
6.0	110.0	49.5	232	1.174	0.191	0.201	0.000	0.392	-2	6	11.06
6.0	120.0	55.2	170	1.274	0.245	0.238	0.000	0.483	-1	4	11.13
6.0	135.0	69.5	88	1.357	0.400	0.268	0.000	0.668	-0	3	11.20
6.0	150.0	97.7	39	1.298	0.729	0.247	0.000	0.976	0	1	11.20
6.0	160.0	127.7	29	0.825	1.020	0.101	0.000	1.120	0	1	11.02
6.0	170.0	155.5	27	0.314	1.098	0.015	0.000	1.113	0	0	10.91
6.0	180.0	180.0	29	0.000	0.899	0.000	0.000	0.899	0	-0	10.99
7.0	80.0	40.2	472	0.781	0.139	0.088	0.000	0.227	-5	10	10.75
7.0	90.0	43.4	428	0.952	0.152	0.132	0.000	0.283	-4	9	10.93
7.0	100.0	47.4	363	1.115	0.175	0.182	0.000	0.357	-3	8	11.02
7.0	110.0	52.2	289	1.231	0.215	0.224	0.000	0.439	-2	7	11.11
7.0	120.0	58.2	215	1.301	0.276	0.249	0.000	0.525	-1	6	11.15
7.0	135.0	72.2	116	1.364	0.430	0.271	0.000	0.701	-0	3	11.21
7.0	150.0	99.3	54	1.284	0.748	0.242	0.000	0.990	0	2	11.20
7.0	160.0	128.1	40	0.817	1.023	0.099	0.000	1.122	0	1	11.02
7.0	170.0	155.5	37	0.313	1.098	0.015	0.000	1.113	0	0	10.91
7.0	180.0	180.0	40	0.000	0.899	0.000	0.000	0.899	0	-0	10.99
8.0	80.0	41.2	581	0.837	0.143	0.102	0.000	0.245	-6	12	10.82
8.0	90.0	45.2	513	1.035	0.161	0.159	0.000	0.319	-5	11	10.97
8.0	100.0	50.0	430	1.187	0.196	0.211	0.000	0.407	-4	10	11.08
8.0	110.0	55.6	343	1.278	0.249	0.244	0.000	0.493	-3	9	11.14
8.0	120.0	62.0	258	1.325	0.318	0.260	0.000	0.578	-2	7	11.18
8.0	135.0	75.2	147	1.370	0.464	0.274	0.000	0.738	-1	4	11.22
8.0	150.0	101.4	71	1.263	0.772	0.234	0.000	1.006	0	2	11.19
8.0	160.0	128.9	53	0.801	1.029	0.095	0.000	1.124	0	1	11.02
8.0	170.0	155.6	48	0.311	1.097	0.015	0.000	1.112	1	1	10.91
8.0	180.0	180.0	52	0.000	0.899	0.000	0.000	0.899	1	-0	10.99

Ops_Down2 (continued)

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
9.0	80.0	42.5	681	0.905	0.148	0.122	0.000	0.270	-6	14	10.89
9.0	90.0	47.2	592	1.108	0.173	0.186	0.000	0.359	-5	13	11.02
9.0	100.0	52.7	495	1.239	0.220	0.235	0.000	0.454	-4	12	11.11
9.0	110.0	58.8	398	1.306	0.283	0.258	0.000	0.541	-3	11	11.16
9.0	120.0	65.8	304	1.344	0.359	0.269	0.000	0.628	-2	9	11.19
9.0	135.0	79.2	178	1.372	0.511	0.277	0.000	0.788	-0	6	11.23
9.0	150.0	103.6	92	1.239	0.796	0.225	0.000	1.022	0	3	11.18
9.0	160.0	130.0	69	0.779	1.037	0.090	0.000	1.127	1	2	11.01
9.0	170.0	155.9	63	0.306	1.096	0.015	0.000	1.111	1	1	10.91
9.0	180.0	180.0	67	0.000	0.899	0.000	0.000	0.899	1	-0	10.99
10.0	80.0	43.8	774	0.969	0.153	0.143	0.000	0.297	-7	16	10.94
10.0	90.0	49.0	668	1.162	0.187	0.211	0.000	0.398	-6	15	11.06
10.0	100.0	55.1	561	1.273	0.244	0.253	0.000	0.496	-4	14	11.14
10.0	110.0	61.8	456	1.325	0.316	0.269	0.000	0.585	-3	12	11.18
10.0	120.0	69.3	354	1.357	0.398	0.276	0.000	0.675	-2	10	11.21
10.0	135.0	83.4	215	1.369	0.560	0.276	0.000	0.836	-0	7	11.23
10.0	150.0	106.3	116	1.206	0.824	0.214	0.000	1.038	0	3	11.16
10.0	160.0	131.2	88	0.754	1.046	0.084	0.000	1.130	1	2	11.01
10.0	170.0	156.3	80	0.300	1.094	0.014	0.000	1.109	1	1	10.90
10.0	180.0	180.0	85	0.000	0.899	0.000	0.000	0.899	1	-0	10.99
12.0	80.0	46.3	956	1.011	0.157	0.175	0.000	0.332	-9	20	10.66
12.0	90.0	52.3	817	1.203	0.211	0.246	0.000	0.457	-6	19	10.97
12.0	100.0	59.3	695	1.309	0.288	0.281	0.000	0.569	-5	18	11.17
12.0	110.0	67.0	580	1.348	0.372	0.288	0.000	0.661	-3	16	11.20
12.0	120.0	75.4	466	1.370	0.466	0.288	0.000	0.755	-2	14	11.22
12.0	135.0	90.7	303	1.344	0.646	0.269	0.000	0.915	-0	9	11.22
12.0	150.0	112.9	182	1.109	0.890	0.181	0.000	1.070	1	5	11.12
12.0	160.0	133.9	139	0.699	1.064	0.072	0.000	1.136	1	3	11.00
12.0	170.0	157.2	124	0.286	1.091	0.013	0.000	1.104	1	1	10.90
12.0	180.0	180.0	130	0.000	0.899	0.000	0.000	0.899	2	-0	10.99
14.0	80.0	49.2	1181	0.900	0.146	0.172	0.000	0.318	-10	26	9.70
14.0	90.0	55.9	1014	1.053	0.207	0.226	0.000	0.433	-8	24	10.08
14.0	100.0	63.1	846	1.242	0.308	0.281	0.000	0.588	-5	22	10.80
14.0	110.0	71.1	711	1.362	0.419	0.308	0.000	0.727	-3	20	11.22
14.0	120.0	80.2	592	1.372	0.522	0.298	0.000	0.820	-1	18	11.23
14.0	135.0	96.4	414	1.308	0.714	0.257	0.000	0.971	0	13	11.21
14.0	150.0	118.5	272	1.009	0.941	0.150	0.000	1.091	2	7	11.08
14.0	160.0	137.5	215	0.627	1.085	0.059	0.000	1.144	2	4	10.98
14.0	170.0	158.6	189	0.266	1.085	0.011	0.000	1.096	2	2	10.89
14.0	180.0	180.0	192	0.000	0.899	0.000	0.000	0.899	2	-0	10.99
16.0	80.0	51.7	1433	0.797	0.138	0.161	0.000	0.299	-12	33	8.94
16.0	90.0	58.9	1236	0.926	0.202	0.204	0.000	0.405	-9	31	9.37
16.0	100.0	66.6	1041	1.091	0.298	0.251	0.000	0.549	-6	28	10.06
16.0	110.0	74.7	853	1.325	0.444	0.315	0.000	0.759	-3	24	11.04
16.0	120.0	84.1	730	1.367	0.568	0.307	0.000	0.875	-1	21	11.23
16.0	135.0	100.7	545	1.270	0.763	0.246	0.000	1.009	1	16	11.19
16.0	150.0	122.8	385	0.926	0.979	0.127	0.000	1.106	2	10	11.05
16.0	160.0	140.6	318	0.570	1.099	0.049	0.000	1.147	3	6	10.97
16.0	170.0	160.1	283	0.244	1.078	0.010	0.000	1.087	3	3	10.88
16.0	180.0	180.0	282	0.000	0.899	0.000	0.000	0.899	3	-0	10.99

Ops_Down2 (continued)

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
20.0	80.0	55.7	2016	0.637	0.124	0.136	0.000	0.261	-16	48	7.82
20.0	90.0	63.6	1761	0.733	0.184	0.166	0.000	0.350	-11	45	8.25
20.0	100.0	71.9	1507	0.863	0.270	0.204	0.000	0.474	-7	41	8.89
20.0	110.0	80.8	1262	1.046	0.403	0.252	0.000	0.656	-3	35	9.79
20.0	120.0	90.4	1032	1.310	0.625	0.315	0.000	0.940	-0	29	11.08
20.0	135.0	106.7	863	1.200	0.829	0.227	0.000	1.056	3	25	11.16
20.0	150.0	128.2	681	0.816	1.023	0.100	0.000	1.123	5	17	11.02
20.0	160.0	144.6	596	0.496	1.109	0.037	0.000	1.146	6	11	10.96
20.0	170.0	162.2	550	0.214	1.066	0.007	0.000	1.073	6	5	10.86
20.0	180.0	180.0	548	0.000	0.899	0.000	0.000	0.899	7	-0	10.99
25.0	80.0	59.2	2896	0.496	0.109	0.110	0.000	0.219	-21	71	6.83
25.0	90.0	67.6	2563	0.570	0.160	0.132	0.000	0.293	-14	67	7.23
25.0	100.0	76.6	2230	0.670	0.235	0.161	0.000	0.396	-8	61	7.80
25.0	110.0	86.0	1909	0.810	0.351	0.197	0.000	0.548	-2	54	8.62
25.0	120.0	95.8	1605	1.005	0.542	0.239	0.000	0.781	2	45	9.79
25.0	135.0	111.2	1319	1.135	0.874	0.216	0.000	1.090	6	36	11.13
25.0	150.0	131.6	1149	0.745	1.049	0.084	0.000	1.133	9	26	11.00
25.0	160.0	147.3	1055	0.448	1.111	0.031	0.000	1.142	11	18	10.94
25.0	170.0	163.6	1007	0.194	1.057	0.006	0.000	1.063	12	9	10.85
25.0	180.0	180.0	1013	0.000	0.899	0.000	0.000	0.899	12	-0	10.99

Optimum Downwind Aero Forces for Ops_Down2

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
4.0	138.9	72.3	33	1.365	0.432	0.272	0.000	0.703	-0	1	11.21
5.0	141.1	76.8	45	1.371	0.482	0.275	0.000	0.757	-0	1	11.22
6.0	142.9	81.9	57	1.371	0.543	0.275	0.000	0.817	-0	2	11.23
7.0	145.0	88.1	69	1.356	0.615	0.269	0.000	0.885	-0	2	11.23
8.0	146.1	92.8	85	1.333	0.672	0.261	0.000	0.932	0	3	11.22
9.0	147.9	99.0	100	1.286	0.745	0.243	0.000	0.988	0	3	11.20
10.0	150.5	107.4	114	1.192	0.835	0.209	0.000	1.044	0	3	11.15
12.0	157.1	127.3	148	0.834	1.017	0.103	0.000	1.119	1	4	11.02
14.0	166.5	151.0	195	0.386	1.109	0.023	0.000	1.132	2	3	10.93
16.0	169.7	159.4	284	0.254	1.081	0.010	0.000	1.091	3	3	10.88
20.0	171.0	163.9	548	0.190	1.055	0.006	0.000	1.060	6	5	10.85
25.0	169.1	162.0	1009	0.215	1.066	0.008	0.000	1.074	12	10	10.86

Aerodynamic Force Numbers for Ops_Upwind

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	FxW	FyW	zce
4.0	32.0	19.6	93	1.261	0.021	0.120	0.000	0.141	-2	2	8.48
4.0	36.0	20.5	105	1.283	0.022	0.123	0.000	0.145	-2	2	8.47
4.0	40.0	21.4	115	1.302	0.023	0.126	0.000	0.149	-2	2	8.46
4.0	45.0	22.7	125	1.323	0.024	0.129	0.000	0.153	-3	3	8.46
4.0	52.0	24.4	134	1.345	0.027	0.132	0.000	0.158	-3	3	8.45
4.0	60.0	26.7	138	1.362	0.030	0.133	0.000	0.164	-3	4	8.44
4.0	70.0	29.7	133	1.373	0.037	0.133	0.000	0.170	-3	4	8.43
4.0	80.0	33.2	120	1.377	0.045	0.131	0.000	0.177	-2	4	8.42
4.0	90.0	37.2	101	1.377	0.057	0.130	0.000	0.186	-2	4	8.41
4.0	100.0	42.2	80	1.374	0.073	0.128	0.000	0.201	-1	3	8.39
4.0	110.0	48.8	58	1.368	0.100	0.127	0.000	0.227	-1	3	8.37
4.0	120.0	58.9	38	1.349	0.154	0.126	0.000	0.279	-0	2	8.34
5.0	32.0	19.2	151	1.251	0.021	0.118	0.000	0.139	-3	3	8.49
5.0	36.0	20.2	166	1.277	0.022	0.123	0.000	0.144	-4	3	8.47
5.0	40.0	21.3	180	1.300	0.023	0.126	0.000	0.149	-4	4	8.47
5.0	45.0	22.7	193	1.323	0.024	0.129	0.000	0.154	-4	4	8.46
5.0	52.0	24.8	202	1.348	0.027	0.133	0.000	0.160	-4	5	8.45
5.0	60.0	27.3	203	1.366	0.032	0.134	0.000	0.166	-4	5	8.44
5.0	70.0	30.8	193	1.375	0.039	0.133	0.000	0.172	-4	6	8.43
5.0	80.0	34.6	173	1.377	0.049	0.131	0.000	0.180	-3	6	8.42
5.0	90.0	38.9	147	1.376	0.062	0.129	0.000	0.191	-3	5	8.40
5.0	100.0	43.9	116	1.373	0.080	0.128	0.000	0.208	-2	5	8.38
5.0	110.0	50.4	86	1.366	0.108	0.127	0.000	0.235	-1	4	8.36
5.0	120.0	59.9	58	1.346	0.160	0.126	0.000	0.285	-1	3	8.34
6.0	32.0	19.0	217	1.247	0.021	0.118	0.000	0.139	-5	4	8.49
6.0	36.0	20.2	238	1.277	0.022	0.123	0.000	0.145	-5	5	8.48
6.0	40.0	21.4	254	1.302	0.023	0.127	0.000	0.150	-5	5	8.46
6.0	45.0	23.0	268	1.328	0.025	0.130	0.000	0.155	-6	6	8.45
6.0	52.0	25.4	276	1.354	0.028	0.134	0.000	0.162	-6	7	8.44
6.0	60.0	28.2	274	1.369	0.034	0.134	0.000	0.168	-6	7	8.43
6.0	70.0	32.0	258	1.376	0.042	0.133	0.000	0.175	-5	8	8.42
6.0	80.0	36.1	230	1.377	0.053	0.131	0.000	0.184	-4	8	8.41
6.0	90.0	40.7	195	1.375	0.068	0.129	0.000	0.197	-3	7	8.39
6.0	100.0	46.0	156	1.371	0.088	0.127	0.000	0.216	-2	7	8.37
6.0	110.0	52.7	116	1.362	0.119	0.127	0.000	0.245	-2	5	8.35
6.0	120.0	61.8	80	1.341	0.173	0.125	0.000	0.298	-1	4	8.33
7.0	32.0	19.1	293	1.248	0.021	0.118	0.000	0.139	-6	6	8.49
7.0	36.0	20.3	317	1.280	0.022	0.124	0.000	0.146	-7	6	8.47
7.0	40.0	21.7	334	1.307	0.023	0.128	0.000	0.151	-7	7	8.46
7.0	45.0	23.5	347	1.334	0.025	0.132	0.000	0.157	-7	8	8.45
7.0	52.0	26.0	354	1.358	0.029	0.135	0.000	0.164	-7	9	8.44
7.0	60.0	29.2	348	1.372	0.035	0.135	0.000	0.170	-7	10	8.43
7.0	70.0	33.4	322	1.377	0.046	0.133	0.000	0.179	-6	10	8.42
7.0	80.0	38.0	285	1.376	0.059	0.131	0.000	0.190	-5	10	8.40
7.0	90.0	42.9	242	1.374	0.076	0.129	0.000	0.205	-4	10	8.38
7.0	100.0	48.3	196	1.369	0.098	0.128	0.000	0.225	-3	8	8.37
7.0	110.0	55.0	149	1.358	0.131	0.126	0.000	0.257	-2	7	8.35
7.0	120.0	64.2	105	1.332	0.189	0.125	0.000	0.314	-1	5	8.33

Ops_Upwind (continued)

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
8.0	32.0	19.2	374	1.251	0.021	0.119	0.000	0.140	-8	7	8.49
8.0	36.0	20.6	399	1.285	0.022	0.125	0.000	0.147	-9	8	8.47
8.0	40.0	22.0	417	1.313	0.024	0.129	0.000	0.153	-9	9	8.46
8.0	45.0	23.9	430	1.340	0.026	0.133	0.000	0.159	-9	10	8.45
8.0	52.0	26.8	433	1.363	0.031	0.136	0.000	0.166	-9	11	8.44
8.0	60.0	30.3	418	1.374	0.038	0.135	0.000	0.173	-8	12	8.43
8.0	70.0	35.0	384	1.377	0.050	0.133	0.000	0.183	-7	13	8.41
8.0	80.0	40.0	339	1.375	0.066	0.130	0.000	0.196	-6	13	8.40
8.0	90.0	45.3	288	1.372	0.085	0.129	0.000	0.214	-5	12	8.38
8.0	100.0	51.0	235	1.365	0.111	0.128	0.000	0.238	-3	11	8.36
8.0	110.0	57.7	183	1.352	0.146	0.126	0.000	0.272	-2	9	8.34
8.0	120.0	66.5	132	1.323	0.207	0.124	0.000	0.331	-1	7	8.32
9.0	32.0	19.4	459	1.207	0.020	0.111	0.000	0.132	-10	9	8.48
9.0	36.0	20.8	485	1.290	0.022	0.127	0.000	0.149	-10	10	8.47
9.0	40.0	22.4	503	1.319	0.024	0.131	0.000	0.155	-11	11	8.46
9.0	45.0	24.4	514	1.345	0.027	0.135	0.000	0.162	-11	12	8.45
9.0	52.0	27.6	510	1.367	0.032	0.137	0.000	0.169	-10	13	8.44
9.0	60.0	31.5	487	1.376	0.041	0.136	0.000	0.177	-10	14	8.43
9.0	70.0	36.6	445	1.377	0.055	0.133	0.000	0.188	-8	15	8.41
9.0	80.0	42.0	393	1.374	0.073	0.131	0.000	0.203	-7	15	8.39
9.0	90.0	47.7	336	1.369	0.095	0.129	0.000	0.224	-5	14	8.37
9.0	100.0	53.8	275	1.360	0.124	0.128	0.000	0.252	-4	13	8.35
9.0	110.0	60.7	217	1.344	0.165	0.126	0.000	0.291	-2	11	8.33
9.0	120.0	69.2	160	1.311	0.229	0.122	0.000	0.352	-1	9	8.32
10.0	32.0	19.6	547	1.154	0.019	0.102	0.000	0.121	-12	10	8.48
10.0	36.0	21.1	573	1.244	0.022	0.118	0.000	0.140	-12	12	8.47
10.0	40.0	22.7	590	1.322	0.024	0.133	0.000	0.157	-12	13	8.46
10.0	45.0	24.9	596	1.350	0.027	0.137	0.000	0.164	-12	14	8.44
10.0	52.0	28.4	585	1.370	0.034	0.138	0.000	0.172	-12	16	8.43
10.0	60.0	32.5	557	1.376	0.044	0.136	0.000	0.180	-11	17	8.42
10.0	70.0	38.0	509	1.376	0.059	0.133	0.000	0.193	-9	18	8.40
10.0	80.0	43.8	450	1.373	0.079	0.131	0.000	0.210	-7	18	8.38
10.0	90.0	49.8	386	1.367	0.105	0.129	0.000	0.234	-6	17	8.36
10.0	100.0	56.4	318	1.355	0.139	0.128	0.000	0.266	-4	15	8.34
10.0	110.0	63.7	252	1.334	0.185	0.125	0.000	0.311	-3	13	8.33
10.0	120.0	72.3	191	1.295	0.257	0.120	0.000	0.377	-1	11	8.31
12.0	32.0	20.0	734	1.039	0.017	0.083	0.000	0.101	-16	14	8.47
12.0	36.0	21.8	758	1.114	0.019	0.095	0.000	0.115	-16	16	8.46
12.0	40.0	23.6	767	1.185	0.022	0.107	0.000	0.129	-16	17	8.45
12.0	45.0	26.1	761	1.277	0.027	0.123	0.000	0.151	-16	18	8.44
12.0	52.0	29.7	737	1.373	0.037	0.141	0.000	0.178	-15	20	8.43
12.0	60.0	34.3	701	1.377	0.048	0.139	0.000	0.187	-13	22	8.42
12.0	70.0	40.4	641	1.375	0.067	0.135	0.000	0.202	-11	23	8.39
12.0	80.0	46.8	572	1.370	0.092	0.132	0.000	0.224	-9	24	8.37
12.0	90.0	53.6	495	1.361	0.123	0.130	0.000	0.253	-7	23	8.35
12.0	100.0	60.8	414	1.344	0.166	0.128	0.000	0.293	-5	21	8.33
12.0	110.0	68.8	334	1.313	0.225	0.124	0.000	0.349	-3	18	8.32
12.0	120.0	78.0	261	1.258	0.314	0.115	0.000	0.428	-1	15	8.31

Ops_Upwind (continued)

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
14.0	32.0	20.5	934	0.931	0.016	0.067	0.000	0.083	-20	18	8.46
14.0	36.0	22.4	951	0.995	0.018	0.076	0.000	0.094	-20	20	8.45
14.0	40.0	24.5	950	1.061	0.021	0.086	0.000	0.107	-20	21	8.44
14.0	45.0	27.2	935	1.143	0.026	0.099	0.000	0.125	-19	23	8.43
14.0	52.0	31.0	900	1.258	0.036	0.120	0.000	0.155	-18	25	8.42
14.0	60.0	35.7	848	1.377	0.052	0.142	0.000	0.194	-16	27	8.41
14.0	70.0	42.3	780	1.374	0.074	0.138	0.000	0.212	-13	29	8.39
14.0	80.0	49.3	702	1.367	0.102	0.135	0.000	0.237	-10	30	8.36
14.0	90.0	56.6	615	1.355	0.140	0.132	0.000	0.271	-8	29	8.34
14.0	100.0	64.4	523	1.332	0.191	0.128	0.000	0.318	-5	27	8.33
14.0	110.0	72.9	430	1.291	0.263	0.122	0.000	0.384	-3	24	8.31
14.0	120.0	82.6	343	1.222	0.365	0.109	0.000	0.474	-1	20	8.31
16.0	32.0	21.0	1144	0.835	0.015	0.054	0.000	0.069	-24	22	8.46
16.0	36.0	23.1	1153	0.893	0.017	0.062	0.000	0.078	-24	25	8.44
16.0	40.0	25.3	1145	0.950	0.019	0.069	0.000	0.089	-24	26	8.43
16.0	45.0	28.1	1123	1.020	0.024	0.080	0.000	0.104	-23	28	8.42
16.0	52.0	32.3	1078	1.163	0.036	0.121	0.000	0.158	-21	31	7.74
16.0	60.0	37.1	1010	1.278	0.052	0.133	0.000	0.186	-19	32	8.10
16.0	70.0	43.7	922	1.373	0.079	0.142	0.000	0.221	-15	34	8.38
16.0	80.0	51.2	840	1.365	0.111	0.138	0.000	0.249	-12	36	8.36
16.0	90.0	59.0	746	1.349	0.154	0.134	0.000	0.288	-9	36	8.34
16.0	100.0	67.3	645	1.320	0.213	0.128	0.000	0.341	-6	34	8.32
16.0	110.0	76.3	541	1.270	0.296	0.119	0.000	0.415	-3	30	8.31
16.0	120.0	86.4	441	1.189	0.409	0.103	0.000	0.511	-1	25	8.31
20.0	32.0	21.8	1599	0.678	0.013	0.036	0.000	0.049	-34	32	8.44
20.0	36.0	24.2	1596	0.724	0.015	0.042	0.000	0.057	-34	35	8.25
20.0	40.0	26.7	1580	0.769	0.017	0.051	0.000	0.068	-33	38	7.96
20.0	45.0	29.9	1547	0.826	0.022	0.062	0.000	0.084	-32	41	7.70
20.0	52.0	34.6	1487	0.936	0.033	0.097	0.000	0.131	-30	45	6.93
20.0	60.0	39.8	1395	1.031	0.049	0.108	0.000	0.157	-26	47	7.26
20.0	70.0	46.7	1261	1.180	0.078	0.125	0.000	0.203	-20	49	7.76
20.0	80.0	53.9	1121	1.360	0.125	0.147	0.000	0.272	-15	48	8.35
20.0	90.0	62.5	1028	1.338	0.177	0.139	0.000	0.316	-11	50	8.33
20.0	100.0	71.5	920	1.299	0.249	0.130	0.000	0.379	-7	49	8.32
20.0	110.0	81.1	800	1.234	0.348	0.115	0.000	0.463	-3	45	8.31
20.0	120.0	91.7	679	1.137	0.474	0.094	0.000	0.568	0	39	8.31
25.0	32.0	22.9	2257	0.536	0.011	0.028	0.000	0.039	-49	47	7.57
25.0	36.0	25.5	2247	0.574	0.013	0.035	0.000	0.047	-49	51	7.23
25.0	40.0	28.2	2220	0.610	0.015	0.042	0.000	0.057	-47	56	6.98
25.0	45.0	31.8	2177	0.679	0.022	0.067	0.000	0.089	-46	61	6.08
25.0	52.0	36.6	2087	0.742	0.030	0.077	0.000	0.107	-42	66	6.17
25.0	60.0	42.3	1960	0.818	0.044	0.086	0.000	0.130	-36	69	6.47
25.0	70.0	49.7	1782	0.940	0.072	0.101	0.000	0.172	-28	71	6.93
25.0	80.0	57.4	1591	1.096	0.117	0.120	0.000	0.238	-20	70	7.50
25.0	90.0	65.6	1395	1.302	0.196	0.146	0.000	0.342	-13	67	8.25
25.0	100.0	75.1	1296	1.278	0.284	0.134	0.000	0.418	-8	68	8.31
25.0	110.0	85.1	1180	1.200	0.394	0.112	0.000	0.506	-2	66	8.31
25.0	120.0	96.0	1046	1.092	0.528	0.089	0.000	0.617	3	59	8.31

Optimum Upwind Aero Forces for Ops_Upwind

Vt	Bt	ba'	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
4.0	46.7	23.1	127	1.329	0.025	0.130	0.000	0.155	-3	3	8.45
5.0	44.9	22.7	192	1.323	0.024	0.129	0.000	0.154	-4	4	8.46
6.0	43.6	22.5	265	1.321	0.024	0.130	0.000	0.154	-6	6	8.46
7.0	42.2	22.5	341	1.320	0.024	0.130	0.000	0.154	-7	7	8.46
8.0	41.6	22.6	422	1.323	0.024	0.131	0.000	0.155	-9	9	8.46
9.0	41.0	22.8	506	1.325	0.024	0.132	0.000	0.156	-11	11	8.46
10.0	39.9	22.7	589	1.320	0.024	0.132	0.000	0.156	-12	13	8.46
12.0	37.5	22.5	763	1.141	0.020	0.100	0.000	0.120	-16	16	8.45
14.0	36.0	22.5	951	0.995	0.018	0.076	0.000	0.094	-20	20	8.45
16.0	34.8	22.4	1152	0.875	0.016	0.059	0.000	0.075	-24	24	8.45
20.0	33.3	22.5	1600	0.693	0.014	0.038	0.000	0.051	-34	33	8.43
25.0	32.8	23.4	2257	0.544	0.011	0.029	0.000	0.040	-49	48	7.49

Aerodynamic Force Numbers for Ops_Down

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	FxW	FyW	zce
4.0	80.0	35.2	250	0.746	0.112	0.106	0.000	0.217	-2	4	9.34
4.0	90.0	37.5	232	0.827	0.115	0.131	0.000	0.245	-2	4	9.40
4.0	100.0	40.0	202	0.935	0.125	0.168	0.000	0.292	-2	3	9.63
4.0	110.0	43.0	164	1.058	0.137	0.218	0.000	0.355	-1	3	9.86
4.0	120.0	47.0	122	1.191	0.158	0.279	0.000	0.437	-1	2	10.05
4.0	135.0	58.9	59	1.349	0.266	0.361	0.000	0.627	-0	1	10.28
4.0	150.0	89.1	22	1.328	0.616	0.350	0.000	0.965	-0	1	10.46
4.0	160.0	123.2	15	0.862	0.965	0.147	0.000	1.111	0	0	10.42
4.0	170.0	153.9	14	0.307	1.068	0.019	0.000	1.087	0	0	10.31
4.0	180.0	180.0	15	0.000	0.906	0.000	0.000	0.906	0	-0	10.19
5.0	80.0	35.9	373	0.768	0.112	0.113	0.000	0.225	-3	5	9.33
5.0	90.0	38.5	341	0.871	0.118	0.146	0.000	0.265	-3	5	9.49
5.0	100.0	41.4	295	0.993	0.130	0.193	0.000	0.323	-2	5	9.75
5.0	110.0	44.7	238	1.122	0.145	0.248	0.000	0.393	-2	4	9.95
5.0	120.0	49.1	177	1.240	0.174	0.305	0.000	0.480	-1	3	10.12
5.0	135.0	60.9	89	1.358	0.286	0.366	0.000	0.652	-0	2	10.30
5.0	150.0	89.1	34	1.327	0.617	0.349	0.000	0.966	-0	1	10.46
5.0	160.0	122.8	23	0.869	0.962	0.149	0.000	1.111	0	0	10.42
5.0	170.0	153.7	21	0.310	1.068	0.020	0.000	1.088	0	0	10.31
5.0	180.0	180.0	23	0.000	0.906	0.000	0.000	0.906	0	-0	10.19
6.0	80.0	36.8	506	0.803	0.113	0.125	0.000	0.238	-4	8	9.36
6.0	90.0	39.9	458	0.926	0.124	0.168	0.000	0.291	-4	7	9.62
6.0	100.0	43.2	392	1.065	0.137	0.225	0.000	0.362	-3	7	9.87
6.0	110.0	47.0	315	1.190	0.158	0.283	0.000	0.442	-2	6	10.05
6.0	120.0	51.8	234	1.286	0.196	0.331	0.000	0.528	-1	5	10.19
6.0	135.0	63.9	122	1.368	0.318	0.371	0.000	0.689	-1	3	10.33
6.0	150.0	90.6	49	1.317	0.635	0.344	0.000	0.979	-0	1	10.47
6.0	160.0	122.8	33	0.868	0.962	0.149	0.000	1.111	0	1	10.42
6.0	170.0	153.6	30	0.311	1.069	0.020	0.000	1.088	0	0	10.31
6.0	180.0	180.0	32	0.000	0.906	0.000	0.000	0.906	0	-0	10.19
7.0	80.0	38.1	639	0.850	0.117	0.142	0.000	0.259	-5	10	9.45
7.0	90.0	41.7	565	1.007	0.131	0.203	0.000	0.334	-4	9	9.78
7.0	100.0	45.8	476	1.156	0.151	0.272	0.000	0.422	-3	8	10.00
7.0	110.0	50.3	381	1.263	0.184	0.325	0.000	0.509	-2	7	10.16
7.0	120.0	55.6	287	1.328	0.232	0.357	0.000	0.588	-2	6	10.25
7.0	135.0	67.1	156	1.375	0.354	0.377	0.000	0.731	-1	4	10.35
7.0	150.0	93.0	67	1.299	0.664	0.335	0.000	0.998	0	2	10.47
7.0	160.0	123.6	45	0.853	0.968	0.144	0.000	1.112	0	1	10.42
7.0	170.0	153.7	41	0.310	1.068	0.020	0.000	1.088	0	0	10.31
7.0	180.0	180.0	44	0.000	0.906	0.000	0.000	0.906	0	-0	10.19
8.0	80.0	39.6	758	0.915	0.123	0.169	0.000	0.291	-6	12	9.60
8.0	90.0	43.9	658	1.091	0.140	0.246	0.000	0.386	-5	11	9.92
8.0	100.0	48.6	552	1.230	0.170	0.316	0.000	0.486	-4	10	10.11
8.0	110.0	53.9	444	1.312	0.216	0.357	0.000	0.573	-3	9	10.23
8.0	120.0	59.9	338	1.353	0.275	0.374	0.000	0.649	-2	7	10.29
8.0	135.0	71.5	192	1.380	0.403	0.381	0.000	0.784	-1	4	10.38
8.0	150.0	95.7	88	1.276	0.697	0.322	0.000	1.019	0	2	10.48
8.0	160.0	124.8	61	0.830	0.977	0.136	0.000	1.113	0	1	10.41
8.0	170.0	154.0	55	0.306	1.068	0.019	0.000	1.087	0	1	10.31
8.0	180.0	180.0	58	0.000	0.906	0.000	0.000	0.906	1	-0	10.19

Ops_Down (continued)

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
9.0	80.0	41.1	865	0.980	0.129	0.200	0.000	0.328	-6	13	9.74
9.0	90.0	45.9	745	1.160	0.151	0.288	0.000	0.439	-5	13	10.01
9.0	100.0	51.3	625	1.279	0.192	0.352	0.000	0.544	-4	12	10.18
9.0	110.0	57.3	508	1.340	0.249	0.379	0.000	0.628	-3	10	10.27
9.0	120.0	63.9	392	1.368	0.318	0.386	0.000	0.704	-2	9	10.33
9.0	135.0	76.4	231	1.377	0.461	0.381	0.000	0.841	-1	6	10.41
9.0	150.0	98.7	113	1.246	0.731	0.308	0.000	1.039	0	3	10.48
9.0	160.0	126.3	80	0.800	0.988	0.126	0.000	1.114	0	2	10.40
9.0	170.0	154.4	71	0.300	1.067	0.019	0.000	1.085	1	1	10.31
9.0	180.0	180.0	75	0.000	0.906	0.000	0.000	0.906	1	-0	10.19
10.0	80.0	42.7	972	0.989	0.130	0.219	0.000	0.348	-7	15	9.65
10.0	90.0	48.0	833	1.150	0.165	0.292	0.000	0.457	-6	14	10.08
10.0	100.0	53.7	697	1.311	0.214	0.381	0.000	0.595	-4	13	10.23
10.0	110.0	60.3	574	1.355	0.280	0.396	0.000	0.676	-3	12	10.30
10.0	120.0	67.6	450	1.376	0.358	0.395	0.000	0.754	-2	10	10.36
10.0	135.0	81.0	275	1.366	0.516	0.376	0.000	0.893	-0	7	10.44
10.0	150.0	102.6	144	1.201	0.776	0.286	0.000	1.062	0	3	10.48
10.0	160.0	127.8	102	0.770	0.998	0.117	0.000	1.115	1	2	10.40
10.0	170.0	154.9	91	0.293	1.066	0.018	0.000	1.083	1	1	10.30
10.0	180.0	180.0	95	0.000	0.906	0.000	0.000	0.906	1	-0	10.19
12.0	80.0	46.3	1229	0.853	0.119	0.205	0.000	0.324	-9	20	8.83
12.0	90.0	52.4	1056	0.989	0.158	0.279	0.000	0.437	-7	19	9.01
12.0	100.0	58.8	878	1.167	0.228	0.356	0.000	0.585	-5	17	9.57
12.0	110.0	65.6	709	1.372	0.337	0.428	0.000	0.765	-3	15	10.35
12.0	120.0	73.9	580	1.379	0.430	0.411	0.000	0.841	-2	13	10.40
12.0	135.0	88.8	382	1.330	0.612	0.360	0.000	0.973	-0	9	10.47
12.0	150.0	110.6	225	1.088	0.857	0.234	0.000	1.092	1	5	10.46
12.0	160.0	131.8	166	0.690	1.024	0.094	0.000	1.118	1	3	10.38
12.0	170.0	156.0	143	0.276	1.063	0.016	0.000	1.078	1	1	10.30
12.0	180.0	180.0	147	0.000	0.906	0.000	0.000	0.906	1	-0	10.19
14.0	80.0	49.3	1520	0.744	0.112	0.192	0.000	0.304	-11	26	8.08
14.0	90.0	56.0	1312	0.859	0.152	0.257	0.000	0.410	-8	25	8.23
14.0	100.0	63.0	1097	1.012	0.229	0.315	0.000	0.544	-5	22	8.88
14.0	110.0	70.4	887	1.226	0.347	0.392	0.000	0.739	-3	19	9.78
14.0	120.0	78.9	721	1.372	0.490	0.425	0.000	0.916	-1	16	10.43
14.0	135.0	94.7	515	1.285	0.685	0.341	0.000	1.026	0	12	10.48
14.0	150.0	116.9	335	0.982	0.913	0.191	0.000	1.105	1	7	10.44
14.0	160.0	136.2	261	0.606	1.047	0.073	0.000	1.120	2	4	10.37
14.0	170.0	157.8	226	0.251	1.057	0.013	0.000	1.070	2	2	10.28
14.0	180.0	180.0	223	0.000	0.906	0.000	0.000	0.906	2	-0	10.19
16.0	80.0	51.9	1847	0.652	0.105	0.179	0.000	0.283	-12	33	7.41
16.0	90.0	59.0	1601	0.753	0.149	0.230	0.000	0.379	-9	31	7.67
16.0	100.0	66.5	1348	0.886	0.223	0.280	0.000	0.503	-6	28	8.30
16.0	110.0	74.5	1103	1.072	0.340	0.345	0.000	0.685	-3	24	9.16
16.0	120.0	83.1	873	1.339	0.534	0.431	0.000	0.966	-1	19	10.37
16.0	135.0	99.2	671	1.240	0.738	0.324	0.000	1.062	1	16	10.48
16.0	150.0	121.4	475	0.897	0.951	0.160	0.000	1.111	2	10	10.42
16.0	160.0	139.5	389	0.544	1.061	0.059	0.000	1.120	3	6	10.36
16.0	170.0	159.5	342	0.228	1.051	0.011	0.000	1.061	3	3	10.27
16.0	180.0	180.0	336	0.000	0.906	0.000	0.000	0.906	3	-0	10.19

Ops_Down (continued)

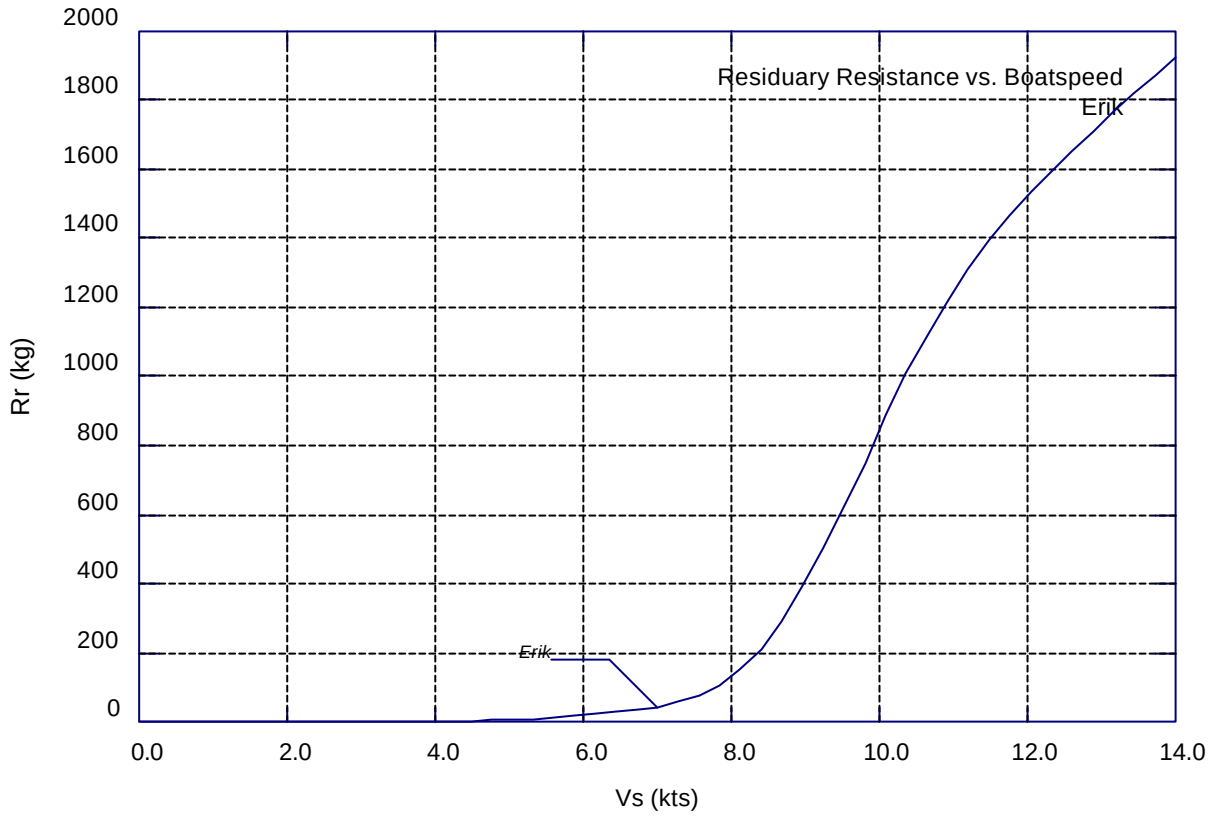
Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
20.0	80.0	55.8	2607	0.516	0.091	0.154	0.000	0.245	-16	49	6.38
20.0	90.0	63.6	2278	0.593	0.137	0.186	0.000	0.322	-11	46	6.78
20.0	100.0	71.8	1948	0.697	0.205	0.224	0.000	0.429	-7	41	7.36
20.0	110.0	80.5	1628	0.839	0.313	0.272	0.000	0.585	-3	36	8.16
20.0	120.0	90.0	1327	1.040	0.494	0.331	0.000	0.824	-0	29	9.28
20.0	135.0	105.7	1037	1.161	0.809	0.299	0.000	1.108	3	23	10.48
20.0	150.0	126.9	834	0.786	0.992	0.125	0.000	1.117	5	16	10.40
20.0	160.0	143.8	727	0.468	1.072	0.044	0.000	1.116	6	10	10.35
20.0	170.0	161.7	668	0.198	1.041	0.008	0.000	1.049	6	5	10.25
20.0	180.0	180.0	661	0.000	0.906	0.000	0.000	0.906	6	-0	10.19
25.0	80.0	59.3	3747	0.399	0.080	0.123	0.000	0.203	-22	72	5.59
25.0	90.0	67.6	3312	0.459	0.120	0.146	0.000	0.266	-14	68	5.96
25.0	100.0	76.4	2878	0.538	0.180	0.175	0.000	0.355	-8	62	6.48
25.0	110.0	85.7	2458	0.644	0.275	0.208	0.000	0.483	-2	54	7.21
25.0	120.0	95.5	2061	0.792	0.430	0.246	0.000	0.676	2	45	8.23
25.0	135.0	111.0	1543	1.082	0.861	0.284	0.000	1.145	5	32	10.47
25.0	150.0	130.2	1375	0.722	1.014	0.108	0.000	1.121	8	25	10.39
25.0	160.0	146.3	1270	0.426	1.074	0.037	0.000	1.111	10	17	10.34
25.0	170.0	163.1	1213	0.181	1.034	0.007	0.000	1.041	11	9	10.24
25.0	180.0	180.0	1221	0.000	0.906	0.000	0.000	0.906	12	-0	10.19

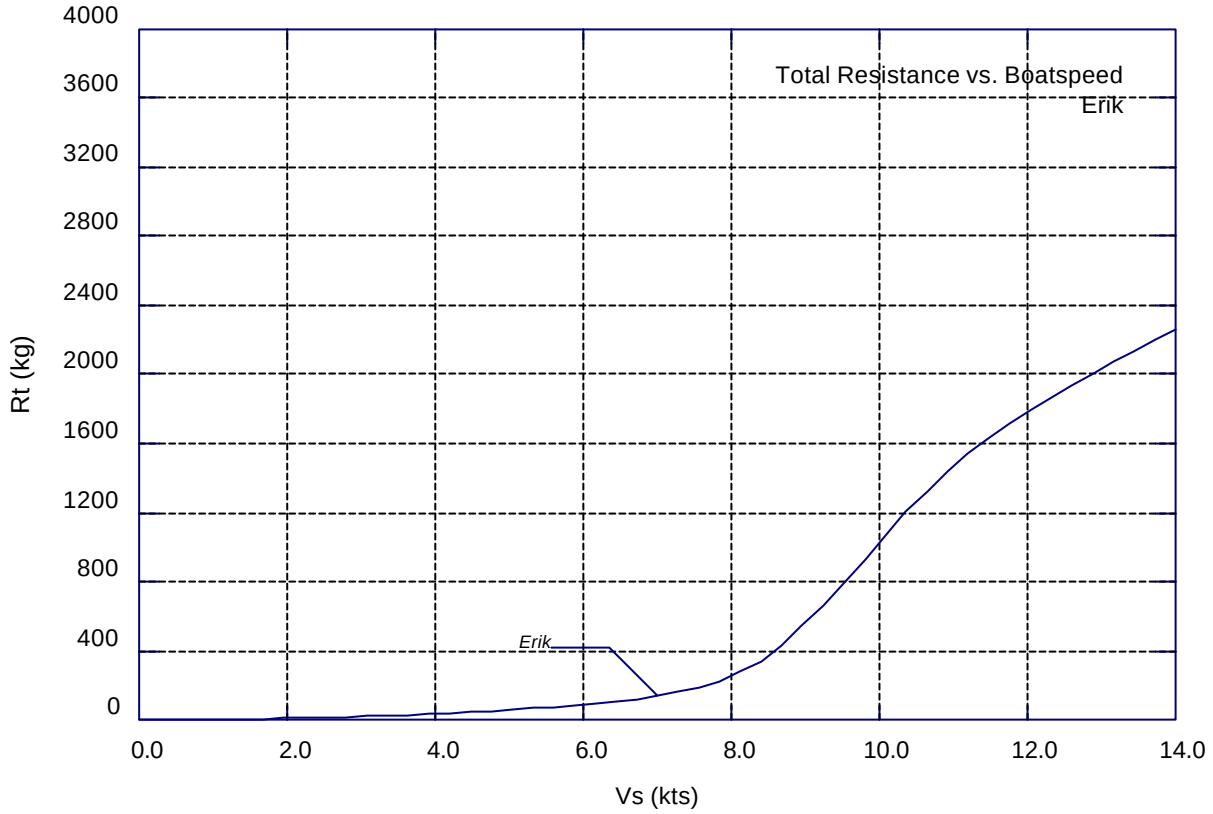
Optimum Downwind Aero Forces for Ops_Down

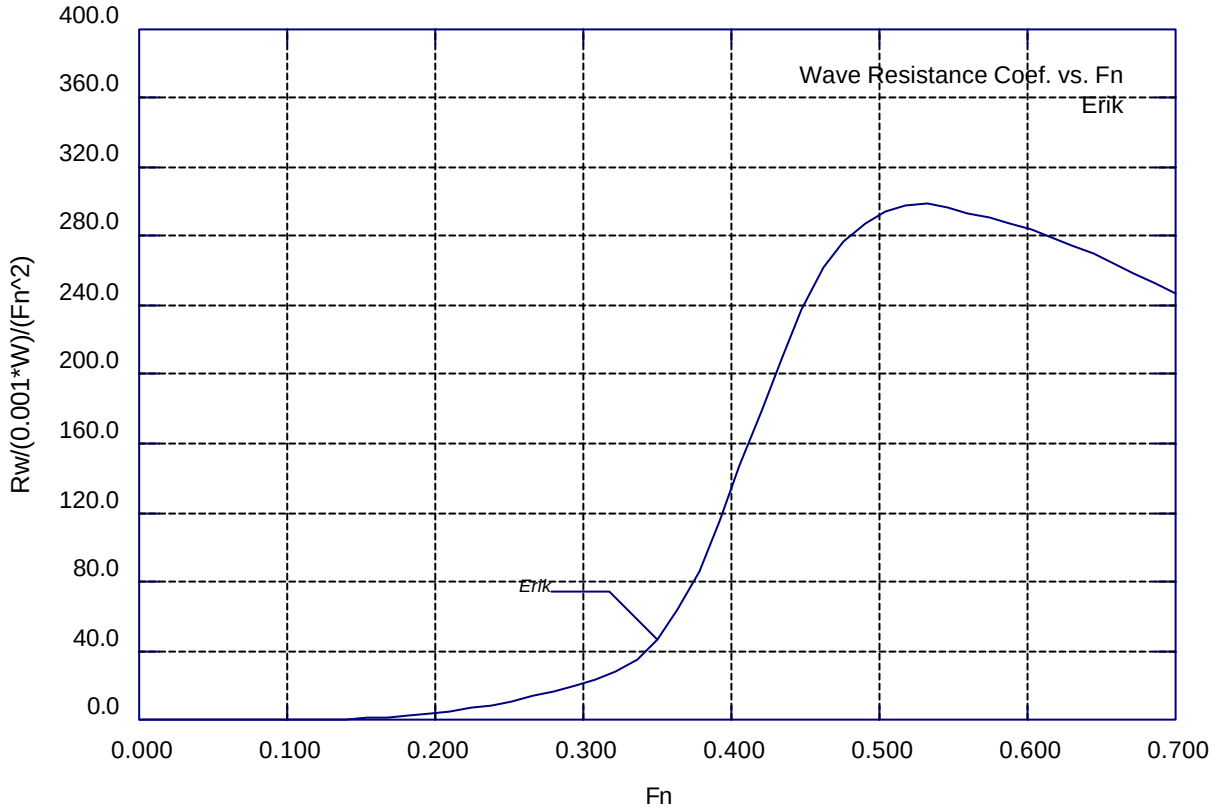
Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
4.0	138.1	63.2	49	1.366	0.311	0.370	0.000	0.681	-0	1	10.32
5.0	140.3	68.2	65	1.377	0.366	0.377	0.000	0.742	-0	1	10.36
6.0	142.6	74.6	78	1.379	0.439	0.378	0.000	0.817	-0	2	10.40
7.0	144.3	80.7	93	1.367	0.513	0.371	0.000	0.884	-0	2	10.43
8.0	146.1	87.2	109	1.339	0.593	0.356	0.000	0.949	-0	3	10.46
9.0	149.1	96.8	118	1.265	0.709	0.318	0.000	1.027	0	3	10.48
10.0	152.0	106.8	132	1.146	0.820	0.260	0.000	1.080	0	3	10.47
12.0	157.8	126.8	175	0.790	0.991	0.123	0.000	1.114	1	3	10.40
14.0	167.3	151.9	232	0.337	1.072	0.023	0.000	1.095	2	3	10.32
16.0	170.6	160.7	341	0.211	1.045	0.009	0.000	1.055	3	3	10.26
20.0	171.0	163.6	665	0.174	1.031	0.006	0.000	1.037	6	5	10.23
25.0	167.1	158.2	1223	0.245	1.055	0.013	0.000	1.068	11	11	10.28

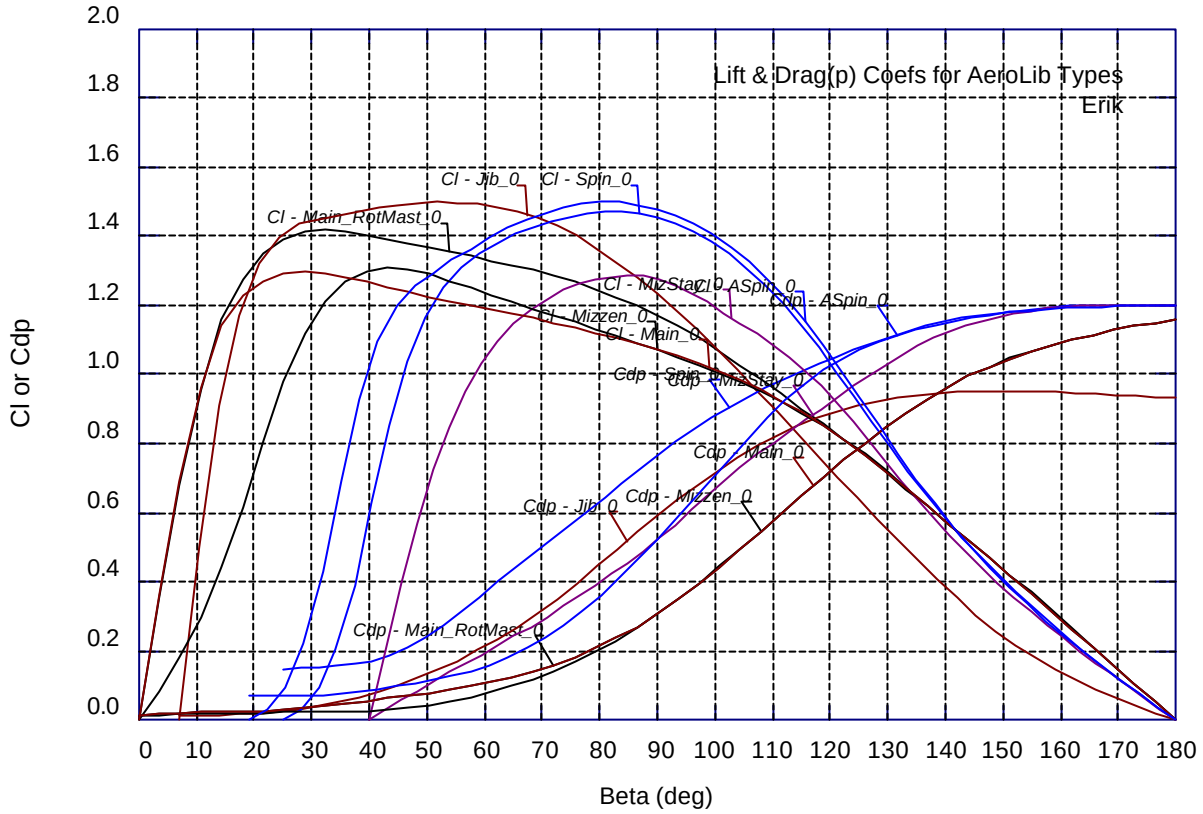
Erik - Hydrodynamic Forces
Heel: 0.00

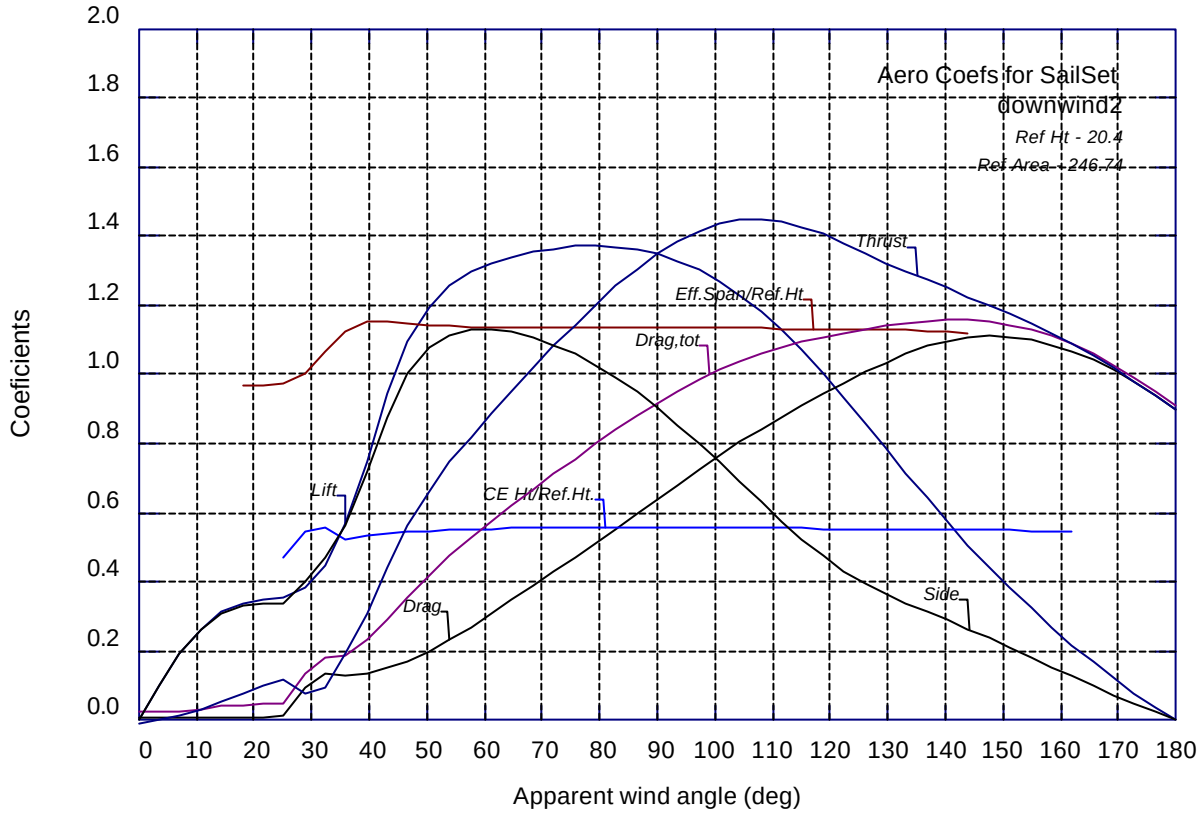
Vs	Fn	Rw	Rvc	Rva	Rtu	Cr	Rh22.5	Te,upr	zceb0
kt		kg	kg	kg	kg		kg	m	m
4.00	0.179	1.7	25.3	8.9	35.9	2.9	1.2	1.865	0.998
4.50	0.202	3.3	31.5	11.0	45.7	4.5	1.8	1.846	0.998
5.00	0.224	6.3	38.2	13.3	57.8	7.1	2.6	1.825	0.998
5.50	0.247	11.0	45.5	15.8	72.4	10.3	3.9	1.801	0.998
6.00	0.269	18.6	53.5	18.5	90.5	14.5	5.8	1.776	0.998
6.50	0.291	29.7	62.0	21.4	113.1	19.8	8.5	1.748	0.998
7.00	0.314	44.6	71.0	24.4	140.0	25.6	12.0	1.717	0.998
7.50	0.336	70.9	80.7	27.7	179.3	35.5	18.0	1.694	0.998
8.00	0.359	128.6	90.9	31.2	250.6	56.5	30.7	1.694	0.998
8.50	0.381	236.5	101.7	34.8	372.9	92.1	54.2	1.694	0.998
9.00	0.403	406.8	113.0	38.6	558.4	141.3	91.2	1.694	0.998
9.50	0.426	614.1	124.9	42.6	781.5	191.4	136.1	1.694	0.998
10.00	0.448	847.1	137.3	46.7	1031.1	238.3	186.6	1.694	0.998
10.50	0.471	1065.0	150.2	51.1	1266.3	271.8	233.8	1.694	0.998
11.00	0.493	1244.5	163.7	55.6	1463.8	289.3	272.8	1.694	0.998
11.50	0.516	1400.2	177.8	60.2	1638.2	297.9	306.7	1.694	0.998
12.00	0.538	1524.0	192.4	65.1	1781.5	297.7	333.8	1.694	0.998
12.50	0.560	1629.5	207.5	70.1	1907.1	293.4	357.0	1.694	0.998
13.00	0.583	1732.8	223.1	75.3	2031.2	288.5	379.7	1.694	0.998
13.50	0.605	1830.2	239.2	80.7	2150.2	282.5	401.2	1.694	0.998
14.00	0.628	1920.0	255.9	86.2	2262.1	275.6	421.0	1.694	0.998

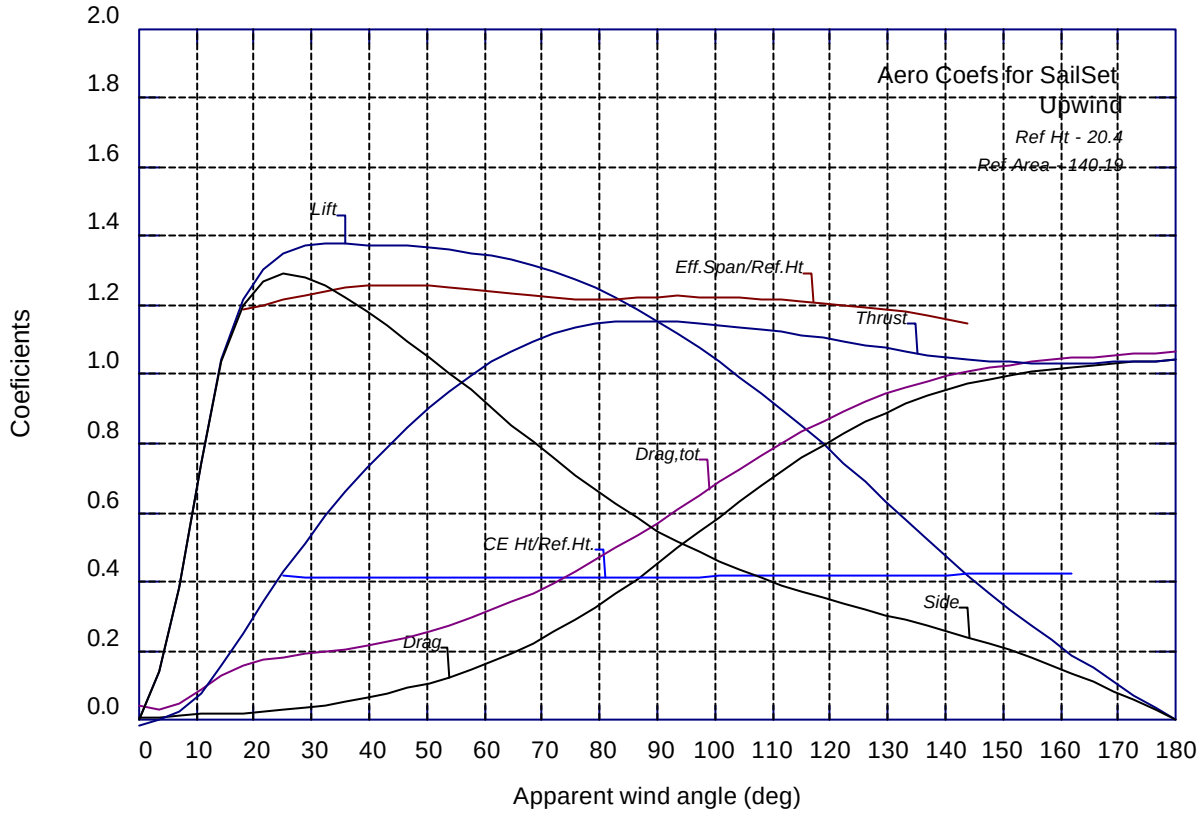

Residuary Resistance vs. Boatspeed
Erik
Rr (kg)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Erik
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Vs (kts)

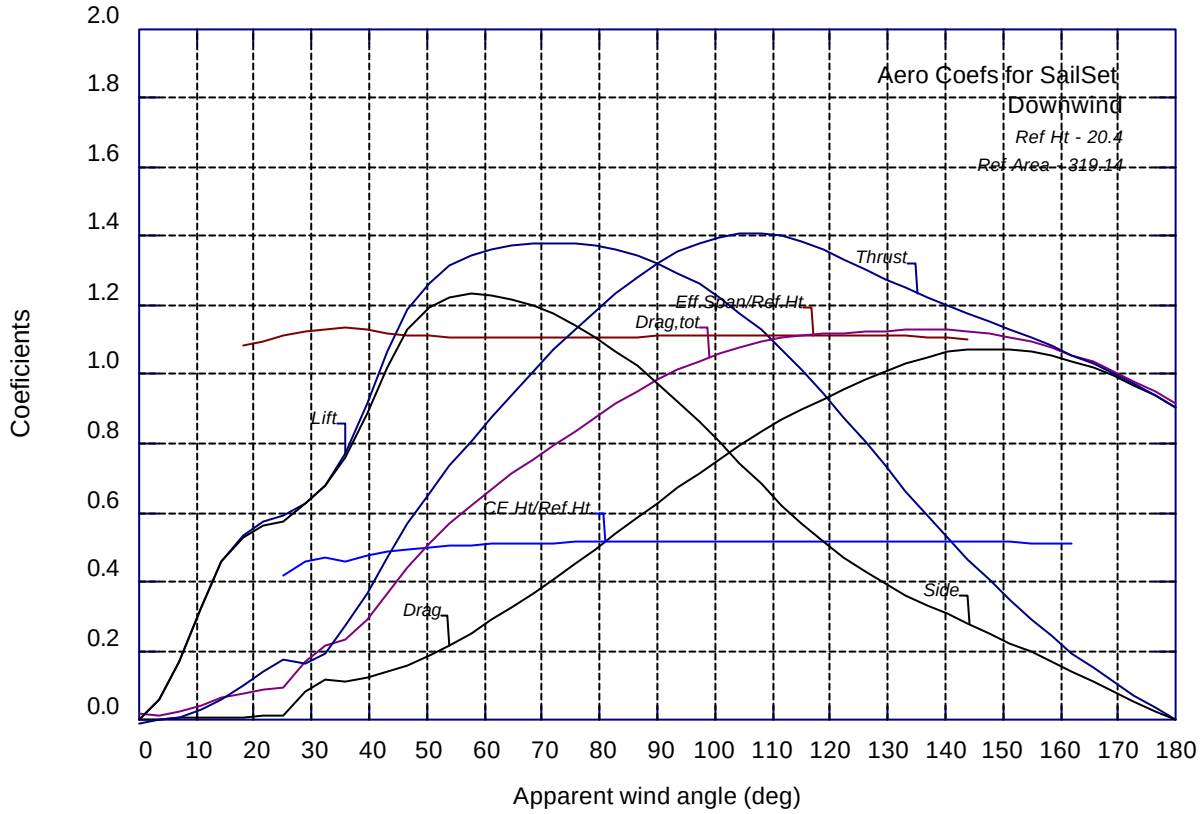

Total Resistance vs. Boatspeed
Erik
Rt (kg)
4000
3600
3200
2800
2400
2000
1600
1200
800
400
0
Erik
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Vs (kts)

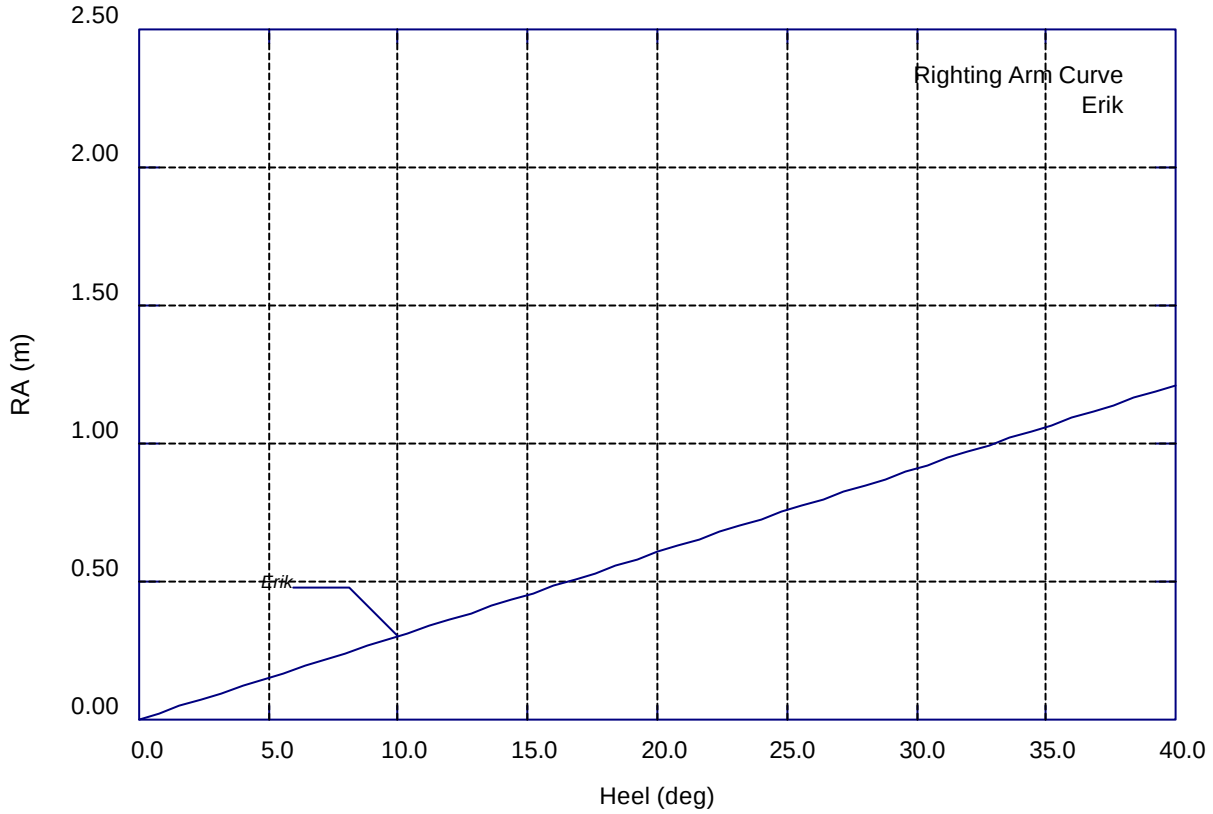

Wave Resistance Coef. vs. Fn
Erik
Rw/(0.001*W)/(Fn^2)
400.0
360.0
320.0
280.0
240.0
200.0
160.0
120.0
80.0
40.0
0.0
0.000
0.100
0.200
0.300
0.400
0.500
0.600
0.700
Fn
Erik


Lift & Drag(p) Coefs for AeroLib Types
Erik
Cl or Cdp
Beta (deg)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180
Cl - Jib_0
Cl - Spin_0
Cl - Main_RotMast_0
Cl - MizStay_0
Cl - ASpin_0
Cdp - ASpin_0
Cl - Mizzen_0
Cl - Main_0
Cdp - Spin_0
Cdp - MizStay_0
Cdp - Main_0
Cdp - Mizzen_0
Cdp - Jib_0
Cdp - Main_RotMast_0


Aero Coefs for SailSet
downwind2
Ref Ht - 20.4
Ref Area - 246.74
Coeficients
Apparent wind angle (deg)
Thrust
Eff.Span/Ref.Ht
Drag,tot
Lift
CE Ht/Ref.Ht.
Drag
Side
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180


Aero Coefs for SailSet
Upwind
Ref Ht - 20.4
Ref Area - 140.19
Lift
Eff.Span/Ref.Ht
Thrust
Drag,tot
CE Ht/Ref.Ht
Side
Drag
Coeficients
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180
Apparent wind angle (deg)


Aero Coefs for SailSet
Downwind
Ref Ht - 20.4
Ref Area - 319.14
Thrust
Eff.Span/Ref.Ht
Drag,tot
Lift
CE Ht/Ref.Ht
Drag
Side
Coeficients
Apparent wind angle (deg)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180


Righting Arm Curve
Erik
RA (m)
2.50
2.00
1.50
1.00
0.50
0.00
Erik
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
Heel (deg)

Erik - Hydrodynamic Forces at Selected Speeds, Heel Angles & Heel Forces

Vs	Fn	Heel	Fh	Rw	Rvc	Rva	Rh	Ri	Rt
kt		deg	kg	kg	kg	kg	kg	kg	kg
6.00	0.269	0.0	0	18.6	53.5	18.5	0.0	0.0	90.5
6.00	0.269	0.0	408	18.6	53.5	18.9	0.0	16.0	106.9
6.00	0.269	0.0	612	18.6	53.5	19.3	0.0	34.7	126.1
6.00	0.269	0.0	815	18.6	53.5	19.9	0.0	59.7	151.7
6.00	0.269	0.0	1019	18.6	53.5	20.7	0.0	90.3	183.0
6.00	0.269	20.0	0	18.6	53.5	18.5	4.4	0.0	94.9
6.00	0.269	20.0	408	18.6	53.5	18.8	4.4	18.1	113.3
6.00	0.269	20.0	612	18.6	53.5	19.2	4.4	39.0	134.6
6.00	0.269	20.0	815	18.6	53.5	19.8	4.4	66.6	162.8
6.00	0.269	20.0	1019	18.6	53.5	20.5	4.4	100.2	197.1
6.00	0.269	25.0	0	18.6	53.5	18.5	7.4	0.0	98.0
6.00	0.269	25.0	408	18.6	53.5	18.8	7.4	19.4	117.6
6.00	0.269	25.0	612	18.6	53.5	19.2	7.4	41.6	140.3
6.00	0.269	25.0	815	18.6	53.5	19.7	7.4	70.8	169.9
6.00	0.269	25.0	1019	18.6	53.5	20.3	7.4	106.5	206.3
6.00	0.269	30.0	0	18.6	53.5	18.5	11.3	0.0	101.9
6.00	0.269	30.0	408	18.6	53.5	18.8	11.3	21.1	123.3
6.00	0.269	30.0	612	18.6	53.5	19.1	11.3	45.1	147.6
6.00	0.269	30.0	815	18.6	53.5	19.6	11.3	76.4	179.4
6.00	0.269	30.0	1019	18.6	53.5	20.2	11.3	114.8	218.4

8.00	0.359	0.0	0	128.6	90.9	31.2	0.0	0.0	250.6
8.00	0.359	0.0	408	128.6	90.9	31.4	0.0	10.2	261.0
8.00	0.359	0.0	612	128.6	90.9	31.6	0.0	22.5	273.6
8.00	0.359	0.0	815	128.6	90.9	32.0	0.0	39.2	290.6
8.00	0.359	0.0	1019	128.6	90.9	32.4	0.0	60.1	312.0
8.00	0.359	20.0	0	128.6	90.9	31.2	23.2	0.0	273.8
8.00	0.359	20.0	408	128.6	90.9	31.3	23.2	11.6	285.6
8.00	0.359	20.0	612	128.6	90.9	31.6	23.2	25.5	299.7
8.00	0.359	20.0	815	128.6	90.9	31.9	23.2	44.3	318.8
8.00	0.359	20.0	1019	128.6	90.9	32.3	23.2	67.6	342.5
8.00	0.359	25.0	0	128.6	90.9	31.2	39.3	0.0	290.0
8.00	0.359	25.0	408	128.6	90.9	31.3	39.3	12.5	302.6
8.00	0.359	25.0	612	128.6	90.9	31.5	39.3	27.4	317.7
8.00	0.359	25.0	815	128.6	90.9	31.8	39.3	47.4	338.1
8.00	0.359	25.0	1019	128.6	90.9	32.2	39.3	72.2	363.2
8.00	0.359	30.0	0	128.6	90.9	31.2	60.1	0.0	310.7
8.00	0.359	30.0	408	128.6	90.9	31.3	60.1	13.7	324.6
8.00	0.359	30.0	612	128.6	90.9	31.5	60.1	29.9	341.0
8.00	0.359	30.0	815	128.6	90.9	31.8	60.1	51.6	362.9
8.00	0.359	30.0	1019	128.6	90.9	32.1	60.1	78.4	390.0

10.00	0.448	0.0	0	847.1	137.3	46.7	0.0	0.0	1031.1
10.00	0.448	0.0	408	847.1	137.3	46.8	0.0	6.6	1037.8
10.00	0.448	0.0	612	847.1	137.3	47.0	0.0	14.7	1046.1
10.00	0.448	0.0	815	847.1	137.3	47.2	0.0	25.9	1057.5
10.00	0.448	0.0	1019	847.1	137.3	47.5	0.0	40.1	1071.9
10.00	0.448	20.0	0	847.1	137.3	46.7	140.9	0.0	1172.0
10.00	0.448	20.0	408	847.1	137.3	46.8	140.9	7.6	1179.6
10.00	0.448	20.0	612	847.1	137.3	47.0	140.9	16.8	1189.0
10.00	0.448	20.0	815	847.1	137.3	47.2	140.9	29.5	1201.9
10.00	0.448	20.0	1019	847.1	137.3	47.4	140.9	45.4	1218.1
10.00	0.448	25.0	0	847.1	137.3	46.7	239.1	0.0	1270.2
10.00	0.448	25.0	408	847.1	137.3	46.8	239.1	8.2	1278.4
10.00	0.448	25.0	612	847.1	137.3	47.0	239.1	18.1	1288.5
10.00	0.448	25.0	815	847.1	137.3	47.1	239.1	31.7	1302.3
10.00	0.448	25.0	1019	847.1	137.3	47.4	239.1	48.8	1319.6
10.00	0.448	30.0	0	847.1	137.3	46.7	365.4	0.0	1396.5
10.00	0.448	30.0	408	847.1	137.3	46.8	365.4	9.0	1405.5
10.00	0.448	30.0	612	847.1	137.3	46.9	365.4	19.9	1416.6
10.00	0.448	30.0	815	847.1	137.3	47.1	365.4	34.7	1431.6
10.00	0.448	30.0	1019	847.1	137.3	47.3	365.4	53.3	1450.4

12.00	0.538	0.0	0	1524.0	192.4	65.1	0.0	0.0	1781.5
12.00	0.538	0.0	408	1524.0	192.4	65.2	0.0	4.6	1786.2
12.00	0.538	0.0	612	1524.0	192.4	65.3	0.0	10.3	1792.0
12.00	0.538	0.0	815	1524.0	192.4	65.5	0.0	18.3	1800.1
12.00	0.538	0.0	1019	1524.0	192.4	65.7	0.0	28.4	1810.4
12.00	0.538	20.0	0	1524.0	192.4	65.1	252.1	0.0	2033.6
12.00	0.538	20.0	408	1524.0	192.4	65.2	252.1	5.3	2038.9
12.00	0.538	20.0	612	1524.0	192.4	65.3	252.1	11.8	2045.6
12.00	0.538	20.0	815	1524.0	192.4	65.4	252.1	20.9	2054.7
12.00	0.538	20.0	1019	1524.0	192.4	65.6	252.1	32.3	2066.4
12.00	0.538	25.0	0	1524.0	192.4	65.1	427.8	0.0	2209.3
12.00	0.538	25.0	408	1524.0	192.4	65.2	427.8	5.7	2215.1
12.00	0.538	25.0	612	1524.0	192.4	65.3	427.8	12.8	2222.3
12.00	0.538	25.0	815	1524.0	192.4	65.4	427.8	22.5	2232.1
12.00	0.538	25.0	1019	1524.0	192.4	65.6	427.8	34.9	2244.7
12.00	0.538	30.0	0	1524.0	192.4	65.1	653.8	0.0	2435.3
12.00	0.538	30.0	408	1524.0	192.4	65.2	653.8	6.3	2441.7
12.00	0.538	30.0	612	1524.0	192.4	65.2	653.8	14.1	2449.5
12.00	0.538	30.0	815	1524.0	192.4	65.4	653.8	24.8	2460.3
12.00	0.538	30.0	1019	1524.0	192.4	65.5	653.8	38.3	2474.0