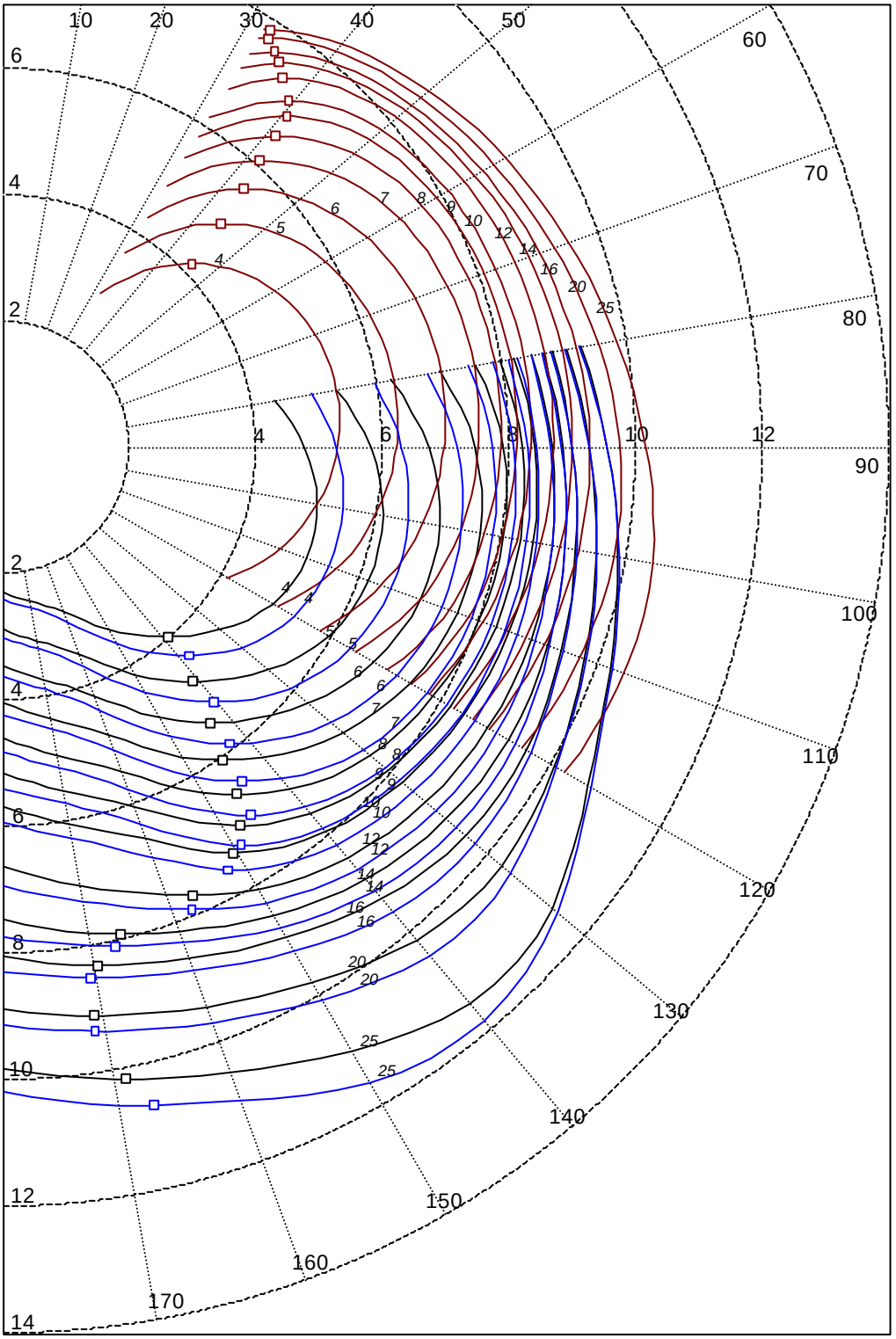
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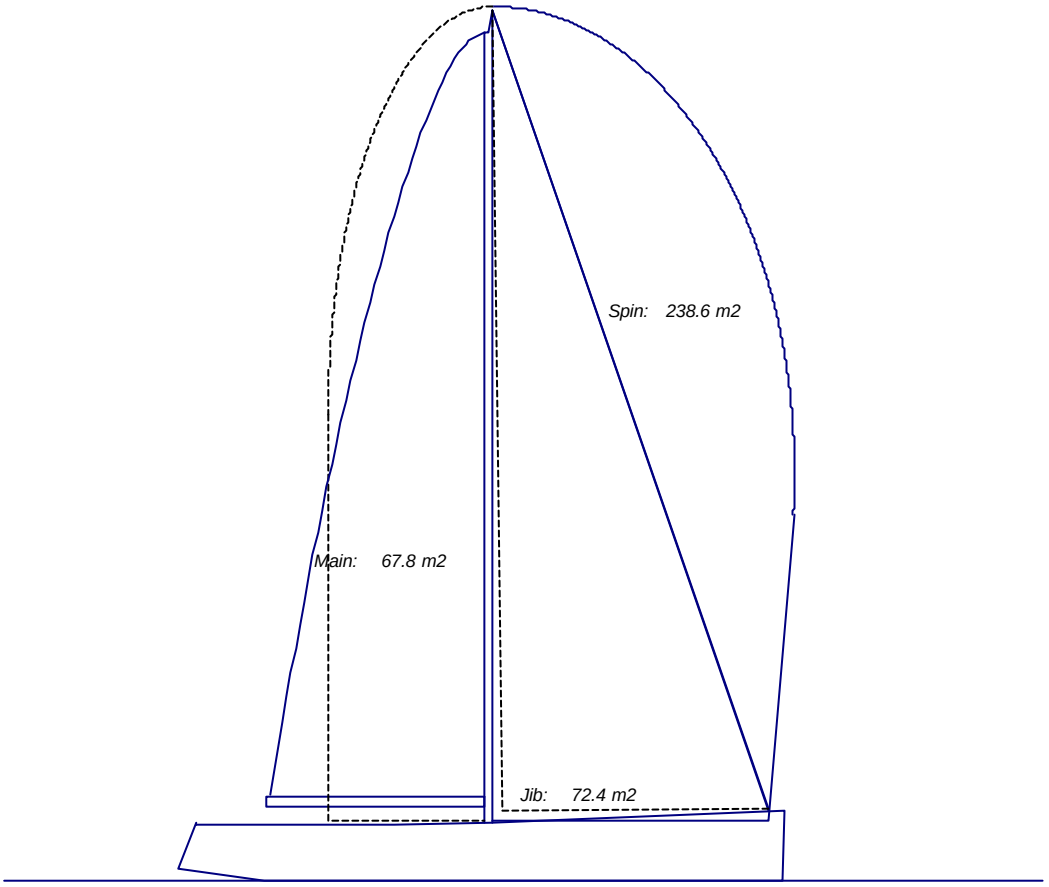

Spin: 238.6 m2
Main: 67.8 m2
Jib: 72.4 m2

WINDESIGN Flotation Input Data for Condition Erik
Erik

Basics	
Dspl	17688.0
Dsplc	0.0
Lwl	13.429
Lsunk	13.429
Bwl	4.030
Bmax	4.030
Tc	0.727
Tmax	2.700
Trud	1.851
Ax	7.024
Cp	0.547
Awp	36.78
LCB	-4.13
LCF	-5.51
GYR	0.25
Ad+/-	0.000
PIPA	0.000
HBl,f	1.512
ClxLimit	None

Heel Functions			
Heel	WSc	ra	lwl
0	42.081	0.000	13.429
2	42.081	0.061	13.429
10	42.081	0.303	13.429
25	42.081	0.758	13.429
40	42.081	1.212	13.429

Factors	
Wing/CB Eff	0.333
Tot Eff Span	1.000
Lift Slope	1.000
+ Heel Drag	1.000
- Heel Drag	1.000
Canoe Form	0.100
Vt Grad	0.100

Appendages			
	ws	cm	tc
Fin	6.152	1.763	0.100
Bulb	1.358	2.159	0.160
Rud	2.581	0.668	0.100
Other	0.000	0.000	0.000

Crew Wt	0.0
Crew Arm	0.000
KEEL CANT	0.0

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	2.89	3.63	4.30	4.89	5.39	5.81	6.15	6.69	7.08	7.33	7.62	7.79
36.0	3.32	4.13	4.85	5.46	5.96	6.37	6.71	7.21	7.52	7.72	7.94	8.10
40.0	3.70	4.57	5.30	5.92	6.42	6.84	7.16	7.58	7.82	7.98	8.18	8.33
45.0	4.12	5.01	5.77	6.37	6.89	7.28	7.55	7.88	8.08	8.22	8.41	8.55
52.0	4.58	5.50	6.25	6.87	7.34	7.66	7.88	8.17	8.36	8.48	8.68	8.86
60.0	4.96	5.88	6.63	7.24	7.64	7.90	8.11	8.41	8.61	8.74	8.95	9.15
70.0	5.24	6.16	6.92	7.47	7.82	8.07	8.27	8.59	8.82	9.00	9.25	9.50
80.0	5.34	6.26	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	4.16	4.94	5.58	6.08	6.53	6.89	7.10	7.32	7.49	7.58	7.71	7.83
Up.Bt	45.7	44.1	42.9	41.7	41.1	40.5	39.4	37.1	35.6	34.3	32.9	32.5
Up.Vmg	2.90	3.55	4.09	4.54	4.92	5.24	5.49	5.84	6.09	6.26	6.47	6.61
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	171.1	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	2.34	3.66	5.73	7.66	9.75	11.43	12.96	15.60	17.64	19.29	21.84	22.49
36.0	2.63	4.10	6.35	8.41	10.59	12.86	14.51	17.06	19.01	20.58	22.57	22.88
40.0	2.88	4.46	6.84	8.96	11.19	13.51	15.74	18.19	20.07	21.50	22.86	23.17
45.0	3.13	5.24	7.26	9.40	11.65	13.91	16.12	19.23	20.98	22.32	23.12	22.76
52.0	3.35	5.51	7.51	9.61	11.73	13.75	15.74	19.72	21.78	22.59	22.96	23.39
60.0	3.41	5.51	7.39	9.33	11.15	12.91	14.66	18.22	21.86	23.29	23.58	23.99
70.0	3.23	5.12	6.79	8.41	9.91	11.36	12.84	15.87	19.00	22.21	24.14	24.56
80.0	2.84	4.08	5.87	7.18	8.38	9.57	10.77	13.28	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	3.46	5.19	7.11	9.14	11.32	13.57	15.57	17.38	18.87	20.10	22.14	22.55
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	0.957	0.910	0.814	0.722	0.642	0.516	0.503
36.0	1.000	1.000	1.000	1.000	1.000	1.000	0.954	0.847	0.751	0.669	0.564	0.575
40.0	1.000	1.000	1.000	1.000	1.000	1.000	0.994	0.884	0.787	0.700	0.633	0.648
45.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.937	0.835	0.743	0.719	0.949
52.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.913	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	0.949	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	0.987	0.856	0.747	0.658	0.521	0.512
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	0.896
36.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.976	0.857
40.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.943	0.828
45.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.914	0.721
52.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.919	0.824	0.734
60.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.963	0.865	0.771
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	4.12	4.07	4.13	4.24	4.43	4.46	4.50	4.57	4.61	4.71	4.98	5.34
36.0	3.51	3.51	3.58	3.71	3.90	4.14	4.20	4.27	4.38	4.52	4.81	5.16
40.0	3.09	3.11	3.20	3.34	3.53	3.74	3.98	4.11	4.27	4.41	4.69	5.02
45.0	2.71	2.76	2.85	2.99	3.15	3.36	3.62	4.00	4.16	4.30	4.55	5.11
52.0	2.33	2.39	2.49	2.60	2.76	2.96	3.21	3.78	4.02	4.33	4.53	4.80
60.0	2.01	2.07	2.15	2.25	2.40	2.58	2.79	3.24	3.77	4.03	4.19	4.41
70.0	1.70	1.75	1.80	1.89	2.01	2.16	2.31	2.66	3.04	3.46	3.78	3.93
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	2.67	2.81	2.99	3.21	3.43	3.69	4.01	4.21	4.39	4.58	4.93	5.31
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	6.6	8.3	9.9	11.4	12.9	14.2	15.5	17.9	20.2	22.3	26.3	31.3
36.0	7.0	8.7	10.3	11.8	13.3	14.6	15.8	18.2	20.3	22.4	26.3	31.2
40.0	7.2	9.0	10.6	12.1	13.5	14.8	16.0	18.2	20.3	22.3	26.2	31.0
45.0	7.5	9.2	10.9	12.3	13.7	15.0	16.1	18.2	20.1	22.0	25.9	30.7
52.0	7.7	9.4	11.0	12.4	13.7	14.9	15.9	17.9	19.7	21.6	25.4	30.0
60.0	7.8	9.4	10.9	12.3	13.5	14.5	15.5	17.4	19.1	20.9	24.6	29.1
70.0	7.6	9.2	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	7.5	9.2	10.8	12.2	13.6	14.8	16.0	18.2	20.3	22.4	26.3	31.3
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	18.6	18.6	18.6	18.7	18.9	19.2	19.4	19.9	20.4	20.9	21.8	22.8
36.0	19.7	19.7	19.9	20.1	20.4	20.7	21.0	21.7	22.4	23.0	24.2	25.5
40.0	20.8	20.9	21.1	21.5	21.9	22.2	22.6	23.6	24.4	25.2	26.7	28.2
45.0	22.2	22.4	22.8	23.3	23.8	24.3	24.9	26.0	27.1	28.1	29.9	31.8
52.0	24.1	24.6	25.2	25.9	26.7	27.5	28.3	29.7	31.0	32.3	34.6	36.6
60.0	26.5	27.2	28.1	29.1	30.3	31.4	32.5	34.3	35.7	37.1	39.8	42.3
70.0	29.6	30.7	32.0	33.4	35.0	36.6	38.0	40.4	42.3	43.7	46.7	49.7
80.0	33.1	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	22.3	22.1	22.1	22.1	22.3	22.4	22.4	22.2	22.2	22.1	22.3	23.2
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	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

Resistance, Total (kg)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	24.8	38.8	55.2	74.4	95.9	116.3	136.8	176.1	211.4	242.9	295.0	339.5
36.0	30.5	47.4	67.6	90.9	116.8	144.6	169.6	215.7	257.6	295.1	355.1	409.6
40.0	36.3	56.3	80.2	107.4	137.5	169.7	202.6	256.3	305.2	347.7	415.2	480.8
45.0	43.5	67.1	95.3	127.2	162.2	199.5	238.2	307.4	364.0	413.5	491.3	567.0
52.0	52.8	81.0	114.4	152.0	192.7	235.7	280.5	373.2	445.6	504.9	599.5	701.8
60.0	61.5	93.8	131.6	173.9	219.2	267.1	317.4	423.0	531.6	610.9	726.9	854.9
70.0	68.4	103.6	144.8	190.2	238.6	290.3	345.0	462.1	586.3	713.0	885.8	1049.2
80.0	70.3	106.4	148.0	193.8	242.8	295.5	351.9	474.7	608.4	749.4	1037.0	1245.3
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	44.3	65.3	89.0	114.2	143.3	172.8	197.3	226.4	252.6	273.5	309.3	348.5
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	126	197	280	374	475	557	632	761	862	943	1070	1199
36.0	141	220	310	410	517	627	708	834	930	1007	1128	1263
40.0	155	239	334	438	546	660	769	890	983	1054	1173	1312
45.0	169	257	355	460	570	680	789	941	1028	1095	1216	1423
52.0	181	271	368	471	574	673	771	966	1068	1183	1305	1446
60.0	184	270	362	457	546	633	719	894	1073	1178	1295	1433
70.0	175	252	334	413	486	558	630	780	935	1093	1260	1396
80.0	154	220	289	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	170	254	348	447	553	663	761	849	923	984	1084	1209
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	0.136	0.183	0.234	0.289	0.347	0.464	0.576	0.675	0.834	0.796
36.0	0.000	0.120	0.188	0.252	0.322	0.394	0.469	0.619	0.756	0.878	1.029	0.959
40.0	0.000	0.154	0.239	0.320	0.408	0.502	0.596	0.775	0.939	1.083	1.188	1.120
45.0	0.000	0.212	0.302	0.403	0.514	0.630	0.749	0.971	1.168	1.342	1.391	1.095
52.0	0.000	0.270	0.382	0.508	0.645	0.789	0.936	1.237	1.490	1.470	1.487	1.467
60.0	0.000	0.324	0.456	0.605	0.764	0.930	1.104	1.467	1.837	1.993	2.017	2.000
70.0	0.000	0.369	0.517	0.681	0.856	1.040	1.235	1.651	2.092	2.543	2.814	2.812
80.0	0.000	0.353	0.539	0.706	0.885	1.076	1.280	1.723	2.204	2.714	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	0.140	0.204	0.275	0.348	0.433	0.515	0.576	0.660	0.737	0.794	0.890	0.817
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	1169	836	1094	877
5.0	956	695	896	725
6.0	826	608	776	632
7.0	739	554	697	573
8.0	676	519	643	534
9.0	630	495	604	506
10.0	598	477	576	487
12.0	555	452	539	460
14.0	525	434	514	442
16.0	503	420	495	428
20.0	474	398	470	407
25.0	446	374	446	385

Times for 1 nm (secs)

	4	5	6	7	8	9	10	12	14	16	20	25
32.0	1245.2	990.8	837.6	736.3	667.9	620.1	585.4	538.1	508.5	490.9	472.4	462.3
36.0	1084.1	871.4	742.5	659.4	603.8	565.3	536.7	499.0	478.4	466.5	453.5	444.6
40.0	972.9	788.1	678.8	608.3	560.9	526.5	502.7	475.2	460.5	451.4	440.4	432.0
45.0	874.5	718.3	624.4	564.8	522.5	494.4	476.7	457.0	445.6	437.9	427.9	420.9
52.0	785.3	654.5	576.2	524.0	490.2	469.9	456.8	440.5	430.8	424.6	414.8	406.5
60.0	725.5	611.8	542.9	497.4	471.4	455.4	444.0	428.2	418.3	411.9	402.3	393.3
70.0	686.7	584.4	520.4	482.0	460.5	446.1	435.1	419.1	407.9	399.9	389.1	378.8
80.0	674.1	575.1	513.3	477.3	456.9	442.7	431.6	414.7	402.2	392.0	377.5	366.1
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	1239.6	1015.2	879.9	792.3	731.6	687.1	656.0	616.0	591.3	575.2	556.6	545.0
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	4.336	0.753	2.6	1.000	1.000	6.39	38.1	1.68	1.80	117	5
4.0	90.0	4.765	0.000	2.9	1.000	1.000	6.22	40.0	1.49	1.60	126	4
4.0	100.0	5.025	-0.873	2.9	1.000	1.000	5.85	42.3	1.35	1.44	126	3
4.0	110.0	5.089	-1.741	2.7	1.000	1.000	5.29	45.3	1.20	1.29	116	3
4.0	120.0	4.913	-2.457	2.2	1.000	1.000	4.53	49.9	1.05	1.12	94	3
4.0	135.0	4.185	-2.959	1.1	1.000	1.000	3.14	64.4	0.73	0.78	47	3
4.0	150.0	3.296	-2.854	0.3	1.000	1.000	2.01	94.8	0.37	0.39	14	3
4.0	160.0	2.750	-2.584	0.1	1.000	1.000	1.70	126.4	0.19	0.20	5	3
4.0	170.0	2.457	-2.420	0.1	1.000	1.000	1.64	154.9	0.10	0.11	2	2
4.0	180.0	2.279	-2.279	0.0	1.000	1.000	1.72	180.0	0.01	0.01	0	2
5.0	80.0	5.333	0.926	4.1	1.000	1.000	7.91	38.4	1.72	1.84	182	2
5.0	90.0	5.812	0.000	4.6	1.000	1.000	7.66	40.6	1.55	1.66	198	2
5.0	100.0	6.086	-1.057	4.6	1.000	1.000	7.16	43.2	1.41	1.51	198	2
5.0	110.0	6.129	-2.096	4.2	1.000	1.000	6.44	46.7	1.26	1.34	179	2
5.0	120.0	5.930	-2.965	3.4	1.000	1.000	5.52	51.6	1.07	1.15	143	3
5.0	135.0	5.143	-3.637	1.7	1.000	1.000	3.88	65.5	0.73	0.78	72	3
5.0	150.0	4.129	-3.576	0.5	1.000	1.000	2.51	94.6	0.36	0.39	23	3
5.0	160.0	3.456	-3.248	0.2	1.000	1.000	2.11	126.0	0.19	0.20	8	3
5.0	170.0	3.088	-3.041	0.1	1.000	1.000	2.03	154.7	0.10	0.11	4	2
5.0	180.0	2.864	-2.864	0.0	1.000	1.000	2.14	180.0	0.01	0.01	0	2
6.0	80.0	6.217	1.080	6.5	1.000	1.000	9.33	39.0	1.80	1.93	264	4
6.0	90.0	6.719	0.000	7.1	1.000	1.000	8.97	41.5	1.65	1.76	286	4
6.0	100.0	6.991	-1.214	7.1	1.000	1.000	8.35	44.6	1.50	1.60	283	3
6.0	110.0	7.001	-2.394	6.4	1.000	1.000	7.47	48.5	1.32	1.42	251	4
6.0	120.0	6.755	-3.378	4.9	1.000	1.000	6.39	54.0	1.11	1.19	195	4
6.0	135.0	5.977	-4.226	2.3	1.000	1.000	4.58	67.8	0.73	0.78	99	3
6.0	150.0	4.913	-4.255	0.8	1.000	1.000	3.01	95.4	0.36	0.39	32	3
6.0	160.0	4.152	-3.902	0.3	1.000	1.000	2.53	125.9	0.18	0.20	12	2
6.0	170.0	3.714	-3.658	0.1	1.000	1.000	2.43	154.6	0.10	0.11	5	2
6.0	180.0	3.448	-3.448	0.0	1.000	1.000	2.55	180.0	0.01	0.01	0	2
7.0	80.0	6.992	1.214	8.9	1.000	1.000	10.66	39.7	1.92	2.05	361	4
7.0	90.0	7.452	0.000	9.7	1.000	1.000	10.15	42.8	1.80	1.92	389	3
7.0	100.0	7.634	-1.326	9.5	1.000	1.000	9.34	46.6	1.65	1.76	378	3
7.0	110.0	7.615	-2.604	8.3	1.000	1.000	8.34	51.2	1.43	1.53	326	3
7.0	120.0	7.416	-3.708	6.3	1.000	1.000	7.18	56.9	1.15	1.23	249	4
7.0	135.0	6.707	-4.743	3.1	1.000	1.000	5.25	70.5	0.74	0.79	129	3
7.0	150.0	5.630	-4.876	1.0	1.000	1.000	3.53	97.0	0.36	0.39	43	3
7.0	160.0	4.817	-4.527	0.4	1.000	1.000	2.97	126.3	0.18	0.20	16	2
7.0	170.0	4.332	-4.267	0.2	1.000	1.000	2.84	154.6	0.10	0.11	7	2
7.0	180.0	4.027	-4.027	0.0	1.000	1.000	2.97	180.0	0.01	0.01	0	2
8.0	80.0	7.575	1.315	11.7	1.000	1.000	11.81	40.7	2.11	2.26	472	3
8.0	90.0	7.904	0.000	12.6	1.000	1.000	11.10	44.6	2.05	2.19	502	3
8.0	100.0	8.018	-1.392	12.0	1.000	1.000	10.15	49.2	1.86	1.99	472	3
8.0	110.0	7.992	-2.733	10.1	1.000	1.000	9.07	54.6	1.56	1.67	396	3
8.0	120.0	7.839	-3.919	7.6	1.000	1.000	7.86	60.7	1.23	1.31	300	3
8.0	135.0	7.335	-5.187	3.8	1.000	1.000	5.90	73.5	0.76	0.81	160	3
8.0	150.0	6.275	-5.434	1.3	1.000	1.000	4.05	99.3	0.36	0.39	55	3
8.0	160.0	5.443	-5.115	0.5	1.000	1.000	3.43	127.2	0.19	0.20	21	3
8.0	170.0	4.925	-4.850	0.2	1.000	1.000	3.26	154.8	0.10	0.11	9	2
8.0	180.0	4.592	-4.592	0.0	1.000	1.000	3.41	180.0	0.01	0.01	1	2

Ops_Down2 (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
9.0	80.0	7.943	1.379	14.8	1.000	1.000	12.77	41.9	2.41	2.58	593	3
9.0	90.0	8.195	0.000	15.5	1.000	1.000	11.91	46.5	2.34	2.50	615	3
9.0	100.0	8.287	-1.439	14.3	1.000	1.000	10.89	51.8	2.07	2.22	564	3
9.0	110.0	8.268	-2.828	11.9	1.000	1.000	9.76	57.8	1.70	1.82	465	3
9.0	120.0	8.150	-4.075	9.0	1.000	1.000	8.51	64.6	1.32	1.41	351	3
9.0	135.0	7.758	-5.486	4.8	1.000	1.000	6.49	77.6	0.79	0.84	189	4
9.0	150.0	6.873	-5.952	1.6	1.000	1.000	4.59	101.6	0.37	0.39	67	3
9.0	160.0	6.024	-5.661	0.6	1.000	1.000	3.92	128.3	0.19	0.21	27	3
9.0	170.0	5.492	-5.409	0.3	1.000	1.000	3.72	155.1	0.10	0.11	12	3
9.0	180.0	5.134	-5.134	0.0	1.000	1.000	3.87	180.0	0.01	0.01	1	3
10.0	80.0	8.190	1.422	18.0	1.000	1.000	13.61	43.2	2.76	2.96	717	3
10.0	90.0	8.399	0.000	18.4	1.000	1.000	12.64	48.3	2.64	2.82	726	3
10.0	100.0	8.493	-1.475	16.6	1.000	1.000	11.58	54.3	2.29	2.45	652	3
10.0	110.0	8.495	-2.906	13.6	1.000	1.000	10.43	60.8	1.85	1.97	534	3
10.0	120.0	8.409	-4.205	10.3	1.000	1.000	9.17	68.1	1.41	1.51	403	3
10.0	135.0	8.082	-5.715	5.6	1.000	1.000	7.11	81.8	0.83	0.89	219	3
10.0	150.0	7.384	-6.395	1.9	1.000	1.000	5.16	104.3	0.37	0.40	80	3
10.0	160.0	6.566	-6.170	0.8	1.000	1.000	4.44	129.6	0.20	0.21	33	3
10.0	170.0	6.027	-5.936	0.3	1.000	1.000	4.20	155.6	0.11	0.11	15	3
10.0	180.0	5.654	-5.654	0.0	1.000	1.000	4.35	180.0	0.01	0.01	1	3
12.0	80.0	8.475	1.472	22.6	0.969	1.000	15.11	45.8	3.37	3.60	920	3
12.0	90.0	8.658	0.000	23.1	0.987	1.000	13.96	51.7	3.20	3.43	917	3
12.0	100.0	8.791	-1.526	21.0	1.000	1.000	12.85	58.5	2.73	2.92	823	3
12.0	110.0	8.858	-3.030	17.3	1.000	1.000	11.73	66.0	2.15	2.30	676	3
12.0	120.0	8.836	-4.418	13.2	1.000	1.000	10.49	74.2	1.62	1.73	515	3
12.0	135.0	8.593	-6.076	7.2	1.000	1.000	8.41	89.2	0.93	1.00	282	3
12.0	150.0	8.055	-6.976	2.5	1.000	1.000	6.44	111.3	0.40	0.43	106	3
12.0	160.0	7.508	-7.055	1.2	1.000	1.000	5.57	132.6	0.22	0.24	49	3
12.0	170.0	7.017	-6.910	0.5	1.000	1.000	5.23	156.5	0.11	0.12	22	3
12.0	180.0	6.614	-6.614	0.0	1.000	1.000	5.39	180.0	0.01	0.01	1	3
14.0	80.0	8.652	1.502	22.9	0.878	1.000	16.76	48.7	3.52	3.76	1007	3
14.0	90.0	8.835	0.000	23.2	0.906	1.000	15.52	55.3	3.29	3.52	988	3
14.0	100.0	8.996	-1.562	23.4	0.966	1.000	14.17	62.3	3.02	3.22	944	3
14.0	110.0	9.144	-3.128	21.1	1.000	1.000	12.96	70.2	2.48	2.66	822	3
14.0	120.0	9.202	-4.601	16.3	1.000	1.000	11.80	79.1	1.84	1.96	635	2
14.0	135.0	9.019	-6.378	9.0	1.000	1.000	9.80	95.1	1.04	1.11	352	3
14.0	150.0	8.532	-7.389	3.2	1.000	1.000	7.87	117.2	0.46	0.49	137	3
14.0	160.0	8.117	-7.628	1.6	1.000	1.000	6.95	136.5	0.27	0.28	71	3
14.0	170.0	7.776	-7.658	0.7	1.000	1.000	6.48	158.0	0.13	0.14	31	3
14.0	180.0	7.454	-7.454	0.0	1.000	1.000	6.55	180.0	0.01	0.01	2	3
16.0	80.0	8.792	1.527	23.0	0.807	1.000	18.44	51.2	3.63	3.88	1079	3
16.0	90.0	8.987	0.000	23.3	0.842	1.000	17.12	58.3	3.37	3.60	1053	3
16.0	100.0	9.177	-1.594	23.6	0.900	1.000	15.69	65.8	3.07	3.28	1006	3
16.0	110.0	9.377	-3.207	24.0	0.984	1.000	14.18	73.8	2.75	2.94	948	3
16.0	120.0	9.535	-4.768	19.5	1.000	1.000	13.08	83.1	2.05	2.19	761	3
16.0	135.0	9.437	-6.673	11.0	1.000	1.000	11.24	99.5	1.14	1.22	429	3
16.0	150.0	8.932	-7.736	4.1	1.000	1.000	9.37	121.7	0.52	0.56	175	2
16.0	160.0	8.582	-8.064	2.3	1.000	1.000	8.46	139.7	0.32	0.34	98	3
16.0	170.0	8.296	-8.170	1.0	1.000	1.000	7.96	159.6	0.15	0.16	43	3
16.0	180.0	8.035	-8.035	0.1	1.000	1.000	7.97	180.0	0.01	0.01	3	3

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	4
20.0	90.0	9.255	0.000	23.6	0.741	1.000	20.39	63.0	3.51	3.75	1176	4
20.0	100.0	9.506	-1.651	24.0	0.795	1.000	18.84	71.2	3.16	3.38	1128	3
20.0	110.0	9.771	-3.342	24.5	0.873	1.000	17.21	80.0	2.80	3.00	1068	3
20.0	120.0	10.056	-5.028	25.2	0.986	1.000	15.52	89.4	2.44	2.61	994	3
20.0	135.0	10.256	-7.252	15.3	1.000	1.000	14.12	105.8	1.31	1.40	600	3
20.0	150.0	9.748	-8.442	6.9	1.000	1.000	12.47	127.3	0.66	0.71	274	3
20.0	160.0	9.394	-8.827	3.8	1.000	1.000	11.63	144.0	0.44	0.47	165	3
20.0	170.0	9.105	-8.966	1.7	1.000	1.000	11.15	161.8	0.21	0.23	74	3
20.0	180.0	8.856	-8.856	0.1	1.000	1.000	11.14	180.0	0.02	0.02	5	3
25.0	80.0	9.246	1.606	23.7	0.616	1.000	26.14	58.8	4.07	4.35	1358	4
25.0	90.0	9.541	0.000	24.0	0.649	1.000	24.56	67.1	3.67	3.93	1322	4
25.0	100.0	9.853	-1.711	24.5	0.699	1.000	22.88	76.0	3.28	3.50	1273	3
25.0	110.0	10.202	-3.489	25.1	0.771	1.000	21.13	85.3	2.86	3.06	1211	3
25.0	120.0	10.665	-5.332	26.0	0.875	1.000	19.33	95.1	2.40	2.57	1133	3
25.0	135.0	11.477	-8.115	21.3	1.000	1.000	17.45	110.4	1.40	1.50	835	4
25.0	150.0	10.991	-9.519	10.9	1.000	1.000	16.21	130.9	0.77	0.83	432	4
25.0	160.0	10.497	-9.864	6.8	1.000	1.000	15.51	146.8	0.54	0.58	270	3
25.0	170.0	10.122	-9.968	2.9	1.000	1.000	15.13	163.3	0.27	0.29	124	3
25.0	180.0	9.791	-9.791	0.2	1.000	1.000	15.21	180.0	0.02	0.03	10	3

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	4
5.0	141.1	4.744	-3.690	1.2	1.000	1.000	3.26	74.8	0.58	0.62	48	3
6.0	142.9	5.436	-4.338	1.5	1.000	1.000	3.67	79.8	0.53	0.57	59	4
7.0	145.0	6.016	-4.926	1.7	1.000	1.000	4.03	85.9	0.48	0.52	66	3
8.0	146.1	6.583	-5.462	2.0	1.000	1.000	4.46	90.7	0.46	0.49	77	3
9.0	147.9	7.040	-5.964	2.1	1.000	1.000	4.82	97.0	0.42	0.45	81	3
10.0	150.5	7.346	-6.393	1.9	1.000	1.000	5.11	105.4	0.36	0.38	76	4
12.0	157.1	7.673	-7.065	1.5	1.000	1.000	5.77	125.8	0.26	0.28	61	3
14.0	166.5	7.891	-7.672	1.1	1.000	1.000	6.59	150.2	0.18	0.19	44	3
16.0	169.7	8.305	-8.170	1.1	1.000	1.000	7.97	158.9	0.16	0.17	45	3
20.0	171.0	9.080	-8.967	1.6	1.000	1.000	11.12	163.6	0.19	0.20	66	3
25.0	169.1	10.150	-9.965	3.4	1.000	1.000	15.15	161.8	0.30	0.32	137	4

Performance Numbers for Ops_Upwind

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	32.0	2.891	2.452	2.3	1.000	1.000	6.63	18.6	4.12	4.41	126	1
4.0	36.0	3.321	2.686	2.6	1.000	1.000	6.97	19.7	3.51	3.75	141	1
4.0	40.0	3.700	2.834	2.9	1.000	1.000	7.24	20.8	3.09	3.30	155	1
4.0	45.0	4.117	2.911	3.1	1.000	1.000	7.50	22.2	2.71	2.90	169	1
4.0	52.0	4.584	2.822	3.4	1.000	1.000	7.72	24.1	2.33	2.49	181	1
4.0	60.0	4.962	2.481	3.4	1.000	1.000	7.78	26.5	2.01	2.15	184	1
4.0	70.0	5.243	1.793	3.2	1.000	1.000	7.60	29.6	1.70	1.82	175	1
4.0	80.0	5.340	0.927	2.8	1.000	1.000	7.21	33.1	1.44	1.54	154	1
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	3
4.0	110.0	4.654	-1.592	1.2	1.000	1.000	4.99	48.8	0.80	0.86	64	4
4.0	120.0	4.087	-2.044	0.7	1.000	1.000	4.04	58.9	0.61	0.65	37	6
5.0	32.0	3.633	3.081	3.7	1.000	1.000	8.31	18.6	4.07	4.36	197	1
5.0	36.0	4.131	3.342	4.1	1.000	1.000	8.68	19.7	3.51	3.75	220	2
5.0	40.0	4.568	3.499	4.5	1.000	1.000	8.99	20.9	3.11	3.32	239	2
5.0	45.0	5.012	3.544	5.2	1.000	1.000	9.24	22.4	2.76	2.95	257	3
5.0	52.0	5.500	3.386	5.5	1.000	1.000	9.43	24.6	2.39	2.56	271	3
5.0	60.0	5.885	2.942	5.5	1.000	1.000	9.43	27.2	2.07	2.22	270	3
5.0	70.0	6.161	2.107	5.1	1.000	1.000	9.16	30.7	1.75	1.87	252	3
5.0	80.0	6.259	1.087	4.1	1.000	1.000	8.66	34.6	1.47	1.57	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	3
5.0	100.0	5.978	-1.038	2.5	1.000	1.000	7.10	43.9	1.01	1.08	137	4
5.0	110.0	5.587	-1.911	1.7	1.000	1.000	6.09	50.5	0.80	0.86	94	5
5.0	120.0	5.009	-2.504	1.0	1.000	1.000	5.00	59.9	0.60	0.64	56	6
6.0	32.0	4.298	3.645	5.7	1.000	1.000	9.90	18.6	4.13	4.42	280	3
6.0	36.0	4.849	3.923	6.4	1.000	1.000	10.31	19.9	3.58	3.83	310	3
6.0	40.0	5.304	4.063	6.8	1.000	1.000	10.61	21.1	3.20	3.42	334	3
6.0	45.0	5.765	4.077	7.3	1.000	1.000	10.85	22.8	2.85	3.05	355	3
6.0	52.0	6.247	3.846	7.5	1.000	1.000	10.99	25.2	2.49	2.66	368	3
6.0	60.0	6.632	3.316	7.4	1.000	1.000	10.92	28.1	2.15	2.30	362	3
6.0	70.0	6.918	2.366	6.8	1.000	1.000	10.57	32.0	1.80	1.93	334	3
6.0	80.0	7.014	1.218	5.9	1.000	1.000	9.97	36.1	1.51	1.62	289	3
6.0	90.0	6.954	0.000	4.4	1.000	1.000	9.17	40.7	1.25	1.34	235	2
6.0	100.0	6.739	-1.170	3.3	1.000	1.000	8.21	46.0	1.02	1.09	179	4
6.0	110.0	6.341	-2.169	2.3	1.000	1.000	7.08	52.7	0.80	0.86	124	5
6.0	120.0	5.781	-2.890	1.4	1.000	1.000	5.89	61.8	0.60	0.64	76	6
7.0	32.0	4.889	4.146	7.7	1.000	1.000	11.43	18.7	4.24	4.54	374	3
7.0	36.0	5.459	4.417	8.4	1.000	1.000	11.84	20.1	3.71	3.97	410	3
7.0	40.0	5.918	4.534	9.0	1.000	1.000	12.12	21.5	3.34	3.57	438	2
7.0	45.0	6.374	4.507	9.4	1.000	1.000	12.32	23.3	2.99	3.20	460	2
7.0	52.0	6.871	4.230	9.6	1.000	1.000	12.42	25.9	2.60	2.78	471	2
7.0	60.0	7.238	3.619	9.3	1.000	1.000	12.28	29.1	2.25	2.41	457	2
7.0	70.0	7.469	2.555	8.4	1.000	1.000	11.81	33.4	1.89	2.02	413	3
7.0	80.0	7.542	1.310	7.2	1.000	1.000	11.11	38.0	1.58	1.69	353	3
7.0	90.0	7.499	0.000	5.8	1.000	1.000	10.23	42.9	1.29	1.38	287	3
7.0	100.0	7.334	-1.274	4.1	1.000	1.000	9.20	48.3	1.04	1.11	220	2
7.0	110.0	6.997	-2.393	2.8	1.000	1.000	8.03	55.0	0.81	0.87	155	5
7.0	120.0	6.425	-3.213	1.8	1.000	1.000	6.73	64.2	0.60	0.65	96	6

Ops_Upwind (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
8.0	32.0	5.390	4.571	9.7	1.000	1.000	12.86	18.9	4.43	4.73	475	2
8.0	36.0	5.962	4.824	10.6	1.000	1.000	13.25	20.4	3.90	4.17	517	2
8.0	40.0	6.418	4.916	11.2	1.000	1.000	13.51	21.9	3.53	3.77	546	3
8.0	45.0	6.890	4.872	11.7	1.000	1.000	13.70	23.8	3.15	3.37	570	3
8.0	52.0	7.344	4.522	11.7	1.000	1.000	13.72	26.7	2.76	2.95	574	3
8.0	60.0	7.636	3.818	11.2	1.000	1.000	13.46	30.3	2.40	2.56	546	2
8.0	70.0	7.817	2.674	9.9	1.000	1.000	12.88	35.0	2.01	2.15	486	2
8.0	80.0	7.879	1.368	8.4	1.000	1.000	12.10	40.0	1.67	1.79	412	3
8.0	90.0	7.848	0.000	6.8	1.000	1.000	11.16	45.3	1.36	1.45	334	3
8.0	100.0	7.723	-1.341	5.2	1.000	1.000	10.08	51.1	1.08	1.15	256	4
8.0	110.0	7.483	-2.559	3.4	1.000	1.000	8.89	57.7	0.83	0.88	183	5
8.0	120.0	7.004	-3.502	2.1	1.000	1.000	7.55	66.6	0.61	0.65	116	5
9.0	32.0	5.805	4.923	11.4	1.000	0.957	14.21	19.2	4.46	4.77	557	3
9.0	36.0	6.369	5.152	12.9	1.000	1.000	14.57	20.7	4.14	4.43	627	3
9.0	40.0	6.838	5.238	13.5	1.000	1.000	14.82	22.2	3.74	4.00	660	3
9.0	45.0	7.281	5.148	13.9	1.000	1.000	14.95	24.3	3.36	3.59	680	3
9.0	52.0	7.661	4.717	13.8	1.000	1.000	14.87	27.5	2.96	3.17	673	3
9.0	60.0	7.905	3.952	12.9	1.000	1.000	14.53	31.4	2.58	2.76	633	3
9.0	70.0	8.070	2.760	11.4	1.000	1.000	13.88	36.6	2.16	2.31	558	2
9.0	80.0	8.132	1.412	9.6	1.000	1.000	13.04	42.0	1.78	1.90	471	2
9.0	90.0	8.109	0.000	7.7	1.000	1.000	12.05	47.7	1.44	1.54	379	3
9.0	100.0	8.003	-1.390	5.9	1.000	1.000	10.92	53.8	1.13	1.21	290	4
9.0	110.0	7.810	-2.671	3.8	1.000	1.000	9.69	60.8	0.85	0.91	209	4
9.0	120.0	7.447	-3.724	2.5	1.000	1.000	8.33	69.3	0.62	0.66	136	5
10.0	32.0	6.149	5.215	13.0	1.000	0.910	15.49	19.4	4.50	4.81	632	3
10.0	36.0	6.708	5.427	14.5	1.000	0.954	15.82	21.0	4.20	4.50	708	3
10.0	40.0	7.161	5.486	15.7	1.000	0.994	16.02	22.6	3.98	4.25	769	3
10.0	45.0	7.552	5.340	16.1	1.000	1.000	16.09	24.9	3.62	3.88	789	2
10.0	52.0	7.880	4.852	15.7	1.000	1.000	15.92	28.3	3.21	3.43	771	2
10.0	60.0	8.109	4.054	14.7	1.000	1.000	15.53	32.5	2.79	2.98	719	3
10.0	70.0	8.273	2.830	12.8	1.000	1.000	14.83	38.0	2.31	2.47	630	3
10.0	80.0	8.342	1.449	10.8	1.000	1.000	13.96	43.8	1.89	2.03	530	2
10.0	90.0	8.327	0.000	8.6	1.000	1.000	12.92	49.9	1.52	1.62	426	3
10.0	100.0	8.232	-1.429	6.6	1.000	1.000	11.74	56.4	1.18	1.27	325	3
10.0	110.0	8.049	-2.753	4.7	1.000	1.000	10.44	63.7	0.89	0.95	233	4
10.0	120.0	7.758	-3.879	2.8	1.000	1.000	9.09	72.3	0.64	0.69	154	5
12.0	32.0	6.690	5.673	15.6	1.000	0.814	17.90	19.9	4.57	4.88	761	4
12.0	36.0	7.215	5.837	17.1	1.000	0.847	18.17	21.7	4.27	4.56	834	4
12.0	40.0	7.575	5.803	18.2	1.000	0.884	18.24	23.6	4.11	4.39	890	3
12.0	45.0	7.877	5.570	19.2	1.000	0.937	18.15	26.0	4.00	4.28	941	4
12.0	52.0	8.172	5.031	19.7	1.000	1.000	17.86	29.7	3.78	4.04	966	3
12.0	60.0	8.407	4.203	18.2	1.000	1.000	17.41	34.3	3.24	3.47	894	3
12.0	70.0	8.590	2.938	15.9	1.000	1.000	16.66	40.4	2.66	2.84	780	2
12.0	80.0	8.681	1.507	13.3	1.000	1.000	15.73	46.8	2.15	2.29	654	3
12.0	90.0	8.687	0.000	10.6	1.000	1.000	14.63	53.6	1.70	1.82	524	2
12.0	100.0	8.610	-1.495	8.1	1.000	1.000	13.39	60.8	1.31	1.40	399	3
12.0	110.0	8.449	-2.890	5.8	1.000	1.000	12.03	68.8	0.98	1.05	286	4
12.0	120.0	8.207	-4.104	3.5	1.000	1.000	10.62	78.0	0.70	0.75	192	5

Ops_Upwind (continued)

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
14.0	32.0	7.080	6.004	17.6	1.000	0.722	20.16	20.4	4.61	4.93	862	8
14.0	36.0	7.524	6.087	19.0	1.000	0.751	20.32	22.4	4.38	4.68	930	7
14.0	40.0	7.817	5.988	20.1	1.000	0.787	20.29	24.4	4.27	4.57	983	5
14.0	45.0	8.079	5.713	21.0	1.000	0.835	20.13	27.1	4.16	4.45	1028	5
14.0	52.0	8.357	5.145	21.8	1.000	0.913	19.73	31.0	4.02	4.30	1068	5
14.0	60.0	8.605	4.303	21.9	1.000	1.000	19.15	35.7	3.77	4.03	1073	3
14.0	70.0	8.825	3.018	19.0	1.000	1.000	18.37	42.3	3.04	3.25	935	3
14.0	80.0	8.952	1.554	15.9	1.000	1.000	17.43	49.3	2.42	2.59	784	2
14.0	90.0	8.987	0.000	12.7	1.000	1.000	16.32	56.6	1.89	2.03	629	3
14.0	100.0	8.928	-1.550	9.7	1.000	1.000	15.05	64.4	1.45	1.55	479	2
14.0	110.0	8.780	-3.003	7.0	1.000	1.000	13.65	73.0	1.08	1.16	345	3
14.0	120.0	8.552	-4.276	4.7	1.000	1.000	12.18	82.7	0.78	0.83	234	5
16.0	32.0	7.334	6.220	19.3	1.000	0.642	22.29	20.9	4.71	5.04	943	8
16.0	36.0	7.718	6.244	20.6	1.000	0.669	22.36	23.0	4.52	4.84	1007	8
16.0	40.0	7.976	6.110	21.5	1.000	0.700	22.27	25.2	4.41	4.72	1054	8
16.0	45.0	8.221	5.813	22.3	1.000	0.743	22.05	28.1	4.30	4.60	1095	5
16.0	52.0	8.479	5.220	22.6	0.919	1.000	21.60	32.3	4.33	4.63	1183	3
16.0	60.0	8.739	4.370	23.3	0.963	1.000	20.91	37.1	4.03	4.31	1178	3
16.0	70.0	9.001	3.079	22.2	1.000	1.000	19.98	43.7	3.46	3.70	1093	3
16.0	80.0	9.183	1.595	18.6	1.000	1.000	19.06	51.2	2.71	2.89	919	3
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	3
16.0	110.0	9.083	-3.106	8.3	1.000	1.000	15.30	76.3	1.19	1.27	411	3
16.0	120.0	8.861	-4.431	5.7	1.000	1.000	13.81	86.4	0.87	0.93	283	4
20.0	32.0	7.620	6.462	21.8	1.000	0.516	26.33	21.8	4.98	5.33	1070	17
20.0	36.0	7.939	6.423	22.6	0.976	0.564	26.30	24.2	4.81	5.14	1128	8
20.0	40.0	8.175	6.263	22.9	0.943	0.633	26.16	26.7	4.69	5.01	1173	7
20.0	45.0	8.414	5.949	23.1	0.914	0.719	25.88	29.9	4.55	4.87	1216	7
20.0	52.0	8.679	5.343	23.0	0.824	1.000	25.37	34.6	4.53	4.84	1305	3
20.0	60.0	8.949	4.474	23.6	0.865	1.000	24.56	39.8	4.19	4.49	1295	3
20.0	70.0	9.251	3.164	24.1	0.928	1.000	23.36	46.7	3.78	4.04	1260	2
20.0	80.0	9.536	1.656	24.2	1.000	1.000	22.02	53.9	3.34	3.57	1197	3
20.0	90.0	9.740	0.000	19.8	1.000	1.000	21.09	62.5	2.50	2.68	977	3
20.0	100.0	9.793	-1.700	15.4	1.000	1.000	19.95	71.5	1.88	2.01	761	2
20.0	110.0	9.689	-3.314	11.4	1.000	1.000	18.61	81.2	1.40	1.50	564	3
20.0	120.0	9.466	-4.733	8.1	1.000	1.000	17.14	91.8	1.05	1.12	402	4
25.0	32.0	7.787	6.604	22.5	0.896	0.503	31.28	22.8	5.34	5.71	1199	9
25.0	36.0	8.097	6.550	22.9	0.857	0.575	31.19	25.5	5.16	5.52	1263	11
25.0	40.0	8.334	6.384	23.2	0.828	0.648	31.00	28.2	5.02	5.37	1312	7
25.0	45.0	8.553	6.048	22.8	0.721	0.949	30.69	31.8	5.11	5.46	1423	4
25.0	52.0	8.856	5.452	23.4	0.734	1.000	30.05	36.6	4.80	5.13	1446	3
25.0	60.0	9.153	4.576	24.0	0.771	1.000	29.12	42.3	4.41	4.72	1433	3
25.0	70.0	9.504	3.251	24.6	0.829	1.000	27.77	49.7	3.93	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	2
25.0	90.0	10.149	0.000	25.3	0.991	1.000	24.58	65.6	3.02	3.23	1260	3
25.0	100.0	10.406	-1.807	20.6	1.000	1.000	23.68	75.1	2.22	2.38	1022	3
25.0	110.0	10.430	-3.567	15.8	1.000	1.000	22.60	85.1	1.65	1.76	783	2
25.0	120.0	10.236	-5.118	11.8	1.000	1.000	21.27	96.0	1.26	1.35	582	4

Optimum Upwind Numbers for Ops_Upwind

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	45.7	4.160	2.904	3.5	1.000	1.000	7.52	22.3	2.67	2.86	170	2
5.0	44.1	4.941	3.546	5.2	1.000	1.000	9.21	22.1	2.81	3.01	254	3
6.0	42.9	5.582	4.091	7.1	1.000	1.000	10.77	22.1	2.99	3.20	348	3
7.0	41.7	6.082	4.544	9.1	1.000	1.000	12.20	22.1	3.21	3.44	447	3
8.0	41.1	6.534	4.921	11.3	1.000	1.000	13.56	22.3	3.43	3.67	553	3
9.0	40.5	6.891	5.239	13.6	1.000	1.000	14.84	22.4	3.69	3.95	663	3
10.0	39.4	7.098	5.488	15.6	1.000	0.987	16.00	22.4	4.01	4.28	761	3
12.0	37.1	7.324	5.844	17.4	1.000	0.856	18.20	22.2	4.21	4.50	849	4
14.0	35.6	7.486	6.089	18.9	1.000	0.747	20.31	22.2	4.39	4.70	923	2
16.0	34.3	7.581	6.259	20.1	1.000	0.658	22.36	22.1	4.58	4.90	984	3
20.0	32.9	7.707	6.468	22.1	1.000	0.521	26.34	22.3	4.93	5.28	1084	3
25.0	32.5	7.834	6.606	22.5	0.890	0.512	31.27	23.2	5.31	5.68	1209	3

Performance Numbers for Ops_Down

Vt	Bt	Vs	Vmg	Heel	Rf/Tw	Flat	Va	Ba	Lee	Rud	Fh	n
4.0	80.0	4.937	0.857	3.8	1.000	1.000	6.87	35.0	2.07	2.21	187	3
4.0	90.0	5.265	0.000	3.9	1.000	1.000	6.61	37.2	1.84	1.96	190	2
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	5.944	1.032	6.3	1.000	1.000	8.39	35.7	2.15	2.30	287	3
5.0	90.0	6.293	0.000	6.6	1.000	1.000	8.02	38.3	1.95	2.09	294	3
5.0	100.0	6.486	-1.126	6.6	1.000	1.000	7.45	41.0	1.79	1.91	287	3
5.0	110.0	6.512	-2.227	6.0	1.000	1.000	6.70	44.2	1.60	1.72	260	3
5.0	120.0	6.330	-3.165	4.6	1.000	1.000	5.77	48.4	1.38	1.48	211	2
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	6.800	1.181	9.0	1.000	1.000	9.77	36.6	2.29	2.45	405	3
6.0	90.0	7.160	0.000	9.5	1.000	1.000	9.28	39.5	2.11	2.26	419	2
6.0	100.0	7.342	-1.275	9.4	1.000	1.000	8.58	42.7	1.94	2.08	408	2
6.0	110.0	7.355	-2.516	8.5	1.000	1.000	7.69	46.4	1.72	1.84	363	3
6.0	120.0	7.173	-3.587	6.8	1.000	1.000	6.63	51.0	1.44	1.54	288	3
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	7.453	1.294	12.1	1.000	1.000	10.97	37.8	2.51	2.69	540	3
7.0	90.0	7.725	0.000	12.8	1.000	1.000	10.30	41.4	2.40	2.57	559	3
7.0	100.0	7.855	-1.364	12.5	1.000	1.000	9.44	45.3	2.22	2.37	536	3
7.0	110.0	7.856	-2.687	11.0	1.000	1.000	8.45	49.7	1.91	2.04	464	2
7.0	120.0	7.726	-3.863	8.6	1.000	1.000	7.33	54.8	1.53	1.63	360	3
7.0	135.0	7.153	-5.058	4.3	1.000	1.000	5.40	65.9	0.96	1.03	193	2
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	7.844	1.362	15.5	1.000	1.000	11.93	39.3	2.89	3.09	687	2
8.0	90.0	8.060	0.000	16.4	1.000	1.000	11.11	43.5	2.80	2.99	706	2
8.0	100.0	8.169	-1.419	15.5	1.000	1.000	10.16	48.1	2.52	2.70	660	2
8.0	110.0	8.182	-2.799	13.3	1.000	1.000	9.11	53.2	2.10	2.25	557	3
8.0	120.0	8.084	-4.042	10.2	1.000	1.000	7.94	59.0	1.64	1.75	426	2
8.0	135.0	7.669	-5.423	5.6	1.000	1.000	5.98	70.3	0.99	1.06	231	3
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	12.74	40.8	3.36	3.59	840	3
9.0	90.0	8.275	0.000	19.8	1.000	1.000	11.80	45.5	3.23	3.45	849	3
9.0	100.0	8.390	-1.457	18.4	1.000	1.000	10.80	50.7	2.84	3.03	777	3
9.0	110.0	8.430	-2.883	15.4	1.000	1.000	9.73	56.6	2.30	2.46	647	2
9.0	120.0	8.365	-4.183	11.8	1.000	1.000	8.54	63.0	1.75	1.88	492	3
9.0	135.0	8.032	-5.679	6.5	1.000	1.000	6.54	75.2	1.04	1.11	269	3
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	8.236	1.430	21.6	0.980	0.986	13.48	42.4	3.70	3.96	952	3
10.0	90.0	8.418	0.000	22.0	0.999	0.949	12.47	47.5	3.48	3.72	939	3
10.0	100.0	8.555	-1.486	21.1	1.000	1.000	11.40	53.2	3.15	3.37	888	3
10.0	110.0	8.630	-2.952	17.6	1.000	1.000	10.34	59.6	2.50	2.67	735	3
10.0	120.0	8.604	-4.302	13.5	1.000	1.000	9.14	66.7	1.88	2.01	561	3
10.0	135.0	8.326	-5.887	7.4	1.000	1.000	7.12	79.8	1.09	1.17	308	3
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	1.469	21.9	0.881	0.938	15.14	46.0	3.79	4.05	1035	4
12.0	90.0	8.638	0.000	22.0	0.884	0.977	14.02	52.0	3.57	3.82	1024	3
12.0	100.0	8.797	-1.528	22.3	0.930	1.000	12.77	58.2	3.31	3.53	988	3
12.0	110.0	8.938	-3.057	21.9	1.000	1.000	11.47	64.9	2.93	3.13	912	3
12.0	120.0	8.999	-4.500	17.0	1.000	1.000	10.35	73.0	2.16	2.31	704	3
12.0	135.0	8.814	-6.233	9.5	1.000	1.000	8.36	87.7	1.22	1.31	392	2
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	8.625	1.498	22.0	0.799	0.937	16.81	49.0	3.90	4.18	1116	4
14.0	90.0	8.820	0.000	22.1	0.803	1.000	15.61	55.6	3.66	3.91	1103	3
14.0	100.0	9.002	-1.563	22.5	0.861	1.000	14.25	62.5	3.36	3.59	1059	3
14.0	110.0	9.178	-3.139	23.0	0.943	1.000	12.80	69.8	3.04	3.25	1003	3
14.0	120.0	9.335	-4.668	20.7	1.000	1.000	11.52	78.1	2.45	2.62	856	3
14.0	135.0	9.252	-6.542	11.8	1.000	1.000	9.69	93.7	1.36	1.45	485	3
14.0	150.0	8.752	-7.579	4.2	1.000	1.000	7.75	115.8	0.59	0.63	189	2
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	8.763	1.522	22.1	0.729	0.953	18.51	51.5	4.02	4.29	1192	4
16.0	90.0	8.978	0.000	22.3	0.747	1.000	17.22	58.6	3.74	4.00	1174	3
16.0	100.0	9.188	-1.596	22.8	0.803	1.000	15.78	66.0	3.41	3.65	1129	3
16.0	110.0	9.402	-3.216	23.3	0.882	1.000	14.26	73.8	3.07	3.28	1071	3
16.0	120.0	9.616	-4.808	24.0	0.993	1.000	12.66	82.3	2.72	2.91	998	3
16.0	135.0	9.685	-6.849	14.2	1.000	1.000	11.05	98.3	1.48	1.58	586	3
16.0	150.0	9.174	-7.945	5.7	1.000	1.000	9.23	120.4	0.67	0.72	239	3
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	4.23	4.53	1336	4
20.0	90.0	9.252	0.000	22.7	0.659	1.000	20.51	63.2	3.88	4.15	1309	4
20.0	100.0	9.523	-1.654	23.3	0.711	1.000	18.94	71.3	3.51	3.75	1264	3
20.0	110.0	9.798	-3.351	23.9	0.783	1.000	17.29	79.9	3.13	3.34	1203	2
20.0	120.0	10.089	-5.045	24.8	0.887	1.000	15.58	89.3	2.73	2.92	1126	3
20.0	135.0	10.530	-7.446	19.5	1.000	1.000	13.72	104.9	1.68	1.80	804	3
20.0	150.0	10.064	-8.715	8.8	1.000	1.000	12.24	126.2	0.82	0.88	366	2
20.0	160.0	9.655	-9.072	5.1	1.000	1.000	11.39	143.3	0.53	0.57	215	3
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	4
25.0	90.0	9.541	0.000	23.2	0.577	1.000	24.70	67.3	4.05	4.33	1468	4
25.0	100.0	9.870	-1.714	23.9	0.625	1.000	23.00	76.0	3.63	3.88	1423	4
25.0	110.0	10.231	-3.499	24.7	0.692	1.000	21.22	85.2	3.18	3.40	1361	3
25.0	120.0	10.707	-5.354	25.6	0.787	1.000	19.39	94.9	2.68	2.87	1280	3
25.0	135.0	11.690	-8.266	26.3	1.000	1.000	16.71	110.3	1.80	1.92	1086	3
25.0	150.0	11.572	-10.021	13.6	1.000	1.000	15.72	129.6	0.89	0.95	563	3
25.0	160.0	10.979	-10.317	8.4	1.000	1.000	15.08	145.9	0.62	0.67	349	3
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	3
5.0	140.3	5.213	-4.010	1.9	1.000	1.000	3.47	66.8	0.78	0.83	79	3
6.0	142.6	5.872	-4.666	2.2	1.000	1.000	3.80	73.1	0.70	0.75	92	4
7.0	144.3	6.468	-5.253	2.5	1.000	1.000	4.15	79.1	0.65	0.69	104	3
8.0	146.1	6.987	-5.800	2.7	1.000	1.000	4.47	85.6	0.59	0.63	113	4
9.0	149.1	7.311	-6.274	2.5	1.000	1.000	4.63	95.1	0.50	0.54	106	3
10.0	152.0	7.553	-6.668	2.3	1.000	1.000	4.86	105.2	0.42	0.45	96	3
12.0	157.8	7.871	-7.288	1.8	1.000	1.000	5.57	125.6	0.31	0.33	77	4
14.0	167.3	8.060	-7.864	1.3	1.000	1.000	6.39	151.3	0.20	0.22	53	3
16.0	170.6	8.476	-8.363	1.3	1.000	1.000	7.76	160.4	0.18	0.19	53	2
20.0	171.1	9.322	-9.209	2.1	1.000	1.000	10.89	163.4	0.24	0.25	88	2
25.0	167.1	10.647	-10.379	5.2	1.000	1.000	14.79	158.0	0.42	0.45	217	3

Best Performance

Vt	*Bt*	*Vs*	*Vmg*	*Heel*	*Rf/Tw*	*Flat*	*Va*	*Ba*	*Lee*	*Sail*	*Flot*
4.0	32.0	2.891	2.452	2.3	1.000	1.000	6.63	18.6	4.12	Up	MBF
4.0	36.0	3.321	2.686	2.6	1.000	1.000	6.97	19.7	3.51	Up	MBF
4.0	40.0	3.700	2.834	2.9	1.000	1.000	7.24	20.8	3.09	Up	MBF
4.0	45.0	4.117	2.911	3.1	1.000	1.000	7.50	22.2	2.71	Up	MBF
4.0	***45.7***	***4.160***	***2.904***	***3.5***	***1.000***	***1.000***	***7.52***	***22.3***	***2.67***	***Up***	***MBF***
4.0	52.0	4.584	2.822	3.4	1.000	1.000	7.72	24.1	2.33	Up	MBF
4.0	60.0	4.962	2.481	3.4	1.000	1.000	7.78	26.5	2.01	Up	MBF
4.0	70.0	5.243	1.793	3.2	1.000	1.000	7.60	29.6	1.70	Up	MBF
4.0	80.0	5.340	0.927	2.8	1.000	1.000	7.21	33.1	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	3.633	3.081	3.7	1.000	1.000	8.31	18.6	4.07	Up	MBF
5.0	36.0	4.131	3.342	4.1	1.000	1.000	8.68	19.7	3.51	Up	MBF
5.0	40.0	4.568	3.499	4.5	1.000	1.000	8.99	20.9	3.11	Up	MBF
5.0	***44.1***	***4.941***	***3.546***	***5.2***	***1.000***	***1.000***	***9.21***	***22.1***	***2.81***	***Up***	***MBF***
5.0	45.0	5.012	3.544	5.2	1.000	1.000	9.24	22.4	2.76	Up	MBF
5.0	52.0	5.500	3.386	5.5	1.000	1.000	9.43	24.6	2.39	Up	MBF
5.0	60.0	5.885	2.942	5.5	1.000	1.000	9.43	27.2	2.07	Up	MBF
5.0	70.0	6.161	2.107	5.1	1.000	1.000	9.16	30.7	1.75	Up	MBF
5.0	80.0	6.259	1.087	4.1	1.000	1.000	8.66	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	4.298	3.645	5.7	1.000	1.000	9.90	18.6	4.13	Up	MBF
6.0	36.0	4.849	3.923	6.4	1.000	1.000	10.31	19.9	3.58	Up	MBF
6.0	40.0	5.304	4.063	6.8	1.000	1.000	10.61	21.1	3.20	Up	MBF
6.0	***42.9***	***5.582***	***4.091***	***7.1***	***1.000***	***1.000***	***10.77***	***22.1***	***2.99***	***Up***	***MBF***
6.0	45.0	5.765	4.077	7.3	1.000	1.000	10.85	22.8	2.85	Up	MBF
6.0	52.0	6.247	3.846	7.5	1.000	1.000	10.99	25.2	2.49	Up	MBF
6.0	60.0	6.632	3.316	7.4	1.000	1.000	10.92	28.1	2.15	Up	MBF
6.0	70.0	6.918	2.366	6.8	1.000	1.000	10.57	32.0	1.80	Up	MBF
6.0	80.0	7.014	1.218	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	4.889	4.146	7.7	1.000	1.000	11.43	18.7	4.24	Up	MBF
7.0	36.0	5.459	4.417	8.4	1.000	1.000	11.84	20.1	3.71	Up	MBF
7.0	40.0	5.918	4.534	9.0	1.000	1.000	12.12	21.5	3.34	Up	MBF
7.0	***41.7***	***6.082***	***4.544***	***9.1***	***1.000***	***1.000***	***12.20***	***22.1***	***3.21***	***Up***	***MBF***
7.0	45.0	6.374	4.507	9.4	1.000	1.000	12.32	23.3	2.99	Up	MBF
7.0	52.0	6.871	4.230	9.6	1.000	1.000	12.42	25.9	2.60	Up	MBF
7.0	60.0	7.238	3.619	9.3	1.000	1.000	12.28	29.1	2.25	Up	MBF
7.0	70.0	7.469	2.555	8.4	1.000	1.000	11.81	33.4	1.89	Up	MBF
7.0	80.0	7.542	1.310	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	5.390	4.571	9.7	1.000	1.000	12.86	18.9	4.43	Up	MBF
8.0	36.0	5.962	4.824	10.6	1.000	1.000	13.25	20.4	3.90	Up	MBF
8.0	40.0	6.418	4.916	11.2	1.000	1.000	13.51	21.9	3.53	Up	MBF
8.0	***41.1***	***6.534***	***4.921***	***11.3***	***1.000***	***1.000***	***13.56***	***22.3***	***3.43***	***Up***	***MBF***
8.0	45.0	6.890	4.872	11.7	1.000	1.000	13.70	23.8	3.15	Up	MBF
8.0	52.0	7.344	4.522	11.7	1.000	1.000	13.72	26.7	2.76	Up	MBF
8.0	60.0	7.636	3.818	11.2	1.000	1.000	13.46	30.3	2.40	Up	MBF
8.0	70.0	7.817	2.674	9.9	1.000	1.000	12.88	35.0	2.01	Up	MBF
8.0	80.0	7.879	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	5.805	4.923	11.4	1.000	0.957	14.21	19.2	4.46	Up	MBF
9.0	36.0	6.369	5.152	12.9	1.000	1.000	14.57	20.7	4.14	Up	MBF
9.0	40.0	6.838	5.238	13.5	1.000	1.000	14.82	22.2	3.74	Up	MBF
9.0	***40.5***	***6.891***	***5.239***	***13.6***	***1.000***	***1.000***	***14.84***	***22.4***	***3.69***	***Up***	***MBF***
9.0	45.0	7.281	5.148	13.9	1.000	1.000	14.95	24.3	3.36	Up	MBF
9.0	52.0	7.661	4.717	13.8	1.000	1.000	14.87	27.5	2.96	Up	MBF
9.0	60.0	7.905	3.952	12.9	1.000	1.000	14.53	31.4	2.58	Up	MBF
9.0	70.0	8.070	2.760	11.4	1.000	1.000	13.88	36.6	2.16	Up	MBF
9.0	80.0	8.132	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	6.149	5.215	13.0	1.000	0.910	15.49	19.4	4.50	Up	MBF
10.0	36.0	6.708	5.427	14.5	1.000	0.954	15.82	21.0	4.20	Up	MBF
10.0	***39.4***	***7.098***	***5.488***	***15.6***	***1.000***	***0.987***	***16.00***	***22.4***	***4.01***	***Up***	***MBF***
10.0	40.0	7.161	5.486	15.7	1.000	0.994	16.02	22.6	3.98	Up	MBF
10.0	45.0	7.552	5.340	16.1	1.000	1.000	16.09	24.9	3.62	Up	MBF
10.0	52.0	7.880	4.852	15.7	1.000	1.000	15.92	28.3	3.21	Up	MBF
10.0	60.0	8.109	4.054	14.7	1.000	1.000	15.53	32.5	2.79	Up	MBF
10.0	70.0	8.273	2.830	12.8	1.000	1.000	14.83	38.0	2.31	Up	MBF
10.0	80.0	8.342	1.449	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	0.949	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	6.690	5.673	15.6	1.000	0.814	17.90	19.9	4.57	Up	MBF
12.0	36.0	7.215	5.837	17.1	1.000	0.847	18.17	21.7	4.27	Up	MBF
12.0	***37.1***	***7.324***	***5.844***	***17.4***	***1.000***	***0.856***	***18.20***	***22.2***	***4.21***	***Up***	***MBF***
12.0	40.0	7.575	5.803	18.2	1.000	0.884	18.24	23.6	4.11	Up	MBF
12.0	45.0	7.877	5.570	19.2	1.000	0.937	18.15	26.0	4.00	Up	MBF
12.0	52.0	8.172	5.031	19.7	1.000	1.000	17.86	29.7	3.78	Up	MBF
12.0	60.0	8.407	4.203	18.2	1.000	1.000	17.41	34.3	3.24	Up	MBF
12.0	70.0	8.590	2.938	15.9	1.000	1.000	16.66	40.4	2.66	Up	MBF
12.0	80.0	8.681	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	7.080	6.004	17.6	1.000	0.722	20.16	20.4	4.61	Up	MBF
14.0	***35.6***	***7.486***	***6.089***	***18.9***	***1.000***	***0.747***	***20.31***	***22.2***	***4.39***	***Up***	***MBF***
14.0	36.0	7.524	6.087	19.0	1.000	0.751	20.32	22.4	4.38	Up	MBF
14.0	40.0	7.817	5.988	20.1	1.000	0.787	20.29	24.4	4.27	Up	MBF
14.0	45.0	8.079	5.713	21.0	1.000	0.835	20.13	27.1	4.16	Up	MBF
14.0	52.0	8.357	5.145	21.8	1.000	0.913	19.73	31.0	4.02	Up	MBF
14.0	60.0	8.605	4.303	21.9	1.000	1.000	19.15	35.7	3.77	Up	MBF
14.0	70.0	8.825	3.018	19.0	1.000	1.000	18.37	42.3	3.04	Up	MBF
14.0	80.0	8.952	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	7.334	6.220	19.3	1.000	0.642	22.29	20.9	4.71	Up	MBF
16.0	***34.3***	***7.581***	***6.259***	***20.1***	***1.000***	***0.658***	***22.36***	***22.1***	***4.58***	***Up***	***MBF***
16.0	36.0	7.718	6.244	20.6	1.000	0.669	22.36	23.0	4.52	Up	MBF
16.0	40.0	7.976	6.110	21.5	1.000	0.700	22.27	25.2	4.41	Up	MBF
16.0	45.0	8.221	5.813	22.3	1.000	0.743	22.05	28.1	4.30	Up	MBF
16.0	52.0	8.479	5.220	22.6	0.919	1.000	21.60	32.3	4.33	Up	MBF
16.0	60.0	8.739	4.370	23.3	0.963	1.000	20.91	37.1	4.03	Up	MBF
16.0	70.0	9.001	3.079	22.2	1.000	1.000	19.98	43.7	3.46	Up	MBF
16.0	80.0	9.183	1.595	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	7.620	6.462	21.8	1.000	0.516	26.33	21.8	4.98	Up	MBF
20.0	***32.9***	***7.707***	***6.468***	***22.1***	***1.000***	***0.521***	***26.34***	***22.3***	***4.93***	***Up***	***MBF***
20.0	36.0	7.939	6.423	22.6	0.976	0.564	26.30	24.2	4.81	Up	MBF
20.0	40.0	8.175	6.263	22.9	0.943	0.633	26.16	26.7	4.69	Up	MBF
20.0	45.0	8.414	5.949	23.1	0.914	0.719	25.88	29.9	4.55	Up	MBF
20.0	52.0	8.679	5.343	23.0	0.824	1.000	25.37	34.6	4.53	Up	MBF
20.0	60.0	8.949	4.474	23.6	0.865	1.000	24.56	39.8	4.19	Up	MBF
20.0	70.0	9.251	3.164	24.1	0.928	1.000	23.36	46.7	3.78	Up	MBF
20.0	80.0	9.536	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	***171.1***	***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	7.787	6.604	22.5	0.896	0.503	31.28	22.8	5.34	Up	MBF
25.0	***32.5***	***7.834***	***6.606***	***22.5***	***0.890***	***0.512***	***31.27***	***23.2***	***5.31***	***Up***	***MBF***
25.0	36.0	8.097	6.550	22.9	0.857	0.575	31.19	25.5	5.16	Up	MBF
25.0	40.0	8.334	6.384	23.2	0.828	0.648	31.00	28.2	5.02	Up	MBF
25.0	45.0	8.553	6.048	22.8	0.721	0.949	30.69	31.8	5.11	Up	MBF
25.0	52.0	8.856	5.452	23.4	0.734	1.000	30.05	36.6	4.80	Up	MBF
25.0	60.0	9.153	4.576	24.0	0.771	1.000	29.12	42.3	4.41	Up	MBF
25.0	70.0	9.504	3.251	24.6	0.829	1.000	27.77	49.7	3.93	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	CFk	
4.0	80.0	4.34	2.63	0.058	0.657	0.231	0.000	0.053	0.000	44.7	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	0.000	71.3	182	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	6.22	6.49	0.215	0.534	0.186	0.003	0.062	0.000	106.8	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	8.92	0.293	0.468	0.163	0.008	0.068	0.000	151.4	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	11.74	0.371	0.396	0.137	0.019	0.076	0.000	207.3	472	0.114
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	0.000	274.2	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	0.000	345.5	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	471.1	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	549.8	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	619.7	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	747.6	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	888.9	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	2.89	2.34	0.007	0.562	0.206	0.000	0.225	0.000	24.8	126	0.213
4.0	36.0	3.32	2.63	0.017	0.589	0.213	0.000	0.180	0.000	30.5	141	0.182
4.0	40.0	3.70	2.88	0.030	0.604	0.216	0.000	0.150	0.000	36.3	155	0.161
4.0	45.0	4.12	3.13	0.045	0.614	0.218	0.000	0.123	0.000	43.5	169	0.142
4.0	52.0	4.58	3.35	0.069	0.617	0.218	0.000	0.096	0.000	52.8	181	0.122
4.0	60.0	4.96	3.41	0.097	0.613	0.215	0.000	0.075	0.000	61.5	184	0.106
4.0	70.0	5.24	3.23	0.122	0.610	0.213	0.000	0.055	0.000	68.4	175	0.090
4.0	80.0	5.34	2.84	0.132	0.613	0.214	0.000	0.041	0.000	70.3	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	3.63	3.66	0.025	0.547	0.199	0.000	0.229	0.000	38.8	197	0.212
5.0	36.0	4.13	4.10	0.042	0.567	0.203	0.000	0.187	0.000	47.4	220	0.182
5.0	40.0	4.57	4.46	0.063	0.574	0.204	0.001	0.157	0.000	56.3	239	0.162
5.0	45.0	5.01	5.24	0.095	0.572	0.202	0.001	0.130	0.000	67.1	257	0.145
5.0	52.0	5.50	5.51	0.136	0.562	0.197	0.002	0.103	0.000	81.0	271	0.126
5.0	60.0	5.88	5.51	0.176	0.550	0.192	0.002	0.080	0.000	93.8	270	0.111
5.0	70.0	6.16	5.12	0.210	0.541	0.188	0.002	0.058	0.000	103.6	252	0.094
5.0	80.0	6.26	4.08	0.225	0.543	0.189	0.001	0.042	0.000	106.4	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	4.30	5.73	0.045	0.524	0.189	0.001	0.241	0.000	55.2	280	0.214
6.0	36.0	4.85	6.35	0.077	0.534	0.191	0.002	0.197	0.000	67.6	310	0.187
6.0	40.0	5.30	6.84	0.111	0.531	0.188	0.002	0.167	0.000	80.2	334	0.168
6.0	45.0	5.77	7.26	0.153	0.521	0.184	0.003	0.139	0.000	95.3	355	0.151
6.0	52.0	6.25	7.51	0.207	0.503	0.176	0.004	0.110	0.000	114.4	368	0.133
6.0	60.0	6.63	7.39	0.252	0.488	0.170	0.005	0.085	0.000	131.6	362	0.116
6.0	70.0	6.92	6.79	0.288	0.480	0.167	0.004	0.062	0.000	144.8	334	0.098
6.0	80.0	7.01	5.87	0.304	0.482	0.167	0.003	0.044	0.000	148.0	289	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	4.89	7.66	0.073	0.493	0.178	0.002	0.254	0.000	74.4	374	0.220
7.0	36.0	5.46	8.41	0.116	0.494	0.176	0.004	0.210	0.000	90.9	410	0.194
7.0	40.0	5.92	8.96	0.159	0.485	0.172	0.005	0.178	0.000	107.4	438	0.176
7.0	45.0	6.37	9.40	0.209	0.470	0.165	0.007	0.149	0.000	127.2	460	0.159
7.0	52.0	6.87	9.61	0.264	0.452	0.158	0.009	0.117	0.000	152.0	471	0.140
7.0	60.0	7.24	9.33	0.315	0.434	0.151	0.010	0.090	0.000	173.9	457	0.122
7.0	70.0	7.47	8.41	0.361	0.421	0.146	0.008	0.064	0.000	190.2	413	0.104
7.0	80.0	7.54	7.18	0.383	0.421	0.145	0.006	0.045	0.000	193.8	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	5.39	9.75	0.102	0.458	0.165	0.005	0.270	0.000	95.9	475	0.229
8.0	36.0	5.96	10.59	0.153	0.452	0.161	0.008	0.225	0.000	116.8	517	0.203
8.0	40.0	6.42	11.19	0.201	0.440	0.156	0.011	0.192	0.000	137.5	546	0.185
8.0	45.0	6.89	11.65	0.251	0.425	0.150	0.014	0.160	0.000	162.2	570	0.167
8.0	52.0	7.34	11.73	0.314	0.403	0.141	0.017	0.126	0.000	192.7	574	0.148
8.0	60.0	7.64	11.15	0.377	0.381	0.132	0.017	0.094	0.000	219.2	546	0.131
8.0	70.0	7.82	9.91	0.430	0.365	0.126	0.014	0.065	0.000	238.6	486	0.111
8.0	80.0	7.88	8.38	0.455	0.364	0.126	0.010	0.045	0.000	242.8	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	5.81	11.43	0.131	0.432	0.156	0.008	0.273	0.000	116.3	557	0.230
9.0	36.0	6.37	12.86	0.183	0.413	0.147	0.014	0.243	0.000	144.6	627	0.214
9.0	40.0	6.84	13.51	0.230	0.401	0.142	0.018	0.208	0.000	169.7	660	0.195
9.0	45.0	7.28	13.91	0.285	0.383	0.135	0.023	0.174	0.000	199.5	680	0.177
9.0	52.0	7.66	13.75	0.360	0.356	0.125	0.027	0.132	0.000	235.7	673	0.158
9.0	60.0	7.90	12.91	0.428	0.333	0.116	0.027	0.097	0.000	267.1	633	0.140
9.0	70.0	8.07	11.36	0.483	0.318	0.110	0.022	0.066	0.000	290.3	558	0.119
9.0	80.0	8.13	9.57	0.513	0.317	0.109	0.015	0.046	0.000	295.5	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	6.15	12.96	0.157	0.409	0.147	0.013	0.274	0.000	136.8	632	0.231
10.0	36.0	6.71	14.51	0.208	0.387	0.138	0.020	0.246	0.000	169.6	708	0.217
10.0	40.0	7.16	15.74	0.252	0.366	0.130	0.028	0.224	0.000	202.6	769	0.205
10.0	45.0	7.55	16.12	0.315	0.343	0.121	0.036	0.185	0.000	238.2	789	0.189
10.0	52.0	7.88	15.74	0.395	0.315	0.111	0.040	0.139	0.000	280.5	771	0.170
10.0	60.0	8.11	14.66	0.464	0.294	0.102	0.039	0.101	0.000	317.4	719	0.150
10.0	70.0	8.27	12.84	0.523	0.280	0.097	0.031	0.068	0.000	345.0	630	0.128
10.0	80.0	8.34	10.77	0.557	0.279	0.096	0.022	0.046	0.000	351.9	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	6.69	15.60	0.198	0.371	0.133	0.023	0.275	0.000	176.1	761	0.233
12.0	36.0	7.21	17.06	0.248	0.348	0.124	0.033	0.246	0.000	215.7	834	0.218
12.0	40.0	7.58	18.19	0.300	0.321	0.114	0.045	0.220	0.000	256.3	890	0.209
12.0	45.0	7.88	19.23	0.359	0.287	0.102	0.060	0.193	0.000	307.4	941	0.204
12.0	52.0	8.17	19.72	0.427	0.253	0.089	0.073	0.157	0.000	373.2	966	0.194
12.0	60.0	8.41	18.22	0.501	0.235	0.082	0.070	0.112	0.000	423.0	894	0.171
12.0	70.0	8.59	15.87	0.568	0.224	0.078	0.056	0.074	0.000	462.1	780	0.145
12.0	80.0	8.68	13.28	0.613	0.223	0.077	0.039	0.049	0.000	474.7	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	7.08	17.64	0.225	0.343	0.123	0.033	0.275	0.000	211.4	862	0.233
14.0	36.0	7.52	19.01	0.283	0.315	0.112	0.048	0.242	0.000	257.6	930	0.221
14.0	40.0	7.82	20.07	0.336	0.285	0.101	0.062	0.215	0.000	305.2	983	0.215
14.0	45.0	8.08	20.98	0.390	0.254	0.090	0.078	0.188	0.000	364.0	1028	0.209
14.0	52.0	8.36	21.78	0.448	0.221	0.078	0.096	0.157	0.000	445.6	1068	0.202
14.0	60.0	8.61	21.86	0.502	0.196	0.069	0.107	0.126	0.000	531.6	1073	0.191
14.0	70.0	8.82	19.00	0.581	0.186	0.065	0.087	0.081	0.000	586.3	935	0.161
14.0	80.0	8.95	15.90	0.638	0.184	0.064	0.062	0.053	0.000	608.4	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	7.33	19.29	0.246	0.319	0.114	0.044	0.277	0.000	242.9	943	0.235
16.0	36.0	7.72	20.58	0.308	0.288	0.103	0.061	0.240	0.000	295.1	1007	0.225
16.0	40.0	7.98	21.50	0.359	0.260	0.092	0.077	0.212	0.000	347.7	1054	0.219
16.0	45.0	8.22	22.32	0.409	0.231	0.082	0.094	0.184	0.000	413.5	1095	0.213
16.0	52.0	8.48	22.59	0.457	0.200	0.071	0.106	0.165	0.000	504.9	1183	0.216
16.0	60.0	8.74	23.29	0.508	0.175	0.062	0.125	0.130	0.000	610.9	1178	0.201
16.0	70.0	9.00	22.21	0.571	0.158	0.055	0.124	0.091	0.000	713.0	1093	0.178
16.0	80.0	9.18	18.64	0.641	0.156	0.054	0.091	0.057	0.000	749.4	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	7.62	21.84	0.275	0.282	0.101	0.064	0.279	0.000	295.0	1070	0.243
20.0	36.0	7.94	22.57	0.335	0.252	0.090	0.081	0.241	0.000	355.1	1128	0.235
20.0	40.0	8.18	22.86	0.385	0.228	0.081	0.094	0.212	0.000	415.2	1173	0.230
20.0	45.0	8.41	23.12	0.435	0.203	0.072	0.107	0.183	0.000	491.3	1216	0.225
20.0	52.0	8.68	22.96	0.484	0.176	0.063	0.115	0.162	0.000	599.5	1305	0.227
20.0	60.0	8.95	23.58	0.532	0.154	0.054	0.134	0.126	0.000	726.9	1295	0.211
20.0	70.0	9.25	24.14	0.574	0.134	0.047	0.151	0.094	0.000	885.8	1260	0.191
20.0	80.0	9.54	24.25	0.607	0.121	0.042	0.160	0.069	0.000	1037.0	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	7.79	22.49	0.291	0.255	0.092	0.071	0.291	0.000	339.5	1199	0.260
25.0	36.0	8.10	22.88	0.354	0.227	0.082	0.087	0.250	0.000	409.6	1263	0.252
25.0	40.0	8.33	23.17	0.404	0.204	0.073	0.100	0.219	0.000	480.8	1312	0.247
25.0	45.0	8.55	22.76	0.444	0.181	0.065	0.104	0.206	0.000	567.0	1423	0.255
25.0	52.0	8.86	23.39	0.501	0.156	0.056	0.124	0.163	0.000	701.8	1446	0.241
25.0	60.0	9.15	23.99	0.548	0.136	0.048	0.142	0.125	0.000	854.9	1433	0.222
25.0	70.0	9.50	24.56	0.587	0.119	0.042	0.160	0.092	0.000	1049.2	1396	0.200
25.0	80.0	9.83	24.93	0.615	0.107	0.037	0.173	0.068	0.000	1245.3	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	45.7	4.16	3.46	0.047	0.615	0.218	0.000	0.120	0.000	44.3	170	0.139
5.0	44.1	4.94	5.19	0.089	0.573	0.203	0.001	0.134	0.000	65.3	254	0.147
6.0	42.9	5.58	7.11	0.136	0.526	0.186	0.003	0.150	0.000	89.0	348	0.157
7.0	41.7	6.08	9.14	0.177	0.480	0.170	0.006	0.168	0.000	114.2	447	0.169
8.0	41.1	6.53	11.32	0.214	0.437	0.154	0.011	0.184	0.000	143.3	553	0.181
9.0	40.5	6.89	13.57	0.236	0.399	0.141	0.019	0.204	0.000	172.8	663	0.193
10.0	39.4	7.10	15.57	0.245	0.369	0.131	0.027	0.227	0.000	197.3	761	0.207
12.0	37.1	7.32	17.38	0.262	0.341	0.121	0.036	0.239	0.000	226.4	849	0.215
14.0	35.6	7.49	18.87	0.276	0.318	0.113	0.046	0.246	0.000	252.6	923	0.222
16.0	34.3	7.58	20.10	0.283	0.301	0.108	0.054	0.254	0.000	273.5	984	0.228
20.0	32.9	7.71	22.14	0.290	0.274	0.098	0.069	0.269	0.000	309.3	1084	0.240
25.0	32.5	7.83	22.55	0.300	0.251	0.091	0.073	0.285	0.000	348.5	1209	0.259

Hydrodynamic Force Numbers for Ops_Down

Vt	Bt	Vs	Heel	Rw/u	Rvc	Rva	Rh	Ri	Raw	Rt	CFk	
4.0	80.0	4.94	3.79	0.095	0.611	0.215	0.000	0.079	0.000	61.1	187	0.109
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	0.085	0.000	97.0	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	0.265	0.470	0.164	0.008	0.094	0.000	143.4	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	0.000	199.8	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	0.000	266.2	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	0.000	336.6	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	21.59	0.435	0.242	0.085	0.092	0.146	0.000	396.0	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	0.136	0.000	474.2	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	545.4	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	612.2	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	737.1	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	878.5	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	171.1	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	38.5	169	0.693	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	0.710	0.134	0.072	0.000	0.206	-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	39.4	362	0.742	0.137	0.079	0.000	0.215	-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	10.74
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	0.636	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	18.6	102	1.236	0.021	0.116	0.000	0.137	-2	2	8.49
4.0	36.0	19.7	112	1.265	0.021	0.120	0.000	0.142	-2	2	8.48
4.0	40.0	20.8	121	1.290	0.022	0.124	0.000	0.147	-3	2	8.47
4.0	45.0	22.2	130	1.315	0.024	0.128	0.000	0.152	-3	3	8.46
4.0	52.0	24.1	138	1.342	0.026	0.131	0.000	0.158	-3	3	8.45
4.0	60.0	26.5	140	1.361	0.030	0.133	0.000	0.163	-3	4	8.44
4.0	70.0	29.6	134	1.373	0.036	0.133	0.000	0.170	-3	4	8.43
4.0	80.0	33.1	120	1.377	0.045	0.131	0.000	0.176	-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	18.6	160	1.235	0.021	0.116	0.000	0.136	-3	3	8.49
5.0	36.0	19.7	175	1.265	0.021	0.121	0.000	0.142	-4	3	8.48
5.0	40.0	20.9	187	1.291	0.022	0.125	0.000	0.147	-4	4	8.47
5.0	45.0	22.4	198	1.319	0.024	0.129	0.000	0.153	-4	4	8.46
5.0	52.0	24.6	206	1.346	0.027	0.132	0.000	0.159	-4	5	8.45
5.0	60.0	27.2	206	1.365	0.031	0.134	0.000	0.165	-4	5	8.44
5.0	70.0	30.7	194	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	18.6	227	1.235	0.021	0.116	0.000	0.137	-5	4	8.49
6.0	36.0	19.9	246	1.269	0.022	0.121	0.000	0.143	-5	5	8.48
6.0	40.0	21.1	260	1.297	0.023	0.126	0.000	0.149	-6	5	8.47
6.0	45.0	22.8	272	1.325	0.024	0.130	0.000	0.155	-6	6	8.46
6.0	52.0	25.2	279	1.352	0.028	0.133	0.000	0.161	-6	7	8.44
6.0	60.0	28.1	276	1.369	0.033	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	18.8	302	1.239	0.021	0.117	0.000	0.138	-7	6	8.49
7.0	36.0	20.1	324	1.274	0.022	0.123	0.000	0.144	-7	6	8.48
7.0	40.0	21.5	340	1.303	0.023	0.127	0.000	0.150	-7	7	8.46
7.0	45.0	23.3	351	1.332	0.025	0.132	0.000	0.157	-7	8	8.45
7.0	52.0	25.9	357	1.358	0.029	0.135	0.000	0.164	-7	9	8.44
7.0	60.0	29.1	349	1.372	0.035	0.135	0.000	0.170	-7	10	8.43
7.0	70.0	33.4	323	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	18.9	383	1.244	0.021	0.118	0.000	0.139	-8	7	8.49
8.0	36.0	20.4	406	1.281	0.022	0.124	0.000	0.146	-9	8	8.47
8.0	40.0	21.9	422	1.311	0.023	0.129	0.000	0.153	-9	9	8.46
8.0	45.0	23.8	434	1.338	0.026	0.133	0.000	0.159	-9	10	8.45
8.0	52.0	26.7	435	1.362	0.030	0.136	0.000	0.166	-9	11	8.44
8.0	60.0	30.3	419	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	19.2	467	1.197	0.020	0.110	0.000	0.130	-10	9	8.49
9.0	36.0	20.7	491	1.287	0.022	0.126	0.000	0.148	-11	10	8.47
9.0	40.0	22.2	508	1.317	0.024	0.131	0.000	0.155	-11	11	8.46
9.0	45.0	24.3	517	1.344	0.027	0.135	0.000	0.161	-11	12	8.45
9.0	52.0	27.5	511	1.366	0.032	0.137	0.000	0.169	-10	13	8.44
9.0	60.0	31.4	488	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	19.4	555	1.144	0.019	0.100	0.000	0.119	-12	10	8.48
10.0	36.0	21.0	579	1.234	0.021	0.116	0.000	0.138	-12	12	8.47
10.0	40.0	22.6	594	1.314	0.024	0.131	0.000	0.155	-13	13	8.46
10.0	45.0	24.9	599	1.349	0.027	0.137	0.000	0.164	-12	14	8.44
10.0	52.0	28.3	586	1.369	0.034	0.138	0.000	0.172	-12	16	8.43
10.0	60.0	32.5	558	1.376	0.043	0.137	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	19.9	741	1.035	0.017	0.082	0.000	0.100	-16	14	8.47
12.0	36.0	21.7	763	1.107	0.019	0.094	0.000	0.113	-16	16	8.46
12.0	40.0	23.6	770	1.180	0.022	0.106	0.000	0.128	-16	17	8.45
12.0	45.0	26.0	762	1.273	0.027	0.123	0.000	0.150	-16	18	8.44
12.0	52.0	29.7	738	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	642	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	20.4	941	0.925	0.016	0.066	0.000	0.082	-20	18	8.46
14.0	36.0	22.4	955	0.990	0.018	0.076	0.000	0.093	-20	20	8.45
14.0	40.0	24.4	953	1.058	0.021	0.086	0.000	0.106	-20	21	8.44
14.0	45.0	27.1	937	1.139	0.026	0.099	0.000	0.124	-19	23	8.43
14.0	52.0	31.0	901	1.256	0.036	0.119	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	20.9	1150	0.830	0.015	0.054	0.000	0.068	-25	22	8.46
16.0	36.0	23.0	1156	0.889	0.017	0.061	0.000	0.078	-24	25	8.44
16.0	40.0	25.2	1147	0.946	0.019	0.069	0.000	0.088	-24	26	8.43
16.0	45.0	28.1	1124	1.018	0.024	0.079	0.000	0.104	-23	28	8.42
16.0	52.0	32.3	1079	1.161	0.036	0.121	0.000	0.157	-21	31	7.73
16.0	60.0	37.1	1011	1.277	0.052	0.133	0.000	0.185	-19	32	8.09
16.0	70.0	43.7	923	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	1604	0.675	0.013	0.036	0.000	0.049	-34	32	8.44
20.0	36.0	24.2	1600	0.721	0.015	0.042	0.000	0.057	-34	35	8.22
20.0	40.0	26.7	1583	0.766	0.017	0.051	0.000	0.068	-33	38	7.94
20.0	45.0	29.9	1549	0.824	0.022	0.062	0.000	0.084	-32	41	7.68
20.0	52.0	34.6	1488	0.935	0.033	0.097	0.000	0.131	-30	45	6.93
20.0	60.0	39.8	1395	1.030	0.049	0.108	0.000	0.156	-26	47	7.26
20.0	70.0	46.7	1261	1.179	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	22.8	2263	0.535	0.011	0.028	0.000	0.039	-49	47	7.55
25.0	36.0	25.5	2251	0.572	0.012	0.034	0.000	0.047	-49	52	7.21
25.0	40.0	28.2	2223	0.608	0.015	0.041	0.000	0.056	-48	56	6.96
25.0	45.0	31.8	2179	0.678	0.022	0.067	0.000	0.089	-46	61	6.07
25.0	52.0	36.6	2088	0.741	0.030	0.077	0.000	0.107	-42	66	6.17
25.0	60.0	42.3	1961	0.818	0.044	0.086	0.000	0.130	-36	69	6.47
25.0	70.0	49.7	1782	0.939	0.071	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	45.7	22.3	131	1.318	0.024	0.129	0.000	0.152	-3	3	8.46
5.0	44.1	22.1	196	1.314	0.024	0.128	0.000	0.152	-4	4	8.46
6.0	42.9	22.1	268	1.314	0.024	0.128	0.000	0.152	-6	6	8.46
7.0	41.7	22.1	344	1.314	0.024	0.129	0.000	0.153	-7	7	8.46
8.0	41.1	22.3	426	1.318	0.024	0.130	0.000	0.154	-9	9	8.46
9.0	40.5	22.4	509	1.320	0.024	0.131	0.000	0.155	-11	11	8.46
10.0	39.4	22.4	592	1.301	0.024	0.129	0.000	0.152	-13	13	8.46
12.0	37.1	22.2	766	1.125	0.020	0.097	0.000	0.117	-16	16	8.45
14.0	35.6	22.2	954	0.983	0.017	0.074	0.000	0.092	-20	20	8.45
16.0	34.3	22.1	1156	0.865	0.016	0.058	0.000	0.074	-25	24	8.45
20.0	32.9	22.3	1604	0.686	0.013	0.037	0.000	0.050	-34	33	8.44
25.0	32.5	23.2	2262	0.539	0.011	0.029	0.000	0.040	-49	48	7.50

Aerodynamic Force Numbers for Ops_Down

Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	FxW	FyW	zce
4.0	80.0	35.2	251	0.745	0.112	0.105	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	0.224	-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	507	0.802	0.113	0.124	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	0.743	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)

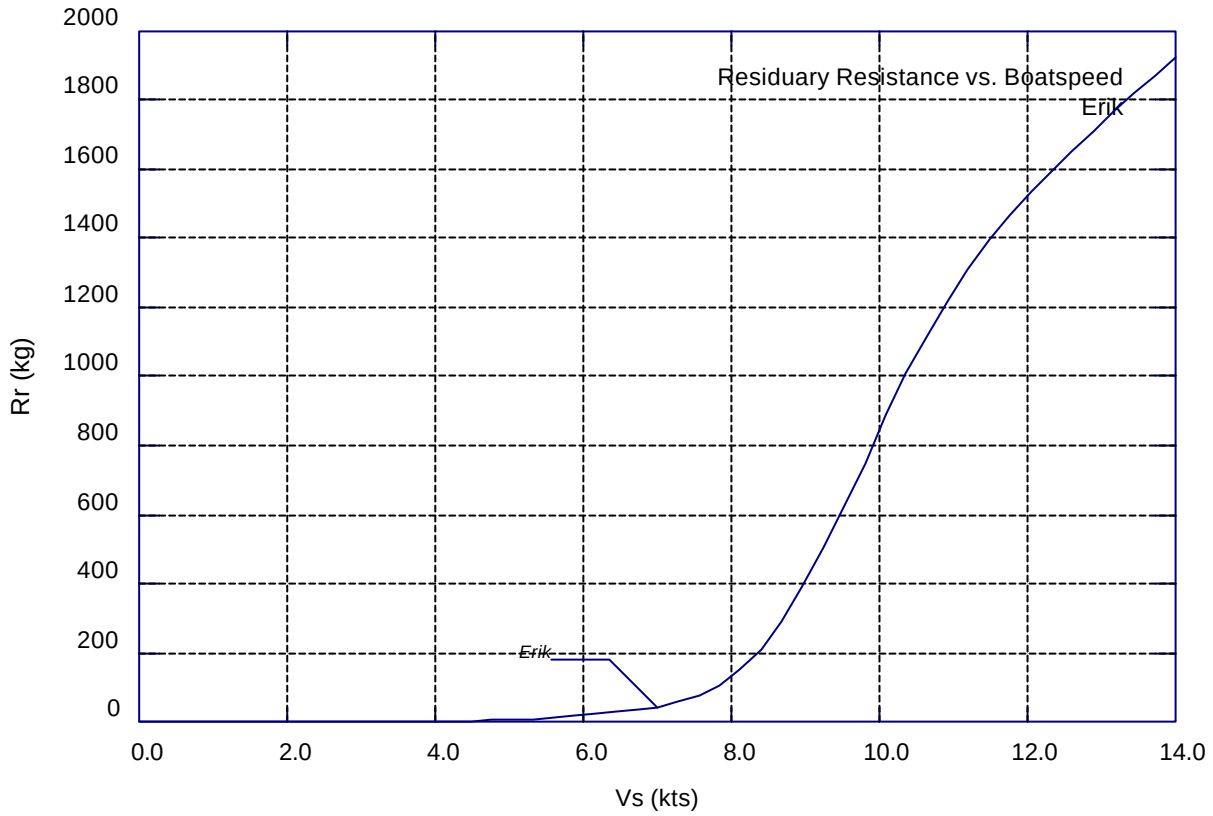
Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
20.0	80.0	55.8	2607	0.515	0.091	0.154	0.000	0.245	-16	49	6.38
20.0	90.0	63.6	2278	0.593	0.137	0.186	0.000	0.322	-11	46	6.78
20.0	100.0	71.8	1948	0.697	0.205	0.224	0.000	0.429	-7	41	7.36
20.0	110.0	80.5	1628	0.839	0.313	0.272	0.000	0.585	-3	36	8.16
20.0	120.0	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

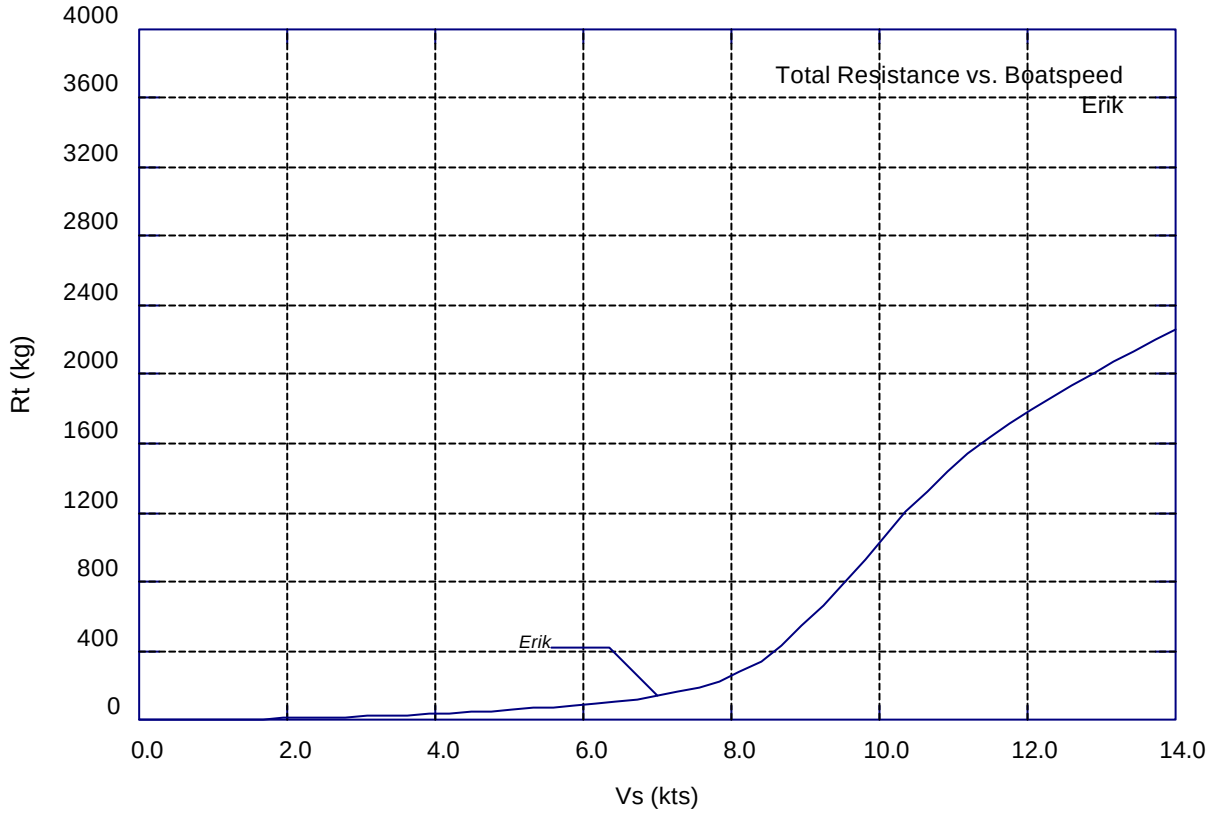
Optimum Downwind Aero Forces for Ops_Down

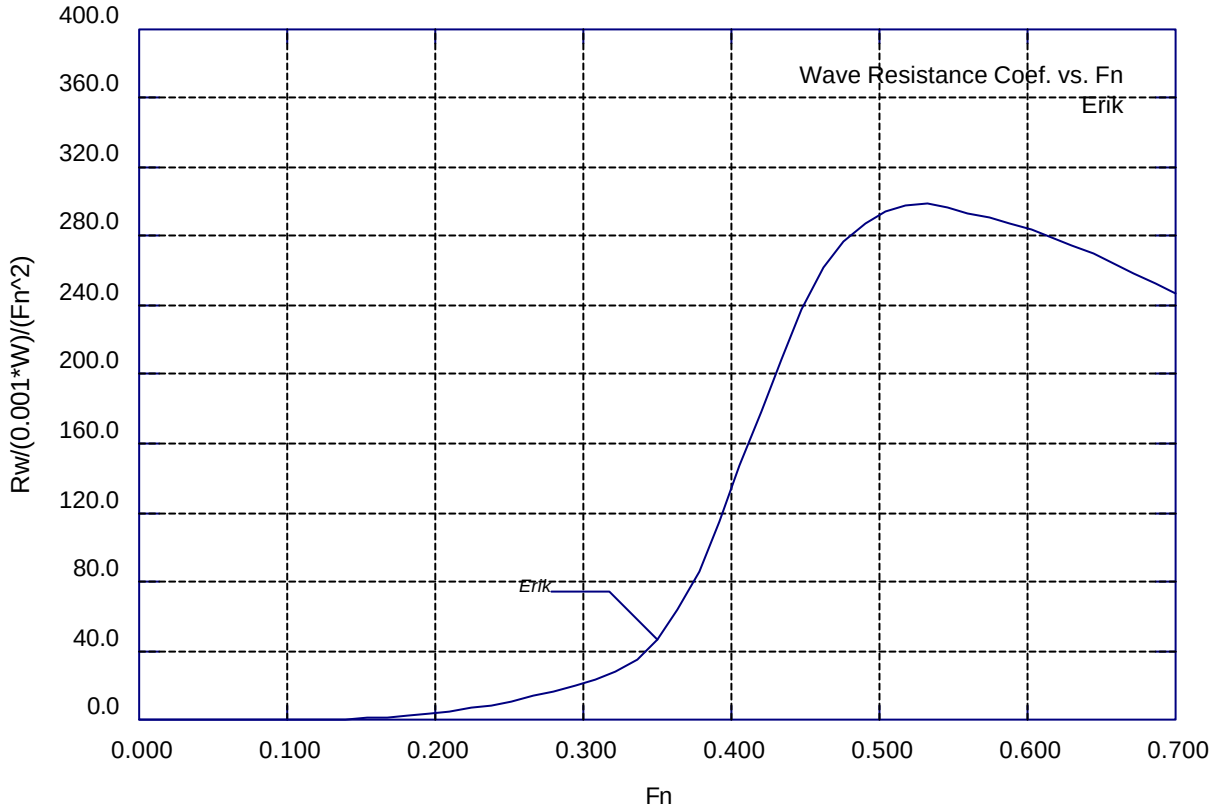
Vt	Bt	ba	qan	cl	cdp	cdi	cdw	cdt	fxw	fyw	zce
4.0	138.1	63.2	49	1.366	0.311	0.370	0.000	0.681	-0	1	10.32
5.0	140.3	68.2	65	1.377	0.366	0.377	0.000	0.742	-0	1	10.36
6.0	142.6	74.6	78	1.379	0.439	0.378	0.000	0.817	-0	2	10.40
7.0	144.3	80.7	93	1.367	0.513	0.371	0.000	0.884	-0	2	10.43
8.0	146.1	87.2	109	1.339	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	171.1	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

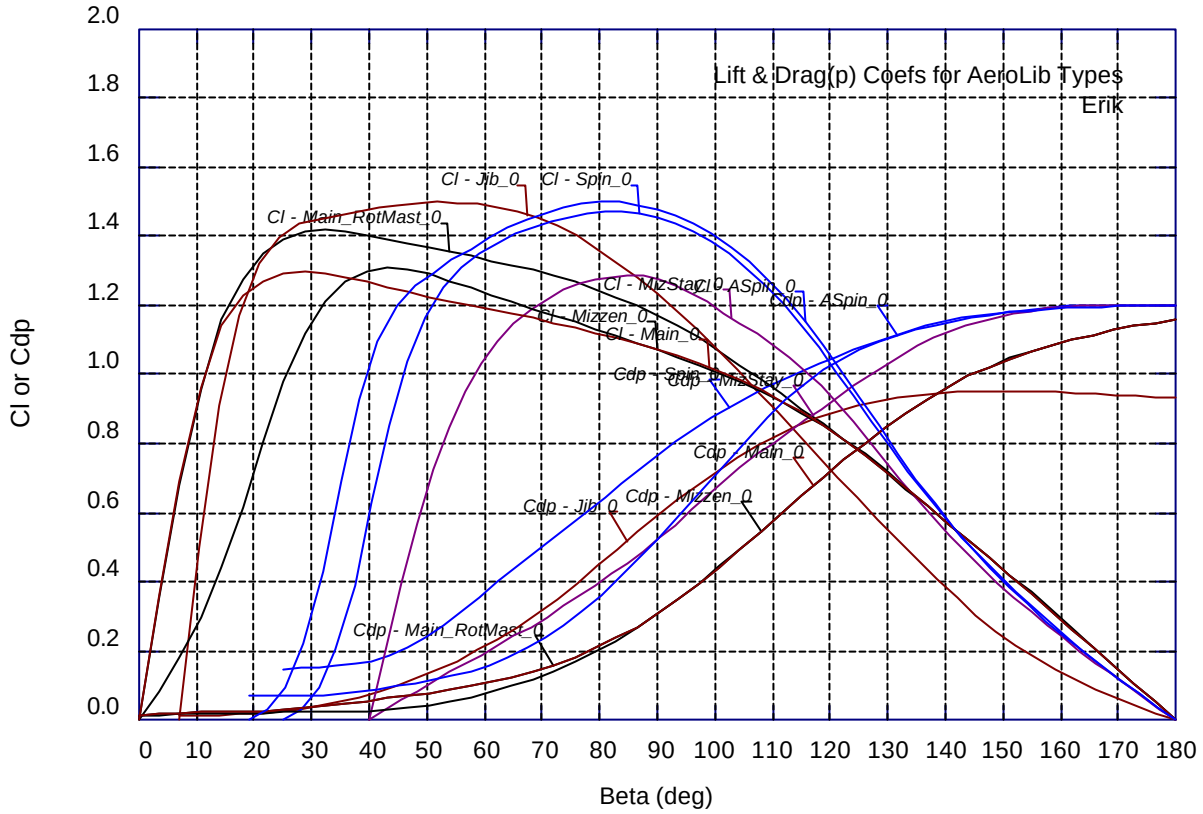
Erik - Hydrodynamic Forces
Heel: 0.00

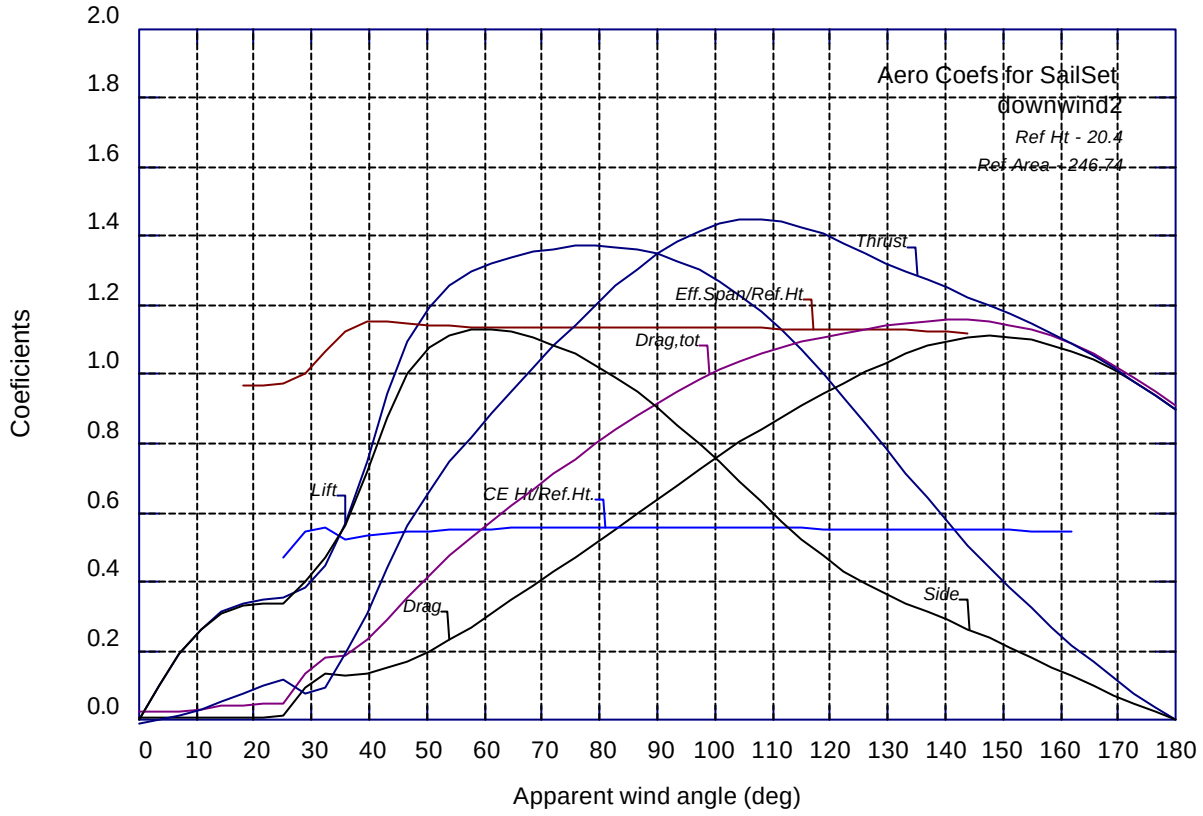
Vs	Fn	Rw	Rvc	Rva	Rtu	Cr	Rh22.5	Te,upr	zceb0
kt		kg	kg	kg	kg		kg	m	m
4.00	0.179	1.7	25.3	8.9	35.9	2.9	1.2	1.865	0.998
4.50	0.202	3.3	31.5	11.0	45.7	4.5	1.8	1.846	0.998
5.00	0.224	6.3	38.2	13.3	57.8	7.1	2.6	1.825	0.998
5.50	0.247	11.0	45.5	15.8	72.4	10.3	3.9	1.801	0.998
6.00	0.269	18.6	53.5	18.5	90.5	14.5	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

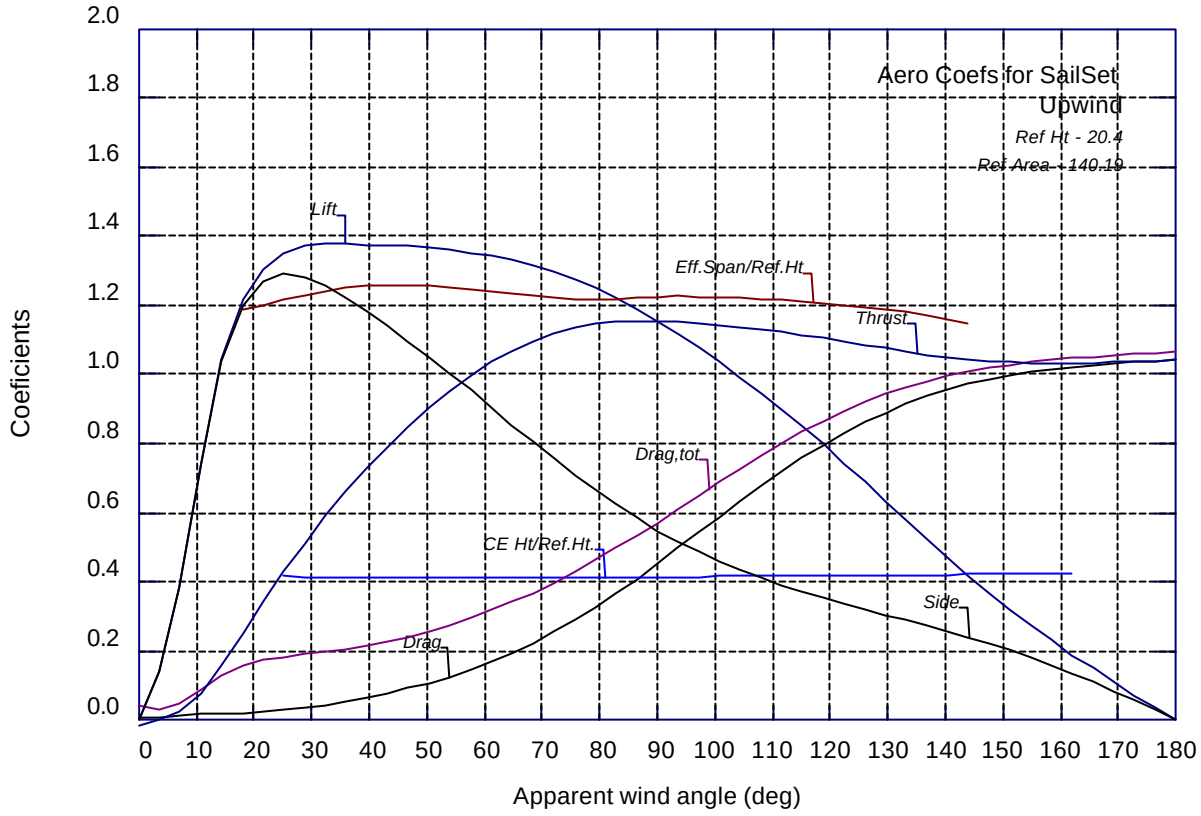

Residuary Resistance vs. Boatspeed
Erik
Rr (kg)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Erik
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Vs (kts)

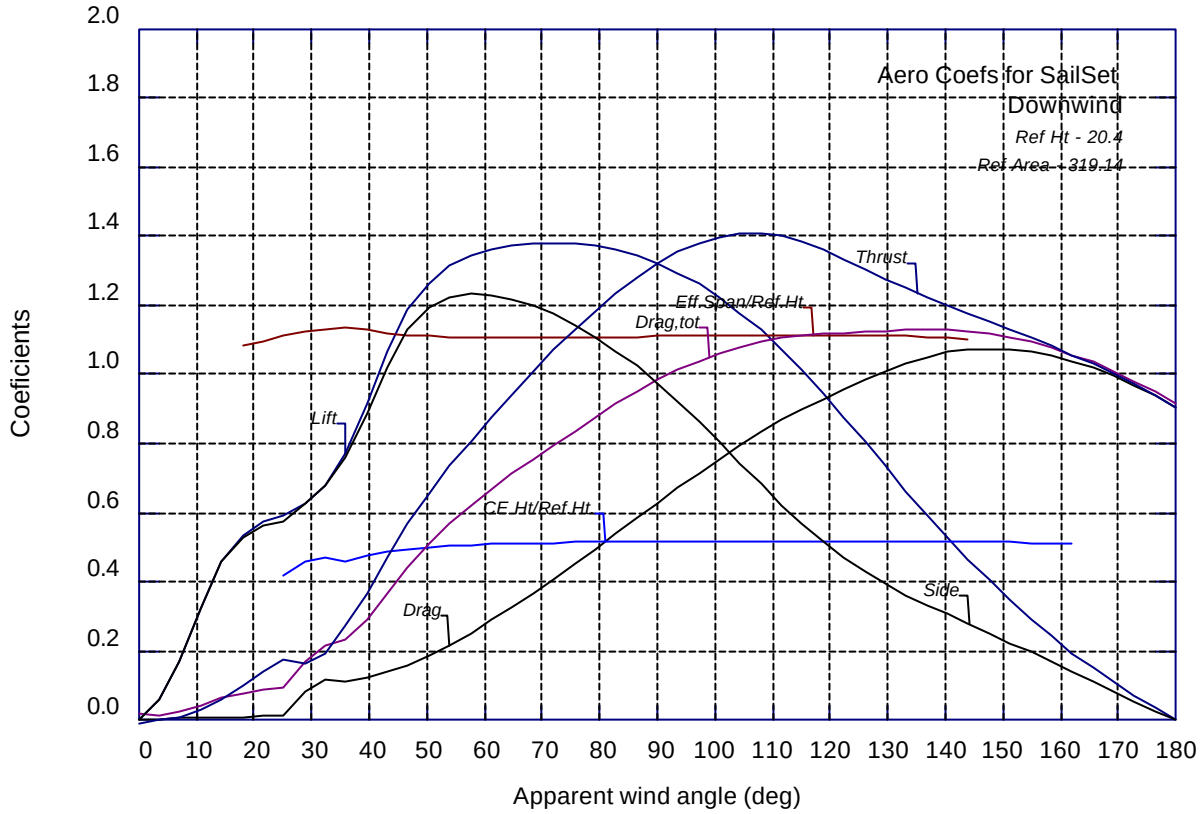

Total Resistance vs. Boatspeed
Erik
Rt (kg)
4000
3600
3200
2800
2400
2000
1600
1200
800
400
0
Erik
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Vs (kts)

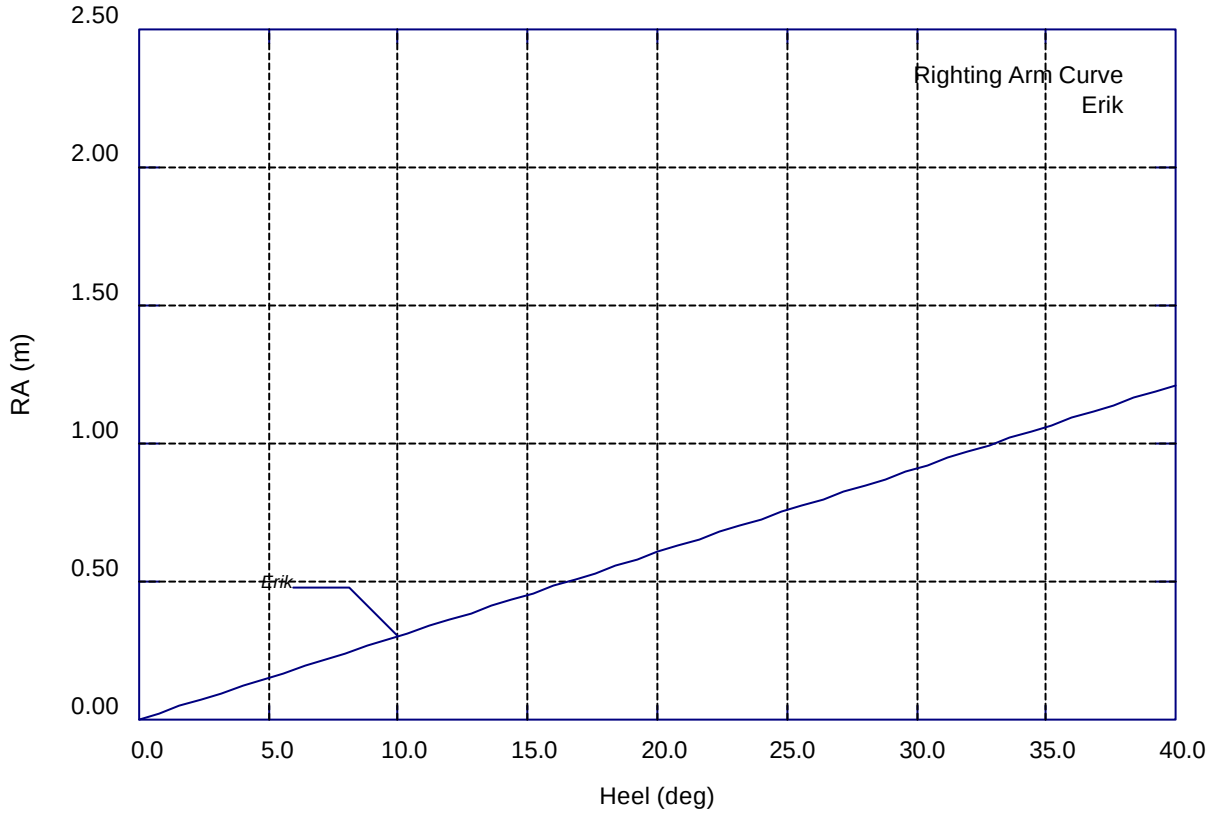

Wave Resistance Coef. vs. Fn
Erik
Rw/(0.001*W)/(Fn^2)
400.0
360.0
320.0
280.0
240.0
200.0
160.0
120.0
80.0
40.0
0.0
0.000
0.100
0.200
0.300
0.400
0.500
0.600
0.700
Fn
Erik


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
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
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


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