

Project : 34 Foot (10.3m) Pilot House Cutter  
Designer : Peter D. Eikenberry Sr.  
Filename : G:\AOL Downloads\Freeship\FREEship\_version\_2.6\_win32\_executable\FreeShip\sail1.fbm

Design length : 34.000 [ft]  
Length over all : 34.875 [ft]  
Design beam : 8.000 [ft]  
Beam over all : 13.398 [ft]  
Design draft : 3.000 [ft]  
Midship location : 17.000 [ft]  
Water density : 63.989 [lbs/ft3]  
Appendage coefficient : 1.0000

NOTE 1: Draft (and all other vertical heights) is measured above the lowest point of the hull! (Z= 4.184)

NOTE 2: All calculated coefficients based on actual dimensions of submerged body.

Lwl : Length on waterline  
Bwl : Beam on waterline  
Volume : Displaced volume  
Displ. : Displacement  
LCB : Longitudinal center of buoyancy, measured from the aft perpendicular at X=0.0  
VCB : Vertical center of buoyancy, measured from the lowest point of the hull  
Cb : Block coefficient  
Am : Midship section area  
Cm : Midship coefficient  
Aw : Waterplane area  
Cw : Waterplane coefficient  
LCF : Waterplane center of floatation  
CP : Prismatic coefficient  
S : Wetted surface area  
KMt : Transverse metacentric height  
KML : Longitudinal metacentric height

Draft	Trim	Lwl	Bwl	Volume	Displ.	LCB	VCB	Cb	Am	Cm	Aw	Cw	LCF	Cp	S	KMt	KMl
[ft]	[ft]	[ft]	[ft]	[ft3]	[tons]	[ft]	[ft]	[-]	[ft2]	[-]	[ft2]	[-]	[ft]	[-]	[ft2]	[ft]	[ft]
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.0000	0.000	0.0000	0.000	0.0000	0.000	0.000	0.000
0.100	0.000	5.366	0.477	0.064	0.002	17.748	0.072	0.2512	0.019	0.4033	1.711	0.6692	17.730	0.6229	1.767	0.421	38.578
0.200	0.000	7.903	0.953	0.376	0.011	17.731	0.143	0.2498	0.086	0.4527	4.880	0.6478	17.690	0.5519	5.167	0.802	39.750
0.300	0.000	9.917	1.430	1.058	0.030	17.706	0.215	0.2488	0.202	0.4700	9.047	0.6381	17.657	0.5294	9.680	1.188	40.458
0.400	0.000	11.639	1.904	2.201	0.063	17.678	0.286	0.2483	0.365	0.4794	14.043	0.6336	17.602	0.5178	15.138	1.569	41.401
0.500	0.000	13.187	2.376	3.877	0.111	17.642	0.358	0.2475	0.577	0.4860	19.763	0.6308	17.555	0.5092	21.400	1.967	42.007
0.600	0.000	14.662	2.849	6.158	0.176	17.602	0.430	0.2458	0.838	0.4904	26.177	0.6268	17.490	0.5012	28.409	2.369	42.642
0.700	0.000	15.942	3.361	9.115	0.260	17.558	0.502	0.2430	1.148	0.4878	33.223	0.6201	17.418	0.4982	36.113	2.774	43.237
0.800	0.000	17.185	3.865	12.796	0.366	17.511	0.574	0.2408	1.506	0.4870	40.718	0.6131	17.345	0.4945	44.405	3.158	43.610
0.900	0.000	18.363	4.367	17.255	0.493	17.460	0.645	0.2391	1.913	0.4867	48.782	0.6083	17.268	0.4913	53.281	3.561	43.909
1.000	0.000	19.424	4.869	22.544	0.644	17.407	0.717	0.2384	2.368	0.4863	57.350	0.6064	17.182	0.4902	62.697	3.964	44.217
1.100	0.000	20.455	5.364	28.710	0.820	17.352	0.789	0.2379	2.871	0.4866	66.266	0.6039	17.097	0.4888	72.608	4.346	44.401
1.200	0.000	21.429	5.851	35.783	1.022	17.294	0.860	0.2378	3.423	0.4875	75.587	0.6029	17.011	0.4879	82.944	4.738	44.474
1.300	0.000	22.360	6.338	43.809	1.251	17.235	0.932	0.2378	4.022	0.4881	85.333	0.6021	16.917	0.4872	93.717	5.128	44.598
1.400	0.000	23.198	6.822	52.824	1.509	17.174	1.003	0.2384	4.668	0.4887	95.307	0.6022	16.826	0.4878	104.91	5.494	44.631
1.500	0.000	24.026	7.289	62.852	1.795	17.112	1.075	0.2393	5.361	0.4904	105.63	0.6032	16.733	0.4880	116.41	5.872	44.582
1.600	0.000	24.837	7.755	73.922	2.112	17.049	1.146	0.2399	6.101	0.4917	116.26	0.6036	16.636	0.4879	128.25	6.241	44.593
1.700	0.000	25.548	8.222	86.068	2.459	16.984	1.217	0.2410	6.886	0.4927	127.11	0.6052	16.538	0.4892	140.41	6.602	44.536
1.800	0.000	26.260	8.648	99.305	2.837	16.918	1.288	0.2429	7.716	0.4956	138.02	0.6078	16.438	0.4901	152.78	6.922	44.467
1.900	0.000	26.946	9.095	113.64	3.246	16.852	1.359	0.2441	8.589	0.4970	149.14	0.6086	16.335	0.4910	165.29	7.237	44.406
2.000	0.000	27.596	9.546	129.09	3.688	16.784	1.430	0.2450	9.503	0.4978	160.35	0.6087	16.230	0.4922	178.01	7.537	44.305
2.100	0.000	28.224	9.966	145.67	4.161	16.715	1.501	0.2466	10.457	0.4997	171.57	0.6099	16.119	0.4935	190.89	7.801	44.213
2.200	0.000	28.827	10.343	163.36	4.667	16.645	1.571	0.2491	11.449	0.5032	182.69	0.6127	16.007	0.4950	203.66	8.031	44.089
2.300	0.000	29.410	10.719	182.16	5.204	16.573	1.641	0.2512	12.477	0.5061	193.80	0.6147	15.890	0.4964	216.52	8.241	43.965
2.400	0.000	29.990	11.089	202.07	5.773	16.500	1.711	0.2532	13.538	0.5087	204.84	0.6160	15.765	0.4977	229.49	8.424	43.842
2.500	0.000	30.537	11.370	223.08	6.373	16.424	1.781	0.2570	14.630	0.5147	215.60	0.6209	15.640	0.4993	242.22	8.566	43.691
2.600	0.000	31.071	11.652	245.15	7.003	16.348	1.850	0.2604	15.751	0.5199	226.21	0.6248	15.505	0.5009	254.90	8.675	43.575
2.700	0.000	31.606	11.934	268.28	7.664	16.269	1.919	0.2634	16.897	0.5244	236.64	0.6274	15.368	0.5023	267.55	8.769	43.420
2.800	0.000	31.994	12.154	292.44	8.354	16.188	1.988	0.2685	18.066	0.5309	246.83	0.6347	15.222	0.5058	280.16	8.826	43.310
2.900	0.000	32.066	12.327	317.58	9.072	16.106	2.056	0.2768	19.256	0.5387	256.31	0.6479	15.087	0.5139	292.22	8.836	43.029
3.000	0.000	32.137	12.501	0.000	0.000	0.000	0.000	0.0000	0.000	0.0000	0.000	0.0000	0.000	0.0000	303.93	0.000	0.000