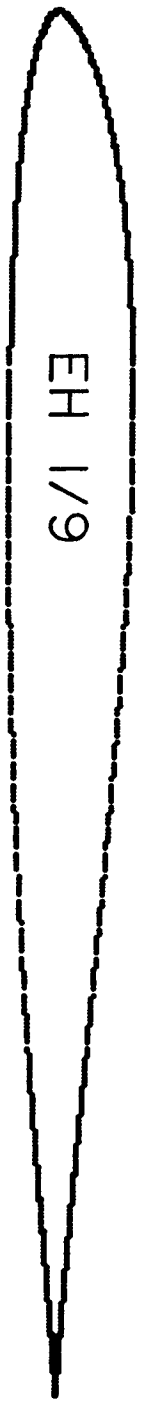
THE EH SERIES OF AIRFOILS

Three new airfoils this month, all for swept 'wings, and all designed by John Yost. The EH 1.0/9.0 is for F3B, the EH 1.5/9.0 for F3E and thermal duration, and the EH 2.0/10.0 for situations requiring more stable, higher lift 'wings. These sections are for use on constant chord wings of moderate sweepback, about 20^{o}. Very little twist is needed due to their slightly positive pitching moments. All are capable of very high performance when used with the proper airframe.

EH 1.0/9.0

X	Yu
100.0000	0.0000
99.6057	0.0150
99.1144	0.0412
98.4292	0.0870
97.5528	0.1533
96.4888	0.2385
95.2414	0.3411
93.8153	0.4606
92.2164	0.5974
90.4508	0.7522
88.5257	0.9252
86.4484	1.1162
84.2274	1.3243
81.8712	1.5482
79.3893	1.7866
76.7913	2.0379
74.0877	2.3002
71.2890	2.5715
68.4062	2.8493
65.4508	3.1310
62.4345	3.4136
59.3691	3.6938
56.2667	3.9680
53.1395	4.2324
50.0000	4.4828
46.8605	4.7149
43.7333	4.9242
40.6309	5.1063
37.5655	5.2568
34.5492	5.3716
31.5938	5.4669
28.7110	5.4791
25.9123	5.4655
23.2087	5.4041
20.6107	5.2936
18.1288	5.1338
15.7726	4.9255
13.5516	4.6708
11.4743	4.3724
9.5492	4.0341
7.7836	3.6606
6.1847	3.2578
4.7586	2.8317
3.5112	2.3893
2.4472	1.9387
1.5708	1.4910
0.8856	1.0617
0.3943	0.6667
0.0987	0.3149
0.0000	0.0000

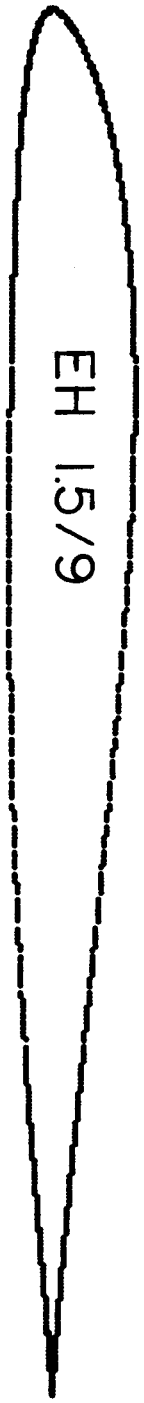


X	Yl
0.0987	-0.2963
0.3943	-0.5931
0.8856	-0.8987
1.5708	-1.2080
2.4472	-1.5094
3.5112	-1.7932
4.7586	-2.0548
6.1847	-2.2927
7.7836	-2.5071
9.5492	-2.6985
11.4743	-2.8678
13.5516	-3.0159
15.7726	-3.1439
18.1288	-3.2530
20.6107	-3.3439
23.2087	-3.4171
25.9123	-3.4730
28.7110	-3.5120
31.5938	-3.5340
34.5492	-3.5392
37.5655	-3.5271
40.6309	-3.4974
43.7333	-3.4498
46.8605	-3.3839
50.0000	-3.2996
53.1395	-3.1970
56.2667	-3.0766
59.3691	-2.9394
62.4345	-2.7865
65.4508	-2.6196
68.4062	-2.4406
71.2890	-2.2513
74.0877	-2.0561
76.7913	-1.8562
79.3893	-1.6552
81.8712	-1.4561
84.2274	-1.2621
86.4484	-1.0759
88.5257	-0.9003
90.4508	-0.7377
92.2164	-0.5896
93.8153	-0.4568
95.2414	-0.3394
96.4888	-0.2379
97.5528	-0.1532
98.4292	-0.0870
99.1144	-0.0412
99.6057	-0.0150
100.0000	0.0000

ZLA = -0.37°
Cmo = 0.00088
Thickness = 8.99%

EH1.5/9.0

X	Yu
100.0000	0.0000
99.6057	0.0191
99.1144	0.0472
98.4292	0.0925
97.5528	0.1571
96.4888	0.2411
95.2414	0.3435
93.8153	0.4636
92.2164	0.6015
90.4508	0.7579
88.5257	0.9335
86.4484	1.1283
84.2274	1.3418
81.8712	1.5731
79.3893	1.8213
76.7913	2.0851
74.0877	2.3630
71.2890	2.6531
68.4062	2.9532
65.4508	3.2604
62.4345	3.5718
59.3691	3.8838
56.2667	4.1923
53.1395	4.4927
50.0000	4.7800
46.8605	5.0490
43.7333	5.2941
40.6309	5.5097
37.5655	5.6905
34.5492	5.8310
31.5938	5.9263
28.7110	5.9720
25.9123	5.9647
23.2087	5.9018
20.6107	5.7819
18.1288	5.6048
15.7726	5.3717
13.5516	5.0852
11.4743	4.7492
9.5492	4.3686
7.7836	3.9496
6.1847	3.4996
4.7586	3.0265
3.5112	2.5388
2.4472	2.0461
1.5708	1.5616
0.8856	1.1023
0.3943	0.6855
0.0987	0.3199
0.0000	0.0000



X	Yl
0.0987	-0.2920
0.3943	-0.5749
0.8856	-0.8579
1.5708	-1.1370
2.4472	-1.4021
3.5112	-1.6446
4.7586	-1.8610
6.1847	-2.0519
7.7836	-2.2191
9.5492	-2.3651
11.4743	-2.4921
13.5516	-2.6027
15.7726	-2.6992
18.1288	-2.7835
20.6107	-2.8571
23.2087	-2.9211
25.9123	-2.9757
28.7110	-3.0210
31.5938	-3.0567
34.5492	-3.0820
37.5655	-3.0957
40.6309	-3.0963
43.7333	-3.0824
46.8605	-3.0324
50.0000	-3.0050
53.1395	-2.9395
56.2667	-2.8552
59.3691	-2.7523
62.4345	-2.6313
65.4508	-2.4933
68.4062	-2.3401
71.2890	-2.1736
74.0877	-1.9968
76.7913	-1.8125
79.3893	-1.6241
81.8712	-1.4350
84.2274	-1.2484
86.4484	-1.0678
88.5257	-0.8961
90.4508	-0.7361
92.2164	-0.5397
93.8153	-0.4578
95.2414	-0.3410
96.4888	-0.2402
97.5528	-0.1569
98.4292	-0.0925
99.1144	-0.0473
99.6057	-0.0191
100.0000	0.0000

ZLA = -0.55°
Cmo = 0.00073
Thickness = 9.0%

EH 2.0/10.0

X	Yu
100.0000	0.0000
99.9013	0.0048
99.6057	0.0201
99.1144	0.0512
98.4292	0.1034
97.5528	0.1776
96.4888	0.2732
95.2414	0.3882
93.8153	0.5226
92.2164	0.6769
90.4508	0.8525
88.5257	1.0509
86.4484	1.2720
84.2274	1.5146
81.8712	1.7779
79.3893	2.0621
76.7913	2.3658
74.0877	2.6869
71.2890	3.0239
68.4062	3.3745
65.4508	3.7353
62.4345	4.1028
59.3691	4.4729
56.2667	4.8408
53.1395	5.2007
50.0000	5.5469
46.8605	5.8724
43.7333	6.1704
40.6309	6.4340
37.5655	6.6565
34.5492	6.8308
31.5938	6.9509
28.7110	7.0114
25.9123	7.0079
23.2087	6.9369
20.6107	6.7966
18.1288	6.5869
15.7726	6.3097
13.5516	5.9683
11.4743	5.5674
9.5492	5.1135
7.7836	4.6144
6.1847	4.0789
4.7586	3.5179
3.5112	2.9432
2.4472	2.3639
1.5708	1.7959
0.8856	1.2648
0.3943	0.7710
0.0987	0.3423
0.0000	0.0000

X	Yl
0.0987	-0.3049
0.3943	-0.6232
0.8856	-0.9378
1.5708	-1.2279
2.4472	-1.5023
3.5112	-1.7470
4.7586	-1.9587
6.1847	-2.1421
7.7836	-2.2994
9.5492	-2.4335
11.4743	-2.5484
13.5516	-2.6479
15.7726	-2.7353
18.1288	-2.8139
20.6107	-2.8854
23.2087	-2.9511
25.9123	-3.0115
28.7110	-3.0664
31.5938	-3.1155
34.5492	-3.1570
37.5655	-3.1891
40.6309	-3.2094
43.7333	-3.2158
46.8605	-3.2056
50.0000	-3.1765
53.1395	-3.1269
56.2667	-3.0558
59.3691	-2.9627
62.4345	-2.8476
65.4508	-2.7117
68.4062	-2.5563
71.2890	-2.3841
74.0877	-2.1981
76.7913	-2.0018
79.3893	-1.7985
81.8712	-1.5929
84.2274	-1.3892
86.4484	-1.1904
88.5257	-1.0001
90.4508	-0.8227
92.2164	-0.6605
93.8153	-0.5142
95.2414	-0.3844
96.4888	-0.2716
97.5528	-0.1770
98.4292	-0.1032
99.1144	-0.0512
99.6057	-0.0201
99.9013	-0.0048
100.0000	0.0000

ZLA = -0.74^{o}
Cmo = 0.00165
Thickness = 10.07%