

(Continued from page 5)

COMPARISON OF N.A.C.A. 4412 AND R.A.F. 34

Section Characteristics, Aspect Ratio=Infinity:	NACA TR 460	NACA TR 628
	NACA 4412	RAF 34
$C_{L\ max}$	1.65	1.58
α AT $C_{L\ max}$	16°	20.5°
α_L	-3.9°	-0.8°
a_0 =slope of lift curve per degree	.100	.098
$C_{L\ max}/C_{D_0\ min}$	179	222
C_{M_0} (moment coefficient for aerodynamic center)	-.089	-.006
Wing Characteristics for Aspect Ratio 6:		
$C_D\ min$.0096	.0072
(L/D) $_{max}$	22.1	22.5
C_L at (L/D) $_{max}$.40	.38
Thickness at 15% chord	10.77%	10.88%
" " 65% "	8.28%	8.55%
Center of Pressure Maximum Forward Position	31%	27%
Center of Pressure at .25 $C_L\ max$	45%	28%
Effective Reynolds Number of Test	7,500,000	8,000,000
Center of Pressure at $C_L\ max$	31%	27%
Maximum Thickness of Section	12%	12.64%
Camber	4%	1.8%
Aerodynamic Center Ahead quarter-chord point	0.8%	0.4%
Aerodynamic Center Above quarter-chord point	2%	5%
$C_L\ opt.$ at $C_D\ min.$.32	.20
Year of Test	1931	1932

The Aeronca Glider



These pictures of the new Aeronca Glider show how the standard Defender model was altered to create a glider. The bottom picture shows Major Lewin Barringer about to test fly the glider for the Army.

ON SOARING FLIGHT

(Continued from page 8)

circlings, those mad wheelings which give one the vertigo merely to watch them. Sometimes those nearest, not quite sure of perfect safety, return upon an upward glide, and thus a broad, horizontal layer of vultures serves as a base for this interminable whirling column. This continues until the surrounding country has been thoroughly examined and the carcass is deemed accessible, when the hungriest dart down upon it." From this it appears that the birds in the act of descending and when restrained through fear have it in their power to stop and remain in the air indefinitely over any given locality. It is a common occurrence for numbers of vultures to be drawn together through the mere chance of obtaining a meal. Thus a single vulture, flying low and inspecting every nook below for prey, pauses to reconnoiter, and begins soaring round and round above some spot. In an incredibly short time the air will be filled with birds, all soaring and intent on finding the supposed carcass. Failing in this, the search is abandoned. Little by little the birds collect into a close cluster above the spot which chance alone selected. For a time they scarcely seem to rise at all; then they go higher, suddenly, rapidly, unexpectedly, as if caught upon a rising swell of air. For such occurrences the theory of ascending currents naturally produced fails to satisfactorily account.

(To be continued)

