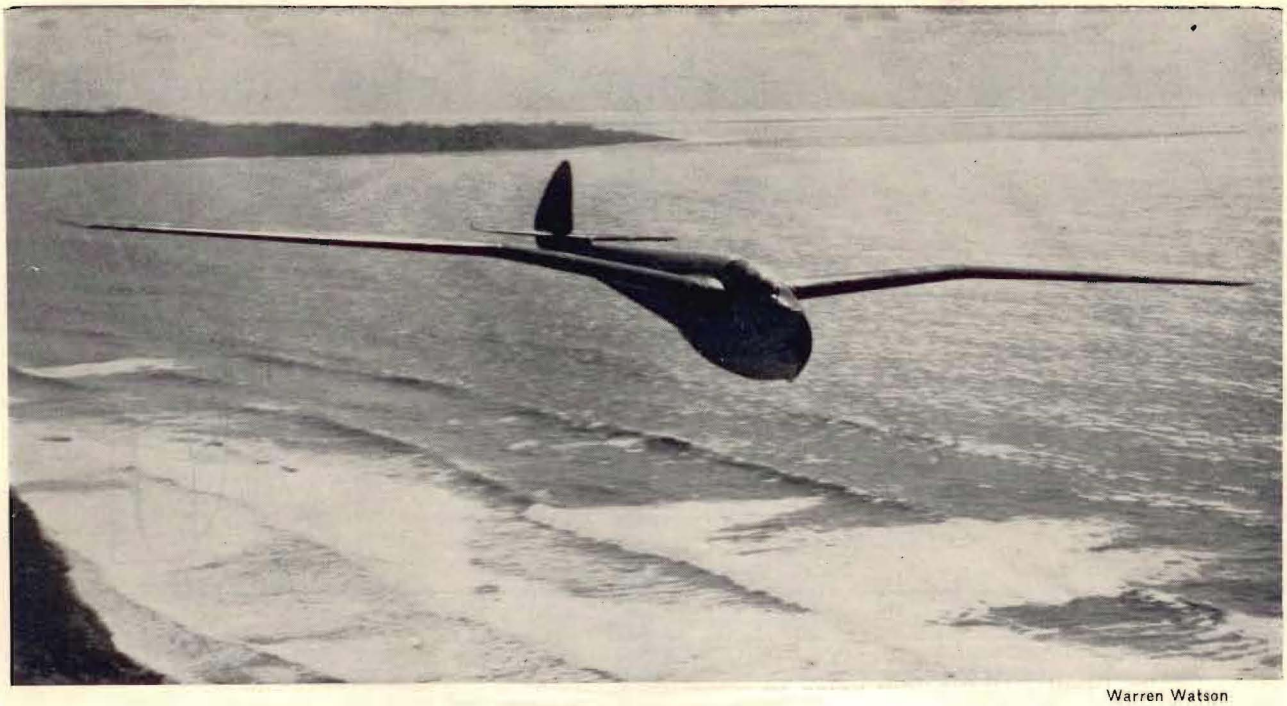

Warren Watson

ROSS-STEPHENS "ZANONIA"

THE RS-1 was designed and built in 1937 for Harvey Stephens by Harland Ross. After being damaged in a landing, the ship was sold to Woody Brown, who rebuilt it with the help of Ross, and made several outstanding flights in it. The RS-1 was next sold to John Robinson, who named it "Zanonia." Piloted by Robinson, the "Zany" has been America's outstanding record breaker, holding the distance record almost continually for the last ten years, and recently capturing the international record for absolute altitude (33,300 ft.) The "Zany's" longest cross-country flight is 325 miles, and greatest altitude 33,800 ft. Robinson and the "Zanonia" have been national champions three times.

The RS-1 was the first of the small-span sailplanes built in this country, and undoubtedly the best. The ship is also credited with starting the shoulder-wing trend in American design.

TABLE OF DATA

MEASUREMENTS—(Feet)	
Span	46
Length (Overall)	20.5
Height (Overall)	6
Fuselage Width (Overall)	0.91
Fuselage Height (Overall)	4
AREAS—(Sq. Ft.)	
Wing Area (With Aileron)	125
Aileron (Total)	15
Flaps (Total)	
Spoilers (Total)	3.12
Fuselage Cross-Section Area	4.6
Stabilizer	7.18
Elevator	11.5
Horizontal Tail Area	18.68
Fin	0.76
Rudder	10
Vertical Tail Area	10.8
WEIGHTS—(Pounds)	
Empty	330
Pilot and Chute	182
Extra Equipment	99
Total	611
Pilot/Empty	0.55

WING	
Wing Planform	Taper
Sweepback	0°
Dihedral	
Gull	Yes
Root Chord	46"
Half Span Chord	32"
Tip Chord (1 foot from tip)	18"
Aspect Ratio	17
Load Factor	8
Taper Ratio	2.66
AIRFOIL SECTIONS	
Wing Root	NACA 2418
Wing Half Span	Straight Taper Root to Tip
Wing Tip	2409
Horizontal Tail	Sym.
Vertical Tail	Sym.
Angle of Incidence to Fuselage	4°
Washout	3.5°
Winch Tow	Yes
Auto Tow	Yes
Airplane Tow	Yes
Aerobatics	Yes

PERFORMANCE	
Glide Angle (Maximum)	30 ~~28.8~~
Minimum Sink ft./sec.	2.3
Airspeed at Best Glide Angle	47 mph
Airspeed at Best Sink	42.5 mph
Maximum Design Speed	
Wing Loading (Test Flight)	4.9 lbs./sq. ft.
Span Loading (Test Flight)	3.0 lbs./sq. ft.

CONSTRUCTION AND MATERIALS	
Wing—Wooden Structure, etc.	Wood
Fuselage	Wood
Horizontal Tail	Wood
Vertical Tail	Wood
Landing Gear	Skid

AERODYNAMIC CHARACTERISTICS	
Min. Drag Coeficient	0.0128
Efficiency Factor	70.5%