



Schweizer SGS 1 - 29

Drawn by Martin Simons 1996 ©
From information supplied by Schweizer Aircraft Corpn.

with orthodox methods of metal construction. We aimed at deviations from the exact contour of the profile of no more than 0.003 to 0.005 in.

The wing spar was built for higher 'g' forces so that we would not get 'oil-canning' in normal flight. The sailplane was completed in August 1958, and evaluated in comparison flight tests with an 1-23G. Even with bare metal skin on the wing, it was found to have a substantially better glide ratio and high-speed performance. We then filled and painted the wing, and were confident that we had achieved the expected proportion of laminar flow.

I flew the 1-29 in the 1959 National Contest to compare it with other 15 m sailplanes. It was a contest in which thermals were generally rather weak, and in these light airs Dick Johnson won, flying an old, wooden, pre-Second World War Weihe. I finished seventh in the Open Class. On a 'free distance' task day the 1-29 proved its worth when I achieved 267 miles (429 km), landing at Greene, Rhode Island. It was the best flight of the day. A Ka 6 flown by Kit Drew won the Standard Class.

I had good opportunities to compare the 1-29 with the Ka 6 in the 1961 Nationals, held at Wichita, Kansas. A Ka 6 pilot and I flew along together for many miles. He could outclimb me in each thermal, but I would get to the next thermal above him. This continued until our chosen routes diverged, and I landed in Nebraska. The 1-29 was flown in contests by a number of other pilots, including Bill Ivans, Tom Smith and Les Schweizer, Ernie's son.

We had proved the aerofoil section and our methods of construction. At a late stage we felt that directional control would be improved by adding a dorsal fin, and this was done, but the sailplane had by then served its purpose and did not do a great deal of flying afterwards. The 1-29 was eventually donated to the National Soaring Museum.

Schweizer SGS 1-29

Total number built: 1

Specification

Span	49.2 ft	15.0 m
Length	20.75 ft	6.32 m
Wing area	153.8 ft ²	14.29 m ²
Aspect ratio	15.75	
Aerofoil section	NACA 63 ₃ 618	
Empty weight	495 lb	224 kg
Pilots	255 lb	115.6 kg
Flying weight	750 lb	340 kg
(maximum)		
Wing loading	4.87 lb/ft ²	23.7 kg/m ²
(maximum)		
Best L/D	34:1 at 52 mph	83.7 km/h
Minimum rate of sink	2.05 ft/sec at 43 mph	0.62 m/sec at 69.2 km/h

RIGHT: Another view of the original SGS 1-29 being prepared by flight crew for its first test flight. This angle shows the wing not yet filled or painted.



