

WILFRED C. SCHUEMANN (2006)
(1937 -)



When Wil Schuemann entered the sport of soaring in the early 1970s, his first sailplane was a Libelle H301. Being the brilliant engineer, skilled craftsman and irrepressible perfectionist that he was, he soon launched a project of improving the performance of this sailplane. His modifications included the wing profile, the nose design and a more efficient ventilation system. As with all talented engineers, he sought experimental verification of his efforts. Thus followed extensive flight comparisons with A.J. Smith's ASW-12 demonstrating the modified Libelle to be comparable to the ASW-12 at 80 knots and even slightly better at 100.

The August 1974 *Sailplane Directory, Soaring*, page 52 lists the specifications of the Schuemann Libelle as follows: Span 49.2 feet, wing area 108 sq ft., aspect ratio 22.5, airfoil – Wortmann 67.K.153, empty weight 480 lbs, payload 360 lbs, gross weight 849 lbs., wing loading 6.0 to 7.8 psf and a fiberglass structure. L/D max is 40 at 60 mph for a wing loading of 6.5 psf. Minimum sink of 2.0 fps is at 50 mph. Sink of 6 fps is at 101 mph. Much of the performance improvement was accomplished by reducing the turbulence and flow separation over the surfaces of the sailplane.

In 1976 the Schuemann Libelle shown in the picture above won the First U.S. National 15-Meter Soaring Championships flown by owner Joe Emons of Alton, IL.

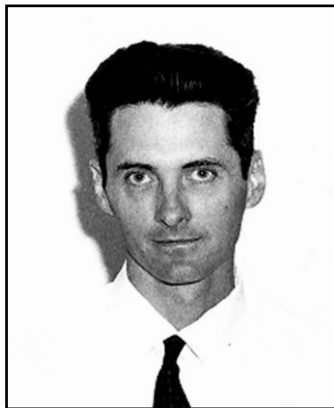
Wil soon moved on to developing soaring instrumentation improvements and in 1973 formed a “cottage” industry known as Sage Instruments for the production of total energy compensators. In 2006 these devices were still unexcelled in providing fast, damped and accurate total energy compensation signals for variometers.

Never afraid to question the Holy Grail, Wil was the first to show that the classic MacCready theory of cross-country flight was, in reality, impossible to achieve. He wrote a 1976 *Soaring* magazine article showing why the universally held concept was flawed and proposed an alternative to it.

In 1977 Wil added variometers to his product line. These instruments featured a unique “taught wire” design that made them superior to anything produced then or since. These instruments are still available today from a company that continued production when Wil moved on.

1977 was also the year that the ASW-12 he owned became the focus of some major research and development. He shortened the span to 15 meters, experimented with winglets and improved the ventilation, these being in addition to earlier modifications that added water ballast and a second landing drag chute.

He also continued his insatiable quest to reduce drag (and thus increase performance) by studying bird flight. This led in 1980 to his theory that inward lateral air flow at the trailing edge was a source of drag that could be reduced by sweeping back the wing tips. In 1981 he again put the venerable ASW-12 under the knife, cutting off the outer six feet of the wings and installing swept back replacements. The sailplane flew in the 1982 15-Meter Nationals at Elmira placing 13th.



Wil Schuemann earned Silver #974 in 1965, Gold #377 in 1967 and Diamond #101 (Intl #727) in 1969. He was awarded the Exceptional Achievement Award first in 1974 and again in 1986. He earned the Giltner Trophy in 1984.

Much of the above was adapted from Karl Striedieck's nomination of Wilfred C. Schuemann to the United States Soaring Hall of Fame in 2006.

To quote Karl further and more precisely –

“The soaring community is a better place for Wil's time with us. He brought a very rare combination of manual dexterity, high IQ, probing intellect and commitment to exploring the unknown that produced amazing and significant accomplishments.”