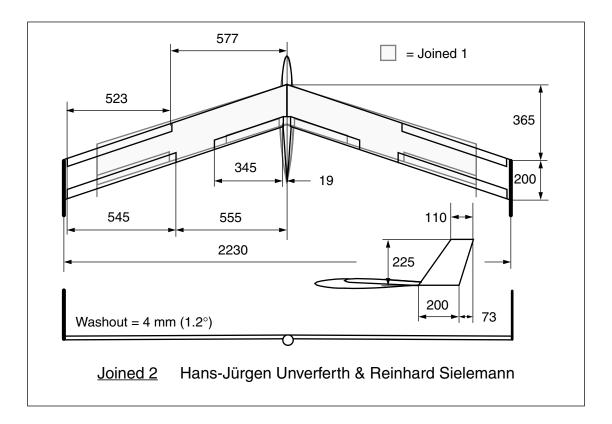
Hans-Jürgen Unverferth's "Joined 2"

Hans-Jürgen Unverferth is a dedicated and ardent enthusiast of tailless planforms. In an attempt to better the world speed record for RC sailplanes, he developed a relatively small swept wing glider called "Joined 1." We provided some information on this high performance sailplane in the April 1996 issue of *RC Soaring Digest*.

There are a couple of notable differences between "Joined 1" and "Joined 2." First, "Joined 1" used no wing twist at all, while "Joined 2" uses 1.2 degrees (4 mm), with the twist beginning at half span. Second, in an effort to improve landing characteristics, "Joined 2" incorporates a moveable leading edge on the outer portion of each wing.

The moveable leading edge is depicted in a photograph on the following page. The fin has been removed from the end of the wing, and the cross-section perspective shows both the moveable leading edge and the elevon.



"Joined 1" was clocked at an unofficial speed of 360 kph, or 223.7 mph. This is over a 200 meter course at an altitude below 50 meters! Hans-Jürgen said that during the record attempt he simply got the airplane lined up on the course and let go of the sticks, as any control movement at speed led to some pretty wild oscillations!

The measured speed of "Joined 2" was substantially lower, 260 kph, or 161 mph, but was much easier to fly and land. "Joined 2" is currently on display at a museum in Munich, Germany.

Next time, Hans-Jürgen's thoughts on the future of tailless sailplanes.



Photo of Joined 2, with winglet removed, showing moveable leading edge, elevon, and winglet mounting method. EH 1.0/7.0 airfoil is used.