



Connecticut Flitzer Werke



Roll Control for Morrisov Machine

The Morrisov machine was moved to the Connecticut Flitzer Werke's main test assembly room in the Baronial Hall in East Hampton for integration of its fly-by-wire aileron roll control system. The multi-stranded wires were measured, fitted with Nicopress clamping sleeves and turnbuckles, and engineer Matthew Morrisov, brought in especially from the UK, reported 100% accuracy in aileron activation.

"It was unbelievable. I have never seen anything go together so well," he said. "To get that sort of precision is a credit to the dedicated staff at the Connecticut Flitzer Werke who are sparing no effort in resurrecting the Morrisov machine. "I would say we were working to about four thousands of an inch. It just shows that CAD/CAM really isn't necessary today."

Flitzer: the Link with the Past - Staaken

A rare photograph from the Morrisov archive shows an early Staaken Flitzer Goblin biplane posing with the giant, 18-passenger Staaken E.4/20 airliner, just before Baron Morrisov delivered the diminutive aircraft to a customer in Czechoslovakia in 1926.

The airliner had been ordered destroyed by the Allies as it contravened the Versailles Treaty on German aviation development, but it seems it escaped intact for some years afterwards. The Goblin still survives and resides in a private collection outside Prague

Morrisov was well known in Czechoslovakia through his international sporting activities in his Staaken Z-21 Flitzer, which was painted in the blue and white diamonds of the Bavarian flag and which carried the famous skull and crossbones of Kazakov's squadron on its tail, harking back to Morrisov's long fight against the Bolsheviks.



Family resemblance: just look at the noses! The Czech Goblin poses next to the E.4/20.

The photo of the Staaken airliner and Goblin is itself interesting in that it is a fragile daguerreotype (made of silver plate on copper), requiring a long time exposure. And over time it has taken on

a grainy appearance as the silver plate oxidizes and eats into the image itself. The photograph has now been stabilized and preserved for posterity. (Photos: Morrisov family archive).



The Czechoslovakian Flitzer Goblin still survives.

Trial Assembly: It's Not Called a Trial For Nothing



None of the assemblies arrived in the Connecticut Flitzer Werke's pre-test assembly room pre-stuffed, so engineers had to install the undercarriage and fly-by-wire aileron control systems.

The Baroness, ever gracious, softened the delays by serving special schnapps from the monastery at Andechs, while bidding the workers to speed their work so she could reclaim her dance studio.

All the structures fitted perfectly. However, a shortage of fasteners dictated that the wings be held on by common baggage straps until proper means of attachment are available.



*“Firm orders stand at one, with options on several different lifestyles if no more are commissioned from the Connecticut Flitzer Werke.”
—the Baroness.*



Morrisov Machine's Spar Mod



Upper wings hang happily on the Werke bench.

In a parallel universe some 2,500 nm from Seattle, the Connecticut Flitzer Werke is strengthening the main wing box of the Morrisov machine.

Reinforcing the upper main spar will allow an increase in gross weight to 750+ lbs, but more importantly will conform with the old UK Semi-Aerobatic category with an ultimate load limit of 6.6 g. The improvements have been incorporated into a brand new delivery schedule, so the Morrisov machine will still be delivered on time.

While current machines and those whose main wing boxes have been manufactured require retrofit, all future Flitzers will have changes incorporated in the main drawings.

The Baron remains the sole program manager at the Connecticut Flitzer Werke and he alone has the authority and responsibility for supply chain management and manufacturing, including all modifications and their impact on the delivery schedule. That isn't going to change, even as the Baroness calls for more accountability over program slippage i.e. "How much longer is this going to take?"



The upper rear spar before the mod begins.



Rib structure is cut away and reinforcing strips glued on.



Reinforcing strips are boxed in with 1.5 mm plywood.

Ribs reconstructed, and good to go to 6.6 g for gentlemanly aerobatics on a Sunday afternoon.



UK sailplane supremo Les Blows was instrumental in fitting the elevator control system during his visit.



“Without them there would have been no one to blame but myself.”



No shortage of fasteners here! Brother Matthew Morrisov pours the T88 epoxy glue.

Help From Overseas

With engineers around the world from Beijing to Mumbai clamoring to work on the Morrisov machine, the Connecticut Flitzer Werke decided to limit foreign participation to traditional transatlantic partners. Two contracts were awarded, both in the UK, to sailplane pilot *par excellence* and engineer Les Blows, and to Baron Morrisov's younger brother, Matthew, a skilled builder of racing cars.

Both were assigned to analyze, assemble and install critical fly-by-wire flight control systems on site in East Hampton: Blows, the elevator control cables, and the younger Morrisov the aileron roll control system.

Matthew Morrisov also contributed to construction and assembly of critical undercarriage assemblies.

“Crikey,” he said. “I got only one chance at drilling that hole in the axle. My mouth went really dry knowing that if I did it wrong it we would scrap the whole assembly.”

As the Baron said: “I’m glad it wasn’t me.”



The younger Morrisov pumps iron before a gruelling day at the Flitzer Werke bench



Ian Wasey's superb brakes could stop a flapper in her tracks. And a Flitzer.

*Fuel Tank,
Undercarriage
Ready to Go!*



The 14 gallon (U.S.) fuel tank boasts a rotating gauge and a vent for inverted flight.



The Baron caught in an uncharacteristically undignified pose.

From the Morrisov Collection



On delivering the Flitzer Goblin to Czechoslovakia, Baron Morrisov was invited to test fly the Aero A.18C racer, a radically modified version of the A-18 fighter then in service.

The A.18C featured wings clipped to a Flitzer-like length of 18.7 ft, and extensive airfoil-shaped radiators to cool the 300 hp Walter piston engine that propelled it to 170 mph. But its weight wasn't reduced at all: it tipped the scales at 2,028 lbs, for a wing loading of

19 lbs per sq ft—nearly three times that of the Morrisov machine's 7.2 lbs per sq ft.

The Baron's flight test report is lost, but no doubt he found the performance demanded every bit of his attention as he shut the throttle and found the Aero would descend much faster than a brick.

Whether he felt sheer terror or exhilaration isn't known, but on the back of the photographs in the Morrisov collection he inscribed the single word "Horrido!"

He Flew the Aero Racer...

"Horrido!"



and the Staaken Airliner, too.



Morrisov (far right) flew at least once as co-pilot on the Staaken E.4/20 airliner. According to letters in the Morrisov archive his final pre-takeoff duty was to pull up the ladder, lock the front door and turn off the lights.

A previously unpublished photo of the Staaken E.4/20 clearly shows the use of war-surplus fabric.