

# Perfecting Perfection:

## Tony Smith's Ultimate Jungmeister

**Budd Davisson**

**Photos Jim Koepnick**

**I** wasn't trying to restore it to original condition," says Tony Smith in his delightfully English accent. "I'd already done that a number of times to a number of different Bückers. Airplanes are meant to be flown, and as I found out from my first, very original Jungmeister, even the perfect airplane, the Jungmeister, isn't perfect. So, when I restored this one, I improved those things I'd found to be less than perfect."

Tony is talking about the Bucker Jungmeister (pronounced young-my-ster; in English: young master) Bu-133 he'd flown down from his winter home on the Leeward Air Ranch in Ocala to the 2005 Sun 'n Fun Fly-In, in Lakeland, Florida. He's a self-proclaimed "long range snowbird" in that he winters at his place on the Air Ranch but calls North Yorkshire, England, home. So, yes, his commute to his away-from-the-snow refuge is longer than most. His route to the perfect Jungmeister is also longer than most.

Jungmeisters, in general, are a rare and highly sought-after breed. Few, however, have such a long and wonderfully circuitous gestation. This particular one began with plastic model airplanes, which evolved into a business, gave birth to the likes of Mustangs and Spitfires, and finally began to shape itself from a pile of refuse glimpsed in the dingy gloom of a west Texas hangar.

Tony Smith is well known in the United Kingdom partially because of the air show displays he has given



**For those who haven't seen a Bucker taken apart, everything about both the wings and the fuselage literally screams "light," which also translates as "fragile."**

in everything from his Spitfire (since replaced with a Mustang) to his first and very original Jungmeister.

"The Jungmeister is such a predictable snapping airplane that I would land, yank it off into a snap roll, and land again. I did over a thousand snap rolls preparing for that one."

One of the secrets to the Jungmeister's snap roll, and part of its original 1934 design, is its rather unorthodox (for a biplane) wing rigging. Where most biplanes have the top wing set up with a higher angle of inci-



dence than the bottom wing so the top one stalls first, which forces the nose down in a stall, the Jungmeister is exactly the opposite. The top wing actually has a slightly negative angle of incidence, while the bottom wing is at zero. This contributes to the legendary ability of the Jungmeister to easily stop a snap roll anywhere the pilot wants, with a minimum of fuss. This is decidedly different than most other aerobatic airplanes, which require finesse, practice, and sometimes just a little luck.

**The Olympic rings logo highlights the history of the Bücker during the turbulent times prior to WWII, when aerobatics were part of the 1936 Munich summer games.**

Where the two-seat Jungmann was designed to teach neophytes how to fly, the Jungmeister was designed specifically to let them explore the absolute limits of 1930s aerobatic flight. Champions around the world chose the Jungmeister as their mount.

Tony's a Welshman, and proud of it, and came

into aviation initially, as many do, through model airplanes. However, his first real exposure to airplanes was anything but typical: joining the Royal Air Force (RAF) at 18, he became part of a special quick-response safety team.

"It was our job to parachute into an area needing instantaneous response, specifically crash sites or lost nukes. We were moved all over the world, but I spent much of my time in the Middle and Far East, moving from base to base as the job required."

Tony spent seven years in the RAF. After that his passion for building plastic (polystyrene, actually) models led into his developing a plastic packaging business that consumed his life until 1985.

"I had always wanted to learn to fly, but the time and money just wasn't available. I was married in '69, had two girls, Katy and Samantha, and a boy, Jeremy, and just couldn't fit flying in."

When he finally did start flying, he went at it with something much more extreme than a mere vengeance.

"My first airplane was a 90-hp Super Cub, but in '87 I got my first of four Jungmanns. It was a CASA with the Tigre engine, which I have always thought was much misunderstood and underrated."

He underscored his faith in the Tigre engine when he flew a Jungmann from

Darwin, Australia, to England. And no, that's not a typo.

"I had a big fuel tank installed in the front seat, putting me 200 pounds over gross on takeoff. The longest over-water leg was 600 miles, and this was before GPSs. Using a compass only, I was only 15 miles off course when I made landfall.

"The biggest problem of the trip was the politics and paperwork. The trip took 12 flying days, but I was gone a total of 21, with the rest being consumed filling out forms and seeking permission to fly through foreign airspace."

Over the years, Tony quickly became something of a Bucker scavenger because, among other things, he enjoys working on the airplanes himself.

"I'm never happier than when paddling around in buckets of butyrate dope. Because of that, the airplanes are never off my mind, and I'm always looking for parts. At that time, a large percentage of the existing CASA Jungmann parts were owned by Marcus Bates, in Odessa, Texas, and it was while visiting him, looking for an engine, that the second Jungmeister got its start."

Prior to that time Tony had acquired a nearly 100 percent original ex-Swiss air force Bucker-built Jungmeister and loved it dearly. Even so, there were things about the airplane that he felt could be improved upon, but he wasn't going to modify such an original airplane. He had too much respect for history to do that.



He'd always wanted to build the "ultimate" Jungmeister, and when standing in Marcus Bates' hangar in Texas, sifting through piles of parts, his dream took some serious steps toward reality.

"Although Marcus was selling primarily Jungmann parts, while I was digging through his piles of 'stuff,' I'd periodically run into a Jungmeister part. When I started looking closely, it became obvious that between what he had and what else I knew was available, I had the makings for a complete Jungmeister airframe with one exception, the basic fuselage."

Lacking at least a rusted fuselage for a pattern has stopped many restoration projects in their tracks, but Tony had a way around something as minor as a missing fuselage. Years ago, when a Jungmeister crashed in the United Kingdom, master craftsman Mark Jefferies built a fuselage jig using drawings acquired from Texan Frank Price



**Short and a bit stubby, but oh so, well-mannered, the Bucker Jungmeister has been renowned for years for its amazing aerobatic qualities. Englishmen Tony Smith has chosen to paint his Jungmeister in the nationalistic markings of a pre-WWII German flying club.**



**The unusual control stick of the Jungmeister is center stage in the pilot's cockpit. The lightweight, multi-tube German construction of the Bücker is also exposed to those who are privileged to fly the biplane.**

(why do Texans figure so prominently in the history of German biplanes?). England's sport aviation certifying organization, the PFA, was heavily involved in that project and, in fact, granted permission for six fuselages to be built. The important part of this tale is that Mark Jefferies is a friend of Tony's, and there was at least one fuselage available. Problem solved. Sort of.

"I collected as many of the bits and pieces as I could from Marcus and found I had original wings, landing gear, instrument panel, and tail, along with many other ancillary pieces. Also, Bitz in Germany had a wide selection of parts, most of which were new."

The bushels of miscellaneous assemblies and broken wood were taken to Tony's shop in England.

"When we examined the wings closely, it became obvious that, while the fittings were all reusable, most of the wood was not."

For those who haven't seen a Bücker taken apart, everything about both the wings and the fuselage literally screams "light," which also translates as "fragile." There are dozens and dozens of tiny tubes and sticks of wood that are easily broken and prone to environmental damage.



**Tony Smith dons his face mask with microphone before heading off on another enjoyable flight with his Jungmeister.**



**Tightly fitted control surfaces and, in the case of the rudder, a gap seal contribute to the well-balanced feel of the Jungmeister's controls.**

**Below: Wheel covers for airplanes have been given a variety of names, but in this case, "wheel spats" certainly seems to fit the character of the Bücker.**

"In the end, we built all new spars, ribs, and rebuilt the ailerons. Everything else, however, including the aluminum tip bows, was absolutely salvageable."

When viewing an airplane such as a Jungmeister and intending to fly it as often as possible, it's easy to see why Tony wanted to make a few modifications. 1934 systems are not known for either their reliability or their suitability in today's operating environments.

"The brakes, for instance, were terrible and would barely stop you at the gas pumps. We also installed a Christen wobble pump that includes a quick drain and the ability to switch from a normal fuel tank pickup to the flop tube for aerobatic flight. It's a very nice unit.

"Since I was planning on flying



the airplane fairly hard in aerobatics, weight was something we really paid attention to, which is why I got rid of the battery. It was just too heavy. At the same time, we installed an auxiliary power plug for the starter.

"We also converted the old reserve fuel tank to hold smoke oil and installed a really good smoke system. After all, you can't have an air show airplane that doesn't make lots of smoke."

One of the areas Tony felt really



needed improvement was the engine. The original seven-cylinder, 160-hp Siemens was a fine-running engine, but it was extremely limited in its ability to pump the ponies out, and things got quiet quickly when the nose came up and the speed went away. Here again, Texan Frank Price came to the rescue. (Texans can't have an underpowered airplane. It's against state law.)

In the '60s and '70s Frank Price was a larger-than-life air show figure who always left the crowd shaking its collective head over his snap roll on takeoff in his 260-hp, Lycoming-powered Jungmeister clone. However, prior to the Lycoming/Bücker, Price flew a 185-hp, Warner-powered Great Lakes, and the Warner was only slightly larger than the Siemens in the Bücker, something that didn't escape Tony Smith's notice.

"I located a 185-hp Warner Super Scarab that had only 50 hours since a major overhaul. I put an Ellison throttle body on it that supposedly brings the power up to 200 hp. Since then I've put 200 hours on it. Everything about it works great. The oil system doesn't even flicker when I roll upside down, which I do a lot. After all, fun comes first."

According to Tony, when covering a Bücker, it's important to keep the general fragile nature of the airframe in mind because overtight fabric can actually crush it or bend it out of shape. He used Ce-

conite that is only pulled up semitaut with the iron before doping. The rest of the tightening is done by medium-tautening dope.

"The paint scheme is that of a pre-war, civilian flying club, although obviously we had to use a U.K. 'G' number rather than a German 'D.' I didn't have to re-register it here because the FAA is very good about foreign registered airplanes in the U.S. that are being operated by foreign owners. Their feeling is that, if it's okay in the U.K., then it's okay here."

The paint used was nothing exotic. Just two-part automotive urethane with a little plasticizer mixed in. It looks terrific, but it should be remembered that the airplane wasn't built to be a showpiece. It was meant to be flown hard. Tony's goal of performance and lots of flying would be hampered by excess weight, and paint is where most airplanes pick up lots of unnecessary weight. He clearly knows that pounds left on the ground are the same as free horsepower.

The airplane was restored in the United Kingdom and promptly shipped to Florida, where the flying weather is more fitting to an open-cockpit airplane. Even so, it will eventually return to England, where Tony has established a flying museum, The Real Aeroplane Company (RAC), built around some of his own airplanes as well as those of friends. His website, [www.realaero.com](http://www.realaero.com),

is the portal to a truly impressive endeavor.

Tony, who is an aviation addict of the highest order, established RAC on his airstrip that's located on the site of the World War II Brighton bomber base near Selby. It was to be a haven for pilots and enthusiasts who felt stifled trying to engage in their own brand of aeronautical fun on "normal" airports. The site has grown to its current eight hangars and more than 40 flying machines ranging from Hurricanes, Spitfires, Mustangs, and the like to a wide range of antiques, including the actual Percival Mew Gull that Alex Henshaw used to set many records in 1939. It's also worth noting that Tony's L-39 was the first certified in western Europe and that he and the airplane played a starring role in the opening scenes in the James Bond film *Tomorrow Never Dies*.

So what does a person who owns such exotics as a Mustang and Percival Mew Gull buy next? Inasmuch as he has owned six Bückers, we're willing to bet the Bücker bug bites again. After all, now that he has the ultimate Jungmeister, he has to own an ultimate Jungmann just so he can share the world of the Bücker with those not so blessed.

Will he ever sell his ultimate Jungmeister?

His comment, when asked, was, "This is definitely an airplane for a lifetime."

We'll take that as a "no." 