



That "MT" feeling

Steve Boxall and Chris Jones train in the MT-03

By Steve Boxall

Wind at 25knots, windsock horizontal, chucking it down with rain. Find myself hoping for more rain, because when it isn't raining we've got sleet instead. Have I really taken precious days off work and travelled all the way to the MT-03 factory flight school in Hildesheim just to look at the weather lashing down outside? Enter Thomas Kiggen (the factory Instructor). "OK, so who wants to fly first?". It may not be the sort of weather which I choose for my single-seat flights in Yorkshire, but it's all in a day's work for these guys. Now I'm starting to understand how Thomas flies nearly 1,000 hours a year!

This was my second trip to Germany to fly the MT-03. My first visit had been with Gerry Speich, when I'd helped to load shot-bags and crank extreme loads on to a resolutely unfazed MT-03 airframe as part of the Section T structural testing. Whilst there I'd flown the MT for 1.5 hours, after which Thomas had signed me off to fly the machine. Unfortunately the CAA demands that a qualified gyro pilot must undergo a minimum of four hours of "differences" training with an Instructor before being signed-off on a new type, so it's off back to see Thomas again. UK Instructor Chris Jones was there to complete the 5 hours flight time required before he can provide training on the MT-03, so that owners in the UK won't have to travel to Germany to learn to fly their machines.

Pre-flight briefing for Chris in the 912-powered version of the MT-03



So, I graciously helped Chris don his flying suit (you know what these instructors are like) and watched him disappear off down the runway in the front seat of the MT. Anyone who has flown a VPM will be familiar with the tandem seating arrangement, and the primary control layout is pretty standard. The MT has a big, high windscreen (many pilots fly from the front seat without using a helmet visor or goggles) and a very spacious cockpit, so there's plenty of room even for very tall guys like myself. The aluminium blades, stainless steel airframe and effective screen mean that flying in

rain isn't a problem – you probably wouldn't go cross-country for fun in that sort of weather but for bashing around the circuit it's fine or at least that's what I told myself when Chris re-appeared from the murk and handed aircraft and Instructor over to me.



With the tower still calling 25 knots and everything else on the airfield safely tucked away in hangars it was my turn. I don't normally fly in that sort of breeze, so a more conscious effort was required to manage the rotor whilst on the ground to avoid the wind getting underneath and flipping us over. Enter the runway, pre-rotate to 200 rpm, stick back, brake off, full power and we're off the ground in a few yards. A bit of right stick and left rudder to counteract engine torque, keep the nose down until we reach our climb speed (90 km/h), ease the stick back and off we go – easy! We get to our circuit height before the end of the runway, and then get stuck in to the usual range of power-on and power-off approaches, vertical descents with recovery and landing and (best of all) the engine-off landing (that's with the engine really off, not just pretend-off). The strong wind and hills upwind make for a lumpy ride, but the aircraft seems unperturbed and needs little attention to keep it flying. With two aircraft in the circuit it's a doddle to hold a hover on finals to allow the preceding gyro to clear the runway, and adds another completed exercise to the list.

Both of us did flights in both the 912S (100hp) and 914 (115hp) machines – the main difference being that whilst the 912S climbs fast, flying the 914 is like going up in a lift! It doesn't help that Thomas, being of slight stature and with excellent but accented English, takes on an unwitting "Master Yoda" persona whilst sitting in the back seat as you play the part of Luke Skywalker in the front ("Ho ho! Climbs quickly she does! Ready you are for the emergency landing. Land on the yellow line and ice-cream you will be given! Do not give in to the dark side and fly fixed-wing!" {... fade out to "the autorotative force is strong in this one ..."}).



Chris Jones with Steve Boxall with the 914-powered MT-03 - the boys had to arrive early at Hildesheim each morning to put their towels on the gyro they wanted to use that day...

The geometry and performance of the MT make it quite forgiving to fly. The raised keel at the rear means that you can adopt a very-nose-high attitude before the tail touches the ground, and the performance of the engine / prop / rotor / airframe combination allows take-off in a range of attitudes. Similarly, a deep flare can be made on landing without touching the tail down first. The large horizontal stabiliser has an aerofoil section (unlike the flat-plate used by other similar aircraft) which makes it stronger and stiffer as well as greatly increasing its effectiveness, the rotors give excellent performance and the propeller is specifically designed for the aircraft.

Gyro training in Germany seeks to achieve the same goals as we do in the UK - to produce safe, competent pilots. The emphasis is more on converting existing fixed-wing and microlight pilots than on ab-initio training, and there are some interesting differences in technique. Wheel balancing, for example, doesn't just stop at nosewheel off the ground and straight down the runway. More advanced students (and hapless

A new development at the factory is a digital rotor tracking rig, with a humungous electric motor driving the rotors up to speed on a test stand so that their flight path can be captured and adjusted to ensure that both rotor tips follow exactly the same line (this ensures minimum vibration).

The factory is also growing, with a new composites preparation area being constructed to move this dusty operation away from the paint shop (at the moment they have to paint on a Sunday when the guy who does the sanding is at home!). While we were there the German Rotax distributors turned up for a visit - the guys at Hildesheim have pre-ordered 100 engines for 2006, making them one of the biggest customers in Europe.

There's no doubt that the MT-03 will be this year's big aviation story in Europe this year, and thanks to Gerry's efforts it will soon be coming to an airfield near you!

Steve Boxall



convertees such as myself) are introduced to the "Hildesheim Tango" - off down one side of the runway, pick the nosewheel up, pick one main wheel up, zig across the runway through the gap in the centreline, put the main wheel back down, pick up the other one and zag back - and so-on down the runway. It may sound a bit strange but you soon get used to being in and recovering from very unusual attitudes, which is all good stuff if things go pear-shaped. It's an outrageous exercise ("you want me to do WHAT??!!") and definitely one on the "don't try this at home" list!

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