# Converted, not convinced

The Journeyman Balladeer joined a fixed-wing microlight syndicate last summer. Having overcome his sense of guilt, and risking the taunts of his flexwing buddies, he looks back on his experience of batting for the other side. His split personality seems to have survived the trauma intact

*by Andy Oliver*

AT THE start of 2008 the Journeyman Balladeer's logbook showed 508h, all on Rotax-powered flexwing aircraft. By the end of the year there had been an increase of 18h of dual instruction and 25h of solo, all on fixed-wing aircraft. The zeal with which the Journeyman has been converted to side-by-side has put his relationship with the Balladeer, previously always flown in tandem, under pressure. The Balladeer, his education and upbringing founded on the belief that a real microlight pilot should return to the clubhouse frozen and blue, feels betrayed.

This schizophrenia started when some pervert posted an offer of a share in an Ikarus C42 on the club noticeboard. Some readers might never forgive the straying of the Journeyman from the one, true path: others might applaud the fact of what we might term 'his seduction'.

Which way to turn?

The Journeyman, as was ever his bent, swings to the technical side. He summarizes the key difference between fixed and flex as the need to keep the former in balance. Fixed-wing aircraft have a slip indicator to show the yaw of the aircraft about the vertical axis. This is a novelty for the flexwing pilot, and it takes time to learn the co-ordinated stick waving and pedal pushing to keep the ball in the centre, and the aircraft in balance. Close to stall speed an unbalanced aircraft has the potential to drop a wing, and spin. Spinning is bad. Spinning close to the ground is very bad.

In a flexwing, lateral movement around the centre of gravity is not a consideration. Your flexwing cannot yaw, although it might slip marginally sideways in a turn. Your flexwing, when it stalls in level flight, will put its nose down and recover.

An additional complication is that, whereas the propwash is neatly out of sight and out of mind behind the flexwing pilot, with most fixed-wings the propwash is at the front. This corkscrews down the plane and strikes the tail, causing a yaw to the right. At full power this has a large effect, and it feels as if Johnny Wilkinson amounts of right boot are needed to counter this on climb out. A decrease in power, such as an unsubtle power adjustment on the approach, causes one to swing the other way. If this wasn't enough of a distraction, one also has to operate the flaps.

## Don't flap

Even the Balladeer had noticed the flaps, next to the ailerons, on his first preflight inspection. Flaps increase the lift, but also the drag. On the way up our novice pilots often forgot to take in the flaps at 300-500ft, and on the way down often tried to put them out at above 60kt or so. Both are wrong moves, and cause discomfort to any experienced partner in the right-hand seat. There are two stages of flap: the second stage increases the drag and thus slows the aircraft down even more, but the lift does not increase in the same relationship. This comes in handy for losing height with a degree of urgency. However, combined with the throttle (which is an additional thing your hands have to deal with), the fixed-wing pilot does have more options, once understood and safely applied, for changing speed and rate of descent than does the flexwing pilot.

## Cross dressing

The aerodynamics, weight distribution in relation to height, and smaller wing surface mean that the fixed-wing aircraft can operate in higher winds. To really benefit from this the pilot must master crosswind landings. This entails putting the aircraft into the unnatural state of being cross-controlled. At some stage on the approach, the pilot drops the into-wind wing (in effect slipping into the wind) but prevents the aircraft actually turning by applying opposite pedal, thus moving the rudder in the opposite direction. The result is straight flight, pointing down the centre line, with no drift. If you reach the point where you have no more boot to apply, you have no margin left. The crosswind is too strong, and you should be anywhere other than in this situation. The margin for error is thin, because you are now riding a low speed, unbalanced aircraft, with the flaps down, near the ground. Any change in windspeed, a moment's inattention, a slow reaction, any mistake, might bite you.

## Straight and level

While in any form of manoeuvre there is much more to do with hands and feet (and arguably brain), once in flight it is all very comfortable. Having negotiated a happy equilibrium between airspeed, attitude, revs and trim, the closed cockpit offers many advantages: not least the ability to fold maps, consult books and guides, and fiddle with your kit: all without gloves. ▷

Facing page: (top) Spamfield 2006 – room for all persuasions; (bottom) the Journeyman, in shirt sleeves, reaches for another sandwich