Look, no feet

***David Ogilvy** gets his hands – and only his hands – on the ERCO Ercoupe*

A very simple aeroplane with a complex background might be the best description of the Ercoupe. The only type with no rudder pedals that I have encountered seemed to warrant some investigation so, many years ago, I grabbed the unexpected invitation to try my hands – if not my feet – on G-AKFC, which at the time was the only example in the UK. It had been imported in 1947 by the then Ministry of Civil Aviation and subsequently interested the minds of the military, for it had been tested by the then Royal Aircraft Establishment at Farnborough and at Boscombe Down; for this it had operated for two years carrying the Service serial VX 147.

So what is this unusual device? As long ago as 1936 Fred E Weick decided that a pilot's task would be eased if the rudder and ailerons were interconnected, so he designed a low-wing monoplane with a nosewheel undercarriage (in itself a rarity in those days) and dispensed with the need for independent rudder control.

The Engineering and Research Corporation of Washington DC built a large number of these machines, the first of which flew on 19th January 1940. Initially powered by an engine of ERCO's own design, after the first ten had been produced this was replaced by the popular Continental C-65. In its earliest form, in 1941, the cost for a fly-away aeroplane was $2,600.

The USA's late involvement in World War II put a stop to production of light aircraft for civil use, but the design was sufficiently attractive for production to resume as early as August 1945. At peak, Ercoupes left the works at a rate of 335 per month, with 3,955 delivered in 1946 alone. While producing a further 771 in the following year, ambitious attempts at creating several variants proved too much and this led to bankruptcy.

This is where the complications started. Over a very short while, Univair of Denver, Colorado, built 51 Ercoupes, after which the type certificate passed to Forney Aircraft, who renamed it Aircoupe and gave it more power from the Continental C-90. In turn, Air Products produced ten and went bankrupt, after which Alon built 86 and, finally, the better-known Mooney Aircraft created a modified version and constructed the last 65 with a single fin layout. In various batches with intervening gaps, the Ercoupe/Aircoupe, (some models with rudder pedals but most without) enjoyed production over 33 years. Also, during its various lives, the basic design underwent several structural changes and the fabric-covered wing of the earlier Ercoupe was preferred by many diehards to the later all-metal Alon variant. The canopy, too, changed shape and materials during the development stages.

There were several other variations to this basically simple design, but all versions had almost full-span ailerons and most had restricted elevator movement, the latter aimed at making a stalled attitude impossible to attain. Various other designs have enjoyed comparable claims and I have been rather cynical about these: it may well be impossible to stall from a conventional approach to that condition, but I doubt if anyone has designed an unstallable aerofoil and therefore there must be flight conditions in which the breakaway can occur. These may be obscure and difficult to reach, but can this justify the unstallable claim? I accept, though, that for all normal operations and in an average pilot's flying life, the likelihood of an inadvertent stall is extremely remote.

As with the Victa Airtourer, to get in it is necessary to stand on the seat, but like the Australian machine, a movable mud flap saves the day – and the cushions. Once aboard, perhaps the most noticeable feature for a traditional pilot is the pair of W yokes protruding from the fascia. In front of the seats is a trimming knob and ahead of that is the handbrake. The general layout is simple and neat, but the restricted elevator travel feels frustrating when testing the controls for full and free movement.

Starting is straightforward: turn the key far enough and the engine fires. Taxying is easy and the view is good, which is most noticeable when lining up for take-off. Initial acceleration is not sparky, but the get-away rate is reasonable and the control response is wholly sufficient for a machine of gentle intent. The overall qualities do not invite aerobatics, which is fortunate as they are not permitted and with no independent rudder control would be difficult – if not impossible – to carry through.

One early safety test on any aeroplane should cover the low-speed qualities. Here there are no problems during the normal flight range, but the inability to take the machine down to the stall is discomfiting, leaving the impression that it is impossible to get to know it fully. Back in normal flight the Ercoupe, as I flew it, achieved 110mph in the cruise, whereas the Alon A-2 Aircoupe is credited with 124. The later machine's specification quotes stall speeds of 38 with power on and 48 power off, so presumably the control restriction was removed on this variant.

I found the most interesting part of flying the Ercoupe was to find a satisfactory technique for the approach and landing. As was customary at the time, apart from a warning to be generous with carburettor heat, I was given no brief and I enjoyed the opportunity to try several procedures in varying degrees of crosswind. I had been brought up on the basis that 'all aeroplanes are the same' (should be similar!) and that if you can fly one reasonably satisfactorily you can fly any other. With some minor exceptions I found this to be a practical philosophy and it helped me on each of several later escapades when an owner might say, 'Just take it round and let me know what you think of it.' Such an approach might be frowned upon today, but it served me well.

In comfortable conditions, with little if any crosswind component, the Ercoupe is easy to fly on the approach at a recommended 75mph and on the subsequent landing; the low-set wing creates a considerable ground effect air cushion that helps to delay and soften the touch-down. When the wind is directionally less friendly, though, the story is different. No doubt familiarity breeds competence, but my first attempt at a landing was on a hard runway with the windsock in full view at a right angle. I abandoned the first approach at a latish stage, which allowed time to think more about it while doing the circuit again. On the next run-in I had an itch to use my feet to get the rudders working as I wanted them, but by a process of trial and error – mainly the latter, I suspect – I managed to put the machine where it was intended to go and to keep it not far off the runway centreline. A subsequent landing when conditions were more favourable proved to be a much more pleasant experience.

My overall impression of the Ercoupe, admittedly based on only two flights, is that when most aerodromes were omni-directional it had much to offer, but in the

The Forney-built Ercoupe/Aircoupe had a more powerful Continental C-90 engine

Black & white photos: via Philip Jarrett

Left: G-AKFC, the aircraft flown by the author, was the only Ercoupe in Britain at the time
Above: the same aircraft had been tested at RAE Farnborough carrying the service registration XV 147
Below: what's missing from this picture? Ercoupe front office, devoid of rudder pedals

modern world of single strip sites, there must be many days on which activities are curtailed. On the positive side, though, it is a likeable, useful and safe aeroplane that has the added bonus of being suitable for people with some forms of physical handicap.

My experience is limited to the original version. Increases in power and maximum permitted weight, alterations to the cockpit canopy, a change from fabric covering to all-metal wings, the move from twin fins to a single vertical stabiliser and even the eventual removal of the limited elevator control combine to create a series of variants with a range of characteristics. However, I have had the good fortune to meet the type as devised by Mr Weike and to see what he intended to achieve, which was a creditable machine that reduced a pilot's handling workload. Clearly he succeeded, as a total production of almost 5,000 must prove.

As in the 1950s, when I flew the long gone G-AKFC, again today there is just one Ercoupe on the UK register. This, too, is an original 1946 ERCO-built machine, with the appropriate bespoke registration G-ERCO, owned by long-standing AOPA member Arthur Rodney Tapp and his wife.

Although not imported in meaningful numbers, a few other examples came here and for a couple of years three were on the fleet strength of the then Herts and Essex Aero Club at Stapleford. Also, in the late 1960s the Ulster Flying Club operated three conventionally controlled Forney Aircoupes, one of which, G-AROO, remains actively extant; three other Aircoupes remain on the UK register. I think it unlikely that any will find their ways here now, so these examples of two versions of a basically similar design must soldier on to keep this interesting type alive. ■

Left: this 1946 ERCO Ercoupe, on the FAA register, was stopped at Goodwood in October