

# Clear Prop!

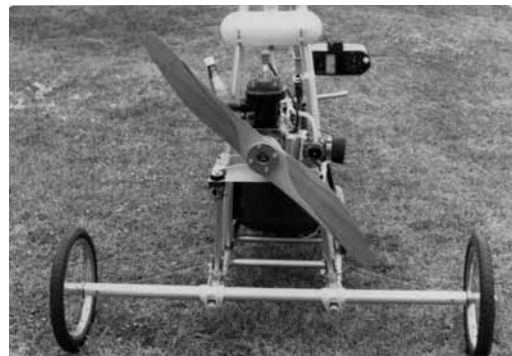
Larry Jones



IT WAS BACK IN THE MID TO LATE 70s WHEN A FEW LOCAL HANG GLIDER PILOTS FIRST ATTEMPTED TO ATTACH AN ENGINE AND PROPELLER TO A HANG GLIDER. BOTH CONVENTIONAL FLEX WING AND RIGID WING HANG GLIDERS WERE TRIED. WE HAD NOT YET DISCOVERED WHEELS, SO ALL ATTEMPTS WERE FOOT LAUNCH. MY FIRST FLIGHT IN A POWERED HANG GLIDER WAS, I THINK, IN 1977. IT WAS A RIGID WING HANG GLIDER KNOWN AS AN ICARUS V. I HAD PREVIOUSLY OWNED AND FLOWN AN ICARUS SO WAS MORE THAN FAMILIAR WITH ITS FLYING CHARACTERISTICS; HOWEVER, I HAD NEVER FLOWN A POWERED AIRCRAFT OF ANY DESCRIPTION BEFORE.

**B**ob Edgcombe was the owner of the Icarus and had mounted a McCulloch 125 chainsaw engine with a small direct drive propeller. It was under-powered, noisy and inefficient, but it flew. As you bit down on the mouth throttle and started to run, each step would see your feet get dangerously close to the rapidly spinning propeller. I know of at least one pilot who was hit by the propeller and would have lost his foot if not for the skill of the surgeons who worked on him.

Around this same time we heard rumors of pilots in England building a tricycle undercarriage with a seat, engine and propeller safely behind and of course with wheels there was no need to run. It sounded great! A fellow hang glider pilot, Ian Sweetman and I decided this was the way to go and started to put together a plan to build a trike. We used 16 inch kids bicycle wheels, a plastic Namco chair and a modified Victa 160 lawnmower engine. Ian hand-carved a 26 inch propeller that we mounted direct to the engine. The fuel tank was a water bottle from a VW Kombi windscreen washer unit. I sewed up a seatbelt on my mum's sewing machine, we mounted a hang glider to



First trike we built back in the late 70s

the completed unit and headed off to the Old Noarlunga airstrip and away we went. It was under-powered, noisy and inefficient, but it flew and we continued to fly it for a year or so.

Another local pilot, Pat Finch, also built a trike and joined Ian and I for many early morning flights from a beach north of Adelaide. Hang gliding was in rapid growth and powered hang gliding was still somewhat of a novelty, however, stories of a few pilots interstate also building and flying trikes started to emerge and we attended a fly-in in Victoria, possibly over the Easter break of 1978, '79 or thereabouts and met up with a couple of other early trike enthusiasts.

In 1980 I left the trike behind, jumped in the Kombi, pushbike on the back, hang glider and surfboard on the roof and a fridge full of Coppers. I soon found myself in Sydney and spent the next couple of years there teaching for Cloudbase Hang Gliding Centre and supplementing my income with some part-time work at the Moyes factory. It would be a year or two before I would next fly a trike.

A weekend of flying in the Hunter Valley, possibly around 1982 or '83, saw me catch up with the Duncan brothers who had recently cobbled together their first trike. They used a modified Moyes hang glider as the wing and, if memory serves me correctly, a Robin engine with reduction drive and two-blade wooden propeller. It was the first powered aircraft I had flown that actually had power to spare and it leapt off the ground and surprised me with its willingness to climb.

The Duncan brothers formed the company 'Airborne Windsports' and continued to develop their trike, I meanwhile left Sydney heading north in search of new adventures, meeting many great people and flying new sites all the way to Port Douglas. I had been away from home for a couple of years now and decided to return to Adelaide. Ian had retired our trike by this time, but the hang gliding community was still strong so I returned to teaching hang gliding in South Australia.

By the mid-80s the Rotax engines became readily available in Australia and finally we had an engine that was purpose-built for our application including a reduction gearbox. Airborne had continued to develop their trike and now coupled with the Rotax engine they had a product worthy to market. I believe the Rotax engines were a turning point in the

development of our sport, they proved far more reliable than anything we had previously used and finally pilots had the confidence to head off cross-country and start to explore this great country of ours. It was in the mid-80s that I purchased my first Airborne trike, the 'Osprey', a two-seat trike powered by a Rotax 447 and a Moyes built wing of around 220ft<sup>2</sup>. It was a great trike and flew many hundreds of hours without fault.

The next trike I purchased was the Airborne 'Buzzard' a two-seater with a smaller, faster wing and a bigger engine; the Rotax 532. We used both the Osprey and the Buzzard to help teach hang gliding and completed some of our first successful aerotows behind the Buzzard. Towards the end of the '80s Airborne began working with sailmaker Alan Daniel of Wingtech to develop their own wing and this they coupled to their latest trike base and the 'Edge' was born. The first few Edge's had the Rotax 532, but this was soon replaced with the new dual ignition 582s. Airborne began the long hard task of certification and with the promise of two-seat trikes becoming legal in Australia, interest was growing. I had several keen students and at least three of them were willing to commit to the sport, so I placed an order with Airborne for three Edge trikes. Around this time a few of the English-built Pegasus trikes found their way to Australia and with the importer, Mike Coburn, advertising these and Airborne pushing their new Edge, we were about to see a rapid growth of trike pilots.

By the late '80s early '90s you could find a microlight in all states of Australia and with a bit of luck a person to teach you to fly it. The sport was growing and we needed to formalise a training syllabus and set some standards to ensure those who were teaching were doing so in an appropriate manner. The HGFA put its hand up and with the help of volunteers like Chris Brandon and a number of others, we held our first national instructors conference in 1991. This first instructors' conference was very successful and finally we had certified two-seat microlights, certified instructors and certified training facilities. Follow-up conferences in subsequent years also proved beneficial and we now had approved schools and instructors Australia-wide.

Throughout the '90s Airborne continued to develop their product and the Edge gave way to the Edge Executive

(Edge E) and was available with Rotax 503 or 582. Further developments saw the introduction of the Edge X series trikes and for the first time a choice of wings. The Edge wing was discontinued and we now could choose either the slow and forgiving Wizard wing or the faster Streak wing. John Goodrich took over the Pegasus dealership and imported container loads of the new Pegasus Quantum which proved popular here in Australia for a period of time. During the '90s we saw instructors come and go, schools set up to with much fanfare, only to close again after coming face to face with the realities of running such a business. A weather-dependant sport requiring patience and a diverse set of flying, teaching and business skills is not an easy way to make a living. Still some schools prospered, networked and learnt from each other, offered what the customer wanted and ultimately survived and are still operating to this day.

It was a new millennium and we were reading more and more stories of group flights and/or solo adventures in and around Australia. Pilots were loading their trikes and heading into remote parts of the country, landing out and camping in the great outdoors. Many of the overseas trikes now offered the Rotax 912, a smooth, quiet four-stroke engine offering power, reliability and best of all a modest fuel burn. Airborne followed the trend and by 2004 the all new XT was available to the Australian market. More comfortable seating, bigger fuel tank, better suspension, better instruments and a faster, better handling wing with the release of the Streak 3. Over the next few years further development of the XT series trikes would see the choice of Outback, Tourer or Tundra models. The choice of two or four-stroke power and the choice of Merlin, Cruze, Streak or the all-new strutted SST wing.

Meanwhile I'd been following the development of a lightweight single-seat trike being built in England. Powered by a small single cylinder four-stroke engine it was smooth, quiet and used fuel at about two-and-half litres an hour. It was laid back and comfortable, had a retractable undercarriage and looked great. The wing was a purpose-built variant of the Aeros Discus and engine off performance was good, allowing for soaring flight. A perfect blend between hang glider and microlight; I had to have one. I took on the Australian dealership for the Dragonfly and by late 2008

we saw the arrival of the first of these wonderful little trikes with another half dozen or so to follow.

Now at the end of 2010, I think it fair to say that the microlight aircraft has proven itself as a worthy form of aviation. You can find them in almost any country in the world; indeed pilots have flown the humble microlight around the world. We started out over 30 years ago bolting a lawnmower engine on a hang glider just for a bit of fun and now there is an entire industry dedicated to building, testing, teaching and flying microlights.

As we move into 2011, what will the next decade hold for the microlight industry? In general we've seen development over the past couple of decades lean towards faster more powerful trikes and, I guess, to a degree this will continue. I do think we will start to see some refinement of the mid-range trikes with trim speeds in the 45 to 55kt range, but there will always be a desire for faster and faster trikes. For me though I plan to slow down even more, and after over 30

years of teaching flying I will hang up the training bars this coming year and spend more time flying for fun. Out on the hang gliding hill again, I am enjoying the fine qualities of my Moyes Malibu, it is slow, it is easy, it is fun! When at the airfield more and more I choose to fly the Dragonfly, it is slow, it is easy, it is fun! I am sure we will see growing interest in this style of flying over the next few years and beyond.

The above is little more than a brief look at the history of microlights here in Australia as I have seen it. The dates may be a little fuzzy and others may remember things a little different than me, but I think most will agree it has been a great ride so far. Tremendous life-long friendships have been formed, great adventures have been shared. The range of microlights now available and the diversity of characters that fly them all go together to keep the industry strong, alive and growing.

See you in the air!



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