



Free Flight

Steve Uzochukwu Reports from Garmisch-Partenkirchen

2002

Here in Britain we have the Telford Airsports Exhibition every year in December. The German equivalent is the Free Flight Exhibition in Garmisch-Partenkirchen in Southern Germany, usually in early spring. Garmisch is equidistant between Munich and Innsbruck (Austria) and is easily accessible by air and rail from any of the major UK airports.

This year the exhibition was smaller than last year, with a definite theme of evolution rather than revolution. In both hang gliding and paragliding the exhibitors were showing the results of another years R&D, advancing products and working on gliders that are an improvement rather than a big step.

On the distribution front, Airwave are now the European Wills Wing distributor, Flight Design are being distributed by Swing and Sol Paragliders came to the exhibition for the first time seeking distributors in Europe where they haven't already got these in place. Sol are a Brazilian manufacturer who originally started producing Nova gliders under licence but now have their own, completely in-house designed, stable of paragliders and a complete range of accessories. Sky Paragliders are also making a push into Western Europe with a new dealer network.

Development has continued in the Class 2 hang gliding arena, with new models or new sizes coming on to the market. Icaro showed their new Class 2 wing, the Stratos designed by Christian Ciech, with a conventional A-frame in aluminium. The latest MRX version Laminar ST was shown with low-drag Wills Wing uprights, but Icaro have a full carbon-fibre control frame too, four weeks away from release at the time of writing. The aerofoil section has a longer chord than the Wills offering at the top and bottom of the upright, but

is thinner in the middle where the upright goes past the pilot. The speed bar is also stepped in two stages to allow easy high-speed flight. In Class 1, as well as the World Distance Record holding MRX, Icaro have a Skyfloater (the Relax) in three sizes, and have extended the Laminar Easy range to include a 12m² size for pilots weighing 45 - 65 kg. Icaro have paragliders too, the Cyber DHV1 and the Force DHV1-2.

Aeros showed a motorised cockpit to fit to the Stalker rigid wing. The arrangement is pusher style, with the prop folding away. It's called the 'Silent Racer' and is still in the experimental stage. Jos Guggenmos, creator of the E7 and ESC rigids, has now produced a small size of the ESC called the ESC-C (Compact).

AIR, Felix Ruehle's company that designed and produced the Atos, showed the uprated Atos-C. AIR also produce the standard Atos model, and the Atos Airspeed with an aerofoil section base-bar. The Atos-C has a full carbon-fibre control frame and no side wires. Felix is concerned about safety and the strength of carbon-fibre uprights, so a steel section is provided halfway up the upright to allow it to break in the event of a crash. A fairing is also available for the base bar, which allows the fitting of wheels despite the aerofoil shape. Further changes include flexible spoilers which sit flatter to the sail at high speed, reducing drag, and changes to pitch

characteristics to improve both low speed thermalling and high speed flight. The Atos-C has just completed all the necessary DHV tests and a certificate will be issued shortly.

On the paragliding side interest has shifted to the material that gliders are made of, and guaranteeing the life of that material. Nova have raised the bar with their Nova Protect scheme which provides for a year of cover against accidental damage, and a three-year/300 hour guarantee against defects in the cloth. Nova are now using Gelvenor for their school glider. Swing also offer a three-year/300 hour guarantee, and now use a new material for their new gliders the Astral 3 and the Arcus 2002, from Perseverance Mills in Burnley. I was shown a test glider that had 1,200 hours on it! Apco continue with Gelvenor with its reputation for durability, and several other manufacturers share their faith in this fabric.

Apco showed the new Presta with the Automatic Double Valve System (ADVS). The valves in the leading edge are shut whilst in flight, opening during the inflation stage of take-off. Anatoly Cohn has designed and patented the system, which gives the performance advantages of closed cells without the inflation problems.

Airwave now has a complete range of paragliders. In addition to the Logic (DHV1), Sport (1-2), Magic (2-3) and Scenic (tandem), a new wing

optimised for paramotoring was shown. It's called the Explorer and is based on Sport ideas and technology but with a high trim speed and features to nullify torque reaction from the motor unit. Airwave Boss Markus Villinger plans to distribute the new Austria-Alpin steel karabiner. He contrasts some of the present paragliding problems with aluminium karabiners with the problems 'hang gliding had' in the 1980s with the same. He's already got these in stock whilst most suppliers are quoting four to six weeks delivery time.

Ozone has now finished all 6 sizes of the Vibe and production is flat out. They've also been doing some serious things with kites and skis, and put all this onto videotape with sequences of the Team Renegade pilots doing downplanes and SATs. Gin has the new Oasis DHV1-2 on the market in all sizes. Advance has the Epsilon 4 in development, due for mid-summer release but no hard and fast technical details are available yet. FreeX have a new range too, starting with the DHV1 Joker priced at £1,750.

Swing, as well as promoting their own products, are distributing the Flight Design range. Class 2 hang gliders offered by Flight Design are the Exxtacy and the tandem version of the same, and the Axxess/Axxess+. The main different between the Axxess & Axxess+ is the retractable flaps on the latter. Flight Design has a new DHV 1-2 paraglider called the Stream. Swing has redesigned and re-certified the Arcus, now called Arcus 2002, with the top surface of Perseverance cloth. The Astral 3 and Stratus 4 are also new and use the same cloth.

Airea had, as usual, a unique feature to their stand. Above the stand a 13 square metre prototype surf-kite hung from the ceiling. That's as big as a medium-size hang glider. Garmisch is the second big show they've done since their rejuvenation, and designer Ernst Strobl has been busy finishing off their complete range of gliders - and signing Richard Gallon to the team. Unique to Airera is the MSS (Multiple Speed System) fitted to all their solo gliders. The novel speed system allows them to produce a glider certificated in two categories; the category it flies in can be chosen by the pilot. The range is Renegade (DHV1 or 1-2), Rebel (1-2 or 2) and Revolution (2 or 2-3). They've got their tandem available in two sizes, the smaller of which is suitable for very large pilots to fly solo. A top-of-the-range harness was on display called the System Tube, and Airera also have a range of kites for surf and buggy use.

The big talking point of the show for both hang gliding and paragliding was in the instrumentation field. Aircotec now have a serious rival to the Top Navigator, their integrated Altimeter/Vario/Flight computer and GPS all in one. Braunerger have produced the Galileo, pitched at the same kind of market, which includes up to 96 hours of FAI/IGC approved data logger. Both units include 12 channel GPS units. Neither of these top-end flight instruments are cheap, but UK prices were not available as we went to press. A large number of pilots were seen at both stands over the weekend.

This year at Garmisch the feeling appeared to be of intense competition - the boom years are over and every single customer must be fought for. The people on the stands were exhausted at the end of three days hard pitching, and the word is that this is the tone for the foreseeable future.



Experimental ultralight motor glider from Aeros, complete with folding prop, retractable undercarriage and strange control system

BRUCE GOLDMITH



Team photo - Airera's Richard Gallon and Bjoern Fey with Ernst Strobl

STEVE UTOCHUKWU



Moyes Carbon fibre A-frame



Atos wheel fairing detail

STEVE UTOCHUKWU

STEVE UTOCHUKWU



Braunerger Galileo



Aircotec Top Navigator

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