Over, bar the shouting

PACKING UP HIS SLOPE RACERS FOR THE SEASON, ANDY ELLISON CONSIDERS SLOPE AEROBATICS AND MOURNS THE DEMISE OF A CLASSIC RADIO

Booby on Bald Knob. Sorry, couldn't resist! (Wowings photo)

The quirky Birdworks Zipper is the brainchild of Steve Hinderks and is now back in production courtesy of On The Edge Sailplanes.

With the BMFA F3F National Championships finishing in excellent style on the famous Bwlch Mountain in South Wales and a very turbulent final race of the BMFA F3F League testing pilot skill and sense of humour at Whitesheet Hill in Wiltshire, the competitive summer slope racing season drew to a close to make way for the cold but very fast winter series.

Cream usually rises to the top so it was no surprise that we found Greg Dakin storming ahead with some fantastic flights in Wales to take the National Championship title with his Race M Ultimate and Mark Southall yet again taking the F3F League title to add to his F3B 'B' League win for an F3X double. When was the last time that happened then? With three winter league events occurring through November to March on different days at the Hole of Horcum (Yorkshire), the Bwlch and the Long Mynd (Shropshire) there's no shortage of flying on offer, indeed slope records and personal bests have already started to fall.

NOT MY DESTINY AFTER ALL

On the subject of records, my apologies go to Joe Manor the 305mph world Dynamic Soaring (DS) record holder pictured with his impressive own-design 160" DS ship back in the July issue. I called the model a Destiny which is an entirely different aircraft altogether, so I'll put that down to another in an increasing number of senior moments.

Joe's model is the latest in a long line of his own 'Dynamic' designs and by far the most impressive. This large version is a test ship designed to research size and weight against speed and fits right in with the 'on the edge' ethos that this column has always set out to explore. Joe designed the airframe to a 90G load expectancy, in fact the wing is strong enough to park a car on, thanks in part to the two spars that are each 28mm wide. The spar caps are made from Graphlite Ultra High Modulus uni-carbon (UHM) and the entire spars were wrapped tightly with 60K Kevlar before being inserted into a heavy carbon sleeve and vacuum bagged. Joe spent around 100 hours on the spars that alone weigh 10 lbs!

F3F and F3B champion Mark Southall managed to pull off the double.

My very first slope aerobat was the Chris Foss Middle Phase. So long ago I try not to think about it!

The commanding model uses 20 yards of carbon, 11 lbs of dry fabric, 8 lbs of carbon plate and around 12 lbs of epoxy resin. The centre-section has four layers of intermediate modulus carbon for the wing skins while the insane fuselage lay-up is comprised four layers of 6oz carbon and three layers of 11oz carbon. In addition, just to make sure, there are 60 pulls of 18K carbon tow distributed throughout the fuselage running nose to tail. The whole model weighs in at a jaw dropping 43 lbs and, let's not forget, has flown at a staggering 305mph!

Joe claims he has not flown the model in really good air over its four outings. The wing was blown from the back of his pick-up tuck going down the freeway on his last trip to the slope and he had to watch helpless as it was run over by two trucks in succession. On recovery, Joe discovered that it had hardly been damaged and was still structurally sound. He's now making tooling for a hollow moulded version of this plane. Best stay tuned to *RCM&E* then!

Following Joe's awesome 305mph DS flight, fellow American, Spencer Lisenby, has been busy with his much more sensibly sized own design DS model, the 100" span Kinetic. Maidening the aircraft in high winds on California's Norco Hill site, Spencer pushed Joe's record even higher in the presence of a radar gun known to read just that little bit further up the range. Spencer's new world Dynamic Soaring record is 309mph which I suspect will stand for some time, or at least, until radar gun technology catches up with the models!

Joe Manor with his 160" span Dynamic.

THE END OF AN ERA?

I never could get on with European transmitters, shunning the usherette tray styling in favour of something small and Japanese that I could get my podgy mitts around. Nevertheless, racing on the UK and international slope soaring scene has given me total respect for the flexibility of the range topping Multiplex MC4000 transmitter and with the announcement from Multiplex themselves that it will be discontinued, slope pilots are truly facing the end of an era.

Whatever your preference there can be no doubt that the Multiplex MC4000 is widely regarded as the most flexible R/C system to have hit the market and this in a set that is well over a decade old. A "shortage of key components" is to blame so it's unlikely that anything quite the same will ever replace it, for the foreseeable future anyway. Multiplex have indicated that they will continue to service the MC4000 in the years ahead and are no doubt collating spares as I write. Owners however will doubtlessly be hoarding their sets and treating them with kid gloves. Whatever the case, you can be sure the price of a second hand set has just shot through the roof!

ANTIPODEAN REVOLUTION

Two pieces of news from slope kit purveyors down-under recently hit my email box. *RCM&E* is clearly as popular on the other side of the world as it is in the UK! Kye McDonald of Wowings (Skua, Booby, S-15 etc.) contacted me to tell of his enforced sabbatical over the last year or so while he dealt with family illness and completion of his BSc.

Wowings in its entirety has been sold to flying buddy Peter Lofthouse. This is great news for UK consumers as it means the much sought after Skua 1500 (S-15) is back in production along with other kits from the range. Drop Peter an email at feedback@wowings.com and get yourself on the mailing list for the popular Wowings Newsletter.

While we're in the land of Kangaroos and Kylie, do you remember the Global Dominator?

A variation on a theme combining the best of scale with a good element of slope 3D is the JR Models Mad Fox. The aeroplane is a scale-influenced tweak of the Paysant-Le Roux designed Mad Slide and uses the trick Ritz 1-30-10 blended wing section.

It's good to see the Zipper back in production. I wouldn't part with mine.

If you're flying a modern dedicated slope aerobat, it's likely that it'll be the moulded Voltij from Aeromod. Julian Beckett is a spectacular aerobatic pilot with a tool like this.

America's Steve Lange is the brains behind www.slopeaerobatics.com (Steve Lange photo).

Well, Glenn Dorrenboom, originator of the project and designer / builder of the Scorpion combat wing on which it's based, and his business partner Rick Hatherly, have covertly secured the moulds for the very popular Birdworks Zipper design. Their expanding company Off The Edge Sailplanes (www.offtheedge.com) is about to throw it back into production from its new home.

The Zipper is a very fast 48" span plank utilising a pressed ply and composite wing over a glass fuselage with central fin. It was the first model I bought for this genre after being heavily influenced by its performance on the original Lift Ticket video. The Zipper is a quirky little model with trick flying characteristics in the original guise coupled with an awesome, somewhat eerie, flying sound. Glenn tells me he'll be offering variations on the original kit to suit customer requirements and production will start very soon. Contact the lads via their website for more details.

A WELCOME REJUVENATION

With foamie combat and pylon to the left, F3F and dynamic soaring to the right, lead sleds out front and floaty soarers and scale ships to the rear, there's just about room on the hillsides for something else.

Slope aerobatics has the potential to fill that niche nicely and, driven by a resurgence of the class in France and developments into 4-Dimension flying (more in a future issue), the availability of suitable models is once again on the increase.

Popular in the 1970s, slope aerobatics declined to the point where there isn't now a nationally advertised event for the class. Even information across the internet is scant.

At the hub of the international revolution and hell-bent on putting this matter to rights is America's Steve Lange - creator of the fledgling www.slopeaerobatics.com and a recent returnee to slope soaring. Steve recognised that aerobatic flying is a very engaging way to enjoy one's gliding at the slope. Most pilots, of course, engaging in some level of aerobatics on every flight. Recognising the under-representation, Steve set out to establish the very best English language online resource for radio controlled slope and glider aerobatics.

A friend of Dreamflight's Michael Richter (remember him from a few issues back?) Steve returned to the hobby with one of Michael's Weasel Pro's. With a passion to push his ability further he designed a 60" EPP slope aerobatic glider known as 'Le Fish', which is now marketed by Jack Cooper of Leading Edge Gliders in the States. Taking inspiration from state-of-the-art French aerobatic gliders and employing the best EPP building techniques, the result is a fun knockabout machine that can take a lot of abuse and still deliver a hardcore unlimited aerobatic performance.

OVER TO STEVE...

"Unlimited Aerobatics or as the French say, Voltige Totale (literally 'total aerobatics') encompasses gliders capable of performing the same manoeuvres either upright or inverted - including square and octagonal loops, snaps, spins, and anything else the mind can concoct.

"Whilst any self-respecting slope soarer should be capable of some level of aerobatics, more and more kits are becoming available aimed at pushing the slope aerobatic envelope ever further. It goes without saying that the glider should have a rudder in order to be able to do figures properly. Not only snaps, spins and knife-edge flight, but multi-point rolls and rolling circles, too. However, one of the things that make Voltige Totale very accessible today is the prevalence of inexpensive and powerful computer radios. Flaperons, and by extension, snap flaps, allow the use of symmetrical aerofoils without major concessions in gliding performance.

"The well-known Aeromod Voltij and its MG05 wing section, designed

As you can see, Julian's a dab hand with an airbrush.

by Marcel Guwang, is a perfect example. By using flaperons and snap flap mixing, the symmetrical MG05's performance envelope can be greatly extended into light lift regimes and square / angular loops that might otherwise be rather difficult for a symmetrically section glider to perform. Since the airfoil is symmetrical - the plane doesn't know whether it's upright or inverted - inverted thermalling turns are just one of the Voltij's party pieces.

"This isn't to say that semi-symmetrical airfoils are unsuitable for slope aerobatics, but what they gain in terms of upright performance (usually speed and greater coefficient of lift) they give up in inverted and outside performance. One happy medium can be found in the use of a blend of semi-symmetrical airfoil at the root with a symmetrical airfoil at the tip. The semi-symmetrical root gives the model a good fundamental ability to generate lift, while the symmetrical tips help inverted performance and, importantly, ensure that snaps and spins can be entered with the same facility, whether upright or inverted.

"A glance at the current crop of aerobatic slopers will reveal common themes in their design especially with regard to the shape of the fuselage - tall, narrow bodies with distinctively fish shaped side profiles. These traits afford the glider an increased ability to fly knife-edge and assist other side-area intensive figures like rolling circles more effectively, though it does nothing for aesthetics!

"Without a motor to pull one's airplane around the sky, glider aerobatics present a unique challenge. While vertical performance is obviously limited, the lack of torque enables gliders to enjoy true neutrality in control response.

"Obviously the main difference with slope aerobatics is that the manoeuvres are generally performed across the wind and hence the face of the slope rather than into wind and downwind like other aerobatic aeromodelling disciplines. While this rotation resolves the issue of visibility, it radically changes the nature of the flight task being presented to the pilot. Instead of having to focus mainly on corrections for up and downwind drift, the pilot must now account for the effects of a crosswind - a much more challenging task in many respects, especially when one considers the strong winds and turbulence inherent to slope soaring.

"The effect of the crosswind component varies from slope to slope and day to day. At extremely steep slopes with powerful vertical lift, it is possible that the effects of any crosswind component will be mitigated somewhat due to the significant upward deflection of the slope lift, but the opposite holds true for milder slopes. Here the crosswind component will be a constant and challenging influence. In addition, the wind will frequently come in at a less than perfect right angle to the slope, resulting in an extremely challenging mix of head, tail and cross wind components as the glider traverses the face of the slope. It's all part of the challenge facing the designs appearing in this rejuvenated and sorely missed discipline."

We'll talk more on slope aerobatics here soon but do take time to visit Steve's wonderful website and check out the gallery and latest news sections to scan around for your next toy. Pay special attention to the hollow

The FL Bird Works Wasabi is the newest, coolest thing to hit the slope aerobatic scene. Hollow moulded, Belgian and fantastic quality. We're watching this one closely in the Skunkworks. (FL Bird Works photo).

Mick Walsh about to set sail in Wales for the final time.

Steve Dorling prefers to get his kicks from his scale Fox. The 3.5 metre span model loves a bit of a blow yet can surprise the unwary with a serious flicking problem.

My next adventure into slope aerobatics will be with the Lanyu Models Slope Trik. I prefer a little more energy than the true aerobats provide and this one's nice and cheap with it.

moulded Belgium 'Wasabi' which Steve is helping to develop, and check out the pictures of Benoit Paysant-Le Roux and his Zlin 3D slope model.

THERE'S ALWAYS ONE...

The Muppet Of The Month award this time harps back to the BMFA F3F Nationals and goes to slope racing buddy, Mick Walsh from North Wales.

Trudging back through rough grass the quarter of a mile or so it took to get out of the crests wildly vicious landing rotor, Mick, with his Thuro Skorpion flying high, could faintly hear the increasingly loud and protesting shriek of an accelerating moulded glider. The noise grew to a crescendo as our man, steadfastly determined not to remove his gaze from his specked-out racer, pulled that face, stood on one leg and hunched his shoulders like a man who suspects he's about to be hit by a fast flying object.

As the model's descent continued Mick thought better of waiting for the inevitable and quickened his gait with a pressing urgency to try and distance himself from the agonising cry audibly heading in his direction. He relaxed to a stumble when he heard the

distinctive whuummp associated with a moulded racer demolishing itself back to component form atop the Welsh hill and gave thanks that he was intact and unharmed.

'Blimey', thought Mick as he slowly regained his composure, 'that sounded expensive for somebody'!

Having steadied his footing he was happy to continue his trudge across the moguls to land his baby in the smoother air, blessing himself in the knowledge that whilst he wasn't racing too well that day he could at least take his pride-and-joy home in one piece.

The point at which Mick realised the Skorpion he was flying wasn't his, is unclear, but after a panicky nanosecond when his first thought was that his batteries had died, he stopped in his tracks and with head slumped, slowly pulled his transmitter aerial down and turned to search for the hole he had just filled with delaminated carbon fibre and electronics.

Well, that's me for a couple of months but if you'd like to drop me a line I'll be at slopetrashuk@ntlworld.com plugging in the winter heater for another session in the Skunkworks.