Leek & Moorland Model Gliding Association

Web Sites: - http://lmmga.org
http://www.lmmga.co.uk/

March 2008

In This Months Issue

Not sent in your 2008 subs yet? Then this could well be your last newsletter. With the cost of printing and postage we can't send out too many freebies. I know electronic mail costs nothing but we have to treat all members the same ~ those with and those without computers.

A few ex-members still receive a regular gratis newsletter but these are a few of our long standing members who are still keen modellers at heart but have had to give up flying on health grounds.

If you're not going to renew your membership in 2008 I'm sorry you're leaving us ~ if it's something we've done, or, something we have not done, do please let us know …

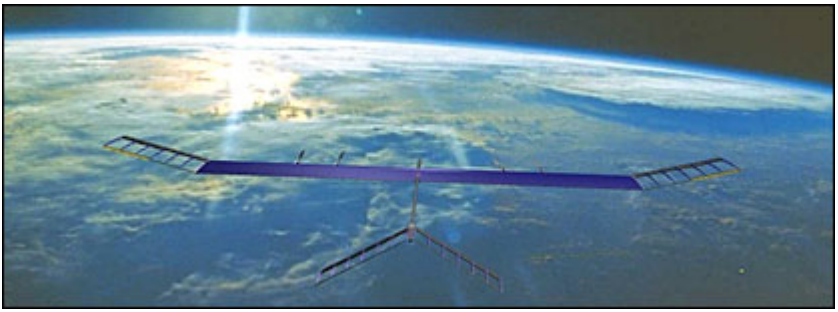
Front Cover

If anyone recognises this model would you please let me know what it is ~ It was taken at the gate sometime around July August 2007 by Mark Ollier ~ I always like to give Models/People names wherever possible

Solar plane flies into the night

By Jonathan Fildes
Science and technology reporter, BBC News

I saw this article on one of the BBC news site and with it being about newish technology in the aircraft world, it automatically got my full attention and I thought it worthy of a spot in our newsletter



Zephyr reached a maximum altitude of more than 58,000ft (18,000m)

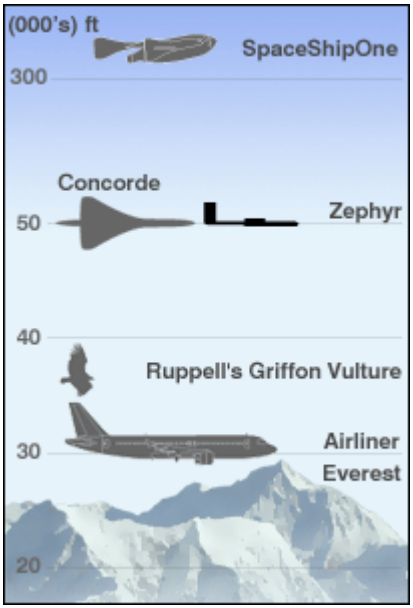
A lightweight solar-powered plane has smashed the official world record for the longest-duration unmanned flight.
UK defence firm Qinetiq, which built the Zephyr unmanned aerial vehicle, said it flew for 54 hours during tests.
The researchers believe it is the first time a solar-powered craft has flown under its own power through two nights.
The previous unmanned endurance record was set in 2001 by a jet-powered US Air Force Global Hawk surveillance aircraft which flew for more than 30 hours.

The Zephyr's 54-hour endurance flight will not enter the record books because representatives from the world air sports federation - the FAI - were not notified about the secretive test.
However, they were informed about a second, 33-hour flight which could still become an official record.
Zephyr's development team say that whatever the result, it believes it has built a record breaker.
"This aeroplane is going to go a lot higher and a lot further," Chris Kelleher, Zephyr's technical director and "pilot", told the BBC News website. "You ain't seen nothing yet."

Night flight

Zephyr was originally developed to take pictures of a giant helium balloon that attempted to break the world altitude record for a manned envelope in 2003.

The attempt was shelved after the Qinetiq 1 balloon sprang a leak.



However, the defence firm has continued to develop the "strato-plane" for military applications, as well as for Earth-observation and communications.

The latest tests took place at the US military White Sands Missile Range in New Mexico. On the first flight, the aircraft, which has a wingspan of 18m (59ft), flew for more than two days before it developed a fault. The second, shorter flight was curtailed when thunderstorms threatened the propeller-driven plane.

"What was proved - and what was a world first - was that the aircraft was flown using its solar electrical power system through two complete diurnal cycles," said Paul Davey, Zephyr's business development director.

"The aircraft was flown on solar power and charged its batteries during the day, discharged its batteries during the night, and remained aloft the following dawn when the cycle was repeated."

During the flights, Zephyr reached a maximum altitude of more than 58,000ft (18,000m).

Record bid

The plane is launched by hand and is flown manually to 10,000ft.

"On the ground we have all of the instrumentation a pilot would see on a manned plane," explained Mr Kelleher.

We have a basic instrument panel, we have a forward-looking view [from a camera], and we have all of the telemetry coming down to us."
An autopilot took over the controls for the remainder of the tests.
Although, the first flight was more than 20 hours longer than the current record, it will not enter the record books. The Qinetiq team did not notify the FAI (Federation Aeronautique Internationale) of its first flight, a requirement of an official world record.

The current record holder is Northrop Grumman's Global Hawk

And, although they did notify the body of the second flight, no FAI official was present to oversee it. "The record attempt was announced very late," said an FAI spokesperson.
However, the Qinetiq team believes that air traffic controllers at the White Sands base will verify the 33-hour, 43-minute flight, which took place on the 31 August.
The FAI spokesperson said the organisation was waiting for details of the tests to be submitted.

Planetary explorer

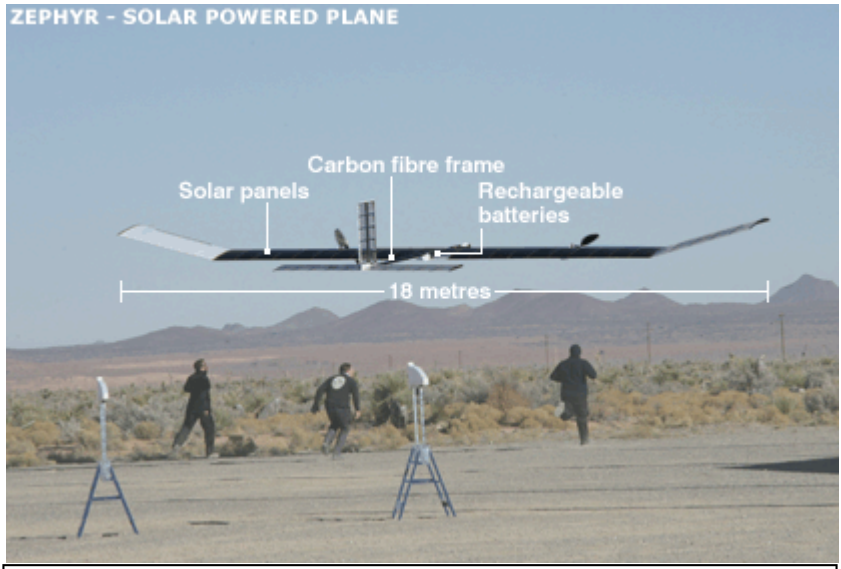
Zephyr is not the first solar-powered plane to fly through the night.

A craft called SoLong, developed by US firm AC propulsion, flew for 48 hours in 2005.
However, unlike Zephyr, the craft was not under constant power for the duration of the flight. Instead, it occasionally had to glide or soar.
Other companies and organisations have also developed similar craft.
The US space agency Nasa

Helios broke up over the Pacific, west of the Hawaiian island of Kauai

developed both the Pathfinder and Helios vehicles.
The agency believed the vehicles could one day be used as a replacement for satellites or as unmanned drones to explore other planets such as Mars.
Helios, the successor of Pathfinder, set an altitude record in 2001 for a non-rocket-powered winged aircraft when it climbed to 96,863 feet (29.5km).
But in 2003, the vehicle broke up on a flight from the US Navy's Pacific Missile Range Facility on the Hawaiian island of Kauai.

Fragile cargo
Others currently building solar-powered planes include Switzerland's ETH.
Its experimental Sky-Sailor craft is much smaller than Zephyr, with a wingspan of just 3.2m (10ft), and is designed for use on



Lightweight plane (31kg/ 68lb) is launched by hand
Flies autonomously and can climb to more than 18,000m (58,000ft)
By day it flies on solar power and recharges batteries.
By night it is powered by rechargeable lithium-sulphur batteries

Mars.
All of these prototype vehicles have flown autonomously or

But in 2010, Swiss balloonist Bertrand Piccard plans to launch Solar Impulse, a manned plane in which he will attempt to circumnavigate the globe.
To carry the precious payload, the craft will have a huge wingspan of 80m (262ft), wider than the wings of the Airbus A380.
As the plane is piloted by only one person at a time, it will have to make frequent stopovers. The current plan is for the journey to be broken into five legs each lasting between four or five days

CLUB COPMPETITIONS FOR 2008
I've had the 2008 competition dates from Mark Ollier
They are as follows

MARCH 16TH -------- MARCH MAD FLY FOR FUN

MAY 18TH ---------- F3F

JUNE 15TH ---------- FOAMIE PYLON OR FLY 4 FUN

AUG 24TH / 25TH --- SCALE DAYS

SEPT 14TH ---------- F3F or CROSS COUNTRY

OCT 12TH ---------- SPARE DATE

All comps will start at **11:00am PROMPT** and will last for approx 3 hrs. Normal sports flying outside of the comp times will be permitted.

Choice of sites will depend on wind direction ~ The type of event may change to suit conditions so please bring a selection of models if possible ~ Let's hope we get more luck with the weather this year!

Please put these dates down in your diary and make every effort to attend even if it is only to help with marshalling/time-keeping
Thanks

How's your Aerial?

It's quite a while ago now since John Matthews wrote an article in the newsletter about the dangers of allowing gunge to build up on the inside of the TX aerial and its possible consequences.

John used to repair radio gear for Baggnalls Model Shop of Stafford. This was in the days when the cost of radio gear was probably as dear if not dearer than today's prices. ~ With the average weekly wage of a tradesman being around the £30 mark at the time, repairing gear rather than replacing it was usually the preferred option.
One of the checks John made on faulty transmitters was to check the continuity of the aerial to see if there was a good contact between all the individual sections. He once told me that he had been surprised by the number of times he had found aerials showing this type of fault

I've kinked and broken a few of my TX aerials over the years but until John's article I had never heard or thought that a dirty aerial could be the cause of radio problems
However, since John's article I've experienced this problem on at least two occasions.
A few weeks ago, Ian Webb told me that after suffering several nasty glitches he decided to do a continuity test on the aerial and found that only the three bottom sections were OK. This meant that over half the transmitter aerial was not working or only working intermittently.

Remember, it is only a small sliver of brass at the bottom of each section that makes

This is the bottom of one section of a telescopic aerial showing the two brass shims that lock into the two holes on either side of the aerial ~ When extended they act as a stop when they hit the top bevel of the next section

contact with the walls of the aerial when it is fully extended. (See Picture) If for any reason these slivers fail to make a good contact with the wall of the aerial (usually through a build up of dirt and grease over a period of time) all sections above that bad contact become redundant.

Ian Buckley is trying out his recently acquired second hand Twin Star ~ verdict? Good fun!

I've found the problem can easily be cured by removing the aerial from the TX and squirting a good helping of switch gear cleaner through the threaded hole in the bottom of the aerial followed by fully extending and collapsing the aerial several times. If this procedure is repeated a few times it will remove most if not all the gunge.

Before the age of online shopping etc, when it meant days if not weeks before you could get a new aerial. I use to replace a broken or badly bent section with parts I'd saved from a previously broken one. This meant unsoldering the threaded round nut at the bottom of the aerial (Usually over a gas stove flame because the normal soldering iron can't supply the necessary heat ~ a pair of pliers come in useful too) breaking the aerial sections/slivers down into their individual components ~ replacing the broken section and reassemble in reverse order. Today, the low cost of new aerials and the ease of replacing makes repairing a thing of the past; at least it does for me. I usually get a spare aerial from one of the shows and when my current aerial gets stiff, usually through being bent or kinked, I replace it.
When you compare the cost of an aerial and the likes of inboard battery packs with the cost of today's models, it's not worth taking any chances.

Group Tackles Mystery of Murderous Mermaid

Paranormal investigators are trying to discover the truth about myths and legends in the surrounding Mermaid area.
The research is being carried out by the Congleton Phenomena Investigation Association. The association investigates ghosts and haunting, UFO sightings and alien abductions among various other abnormal happenings.
Now it has turned its attention to tales of the unexpected in the Staffordshire Moorlands, following requests from new members.
They are probing folklore surrounding the Mermaid Pool, at Morridge, near Leek.
Locals believe that neither birds nor beast will drink from its dark waters. They also reckon that it has claimed numerous lives.
Legend has it that anyone brave enough to go near the pool late at night will be enticed to a watery grave by the mermaid.


GROUP TACKLES MYSTERY OF MURDEROUS MERMAID

Tales of families who were executed for murder and cannibalism will also come under the spotlight.
The association is also investigating first hand reports of ghosts of nuns from the 15th century Croxton Abby at Oakamoor
The associations co-ordinator is Dave Sadler; of William Street Buglawton. He said: “Legends are very difficult to substantiate, but any myth, legend or folklore is likely to have some truth, even if it is misconceived.”
“We like to take a scientific approach and carry out research to see if we can find a rational explanation”
“In the case of the Mermaid Pool, we will do some general research of the site and try to glean as much information as possible about what as been reported over the years; we will also take water samples away for analysis.”
“The difficulty here is that some of these reports date back 10 centuries. They are

well known to local people and there are many different versions of events."
"We would also like to hear from anyone who may have any evidence or information or who has witnessed a haunted manifestation"
"We have only just started on this and details and locations are still quite vague."
"One lady claimed to have seen apparitions of nuns and monks around Croxton Abby."
Historian Ray Pool said: "The Staffordshire moorlands is an area with a lot of legends and myths attached to it. Centuries ago, it was a fairly wild and remotely populated area, and most people were simple minded folk"
"It would be very easy to imagine seeing something on a stormy, foggy night, and that seems to be the setting for many of these myths"

Is this one of us or one of them??

Just Another Grumpy old Man

(More ramblings from an Ancient Aeromodeller)

Now that Christmas has all but faded into the history book along with most of those well intended resolutions I so rashly made. I have, thank goodness, settled down into that boring routine I unashamedly admit, I feel so at home with.

Christmas for me is yet another one of those annual events that comes round to remind me that I'm still a fully paid up member of the 'Grumpy old Men's Club'. I wonder how many of you lot, shut the door after the last of the New Year's visitors have left; close your eyes and breath a sigh of relief that says "Thank God it's all over for another twelve months?" Come on be honest! There's no subscription involved in joining 'The Grumpy Club'.

My 3m Dragon silhouetted against a colourful backdrop. Photographed at the Pool earlier this year by Graham Gibbons

While on the subject of Christmas, there are still two things reasonably fresh in my mind; one pleasant, one galling. The pleasant one was my son splashing out

and buying me one of those Sat Nav thingies; not that I do much long distance travelling these days, but it will ensure that I'll have no more navigational problems travelling the 4 miles to and from the shopping centre where the wife and I have done our weekly shopping for the last 12 years.

The galling one was buying two batteries as part of my grandsons Christmas present. The physical size of the batteries were about 2/3rds that of the standard AA. When you consider that you can get a pack of 12 AA - 2000mha rechargeable batteries for £9:99 at one of Maplins regular sales; you will probably understand why I was a bit miffed when my wife came back from a shopping trip to Jessops and told me that the two batteries had cost £14:99 and what's more, they were not rechargeable. I've not made my mind up yet whether the high price is due to the amount of gold they contain or whether it's all to do with the plastic covered card containing the words 'For Cameras' ~ I hope you've noted that I've never once used the words 'Bloody Rip Off' ~ Could this mean that there's still a remnant of the festive spirit left in me?

Geoff Johnson with his son Paul enjoying a spot of flying at the gate

Old habits die hard

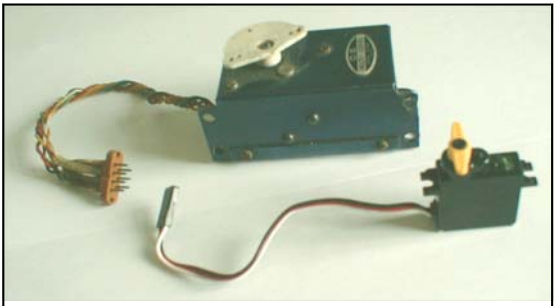
There's this big open field right opposite our house. (Acres of it) For years I've threatened to treat myself to one of these electric jobbies so that I can mosey off across the road on some barmy summers evening and power a model up to some great height and then lazily float it around to see how many thermals I can find.
I think I should tell you at this point that I'm not the least bit interested in something that will blur its way across the sky doing a ton ~ neither is prop hanging very high on my 'Must have List'
My aim is simple; I just want to get an evenings flying in on one battery charge. OK! Don't say it! I already know I'm a boring old fart

Early this year I managed to acquirer a 2m model called 'Mefisto'. It was all kitted out with motor, speed control and radio gear. (Ready to Fly) Its all up weight just about squeezed it into the lightweight category; ideal for my needs.

No doubt most of you, in my situation, would have headed off across to the field just as soon as you'd charged the batteries up ~ What did I do?? Well let me digress into a little nostalgia at this point ~ I'll answer that question later.

Way back in the 60s, I saved up for moths until I'd finally scraped enough money together to treat myself to a 10 channel O.S transmitter and receiver (It was a tuned reed set-up) ~ This was the absolute ' Big Dogs Testicles' in its day ~ It had an array of self-centring switches on the transmitter; this for some one who had only been pressing a single button for the last few years (single channel) was a little intimidating.

I should tell those of you who have never seen or heard of tuned reed radio gear that it is nothing like the proportional transmitters we use today where the control surfaces on the aircraft move proportionally to the transmitter stick movement. When a switch was operated on the O.S tranny, the control surfaces on the aircraft went from neutral to full throw, nothing in between. This meant you had to pulse the switch at varying speeds to get fast or slow turns etc. Can you imagine controlling rudder, elevator and ailerons with this type of transmitter? ~ Hell! You young 'uns don't know you're born ~



A comparison in size between a servo from my O.S 10 channel set and one of my resent buys Note the plug and number of pins (7)

Another thing worth mentioning is that the size and weight of the onboard radio gear bore no resemblance to the modern miniaturized stuff we use today. This larger heavier payload meant that I had to build a bigger model than I usually flew. This was long before the days of ARTF models.

Most RC models at this time were basically free flight models that had been adapted for radio. As a result, they were ultra stable and if trimmed out well would fly perfectly happy with little input from the transmitter. The only real advantage those early single channel models had over the free flying models was that you could, with luck, prevent them from drifting off down wind. The OS 10 channel set up was a completely different ball game.

I'd be surprised if most of you haven't suffered that involuntary twinge of a muscular spasm around the buttocks region when the time came to launch that pristine model for the very first time; and this with modern radio and a load of experience or help available. Can you imagine standing on a slope having no one to help or to give advice ~ no previous experience to draw on, and, the sure knowledge that your brain will hit overload soon after the first few flicks of the switches?

In an utter state of panic, my bemused brain could only think of one thing to do and that was to revert back to the comfort zone I was so at home with; 'Free Flight' Consequently, I did the unthinkable for an RC model, I launched it with the radio switched off. The idea being that if it was trimmed out as a free flight model I could fly it on rudder only (as per single channel) and then play about with ailerons/elevator when it was at a safe height.

The Gods must have been on my side that day because after two trim flights with no radio and no damage, I switch it on and the model went away like a dream. It was only when I started to use the ailerons and elevator switches that the nightmare started ~
Those were the days; 10 minutes flying (if you were really lucky) followed by 'Oh Shit!' and back home for a week of repairs.

Oh yes, I almost forgot! What did I do with my new electric job? Why I retreated back to in to my comfort zone of course. I took it up to the slopes; lobed it off in a steady blow and powered it up when it was at a safe height ~ old habits die

Safety is important ~ 'Read This'

Safety is and always has been something responsible modellers have taken on board whether they are members of clubs or fly as individuals. Nevertheless, no matter how safety conscious a modeller is, there is always the possibility that they could be involved in an accident; the cause can often be outside their control.

It is for this reason that the club rigorously checks that modellers have current insurance before accepting their annual subscription. ~

Over the years we have assured all our site owners that the club's policy is '<u>No insurance ~ No flying</u>'

All our moorland sites (Mermaid/Roaches) are owned/controlled by Peak Parks, Natural England or the MoD. In the past, there have been times when relationships between these landowners and modellers have been tenuous to say the least. With all our moorland sites now being open access and some close to a public highway; it would only take one accident between a modeller and a member of general public for these landowners to cause us real problems.

If for any reason that modeller had no insurance we could well end up losing these moorland sites.

Unfortunately, Peak Park/MoD automatically assumes that anyone flying

a model plane on this land is a member of the L&MMGA. This means that we have not only got to be vigilant regarding our own flying but that of others too, particularly regarding insurance.

Ensuring a safe standard of flying and checking that all fliers who use our slopes have current insurance is too important for it to be left to a few club officials; we must all be vigilant

Our frequency board system was designed (Tag On ~ with clear Name and Date) so that valid membership can easily be checked. Anything other than a valid LMMGA tag put on the frequency board should suggest that it belongs to someone who might not be a member and is possibly flying without insurance ~ it should be checked out by asking for proof of insurance or having a known member vouch for the flier.

Guests are and always have been welcome on any of our sites but only if they have current insurance. We are unfortunately living in a 'Blame and Claim Culture' ~ we can't be too careful.

The L&MMGA committee is especially concerned by members who are late renewing their subs. We are only concerned for one reason and <u>one reason only</u> ~ the delay in renewing their L&MMGA membership is usually because they're late renewing their BMFA insurance.

Unfortunate Guys! An accident is just as likely to happen in January as it is in December and Insurance Firms are not the least bit interested in statements like :> "Sorry! It was an oversight; I'd every intention of renewing my insurance"

The club's record on safety is exemplary. I can only recall one accident in the 50 odd years I've been flying on the moorlands ~ a slight dent to a modellers car ~ lets maintain this record!

Note::: It is well to remember that model aircraft come under the same umbrella as any other aircraft when it comes to safety. Both the BMFA and CAA make it absolutely clear that the pilot of an aircraft is solely answerable for sound maintenance and responsible flying. Failing to do this could result in a criminal prosecution

Be Safe not Sorry

A Look Back in Time by Phil Clarke

I was chatting (Reminiscing) with Phil Clarke a few weeks ago, as us old 'uns tend to do, and, I discovered that Phil had once made a batch of models called the 'Taurus' on a production line method (see Pictures) . Having done a similar thing with Ian Webb a few years ago, we compares a few notes; the outcome being this article for the newsletter.

Phil Clarke's son Jonathan holding his dad's 'Taurus' He was about 5 yrs old then.

Phil wrote:>

With regard to the 'Taurus' production, the orders came from Roger Hargreaves. Roger was a very interesting and enthusiastic guy who loved building and flying model aircraft so much that, back in the sixties, he gave up his job to become a rep. for Ripmax. When the Taurus came on the scene , he wanted one. He built himself one and kept it very light and it flew a treat. But, of course, accident rates were a little more frequent than they are today (we were in the age of tuned reeds guys) and he soon needed another airframe. Would I build him one? - or could I manage more!

The first order was for five uncovered airframes. It seemed a hell of an undertaking at the time so the first thing I did was to produce a set of templates and a few jigs to ensure accuracy and repeatability. The tricky part of the construction was the 3/32nd sheet wrapped leading edge with no L/E spar so careful choice of 6" wide medium-to-soft balsa sheet was needed. This technique was made possible because of the very high thickness/chord ratio of the Taurus - something like 18% if I remember correctly. The sheet was cut to the final shape required and well soaked with water on the outside surface. This was then pinned to the building board with the lower mainspar glued in place followed by all the ribs. The top spar was then

added and the L/E sheet gently coaxed around the ribs after applying a suitable adhesive - usually 'White Glue' though I think the root and tip ribs and one in the middle would be 'Evostuck' which helped to hold the sheet in place whilst I pinned or clipped the sheet to the top spar. This was a nerve-wracking process as a crack in the L/E sheet at this stage meant stripping down and starting over again. I think it happened to me just twice in all the orders that I produced. A special jig consisting of a series of matched L/E profiles (female) attached to a block at each rib station was then offered up to the L/E to press the sheet onto each rib and this was left overnight until dry.
As far as I remember, I then accepted orders for a further ten and then fifteen making a total of thirty in all. Wow1 I couldn't do that again.
Roger eventually left Ripmax and set himself up in business, starting the 'Super Models' shop at Spondon here in Derby, producing the 'Jolly Roger' range of kits. He later sold the business and moved north and we lost touch.

A picture of my garage/workshop around 1968 with the 'Taurus' production line in full swing. What a grind it was. I would definitely not do it again. But, of course, circumstances have changed somewhat since those days

You may be interested to learn that Roger's son Simon Hargreaves, who learned to fly his Dad's Taurus all those years ago, joined the Navy, flew Harriers in the Falklands campaign and later became a test-pilot for BAE Systems doing a lot of test flying on the Lockheed/Martin X-35B Joint Strike Fighter out in the States in 2001. (more info. in the Daily Mail - June 29th 2001) - Both extremes of the aviation spectrum I would say.

This picture was taken in 1976 it shows from left to right Roger and Simon Hargreaves taking the mickey out of Jonathan (aged 13), who could well have been flying my aileron version of the basic 3-channel 'Jolly Roger' at Darley Moor aerodrome using our first proportional radio gear, the Skyleader Clubman 4-Channel . This equipment is still in use (27 MHz) by my old school buddy Roy Webster in my very first slope soarer, the 'Soarcerer' which I passed on to him a couple of years back. Must get him up to the slope more often this year.

Your Newsletter needs your contribution! Anecdotes ~ Tips ~ Letters ~ Photographs with details if possible ~Articles ~ Latest building projects ~ Moans and groans ~ Advice ~ Honest Kit reviews (Now there's a novelty) ~ Your concerns ~ Please make it YOUR Newsletter not just mine.

The last Sunday in January

Today saw a fair old crowd at the Gate ~ For most of the afternoon we were blest with a mild temperature and blue skies. However, flying wasn't for the fainthearted because the wind was in excess of 40mph for quite a bit of the time. There was a good cross section of models ranging from those EPP Zaggi types (well balasted) to 3m all mouldies but for me, the show stopper was undoubtedly Ian Redshaws 'Fauvel AV22' ~ It was the first time I'd seen this model and I was impressed by the size and shape of the fuselage and the root-cord of the wing.
I was a little surprised when Ian decided to give it a go. considering the strength of the wind.

Ian Redshaw's Fauvel AV22 was quite at ease in the 40mph plus wind ~ No problems with penetration

The AV22 is one of George Fauvel's flying wings (Designed in the 50's I believe) but he had been developing wings from the late 20's ~ According to what I've read, there had been a spate of fatal accidents around this time as a result of gliders suddenly tip-stalling. Fauvel's thought that a flying wing would help to prevent this. I don't know about his earlier designs but the AV 22 wing was apparently successful because from all accounts, the aircraft porpoise (a rhythmic rise and fall of the nose) well before it reached the critical stalling point ~ It would be interesting to find out if the model has a similar anti stall performance as the full size plane ~ OK Ian?? George Fauvel died on the 10th September 1979 at the controls of his airplane, a Gardan "Super Cab", which struck the Alps at 735 meters altitude north of Genoa, in Italy.

The wind was so strong that it took three of us to launch the model ~ A credit to Ian's flying skills to be able to cope in these conditions. ~

Great Orme Llandudno

The wind strength on the last Sunday of 2007 was a bit iffy but we took the plunge and decided to risk our third trip of the year to the Orme ~ Apart from a touch of hill fog around lunch time it turned out to be a good call ~ these are a few photographs taken during the day

A Dragon skimming the rock face on the lower parts of the slope

Prop hanging by one of the locals ~ There must have been 7 or 8 local fliers who turned out on the day.

This is Andy's Funjet by Multiplex. It was certainly a model in a hurry.

The good looking guys are (from the left) Ian Buckley, Graham Gibbons, Ivan Bradbury, Ian Webb ~ I'm not sure who the ugly looking bugger is who's holding the 4 M Vega ~ It could be Mark Ollier

Vega coming in to land