



**Sun 'n Fun USA**  
**Triumph Live Motorcycle event**  
**Airglow HPA**  
**QuikR wins World Speed Record**  
**PulsR wins in France**  
**Spamfield 2014**

# Expand your Horizons



Three generations of P&M trikes. A GT450, QuikR and GTR Explorer.  
Photograph sent in by Chris Pyle following his summer tour of Scotland with friends.

Welcome to our P&M Autumn newsletter. Earlier in the year we carried out an extensive research campaign when we asked you what you wanted and what we could do better. It was a hugely successful exercise which stimulated a very encouraging response from our customers and dealers from around the world. Some of your ideas have already been put into action and others you are going to have to wait for a little longer, but we can assure you that we are on the case and our Rochdale and Marlborough workshops are now flat out improving our existing products and looking at developing some of your ideas.

With immediate effect, we are delighted to announce the launch of our new Quik Lite - an SDR trike which is fitted with a Rotax 582 two stroke engine. This aircraft was first shown at the annual Spanfield Fly-in on the Isle of Wight in September and the initial reaction has been very encouraging. With a basic starting price of under £20,000 inc VAT and mated with the original 10 sq metre Quik wing, this aircraft is pure magic to fly. Along with its light handling and economical performance figures, this aircraft would be a delight to own whether you are new to flexwing microlight flying or a seasoned pilot wanting pure fun. The next stage is to take the Quik Lite through a series of tests using the larger 13 sq metre GT450 wing so we can offer it as a cheaper alternative to our existing two seat range of flexwing aircraft.

A lot has been going on in the last few months. In April P&M USA had a stand at the huge Sun 'n Fun international Fly-in in Florida where the team had great delight in passing all the American competitors flying their trikes around the Paradise City circuit pattern.

In July we were invited to the Triumph Live motorcycle event at the Heritage Motor Centre at Gaydon in Oxfordshire which was a new event for us. Our PulsR and QuikR trikes along with the BMAA Quik Flight Simulator attracted much interest all day keeping the team busy.

Since our last newsletter in the Spring some of you will have noticed that we also now have a new website. It is clearer with more information and will be updated as we all move forward. We have also now got our own Facebook and Twitter pages. Take a look at Facebook: <https://www.facebook.com/pages/PM-Aviation/819301064787502> or Twitter: [@pmaviation](https://twitter.com/pmaviation). All sites are interactive and invite comment.



# Sun 'n Fun international Fly-in and Expo



The 40th Sun-'n-Fun International Fly-in and Expo held in the Florida sunshine last April was a huge success with an ever growing list of visitors, static displays and demonstrations.

The Paradise city area in the south of Lakeland airport was enhanced to accommodate all Ultralights, Gyros and small helicopters and the Light Aircraft Manufacturers Association LSA Mall was in easy walking distance to see the large variety of light Sport Aircraft on display.

P&M Aviation USA were present with a fleet of 3 trikes along with Evolution Trikes who were showing off their 'Revo' and SilverLight Aviation displaying their soon to be US LSA certified 'Apollo Delta Jet II'.

A welcome change this year was the expanded hour's that manufacturers could demonstrate their aircraft from the Paradise City grass runway which is longer and wider than before. As a result P&M Quik trikes were flying the circuit pattern on a regular basis. They were easy to spot at 90+ mph closing in and passing just about any other LSA in the pattern. Thanks go to Tony Castillo (Distributor for P&M trikes in the USA), Gary Berdeaux (P&M WS CFI), Trevor Sayer (P&M WS CFI) and Marlin Siebens who graciously accommodated everyone in his large Motorhome.



# Triumph Live Event Motor Heritage Centre at Gaydon



In July P&M were invited to the Triumph live event in Oxfordshire. With two trikes positioned at the entrance to the Motor Heritage Centre and the Flight Simulator located inside, P&M had crowds of interested customers all day asking questions and getting to know microlight flying. As flexwings are often described as the motorcycle of the sky, this was the perfect event to introduce trikes to bikers. Launched in 2010, Triumph Live has proved to be a big hit with bike fans and families. The one day event featured live bands; stunt riding shows; factory tours; road and off-road demo rides plus a wide variety of other attractions & retail zones. Once the day's programme faded into the evening, visitors were treated to an eclectic selection of live music which got the party started.



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# Single Seaters Just Got Serious

## The New Single Seater de-regulated Quik Lite



The Quik Lite, single seat de-regulated microlight with maximum performance. Combining the superb handling of the original Quik wing with the smooth performing Rotax 582 engine, giving a truly serious aeroplane with total freedom to enjoy the skies.

### Specification

Max Straight & Level Speed: 95mph

Cruise Speed: 55 – 80 mph

Typical Empty Weight: 180 kg - 190kg - Subject to specification

Tank Capacity 65 litres

Overall Length 3.7m

Wing Span 8.35m

Stall Speed: 36mph

Climb Rate 1100 ft/min

Max All Up Weight 300kg

Overall Height 3.74m

Wing Area 10.6 sqm

Price	Exc VAT	Inc VAT
Standard Aircraft	£16,662.50	£19,995.00

Quik Lite specification - Rotax 582 (65hp) B Gearbox - 65 Litre Tank - Warp Drive 3 Blade Propeller - Front Wheel Brake - Explorer Wheels

### Instrument Packages

	Exc VAT	Inc VAT
Primary Pack: ASI - Alti - Tacho - EGT/EGT - WTG	£525.00	£630.00
Advanced Pack: ASI - Alti - VSI - Tacho - EGT/EGT, WTG, Fuel Gauge, Silva Compass	£850.00	£1020.00

*The sale of this aircraft may be restricted in certain countries due to the approval process*

# Human Powered Flight - The P&M AIRGLOW project



As the sun rose on a still and misty morning at Lasham Airfield in early July, a group of intrepid aviators were alighting up for their early morning flights. With the aircraft wheeled out from their marquee like temporary hangars and pilots warming up on pedal cycles, we were experiencing the inaugural BHPFC (British Human Powered Flying Club) Rally. Created by P&M's technical Director, Dr Bill Brooks, its purpose is to run flying events, to support builders of HPA (human powered aircraft) and to disseminate information on human powered flight.

P&M Aviation have been supporting British Human Powered flying since 2011 when the team rejuvenated 'AirGlow' back to flying condition after many years of neglect. Airglow was originally designed and built by John and Mark Macintyre over 20 years ago

With an Easterly wind, the aircraft were taken all the way down to the threshold of 09. In this direction the Lasham runway is uphill, rising by approximately 50ft over it's 1797 metre length. This is completely insignificant to any other type of aircraft, but a huge factor for a human powered machine. With long wingtips giving 33 metre span, Robin Kraike was able to fly it about 700m before the ground rose up to meet him.

Such a flight is an interesting experience. Airglow does not have a driven wheel. It can take off unassisted, but it is quite exhausting as the propeller delivers very little thrust until about 10mph when the blades un-stall. With assistance from 2 wing runners and a "javelin" man on the tail boom giving a final push, the usual launch is to walk then build into a run with the pilot building up to full power. Control is by a tiny model aircraft size joystick, it feels strange to be flying such a large and slow machine with such a small device whilst pedalling strongly. Full up elevator is applied at about 17mph IAS and the rattle from the tiny castoring nosewheel goes silent as the nose lifts. Then Airglow majestically lifts off, everything going quiet apart from the transmission, your breathing and a slight rustling of mylar. Pitch control is a case of fine adjustment, with below 19mph being "on the back of the drag curve" and 24mph too fast to sustain level flight. At 22mph there is the minimum power requirement of about 270 watts which can be sustained for a few minutes. Turning is a very slow affair, with yaw coupling to roll by dihedral effect. Some HPA have ailerons, the 'Musculair' being quite manoeuvrable. With the huge 33 metre span and low speed, spiral divergence is a problem. Turns are started with rudder and then (if fitted) opposite aileron used to support the inboard wing allowing a flat turn.

This year was all about testing, research and development. All the teams had an interesting time and human powered flight is progressing like never before. What we need now are some good cyclists who can be trained to fly!



# Blois 2014

## Festival International de Tout de l'ULM



In early September the P&M team flew PulsR and their latest Lime Green GTR to the French Blois ULM festival. The show once again a huge success with record crowds and much interest shown in our trikes.



### PulsR Wins in France

Rob Keene and Phil Hanman have won the 2014 'Le Tour ULM' in France using PulsR. The annual event is organised by the Ultralight Federation Francaise D'ULM. Many congratulations.

### New World Record



Its official. The Federation Aeronautique Internationale in Switzerland have officially ratified Gordon and Evie Douglas's world speed record attempt last June flying their QuikR Weight-shift Control aircraft Flown with two persons. Their speed was over a closed circuit of 50 km with a performance of 170.77 km/h. (106.11mph)



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**W**hen Mike Bowen ordered a new GTR it needed delivering to Jersey where he lives. Mike's day job is flying Citation Mustangs and despite thousands of hours in his log book, Mike had only flown hang gliders in the past with some training on flexwings. As a result he needed someone not only to deliver his aircraft but also provide some difference training once delivered.

Andy Buchan from Light Flight microlight school at Caunton Airfield in Nottinghamshire, got the job of collecting the aircraft from P&M's Rochdale offices, test flying it and then getting it ready to fly to Jersey.

Like many things in aviation long distance adventures don't always go according to plan. Andy had originally hoped to leave Caunton at 8.30am to get to Popham near Basingstoke by mid-morning but due to poor weather with low cloud and deteriorating visibility he had to return home. At 12.30 Andy had another go and flew at 80mph in improving if rather bumpy conditions, where the team at Popham helped with submitting a new flight plan.

With a 4 hour window until dark - roughly the same as the fuel and his bladder duration, Andy finally left Popham at 4pm. This meant he could start off over the water to Jersey and return if conditions got bad. The route taken was from the Isle of Wight to a mythical point in the ocean called ORTAC where he would then enter Jersey airspace direct from the UK, avoiding French airspace. This route was 100 miles over water.

Once Andy coasted out from the Isle of Wight, conditions were smooth and the GTR trimmed out at 80mph dead straight, hands off. Visibility was good, but he could see low cloud over the Cherbourg peninsular so was pleased to have had taken the sea route.



As Jersey loomed into sight, Andy reported his position at the NW Corner and joined a wide circuit to land on the airport's large 1706 metre hard runway. Looking a bit lost, tower guided him to the Aviation Beauport hangar where Mike was waiting to see his new toy for the first time. Just over six and a half hours airtime and he was there! Now that is what I call service.

Andy stayed on Jersey for the next few days and completed Mike's conversion to flexwing, with Mike flying 3 solo flights in his new aircraft. The GTR is now resident in the Aviation Beauport hangar between jets and chipmunks! G-EGJJ which is also the ICAO designator for Jersey Airport is the first flexwing microlight to be based on the island.

## Did you know

**W**e make propellers, cockpit pods, Seats, upholstery, Sails, Aircraft covers, CAD drawings, design and certification of mods.

We can also produce all composite parts e.g. cowlings. We have cowl moulds for Rotax 912 conversions of the Jodel DR1050 and also the ARV super 2.

We have also made one-off prototypes in the past e.g. the drivetrain for the Pilcher Triplane replica and the sails for the BAe Cayley glider replica.

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