

free.aero

WORLDWIDE PARAGLIDING AND PARAMOTORING MAGAZINE. FOR FREE.

ICARE 2016

NEW WINGS NEW KIT



Mini Wing EN 926-1

ROLLER

**Remember when
you had no limits**

The new Niviuk speedflying glider aimed at those looking for new ways to experience fun with a multifaceted paraglider. Speed, precision and easy handling are some of the characteristics built into this model, which is suitable for a wide variety of pilots. Excitement awaits you.



ICARE 2016



At the end of September the Coupe Icare 2016 was, as always, an amazing spectacle as well as being the biggest showcase for free flying and paramotoring in the world.

On the paragliding side, the technology race has clearly commenced, with the omnipresent SharkNose, or similar, as well as other innovations like mini ribs right down to EN A classified wings. The EN B classification has become more and more sought after. The manufacturers offer wings which have been very honed and offer very high performance. The Nova Phantom, EN B with 99 cells and the modest price of 6500€, is an extreme example.

We visited most stands. For some of the manufacturers who we haven't mentioned, particularly in paramotoring which is increasingly prevalent every year, we'll publish more news in a future edition.



Photo : Icaro

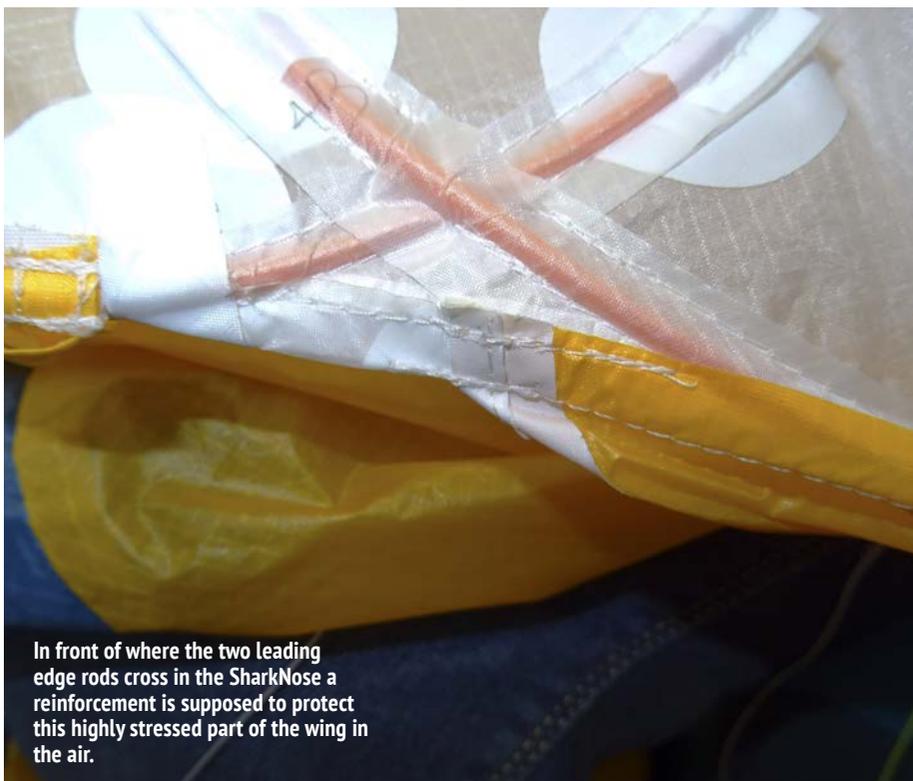


The Icaro logo, the edelweiss, is featured on the aesthetically designed wings. A good idea and still leaves space for future models.

The Gravis is the new EN B wing from Icaro and situated in the middle of its category. Icaro promise good speed (39 km, accelerated 53-55 km/h), but above all, a wing which has had a lot of the details optimised.

It is also light and thus better damped, as well as being well adapted to hike and fly.

ICARO



In front of where the two leading edge rods cross in the SharkNose a reinforcement is supposed to protect this highly stressed part of the wing in the air.





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paratroc.com
Doussard - Lac d'Annecy (France)



ICARO



The leading edge rods are made from a material which is also used in the medical sector.



Inside the splice which forms the buckle on this thin line there is an extra line to make it stronger.



Mini ribs in the leading edge.



The lines have different diameters, even in the same row.



SWIFT 4 by OZONE

CLASS DEFINING CONFIDENCE

The Swift 4 is a lightweight development of the Rush 4 constructed with a hybrid mix of light and ultra-light materials and SharkNose solidity. Lightweight, agile, with top of class performance and a lively but balanced feel in the air, the latest edition of the Swift series has benefitted from the performance breakthroughs that have made our sport-performance class wings, such as the Delta series, so popular. With a Delta 2 type arc, mini-ribs, plastic nose reinforcements, 57 cells for a super clean leading edge, and a 25% reduction in total line drag compared to its predecessor, the Swift 4 is the most efficient wing we have ever produced in the category.



Photo : Bruno Lavit

ICARE SHOW



Photo : Bruno Lavit

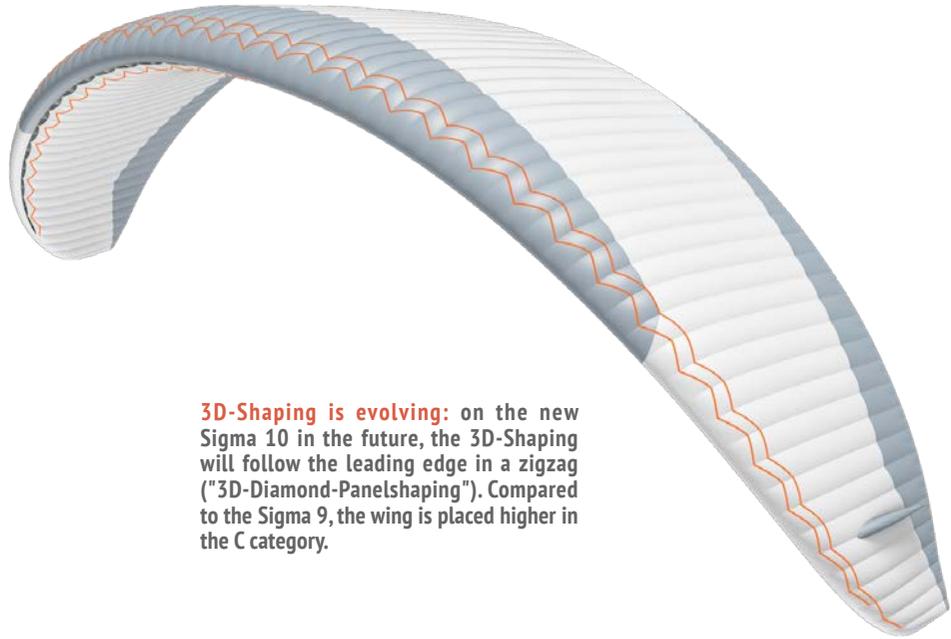
As always, it was one big party at Saint Hilaire, in the air, in the tents and in the street.

ADVANCE

A tandem paraglider with a red and yellow canopy is flying over a large blue lake. The background features rolling green hills and a large mountain range under a blue sky with white clouds. The paraglider is positioned in the center of the frame, with the lake below and mountains in the distance.

Available from November 2016 onwards, the new BiBeta 6 tandem in two sizes 38 and 41 (all up weight 100 - 180 kg and 120 - 225 kg) for a fairly low weight of 6.75 kg - 6.95 kg. This reduction in weight is definitely in keeping with current trends and will be reflected in the reduced folded volume. The lines have been reduced to three rows.

ADVANCE



3D-Shaping is evolving: on the new Sigma 10 in the future, the 3D-Shaping will follow the leading edge in a zigzag ("3D-Diamond-Panelshaping"). Compared to the Sigma 9, the wing is placed higher in the C category.



Long live safety! The new harness, the Success 4, will not only be pretty light (4 kg) and very comfortable, but also very safe thanks to new protection.

3 sizes: S (pilots from 155 to 172 cm)
M (165 to 187 cm)
L (175 to 202 cm).



PEGUET

Fabien Encelle from the company which makes the famous Maillons Rapides also used their presence at the Coupe Icare to instruct a bit. Generally speaking, if you don't have a torque spanner, a maillon needs to be tightened by hand, then a little bit (a tenth to a twentieth of a turn) with a torque spanner or with pliers.

No more, no less. On the strength test benches, if a maillon is correctly done up the thread won't break. On the other hand, if it is only done up a little bit or open, it isn't the same, look at the result...

And obviously, a Maillon Rapide shouldn't be replaced by any old maillon, without a stamp certifying the strength and origin.

<http://www.peguet.fr/index-gb>



Photo : S. Burkhardt



SMART CELLS



AIR SCOOP



LOW ASPECT RATIO



DOUBLE 3D SHAPING



EASY PACKING



WEIGHT OPTIMIZED

ION 4 - Performance for All

High performance, light and a master at turning: the ION 4 has a better glide than the MENTOR 3. From 3.95 kg (XXS) it is feather light and thanks to its smart brakes, it offers impressive handling and climb performance. Discover the new milestone in the ION series!

Adventure intermediate with smart brakes (EN/LTF B)

www.nova.eu/ion-4



The Zeno has been a great success.
Photo: Jorge Atramiz/Ozone



OZONE

There were a lot of Ozone's top brass at their stand: Managing Director Mike Cavanagh, Emilia Plak who looks after the paramotoring side of the business and designer and test pilot Russel Ogden. Photo: Sascha Burkhardt

There is lots to talk about at Ozone, but unfortunately still very few photos.

The Geo 5 is the lightweight version of the Buzz Z5, it will be available soon and has, of course, got a SharkNose.

Long anticipated, the 4th version of the Ultralight. In the end it isn't a hybrid of the UL3/XXlite as we expected at one point. It's a classic wing, but with a profile and form which have been redesigned. The Ultralight 4 will have better performance, be faster, and even easier to launch. This is an amazing promise, because the UL 3 is already almost as easy to take off as a single skin wing.

The Freeride is a paramotor wing aimed at Slalom and other games, just below the Viper 4, based on the latter, but a bit more accessible with a reduced aspect ratio and four lines.





The all new Kona at the end of September 2016 above Lake Boadella in southern Catalonia. The Kona is based on the Buzz Z5 and can also be used for free flying.
Photo: Bruno Brokken. Pilote: Emilia Plak.

OZONE

The Kona is the paramotor version of the Buzz Z5, but it will be perfectly feasible to use it for free flying too.

At the end of 2016 there will also be the Zero 2, an evolved version of the Zero, which was the first mini wing with a SharkNose profile.

In addition, we wanted to know if Ozone, inventor of the modern SharkNose, now omnipresent on all the makes, is going to include this profile across their whole range, including the Atom. The answer: not necessarily because, for example, on a wing with a very low aspect ratio like a school wing, the size of the openings on the leading edge must remain bigger than on a higher aspect ratio wing so that it guarantees a perfect scoop. But big openings aren't compatible with a SharkNose.

Here too, there is a choice and a compromise to make depending on the model.

NOVA

One of the most talked about items at the Nova stand was obviously the Phantom. This EN B costing 6490€ has 99 cells and a low aspect ratio of 5.19 ([see our article 'The Making of'](#)).

Also new this year is the Bion 2 tandem.

The owner of Nova, Wolfgang Lechner talked to us about the lon 4 and its ultra sophisticated version, the Phantom.
Photo : S. Burkhardt



The complex interior of a Phantom.



The Bion 2 tandem is available in two sizes 37 and 41.75m² (90-200 and 120-225 kg). The lines have been reduced thanks to a 3 line system and the risers are simple for a tandem. The use of Dominico 20D on the lower surface makes it a bit lighter: 7.5 kg/7.9 kg.
Photo: Mario Eder



TREKKING

There has been a mini revolution at Trekking, leading edge rods have started making an appearance! Up until now the manufacturer refused to use them worried that they might go out of shape.

Now, Trekking claim to have almost exclusive access to leading edge rods in a new poly composite P14 material which remembers its shape and uses them in the reinforced leading edge in the Baby SharkNose on the all new intermediate Bird. This material should offer a

compromise between traditional leading edge rods and Nitinol.

Trekking hope to produce a wing with 'passive safety, performance, handling and which is a pleasure to fly.'

OTHER DETAILS:

- Aspect ratio limited to 5.33
- Four lines in the centre and three lines at the wing tips.
- Total line length reduced by 13% compared to the Senso Sport (266m instead

of 301m).

- Better handling
- Easy inflation.
- Fabric 100% Porcher Sport 32, 38 or 40 grammes/m².
- The lines are fully sheathed Edelrid, Aramid or Dyneema depending on the position.
- The risers are 20mm polyester straps.
- As far as weight is concerned, it has saved an extra 500g compared to the Senso, whilst using the same materials.

The Bird, a new intermediate in the range. Baby SharkNose and leading edge rods in a new material make their appearance. (Photos: Trekking).



The Trekking stand at the Coupe Icare 2016: some big changes in the manufacture of their wings were announced.



NIVIUK

There was lots new at Niviuk and that was across all the wings. The R&D team have been really busy recently.

In the free flying wings, it's 'light' which counts. Amongst other things, the highly successful single skin range of wings, the Skin, has already moved on to a second version.

A new hike and fly competition wing, the Klimber P which only weighs 3.4 kg will be certified EN D.

And in the paramotor range, Niviuk have gone heavy. Here are some photos of all the new things.

A new recruit in the Niviuk team, between Michael Georges (left) and Dominique Cizeau (right): Zeb Roche.

The youngest to conquer Everest and the first tandem pilot to fly off Everest will fly the all new Bi Skin 2 P as well as the other ultra light wings from the Niviuk range on his future expeditions, in particular, at Ama Dablam (Nepal) next month.



Photo : S. Burkhardt

The all purpose Hook 4 wing is now available in a P (for plume/feather) version. This should be a saving of up to 1.4 kg depending on the configuration. The weight of the wing announced according to the size 21, 23, 25 and 27 is 3 kg, 3.25 kg, 3.6 kg and 3.85 kg. Niviuk achieved this by using Skytex 27, Nitinol leading edge rods, Dynema risers and unsheathed lines.



NIVIUK



The Skin series has evolved: the structure of these single skin wings which already performed well has been improved even more and they should be certified EN B.

Landing has been made even easier, amongst other things, thanks to adding trims.

As was already the case for the first version, the Skin will exist in an ultralight Plume version as well.

On the Skin2 18 on the right, you can make out a SharkNose on the cell in the middle.



NIVIUK

The Skin 2P is also available as a tandem and certified EN B, weighing barely 3.3 kg!

Improving the flare has no doubt contributed to making a single skin tandem possible.

Julien Irilli has already used it to take off at the Grandes Jorasses (4208 m) in the Mont Blanc massif, and in September Philippe Lami briefly tested it.

His verdict was: 'like all of the Skins, it comes up all by itself and the flare is pretty good. But, above all, it is incredible in thermals, you climb as if you were on a normal tandem. The weight of this tandem Skin makes it a must for mountain flying.'



The Roller is an all new Speed flying wing in the Niviuk range.



NIVIUK



Photo : Joss Debatty/Niviuk

At the opposite end of the scale from the 'light', Niviuk have brought out their first heavy duty paramotor wing. The all up weight of the R-bus goes right up to 500 kg with DGAC certification; that's enormous. It's clearly visible that this wing includes all the most recent technology.

SOME TECHNICAL DETAILS:

2 sizes 37/40 m², aspect ratio 5.4, wingspan 14.14/14.7 m, 55 cells, all up weight 150-500 kg/210-500 kg, certification DGAC (5G, 500 kg), EN 926-1 (8G, 328 kg).



Photo : Joss Debatty/Niviuk

WHEN SOFTWARE MEETS HARDWARE: NAVITER ACQUIRES FLYTEC

Published on Tuesday, 20:09/2016

Naviter acquires Flytec products. Flytec, one of the oldest brands of variors for paragliding and hang glider pilots, and Naviter, known for their innovative Oudie and SeeYou products for thermal pilots, pool their strengths. Naviter adds Flytec variors to their current range and guarantees their further development. "Both companies are committed to minimise any disruption to pilots and dealers. All current instruments will be supported, warranties will remain valid and repairs will be handled as usual," they say.

Reminder: more information about both companies and their products in our issue Instruments.



Our [test of the Connect 1](#) is still available on line.





QUICK TEST: RECON GLASSES

At the Coupe Icare, Recon Jet glasses with specific software for paramotoring (and also paragliding), were available on the R.Ultralight stand. We've already reviewed them very briefly. These glasses display information on a screen that the pilot keeps in the corner of his eye, without taking up too much of his field of vision. These glasses function on their own. They work using a specific version of Android, but they can also be connected to a smartphone (to display SMSs for example).



The unit containing the screen on the right arm.

The touch pad: touch sensitive to choose the menus.



Software specifically for paramotorists can be downloaded from the Recon Appstore. As programmer Stéphane Nicole is also a free flier, a new version, even more suited to free flying with an integrated barometer and vario display, should soon be available.

For the moment, the application automatically recognises a take off (as a certain speed threshold is passed) and records the flight in KML format (not IGC). During the flight, the application displays data such as altitude, flight speed, wind speed and direction (calculated from the speed over the ground) and also distance and direction from take off. It is also possible to manage certain models of GoPro with the glasses. It was possible to see the view through the GoPro 3 with the glasses (with a slight time delay which is typical for the GoPro3).

To start recording, use the buttons on the

LUNETTES RECON

glasses and to change the GoPro's mode, also use the two buttons and the little touch pad situated on the frame of the glasses.

As long as the screen has been correctly setup, you can see the information displayed on the screen very well, even in full sunlight, in particular the values displayed and also the GoPro images. These glasses still aren't as 'intelligent' as Google Glass (they can't hear voices!), but third party programmers can add applications with this sort of functionality.

The mapping for the land being flown over displayed by the glasses is rudimentary, but it too can be improved to integrate air space maps, if the programmer so wishes. The glasses also work very well when cycling and skiing. Even without a GoPro it is possible to take photos with the integrated camera and record short

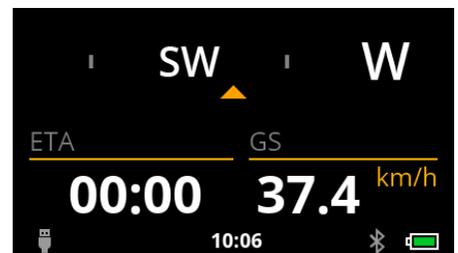
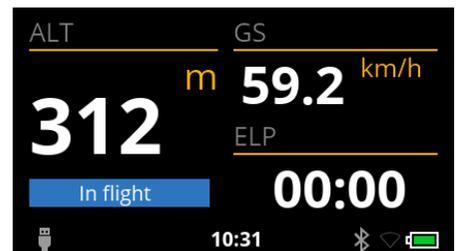


Photos Sascha Burkhardt

videos.

A very promising product for 495 €, we're really looking forward to the vario display eventually being linked to the climbing sound (the glasses are also equipped with loud speakers). It will also be able to be used as a fully fledged instrument. A word of warning: The battery life is limited to four hours maximum.

We're going to stay connected!
<https://ppgps.rultralight.com/>
 For more general information:
<http://www.reconinstruments.com/>



DONNÉES TECHNIQUES	
CPU	1 GHz dual-core ARM Cortex-A9
Memory	1 GB SDRAM 8 GB flash
Sensors	3D accelerometer 3D gyrometer 3D magnetometer Barometric sensor Infra red sensor GPS
Connectivity	Bluetooth 4.0 (Bluetooth Smart) ANT+™ Wi-Fi (IEEE802.11a/b/g/n) Micro USB 2.0
Screen	Widescreen 16:9 WQVGA Power-saving sleep modes including IR-enabled Glance Detection technology
Controls	1 Optical touch surface, usable in all weather and with gloves. 1 toggle switch
Other Features	Double microphone, still/video camera
Battery	Replaceable lithium-ion, battery life approx. 4 hours in normal usage





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SOL

SOL go ecological: from now on the manufacturer will only use fabric which hasn't been bleached for the diagonal cells. It is an interesting gesture for the environment because the manufacture of the cells (which has fallen a lot) represents

40% of the total fabric used. A new wing for paramotor buggies: the Hercules goes up to 380 kg all up weight.

<http://www.solparagliders.com.br/solid/hercules380>



PARASTICK

Bertrand Maddalena's company Parastick puts individual logos on paragliders. The customer gives him art work or a logo and the company produces the stickers and can, if necessary, stick them on.

Parastick claim to be able to reproduce any shades, special colours, faded effects, shadows...

The prices seem pretty low when you consider the publicity given by this type of design: 360 € approx for a colour sticker.

<http://www.parastick.com/>



Intrados
Bottom

Logo
Hauteur: 220 cm
Largeur: 440 cm

Février 2016
Sticker: 295 Euros HT
Pose: 280 Euros HT
Total: 575 Euros HT



SKYBEAN

The Slovenian vario manufacturer has produced a device for a follow camera for a GoPro Hero and GoPro Session. According to Skybean, this has taken hundreds of hours to develop, including trials in a wind tunnel.
Price: 149 €.

The SkyBean instrument has been improved. The screen has a lot more contrast and the instrument can now communicate with apps on an iPhone as well.

Here's a reminder of our test of the first version in our Instruments article:
<http://www.free.aero/en/contentsHTML/instruments-e/?page=92>

We're currently testing the new version.
Price: 249 €
www.skybean.eu



SKYMAN

We need to wait: the specialist in mountain wings, Skyman, can't stop himself bringing out a single skin wing. The prototype in the photo doesn't have cells, but the final version has three.

The wing only weighs 1.580 kg thanks to the use of Dominico D10. The manufacturer promises really good performance. Surface area 20 m², aspect ratio 5.24, all up weight 80-100 kg, height of the lines 5.83m. It is anticipated that it will be certified EN B. Other sizes are also being prepared.

<http://www.skyman.aero/en/>



INDEPENDENCE



A new harness has been developed in collaboration with an SIV instructor. The Freestyle seems to be very flexible, with an extra penchant for playing and freestyle. Available in Freestyle 1 (one reserve) and 2 (2 reserves). Weight 4.3 kg in M. There are lots of interesting details, amongst other things, the use of magnets to attach the accelerator bar.

<http://www.independence.aero/en/welcome/products/harnesses/freestyle.html>



PROFLY

Michael Nesler and Gudrun Öchs's company Profly manufactures mainly for others, whether paragliders for Swing or parachutes for returning space capsules.

Now Profly has its own wing, the Lucy. It is aimed at pilots who want to learn and progress safely in freestyle and acro. It is very easy to handle and precise with easy to control dynamics. The 3D-Shaping and mini ribs give it pretty good performance. It adapts very well to turbulent aerology too.

www.flylucy.org





Photo : Bruno Lavit



PRINTED WINGS



Photo : Louis Garnier / Printed Wings



The process of Printed Wings, which used to be exclusively available to Paramania, is now available to other manufacturers. To do this, photo quality graphics are printed onto the fabric of the wing before it is cut into panels.

When they are being assembled the photo is perfectly reconstituted. This customisation of paragliders opens up new horizons, but is still relatively expensive. Done individually, it can double the price of a wing. But if the manufacturers decide to do a series of hundreds of wings, the extra cost drops dramatically.

<http://www.printedwings.com/>

PORCHER

The Coupe Icare was also a good opportunity for suppliers, designers and manufacturers to meet up. Right: the stocks of Porcher fabric at Aero Dynamics in Sri Lanka.

Below : Daniel Costantini, marketing manager for paragliding fabric, in discussion with designer Ernst Strobl.



Photo : S. Burkhardt

SKYWALK

Skywalk Poison X-Alps (EN D)



SKYWALK

At Skywalk, the Poison X-Alps (previous page) is already a real success. Remember it's a modified version, and certified EN D, of the wing used by Paul Guschlbaur in the last X Alps (3rd place!) Paul will be taking part in the 2017 X-Alps.

Paul (on the right in the photo, beside Gerhard Holzner from Skywalk) here launching the colours of the future high end EN B Chili 4 which will have a SharkNose.



Photo: S. Burkhhardt

APCO

Apco launched, amongst other things, the new Swift cocoon harness. Numerous details should make it very comfortable. An extra little example, the position of the accelerator pulley can be adjusted as a function of the position, lying down or sitting up, of the pilot.



SYRIDE

The Sys'Nav V3 is a big success for this manufacturer. For an instrument of this size (10 cm x 6.1 cm x 1.7 cm, weight: 91 g) and a price of 399€, it effectively offers lots of possibilities such as the graphic display of air space.

Read [our full test here](#)



Photo : S. Burkhardt

UP

Launched earlier in the year, the Lhotse is now available in three sizes and only weighs 3.0 – 3.6 kg.
Photo: Atramiz/UP



SCORPIO

At the same time as Sky Paragliders, Scorpio launched an innovative concept of reversible harness (mountain and speed-riding). The harness shoulder straps are also used for carrying it.

<http://www.scorpio.fr/en/sellettes/183-sellette-alpage.html>



The Alpage by Scorpio costs 490 €.





ANTOINE GIRARD GOES UP TO 8157 M

One of the most talked about subjects at the Coupe Icare was Antoine Girard's incredible exploits in the Himalayas at the end of July.

On the 23rd of July 2016, Antoine Girard succeeded in getting higher than 8100 m, above Broad Peak in the Himalayas, an amazing endeavour.

The flight itself is already a unique exploit, but the conditions made it even more amazing. For example, Antoine didn't manage to get his oxygen supply to work. To fly at this altitude without oxygen was pretty risky in itself, even for a climber and experienced pilot like Antoine. If he was going to do it again, he would check it worked correctly first, 'because without it, his brain and reflexes were slower and it felt even colder.'

Talking of cold, Antoine got serious frostbite in his fingers and had to have medical treatment when he got back to France.

This 120 km long flight was part of a series of flights during his trip to the Himalayas. In total Antoine flew about 1250 km of vol bivouac in the massif between the 7th and 24th of July. Most of the time he slept at very high altitudes, for example spending the nights at 5200 metres. He only came down twice to the valley floors. Originally the adventure was meant to have been undertaken with Nelson Freyman but he didn't manage to get a visa.

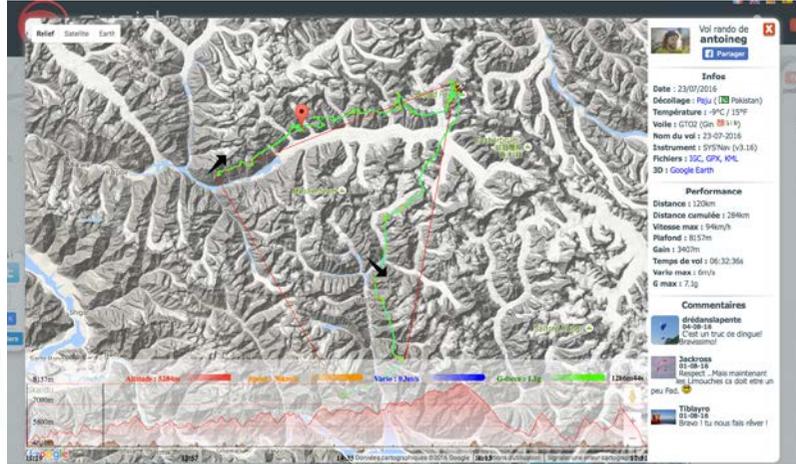
Date :	23/07/2016
Take-off :	Paju (Pakistan)
Wing :	GTO2 (Gin)
Instrument :	SYS'Nav (v3.16)
Distance :	120 km
Total distance :	284 km
Maximum speed :	94 km/h
Maximum height :	8157 m
Gain	: 3407 m
Flight time :	06:32:36s
Max vario :	6 m/s
Max G force :	7.1 g
Server:	Syride

ANTOINE GIRARD: 8157 M

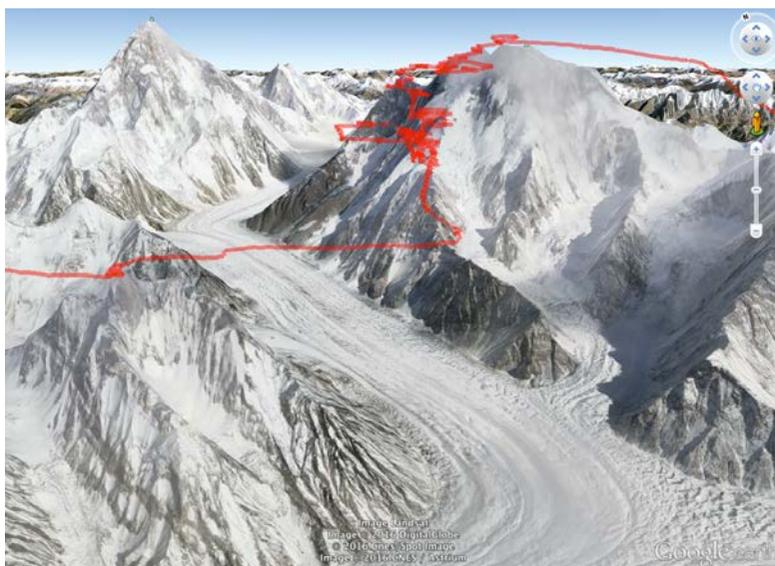
So Antoine was all on his own during this long and memorable flying trip. Contrary to what you would think, it wasn't a dynamic ascent which took Antoine to more than 8000m, but relatively weak thermals.

At this altitude, thermals aren't triggered in the valley, but only from the side walls. They are pretty cut up and irregular.

The tracklog was registered with a Syride instrument which can be [consulted here](#).



We had the great honour of Antoine Girard coming to visit us at the free.aero magazine stand.
Photo : Sascha Burkhardt



Clearly visible: the SharkNose on this GTO2 identical to that used by Antoine. Photo: Jérôme Maupoint.

The wing used by Antoine for his trip was the new GTO2 from GIN which he received just before he left. It replaced the Ozone LM5 which he previously used. The GTO2 can be considered a 'well behaved Boomerang.'

With the GTO2 S, he was overloaded, his all up weight being about 110 kg. Other than that, he found it more 'cool' than his previous LM5 and 'when things went wrong, the GTO2 flew all by itself', but it also gave less feedback.

As a reminder, the GTO means "Gran Turismo Omologato", in the car industry, this means a racing car which is certified for the road.

Antoine's harness was a Kortel Kolibri classic, see next page.



GTO 2 - DONNEES CONSTRUCTEUR

Manufacturer : GIN
<http://ginglidiers.com/parapente/gto-2/>

DATE	2015			
SIZE	XS	S	M	L
CELLS	65	65	65	65
FLAT SURFACE AREA [m ²]	21.46	22.9	24	25.32
PROJECTED SURFACE AREA [m ²]	18.33	19.56	20.50	21.63
FLAT WINGSPAN [m]	12.25	12.65	12.95	13.30
PROJECTED WINGSPAN [m]	9.85	10.17	10.42	10.70
FLAT ASPECT RATIO	6.99	6.99	6.99	6.99
PROJECTED ASPECT RATIO	5.30	5.30	5.30	5.30
WEIGHT OF THE WING [kg]	4	4.1	4.25	4.40
CERTIFICATION EN/LTF	D	D	D	C
Material	Canopy cloth Upper surface leading edge: Porcher Skytex, 32 g/m ² Upper surface: Porcher Skytex, 27 g/m ² Lower surface: Porcher Skytex, 27 g/m ² Lines Upper: Liros / Edelrid DC60 / 9200-030 Dyneema Middle: Edelrid 8000/U-190 /U-120/U-090 /U-070 Aramid Main / Brake: Edelrid 8000/U-280 /U-230/U-190 /U-120 Aramid			

KORTEL KOLIBRI

Remember our comparison of the two Kolibris. The Kolibri Pro would have saved more than a kilo but for an expedition like this to the Himalayas, Antoine preferred the Kolibri classic which was more robust.

Kortel Design Kolibri (1.9 kg), Kortel Design Kolibri Pro (0.88 kg).
Photo: Sascha Burkhardt



KORTEL KOLIBRI PRO



Antoine's harness in the Himalayas: a Kortel Kolibri classic, with his mattress on the back.
Photo: Antoine Girard





Tandem PPG

R-BUS

The strong traveller

- ✓ Strong structure up to 422 kg.
- ✓ Surprising and short take-off with no overshoot.
- ✓ Excellent gliding abilities for less engine effort and fuel consumption.
- ✓ High efficiency profile resulting in a fast wing with very good performance.
- ✓ Precise and efficient turning.
- ✓ Great restitution of speed for easy landings.

Available in size 37 and 40 m².

WOODY VALLEY

- 1) Thin and rounded end for easy hooking into the glider riser
- 2) Slightly tilted upper side allowing even narrow risers to slide smoothly into the right position
- 3) Blocking tooth preventing the karabiner from turning upside down through the webbing loop
- 4) Karabiner lifetime
- 5) Production patch code and karabiner ID number
- 6) Lower side built to help the correct placement of the rear adjustment webbings
- 7) Raised fulcrum of the opening bar to prevent the ferrule from rubbing against the webbing and to ensure an effective opening when needed

Thanks to its variable section, the Skyway karabiner weighs only 48 grams (14 grams less than the former Camp Para Twist Lock Evolution Karabiner) and, nonetheless, its overall strength has increased in all the critical points. All tests conducted by the Politecnico of Turin showed a higher resistance during working cycles than our former karabiner model used since 2009.

www.woodyvalley.com



ITV

At ITV, they are working on a new wing at the top of the category. The prototype still doesn't have a name. The wing has a SharkNose like most new free flying models from ITV. On the other hand, the designer and test pilot Mika Regnier and the designer Anupe seem to agree that they are not going to mix SharkNose and reflex on the paramotor wings.

<http://www.itv-parapentes.com/en/>



Senso



*2290 €

Sport



*2650 €

Trek



2650 €

Just One



*1750 €

BBUS



2850 €

X-TRIANGLE125

Daniel Loritz, amongst other things, a former designer for the company Team 5, has developed a new reserve which is halfway between a Rogallo and a square parachute.

When it opens, the reserve behaves like a square parachute and descends vertically.

It is only after the pilot activates a system, which puts it into Rogallo mode, that it can fly horizontally as well. Watch this space.

www.x-dreamfly.ch



FORCE II NEW

Seductive Strength

The new Force II has been redesigned from the ground up. Featuring ABS® - Automatic Balance System - an industry first, pioneered by APCO.



ABS® is a system which automatically and gradually pulls down the tip steering as you release the trimmers and push the speed bar. This action stabilizes the wing, cancelling roll movement, "planting" the pilot under the center of the canopy.

The Force II is a well rounded package which offers the best of both worlds; a highly agile, fun wing together with never before seen stability when flying cross country at high speeds.

SETTING FUTURE STANDARDS

1974 APCO launches serial production of hang gliders



T-40

1986 1st generation paraglider hits production



T-30

1995 Bagheera hits the glider of champions



T-20

2004 1st paramotor world records



T-10

2016 FORCE II the latest creation



NOW

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RADIOS



Photo: Sascha Burkhardt

The communication market was well represented. Here are two radios which, in their export version, both cover the free flying frequency of 143.9875, but for very different prices.

However, it's fairly illogical that in France, the frequency legally attributed to free flying can only be used with receivers which have been unlocked for export.

KENWOOD TH-F7E, 289,00 €.

TalkieWalkie VHF/UHF FM top of the range equipped with a broad band receiver (0.1 to 1300 MHz) in all modes. Broadcasting frequencies: 144-146 MHz + 420-440 MHz (Export: 136-174 MHz + 400-470 MHz) Intek KT-980HP, 79 €.

PORTABLE VHF/UHF FM, usable frequencies: 144-146 MHz (export 136-174 MHz) 430-440 MHz (export 400-470 MHz).

<http://www.e-tech-radio.com/fr/>

777

The Triple Seven (777) Deck is the new EN A school wing.

The Slovenian manufacturer continues to advance their pawns on the chess board. The Queen 2 in particular is approaching her King.

<http://777gliders.com/>



The Knight is the new entry level EN B, but 777 promise performance comparable to many more advanced EN Bs.



The Queen 2 (EN C) has more cells and has inherited a lot of the technology used in the King (EN D) and thus approaches its performance.





Photo: Bruno Lavit



Photo: Ilian Ginzburg

An original idea: the happy witch takes off with a passenger who is a lot thinner on her back.



Photo: Bruno Lavit

CAMELEON

The famous throttle is, since December, available in its third version, on the left in the photos. This version is also very easy to use with big gloves on. Nevertheless, the previous version is still available. Some pilots prefer it for its capacity and it is still possible to attach the On/Off plate. You can upgrade from the V2 to the V3 by making a few changes which are explained on the manufacturer's site.

As always, the Cameleon controls are, in the editor's opinion, the most practical and advanced throttles on the market. Our machines are equipped with them (including the Bing 84 carburetors, although the travel available is a bit limited). It's brilliant, the motor obeys your finger. Available in both left and right handed versions. Price: 210€.

www.mycameleon.fr



Photos : Sascha Burkhardt





FLYMASTER

The Portuguese company Flymaster initially became successful in the instrument market with the F1.Now Flymaster have a new tracker for the general public, simply called 'Tracker'. It contains almost all the electronics of the top of the range Flymaster Live instrument, except that it doesn't have a screen. It only costs 149€, but the purchase includes a Flymaster Livetracking contract. The SIM card is included in the waterproof IPX 7 instrument. We are testing an example and will give you our verdict soon.

<https://www.flymaster.net/page/tracker>

Don't forget that Flymaster is the company which specialises in tracking. Amongst others, it looks after the live tracking for the X-Alps and the Paragliding World Cup. Above, in the basket, the trackers from the last Paragliding World Cup. Left, in the suitcase, a delivery of new latest generation trackers.

Photo: Sascha Burkhardt

GIN

The Explorer, a new high end EN B weighing less than 4 kg, available from spring 2017 onwards. Photo : Jérôme Maupoint



GIN



Michael Sigel and
Gin Seok Song at the
Coupe Icare 2016

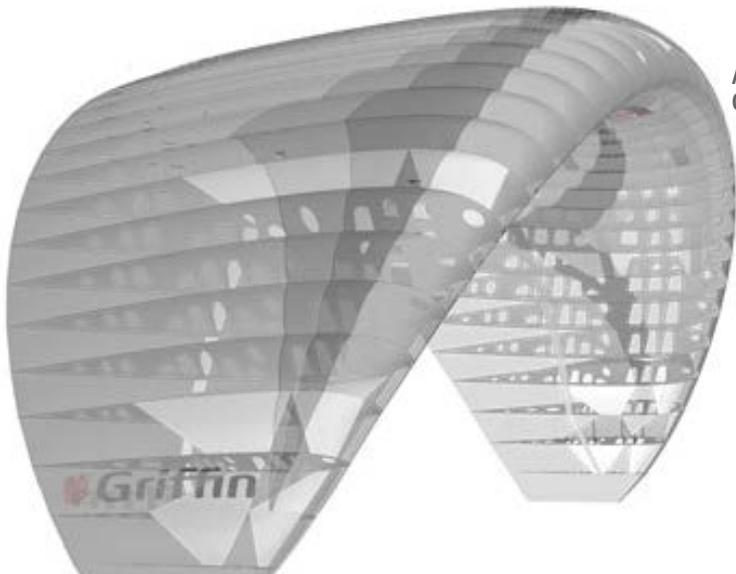
Gin is at the forefront of time. The Explorer is an EN B whose performance places it at the top of this category.

Very light (3.7 kg) thanks to the use of Porcher 27 for the lower surface and 32 for the upper surface, it is a wing which can be 'taken anywhere to explore the world' and also perfect for hike and fly as well as for exploring mountainous terrain during XCs. Available at the end of the year.

We're also waiting for a new wing for climbers, the Griffin: 16 m², maximum all up weight 105 kg, weight 2.3 kg.

The new Safari harnesses are destined for pilots and tandem passengers. (2.6 and 1.7 kg). Available now.

The G-Lite reserve is a lighter version of the successful model the One-G which barely weighs 1.7 kg for 32 m². Available at the end of the year.



A drawing of the
Griffin.



The G-Lite reserve.

GOPRO

GoPro was present to show the new generation '5' of the GoPro Hero Black and the small GoPro Session.

The GoPro Hero 5 Black is now voice controlled and it is waterproof to 10m, even without the box. It has an integrated screen and costs 430€.

The simplified version, the Hero Session 5, costs 330€.

<http://fr.shop.gopro.com/>



GEVOL PIERRE GEVAUX

'Often the simplest things are the most beautiful!' This is the motto of the artist who produces pretty earthenware jewellery.

His connection with free flying is more than most visitors would suspect. Pierre Gevaux was the first pilot to take off from a summit over 8000m, from Gasherbrum II in 1985, to be precise!





Photo : Ihan Ginzburg



Photo : Ihan Ginzburg

TEST : JDC SKYWATCH BL

The Skywatch BL has been available since this summer. This instrument for measuring the wind, temperature, humidity and pressure is a lot larger than the Windoo from the same manufacturer. Contrary to the previous models the BL doesn't plug into the headphone socket of an Android smartphone or an iPhone but connects via Bluetooth LE.

The timing is good. The all new iPhone 7 no longer has such a socket. The Bluetooth also insures against the incompatibilities that the Windoo faces with certain smartphones.

The instrument is larger and a bit heavier than the Windoo: diameter 26mm, length 116 mm, weight 66g but it still fits into a pocket. It is IP67 waterproof (temporary immersion up to 1m).



Photos : Sascha Burkhardt



TEST : JDC SKYWATCH BL

To start measuring, press a button and a blade comes out of the tube.

After installing the Android or iOS application and linking (no problem) the telephone to the instrument via Bluetooth LE, the telephone displays screens like we have reproduced below.

It's very practical for a one off measurement of the wind before take off, but it is also possible to attach the instrument to a pole and to leave it to measure and record the conditions for the whole day. (The life of the battery, rechargeable by USB, is about one week).

You can also transmit the measurements to the JDC server and thus make them public. During our tests everything worked perfectly and without any delay. The accuracy seemed correct, which isn't surprising given the manufacturer's reputation.

EXAMPLES OF THE DATA ADVERTISED

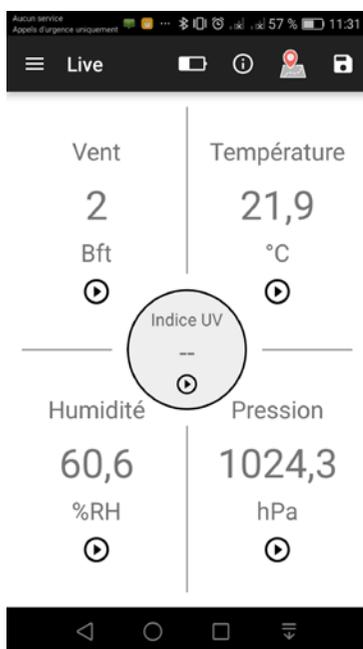
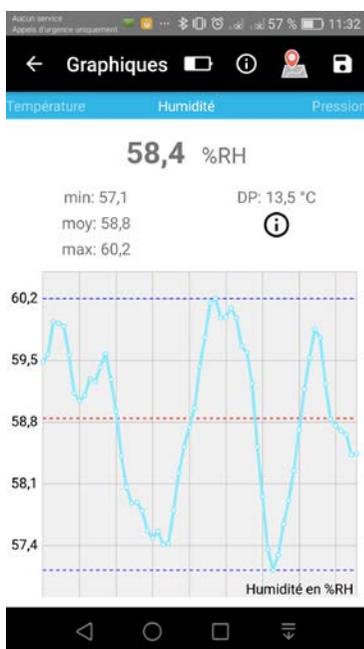
Range of wind speeds: 3 km/h-150 km/h
Accuracy: $\pm 3\% \pm 0.5$ km
Resolution: ± 0.1 km/h.

In summary, a flawless instrument. For hike and fly and as long as you have a compatible instrument, the smallest Windoos are preferred by some pilots.

Price: 175 € - 195 € depending on the functions.
<https://bl.skywatch.ch/>



Photos : Sascha Burkhardt



FLEX-ONE

SMART

FLEXWAY 2

FLEX-RACE

Gliders by **ADVENTURE**
designed for paramotor



Beginner
AFNOR standard/perfo
Setup : Adventure



Advanced Pilot
EN/B
Setup : Adventure



Expert pilot
Conception Nervures
Setup : E. Layan &
P. Bourgue for Adventure



Competition
--
Setup : P. Vallée &
E. Layan for Adventure

		Cells		
39	46	63	59	
4.7	4.9	Aspect ratio	5.65	5.95
7.9	8.1	Gliding ratio	8.7	9.1
50	52	Max speed km/h	63	65
15	16	Trim cm	20	10
--	--	Speed bar cm	10	15



www.adventure.fr

ICARE DECO

The pilots in fancy dress are under a lot of pressure. They have to take off in front of thousands of spectators from a site which isn't that easy (the wind is often random and the take-off is flat followed by a steep drop).



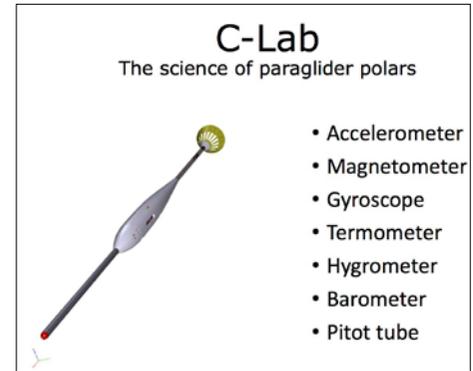
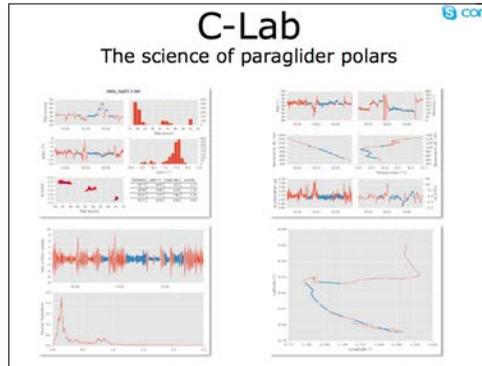
Photo : Ilan Ginzburg

COMPASS

The Italian manufacturer finally announced that the smaller version of the C-Pilot, the XC-Pilot is available. See our test in the [special instruments issue](#).

Compass have continued to work on a professional solution for measuring paragliding data. The C-Lab is the scientific version of the publicly available C-Probe, which is already very precise.

With the C-Lab, Compass offer a ready to use system aimed at manufacturers, whose price is around 10000€ (including the C-Pilot Evo).
www.compass-italy.com



C-Lab: Compass claim unrivalled precision in the domain of professional measurement of paragliding data.

All the big brother's functions in a smaller box, with a very high resolution screen. The Compass XC-Pilot will cost 850€ and will be available in December. The 'Easy' version with a black and white screen costs less than 600€. Compass also offer a solar powered acoustic vario, the Beeper, with the possibility of configuration via USB (85 €).





PAP

Lots of details have been improved on the legendary machines by Pierre Aubert (here with his son Nicolas Aubert, an experienced pilot, and very proficient for his age).

For example, a very thick protective cage tensioned by Dyneema which is used for both the net and the attachment buckles. There is also a new throttle handle which is more ergonomic.

Since PAP started to offer cages which break into segments, these motors lend themselves perfectly to travelling in very practical padded suitcases.

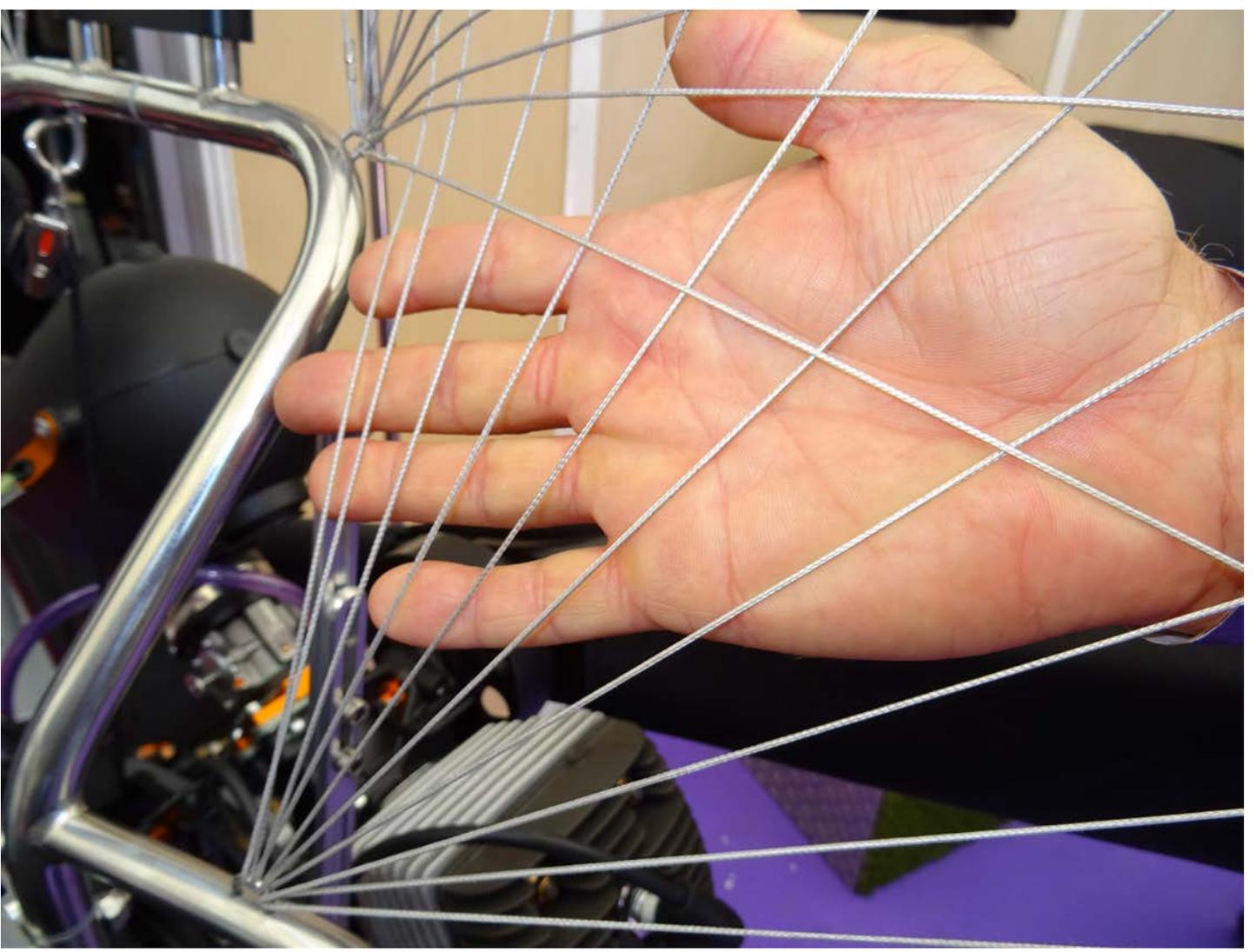
There is also a new more ergonomic throttle.



Photos Sascha Burkhardt

Dyneema attachment buckles.







Thanks to altruistic pilots like Roland Wacogne (right), lots of handicapped people are able to fly at least once on a tandem and even get into our sport.
<http://handiciel.overblog.com/>

AIR CROSS

Konrad Görg from Aircross launched the U-Race which is a competition machine, but not available yet.

The U-Cruise machine on the other hand is available straightaway; it's a very high end EN B with 65 cells and a pronounced SharkNose with variable sized openings.

We're currently testing one.

<http://www.aircross.eu/>



The openings on the new EN B U-Cruise. Below, the wing flying at the Coupe Icare. Photograph by Konrad Görg.



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7 styles of cage
6 attachment systems
& the largest range of products
for paramotoring

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Komfort
Tandem trike



www.kangook.ca

NERVURES

THE DIAMIR 2 IS HERE.

Nervures promise with this wing, amongst other things, 'better performance in turbulence, a more direct turn, more intuitive, a smoother wing and an excellent glide including in turbulent conditions. It's comparable to a wing with a better aspect ratio and turns very smoothly which lets it calmly finish its turns facing the slope.'

www.nervures.com



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Another very
airy sport...

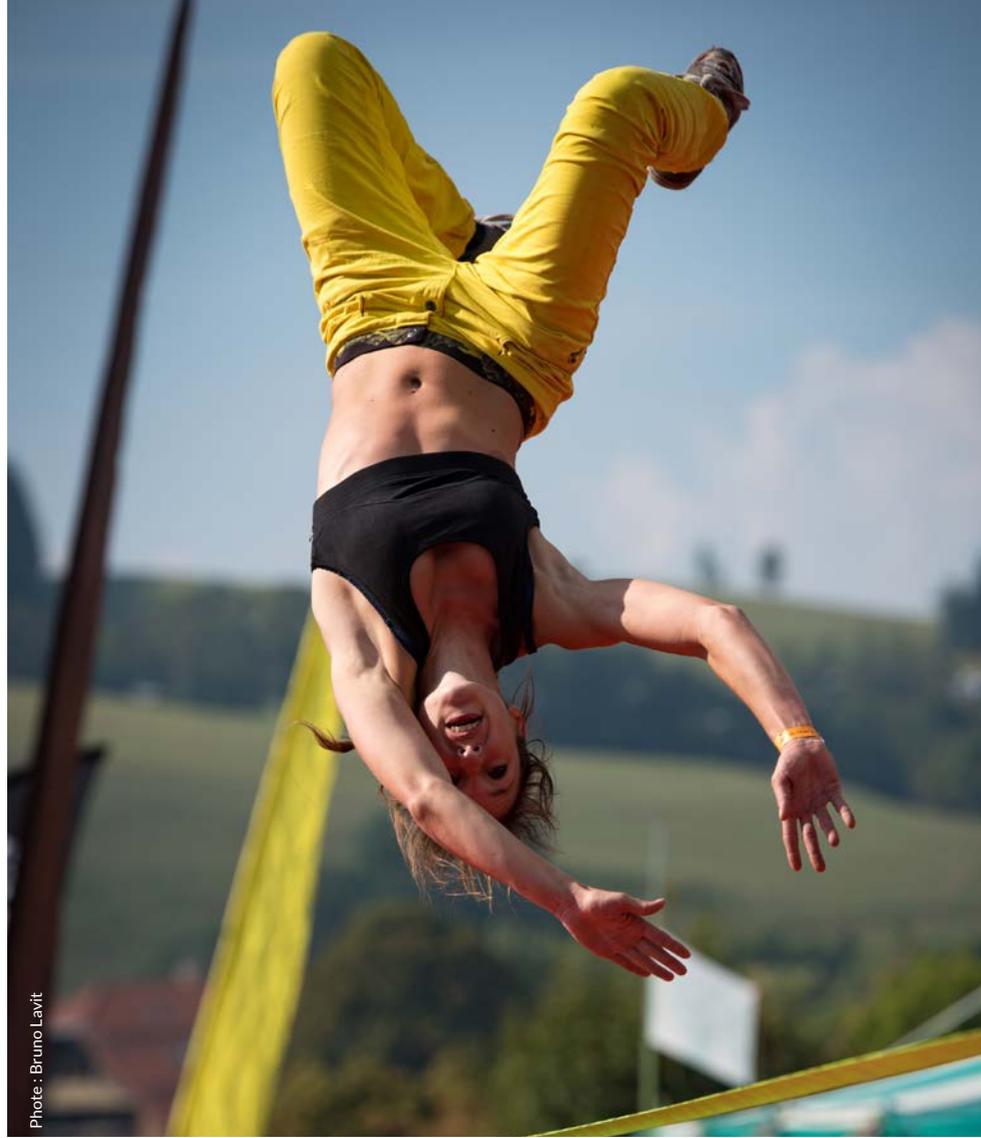


Photo : Bruno Lavit



Photo : Bruno Lavit

Maillon Rapide

THE ORIGINAL

CC MAILLON RAPIDE
11 A M11-180 Kg D1 85
INOX FRANCE



PEGUET

peguet.fr

Made in France 



GRADIENT

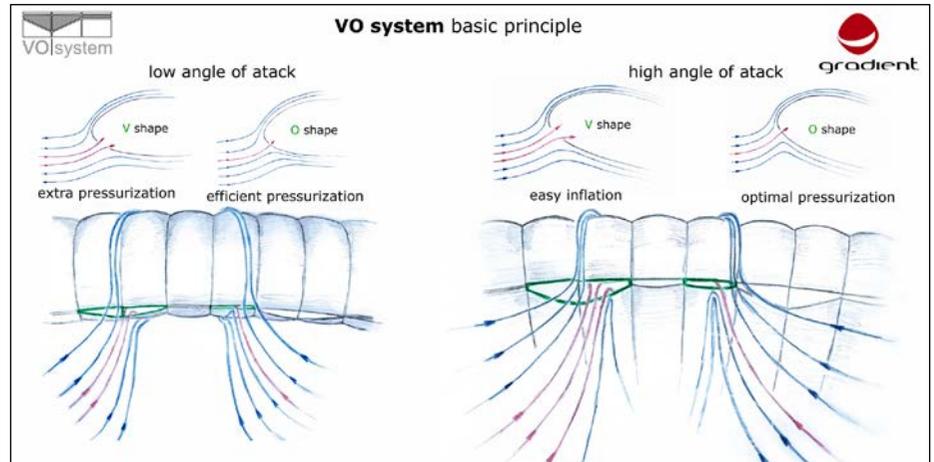
The Nevada 2: a big reduction in the lines for this high end EN B.



GRADIENT

With their new Nevada 2 (classic and light), Gradient claim to have obtained a comparable effect to the SharkNose with its VO-System, which has been achieved by having openings whose size is noticeably different and explained on the diagram on the right.

www.gradient.cx



The Nevada 2 light: 3.8 kg in size 22. Clearly visible: the VO System zig-zagging at the openings at the leading edge.



BGD

The new Base Lite saves 1 kg compared to the classic Base (EN B). The saving will obviously increase safety at take off, in handling and performance.

<http://www.flybgd.com/fr/parapente/parapente-base-lite-29-0-0.html>



THE GPS BIP

The GPS Bip is finally available, very light and compact (5.7 x 3.6 x 1.7cm, 35 g), it does of course include a GPS and a voice output to announce the speed and altitude of the flight. It is powered by a solar panel.

Since September it records the flight track in a valid IGC format. Via cable it can also be interfaced to a Kobo, for example. On the other hand, the algorithms integrating an accelerometer and a gyrometer to even further improve the reactivity will only be added in the next software upgrade (via the Internet). Price: 250€ approx.

<http://www.lebipbip.com/fr/legpsbip-solar-vocal-gps-alti-vario/>

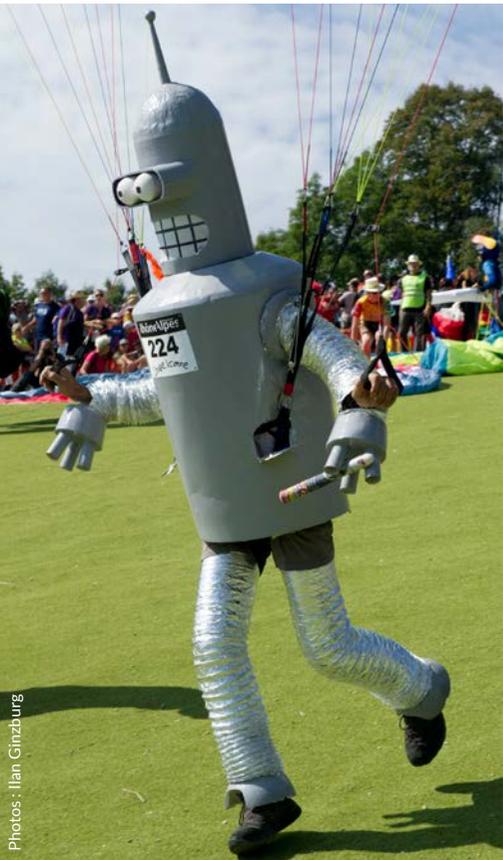




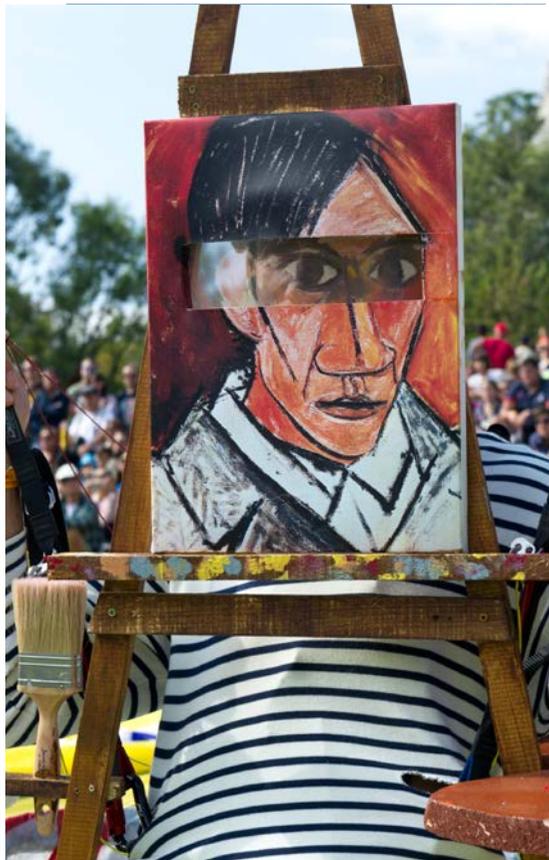
Photo: Ilan Ginzburg



Photo: Ilan Ginzburg



Photos: Ilan Ginzburg



SWING

The new Swing Arcus RS integrates the RAST system into its version 2.0 (see further on). Due out in December.



SWING



The tandem Twin RS also has the RAST system.

On the Acro Trinity RS wing, the RAST system should keep the wing better filled for longer. This will help, amongst other things, linking manoeuvres together.



SWING

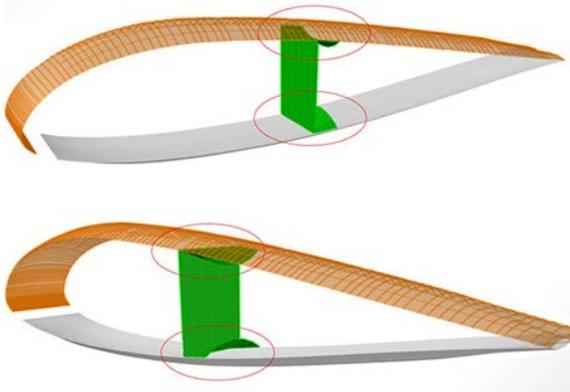
The RAST system (that we have already tested on the Mito) [has been further developed](#). The valves hold the air even better in the back part of the wing.

This makes take off easier, reduces the size and the angle of collapses and softens lots of manoeuvres. Apparently Swing use it now in most of their models.

www.swing.de



The reversible harness the Swing Connect Reverse is now available in a new improved version.



RAST in mountain wings: the 1 Apus RS will be available in several sizes between 14 - 25m²



free.aero



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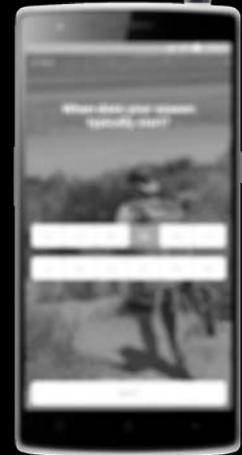
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Participate until 30. October 2016 at midnight.

To play, follow this link :
www.free.aero/game



U-TURN

The Trinity from U-Turn (not to be confused with the Swing Trinity) is an EN D mini wing, available in 3 sizes 16, 18 and 20 (all up weight 60 to 120 kg). It was developed in collaboration with Mike Kung who you can see in the picture above playing swing. The wing will be well adapted to playing near the ground as well.

For years, U-Turn have made clear their desire to make paramotors as well. Finally they are doing it. Martin Berliner, the make's 'Mr Motor', finally launched 'The' U-Turn motor, available in both petrol and electric versions.

The most amazing thing, with a battery, the price is barely 5000€. This is despite it being made in Germany and with a very nice finish. Battery life: nearly an hour.

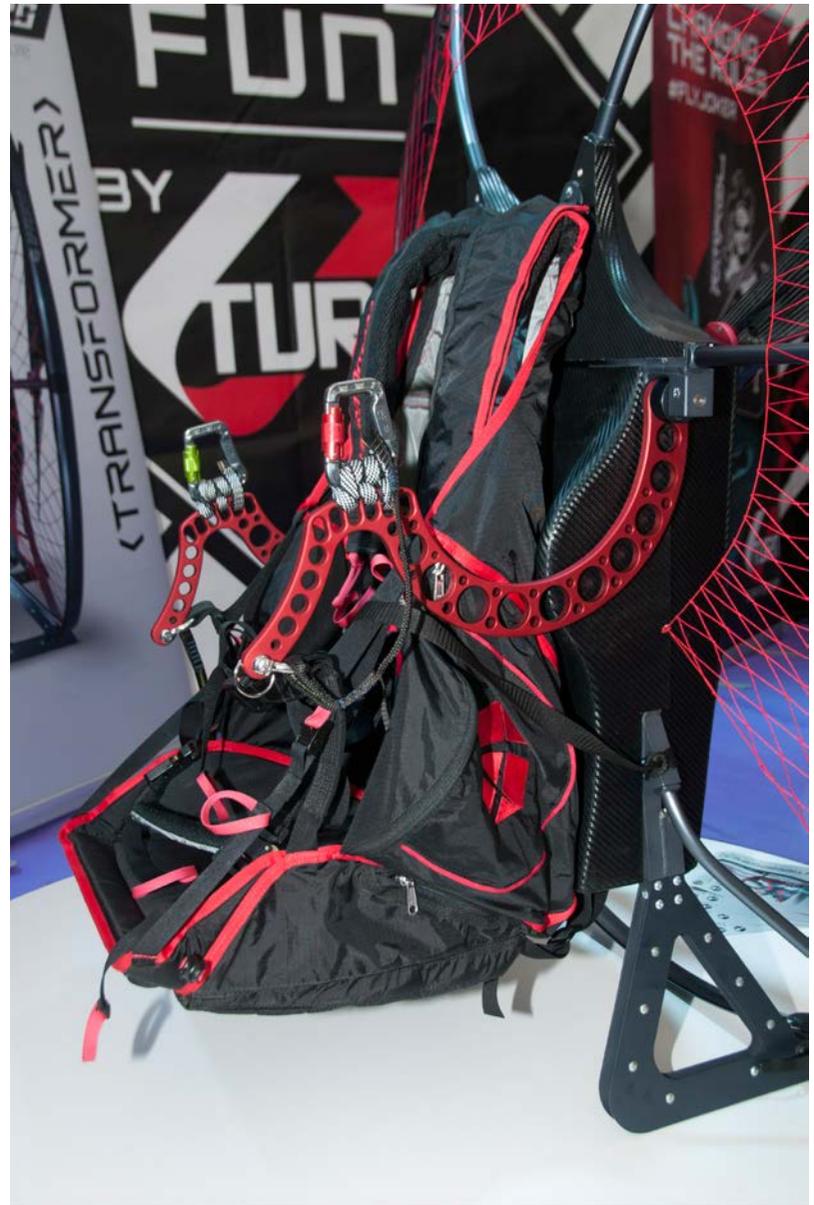


U-TURN

The system includes a "Level Flight System", which always keeps the same altitude and avoids the glider yo-yoing, thus reducing the energy consumption. The same system is anticipated for managing the carburettor in the petrol version (which will be water cooled).

We're a bit sceptical considering the price, but we'll be happy to test a machine as soon as it is available in production.

www.u-turn.de



FLIGHT OF THE SWANS

Early this morning, conservationist and adventurer Sacha Dench from the Wildfowl & Wetlands Trust (WWT) took to the air above the Russian tundra in her paramotor (Fresh Breeze & Dudek Universal) at the start of her 4,500 mile journey following the migration of endangered Bewick's swans.

A light tailwind gave Sacha Dench ideal conditions to start her journey from the Pechora Delta on Russia's northern coast. Over the next ten weeks she will fly across northern Europe and then cross The Channel and continue to the swans' most westerly destination: Slimbridge Wetland Centre in Gloucestershire, UK. At each point along the journey she will spend time with the people who live along the swans' path, who may have clues as to the decline of the swan population. Over the last two decades, the number of Bewick's swans making the journey back across northern Europe has almost halved. Researchers have identified several dangers that the swans face, but the exact reasons behind their decline remain a mystery.

Sacha Dench said: *"I'm so excited to finally be off. I've been planning this expedition for two years. It's going to be a real adventure. I love flying and I'm fascinated by wildlife. I'm filming the whole trip and I can't wait to share my swan's eye view with the world. But my biggest hope is that we better understand what is going wrong for the Bewick's swans. They each first make this long journey at just a few months old, and they return here to their birthplace every summer for the rest of their lives. It's an extraordinary lifestyle, but sadly fewer and fewer are surviving. We're doing all we can as conservationists to get to the bottom of this problem, but it's not happening fast enough for the swans, so it's time to get on the road and in the air, to see the places and meet the people that might hold the key to this mystery."*

Her progress is being tracked by satellite at www.flightoftheswans.org



WINDSRIDERS

Nathalie and Philippe Lami make lightweight warm down jackets especially for free flying. Folded away into its bag, these down jackets only take up a very small amount of space, but as soon as you take it out, it inflates in a very impressive fashion.

Windsriders also produce down sleeves to attach onto the brake handles which efficiently protect your hands from the cold.

www.windsriders.com



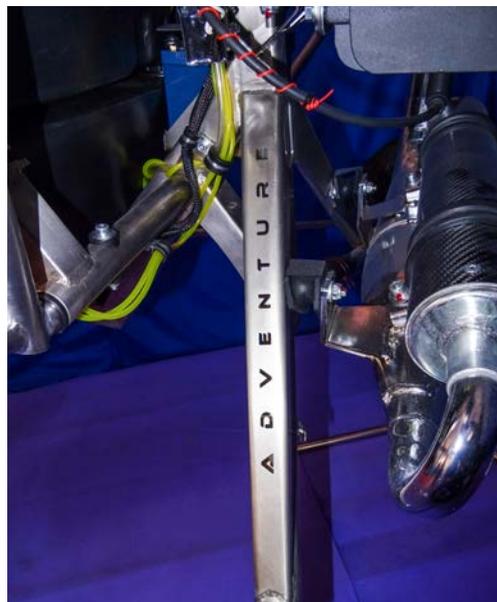
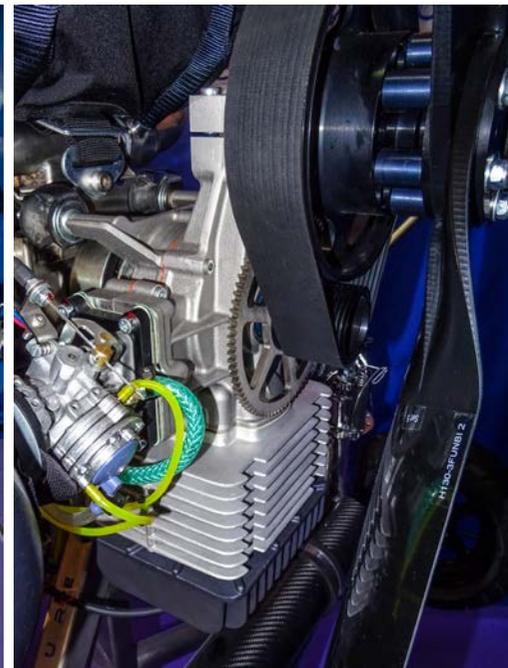
ADVENTURE



With good reason, the team from Adventure are proud of their success. Left to right: Pascal Vallée, Andrea Testoni and Emmanuel Layan.

The FunFlyer 2 is more robust, more comfortable and more practical than the first version. Adventure have brought together 10 years of experience since the first version. The chassis is made from stainless steel, titanium and carbon.

The motor, the Mini 3 Evo, used on the mono and the tandem, was revised in 2015 (a new crankshaft and crankcase).



ADVENTURE

Adventure were one of the pioneers to use the Bidalot, and the company took part in the development of this engine. This development took longer than expected because thermic stability, for example, was one of the priorities. Everyone is looking forward to seeing this very promising motor at work.

www.paramoteur.com

The Bidalot in an Adventure chassis work well together.



AEF
Cameleon V2 or V3
throttle

2 flying options
to match your style
on your glider type

+ technical + easy

or V2 + V3
with a reversible KIT

+ free than ever in 2016 with your Cameleon!

www.mycameleon.fr



The stands (shown here Icaro Paragliders) and the show: The Coupe Icare is a unique event in the free flying world.



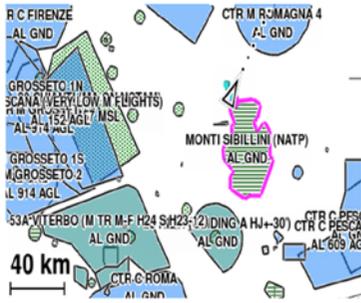


Photo : Bruno Lavit



Photo : Bruno Lavit

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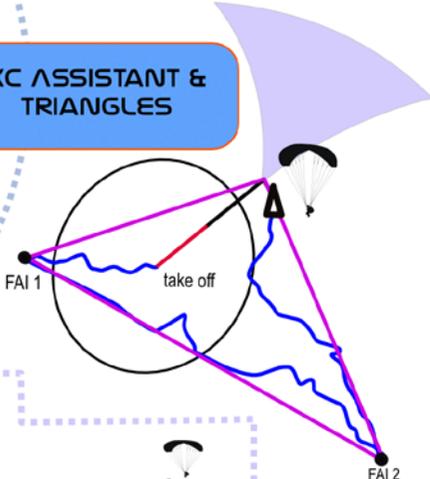
LONG LIFE BATTERY

NAVIGATION BY TOUCH



XC ASSISTANT & TRIANGLES

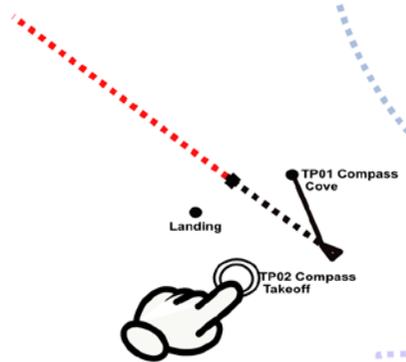
NEW HARD GLASS



ALL-IN-ONE

XC COMPASS

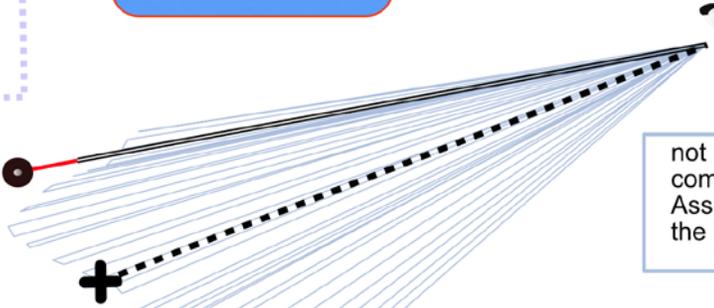
GLIDE OVER TERRAIN



choose a "goto" by a simple touch in the map. Move and zoom the maps

watch in real time where and at what altitude your transition will end considering the terrain: crossing is much more easy!

not only triangles ... a complete XC flight Assistant to give you all the informations needed



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We give you all the data to let you take the best decisions



SKY COUNTRY

Sky Country wings are imported by Scorpio. The EN A Muscat 3 has a SharkNose and mini ribs.

www.scorpio.fr

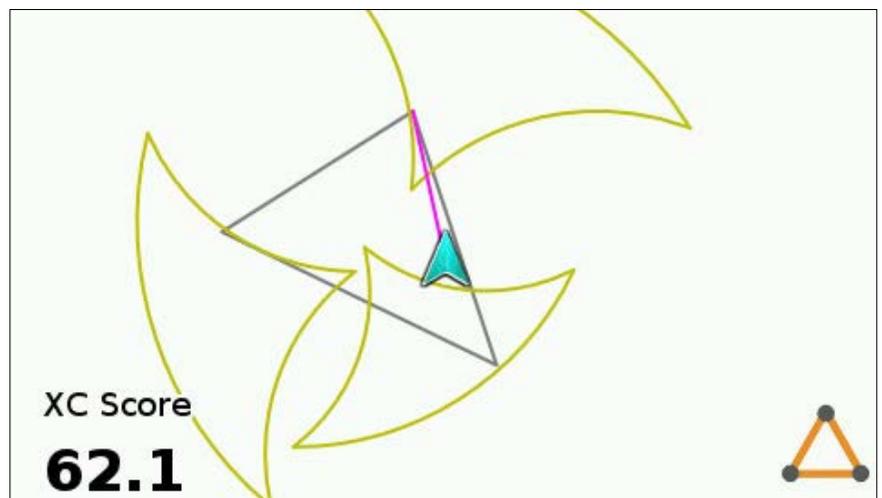
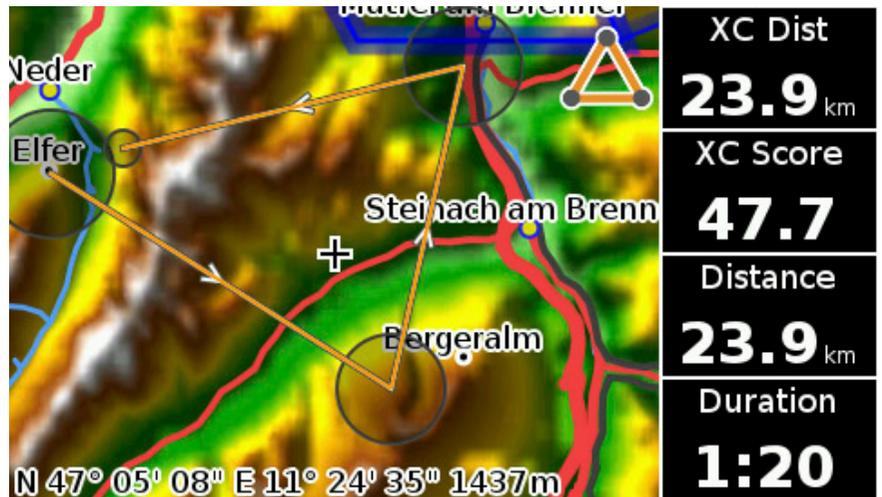


SKYTRAXX

The Skytraxx 3.0 (769€) has already built up a good reputation with its excellent screen which is easy to read in full sunlight. New functions have appeared such as the automatic calculation of FAI triangles which is possible at any point during the flight, as well as competition functions.

Following requests from their dealers, this manufacturer also offers a simple acoustic vario, with a battery life of 250 hours, plus it's cheap. Price: 46€.

www.skytraxx.eu



THE 34TH COUPE ICARE FILM FESTIVAL





From climbing to base jumping, 'free base' in the film 'Solo Base'.

Le teaser: https://youtu.be/NgUFO--_MWE

For the 34th time, films which have some sort of connection to human flight were shown and adjudicated during the Coupe Icare.

The 34th Coupe Icare film festival once again provided us with images full of stories and human adventures including memoirs (example: LES AILES D'ETIENNE by V. Teuscher), reminders about the dangers of our free flying sport (example: AIRMAN by F. Felicioni), humour (example: DON'T TRY THIS AT HOME) serious without being too serious, (GIVE ME FIVE by Antoine Lemay) the breath taking (example: HEADWAY by Nicolas Romieu) and those which raised awareness about ecology and technology (example: SOLAR IMPULSE, Perpetual Flight).

For more information about all the award winning films:

www.coupe-icare.org/le-palmars-du-festival.html

Out of fifty films in the competition, of which about twenty were in the final selection, the press jury, made up of free flying specialists, selected "SOLO BASE: from climbing to jumping" by Xavier CROLL (Spain), length 37 minutes.

It was about a trip combining climbing and flying by David FUSTE and his friend Turko ORTHIZ, two climbers who became base jumpers to make their flying dreams come true. This film is also a tribute to Dean Potter, the inventor of this new sport called "free base". The film is made using commentaries by David Fusté with his love of nature and his intrinsic feeling of being a 'human animal', without any climbing equipment, just with his B.A.S.E parachute, among stunning rock walls in Spain and Italy, on his own or with his travelling companion Turko. The viewer is won over by the respect, the courage and dignity of these two climbers and base jumpers...

It will put your heart in your mouth more than once! Our jury really appreciated the sincerity, the awareness and the point of view expressed in this report.

Jérôme Bressou for free.aero Magazine.





ICARE MOMES DON'T TRY THIS AT HOME

De SHAMS

Nice little films by François Ragolski, divided into several episodes which you can watch on: "Youtube Ragolski" or on "Facebook Don't Try This At Home".

https://www.youtube.com/watch?v=GMhXT_f29FU





ICARE HUMAN ADVENTURE AND ICARE PUBLIC: AIRMAN

By Fernando Felicioni

"There are some stories told by a life" ... this is one of them.

Andy Hediger is one of the pillars of the Red Bull Acroteam, one of the pioneers of paragliding and world champion in the discipline. Test pilot over many disciplines, he has even designed and brought to fruition several planes, making flying accessible to anyone who wants to do it. The accidents and unimaginable losses which he has faced whilst flying show that his passion for the sport is a strong enough weapon to overcome the challenges and beat them.



Vimeo : <https://vimeo.com/181525925>



HEADWAY

ICARE SHORT FILMS: **HEADWAY**

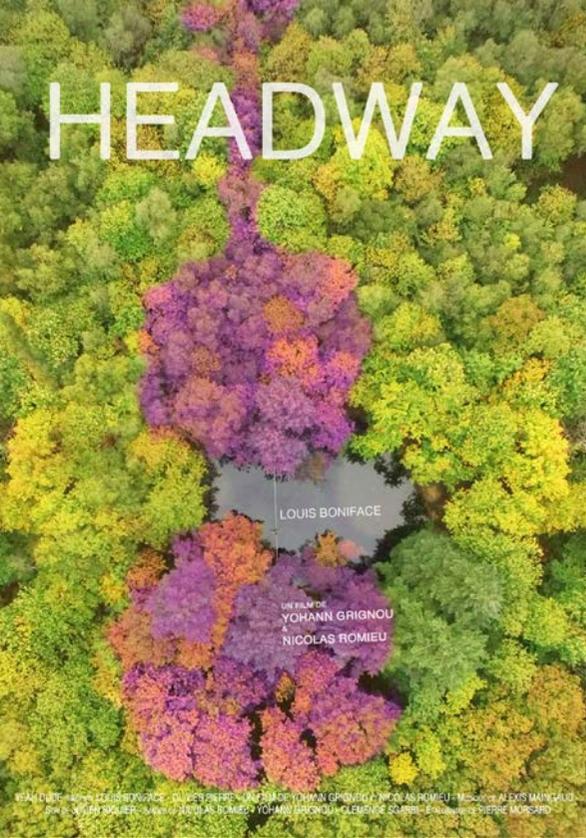
By Nicolas Romieu and Yohann Grignou

Headway is the result of team work and pooling lots of talent.

Nicolas Romieu, editor :

Yohann Grignou, a talented eighteen year old film maker, came to see me with an idea. He wanted to film his best friend Louis Boniface, French Jumphline champion, with a violinist. An idea which was completely different from the films he normally makes, I suggested we make a short version telling a story.

8 million people watched it over 10 days!



www.youtube.com/watch?v=ArqWsxtiluo&feature=youtu.be



SUPAIR

Supair is moving increasingly from being a harness manufacturer towards being a general free flying manufacturing company with reserves and wings becoming an expanding part of their business.

After the Eona (EN A), the Eiko (EN B) and the Leaf (EN B), a C has now been born: the Taska is placed in the middle of its classification. New technology like a mini SharkNose has been built in, and above all, the model which we saw at the Coupe Icare came to our attention due to its CCB (Cord Cut Billow) style 3D-Shaping at the trailing edge!

The designers told us that they have been working on this wing since 2014, but that they wanted to bring out the tandem and the EN A/Bs first.

<http://www.supair.com/>

You could say inverse
CCB!



SUPAIR

This was the first Coupe Icare without Pierre Bouilloux – the condolences book on the stand was full.

For the new Skypper 2, the designers had carte blanche. From an aesthetics point of view, this harness is very modern. As far as flying is concerned, you still need to wait a little before being able to test it...



BACKBONE

For decades they have faithfully been at their stand. Backbone is not only a French paramotor manufacturer but also the pioneer of the Handi'vol seat, meaning free flying for the handicapped. Price: from 3500€.

www.backbone.fr



Photos Sascha Burkhardt





KANGOOK

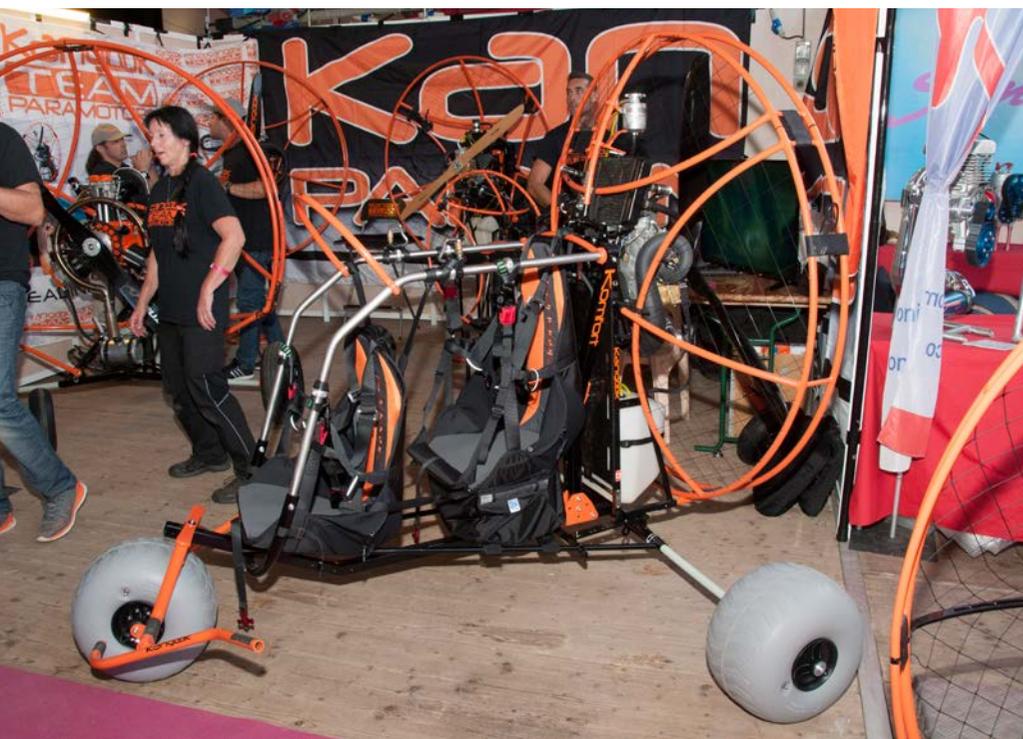
The Canadian manufacturer known for, amongst other things, the compatibility of their chassis with almost all the motors available on the market, launched the all new Eole 135 by Bidalot in a foot launching machine. The motor from this well known French manufacturer has been much anticipated, amongst other things, for its perceived reliability, which was one of the most important things in the specifications. On the other hand, there is no clutch. We will soon publish our first test of this machine.

Below left: the modular buggy KX1 is now also available with very wide wheels. This very flexible trike can be used solo or as a tandem, and has as an optional bucket seat. It is also available with 4 wheels (Quad) and in a pendular (hangglider) version.

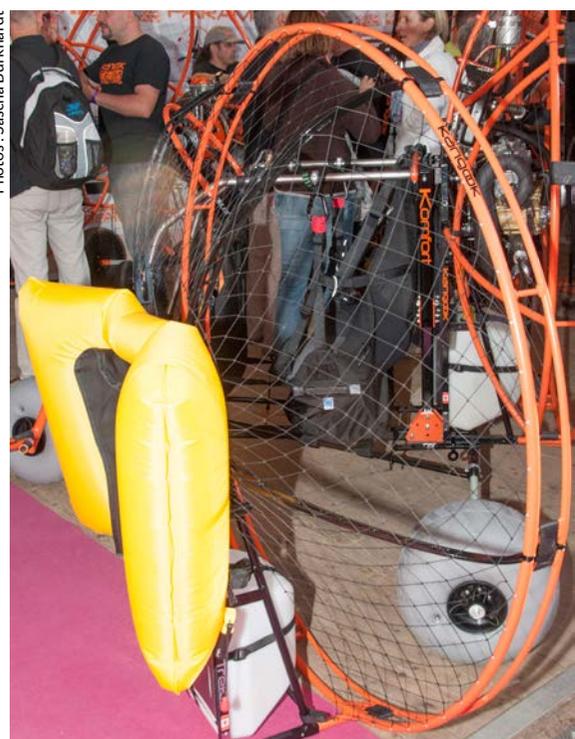
The Trekk travelling cage has been greatly improved. To make it more stable from now on, it has a double arc, but the volume when folded is still very small. There will be a full test in our next 'Light' article.

Kangook also have an inflatable anti drowning system.

www.kangook.ca



Photos: Sascha Burkkhardt



KANGOOK

Kangook also launched a new motor for their tandem trike the Nanook: a 4 stroke engine, the Verner 3VW in three cylinder radial at 1560 cc and 40 HP to 2 400 RPM, fuel consumption 6.5 l/h to 8 l/h.

It makes an impressive noise, like a Harley, which has been limited to 58 dB thanks to the optimisation of the exhaust.

The Nanook with the Verner costs nearly 21 000 €. It can be ordered with a harness or with bucket seats.



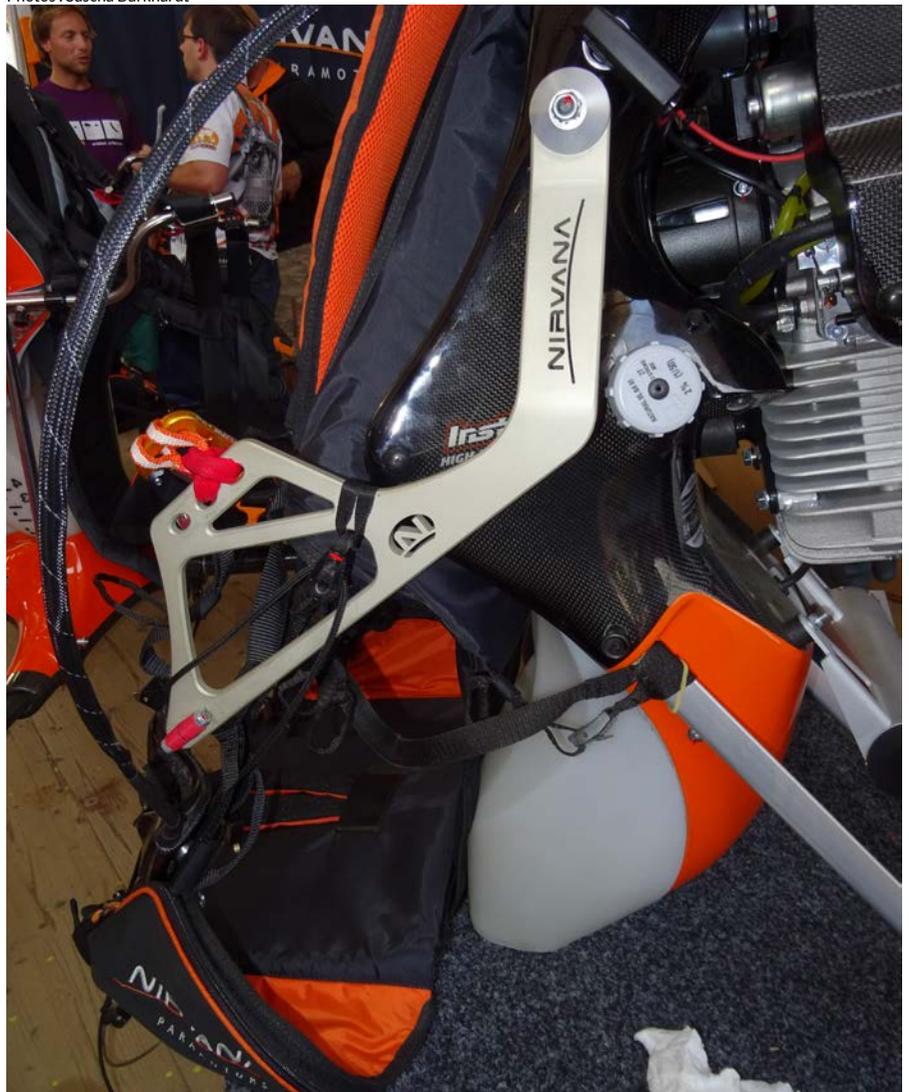
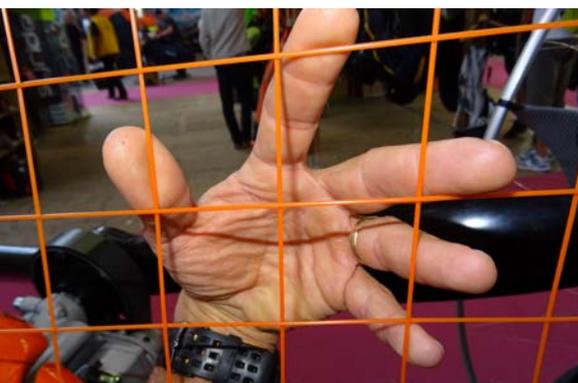
NIRVANA

The Czech manufacturer wants to come back onto the international market in force, including in France. In the absence of radically changed models, some interesting improvements have been made: a thicker net giving more protection, new swan neck style arms (a fairly robotic swan) and a new version of the helmet specially designed for paramotors. The new throttle seems very ergonomic.

www.nirvana.cz



Photos : Sascha Burkhardt



PARAJET

The English manufacturer offers a new cage which is easy to transport: the circle with the net can be folded into a diameter which is a lot smaller than the cage. When it is being put back together the net becomes taut thanks to a clever little mechanism. Well done!

The shape of the tank brings the volume of liquid nearer to the centre of gravity. This is positively felt at take off.

www.parajet.com



Photos: S. Burkhardt





Devilish: this sort of meeting was typical. Given that virtually every year the weather is perfect during the Coupe Icare, we do wonder whether the organisers have signed a pact with the Devil.



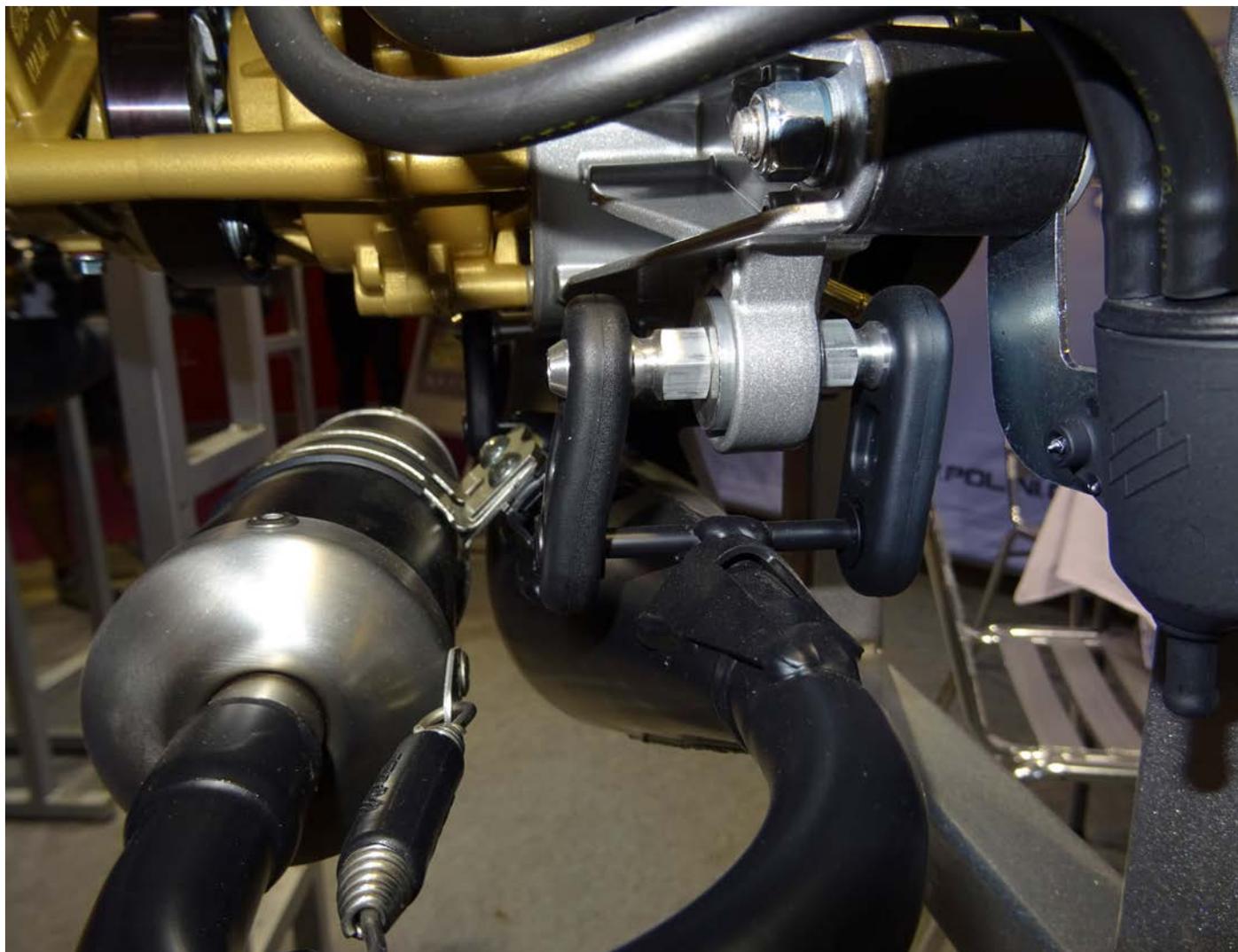
POLINI

Lots of professionals confirm it: The Polini Thor 80 is, without a doubt, one of the most refined paraglider motors from this manufacturer.

Nevertheless, little improvements have been made like the silent blocks on the radiator in 2015, or this new 'soft' attachment on the exhaust in 2016.

<http://www.polini.com/fr/>

Photo : S. Burkhardt



NEO

At Neo two new harnesses have been added to the 'minimalist' String harness. In the picture on the left, a harness (still to be named), weighing 1.2 kg with the cocoon, and 1.5 kg with the cocoon and back protection certified LTF.

The new protector is based on extruded co-polymer tubes which are already used in the speedriding harness.

The 'Suspender' harness on the right weighs 3.5 kg with the accelerator and is equipped with the protection in the photo.

The part with the 2 x 6 squares acts as a seat board to give pretty precise weightshift. Price: 1680 €, available from November onwards.

www.flyneo.com



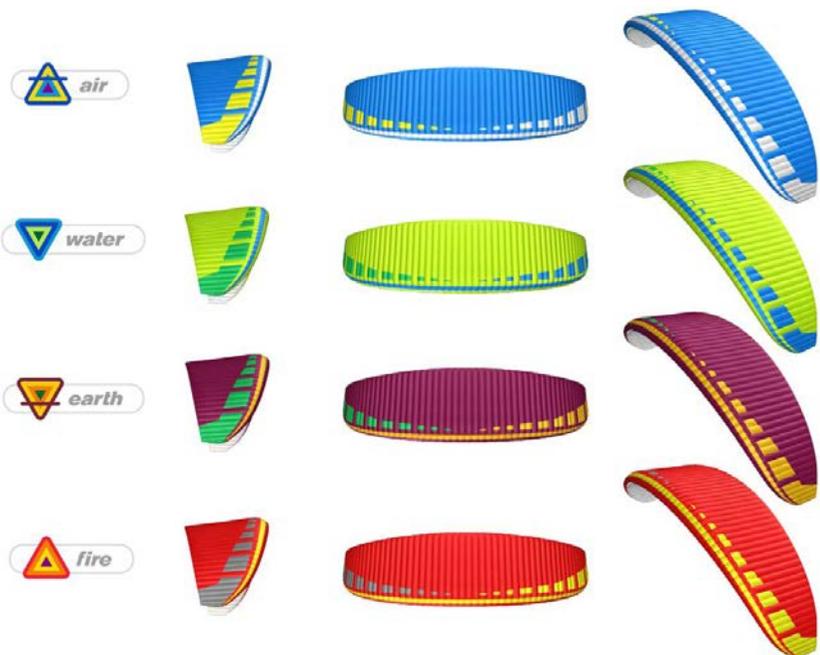


DUDEK

Dudek have finally brought out the "Reportair" paramotor wing which is aimed at, amongst others, aerial photographers. The biggest challenge has been giving it good stability in the roll, even if the pilot lets go of the controls and moves about or leans in the harness to take aerial photos, without making a bus which doesn't react well to the controls.

Interesting, we want to see one!

www.dudek.eu





THE WORLD AIR PARAMOTORING 2017

A date for the diary: the World Air Paramotoring 2017 event will take place on the 23rd, 24th and 25th of June 2017 at the Blois aerodrome at Le Breuil.

The organisers hope there will be about 60 exhibitors and 5000 visitors.

mondialairparamoteur@gmail.com

AIR-DESIGN

The Hero by Air Design is a high performance wing for hike and fly competitions. It will, no doubt, be part of the next X-Alps. Despite its aspect ratio of 7, it has only 60 cells and only weighs 3.4 kg.

Photo: Air Design



Stefan Stieglair, former world champion and designer at Air Design, a lovely, funny person.



PIOU-PIOU

A new version of the PiouPiou with a surprising change: no more SIGFOX network. It wasn't widespread enough at an international level. Now, all the PiouPious will communicate via the GSM network. And despite this technology having higher power consumption the solar panel on the PiouPiou's stabiliser panel should be enough to feed the whole thing!

www.pioupiou.fr

Good news for those subscribed to the Meteo Parapente site: it will, amongst other things, soon be easier to choose a zoom onto your favourite site.

meteo-parapente.com

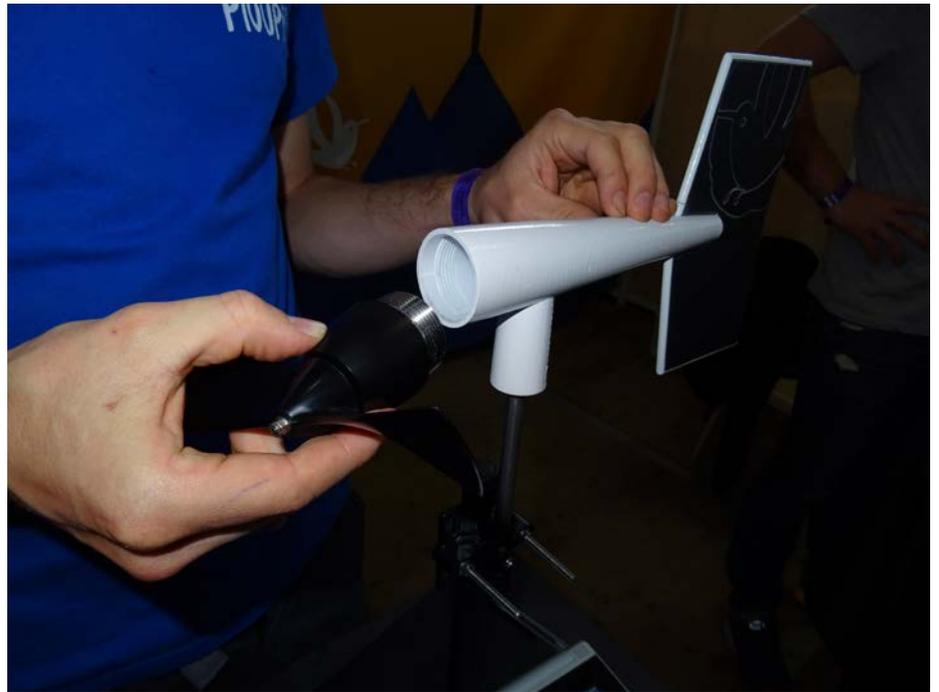
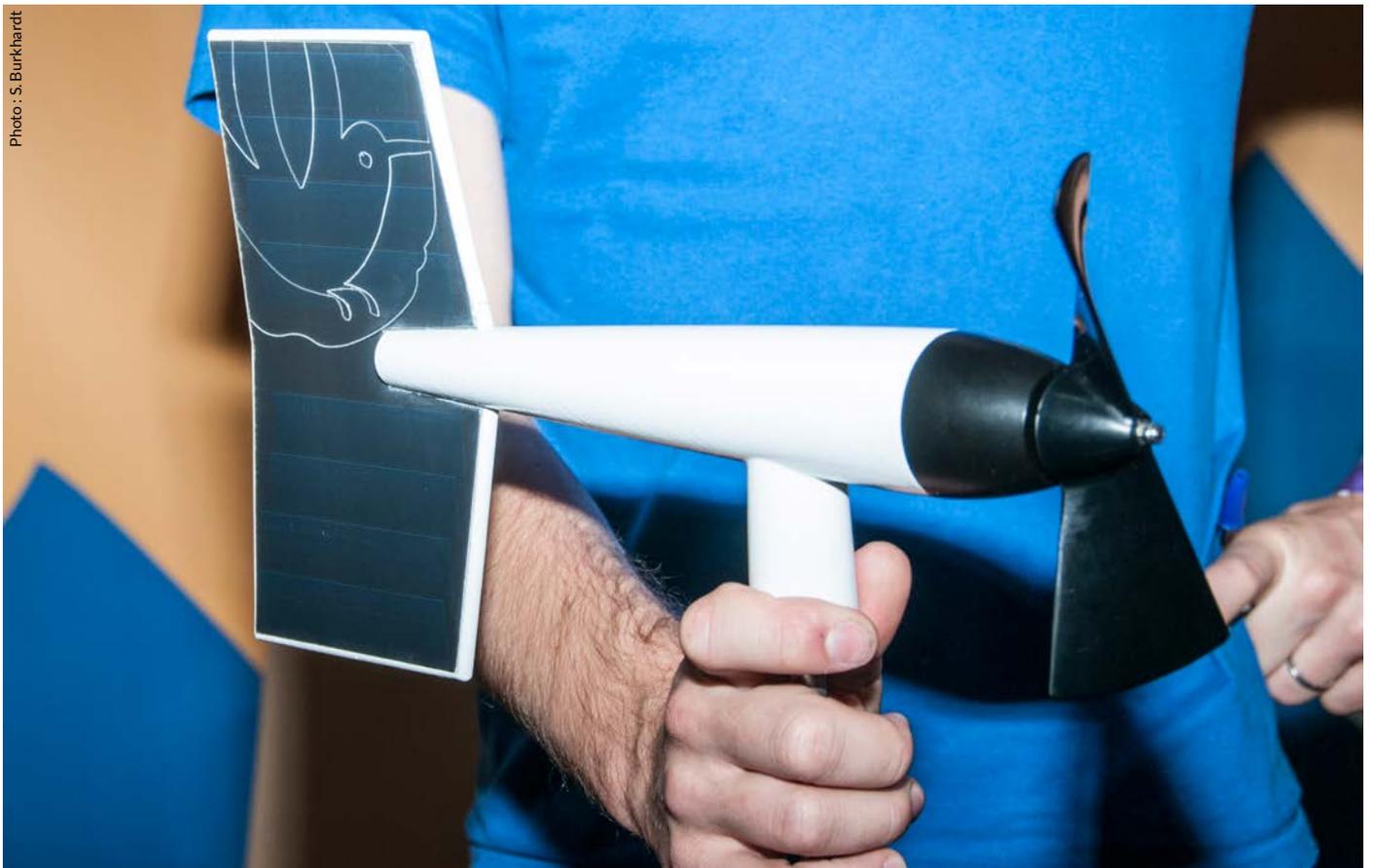


Photo : S. Burkhardt







WINDTECH

The SharkNose has arrived at Windtech too!

www.windtech.es



REVOLT

A rather novel project: this Italian electric paramotor is a Kickstart project which is supposed to work with four smaller motors rather than one big one. As far as output is concerned, it perhaps isn't ideal, but the reliability when flying over water for example is a lot greater. There is a controller and a battery for each motor and a central controller running the whole thing in an intelligent fashion. The motors turn in different directions, therefore there won't be any torque effect due to the propeller. The price will be around 6500€

<http://www.flyrevolt.com/join/>



The sky turns red above Saint Hilaire...



Photos: Ilan Ginzburg

VIRUS PPG

There are more and more excellent chassis on the market. Shown here, the cage and chassis from the Bulgarian manufacturer Virus PPG. It is aimed at experienced pilots and delivered with a Vittorazi Moster 185 plus.

<http://www.virus-ppg.com/>



SKY PARAGLIDERS

At Sky Paragliders, there is a new harness which uses the same principle as the Scopio one: the backpack straps are the same as those used for the harness.

The EN B Apollo wing is now available as a tandem too.

<http://www.sky-cz.com/>





Photo : Ian Ginzburg



Photos : Ian Ginzburg

FLY PRODUCTS LUNA

The Luna trike which is the result of collaboration between the two companies PMSwiss and Fly Products is now totally finished. A beautiful machine in the "XCitor" style. Motor Rotax 582 E / 64 HP, advertised thrust at 159 kg, unloaded weight 162 kg, all up maximum weight 380 kg, full ready to fly price with wing and reserve: 24000 €.

<http://www.flyproducts.com/ita/trike/scelta-trike/luna/>

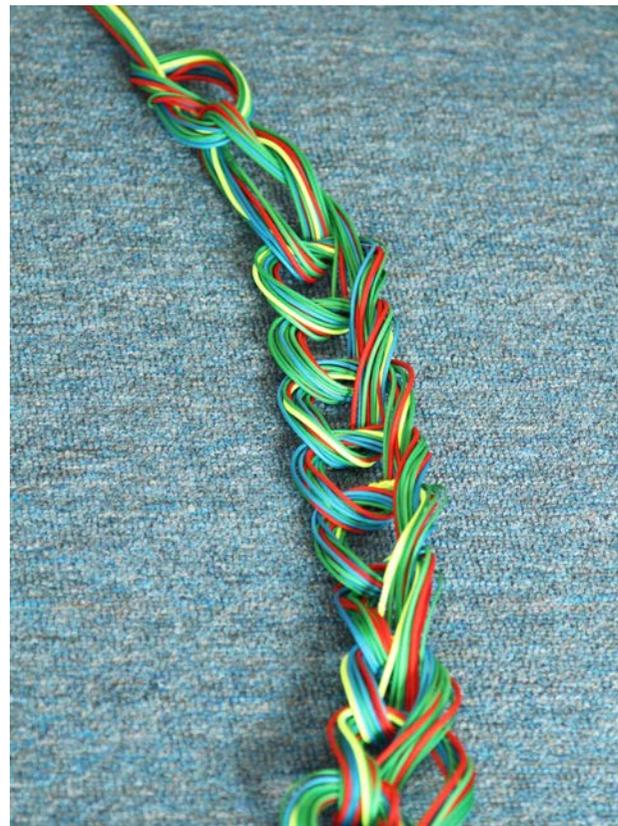


AERO DYNAMICS

We mentioned them, but didn't feature them in our 'Making Of' article. Aero Dynamics is one of two competing companies in Sri Lanka who supply a lot of manufacturers, such as Bruce Goldsmith Design. The owners of Aero Dynamics made the most of Coupe Icare to meet the manufacturers.

Below right: on a wing leaving the factory, the lines are pleated... very pretty. Above right: the German Frank Ulmer, director of Aero Dynamics.

Below Ralf Grösel, consultant at Aero Dynamics.





Daniel Raibon Pernoud has been organising the Coupe Icare for 43 years. An inestimable contribution to the free flying world!
Photo: Bruno Lavit

LE TUBE

Le Tube which was launched for the first time at the Coupe Icare in 2015, is now available in two versions. Very soon we'll publish a test of this accessory which assists packing a glider.





OPALE

The remote controlled models from Opale are now available in an XXL version: the all up weight of the model is 12-20 kg on a 5m² wing, the price for the whole thing, ready to fly, is about 2000€. Remember that the single skin wings from Opale are very easy to fly, including in a SAT.

We tested a small model, the Hybrid 1.8 (ballasted all up weight, 1.6-4 kg), we will publish this test in a future edition.

<http://www.opale-paramodels.com/index.php/fr/>



OPALE



YVES ROSSY : JETMAN

Always an amazing event: JetMan Yves Rossy taking off from a helicopter.





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