

free.aero



WORLDWIDE PARAGLIDING AND PARAMOTORING MAGAZINE. FOR FREE.

SPRING IS IN THE AIR...



GET READY TO TAKE OFF

FOR A NEW SEASON!

- SPRING WEATHER
- NEW PRODUCTS
- THE THERMIKMESSE AND STUBAI CUP TRADE SHOWS
- CLIPPING IN EASILY
- GROUND HANDLING
- PARAGLIDER ASSISTED DRAWING
- SINGLE SKINS 2.0
- X-ALPS 2015: THE ROUTE
- HIKE AND FLY, AN ONLINE DISTANCE COMPETITION



Photo: Markus Gründhammer

The new paragliding and paramotoring season is here. It started with amongst other things, two spring trade shows. In this issue we'll be reviewing what was new and interesting that we haven't already covered in our Trends for 2015 article.

To help you get the season off to a flying start, we've included some advice about assessing the weather forecast, as well as brushing up on your take offs: playing on the ground and even climbing up onto obstacles if there is enough wind are the best way of ensuring that you'll be able to handle your wing well in the air...

Single skin wings will be making a remarkable advance this spring. If these wings can solve the problems encountered by the first single skins (which we have frequently tried and tested both with paragliders and paramotors), this step forward could be revolutionary.

Last but not least, we would like to thank you all for your patience. Going international in four different languages has meant a complete rethink of our planning but, from this month onwards, the rate of publication will be faster, in particular with the restart of paraglider and paramotor tests.

Best wishes from the team at valer.info/free.aero

Translation by Ruth Jessop



GRAND TOURING

ARTIK 4

Cross Country · EN C

Only by understanding the pilots, can you offer them what they really need.

niviuk.com

DRS DRAG REDUCTION STRUCTURE

SLE STRUCTURED LEADING EDGE

RAM RAM AIR INTAKE

NIVIUK

A FIRST SOMEWHAT DYNAMIC LAUNCH...

The first trips to take-off, the first thermals, the first ungainly take offs: spring is here!

Photos by Markus Gründhammer from the film:
<https://vimeo.com/123279566>





BREATH TAKING NOCTURNAL LANDSCAPES, WAITING FOR THE FIRST MORNING FLIGHT

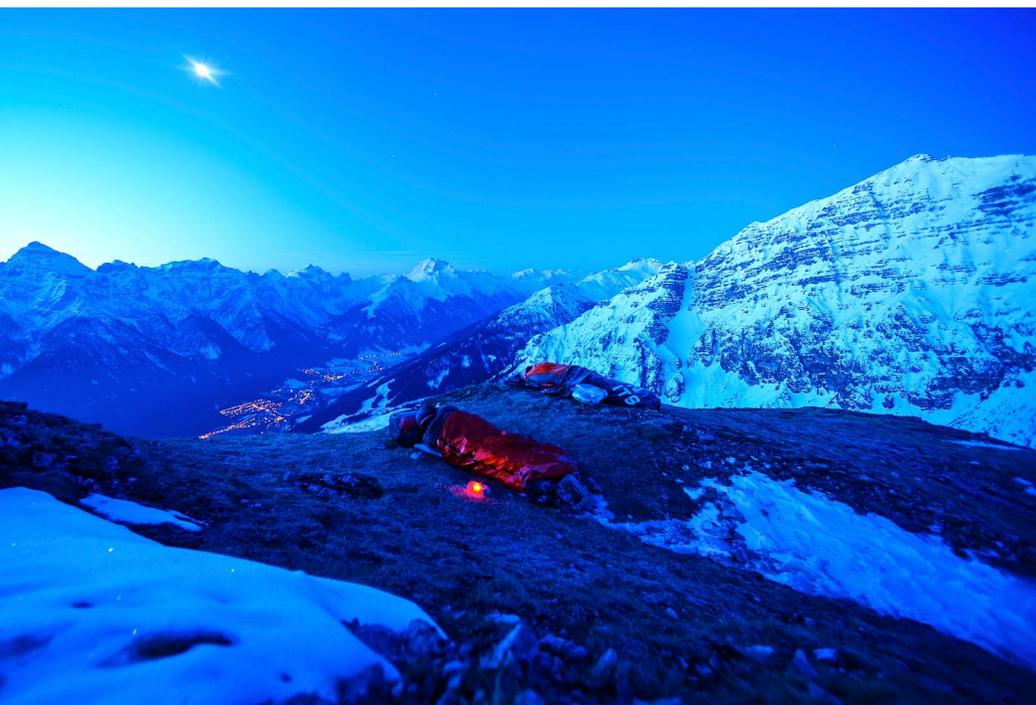
*By Markus Gründhammer, Skyman
(...yes him again, but his photos are just so beautiful!)*







A tough exterior with a romantic interior:
Markus Gründhammer from Skyman

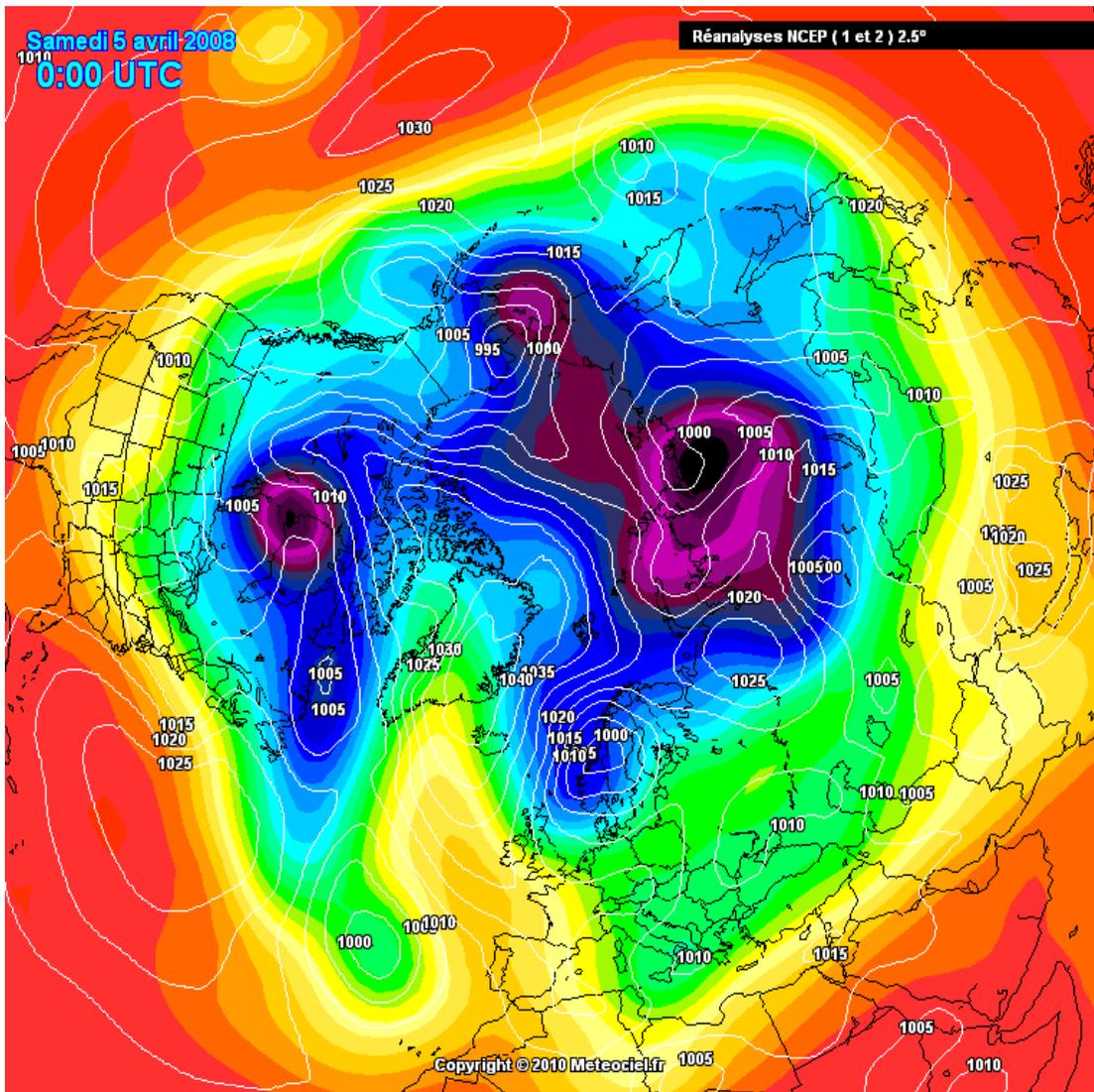


Less than an hour to go before a flight down to the valley...



Buzz Z4

The Buzz Z4 remains the standard for versatility in the Intermediate Class. With a well crafted balance of XC performance, total comfort, and ease of use, it provides the perfect union of safety and efficiency. The Buzz Z4 is an ideal choice for pilots who fly approximately 30-50 hours per year, talented beginners, or for more experienced pilots who are looking for a stress free flight. Contact your local Ozone dealer for a test flight and visit WWW.FLYOZONE.COM for more details on this wing and our entire range.



The 5th of April 2008 was a beautiful spring day with nine hours of thermal activity.
www.meteociel.fr

SPRING WEATHER

The weather can be capricious but all the same, it does more or less obey certain rules. Here are some typical spring scenarios...



Spring is here. A legendary photo by Rainer Scheltdorf (www.fly-zone.de): a VW Karmann and a paramotor meet crossing a carpet of spring flowers at the end of April.

For meteorologists, springtime in the northern hemisphere starts around the first of March rather than the twentieth of March, which marks the astronomical springtime. In the northern hemisphere, winter comprises the months of December, January and February, which are the coldest months. Next comes spring (March, April, May).

This is due to the inertia involved in reheating. Remember that the days start to lengthen from the winter solstice, on about the 22nd of December, but that the first nice days don't start again until the month of March at the earliest, a delay of more than two months.

At the beginning of March, the sun starts to be high enough to chase away the Siberian anticyclone - during winter this often blocks any fronts. It is very cold, but beautiful... When it starts to withdraw as the weather warms up in the spring time, its partner, the Azores anticyclone, hasn't come far enough north yet to protect Europe. In March, as a consequence, we often have a succession of fronts. The lowest pressure on the ground is often recorded during this period.

The contrast in temperature horizontally and vertically doesn't just cause this instability, but also strong winds (often Foehn before a front) as well as strong thermals and turbulence during the 'flyable' periods.



The first patches of meadow without snow: a big contrast in temperature, ideal for kicking off thermals. Photo: Ozone.

In the southern regions, it's already been springtime for quite a while ... Photo: Karen Skinner, Spain.



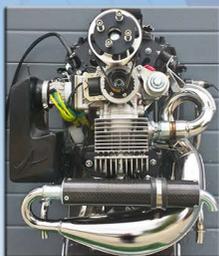
8.0



X-RACE 8.0
X 8.0

80 cc
17 hp
11 kg
115 / 130 cm
50 / 55 kg

TIGER 160



FUNFLYER
X-T X-RACE

160 cc
24 hp
14 kg
115 / 130 cm
63 / 70 kg

FLY 200



FUNFLYER 200
X-RACE 200

200 cc
27 hp
16 kg
130 cm
80 kg

MINI 3



FUNFLYER MAX
FUNFLYER BI

270 cc
33 hp
20 kg
160 cm
110 kg

Engine	Propeller	50	60	70	80	90	100	110
8.0	115 cm	50	60					
	130 cm		60	70	80			
TIGER	115 cm			70	80	90		
	130 cm			70	80	90	100	
F200	130 cm			70	80	90	100	110

Competition
Sports
Casual

Use of engines according to pilot weight & propeller size

PPG engines by **ADVENTURE**



on our paramotors
foot launch PPGs or
wheeled trikes



www.adventure.fr

*"... uploaded my track
while waiting for the train."*



For those who want to fly beyond

The Flytec Connect 1 is the first ever smartvario. Just like a smartphone it comes with a touch screen, a multitude of sensors and, most importantly, wireless connectivity. Download waypoints and airspaces and upload tracks wherever you have WiFi. The Connect 1 will ultimately help you explore new limits with a graphic thermal assistant, graphic airspace display, and maps. Learn more about the development stages of the Connect 1 on connect.flytec.ch





Photo: Niviuk

By mid May summer is just around the corner, but the influx of polar air masses can't be ruled out.

Photo: Niviuk

Moreover, it's unfortunate that pilots coming out of hibernation are immediately confronted by these turbulent conditions. It would be far and away preferable to start the flying season with September meteorology with nice big smooth thermals!

In the mountains the contrast between snowy slopes and others which are already bare can also kick off 'dry' thermals.

After the passage of a cold front, the first XC flights are possible, but often the instability brings rain – the famous spring showers.

The influx of large polar air masses is possible up to around the 11th of May, which coincides fairly often with this type of phenomenon.

Looking for stability

Lots of novice paraglider pilots, as well as most paramotor pilots prefer stable air to be able to fly in non turbulent conditions for the majority of the day.

These conditions do exist even in springtime. A favourable time is when there is an anticyclone, as long as it is present at all levels.

So it isn't enough just to analyze the pressure at ground level, but also at altitude, shown on these maps by the Geopotential 500 hPa shading.

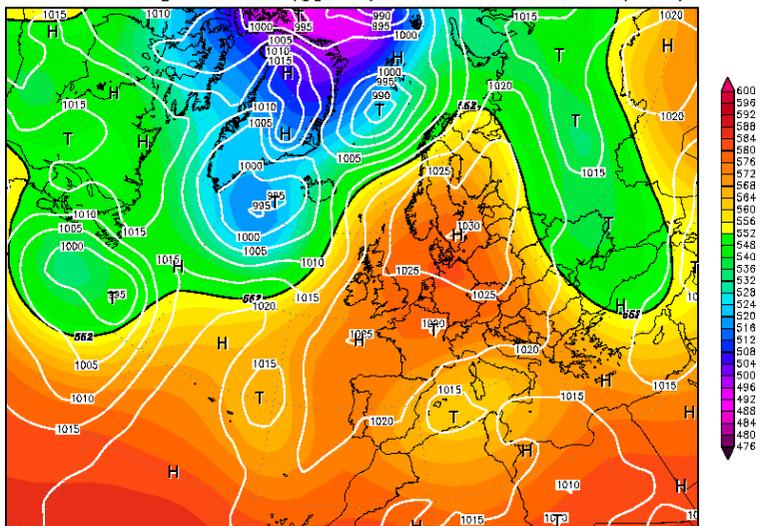
The high pressure zones at altitude should more or less correspond to those on the ground (white lines). In this case, there is a strong possibility of having stable conditions with very little wind. 🌀



In mid April, at the beginning of the afternoon. A day which was, fortunately, not too thermic for this paramotor. The map below shows a similar situation. Despite the good weather in continental Europe, the thermic activity was limited and lent itself to smooth paramotor flights. The anticyclone is equally present at ground level and high up.

Map archives: www.wetterzentrale.de
 Photo: Rainer Scheltdorf

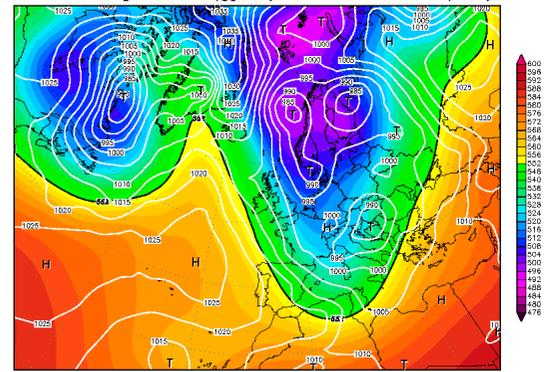
500 hPa Geopotential (gpm) und Bodendruck (hPa)



Daten: Reanalysis des NCEP
 (C) Wetterzentrale
www.wetterzentrale.de

Springtime in Europe...

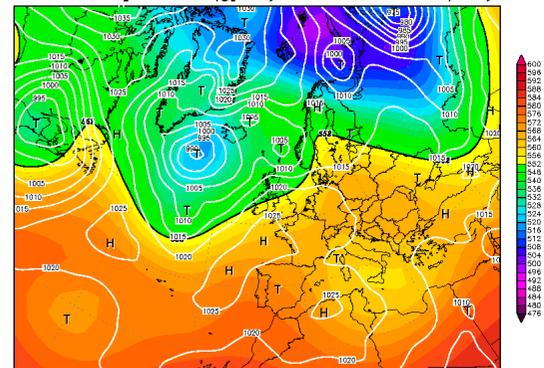
24MAR2008 00Z 500 hPa Geopotential (gpm) und Bodendruck (hPa)



Daten: Reanalysis des NCEP
 (C) Wetterzentrale
www.wetterzentrale.de

Bad weather in springtime: very unstable due to the presence of very cold air. Even if the sun comes out, the air is too turbulent.

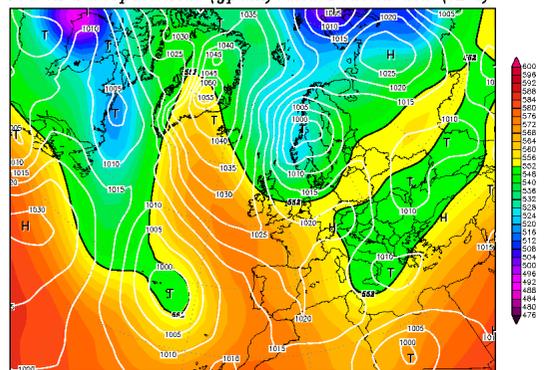
05APR2009 00Z 500 hPa Geopotential (gpm) und Bodendruck (hPa)



Daten: Reanalysis des NCEP
 (C) Wetterzentrale
www.wetterzentrale.de

The first good scenario: the Azores anticyclone is finally installed above our heads.

05APR2008 00Z 500 hPa Geopotential (gpm) und Bodendruck (hPa)



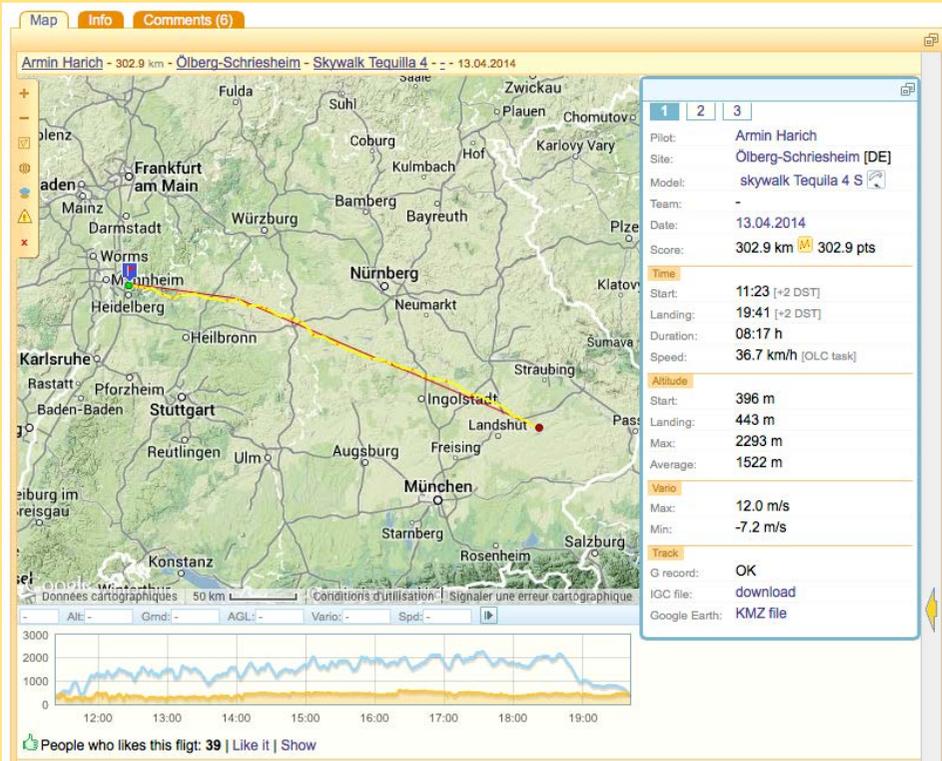
Daten: Reanalysis des NCEP
 (C) Wetterzentrale
www.wetterzentrale.de

Exceptional conditions on this 5th of April: The difference between the air heating up at ground level and the cold air high up is ideal for paragliding, neither too weak, nor too strong (which would lead to over development). On that day there were active thermals for nine hours.

In Memory.

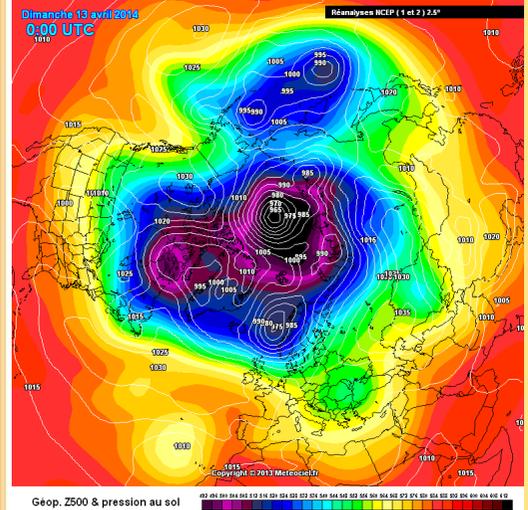
We would like to thank Stefan Hörmann a weather forecasting enthusiast, especially with respect to paragliding. His weather forecasting service Gleitsegelwetter provided precise forecasts as well as warnings for unusual conditions for alpine pilots. He also helped us with our magazines and taught us a lot about the weather.

Very sadly Stefan left us far too early, at 41 years old, in October 2014.



<http://xcglobe.com/olc/index.php/catalog#si&flights&1396172&map>

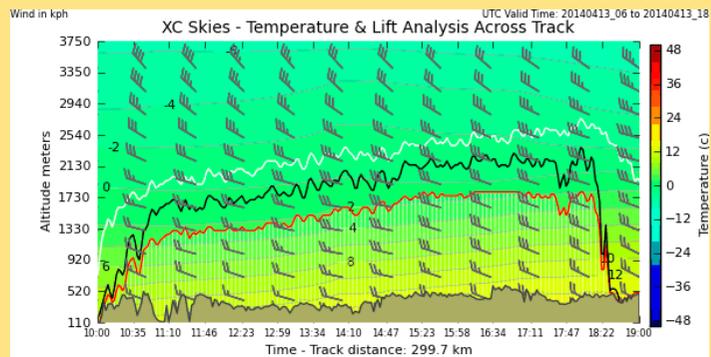
The situation on the 13th of April 2014 on a map generated by www.meteociel.fr



THE 13TH OF APRIL 2014: 300 KM OVER THE FOOT HILLS

On the 13th of April 2014, a beautiful spring day made it possible for Armin Harich to fly a distance of 300 km, crossing the south of Germany from west to east, over low hills, whose peaks were barely higher than 600 metres above sea level. Armin achieved this on a Skywalk Tequila, a fairly mellow EN B wing, which can also be used to train above average beginners.

What was special about the weather conditions on that Sunday the 13th of April in the South of Germany was, above all, the wind upstairs... and its gradient! It was a beautiful day, with a fairly strong, even wind, but with a weak gradient. As a result, the thermals were less broken up, with a wind which effectively aided progress. ☺



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2 TIME WORLD CHAMPION
2 TIME EUROPEAN CHAMPION
2014



1°

THOR 200 EVO
2 TIME WORLD CHAMPION
2014



1°

THOR 130
1 TIME WORLD CHAMPION
2014

The Polini Thor 130, 200, 250 range scores a series of successes, one after another. Designed for all flight requirements, they are powerful technological real jewels, reliable performance, ready to defy the skies of the world and to win all the hearts of the enthusiasts. Thor by Polini, a large family born to win with you.

START THE SEASON ON THE GROUND...

PLAY,
THEN FLY!

We can't say it enough times: a good paraglider and/or paramotor pilot first learns to control their glider on the ground, at take-off and by playing in the wind...



Photo: Gudrun Öchsli / Profly

All the best pilots agree – to control your wing well in the air, you need to be able to control it on the ground first.

Play, kite it, take it to the limit, let it drag you, cobra launch it... Quite simply control its power with your hands and eyes! There

is no shortage of unflyable but yet windy days in the spring and autumn. Make the most of them to practice. Your take offs for 'real flights' will be much more successful.

Here's a reminder about ground handling using the C/Ds, a technique which is still surprisingly unknown.

The trailer for Mad Mike Kueng's latest film shows the incredible ease with which he moves between ground and sky:
<https://www.youtube.com/watch?v=PJS7QhmYLMY>

For a successful take off like this one, the pilot has already learnt to control his wing on the ground...
Photo: Viaframe/Airsthetik.at



The rear risers allow good control of the wing. It is also possible to take off and to limit the height by stalling neatly to land a few metres further on.

By pulling directly on the rear risers (the C's or D's, or both depending on the wing) gives an extra dimension and security to inflations when there is wind. When Mad Mike K ung climbs onto obstacles, starting with cars and finishing up on vertical walls, he uses this technique a lot.

The advantage compared to using the brakes: By using the latter to correct movement in the wing, the pilot also increases the lift. The wing therefore tends to lift the pilot off the ground, putting him off balance. By using the rear risers on the other hand, the pilot straightaway curbs the strength of the wing.

If the pilot says "stop", it's "stop". If there is a gust, with a sharp pull on the rear risers, the pilot stays on the ground and will be hardly lifted up at all.

And if the wing comes back down, its pull is a lot less and the pilot won't get dragged. Pulling a maximum on the rear risers gives an almost perfect emergency stop when the wing is pulling horizontally like a spinnaker.



Photos: V ronique Burkhardt

When working with the rear risers, the art is to move to the A's from the rear risers and vice versa depending on the position of the wing. When the wing starts to fall back, you need to recover it with the A's. As far as the controls are concerned, lots of pilots prefer to leave them clipped onto the risers. Here, we prefer to keep them over our wrists.



Mike Küng only very rarely uses the brake handles. He uses either the rear risers or the brakes above the pullies.

Photo: Gudrun Öchsl/Profly

On the other hand, you need to get used to the rather erratic response of the wing when you use the rear risers. First the wing flies, then it stalls abruptly with a certain amount of pull on the risers.

Bear in mind that, when taking off with the pilot deliberately facing the wing controlling it with the rear risers, you can very precisely control the take-offs to land gently a few metres further on.

Be really careful not to stall completely when relatively high. It is also important that the wing doesn't untwist itself whilst piloting with the rear risers. By playing in the wind, you'll learn quickly! ☹





On the other hand, when the wind is weak, the brakes give more lift for climbing...
Photos: Véronique Burkhardt

OTHER GAMES

Climb up onto little obstacles, have wing wars with friends by trying to collapse each others wings, or land the wing on the left and then on the right of the power window...

There are lots of fun games which radically improve how we control our paragliders...





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* Terms and conditions on our website

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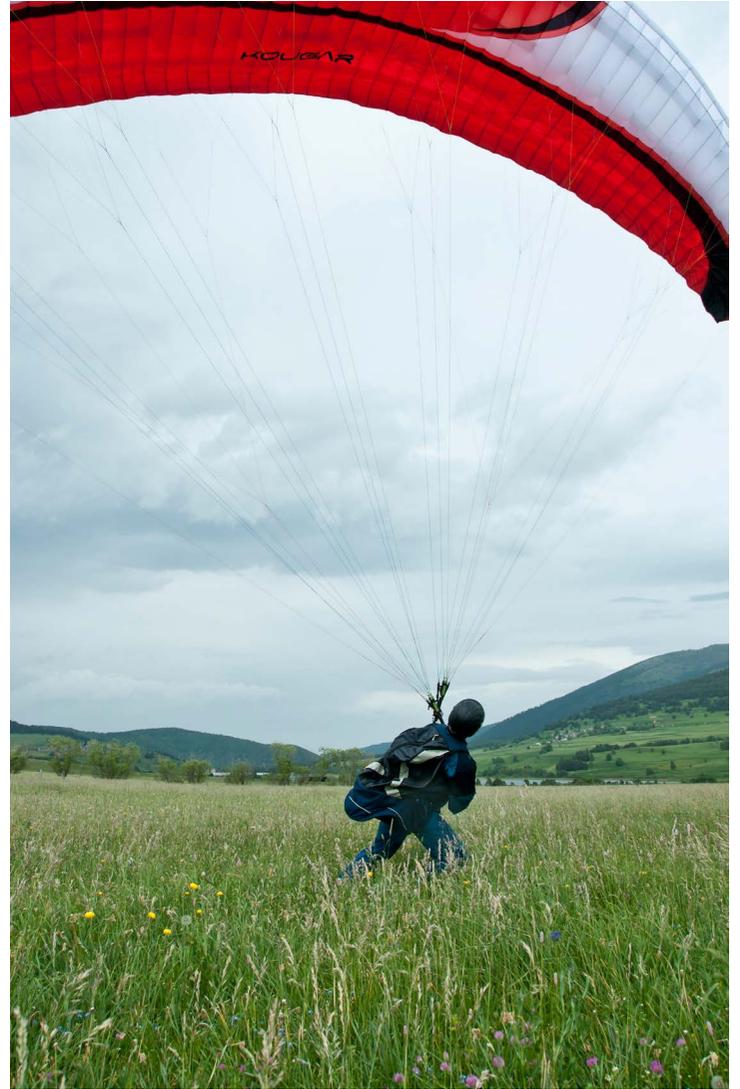


Even with a light trike, good control of the wing in the wind increases the 'flyable' conditions for the pilot.

Wing wars: collapse your friend's wing.



SPRING IS IN THE AIR...



On the ground, facing the wing, the wing doesn't react in the same way to movement in the harness as it does in the air. An interesting discovery...



SMART CELLS



AIR SCOOP



MODERATE ASPECT RATIO



DOUBLE 3D SHAPING



EASY PACKING



WEIGHT OPTIMIZED

MENTOR 4 - gets you further

More technology, more know-how, more performance: The MENTOR 4 (EN/LTF-B) is the next milestone in the XC intermediate class. As well as revolutionary performance, the MENTOR 4 also offers refined handling in thermals, balanced roll damping and even better climb characteristics. And thanks to its compact sail, the wing has gained efficiency and is also faster.

www.nova-wings.com



SPRING IS IN THE AIR...

NOSE DOWN

A very good exercise in the wind: bring the wing up with the leading edge facing downwards.

It can also be used at the dunes to get sand out of the cells. You need to turn the wing onto its leading edge by bringing the wing up asymmetrically by braking on one side. It comes up pivoting around its axis and falls back onto the leading edge.

From this point onwards, by using both brakes symmetrically, it comes back up with the trailing edge in front. Trying to keep it in the air like this is a very interesting exercise.



Trek



The **Trek** is a light wing*, specially designed for **hiking**. Its performances and its strength** will perfectly meet your requirements. It is the ideal wing for those who want to go off the beaten track.

www.trekking-parapentes.fr

* 3.85 kg for the small Trek
** Best glide: 9 , Min sink: 1 m/s
The leading edge are reinforced.
The edelrid lines are fully sheathed.
EN B small and medium

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CLIPPING IN FACING THE WING

Whether on a paraglider or a paramotor, let's recall a very effective technique for avoiding mistakes such as twisting a riser whilst the pilot clips in facing the wing.

Both risers are parallel, as they come from the wing, side by side in your right hand.

With the other hand, the pilot twists this bundle of lines in a half turn clockwise.



just free
free*speed

www.free-speed.com



Now the rear risers are on top, clearly visible here thanks to the trimmers.

All you have to do next is attach, as they are without any further twisting, the loop which is on the left to the left karabiner...





...and the right loop, still without twisting, to the right karabiner.

Ready to play in the wind? To take off, this pilot needs to turn clockwise (when viewed from above). Pilots who prefer to turn the other way just need to twist the bundle (in photo 1) the other way...

Next the pilot can put the brake handles over his hands, or indeed put them right over his wrists to free his hands to use the risers.



Photos: Véronique Burkhardt



There are lots of ground handling techniques, such as the Australian technique (the 2 front risers in one hand, the two rear risers in the other).[Ⓐ]

A UFO by Air Design. Is this a second chance
for the single skins to really succeed?
Photo: Air Design

THE SINGLE SKIN 2.0 THE SINGLE SKINS ARE EVOLVING.



In the spring of 2015 Niviuk finally finished their single surface model, as did the Austrian manufacturer Air Design. Will these new models make up for the failings in the first single skin wings?



Photo: Luc Hentsch

After a long phase of research and development, Niviuk finalized their single skin model which they have called quite simply... Skin! As far as its evolution compared to the first commercial models made by Ozone and Adrenaline is concerned, some 'real' cells and the judicious use of Nitinol leading edge rods should increase the speed range.



Photo: Luc Hentsch



The UFO by air design.

Photo: Air Design

A short video showing the oscillations with hands up on the Batlite from Adrenaline (00:44 onwards) www.free.aero/videos/batlite_ppg



Video: Sascha Burkhardt

Single skin wings aren't new – one of paragliding's ancestors, the 1948 Rogallo wing was a single skin made solely from one upper surface. So why did they add a lower surface? Quite simply because the construction of a performance profile isn't possible with just a flexible single upper surface. Even the hang glider wings, which benefited from their rigidity due to tubes and slats, evolved double surfaces, thus increasing performance. Nevertheless, a single surface paraglider

has advantages. On one hand it inflates like no other paraglider, quite simply because it doesn't have to scoop up the air. Secondly, it obviously weighs less because there is less material. So it is ideal for the current hike and fly trend. That's why designers like Spanish Pere Casellas have worked on a renaissance of the single surface – not in the same format as the Rogallo, but on paper 'a real paraglider'. Pere Casellas has even made the plans of his "Barretina Hyper Lite" available on Open Source.

Niviuk have been working for a long time on a single surface wing – but it was only in the spring of 2015 that the Skin went into production.



Photo: Luc Hentsch

His compatriots from the company Adrenaline have commercialised a model called the Batlite which is partially based on the Barretina.

At free.aero we tested it free flying and with a motor. The verdict was that take off is disconcertingly easy, but the maximum speed is way too low, as is the useful speed range: 24km/h to 32km/h for the 22.5m², therefore less than the 10 km/h required for certification.

It's the same for the XXLite from Ozone. Even in size 16 it only has a limited range (27-36 km/h). Nonetheless the XXLite seems a bit more advanced; unlike the Batlite, the XXLite doesn't pulsate along the cord line, neither does it flap at the wing tip when cornering.

Both move a lot in the slightest turbulence, even though the size of the movements remains small when flying normally. Certika's testing centre found that after a stall, the XXLite 16 dives much further than the Batlite 22 which probably has something to do with the difference in surface area.

Both react well after a collapse by reopening almost immediately, which is logical, as there is nothing to do to re-inflate.

Apart from the lack of speed and the twitchy micro-movements (which aren't dangerous, just annoying!) in the wing, the single skins could therefore be the panacea for a hike and fly wing.

Single Skin 2.0

After three years of low key commercialisation of the Ozone XXLite and the Adrenaline Batlite, two manufacturers launched a new generation of single skin wings at the Stubai Cup. The Skin from Niviuk and the UFO from Air Design are supposed to have overcome the problems of the first single skins.

Fred Pieri showing off the XXLite at the Coupe Icare in September 2011. It's a fully functional wing, but its production remains under wraps due to, amongst other reasons, the poor maximum speed of this first generation single skin. In the meantime Ozone are keeping a close eye on their competitors' Single Skin 2.0. Fred Pieri told us, "We have done a few little trials along the same lines, but gave up because, for us, it wasn't compatible with the minimum weight we were looking for. If others can now move the research forward by innovating, that's great!"





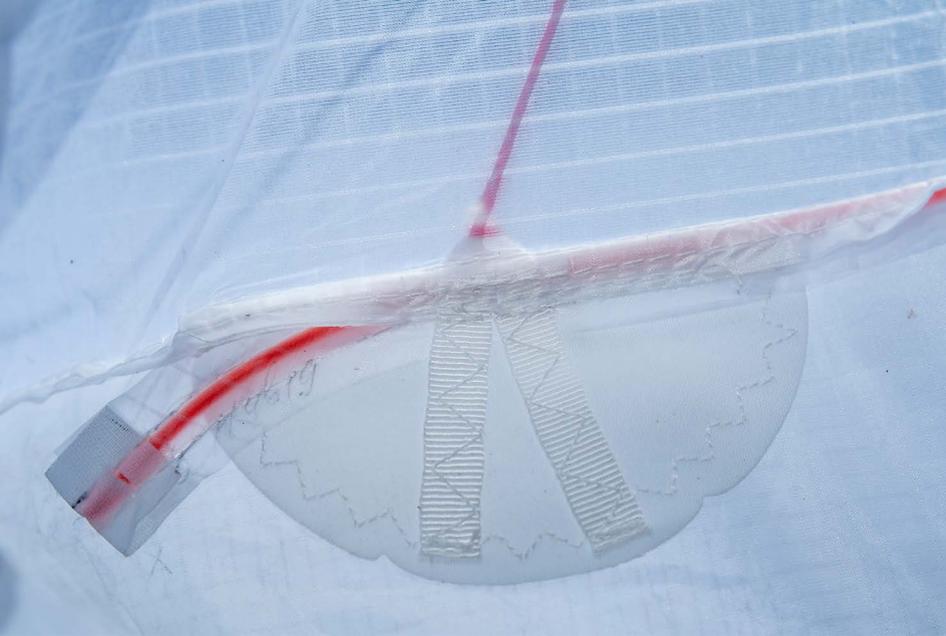
1 and 2:

Contrary to what we initially announced, the single skin first generation Batlite seems very well adapted to take offs and playing in strong wind. It doesn't seem to have any particular tendency to have a spinnaker effect and can also be flown using the rear risers.

During an induced front collapse on the ground, it behaves in a similar manner to in flight and it reopens very quickly. Often, it doesn't even close and the leading edge reopens immediately, as in photo 3.

The Batlite with a motor. A bit uncomfortable in turbulence.





To do this, the manufacturers simply added five or six cells spaced out across the surface. It therefore remains, in principle, a single skin whilst, at the same time, benefiting from the dimensional stability of an inflated cell.

This should eventually bring a slight reduction in parasitic movements but, above all, it should allow an adjustment of the angle of attack to a smaller angle and thus an increase in maximum speed...

Air Design promise 43km/h (for an all up weight of 85kg) maximum speed and a glide angle of 6-7 for the UFO whose cell openings have a SharkNose.

Niviuk, who don't give figures for speed, have added Nitinol leading edge rods (see our Trends for 2015 article) to the leading edge and a SharkNose SLE, to guarantee the profile's increased stability.

The load take-up will be even better (for short take offs even in limited conditions), and the landing will be particularly easy. We're looking forward to checking this on the test models.

Niviuk offer the wing in three sizes (16, 18 and 20), for all up weights going from 60-110kg. In addition each size is made in two versions: the classic (weighing from 2.3 to 2.9 kg) and the Plume version made by using lighter materials (1.5 kg to 2.1 kg). The price will be 2300€ for the classic and 2500€ for the Plume version.



Details of the Batlite: despite using leading edge rods and unsheathed lines, the weight of the Batlite approaches that of a double surface ultra light wing. The M weighs 1.8kg and the L weighs 2.1kg. Worth thinking about adding a pair of real cells.



At Air Design, there is only one lightweight version, in two sizes (14 and 16) for an all up weight of 50-120 kg and a weight of 1.55/1.70kg.

We're looking forward to checking whether or not Single Skin 2.0 will be the anticipated revolution in hike and fly! ✈



Photo: Air Design



PAGLIDER ASSISTED DRAWING INFLIGHT DRAWING WITH YOUR GPS!

Are you looking for a new challenge to improve your navigation? Try drawing with your GPS tracklogs! This works really well on a paramotor and you'll learn to navigate to the precise metre!

By Armin Appel





On the way to a new exploit, this pilot proudly wears the tracklog of her last amazing flight next to her heart.

TRACKLOGS ON TRACK-SHIRTS.



Depending on the resolution of your tracklog, you can see the thermals in detail...



Proud of your XC exploits?
Or just want to always have on you a souvenir of your best flights?

The small company, Basisrebell can print your tracklogs onto t-shirts and other tops...



Wear your tracklog, along with the key figures of the flight. It can also be translated into different languages.

Prices
Track-Shirt 46.90€
Track-Hoodie 78.90€

www.basisrebell.com



THE STUBAI CUP AND THERMIKMESSE SPRING TRADE SHOWS...

Two trade shows signalled the start of the paragliding and paramotoring season: the THERMIK-Messe near Stuttgart in Germany and the Stubai Cup in Austria. Both were opportunities to discover the latest hot new products.

The THERMIK-Messe trade show at the end of February is an indoor only event. The pilots don't come to fly, but to meet the manufacturers, see what's new and also to get good 'special trade show' deals.

This one day trade show has taken place for eighteen years, it started with twenty exhibitors. Nowadays it has seventy exhibitors and about three thousand visitors.



Photo: Michael Friedchen

Thermik-Messe 2015
Photos: Michael Friedchen





Photo: Michael Friedchen

The Stubaier Cup 2015

The first Stubaier Cup was organized by Hans Peter Eller from the Parafly paragliding school, in this Austrian valley in 1988. After Hans Peter Eller's fatal car accident, his widow Moni Eller took over and continues to organize this event with flawless professionalism.

There are fewer exhibitors than at the THERMIK-Messe trade show, but most of the big paragliding manufacturers attend, showing off their new products in action. The ski station around Neustift offers a rapid turn around, thanks to the sites of Elfer and Schlick 2000.

Our photographer Michael Friedchen took photos to let you see what was new at both events... 🙋



Photo: Michael Friedchen

Left, Moni Eller, the organizer, kneels down in front of this successful event. Below, our colleague Michael Friedchen.



SKYWALK

Skywalk had on show a harness specially developed for the X-Alps. Even with an optional foam bag back protector, the X-Alps range only weighs just over one kilogram. The designer Peter Müller worked closely with Skywalk pilot Paul Guschlbauer, who will also be on the starting line of the prestigious competition this year.

According to Skywalk, optimal weight distribution and greatest possible comfort in flight have been achieved. Other specific demands from the athlete have also been fulfilled, such as, ease of attaining sitting position, ease of use and lots of storage compartments for carrying equipment. In addition, Skywalk have started to work with the mountain clothing manufacturer, Salewa.

www.skywalk.org



Photo: Michael Friedlrich



Photo: Michael Friedlchen



Photo: AirCross



Photo: Michael Friedlchen

AIR CROSS

Air Cross have produced a new, very compact, rucksack, 20 % smaller than its big brother and ideal for hike and fly. It's perfect for lightweight equipment such as the Karpofly harnesses with their inflatable air bag.

Air Cross are offering free, from April 2015, an all risks insurance for all their wings bought new, apart from the acro wing, the U Infinite.

On condition that the wing is checked once a year by the manufacturer, they guarantee it for four years against damage like rips during take off and catching the wing in the prop. The damage will be repaired free (excluding transport costs, up to a maximum repair cost of 1 000 €; over and above that amount the pilot will need to pay the difference).

The Double U tandem wing is now certified EN B for an all up weight of 130-220 kg.

www.aircross.eu

Air Cross have just released a video on YouTube about Canadian Lonnie Bissonnette. Lonnie is a former base jumper who became paraplegic after his 1100th base jump. Ten years later on he's taken up paragliding, thanks to the team at Air Cross...

<https://www.youtube.com/embed/37BvdiRv2aM>



FLYMASTER



We've already featured the new models equipped with an SD card. Apart from the advantages we've already described, these models now have an integrated accelerometer to measure G forces. Previously this reading could only be displayed by connecting the heart rate belt from the same manufacturer. In addition, a magnetic compass which also functions when stationary is integrated into the new SD models.

For all the models with a GPS, including the old B2 instruments, the micro software upgrade includes an FAI triangle accessory. The Flymaster live tracking site has been improved and there is even a 'chat' function to communicate with other spectators. Once again the prestigious X-Alps will be tracked by Flymaster instruments and this time the athletes must connect their heart rate belts for at least two hours a day so that their heart rate can be shown online.

www.flymaster-avionics.com



SPRING IS IN THE AIR...



BGD

BGD gets into harnesses. The Snug is a very universal leisure harness, suitable for all types of pilots and for XC flying, acro and boating about...

The Snug harness has a semi cross-brace system, is certified EN and weighs 3.5 kg in size M.

<http://www.flybgd.com>



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CERTIKA



NIVIUK

Niviuk have thrown themselves into reserves. Two completely new models are being marketed by the Spanish manufacturer.

According to numerous SIV instructors, square parachutes give the best pendular stability as well as very low sink rates. On the Octagon, marketed by Niviuk, the slits are angled differently compared with other reserves of this type and Niviuk promise better stability. The oscillation rate on the Octagon will be 0-5° compared to 10-15° on a normal parachute. As a consequence, the sink rate is better (Octagon: 4.9m/s with a maximum load in size M. Normal parachutes: 5.3m/s).

Another strong point of the Octagon is its weight. The materials that the Octagon is made from were chosen without any compromise to safety, reducing the weight of the reserve to 1.39 kg in size M. This allowed them to offer the same light weight as parachutes which are considered 'ultra light', while keeping the standard surface area (32m² in size M). The Octagon is available in six sizes so that it covers the full weight range.

The Cires (PDA) parachute is a more classic reserve, which comes in three sizes (M, L and Tandem). The materials used bring the weight to 1.7kg in size M. The fall rate will be 5m/s, the rate of oscillation between 5-15°.

www.niviuk.com

Données techniques Octagon

		OCTAGON SMALL	OCTAGON MEDIUM	OCTAGON LARGE	OCTAGON X-LARGE	OCTAGON XX-LARGE	OCTAGON TANDEM
Charge totale	kg	60-80	80-100	100-120	120-140	140-170	170-215
Superficie	m ²	26,0	31,9	38,4	44,7	54,8	67,1
Poids du parachute	kg	1,22	1,39	1,69	1,87	2,66	3,14
Taux d'oscillation		0-5°	0-5°	0-5°	0-5°	0-5°	0-5°
Taux de chute	m/sec	4,9	4,9	4,9	4,9	4,9	4,9
Homologation	EN	12491:2001	12491:2001	12491:2001	12491:2001	12491:2001	12491:2001
	LTF	91/09	91/09	91/09	91/09	91/09	91/09

Données techniques Cires

		CIRES MEDIUM	CIRES LARGE	CIRES TANDEM
Charge totale	kg	80-110	105-135	170-210
Superficie	m ²	32,9	40,2	62,4
Poids du parachute	kg	1,7	2,1	3,1
Taux d'oscillation		5-15°	5-15°	5-15°
Taux de chute	m/sec	5,0-5,2	5,0-5,2	5,0-5,2
Homologation	EN	12491:2001	12491:2001	12491:2001
	LTF	RG 121.2015	RG 122.201	In process



SWING

The Nexus is the new EN C XC wing from Swing. The four anticipated sizes cover 19m² to 25m², weigh 4.9 kg to 6 kg and have a flat aspect ratio of 6.1. (Projected aspect ratio: 4.7).

Swing have obviously also given this wing a SharkNose (like on the Sensis). The new manufacturing team includes Michael Nesler.

A video "Nexus - The making of" is available on Vimeo:

<https://vimeo.com/121030646>

www.swing.de



SYRIDE



Photo: Michael Friedchen

The French manufacturer is becoming increasingly visible everywhere. The Germanic countries have started to discover Syride and to appreciate their "Made in France" products.

Compact and reasonably priced these instruments are a serious competitor for already established manufacturers.

A free bonus is the Android application (<https://play.google.com/store/apps/details?id=com.syride>), allowing live tracking, offered free by Syride on the Google playstore.

www.syride.com



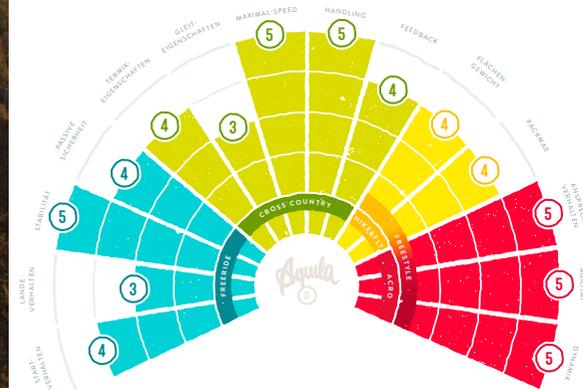
ICARO

There have been big changes at Icaro Paragliders. The German manufacturer has stopped working with the designer Michael Nesler and now has on offer a completely new range of products, with a radically different design and style.

The Pica is at the start of the EN A range. The Aquila (EN D) is a paraglider which combines, according to the manufacturer, the qualities of a freestyle/acro wing with the performance of an XC wing.

For each wing, the manufacturer produces diagrams detailing and quantifying very precisely the different qualities such as handling and performance...

<http://www.icaro-paragliders.com>



PARAMANIA



The company that introduced the reflex profile into paramotoring seems to have been asleep for a few months.

With the arrival of spring the manufacturer has come back to life with the announcement of a complete restructuring of its organization which took place over the winter, new manufacturing norms giving better quality, as well as the development of new models such as the Revo 3 which is expected to come out at the end of April.

www.flyparamania.com

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www.nirvana.cz



OZONE

At Ozone the Atom 3 replaces the Element as far as a school wing is concerned. It's a reference to the beginning of the Ozone story. Fifteen years ago when Ozone was born, the Atom was their first wing!

The new Atom, according to Ozone, is 'the result of everything we've learnt over the last fifteen years of R&D in novice wings'. A wing, sophisticated in its simplicity, designed for first flights through all the stages to becoming a qualified pilot.

The Atom 3 is now available in sizes S, M and L; other sizes will follow.

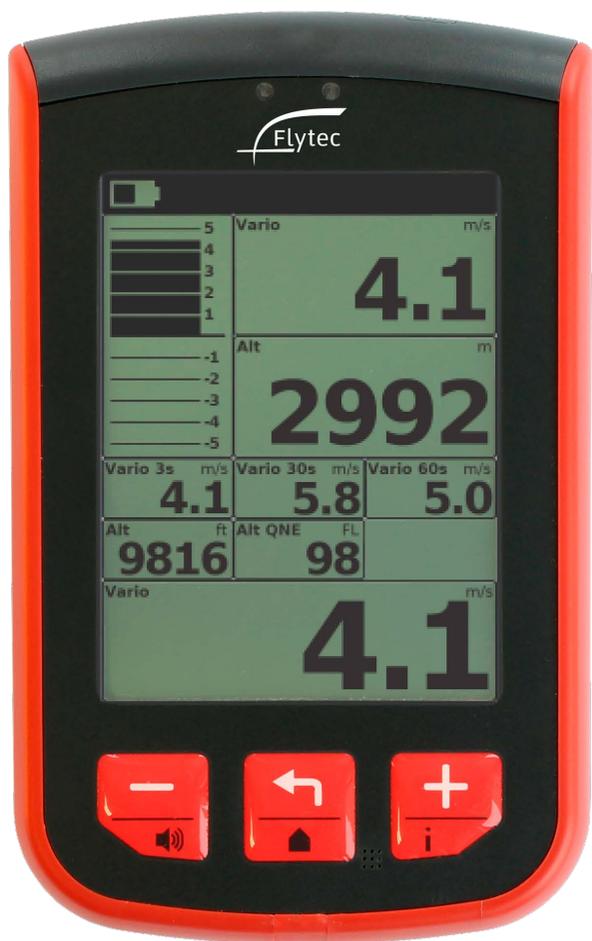
The new Mojo 5 will be a lighter wing, easier to inflate and to fly, and more comfortable than its predecessor, the Mojo 4.

This version will be completely new, conceived from start to finish in a way which will redefine this category of wing. According to the manufacturer, the object was to create a wing capable of the highest performance possible for this category of beginner wing, without compromising the characteristics which make it safe and easy to fly. It is also perfectly suitable for day-to-day XC flights.

www.flyozone.com



FLYTEC



The new Flytec logo is unveiled on this Connect 1, the first model of a completely new series of instruments: connected Smart Varios.

At the Thermikmesse trade show, Flytec finally revealed the details of their new instrument the Connect 1. It's the first model of a completely new category of Smart Vario, equipped with a tactile screen and advanced connectivity.

It's the successor to the Flytec 6020 and therefore a middle of the range vario. At the moment Flytec are working on the replacement for the 6030.

Some of the strengths of the Connect 1:

- Wifi and Bluetooth so that it can communicate with sensors as well as upgrade software automatically.
- Thermal graphical assistance.
- Graphical display of airspace.
- Mapping (roads, rivers, towns).

As announced, the functions of the Connect 1 will be gradually enhanced with successive upgrades.

The stages of development of the Connect 1:

- Since March: altitude, vario
- May: waypoints, airspace
- July: XC routes
- September: routes to follow
- November: maps

The cost of buying the instrument new will go up with each upgrade, but the upgrades on existing instruments will be free.

Internal news at Flytec: the Bräuniger make will also be definitively integrated under the name Flytec and Ariane Künzli, a new member of the team, has been taken on to improve customer service.

www.flytec.ch



Photos: Michael Fretchen

The new generation of Smart Varios are finally available. The boss of Flytec, Jörg Ewald, shows them off for the first time at the THERMIK trade show. One of its strengths: very advanced connectivity.





Even more so than at the Coupe Icare, the Stubaï Cup allows the products and new ideas to be seen in action...
Photos above: Michael Friedchen.
Large photo: Josef Nindl/Air Design



The Prion 3 from Nova in the air and in detail, a paraglider well adapted for beginners, who can continue using it for a long time, including for FAI triangles...
Photos: Nova

NOVA

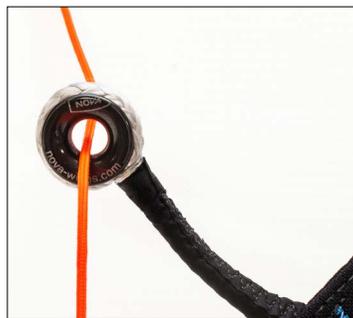
At Nova the EN A Prion 3 will soon be available. It's going to be a completely new model compared to its predecessor, a real three liner with 39 cells and an aspect ratio of 4.66 (3.3 projected). In this wing, designed for beginners, there is all the same technology as in the 'grown-up' wings like the Ion 3 or the Mentor 4 including Smart Cells and double 3D shaping. Therefore it will be equally suitable for doing FAI triangles...

Nevertheless, the wing does also offer lots of new features with beginners very much in mind. The risers are in different colours and the colour coding of the risers follows the PMA's recommendations (A red, B yellow, C blue, brakes orange, stabilos green).

The sizes S (75 - 100kg), M (90 - 110kg) and L (100 - 130kg) are certified, the XS (expected to be 58 - 85kg) is to follow. The S and M will be available from the beginning of April and the L will be ready at the end of April.

Nova has increased its team of pilots. "Team Nova" now includes such well known pilots as: Jérôme Sarthe, Nicolas Bérardini, Gerald Delorme, Sebastien Fiastre, Yves Archer, Charles Costel, Laetitia Mescoff, Nolwen Prie and Didier Teypez.

www.nova-wings.com





A Nova Prion 3 at the Stubai Cup. Photo: Nova

An advertisement for the Cameleon U2 throttle handle. On the left, a close-up shows a hand gripping the black and orange handle, which is attached to a yellow and black rope. The background is a blurred green, suggesting an outdoor setting. On the right, the text reads: "ACCÉLÉRATEUR D'AVENIR... SPEEDING UP THE FUTURE..." in orange and white. Below this is the brand name "cameleon" in a large, stylized orange font, followed by "poignée - throttle U2" in a smaller white font. At the bottom right, the website "www.mycameleon.fr" is listed. In the bottom left corner, the logo for "AEFA" is visible, consisting of the letters "AEFA" in white with a stylized orange and black graphic element.



Some pictures from the Stubai Cup
(Photos: Michael Friedchen)

full range of freeflying & paramotor wings



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Mach 1.2

Freeway XX

Colt

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Optic

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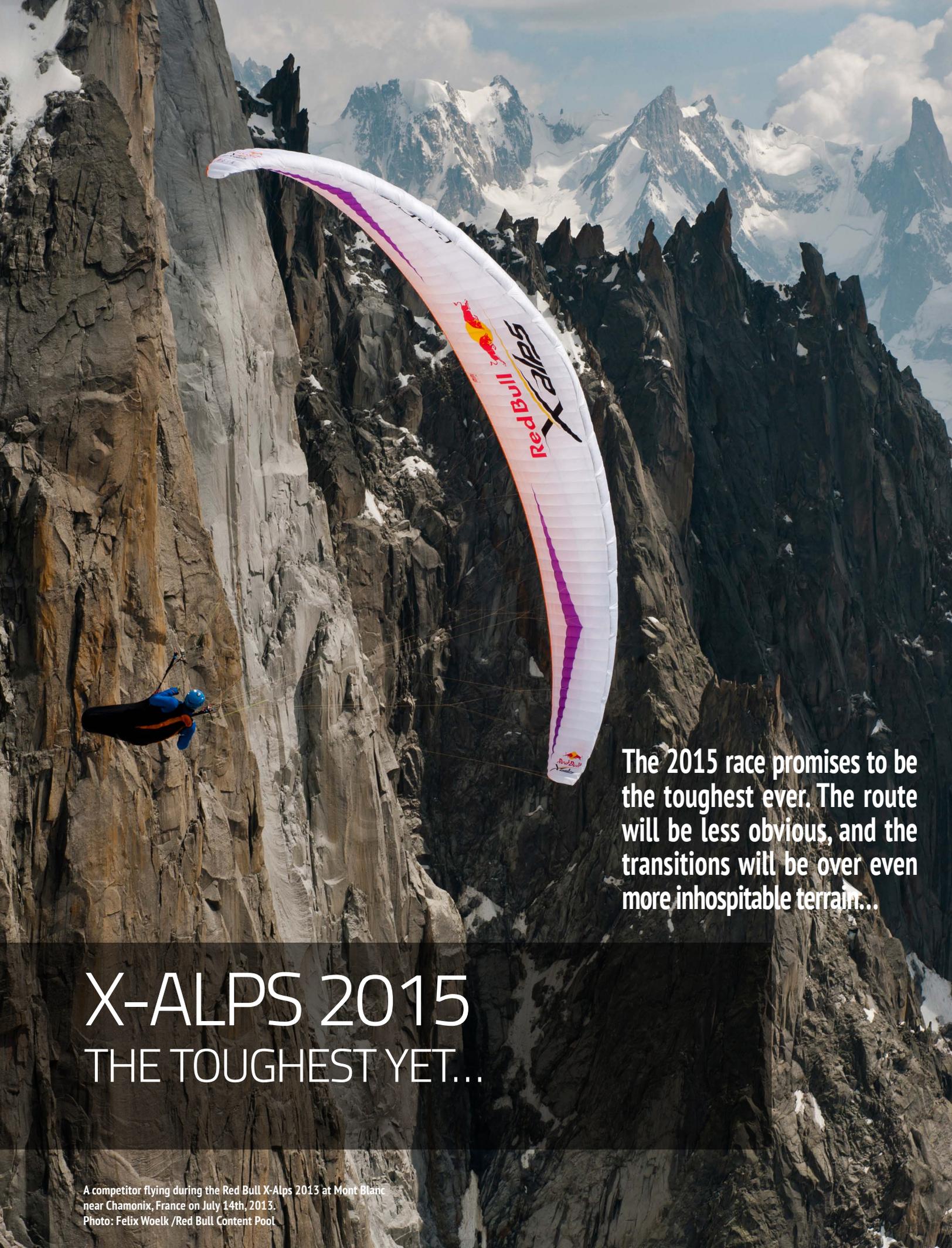
Nemo XX

Synthesis 2

Nucleon WRC

Hadron

Snake XX



The 2015 race promises to be the toughest ever. The route will be less obvious, and the transitions will be over even more inhospitable terrain...

X-ALPS 2015

THE TOUGHEST YET...

A competitor flying during the Red Bull X-Alps 2013 at Mont Blanc near Chamonix, France on July 14th, 2013.
Photo: Felix Woelk / Red Bull Content Pool



On the 19th of March the organizers announced the route for the X-Alps 2015. Covering 1038 km, it's marginally longer than the last one in 2013 but, according to the organizers, it's more difficult.

In 2013 Chrigel Maurer covered the distance in less than seven days. This time, according to the organizers, such a short time won't be possible. There's also a new twist to the event – a one-day 'Prologue' or pre-race day on the 2nd of July, starting and finishing at Fuschl am See, where the 33 competitors will fly a route around the Salzkammergut region of Austria.

Competitors at the start of the Red Bull X-Alps 2013 in Salzburg, Austria on July 7th, 2013.
Photo: Markus Berger/Red Bull Content Pool

NEW SD series



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Thomas de Dorlodot (BEL) running during a preshoot for the Red Bull X-Alps 2013 in Fuschl, Austria on July 4th, 2013
Photo: Markus Berger/Red Bull Content Pool

Thomas de Dorlodot (BEL) rests during the Red Bull X-Alps 2013 at Vomp in Austria on July 10th, 2013.
Photo: Vitek Ludvik/Red Bull Content Pool

Martin Muller (SUI2) in action on the Zugspitze in Garmisch, Germany, during the Red Bull X-Alps on July 10th, 2013
Photo: Harald Tauderer/Red Bull Content Pool





French pilot Clement Latour (FRA1) arrives at the St Hilaire turn point in France on day eight of the Red Bull X-Alps 2013.
 Photo: Sebastian Marko

The race to Monaco will start for real on the fifth of July. The winners of the pre-race day will start first and will be credited with an extra 'Night Pass', giving them the right to walk through the night. We asked Jon Chambers author of the book 'Hanging in There', what he thought of the pre-race day.

"The prologue sounds like a fun spectator event which will undoubtedly create quite some media interest prior to the start of the race. Nevertheless, I don't expect the outcome of the prologue to have any real influence on the outcome of the race itself. The 5 minute head start for the first three would not have made any difference in the 2011 or 2013 races when we all waited on the Gaisberg for the conditions to improve."

Hannes Arch giving a presentation during the Red Bull X-Alps Route Launch in Salzburg, Austria on March 19th, 2015
 Photo: Leo Rosas





A competitor flying at Mt. Gros, Monaco during the Red Bull X-Alps 2013 on July 17th, 2013
Photo: Felix Woelk / Red Bull Content Pool



Trailer for the X-Alps...
<https://www.youtube.com/watch?v=MNVdv-4FlxY>

The additional night pass is interesting, however, this race is so tough that walking through the night could in many cases be counterproductive so athletes will need to use these with care."

This time the route goes more over wide valleys and inhospitable regions, forcing the competitors to be more prudent.

The route is a lot less obvious and, as a consequence, will be more difficult to find...

The live tracking will be taken care of, as in previous years, by Flymaster. This time the competitors will be obliged to all wear a belt transmitting their heart rate live...

For more information and live tracking:
www.redbullxalps.com



Do your own X-Alps and push yourself to the edge of your ability on www.HikeandFly-xc.com. Everyone can take part and add up the distances covered on foot and in the air... Here's a lovely scene from the X-Alps 2013, on the Postalm, in Austria.
Photo: Olivier Laugero/zoom.at

HIKE AND FLY AN ONLINE COMPETITION FOR EVERYONE.

#	Rank	Name	Location	Time (h:m)	Distances (km)	Xc km	Xc score	Display
1	19/03/2015	Willi Ludwig	Gelderkogel - AT (-3.0)	4:30	34.3 km	69.5 km	121.61	
2		Hubert Hafner	Speiser - DE	3:21	19.4 km	51.9 km	90.90	
3		Otto Schulz	Zägerkamp - DE (-0.7)	4:18	18.6 km	24.4 km	36.60	
4		Dietmar Siglbauer	Unternberg - DE	1:19	5.3 km	16.1 km	32.12	
5		Helmut Müller	Unternberg - DE	2:35	5.8 km	14.7 km	29.50	
6	18/03/2015	Otto Schulz	Zägerkamp - DE (-0.8)	5:20	21.8 km	29.6 km	44.35	
7	14/03/2015	Werner Luidolt	Bischling - AT	1:29	9.0 km	34.7 km	52.03	
8		David Marz	Hochbödig (Aufstieg) - AT	8:08	5.9 km	15.9 km	27.79	
9		Albert Holler	Hochgern - DE	0:57	6.0 km	13.4 km	20.10	
10		Stefan Reinhardt	Kampfenwand - DE	0:25	4.6 km	7.1 km	10.59	
11		Albert Tanzer	Hochgern - DE (-0.8)	0:19	3.5 km	5.1 km	7.62	
12	11/03/2015	Sebastian Huber	Wallberg - DE (-2.1)	11:05	41.2 km	91.2 km	159.60	
13		Stefan Reinhardt	Biomberg - DE	0:38	2.2 km	6.1 km	9.08	
14	11/03/2015	Sebastian Huber	Buchenhang - DE (-2.2)	4:59	9.7 km	27.7 km	48.50	
15	10/03/2015	David Marz	Hochgern (Marquartst... - DE (-0.8)	3:43	9.1 km	15.3 km	22.93	
16	08/03/2015	Angele Schroder	Hochries (top of mon... - DE	2:34	2.6 km	3.5 km	5.31	
17	07/03/2015	Detlef Bahring	Hochgern - DE	0:54	4.2 km	9.3 km	13.91	
18	03/03/2015	David Marz	Hochgern (Marquartst... - DE	4:18	9.9 km	14.9 km	22.32	
19	27/02/2015	Willi Ludwig	Schockl Nord - AT (-17.5)	2:41	7.7 km	24.8 km	37.24	
20		David Marz	Hochgern (Marquartst... - DE	3:24	3.2 km	11.0 km	21.95	
21	26/02/2015	Dawn Westrum	Rodanillo - Los Teh... - CO	9:32	27.2 km	82.7 km	144.78	
22		Christoph Burger	Hochplatte - DE	2:20	16.2 km	38.8 km	67.86	
23		Detlef Bahring	Hochgern - DE	0:55	5.2 km	12.1 km	18.11	
24		Stefan Reinhardt	Braunack - DE (-0.5)	1:14	3.2 km	6.7 km	10.00	
25	24/02/2015	Dawn Westrum	Rodanillo - Los Teh... - CO	6:37	32.8 km	64.0 km	96.03	

More and more paraglider and paramotor pilots are declaring their flights on an online XC league server such as XContest.org

For fans of hike and fly, there are similar competitions. HikeandFly-xc is open to everyone; all you have to do is register and upload your day's tracklog with the notable difference that the kilometres covered on foot count as well as those flying.

It's both fun and serious at the same time. During the prize giving at the 2015 Stubai Cup, the 2014 winner won a brand new Gradient paraglider and the runners-up won Woody Valley harnesses...
<http://www.xc-hikeandfly.com/&lng=english>

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Aaron Durogati

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TRAVELLING IN NAMIBIA



Seal Adventures offer unusual adventure travel, such as a fourteen day paramotor course in the Namibian desert combined with other activities like diving.

Here are a few photos taken by Thierry Banchet on a trip combining travelling by paramotor with endurance trial biking.

www.sealadventures.net



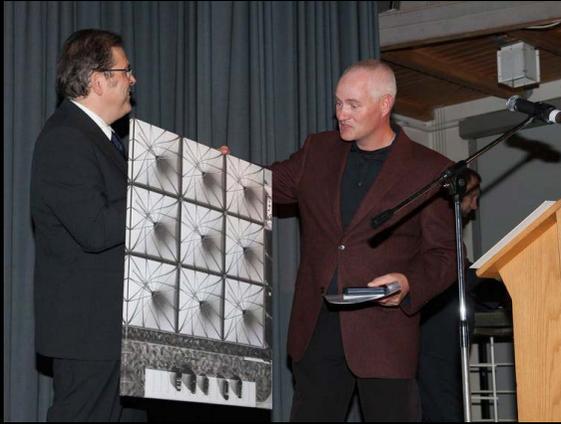
Flying over very beautiful Namibian countryside.

<https://vimeo.com/120797167>





AERIAL PHOTO PRIZE

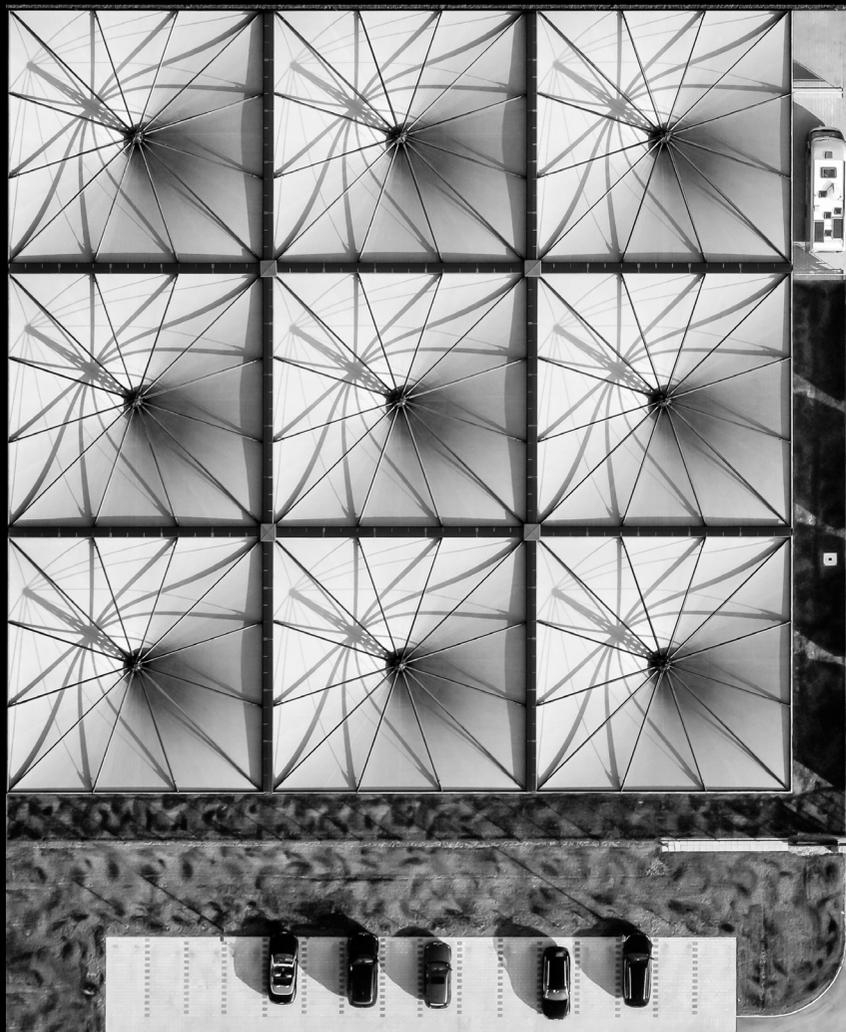


Paramotors are a fantastic tool for aerial photography. Our colleague Armin Appel proved this once again by winning first prize in the Sony World Photography Awards in Germany.

The photo entitled "Douce enfance" ('Sweet Childhood') shows a school playground, taken at 8 o'clock in the morning in May.

'It took four fruitless flights before I got the photo I wanted. I needed rain during the night to give shadows and contrast the next morning,' Armin told us. Sony invited him to London on the 23rd of April to receive his prize, a RX 100 III Sony, a top of the range compact digital camera worth about 800 euros.





In the past, other photos taken from a paramotor by Armin have already won regional awards, like this one in 2014, "Roof Construct".

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