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WORLDWIDE PARAGLIDING AND PARAMOTORING MAGAZINE. FOR FREE.

SUMMER 2019

Photo: Jérôme Maupoint

The excellent GIN Atlas 2, photographed by Jérôme Maupoint. This issue includes Philippe Lami's test of the wing which he found to be, paradoxically, both very gentle and fun at the same time.

Translation by Ruth Jessop

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Photo: **Jorge Atramiz** - Pilot: **Alex Colby** - Hiker: **Tim Maui**

The start of the Red Bull X-Alps in Salzburg, Austria, on the 16th of June 2019. Photo: Honza Zak

RED BULL X-ALPS 2019

For the sixth time in a row, 'Adelboden Eagle', Christian 'Chrigel' Maurer (SUI1), won the race. He arrived after nine days, three hours and six minutes in Monaco...

Some beautiful pictures taken during this spectacular event...

Christian Maurer (right) with his supporter Andy Schäublin on the 25th of June 2019. He flew the new two-liner Advance Omega X-Alps 3.

Right: Maxime Pinot (FRA4) second on the raft on the 26th of June 2019. It was his first X-Alps race! On the left, his supporter, the illustrious Jérémy Lager.

He flew the two-liner Ozone Zeolite.

A 1,138 km route with thirty-two athletes from twenty countries...

They crossed the finishing line together with a true spirit of comradery and both took 3rd place: Paul Guschlbaur (left) and Benoit Outters. Paul flew the three liner Skywalk X-Alps 4, a wing which is accessible to everyone. Benoît flew a three-liner Supair Wild 21, also available to everyone.

The take off at Gaisberg on the 16th of June looked a bit like a Paragliding World Cup race for a short length of time.
Photo: Sebastian Marko

Toma Coconea (ROU) took part for the 9th time and came 11th. Photo: Honza Zak

Aaron Durogati (ITA1) on his Advance Omega X-Alps 3 at Gaisberg. Photo: Sebastian Marko

At Hochkönig in Autriche, on the 17th of June 2019. Photo: Sebastian Marko

Two Skywalk X-Alps 4 during the training flights. A nice three-liner wing which remains accessible to good pilots. Photo: Felix Woelk

Marko Hrgetic (HRV) walking in Chiemgau, in Germany, on the 17th of June 2019. Neo's gear was put to the test during this X-Alps, shown here, the 90 l Lite Bag. Photo: Honza Zak

This year, lots of snow at high altitude made the race even more difficult. Photo: Felix Woelk

Patrick von Känel (SUI2) on the Wilder Kaiser
Photo: Sebastian Marko

Patrick von Känel (SUI2) in front of the Wilder Kaiser in Autriche. The X-Alps competitors flew in a massive variety of conditions.
Photo: Sebastian Marko

Christian Maurer (SUI1) en route to his sixth Red Bull X-Alps victory, shown here at Krimml in Austria.
Photo: Sebastian Marko

One of the prerequisites for an X-Alps wing: a perfect takeoff.

Dominika Kasieczko (POL), one of the two ladies taking part. Unfortunately, she was eliminated. Photo: Vitek Ludvik

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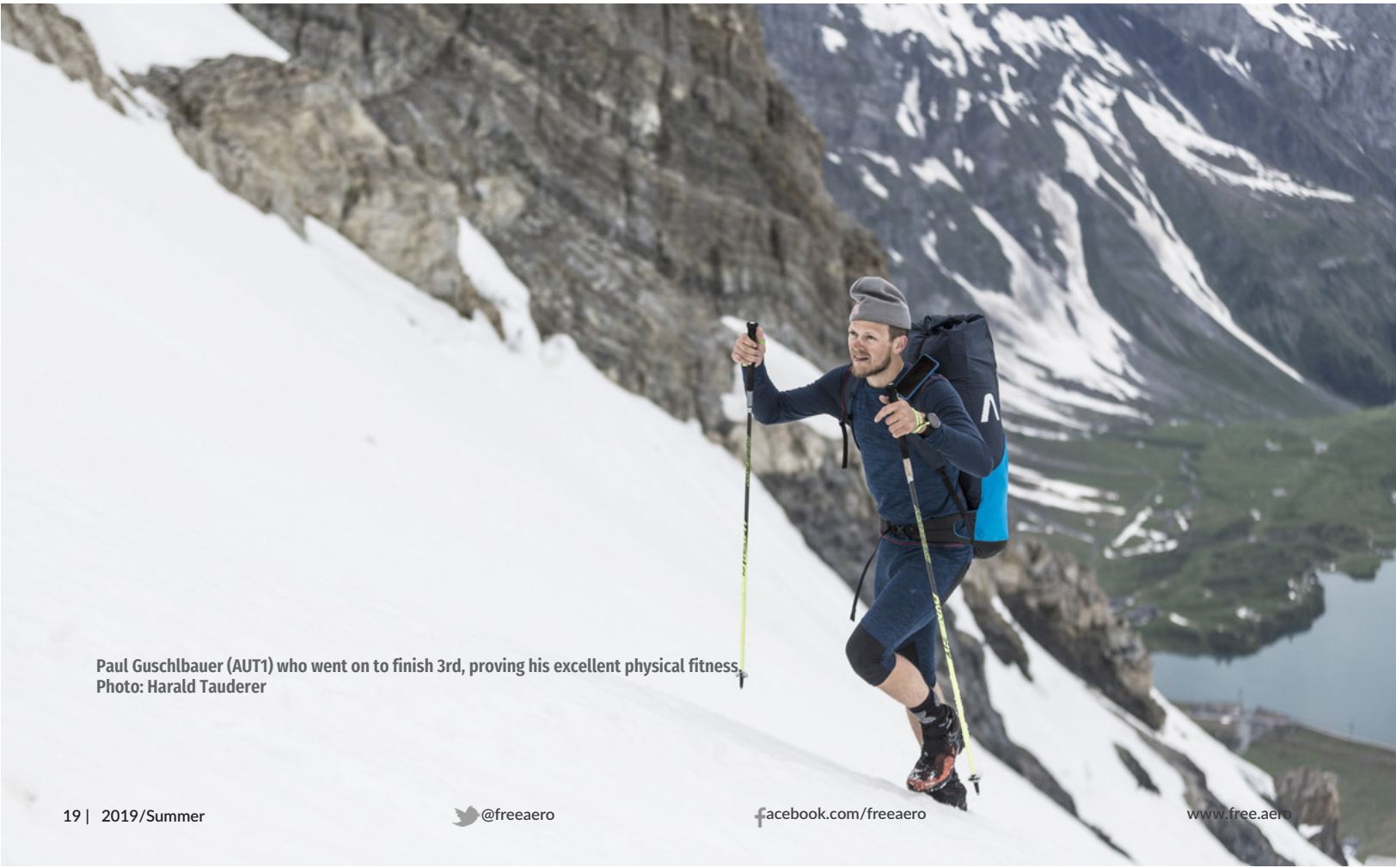
Turnpoint 4 at the Kronplatz in Italy. Photo: Harald Tauderer
At the same spot, the obligatory pose for the sponsors. Photo: Harald Tauderer

On the 18th of June, the duel between Christian Maurer (SUI1, above) and Maxime Pinot (FRA4) had already begun.
These two, two-liner wings took the first two places on the podium.
Photo: Sebastian Marko

The walking part of the race, high up in the mountains, adds a fascinating dimension to this race.

Christian Maurer (SUI1) at Turnpoint 7 at Titlis.
Photo: Harald Tauderer

Christian Maurer (SUI1) taking off at Champery in Switzerland on the 21st of June 2019
Photo: Honza Zak



Paul Guschlbauer (AUT1) who went on to finish 3rd, proving his excellent physical fitness.
Photo: Harald Tauderer

A great photo taken during the preparation days. Photo: Felix Woelk

Christian Maurer (SUI1): the Adelboden Eagle won because, amongst other things, he knows how to land high and wait for the right moment...
Photo: Honza Zak

Maxime Pinot (FRA4) at Davos in Switzerland. The 'Rookie' took second place, despite it being his first time in the race. His harness was a customised Neo StayUp. Below, our test of the original StayUp
Photo: Vitek Ludvik

THE EXPLORER, UPDATED

On its original launch, the Explorer created a new category of lightweight XC wings, offering great performance whilst remaining relatively undemanding to fly.

Today, the Explorer is considered the reference. As a result, we decided to refresh the design in line with that of our current new wings.

The design resembles the single edged curved blade, a design which was prevalent in China and Korea and later refined to perfection in Japan.

The spirit of these old craftsmen has long been an inspiration for Gin Seok Song and his team of designers and test pilots.

EN B // 5 sizes // 55-120 kg

KATANA BLADE DESIGN

GIN

Explorer

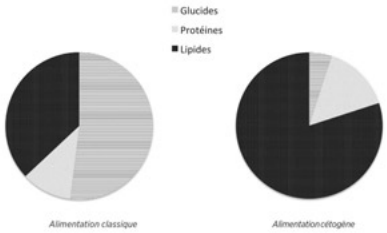
www.gingliders.com

THE KETO DIET

At least two of the athletes followed a special diet: the ketogenic diet. Pictured on the right, Gavin McClurg (USA), photo by Harald Tauderer, below Marko Hrgetic (HRV), photo Honza Zak.

The main principle of this diet is to eat mainly fat and proteins and very little carbohydrates, 20-30 grams per day, maximum.

Once your body has adapted to burning fat rather than carbohydrates, it almost never runs out of fuel, and the yoyo between carbohydrates and insulin doesn't upset your performance. We'll do a full article on it soon...



Two liners took part in the race this year: above the Advance Omega X-Alps 3 (the previous version was a two liner!) used by Chrigel Maurer, shown here arriving in Monaco. On the right, a Zeolite by Ozone.

Maxime Pinot in his Neo StayUp on his Ozone Zeolite further away from goal, on the 24th of June 2019. For an X-Alps novice, he achieved the impossible by taking second place!
Photo: Sebastian Marko

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THE NEO STAYUP IS EVERYWHERE...

In the film “Fly The Alps”, the Swiss explorers cross the Alps by vol biv with their NEO StayUps. They took amazing pictures of their trip which started in Slovenia. The trailer can be viewed below and the full film can be hired on Vimeo.

Long-time friends, Ludo and Nico, decided to set off together on a paragliding trip to fly from Slovenia to Monaco. To further spice up the experience, they also decided to climb the highest summit in each of the seven countries they flew over. Adventures, team spirit and pushing their limits, there is a tasty mix ready for you to discover in this documentary.

In addition, Neo was, for the first time, on the starting blocks of the X-Alps this year with a StayUp harness, specially made and revamped for Maxime Pinot, who finished in second place after Chrigel Maurer...

Just a reminder, you can find the test of the production StayUp here: http://www.free.aero/contents/EN/cocooning/index.html#issue/70


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LIFE IS IN THE AIR
PHOTO : GUY BOLTON
LEAF 2
VOILE EN-B
DESIGNED IN ANNECY
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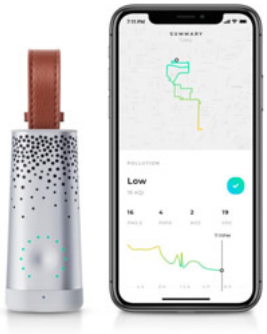
INVERSE X-ALPS FOR SCIENCE

X-ALPS FOR THE ENVIRONMENT
In July, the young scientist Nicolas Plain will cross the Alps in the opposite direction to the X-Alps: from Monaco to Salzburg.

HIS PROGRAMME
From his paraglider or whilst doing 'hike&fly,' with the help of a sensor which is normally used in a town (right), he will measure the pollution which is, unfortunately, already present above our favourite mountain tops. The measurements will be analysed by researchers at Grenoble university.



As a paraglider pilot, (solo, tandem, XC and acro), and also skier and kite surfer, he decided a long time ago to protect our mountains, by studying Climatic Science and the Environment at the Corps des Ponts polytechnic, at UC Berkeley and at Grenoble University in the Alps.

In parallel, he founded the association, 'In the air for the Earth,' with a new form of communication: short, simple, impressive interviews with climate specialists, in the air, during a tandem flight with Nicolas!

It's an original idea to advance protection of the countryside.

http://nicolasplain.fr/en/home-2/

Nicolas Plain, young scientist and paraglider pilot.

The teaser for the project, which was launched at the Cannes Film Festival. Unfortunately, it's only in French.

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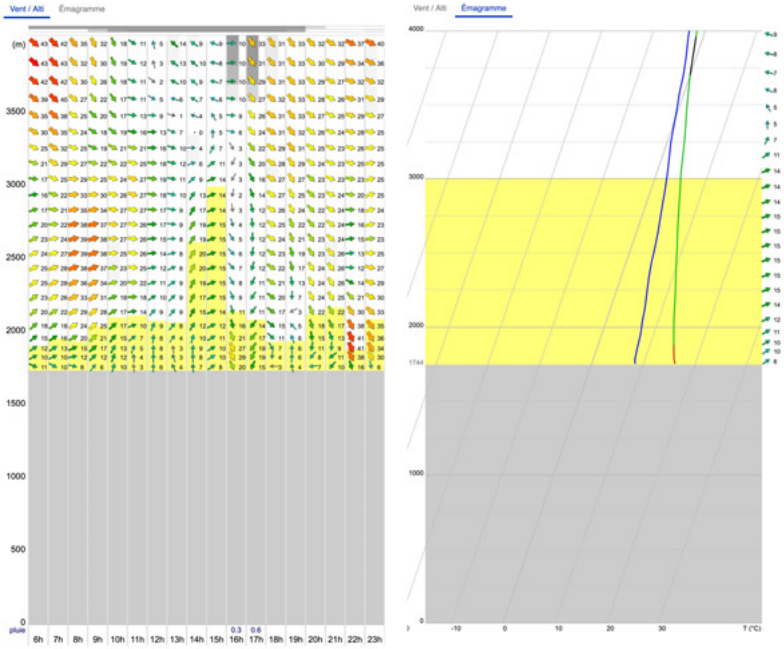
MÉTÉO-PARAPENTE

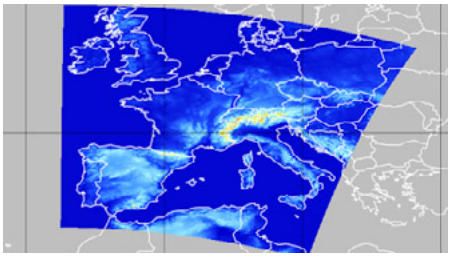
The Météo-Parapente server makes the service very efficient. For numerous pilots, it's their principal way of knowing the quality of a thermic day in advance.

Our most recent special edition of 'Weather' explained, amongst other things, the details of the Meteo Parapente emagrams.
http://free.aero/en/contentsHTML/Weather_epure_150/?page=1

We've stopped counting the number of pilots who claim to have had their best flying days thanks to Météo Parapente. It's true that the unique presentation allows you to understand very easily a day's potential, whether for flying at a site, or doing a long XC. Météo Parapente have just increased their coverage: even if in the past, their model calculated in high resolution (2.5km!) was limited to France, the Alps and the surrounding regions, this fine grid will now cover all of Europe! (America will soon be covered too, but at a lower resolution).

An easy and unique diagram, made by a paraglider pilot, for paraglider pilots... In particular, the shape of the emagram on the right is an invention of Nicolas Baldeck





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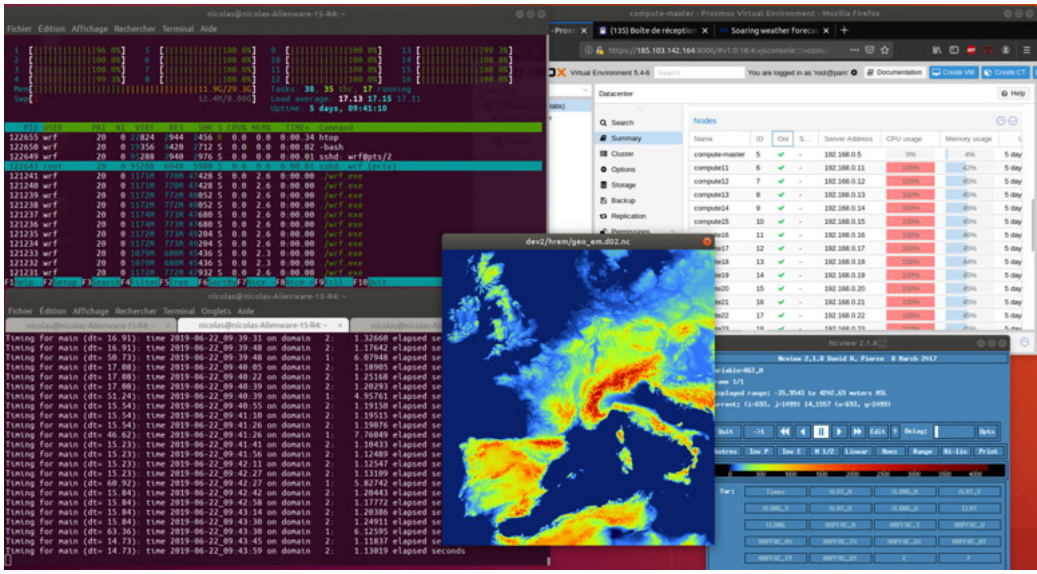


Behind a service like Météo Parapente, there is a very expensive infrastructure in cost terms, as well as in terms of electricity consumption and upkeep. Above there are several screen shots showing the distribution of dozens of multiprocessing servers bringing together their computing power to calculate a forecast.

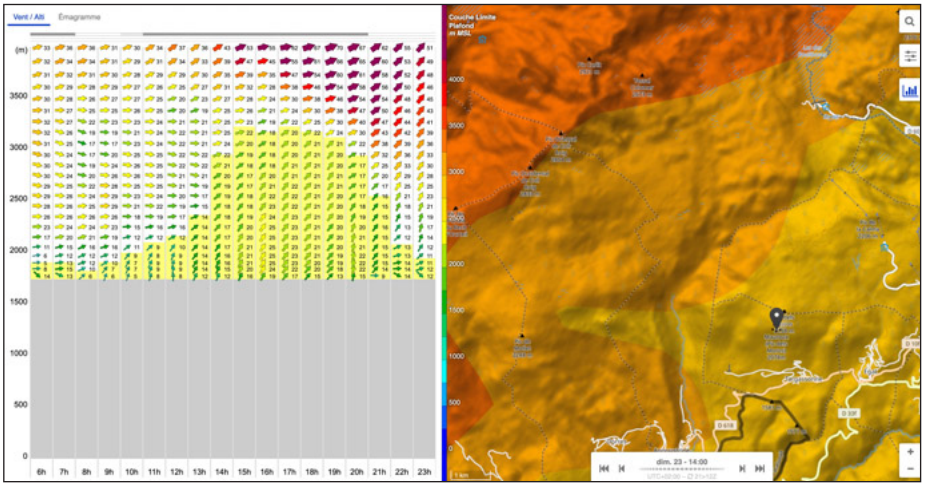
In addition, Météo Parapente will use a new model for forecasting. Up until now, it was based on GFS data (like lots of other weather forecasting services), using a forecast involving large air masses to calculate the impact in each micro region of the 2.5 km grid.

The new HREM model (High Resolution European Model) will use the Arôme data (2.5 km, from Météo France) and Arpège (10 km, from Météo France) to calculate a detailed forecast, up to 84 hours in advance, and with a grid of 2.5 km; it's absolutely amazing. It will, moreover, be used by other weather forecasting providers, who forecast for farmers or other major users of reliable weather forecasts – soon even Windguru!

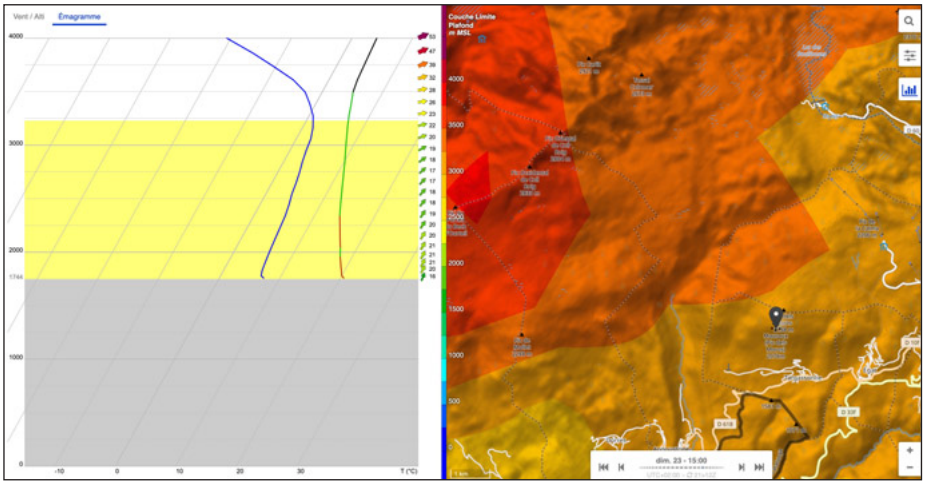
Météo Parapente finance their services for paraglider pilots through their subscriptions. 32 € for a full year, from start to finish, it's really not very much money considering the service given. Numerous pilots confirmed that they would be prepared to pay a lot more, which is, in fact, possible.
https://meteo-parapente.com/#/contribute

A typical Météo Parapente style forecast: left, for a full day, hour by hour, the wind at all levels, as well as in yellow, the layer at ground level. In the absence of a strong wind in the lower layers, the colour yellow indicates the zone where there are thermals. So, you can consider the top of the yellow area as, in theory, the maximum attainable ceiling. During the day, the yellow area has to rise and fall to form a bell, the sign that thermals really are developing without too many elements which will disturb them, such as strong wind. In this case, the yellow curve will remain a bit flatter.

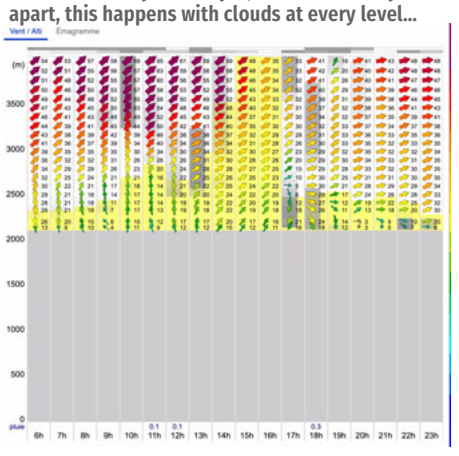
On the map on the right, the user can choose the colour scheme of their choice such as the ceiling height, or the speed of the thermals... For the emagrams, see the explanations lower down on this page.

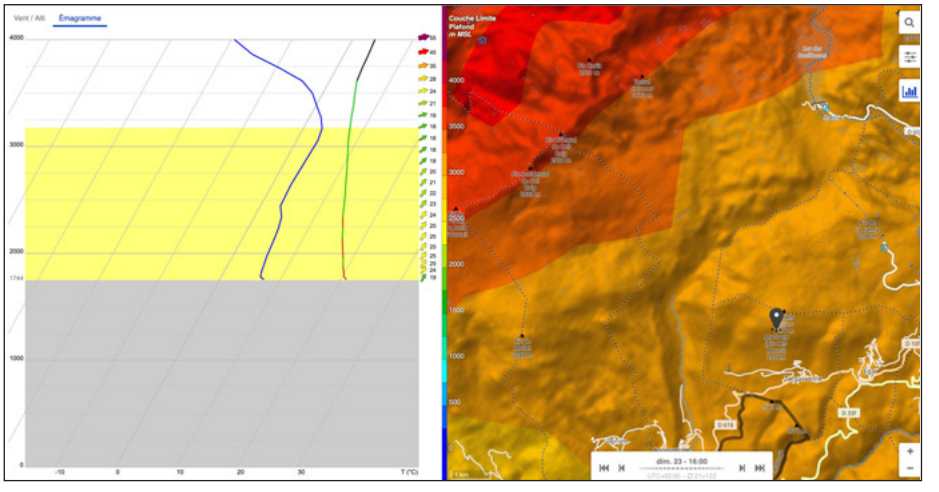


Nicolas Baldeck's emagrams are unique and very simple to read. You can get them for any time during the day. The yellow layer indicates fairly precisely the maximum ceiling attainable in theory, but doesn't say if it's at +0.5 m/s or at +8 m/s.
To judge the quality of the thermals, you need to look at the line on the right: in the red part, absolute instability, indicating good thermals. Green: conditional instability, the thermals could, in certain conditions, accelerate. Black: the air is stable, the thermals are slowed down.
For a full explanation: http://www.free.aero/common_free_images_news/emagr_mto_ppte.pdf



A storm passes during the day: there is a big increase in the yellow layer, then it suddenly falls apart, this happens with clouds at every level...





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LANDING EN MASSE ON MONT BLANC

Nicolas Plain filmed his top landing on Mont Blanc on the 26th. June 2019.

On the 26th of June 2019, hundreds of pilots managed to fly over Mont-Blanc at altitudes of around 5000-5600 metres, and many landed on the summit. The day's potential was visible on the Meteo Parapente maps: there was yellow everywhere at the top of the diagram, which on this day was still limited to 4,000 metres. Since then, Nicolas Baldeck has added the option to display higher ceilings if necessary.

Landing en masse did, unfortunately, have dramatic consequences. Lots of pilots underestimated the difficulty of relaunching in soft snow (it was around 6 °C at the summit, which was a record), numerous paraglider pilots had to have help to relaunch and one pilot was fatally injured after falling over the Italian side after a failed launch. Following this incident, landing on Mont Balance has now been officially forbidden, even outwith July and August, a time when flying over the massif had already been forbidden for several years. It's a shame, as landing there was the dream of so many pilots who were always on the lookout for the right day…

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SYRIDE KNOWS EVERYTHING: WHO WAS IT?

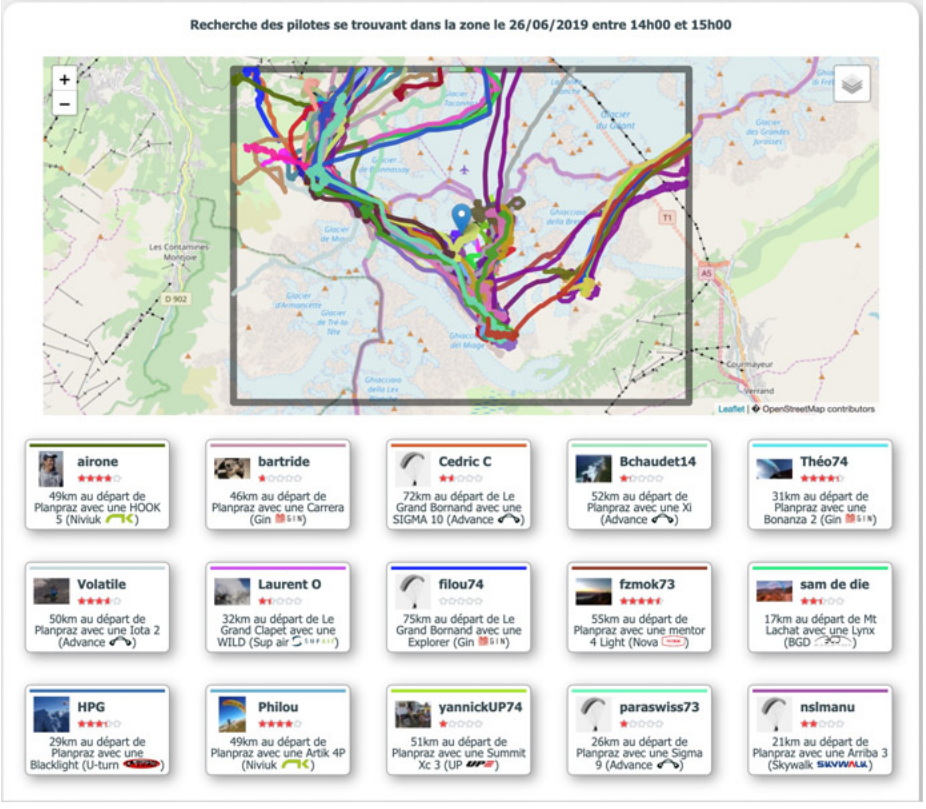
One of the Syriders above Mont Blanc : Gaël Lafond at an altitude of over 5000m.

We often wonder who is on the other glider we are flying with. Where did he take off from? Where did he get to? What altitude was he at? Which wing did he have?

The Syride server has a database with half a million GPS tracklogs on it, thus giving the possibility of finding the aforementioned pilot, thanks to a new search page on Syride.https://www.syride.com/fr/qui/ It's a very innovative page which lets you choose a date and a place and find the Syride pilots in the air at that time, obviously on condition that they are happy to share their flights publicly. Obviously, this isn't obligatory, but it is done by the vast majority of 'Syriders'.

On the right there is an example which is a bit extreme: the response to the question, 'who was on Mont Blanc on the 26th of June between 2 and 3 o'clock?' The answer was: more than eighty pilots equipped with Syride instruments nudged wing tips on the summit!

https://www.syride.com/fr/qui/&duration=3600&lat=45.825928431131345&long=6.848602294921875&date=2019-06-26&heure=14:00



This season our colleague Pascal Kreyder is using a Sys'Evolution and will soon be talking us through the experience. During initial flights we were already convinced by the numerous advantages of such a solution, amongst others, by the excellent readability of course. Shown here at 5,510m above Mont Blanc.

SYRIDE SYS'EVOLUTION VS E-INK TABLET

Since the arrival of tablets with 'e-ink' screens such as the Kobo, some geeky pilots have put together varios by connecting them to external GPS/Varios, by cable, as a general rule . But it still involves a bit of DIY, both with the connections and the setting up of applications such as XCsoar or XCTrack.

Then Syride became the first manufacturer to bring out a dedicated flying instrument with an e-ink screen. We've already tested it.

The big advantage: it's a Plug and Play solution, accessible to everyone.

All the same, we took advantage of the purchase of a Mimas 10 LikeBook, mainly designed to take notes and write articles outdoors, to connect an XCTracer FLARM to this tablet and to run XCSoar (a free app)

Here, the big advantage is freedom: the XCSoar app turns a tablet into a real flying instrument. It allows a configuration which is almost without limits, and you can even connect a C-Probe to measure the real air speed, in IAS or in TAS. Very useful for testing gliders.

On the other hand, it isn't effortless to make it work. On one hand, you have to install a specific app to force the tablet into landscape mode (Rotation Control Pro). And you have to really get your hands dirty to configure the application. And once again, during tests, there have been cases in the air where, thanks to a wrong button press in the menus, you find yourself with a screen reinitialised to the defaults as shown on the right, with lots of fields needlessly repeated.

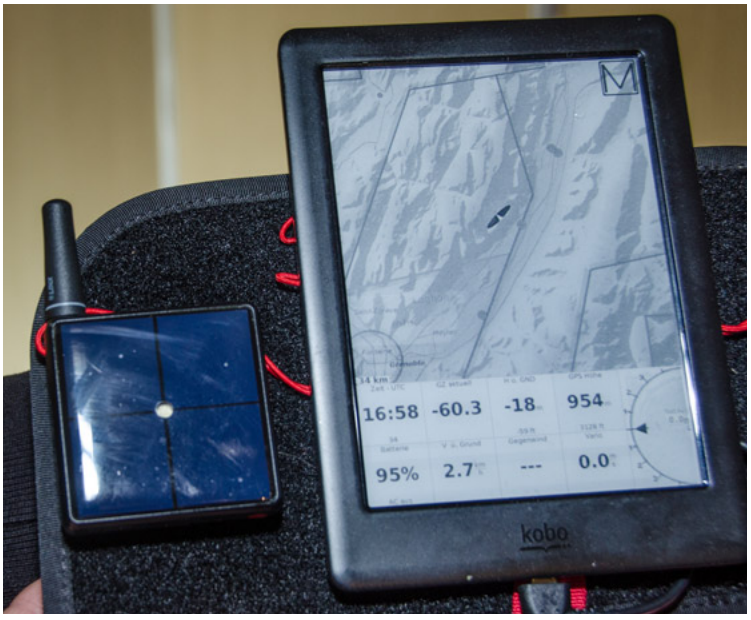
Therefore, it's far from plug and play!

A 10-inch tablet costing 450 € (Likebook Mimas) coupled with an XCTracer FLARM and the XCSoar Android app: Even with an Aquapac protection, it has excellent readability, no matter what the angle of vision.

Photo: Sascha Burkhardt

Photos: Sascha Burkhardt

The Sys'Evolution with its unique 3D representation of the relief and airspace (Price of the instrument: 649 euros). In the simple configuration shown in this photo, numerous functions which are normally present, are missing.



A Kobo tablet connected to a FLARM XCTracer.

TO SUM UP THE TESTS:

- The price of both solutions is about the same.
- An Android tablet can be put to other uses (drawing, notes, diary, ebooks, internet searches, word processing and can even be used with an external blue tooth keyboard).
- The Sys'evolution is made for flying and you feel that in the ergonomics, amongst other things.
- On the tablet, depending on the position of the on/off buttons for example, you can easily press a button by mistake.
- The Sys'evolution is lighter than a tablet.
- The frequency of the display updates is optimised on the Sys'evolution to adapt to the temperature and the constraints of a flying instrument.
- On the Sys'evolution, there is a unique representation of airspace and terrain in 3D.
- The readability on its own is worth it in normal conditions.
- The possibilities for making specific calculations are greater on the tablet with XCSoar.
- On the Sys'Evolution, you can consult the FFVL meteo stations, if it is connected to the internet via a GSM phone.
- IF XCSoar is connected to a GSM telephone, it can receive weather forecasts from airports. The FFVL weather stations are not as useful, but they are interesting all the same.
- With the Syride you can plug in an external headphone to get the vario sound.
- On the tablet, due to the transmission via Bluetooth of information from the vario, the display of information about climb and descent rates is clearly retarded. For the same reason, the use of the acoustic vario offered by XCSoar is not advised: The XCTRacer vario has significantly better performance when it comes to showing lift as soon as the pilot enters it. Therefore, leave the vario to beep…
- The mapping on XCSoar is better and has more information.
- We'll continue these tests in parallel and will explain, step by step, how to make a DIY solution.

One of the advantages of the tablet with XCSoar: you can even connect it to a speed probe (at the bottom of the image). Shown here, a tablet Likebook Mimas (457 €) plus XCSoar (free), plus a vario-GPS XCTrace FLARM (419 €)

Photo: Sascha Burkhardt

Photo: Sebastian Marko

The X-Alps competitors have to also manage their fear in every situation.

MANAGINGFEAR. 1/2

Fear, worry, apprehension, anxiety, panic... we use the word 'stress' to describe this sentiment which we've all felt. How do you manage it? Here's an extract from Jean-Marc Galan's book.

Stress is our body's natural reaction in response to a perceived risk, real or imaginary. Some pilots never feel stressed when flying, thanks to too much confidence or complacency. A moderate amount of stress can let you perceive certain dangers better. Extreme stress can be paralysing and make the slightest reaction impossible. So therefore, it's simple: you need to stay moderately stressed, neither too much, nor too little. Unfortunately, we don't have a button at the base of our skulls to regulate our levels of stress, in the way that one would regulate the thermostat on a radiator.

Some advice for managing stress.

ESTIMATE YOUR LEVEL OF STRESS

Before hoping to work on your stress levels, you first need to be conscious of its intensity. Like an air mass, fear is invisible. As with the state of the air mass, there are multiple signals which let you assess it: acceleration of your heartbeat and breathing, shaking, dry mouth, a lump in your throat…

Small exercises before take off, or during the flight: assess your stress levels on a scale of 1 to 10. Doing this exercise regularly allows you to improve your capacity to read your 'internal weather.' The very best pilots are also just as good at reading an air mass as they are at reading their 'internal weather.'

An absence of fear is often accompanied by an excess of confidence which could potentially lead to an accident.

It's possible to identify several categories of pilots who are never frightened:

- Those who are unaware of the risks, often at the beginning of the learning curve: this is a temporary phase which pilots go through before their first flying incident. If you are in this situation, building up your knowledge of accidentology should also

Photo: Gudrun Öchsl

A collapse is always a source of adrenaline, but doesn't necessarily need to be full of anxiety, especially high up and far from the relief. Height is safety, even if sometimes it can unjustifably make some pilots frightened.

help you to progress. To quote Charles Darwin: 'Ignorance breeds trust more often than knowledge does.'

- Those who don't pay attention to the signals that their body is sending them. Their fear circuit has been activated, but they don't see it, or see very little. In short, they suffer from being unable to read their 'internal weather.'
- Those who are 'wired' to never be afraid. There are also some very rare cases of illnesses which affect the amygdala, a zone unique to the brain, the starting point of the fear circuit.
- Those who take psychotropic drugs inhibit this circuit of fear, which is the case for several anti-depressants, which are, moreover, also used to overcome phobias. If you take anti depressants, ask advice from your doctor before flying.

In any case, if you've never been frightened flying, it's time to start worrying (a bit).

NORMAL FEARS.

- Being scared of heights. This is an irrational fear, because the higher you are, the safer you are. Accidents only happen when you touch the ground and so far, a pilot's skeleton has never been found in the clouds. If you struggle with this fear, look at the paragliders above you rather than looking down at the ground.

As a reminder, in the previous issue, we introduced a very effective method which works, amongst other things, against fear...

RENFORCER VOTRE MENTAL
PAR LE FROID ET LA RESPIRATION ?

Une préparation mentale peut améliorer les performances physiologiques et psychologiques dans tous les sports...
Le Hollandais Wim Hof s'est fait connaître en tant que "Iceman", battant des records étonnants. Pour conditionner le corps et l'esprit, il a mis au point une méthode qui serait accessible „à tous" et utilisable dans la vie de tous les jours aussi.
Nous l'avons essayée...

Photo: Sascha Burkhardt

When everything becomes very small and flat below you, you can be reassured that if you have a problem, you have all the time in the world to fix it.

- The fear that the material will give way (the wing, the harness, the maillons). This is generally an unrealistic fear as the material has been tested and certified. Unless you are extremely negligent in how you maintain it, there is no risk of this happening.
- Fear when the wing moves. This is a reasonable fear. When the wing moves too much, it isn't good, but sometimes this is an excessive fear in some pilots. If you are one of these pilots, try to do some positive thinking.*'It's normal that it moves about a bit, like a boat on the sea.' This tells me about the state of*the air mass.

IT'S OK TO BE A BIT FRIGHTENED, BUT NOT TOO MUCH.

A moderate amount of stress sharpens the senses and lets you better assess certain threats. How can you keep this frame of mind? Some techniques for keeping your levels of stress moderate:

Being conscious of your breathing allows you to calm yourself down (see our previous issue). Talking in a loud voice or singing helps some pilots to keep their cool whilst flying. Drink a mouthful of water regularly; this helps reconnect the mind and body and helps reduce stress. If you fly with other pilots, this helps you to read the

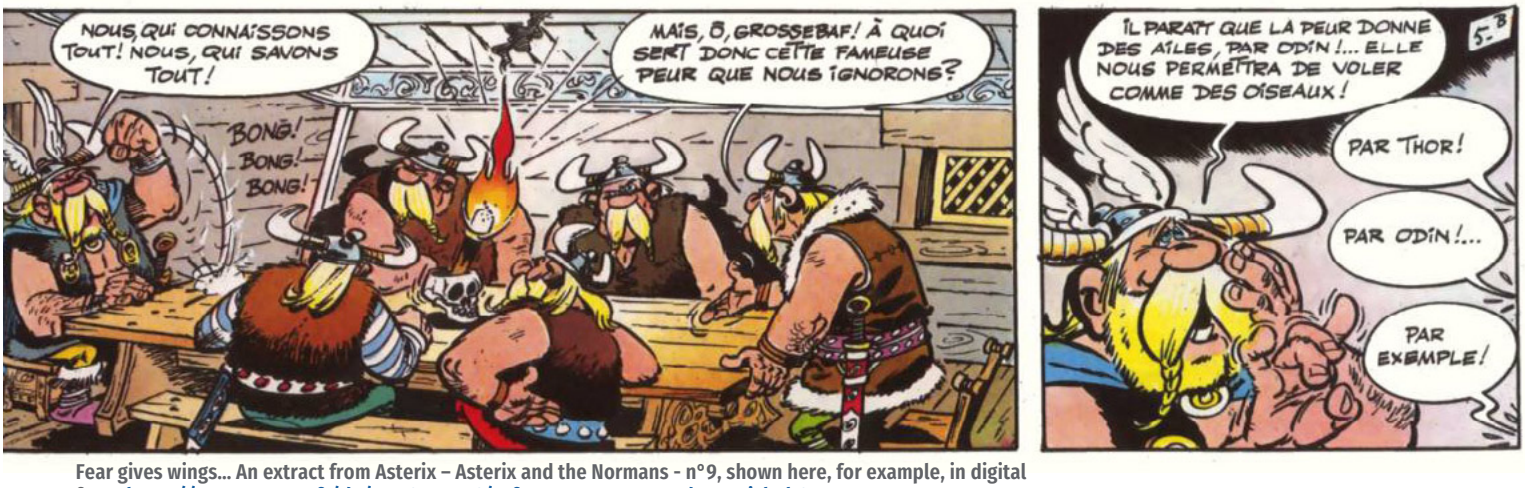
A selfie video is very effective...

Managing an extra accessory which adds to the mental workload, a possible scenario would be a camera hung in the lines. Or the 'cameraman effect,' which pushes you to go into a certain place to get a picture, risking your safety. It is best do be wary of cameras when flying.

Having said that, fixing a camera onto your shoe to film your face in flight is interesting. Watching this type of video is just as instructive as it is funny: do you grimace? Do you smile? How do you breathe? Through your mouth? Through your nose? Do you hold your breath in stressful situations? Do you talk? In short, you can read a lot into it which give information about your perception of flying and the way that you manage stress. There is nothing forcing you to share the video on social media.

Jean Marc Galan

Here, there is every reason to be scared. But, all the same, you mustn't give in to panic... Belgian pilot Christophe Gaber came out of a cunimb under his reserve. What unimaginable courage in such a situation, to think of taking a selfie to document the hell he was going through. You can reread his epic misadventure in our special edition about Clouds in July 2014.
http://www.free.aero/en/media/clouds-E.pdf



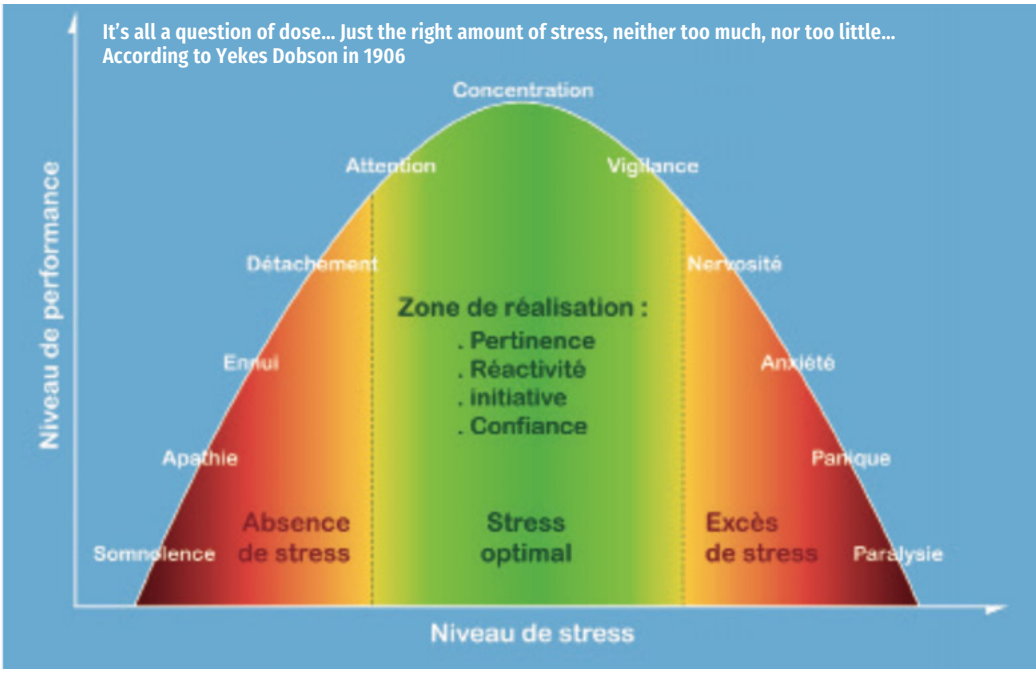
Fear gives wings... An extract from Asterix – Asterix and the Normans - n°9, shown here, for example, in digital form: https://www.amazon.fr/dp/B00CBXV88C/ref=cm_sw_em_r_mt_dp_U_uj2kDbC73436M

air mass better. This helps lots of pilots to reduce their apprehension (as long as you aren't fifty in the same thermal).

Fix short term objectives, set tasks and exercises to do. In short, keep yourself occupied so that your mind doesn't wander and end up feeling stressed. Of course, the most efficient means would be to master your fear, but that takes training: progressively confront it and be willing to do so in more and more demanding situations. As long as it is done gradually and by managing the risks, it's a very effective way to progress.

Despite all these techniques to control stress, you will, perhaps, one day, be confronted by an extremely stressful situation.

This is the objective of the following set of skills, which we'll look at in our next issue.



Remember

A total absence of stress is synonymous with being overconfident, and can be just as harmful as too much stress, which can make you take bad decisions. To assess your current degree of stress and know how to read your internal weather (tiredness, anxiety, preoccupations...) are the main skills to learn. You also need to know the techniques which let you control your increase in fear: being conscious of your breathing, verbalisation, drinking, several pilots flying together, training, fixing objectives when flying and positive thinking.

In a paramotor, fear is treated in a similar fashion... Illustration: Gunter Kiphard,http://area28.de/

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La garantie de l'efficacité maximum

La deuxième version du parachute de secours Niviuk offre une excelente stabilité pendulaire et une vitesse de descente très faible, de sorte que le retour au sol soit le moins brutal possible.

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facebook.com/Niviuk

instagram.com/Niviukparagliders

PORTFOLIO

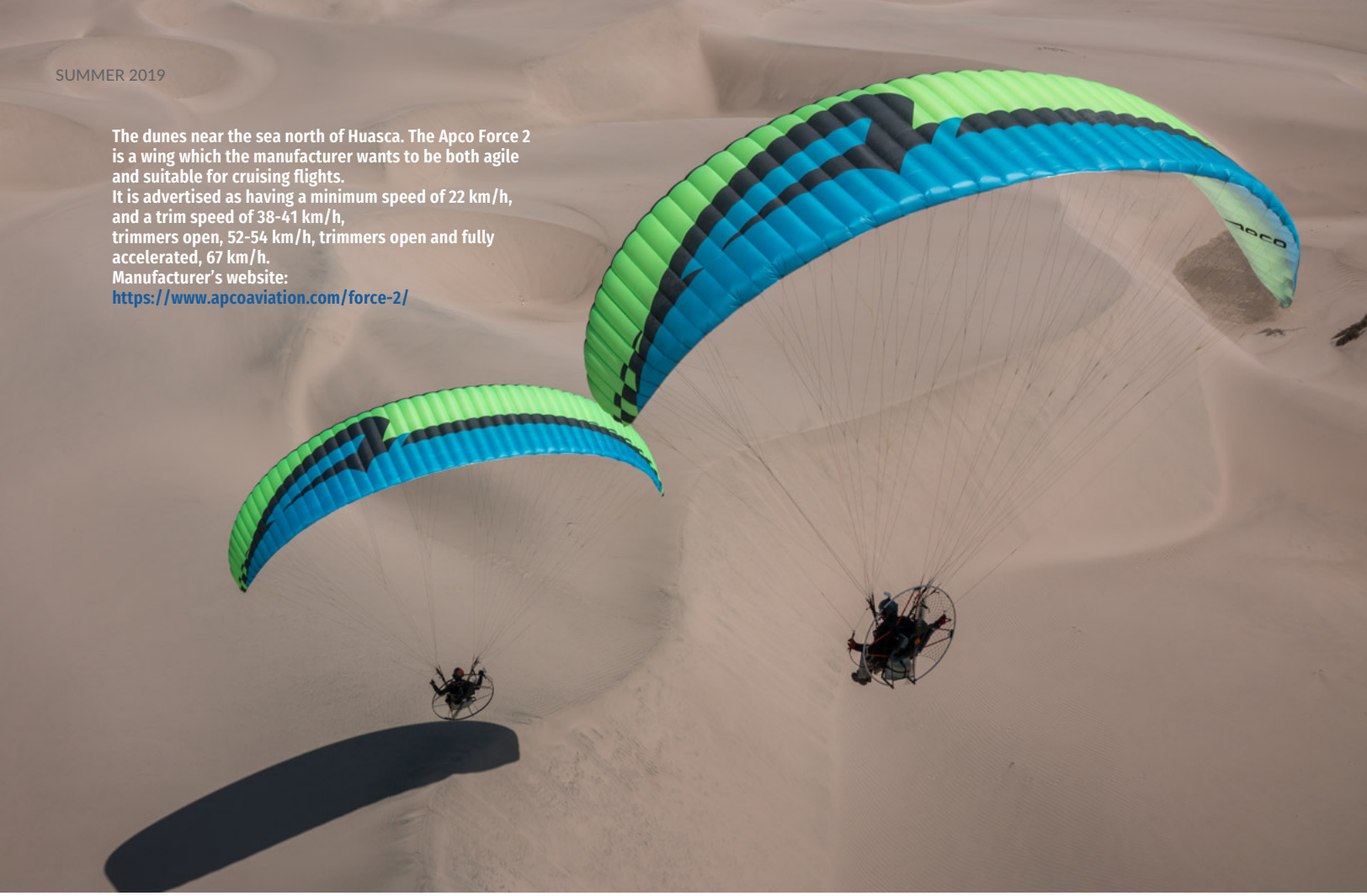
ON THE WAY...

Following a route or a path is very easy in a paramotor. Some lovely photos from a day out in Chile, brought to us by Jeff Hamman.

A route close to Tres Playas

In the flats or beside the sea, as shown here between Chanaral and Huasco, the aerology, being more laminar than in the mountains, often lets you travel skimming the paths...
And there is nothing to stop you switching off your motor and having a soaring flight, like Jeff and his friends did not far from here, on the same day...

The dunes near the sea north of Huasca. The Apco Force 2 is a wing which the manufacturer wants to be both agile and suitable for cruising flights.
It is advertised as having a minimum speed of 22 km/h, and a trim speed of 38-41 km/h,
trimmers open, 52-54 km/h, trimmers open and fully accelerated, 67 km/h.
Manufacturer's website:
https://www.apcoaviation.com/force-2/



An aerial tour of the windmills, which were stationary today. Often the wind, which comes from the Pacific, makes them work hard...

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NEWS EN D

GIN LEOPARD

Photo: Jerôme Maupoint

Photo: Jerôme Maupoint

GIN LEOPARD
According to Gin, this model mixes performance and ease in a revolutionary manner: this EN D combines the DNA of both the Explorer (EN B) and the Bonanza 2 (EN C), and uses the experience gained from developing the Boomerang series, winners of the World Cup.

Compared to previous two liner models and high-performance wings, the Leopard offers, amongst other things, greater pitch stability throughout the whole speed range. The profile is, of course, built as a second generation, with Equalized Pressure Technology (EPT), which is GIN's version of the SharkNose.

The 'feline' will suit both competitive XC pilots, as well as those who want to progress to the highest level in competition flying.

LEOPARD
TECHNICAL DATA

MANUFACTURER
Web : https://www.gingliders.com/en/paragliders/leopard/

DATE				
SIZE	XS	S	M	L
CELLS	86	86	86	86
FLAT SURFACE AREA [m²]	20.5	22.32	24.22	26.7
FLAT WINGSPAN [m]	12.08	12.65	13.18	13.84
FLAT ASPECT RATIO	6.86	6.9	6.93	6.93
ALL UP WEIGHT [kg]	70-88	85-102	95-112	105-127
WEIGHT OF THE WING [kg]	4.85	5.30	5.65	5.95
FREE FLIGHT CERTIFICATION	EN D	EN D	EN D	EN D
FF CERTIFICATION LAB				
PPG CERTIFICATION				
PRICE [€]				

Materials:Leading edge upper surface: Porcher Skytex, 38 g/m²
Main upper surface:Porcher Skytex, 32 g/m²
Main lower surface:Porcher Skytex, 27 g/m²

Photo: Jerôme Maupoint

TEST

GIN ATLAS 2

THE WING FOR PROGRESSING, UNINHIBITED AND IMPERTINENT.

Philippe Lami

It's the wing for progressing with, that Gin have reworked. The version 1 of the Atlas, was already a great little wing, very docile, tolerant and placed mid EN B in the family. With the second version, Gin mainly reworked the tensions and the surface finish, whilst keeping the basic proportions of the first version. Gin have also used a lighter fabric in some places. In fact, the wing didn't require full certification in all sizes because it remained within the certification tolerances. However, the wing has moved on a lot, giving it increased accessibility. We spent several happy hours flying the Atlas 2.

Photo: Jérôme Maupoint

Version 2 of the GIN Atlas: it's interesting to note how, by using an existing model, and by reworking the tension and the fabric, you can make significant progress in both comfort and performance.

IN DETAIL

It has all the features of an advanced wing, including all the modern technology: SharkNose (called an EPT here), 3D shaping, mini-ribs and small rods on the trailing edge too. Hybrid lines, low friction rings and risers to the ears clearly marked in red. Six sizes and four colours for a wing which targets a very large audience. The level of finish is excellent. The thin risers are really well kitted out with custom made metal parts, connecting to very few lines. Laying out these fluid sheathed lines requires a simple tug and then smoothing out under tension. A system which makes life simple!

But that's not all. Inflation is virtually impossible to mess up. The wing takes shape in a very docile fashion, without too much power or tendency to over fly. Roll-wise, it's easy to correct if it doesn't come up symmetrically by pulling lightly on the brake and changing position under the wing. It's academic as to whether there is any wind or not. In addition, I would recommend working on always inflating facing the wing, even in nil wind, with a suitable, gentle movement, using the upper body and taking two steps backwards. The wing gets ready very easily.

Photo: Jérôme Maupoint

Photo: Jérôme Maupoint

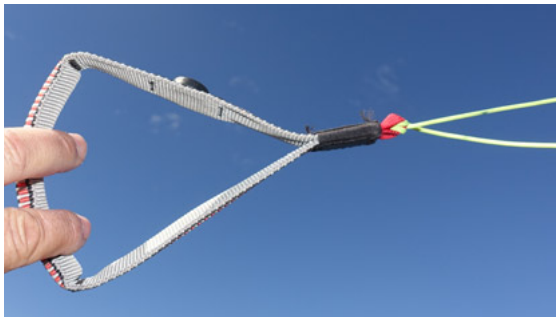
Against the light, you can see some of the modern technology which has been integrated into this wing for progression, and now has pretty high performance.

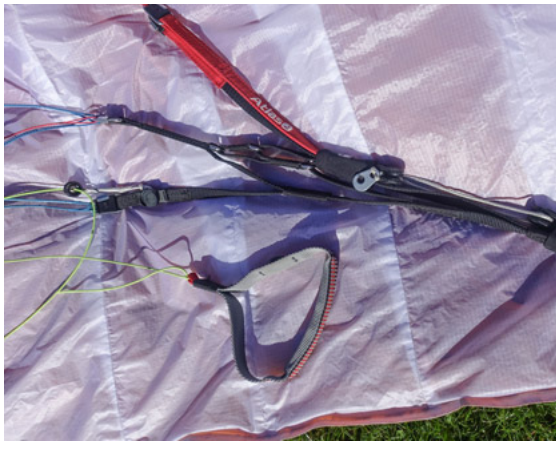
In the air, I felt at home straightaway! Everything was right, the Atlas followed the trajectory as if on rails and it was very damped in pitch. The controls were soft, but fairly direct. After 10 cm, the wing begins to react very quickly, without being lively. This aspect reminded me of the Nova Ion 5, which was also very nice and generally had the same customer niche. It feels very reassuring, with a good dose of directional stability: the harness support helps in the turn without being excessive, and it isn't too lively. But, for all that, the Atlas turns fast and inclines precisely requiring little effort. Steering is normally done using about twenty centimetres. It isn't twitchy and doesn't go into an unexpected roll following badly coordinated movements.

It has an efficient bite in thermals. The wing isn't stubborn, and doesn't oscillate when entering, which translates into surprising efficiency. It is great to handle, turns on demand and slows down when you want it to. The Atlas 2 has nothing to be ashamed of when flying alongside wings with a larger aspect ratio. It's laid back, not to mention insolent and free and easy, which gives it the audacity to aim straight for the core of the thermal.

Some of the detail on the riser and the controls: they are clear and uncluttered.

Photos: Philippe Lami





At GIN, the system to equalise pressure, in the same vein as the SharkNose, is called EPT,

Photos: Philippe Lami

“a wing which is paradoxically very gently and at the same time, fun”

Clearly, the Atlas 2 climbs really well! When the conditions are full on, the Atlas 2 is reassuring! I’m laughing with enthusiasm because its behaviour is so easily read.

Finally, when you have to go for a transition, even a long one, provided that there is little head wind, the Atlas 2 is uninhibited and lets you do easy XCs in our mountainous area. I found myself really enjoying it, working to the precise millimetre through the harness and the controls, in mini climbs, in a chaotic, uneasy aerology. The Atlas 2 was amazing and really gave me confidence.

Putting in the ears was easy, and they were big thanks to the red riser, and due to the fact that there are only two lines at the front! Reopening was spontaneous and frank. Do it all the same, if in doubt, with an asymmetric reopening. Spirals were rapid and very tight if you wanted them to be, but came out spontaneously, nonetheless. It had lots of energy but damped itself naturally. All good! A few tight wagas, which quickly become steep, demonstrated at the same time, both the fun side and the very good cohesion throughout the whole arch of the wing.

BACK ON THE GROUND

It's time to sum up. The Atlas 2 promises to be a real success. It's a wing which is paradoxically very gentle and, at the same time, fun. It's interesting to note how, by starting with an existing model and by reworking the tension and the fabric, they have made significant progress in both comfort and performance. It isn't a racing machine, but it's certainly a great tool for every pilot leaving school, who wants to have fun, enjoyment and to be able to relax and feel happy when flying. It's very accessible and certainly has all the qualities of a superb leisure wing.

ATLAS 2
TECHNICAL DATA

MANUFACTURER GIN
Web :https://www.gingliders.com/en/paragliders/atlas-2/

DATE						
SIZE	XXS	XS	S	M	L	XL
CELLS	47	47	47	47	47	47
FLAT SURFACE AREA [m²]	21.61	22.89	24.94	27.08	29.31	31.62
FLAT WINGSPAN [m]	10.61	10.92	11.4	11.88	12.36	12.84
FLAT ASPECT RATIO	5.21	5.21	5.21	5.21	5.21	5.21
ALL UP WEIGHT [kg]	55-75	65-85	75-95	85-105	95-116	105-125
WEIGHT OF THE WING [kg]	4.5	4.8	5.1	5.4	5.8	6.2
FREE FLIGHT CERTIFICATION	EN B	EN B	EN B	EN B	EN B	EN B
FF CERTIFICATION LAB	Air turquoise					

THE PLUSES

- EASY, PLEASANT AND FUN!

THE MINUSES

- WITH ONLY TWO LINES AT THE FRONT, IT MISSES SOMETHING PSYCHOLOGICALLY AS FAR AS THE EARS ARE CONCERNED...

Photo: Tristan Shu

TEST

SKYWALK CUMEO XS

Philippe Lami

The Skywalk Cumeo is the ultra lightweight version of the excellent B+ Chili 4, in the German manufacturer's range. Over the years, Skywalk has made its mark with wings which are easily identifiable, with strong graphics, and precisely positioned as very high-tech.

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Photo: Tristan Shu

The Cumeo steps clearly into the same niche as the Advance XI (which, in fact, came out later), along with the Iota 2, the Ozone Rush 5 and the Gin Explorer. It's worth bearing in mind too that there are now more lightweight wings in Skywalk's range than classic ones, demonstrating their specialisation in lightweight paragliders. The Chili 4 and the Cumeo, share the same chemistry, but the structure is altogether lighter and there is a saving of 1400g between the two versions (size S). Porcher fabric is at the forefront and used throughout the Cumeo, the resulting upper surface is 38g (leading edge), 32g (back part), the cell walls are in 32 hard finish and the lower surface is 27 g/m².

On the menu, all the fashionable modern technology: SharkNose using two crossed short rods, 3D shaping, miniribs, two compression bands along the wingspan, a real three-liner made with three levels of lines partially sheathed (unsheathed and very fine on the upper level), thin risers and a low friction ring. Note the presence of Jetflaps, one of the brand's distinctive characteristics, guaranteeing good behaviour at low speeds, with the stall being at a lower speed.

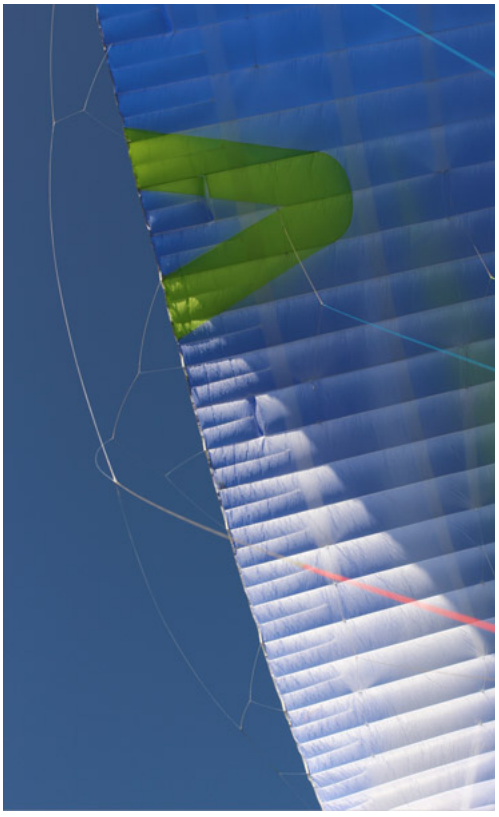

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Photo: Tristan Shu

Photo: Tristan Shu

Action! Unpacking got off to a good start, taking the Cumeo out of the ventilated, zipped, compact, compression bag. In the lower part the lines were fluid and easy to untangle. The mix of fabrics of different weights, with the weight of the upper surface partially reduced, should guarantee that the Cumeo grows old gracefully. As for inflation, the Cumeo appeared docile in all conditions, without being excessively lively for its category. Nothing, in any case, which would surprise a pilot who was sufficiently awake. A few steps are sufficient for a quick load take up. We noticed straightaway: it's light and gentle through the controls, it appears agile immediately with a frank response right from the start of the brake travel. It hooked into the first thermal we came across very gently, precisely and easily. I would even go as far as to say that during my first flights on the Cumeo, together with the Supair Strike harness, I found the Cumeo lively in the roll (without it being difficult). In any case, it was livelier than the Chili 4 or the Advance Xi. A long discussion with Eric Roussel and the attachment of a Neo StayUp harness resulted in a reduction in liveliness on this axis. Which shows that, and it is already known, certain harnesses are more or less suitable and changing them can let you modulate the behaviour (and not just the feeling).

With the StayUp, the Cumeo is gentler, whilst keeping its excellent precision, and tolerance at low speed, with a shorter usable brake travel, but a longer total brake travel (about 70 cm). It is also worth noting that I am right at the upper limit (94kg) on the XS.

So, back to flying! Agile and precise, the pitch is damped naturally. Watch out however, if you are hoping to go further, by deliberately pitching radically, the Cumeo will happily oblige. This aspect confirms its high EN B classification. It's the same for the roll, the way it goes into a turn with little brake travel makes it very precise and, in fact, very efficient in thermals, with just enough communication without being excessive. But this same fast response also leads to the same observation: it's for a pilot who isn't at the weight limit!

Acceleration is smooth using your feet, not very physical and gives 10 km/h extra. Not really a racing machine, but more than enough to fly happily, accelerated, without losing too much, nor having the worry that the wing will hit you in the head. Here, there are no steering handles on the Cs (and they aren't really necessary). It's worth noting that every accessory on the Cumeo is very well thought out: soft brake handles covered in neoprene, classic swivels and press studs with plastic-reinforced cords. Thin risers and an accelerator with ball bearing pulleys.

The Cumeo glides remarkably well and bites without bouncing off the thermals. It has the behaviour typical of a modern wing, a taut trajectory, without any unwanted oscillations. The glide never caused me any problems during short cross country flights under this lovely machine, and the overall solidity of the wing gave me confidence. The few collapses, which I deliberately didn't counter, demonstrated a very reassuring side to the Cumeo. And once you started actively piloting again, the collapses were docile to manage and it reopened very quickly, without deviating.

When compared to the Advance XI, I found that the Cumeo had the same easy, flexible side to it, but the Cumeo had a more marked temperament, which will please some and less so others. The XI is softer, more subtle in the roll, and in this sense, more gentle too. When descending rapidly, I can say that the Cumeo goes into a spiral deep and fast!

Photo: Tristan Shu

It tumbles down from the sky, when you ask it to, and comes out, full of energy, but the surge still remains docile to manage. It has a marked rhythm, all the same, when you come out of the conversion. Normal or what! This point also places it clearly in the category of high end EN B. The ears are easy, they are a moderate size, but a bit lazy to reopen. A little pull on the brakes helps a lot.

Slowing down symmetrically leads to a nice stall, but accessible within the brake travel. Putting it into a spin is also possible if the pilot pulls on one side sharply enough. So, be careful: you need to take your time to dabble with the low speeds and really learn to feel the wing tips slowing down (very obvious, however).

Getting back down to the ground is easy, with a clean flare and not even one step forward. The Cumeo really is lovely. It has everything you would expect in an advanced glider, with clearly accessible performance, outstanding handling and agility which makes it a queen of the thermals and gentle conditions. I lent the Cumeo to my son, who was visiting and didn't have a wing. He had great fun taking off from the mountain tops around my village, crossing our valleys. He toured around all afternoon, returning each time to take off, in love with the precision, the handling and the good performance of the wing. But he was in agreement with me about feeling a need to tame its agility, for a pilot who isn't used to that kind of thing.

You will have come to the conclusion, given what I have written, that this wing, which is a bit more lively than the Chili 4, particularly in the roll, will let pilots who are alert, and for whom handling is a priority, have fun and explore without having to worry. Back home, with a compact lightweight bag, happy with this great adventure wing for going places, with a lively character, which is all part of the pleasure! I really liked the Cumeo! And it's really worth taking note of the influence of the harness on the wing's behaviour. With the Neo StayUp, the Cumeo has improved coherence.

Photo: Tristan Shu

SKYWALK CUMEO XS

Weight range of the wing tested	70/95 kg
All up weight in test	93 kg
Wing loading	3.78 kg/m²
Maximum trim speed	39 km/h
Maximum accelerated speed	50 km/h
Minimum sink rate	-1.03 to 36.3 km/h, force 1 kg
Maximum glide angle	10.2 at 40.5 km/h slightly accelerated
Stall	23 km/h/70 cm/force 5 kg

CUMEO
MANUFACTURER DATA

MANUFACTURER:SKYWALK
Web: https://skywalk.info/project/cumeo/

YEAR				
SIZE	XXS	XS	S	M
CELLS	57	57	57	57
FLATSURFACE (M²)	21.39	24.59	26.40	28.28
FLATWINGSPAN (M)	10.99	11.79	12.21	12.64
FLAT ASPECT RATIO	5.65	5.65	5.65	5.65
ALL UP WEIGHT (KG)	55-77	70-95	85-105	95-115
WEIGHT OF THE WING (KG)	3.7	4.1	4.3	4.6

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