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WORLDWIDE PARAGLIDING AND PARAMOTORING MAGAZINE. FOR FREE.



ICARE 2015

NEW WINGS

NEW EQUIPMENT

Translation by Ruth Jessop

Photo: www.facebook.com/murblanc.org / Ian Ginchire



A SHARK FOR ALL TASTES

At the beginning of 2011, in Ozone's R&D office, we saw the first SharkNose. Since then we have thoroughly analysed and described this new technology. Of course it resembles the Haifischmaul profile (= shark's mouth) patented in 1989 by Gernot Leibe. Other manufacturers like Niviuk and Nova have in the past already worked on putting steps and concave parts in the nose.

But the SharkNose patent of 2011 was the fruit of in depth work into the internal pressure on a large range of angles of attack, including low speeds which is a non trivial aspect.

Yet the response to what we have written is often to reproach us for praising a form of 'gag marketing'. Today, the Shark profile is almost everywhere and the majority of manufacturers integrate it into their wings. Not just at the top of the range, but more and more in intermediate and even beginner wings. The designers are appreciating more and more the benefits of the SharkNose whilst flying slowly; it increases the length of brake travel and decreases the risk of a spin.

At the 2015 Coupe Icare, the increase in SharkNoses was striking. There were more and more types, between 'Moderate Shark', 'Pronounced Shark' and Strong Shark'. Each manufacturer has modelled the nose in their own way to improve certain precise aspects of the flying behaviour of our paragliders. 'Gag marketing' has got its followers!

This genetic diversity in the zoology of the profiles has benefited our sport, as have the efforts by manufacturers preferring to keep the more classic noses. The SharkNose isn't obligatory; there are other parameters which you can 'play with' to probably get a comparable result such as other aspects of the profile, line anchor points or indeed holes and/or valves. These manufacturers will, perhaps, invent new technology that voler.info and free.aero will pass on in one, two or ten years time.



ICAROBATIX



ICARO

SITTA

The Sitta from Icaro is the light weight version of the Aquila, a freestyle wing. With the Sitta, Icaro hope to offer a wing which is 'easy and safe, but very manoeuvrable', with 'extremely precise handling'. This very light little EN D wing isn't aimed just at hike

and fly enthusiasts. Like the Aquila, the Sitta is very flexible and also very efficient in thermals. The Apus is a very light harness weighing 1.95kg.

www.icaro-paragliders.com

SITTA - TECHNICAL DATA

Manufacturer: ICARO - <http://icaro-paragliders.com/en/>
 Mail: icaro@icaro-paragliders.com Phone: +49 (0)8034 / 909 700

SIZE [m ²]	18	20	22
CELLS	36	36	36
FLAT SURFACE AREA [m ²]	18	20	22
PROJECTED SURFACE AREA [m ²]	15,2	17	18,7
FLAT WINGSPAN [m]	9,6	10,1	10,6
PROJECTED WINGSPAN [m]	7,6	8	8,4
FLAT ASPECT RATIO	4.26	4.26	
PROJECTED ASPECT RATIO	3,8	3,8	3,8
ALL UP WEIGHT [kg]	65 - 90	75 - 95	80 - 105
WEIGHT OF THE WING [kg]	3,3	3,3	3,3
CERTIFICATION	EN/LTF D	EN/LTF D	EN/LTF D



Photo: Picasa



ADVANCE

ALPHA 6

ADVANCE

The famous Alpha 5 has been replaced by the Alpha 6. It's a wing with simplified lines, 20% less in total length and 35% less lines. To give even greater brake travel, the leading edge has an Advance style SharkNose called an "Air Scoop". Assembled with 3D shaping, it should give better performance. The weight has once again been reduced: size 26 weighs 4.75 kg! Five sizes - 22, 24, 26, 28 and 31. Each size has an all up weight stretched out by 15kg extra compared with the standard all up weight. Paramotor certification is underway.

At Saint Hilaire, the Advance team, including Simon Campiche pictured in the photo, also celebrated the success of the Omega X-Alps and announced the arrival of a new Epsilon 8 as well as a Pi 2, for 2016.

www.advance.ch



Photo: Sascha Burkhardt

ICARE SHOW



Photo: www.facebook.com/murblanc.org/ / Ian Ginzburg



BARISH SAIL, THE 50 YEAR OLD SINGLE SKIN.
 On Saturday the 19th of September 2015, a replica of the Barish wing from 1965 which is considered to be an ancestor of modern paragliding, well before Mieussy, was at the Coupe Icare take off, with Francis Heilman at the controls. This single skin, designed fifty years ago, showed that paraglider development is an eternal cycle.

In fact, a very interesting trend, which has appeared recently, is the revival of single skin wings. Firstly there was the Open Source project by Pere Casellas and his Barretina Hyper Lite in 2010/2011, as well as the Batlite by Adrenaline and the XXLite from Ozone in 2012. As the maximum speed was disappointing for all these wings, a three year wait was required before a 'real paraglider' appeared with acceptable penetration. Finally in 2015, the UFO from Air Design and the Skin from Niviuk become available.

The latter has a maximum speed of 48 km/h, a weight of 1.8 kg in the Plume version and very nice, well balanced handling. Next month we'll do a comparison between two modern single skins.

Photo Bruno Lavit/Pilot Francis Heilman
 Photo Véronique Burkhardt/Pilot Sascha Burkhardt



Photo Véronique Burkhardt / Pilot Sascha Burkhardt

Photos: Bruno Lavit - <https://www.facebook.com/BrunoLavitPhotographies/> Pilot Francis Heilman

NIVIUK

There is a lot new at Niviuk: A large part of the range has been changed! The SharkNose and Nitinol are everywhere. According to Niviuk, new technology like the SharkNose will improve the 'floatability' of their wings even more, giving good pitch stability, even in turbulence.

HOOK 4

Firstly, the manufacturer announced the imminent launch of the long anticipated, Hook 4. The new version of this EN B wing which is accessible and efficient is also equipped with new technology like Nitinol rods. Its price will be 3 450€ for all sizes.

HOOK 4





IKUMA

NIVIUK

IKUMA

The big news is the Ikuma, which is already on sale. It is placed in the top part of the EN B range, what Niviuk call 'EN B+'. With this wing, Niviuk have entered this sector

for the first time. It is placed between the Hook 4 and the Artik 4 and is probably fairly close to the Artik 4.

IKUMA TECHNICAL DATA					
Manufacturer: Niviuk - www.niviuk.com					
Mail: info@niviuk.com Phone: +34 972 422 878					
SIZE [m ²]	21	23	25	27	29
CELLS	57	57	57	57	57
FLAT SURFACE AREA [m ²]	21	23	24,5	26,5	29
PROJECTED SURFACE AREA [m ²]	17,83	19,53	20,75	22,44	24,56
FLAT WINGSPAN [m]	10,94	11,45	11,82	12,29	12,86
PROJECTED WINGSPAN [m]	8,72	9,13	9,42	9,8	10,25
FLAT ASPECT RATIO	5,7	5,7	5,7	5,7	5,7
PROJECTED ASPECT RATIO	4,26	4,26	4,26	4,26	4,26
ROOT CHORD [m]	2,33	2,44	2,52	2,62	2,74
HEIGHT OF LINES [m]	6,67	6,98	7,2	7,49	7,83
NUMBER/LENGTH OF LINES [m]	164/220	164/230	164/238	164/247	164/259
ALL UP WEIGHT [kg]	55 - 75	65 - 85	80 - 100	95 - 115	110 - 130
WEIGHT OF THE WING [kg]	4,4	4,65	4,85	5,15	5,6
CERTIFICATION EN/LTF	B+	B+	B+	B+	B+
PRICE [€]	3780	3780	3780	3780	3780



Photo: Niviuk

NIVIUK

PEAK 4

Another new edition available in October: The Peak 4. This EN D wing aimed at XC pilots has inherited some of the technology and characteristics of the Icepeak 6.

PEAK 4 TECHNICAL DATA				
Manufacturer: Niviuk - www.niviuk.com Mail : info@niviuk.com Phone : +34 972 422 878				
SIZE [m ²]	21	23	25	27
CELLS	75	75	75	75
FLAT SURFACE AREA [m ²]	21	23	24,5	26
PROJECTED SURFACE AREA [m ²]	17,95	19,66	20,94	22,22
FLAT WINGSPAN [m]	11,95	12,50	12,90	13,29
PROJECTED WINGSPAN [m]	9,60	10,05	10,37	10,68
FLAT ASPECT RATIO	6,8	6,8	6,8	6,8
PROJECTED ASPECT RATIO	5,14	5,14	5,14	5,14
ROOT CHORD [m]	2,15	2,25	2,33	2,4
HEIGHT OF LINES [m]	7,1	7,43	7,68	7,9
NUMBER/LENGTH OF LINES [m]	196/182	196/191	196/197	196/203
ALL UP WEIGHT [kg]	70 - 90	85 - 105	95 - 115	105 - 125
WEIGHT OF THE WING [kg]	5,5	5,9	6,3	6,7
CERTIFICATION EN/LTF	D	D	D	D
PRICE [€]	4300	4300	4300	4300



PEAK 4



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>

THE ONE AND ONLY COUPE ICARE

Over and above an exhibition of all that is new, the Coupe Icare 2015 was once again a festival full of colour and unexpected encounters.



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>



Photo: www.facebook.com/murblanc.org/ / [Ilan Ginzburg / murblanc.org](https://www.facebook.com/murblanc.org/)

GIN GLIDERS



YETI 4



Photo: Jérôme Maupoint / GIN

GIN GLIDERS

GIN ARE CONTINUING WITH THEIR LIGHTWEIGHT RANGE.

The new Yeti 4 can be ordered with ultra-light Dyneema risers which reduces the weight by a further 300 g and also the volume. In this configuration, the Yeti 4 will be amongst the lightest wings on the market, with a weight of less than 3 kg in the smallest sizes. The 'S' shaped air intakes make inflation easier.

has also launched a new square reserve, the Yeti Cross, available in five sizes, for a weight range of 1.25 to 3.10 kg and an all up weight of 80-220 kg. The Genie Lite 2 is a new semi-lightweight cocoon harness aimed at pilots doing XC and distance flying. It weighs 4.2 kg in size M.

The Korean manufacturer's very large team www.gingliders.com



Photo: Sascha Burkhardt

YETI 4 TECHNICAL DATA					
Manufacturer: Gin - http://gingliders.com/parapente/yeti-4/ Mail : gin@gingliders.com Phone : +82-31-333-1241					
SIZE [m ²]	22	24	26	28	30
CELLS	36	36	36	36	36
FLAT SURFACE AREA [m ²]	22,22	24,12	26,26	28,5	30,83
PROJECTED SURFACE AREA [m ²]	19,29	20,94	22,80	24,74	26,76
FLAT WINGSPAN [m]	10,30	10,76	11,23	11,70	12,16
PROJECTED WINGSPAN [m]	8,33	8,66	9,05	9,43	9,80
FLAT ASPECT RATIO	4,8	4,8	4,8	4,8	4,8
PROJECTED ASPECT RATIO	3,6	3,6	3,6	3,6	3,6
ROOT CHORD [m]	2,7	2,8	2,9	3,0	3,2
ALL UP WEIGHT [kg]	55-85	65-95	75-105	85-115	95-125
WEIGHT OF THE WING [kg]	2,8	3,1	3,4	3,7	3,9
CERTIFICATION EN/LTF	A	A	A	A	A

OZONE

This year at the Ozone stand, highlighted by a model giraffe, the team launched lots of new things, but unfortunately there were no definitive photos or technical data

BUZZ Z5

Ozone announced that there will be a new version of their EN B wing for beginners and intermediates, the Buzz Z5. As expected, the team which invented the modern SharkNose are also now putting it in beginner/intermediate wings – in this case, not just for its benefits at top speeds, but especially to give more brake travel at low speeds.

Remember during our tests (see My #first in free.aero), we noticed that thanks to its considerable stability in pitch and roll, the Buzz Z4, which turns perfectly flat, needs 'very firm use of the brakes to make a very steep turn'. The new Buzz Z5 should allow the pilot to work with much greater brake travel, thus eliminating the previous model's only real problem. In addition, the Buzz Z5 offers significantly improved speed and glide angle.

JOMO

The Mojo 5 will come out as a lightweight version called the Jomo. It will also be certified EN A. According to Ozone, thanks to the reduction in inertia of the lighter wing, pitch stability will be increased as will be its manoeuvrability.

LITESPEED

The Litespeed is a lightweight version of the Zero. Both are part of the Ultralite family (still in production) but with a SharkNose. The Litespeed should inflate even more easily.

ROADSTER 2 LIGHT

The Roadster 2, the first reflex paramotor wing with a SharkNose by Ozone, will be produced in a lightweight version. Being a paramotor wing, this obviously hasn't been done with walking in mind, but for the beneficial behaviour of lightweight wings during take off and in flight.

SIROCCO

Another lightweight version: the Sirocco which came out at the beginning of the year is a lightweight version of the Speedster. It saves more than a kilogramme, so that the 24, for example, goes from 5.85 to 4.75 kg. As the geometry is identical to the Speedster, a model that we tested in 2011, it obviously doesn't have a SharkNose.

<http://flyozone.com/paragliders/en/>



Photo: S. Burkhardt

OZONE

The Sirocco came out at the beginning of 2015 and is a lightweight version of the Speedster.

SIROCCO

OZONE

<https://vimeo.com/117231986>



SIROCCO - TECHNICAL DATA

Manufacturer: OZONE - <http://flyozone.com/paramotor/en/products/gliders/sirocco> Mail: russ@flyozone.com

SIZE [m ²]	16	19	22	24	26	28	30	33
CELLS	53	53	53	53	53	53	53	53
FLAT SURFACE AREA [m ²]	16	19	22	24	26	28	30	33
PROJECTED SURFACE AREA [m ²]	13.74	16.3	18.9	20.6	22.3	24	25.8	28.3
FLAT WINGSPAN [m]	9.62	10.48	11.28	11.78	12.26	12.73	13.17	13.82
PROJECTED WINGSPAN [m]	7.56	8.24	8.86	9.26	9.63	10	10.35	10.85
FLAT ASPECT RATIO	5.79	5.79	5.79	5.79	5.79	5.79	5.79	5.79
PROJECTED ASPECT RATIO	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16
ALL UP WEIGHT [kg]	55-90	55-90	55-90	65-95	80-110	95-125	110-140	120-175
WEIGHT OF THE WING [kg]	3.7	4.05	4.5	4.75	5	5.3	5.6	6.1
CERTIFICATION	DGAC	DGAC	DGAC	DGAC	DGAC	DGAC	DGAC	DGAC
PRICE [€]	3730	3810	3870	3920	3970	4020	4070	4160



The Roadster 2, shown here still in the classic version, will come out as a lightweight version with identical geometry, giving a reflex profile plus a SharkNose.

AIRCROSS

A FEW NEW THINGS DESIGNED BY PAUL AMIELL:

The Prime beginner wing has come out as version 2: it should offer more travel on the controls and better performance. In size S, it only weighs 4.5 kg.

The Double-U tandem is a very nice wing for both amateur and professional tandem flying. We've just tested it and our report will be available in a few weeks. Moreover, it won the Austrian distance championships in the tandem category with Walter Wilding at the controls. In the 2014-2015 international classification, it was eleventh.



Left to right: Konrad Görg from Air Cross talking to Hannes Papesh (Advance), Arne Wehrlin (Skywalk) and Gin Seok Song (GIN).

U Prime 2



Biplace Double - U



AIRCROSS

U CONNECT

The Freestyle U Connect wing, should be ready soon in two sizes, it will be capable of doing all the manoeuvres except Infinite Tumbling. The French pilot Stéphane Blum has rejoined the team.

A wing designed specifically for paramotoring, the U Power, is also on the drawing board.

www.aircross.eu



ICARNAVAL



Photo: www.facebook.com/murblanc.org/ / Ilan Ginzburg



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>



Photo: www.facebook.com/murblanc.org/ / Ilan Ginzburg



Photo: www.facebook.com/murbianc.org/ /Ilan Ginzburg



Photo: www.facebook.com/murbianc.org/ /Ilan Ginzburg



Photo: www.facebook.com/murbianc.org/ /Ilan Ginzburg



<https://www.facebook.com/BrunoLavitPhotographies>



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>

ICARNAVAL



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>



OZONE XC

BuzzZ5 GEO⁴ RUSH4 SWIFT4 DELTA 2 ALPINN²
M6 MANTRA LMS ENZO 2 MANTRA R₁₂ OZIUM FORZA EXOCERT

At Ozone, our True Performance philosophy is that performance should not come at the cost of comfort. The Ozone Performance Project has yielded real breakthroughs in paraglider design, which are now included in our serial wings. From the patented Ozone SharkNose Technology to our advanced super low-drag line plans, elements of our highest performance comp wings are offered in our Sport/Cross Country class wings. We like to think that we make a wing for every pilot, and we invite you to visit flyozone.com to check out our range of gliders and contact your local Ozone Dealer for a test flight.

Kangook PARAMOTORS

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

FLY HIGH ABOVE COMPETITION



Vikking



Lite



Classic

Komfort
Tandem trike



www.kangook.ca

NEO

NEO CLOTHING

Neo are working with Picture Organic Clothing to produce clothes like short sleeved T-shirts and hooded sweatshirts.

Sizes: XS - S - M - L
Colours: navy-blue/kaki (T-shirts)
and grey and light-blue/white
and navy-blue (sweashirts).



NEO

THE STRING

The ultra-light harness, the String, has been reviewed and improved. It comes in sizes: XS-M-XL. Weight: 280 g without karabiners. Certified EN1651. Price 310 €. An interesting new option is the String

Cover Leg, a cocoon which fits onto the harness to keep your legs warm. It weighs 370 g and is made in France as is the String. Price 240 €. Also new, the angle of the back is adjustable.



BODY PICTURE

Neo have made a new version of the Body Picture suit in two pieces for speedriding. The Body harness with its Koroyd EOP 2.0 protection has been adapted and incorporated to fit under the suit which has slots for the risers. It comes in four sizes, weighing about 1.9 kg. A pocket has been included on one leg to store the Speed Bag, leaving the back free to carry another pack like an avalanche airbag.

Price: 1200€ (jacket, trousers, harness and karabiners).

Neo will also be launching a new ultra-light wing for speedriding, the X-Lite. Load tested at 6G. Sizes 8, 9 and 10. Weight 1050 to 1350 g. Price: 1980 €.

www.flyneo.com





Photo: Triple Seven

777 TRIPLE SEVEN

THE KING

The Valic brothers have officially launched the King, an EN D three liner. A lot of work has been done on the tension in the wing and there is a SharkNose (BPI - back position intake technology); 777 have gone for this technology from the start and it is now on all the models in the range.



Photo: Sascha Burkhardt

777 TRIPLE SEVEN

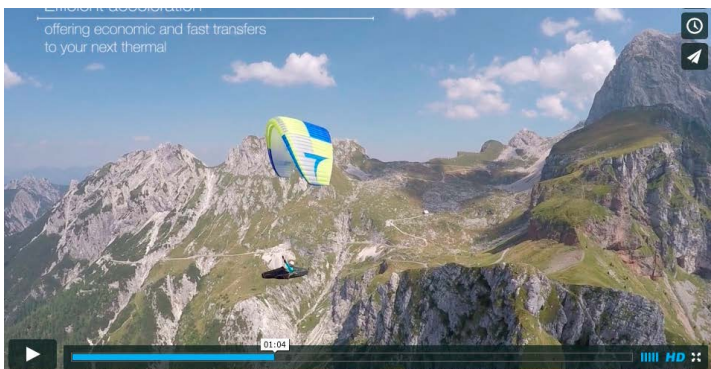
THE ROOK 2

The two smallest sizes are certified and the other two should follow on soon.

www.777gliders.com



Video : <https://vimeo.com/139232662>



ROOK 2 - TECHNICAL DATA

Manufacturer : 777 TRIPLE SEVEN - Web : <http://777gliders.com/fr/content/rook2>
 Mail : info@tripleseven.fr Phon: +420 257 216 319

SIZE [m ²]	S	MS	ML	L
CELLS	57	57	57	57
FLAT SURFACE AREA [m ²]	23,7	26	28,3	30,6
PROJECTED SURFACE AREA [m ²]	20,09	21,9	23,8	25,8
FLAT WINGSPAN [m]	11,6	12	12,6	13,1
PROJECTED WINGSPAN [m]	9,1	9,4	9,9	10,3
FLAT ASPECT RATIO	5,6	5,6	5,6	5,6
PROJECTED ASPECT RATIO	4,1	4,1	4,1	4,1
ALL UP WEIGHT [kg]	65-85	80-100	95-115	110-130
WEIGHT OF THE WING [kg]	5,3 pesée	5,6	6,1	6,6
CERTIFICATION LTF/EN	B	B	(B)	(B)

ADVENTURE

On the Adventure stand, long time business partners, Emmanuel Layan and Pascal Vallée, were at the Coupe Icare for the first time welcoming the public, not as employees, but as co-owners of the make. Andrea Testoni, the third co-owner and new director of Adventure, was able to measure the very good feedback from pilots about the model X-Race Lite which,

since it came out a year ago, has very clearly marked a rejuvenation of the range. It is very light, very manoeuvrable and reactive through the harness, all of which we confirmed in our tests. The great success of the semi-reflex profile wing for beginners, the Flex-One, was also confirmed (full test in the free.aero article 'The #First...'). www.adventure.fr



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>



FALCONRY

ASI FLYNET

The FlyNet XC, launched for the first time at the Coupe Icare in 2014, is an acoustic GPS vario with a Bluetooth port (both standard or low energy will work with this instrument). Therefore it can communicate with a smartphone or a tablet, and transmit to it the precise barometric values, those of the accelerometer as well as the GPS positions. A compatible app on the tablet therefore has everything necessary to display all the functions of a top of the range alti-vario-GPS. More and more apps of this type 'talk' the FlyNet protocol, such as the

XC-Soar, Skylogger etc. The full list can be found here:

http://www.flynet-vario.com/fra/compatible_apps/index.

In addition, ASI stopped doing their own application this year, so as not to waste time repeating the work done by these specialists. In our article on Instruments this December we will publish a full test of the FlyNet.

www.flynet-vario.com



SKYBEAN

Skybean is a Slovakian vario manufacturer who has recently started to market two products

SKYBEAN

The first is a purely acoustic vario weighing only 26 g. The 'sky bean' is powered by a CR2032 battery and protected by a robust plastic and aluminium case. You can also order it with a real wooden case!

Plastic case: 75 €

Wooden case: 100 €

SKYDROP

The manufacturer also sells the 'Skydrop', this 'drop of water from the sky' weighing 67 g has a GPS receiver, Bluetooth connection, SD card, digital compass, accelerometer and thermometer. The values are displayed via a small LCD screen. Certain functions still need to be validated. There will also be the possibility of recording tracks.

Price 175 €

<http://skybean.eu>



SUPAIR

SUPAIR LIGHT: EVEREST 3

Supair are getting lighter and lighter: the ultra-light Everest 3 harness is for a large part made from Dyneema threads rather than from fabric straps like the Everest. The final weight and the price are not yet known.



SUPAIR EIKO

EIKO

The new paraglider, the Eiko only weighs 2.45 kg for the size 20 and 2.75 kg for the size 23. It should therefore be perfect for the hike and fly trend. Certified EN B in both sizes, this wing is aimed at a very wide range of pilots, from newly qualified pilots who

want to fly 'light' to more experienced pilots looking for a second wing for hike and fly. The lower surface is Skytex 27, the upper surface Skytex 32, with Dominico cells.

<http://glider.supair.com>



Photo: Romain Roussel

EIKO - TECHNICAL DATA

Manufacturer: SUPAIR - Web : http://glider.supair.com/eiko/ Mail : info@supair-vld.com Phone: 04 50 45 75 29		
SIZE [m ²]	20	23
CELLS	41	41
FLAT SURFACE AREA [m ²]	20	23
PROJECTED SURFACE AREA [m ²]	16.98	19.53
FLAT WINGSPAN [m]	9,8	9,8
PROJECTED WINGSPAN [m]	7.71	8.27
FLAT ASPECT RATIO	4,8	4,8
PROJECTED ASPECT RATIO	3,5	3,5
ALL UP WEIGHT [kg]	50-80	65-100
WEIGHT OF THE WING [kg]	2.45	2.75
CERTIFICATION LTF/EN	EN 926 – 1 et 2 & LTF 91/09 – Class B	
PRICE [€]	2 730	2 790



Photo: Romain Roussel



SWING

NYOS

SWING

NEXUS - NYOS

The Nyos is an EN B version, and more accessible than the Nexus (EN C). The little sister has hardly lost any of the qualities which the renamed Nexus had. One more competitor in the much sought after top of the range EN B category.

For beginners, Swing are still working on the Mito, and in particular on making take-off easy on mountain launches and when towing on the flats.

www.swing.de

NEXUS - TECHNICAL DATA				
Manufacturer: SWING - Web : http://www.swing.de/nexus-fr.html Mail : info@swing.de Phone : +49 (0)8141 32 77 888				
SIZE [m²]	XS	S	M	L
CELLS	64	64	64	64
FLAT SURFACE AREA [m²]	22	24	26	29
PROJECTED SURFACE AREA [m²]	19	20,8	22,8	25,1
FLAT WINGSPAN [m]	11,6	12,1	12,7	13,3
PROJECTED WINGSPAN [m]	9,4	9,8	10,3	10,8
FLAT ASPECT RATIO	6,1	6,1	6,1	6,1
PROJECTED ASPECT RATIO	4,7	4,7	4,7	4,7
ALL UP WEIGHT [kg]	-	74-98	85-108	102-125
WEIGHT OF THE WING [kg]	4,9	5,2	5,6	6,0
TRIM SPEED [km/h]	40 ±1			
CERTIFICATION LTF/CEN	C	C	C	C
PRICE [€]	3 950	3 950	3 950	3 950

NYOS - TECHNICAL DATA			
Manufacturer : SWING - Web : http://www.swing.de/nyos-fr.html Mail : info@swing.de Phone : +49 (0)8141 32 77 888			
SIZE [m²]	S	M	L
CELLS	59	59	59
FLAT SURFACE AREA [m²]	23	25	27
PROJECTED SURFACE AREA [m²]	19,9	21,6	23,4
FLAT WINGSPAN [m]	11,5	12,0	12,5
PROJECTED WINGSPAN [m]	9,3	9,7	10,1
FLAT ASPECT RATIO	5,8	5,8	5,8
PROJECTED ASPECT RATIO	4,4	4,4	4,4
ALL UP WEIGHT [kg]	70-92	80-102	90-112
WEIGHT OF THE WING [kg]	4,7	5,0	5,3
TRIM SPEED [km/h]			
CERTIFICATION LTF	Ongoing	Ongoing	B
PRICE [€]	-	-	-





HOOK 4 IKUMA PEAK 4

NEW MODELS

niviuk.com

WINDOO

JDC, the Swiss anemometer specialist, was already making the first Skywatches more than thirty years ago in 1984. With the Windy range, these little anemometric modules plug into an iPhone or certain AndroidPhones. Skywatch have launched a revolutionary product given the small size of these sensors. Since they were first launched, the Windoo has evolved. It is

compatible with more and more Android smartphones, like the Samsung Galaxy S5 and S5 mini. But above all, according to JDC, the new version, the series 4, also works with the iPhone 6 and 6+. The details of the guaranteed compatibilities (non-exhaustive list):

<http://windoo.ch/compatibilities>



Photo: Sascha Burkhardt



	↔	📶	📶	⬆️⬆️
Windoo 1	✓	✓	✗	✗
Windoo 2	✓	✓	✓	✗
Windoo 3	✓	✓	✓	✓



ICARE LAUNCH

Photo: Johan Chemin

SKYWALK

RANGE AIR X-ALPS

The German manufacturer launched the Range Air X-Alps with Paul Guschlbauer inside it, third in the 2015 X-Alps. This harness isn't just a lightweight version of the Range Air (tested in free.aero's article 'Harness'), but a different concept (foam protection and the reserve under the seat). It only weighs 1.3 kg in this certified version. Without foam back protection, it only weighs 0.96 kg. We will publish the full test in our forthcoming 'Light' article.

TONKA 2

In another race of the same type as the X-Alps, the Dolomitenmann, Skywalk took eight out of the top ten places with their Tonka 2! The Tonka 2 is small (11.8m²), very agile and weighs only 2.1 kg, whilst being certified EN/LFT D. The all up weight range is 70-85kg.

<http://skywalk.info/en/>



Photo: skypix drone

BIPBIP

THE BIPBIP SPEAKS...

The French vario manufacturer known for its mini-vario, the BipBip, launched two new products. The first is a GPSBip, a BipBip with a built-in GPS, still fed by a solar panel. The GPS can be connected via a cable to a tablet, for example. It also records the flight track in IGC and KML format.

In addition, the parameters of the flight are given via a voice synthesizer: altitude, flight speed, etc. Price 180 €.

The second is the SolarPad, price 70 €. It is a 2.5 watt solar panel which allows a smartphone to be fully functional in direct sunlight. It also includes a 5600mAh Li-Ion battery.

www.lebipbip.com



Photo: Sascha Burkhardt



Photo: Sascha Burkhardt

8.0	TIGER 160	FLY 200	MINI 3
X-RACE 8.0 X 8.0	FUNFLYER X-T X-RACE	FUNFLYER 200 X-RACE 200	FUNFLYER MAX FUNFLYER BI
80 cc 17 hp 11 kg 115 / 130 cm 50 / 55 kg	160 cc 24 hp 14 kg 115 / 130 cm 63 / 70 kg	Cylinder Power Engine weight Propeller Thrust	200 cc 27 hp 16 kg 130 cm 80 kg
			270 cc 33 hp 20 kg 160 cm 110 kg

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

Use of engines according to pilot weight & propeller size

Competition Sports Casual

PPG engines by **ADVENTURE**

on our paramotors
foot launch PPGs
or wheeled trikes



www.adventure.fr



Photo © Michel Farrugia

www.Trekking-parapentes.fr

OPALE

The models are ahead of the real ones!

Opale make remote-controlled model paragliders and paramotors. The new Hybrid wing integrates lots of modern technology: a mono skin with some cells with a SharkNose opening.

This combination doesn't even exist in full-size paragliders!

Our colleagues at Modèle Magazine have already tested it and found it is easy to inflate, has good into wind penetration, good handling and is very versatile.

Surface 1.8m². Wingspan 3m. Maximum cord 0.71 m. Price 329 € for the wing on its own.

<http://www.opale-paramodels.com>



Photo: Mathieu Charles

Our goal was to create the best flight instrument ever. We are certain to have succeeded.

- Touch screen display
- Display absolute customization
- Sound absolute customization (CSS)
- C-Pilot EVO operative system
- Glide Over Terrain
- Auto-switch and auto-zoom in thermal mode
- Start - thermal - goal - glide automatic display
- airspaces automatic display
- multiple profiles modes
- FAI triangles (coming June 2015)
- Live tracking (optional)
- GOTO by touching a waypoint in the screen
- Bluetooth
- SD card
- Direct PC connection
- Easy interface
- C-Probe connection
- Hiper sensible variometer
- Airspace full management
- customizable polar
- Thermal assistant (Wind drift factor exclusion)

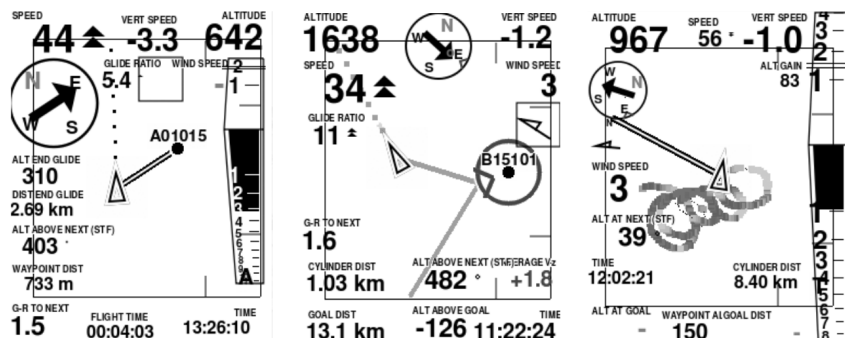
WWW.COMPASS-ITALY.COM



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PRICE: € 599,00 EU tax included

SYRIDE

At the beginning of the summer Syride launched the SysNav V3. To give more flexibility, the memory in the form of an SD card integrates topography and airspace for the whole world. New work on the electronic components has doubled its battery life from 25 to 45 hours. That's enormous for a GPS instrument, especially

as it is small enough to be fixed onto the riser, perfectly placed in the pilot's field of vision.

In addition, Syride now offer clothing as well.

<https://www.syride.com>



TREKKING

YOUR HOME-MADE SINGLE SKIN PARAGLIDER

The French manufacturer are emphasizing the aspect "Made in Europe". From now on, they are even offering 'Home Made' paragliders. For less than 900 €, the company will send you the plans, the lines and the material that they have cut to the exact millimeter; then it will be up to you to sew it together!

The first model in the range is a single skin simple Barretina HyperLite style like the Batlite, based on the plans Open Source by Pere Casellas. According to Trekking you should allow about 100 hours to assemble the wing. Soon a more developed single skin like the Niviuk Skin will be on offer.

www.trekking-parapentes.fr



Photo: Sascha Burkhardt

ICARE SHOW



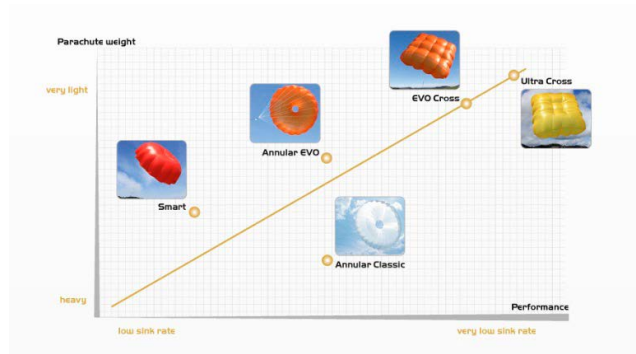
Photo: www.facebook.com/murblanc.org / Ilan Ginzburg

INDEPENDENCE / SKYMAN

As always there was a stand shared by Skyman and Independence, two makes run by Stefan Kurrle (photo right), who is one of the main specialists in parachutes amongst other things. Independence offer more than twenty different models, from an all up weight of 50 kg to 300 kg. Stefan was one of the first to promote square reserves in paragliding; two very light models for tandems will be out shortly.

The new cocoon harness, the Matador Alpin (photo right) from Independence, only weighs 3 kg in the carbon seat version, whilst being certified LTF. For the make Skyman, there was obviously Tom Cocone, who has been a member of the team for a year. The Skyman Cocone harness weighs 3.4 kg. An ultra-light version will soon be on sale.

www.independence.aero
www.skyman.aero



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* Terms and conditions on our website

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CAMELEON

CHANGE AT CAMÉLÉON

At the Coupe Icare, the inventor of the Caméléon throttle (which has sold more than 2400 items in thirty countries), launched a completely new version. The middle finger, used to accelerate, can be instantly liberated

to leave TEN fingers free if necessary. The cruise control can look after the motor revs if it is engaged.

www.mycameleon.fr



ICARE BALLONS



POLINI

POLINI: THE THOR 80 TAKES OFF.

Already launched as a pre-series version at the Coupe Icare in 2014, the Thor 80 is at last ready in its final version. For this very promising engine, there have been changes

made to the exhaust pipe attachments as well as other details like the starter pump built into the motor chassis.

<http://www.polini.com>

Around the Thor 80, left to right, Roberta Camozzi, Saimon Polini and Iuri Polini..



Everything is built into the motor chassis, even the pump!

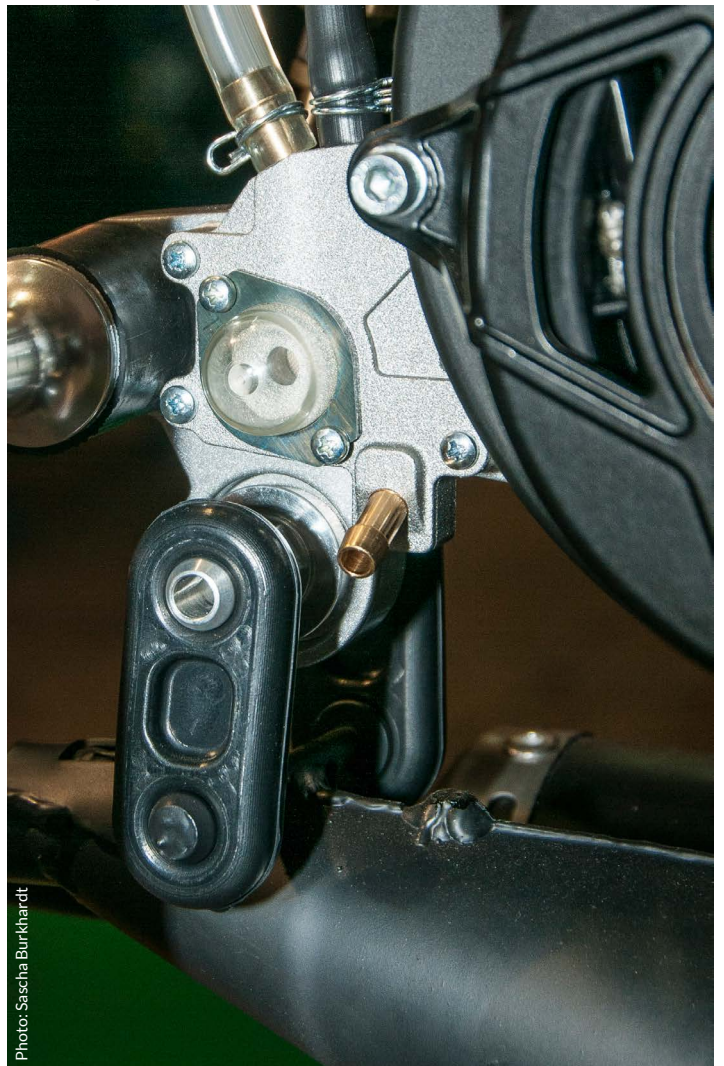


Photo: Sascha Burkhardt

NOVA

The successful Mentor 4 is now available in a lightweight version. The sizes are different: there is an XXS in the lightweight version, but no L. The all up weight is 55-110 kg compared to 70 – 130 kg for the classic version. The weight of the wing remains below 4 kg: 3.25 kg to 3.9 kg depending on the size. The Mentor 4 light is an EN B, but fairly top of the range.

Obviously, the profile has an "Air Scoop" nose, technology similar to a SharkNose. Like all the other recent Nova wings, the Mentor 4/4 light was designed by Philipp Medicus (photo right). The Triton 2 light, available from this summer onwards, has been specially fine-tuned for races like the X-Alps.

www.nova.eu

MENTOR LIGHT - TECHNICAL DATA

Manufacturer : NOVA - Web : <https://www.nova.eu/fr/>
Mail : sylvain@nova.eu Phone: +49 (0)8141 32 77 888

SIZE [m²]	XXS	XS	S	M
CELLS	55	55	55	55
FLAT SURFACE AREA [m²]	21,48	23,78	26,09	28,39
PROJECTED SURFACE AREA [m²]	18,36	20,33	22,30	24,26
FLAT WINGSPAN [m]	10,80	11,36	11,89	12,41
PROJECTED WINGSPAN [m]	8,53	8,97	9,40	9,8
FLAT ASPECT RATIO	5,43	5,43	5,43	5,43
PROJECTED ASPECT RATIO	3,95	3,95	3,95	3,95
ALL UP WEIGHT [kg]	55-80	70-90	80-100	90-110
WEIGHT OF THE WING [kg]	3,25	3,45	3,65	3,9
CERTIFICATION EN/LTF	B	B	B	B



Photo: Sascha Burkhardt

The 'Air Scoop': Nova's version of the SharkNose.



NOVA



MENTOR 4 LIGHT

NOVA TRITON 2 LIGHT



Photo: DR



ICARE SHOW



PARAMANIA

In 2015, Mike Campbell-Jones (photo right) finally brought out new models for paramotors. The Revo 3 for beginners will be produced in four sizes (20, 23, 26 and 29). The 23 is out now and even certified EN B.

We've already published our first impressions of the GTS Slalom wing. The Rokit is the new tandem wing which replaces the Taxi. To improve safety in Parabatix competitions, Paramania are working on floating pylons which will allow tasks to be moved over water.

www.paramania.com



APCO

Apco have brought out a new wing for the tandem paramotor trike, the Lift 400 EU. The wing is based on the Lift, a mono-place paraglider with a reflex profile, which is particularly easy to launch. The Lift 400 EU has an all up weight of 160-300 kg. The Lift 450 EU (in the future) will have an all up weight of 230-400 kg. For the American market, with their very big trikes, there is a version of the Lift 400 with the risers further apart.

We're currently testing the Lift EZ, the new version of the foot launch Lift, and we'll soon be publishing some interesting results.



Lift EU 400

Lift EU 400

The Lift EZ being tested by free.aero



Photo: Cédric Njstedt / voler.info



In the free flying range, Apco are working on lots of new things: an EN A wing, another EN C, as well as a new tandem.

At the Coupe Icare, Apco had on display a lightweight streamlined harness (like the Range Air), which is still at the R&D stage.

www.apcoaviation.com



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syride

A black syride ALTI-VARIO-GPS device is shown in the foreground. The screen displays a large altitude reading of 1324m, a smaller reading of 1420m, and a graph showing altitude changes. The device has a red circular button and navigation arrows. The background features a grayscale image of a person in a paragliding harness standing on a mountain peak with snow-capped mountains in the distance.

DUDEK

From the beginning of this year, the Polish manufacturer of paramotor and paraglider wings has put a lot into their XX range. One of the common characteristics: the top brand, a recognized specialist in reflex wings, has systematically added a SharkNose as designed by Ozone, to its auto-stable profiles. In addition, Dudek display the sticker confirming the use of an Ozone SharkNose in their wings. Since this summer, the famous Nucleon has also evolved into an XX version. Besides the modifications to the profile and all the changes which went with it, the Hadron XX has had its total line length reduced by 23%.

The profile also sports a new AFS system (Aerodynamic Flaps System) to make taking off and landing easier, even at high altitudes, as well as better use of the wing in thermic conditions. voler.info/free.aero are currently testing a Nucleon XX and will publish our findings in December.

A new product anticipated for the beginning of 2016 is the Report'air, a paramotor wing which benefits from the advantages of the SharkNose at high angles of attack. It remains very stable when flying slowly to allow aerial photographers to work more easily.



Nucleon XX



The profile of the Nemo XX (EN A free flying wing)

NUCLEON XX - TECHNICAL DATA

Manufacturer: DUDEK - Web : <http://www.dudek.eu/en/>
 Mail : media@dudek.eu Phone: +48 52 3241743

SIZE [m ²]	20	22	24	26	28
CELLS	60				
FLAT SURFACE AREA [m ²]	20	22	24	26	28
PROJECTED SURFACE AREA [m ²]	17.08	18.79	20.49	22.20	29.91
FLAT WINGSPAN [m]	10.58	11,10	11.59	12,07	12,52
PROJECTED WINGSPAN [m]	8,39	8.80	9,20	9.57	9.93
FLAT ASPECT RATIO	5,60				
PROJECTED ASPECT RATIO	4,12				
ALL UP WEIGHT [kg]	75 – 110	85 – 120	95 – 130	105 – 145	115 – 160
CERTIFICATION EN/LTF	Ongoing				

DUDEK



ORCA XX

On the Orca XX tandem, the SharkNose is also clearly visible.
Photo: DR/Dudek

PMA GOES FRENCH

Philippe Clerjon was the co-director of Supair for many years. After that he worked for Sky Paragliders. Now he defends the interests of the flight test laboratory Aérotest which belongs to the FFVL. Amongst other things, thanks to Philippe's work, this laboratory is now recognized by the German Civil Aviation Authority.

This is an historical step for the French manufacturers who, up until now, have been held back enormously in this very important sector of the market which comprises 27,000 active paraglider pilots.

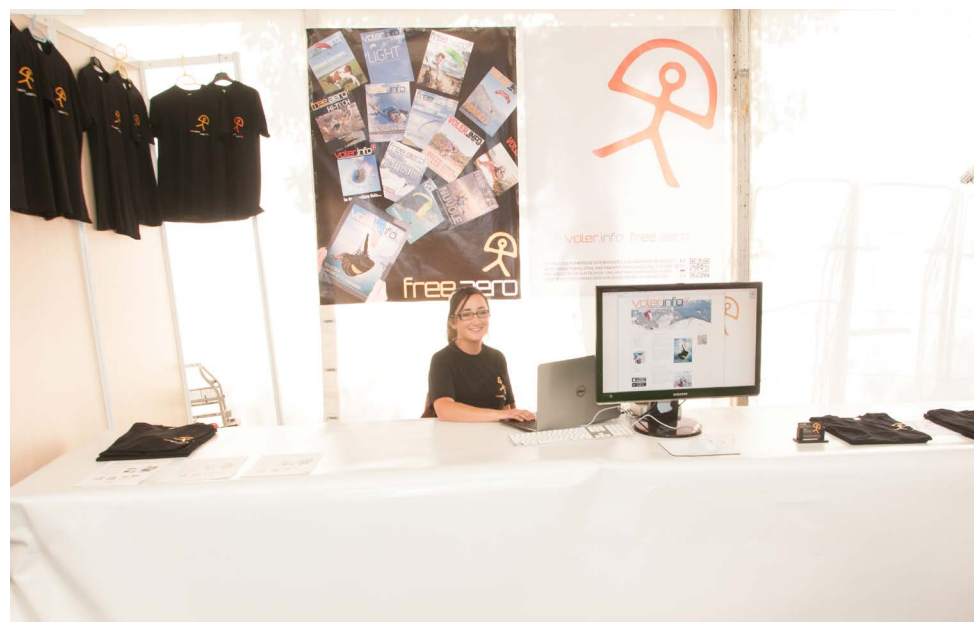
Philippe now has a second role. At the annual meeting of the PMA (the International Paraglider Manufacturers Association), he was elected president and will replace Bruce Goldsmith who wants to concentrate more on BDG.



VOLER.INFO/FREE.AERO

A big thank you to everyone who came to visit our stand, sorry we were not there very much as we were out and about reviewing all the new products.

Thank you as well for all your positive feedback about our work. Sarah passed it on to us which we really appreciated!



G-FORCE TRAINER

As in 2014, Thomas Grabner had his G-Force Trainer on show at the Coupe Icare. It is a recognized teaching tool which goes up progressively to 7 G thus letting each pilot find their own individual limits. It's reassuring during a spiral in the air. It also lets you learn to push the blackout limit by using a breathing technique, amongst things. In Europe, there are four

permanent centres: Anney (France), Brannenburg (Germany), Greifenburg (Austria) and Malans (Switzerland).

Price per day
with 20-30 cycles: 178 €.

<http://www.gforce-trainer.com>



Photos: Sascha Burkhardt

REVERSALE

The VGP was one of the first instruments made by a 'small' French manufacturer who faced up to the market 'giants'. The founder, Nicolas Babel, had to give more time to other professional obligations, but he found a new team to look after this instrument which, now finished, costs less than 400€.

<http://www.reversale.com/en>



speedriding & speedflying freeride



X-Ride
S-Ride
Body



wings and harnesses
designed for speedriding

www.flyneo.com



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>

ICARE CONCERT

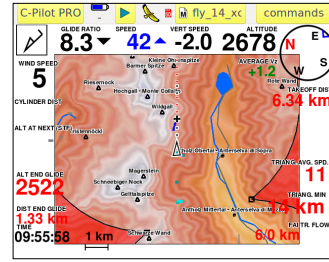
www.free.aero

THE COMPASS STAND

The Italian company Compass is doing a lot of work on the cartography on their instruments. Airspace can already be uploaded in an OpenAir format (freely available on the Internet). Now the company is improving their topographic maps by adding footpaths and mountain

names, which is very useful especially for hike and fly. The Compass computers are, as we write, putting together 1 terabyte of data for the worldwide map which will be available in a few weeks time.

www.compass-italy.com



Luca Basso from Compass in front of a professional version of the speed sensor. It costs several thousand euros and is only intended for laboratories; Alain Zoller has already ordered one.



Luca Basso blowing into the instrument. The speed sensor takes into account humidity to make the TAS more precise.

Photo: S. Burkhart

FLYMASTER

The Portuguese manufacturer, as always, had lots of new things and new functions on their instruments to show us.

It is now possible to activate a 'find pilot' function by consulting their Live-Tracking page from a smartphone and be guided by Google Maps to where the pilot has landed out.

The biggest innovation since this summer has been the possibility of loading mapping onto their SD series instruments. More information is given in this video: <https://vimeo.com/136209555>

Flymaster have also commercialized their own range of clothing such as the down jackets in the photo.

www.flymaster-avionics.com



Photo: S. Burkhardt



Hang-gliding fatality

A TRAGIC HANG-GLIDING ACCIDENT.

On Sunday the 20th of September Thibault Demange pilot and member of the French Hang-gliding team died during an aerial demonstration. His hang-glider wing broke up after a tumble and tragically, his reserve got caught in a spar.

The FFVL wrote: 'A young and talented pilot, Thibault brought to the team brilliant flying skills and wonderful human qualities. His commitment to the sport of hang-gliding as an elected representative and in the organization of competitions was testimony to his passion for the sport and he will be missed by all those who had the chance to know him.'

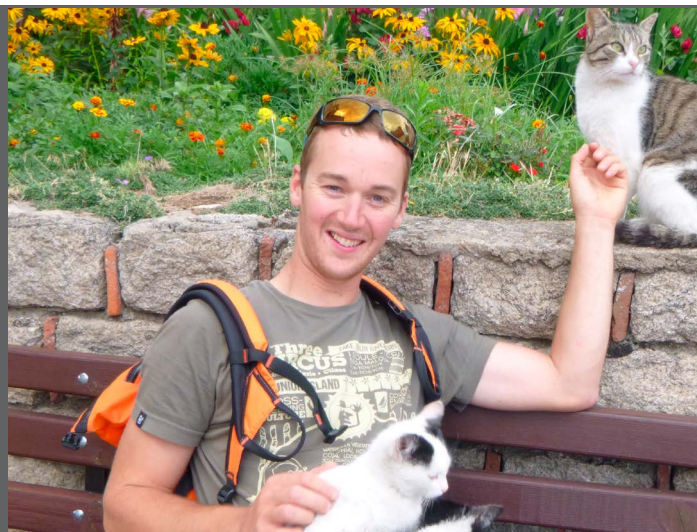




Photo: Johan Chemin

ICARE SHOW



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>

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MATERIAL:
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COMFORT RANGE:
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TURBULENCE

TURBULENT TEXTILES

Corinne and Marlène from the company Turbulence once again surprised us with the originality and aesthetics of their silkscreen creations on T-shirts, sweatshirts and soft shell jackets. The fabric and the silkscreen are very good quality. Our editorial team

have several and the colour hasn't faded over the last year and a half, despite being washed numerous times. Price from 13€ (children) and 19.90€ (adults). <http://www.turbulence-shop.fr/>



ITV

ITV STEWART

The French manufacturer launched a new tandem: The Stewart is essentially aimed at professional tandem pilots. An EN B wing close to an EN A, 41 m², with an aspect ratio of 5.4 and an all up weight of 125-220 kg (paraglider) and 125-293 kg (paramotor, DGAC certified). Trim speed: 40 km/h, maximum speed 50 km/h, price 3900 €.

www.itv-parapentes.com



Photo / ITV



WINGJUMP

WingJump is halfway between speedriding and skiing. Marc Dejeu, the pilot in the photo has developed this wing suit which increases the length of jumps on skis and

allows you to carve the corners as in speedriding by being supported by the lift. Price bracket: 115-650 €. <http://www.ripair.com/wingjump/>



Photo: S. Burkhardt

KORTEL DESIGN

At the Kortel stand there was the prototype of the Kannibal Race 2. This cocoon harness which will come out at the beginning of next season is a totally new development. The two main innovations are a new type of adjustment which is easy to use in flight and a baton giving extra leg support at the knees.

www.korteldesign.com



SKYTRAXX

A new model will come out before 2016: The Skytraxx3 is bigger than the Skytraxx2, which will remain in production. The third version has a 4.3 inch colour screen that is very bright which, according to the manufacturer, will be very versatile for use in full sunlight. The instrument runs on Linux and has a USB socket in host mode. This allows you to plug in a keyboard, a

WiFi stick, a Bluetooth stick, a hard drive etc. An SD card can store, amongst other things, topographic mapping and air space. The operating system will allow new functions to be added such as displaying nearby thermals.

Approximate price 750 €.

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



SKYJAM

Swiss explorer and manufacturer of paragliders and propulsion systems, Ales Hubacek, is now also offering wooden propellers at great prices for schools which have lots of breakages. But most important of all is that, since a change in the law in July 2015, Ales can at last, like his clients, fly legally in Switzerland with his electric paramotor, the ST-Electro.

Amazingly, the Swiss have finally accepted our motorized rags in the sky above their Alps.

www.skyjam-aircraft.com



WOODY VALLEY

At the Woody Valley stand lots of pilots were interested to see the Wani Light. We have already tested and reviewed this convertible harness in our article 'Harness'. It is very comfortable, practical and light, only 2.6 kg despite being rather generously made.

Three sizes: M, L, XL
Price: 799 € .

<http://www.woodyvalley.com>

Wani
light

leicht,
reversibel
komplett
Hike & Fly





Photo: Johan Chemin

ICARE KIDS



Photo: Bruno Lavit <https://www.facebook.com/BrunoLavitPhotographies>

FLYTEC

The new series of instruments with touch sensitive screens is finally available. The Connect 1 plugs into available WiFi and will look for firmware updates itself. There will be lots of these as they are part of the concept of the Connect series. You buy an instrument at a given price, from then on all the functions which are developed

are free, whilst new customers buying the instruments later, will pay more. Flytec plan to produce new functions about every four weeks. However the initial timetable is slightly behind schedule.

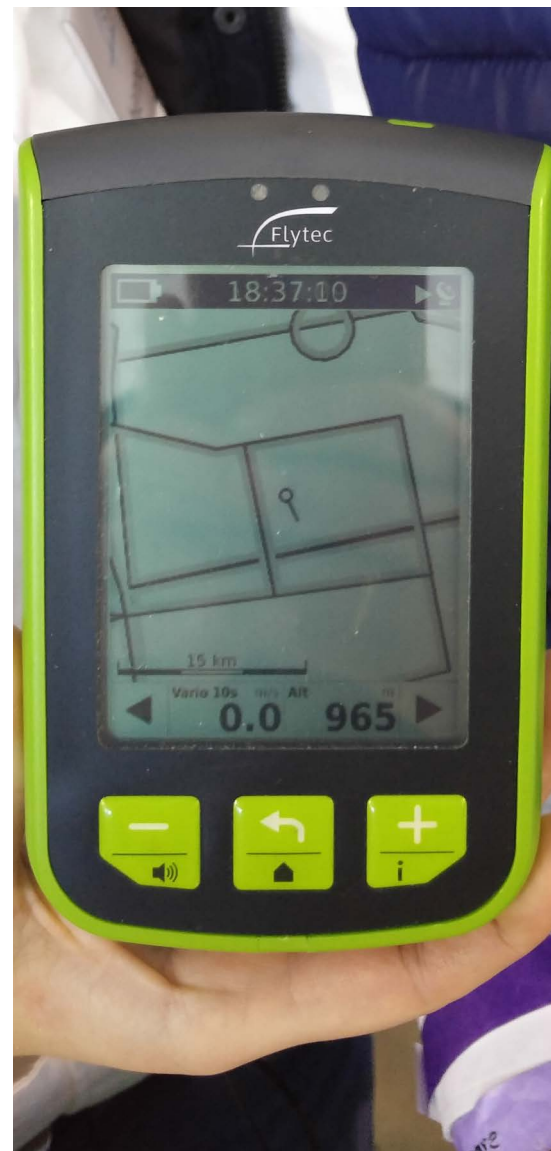
www.flytec.ch

Jörg Ewald, director of Flytec, is a top level competition paraglider pilot.



Photo: S. Burkhardt

The Connect 1 has three raised buttons in addition to its touch sensitive screen which can also be used with gloves.



New functions like airspace are being added.

MCC AVIATION

Alexandre Paux launched a new mid range EN B. The Explora (see photo) is right in the middle of this range and will be available this autumn.

The tandem Béluga 3 is a small tandem of 38m², weighing 6.1 kg in the standard version (Skytex 32) and 5.6 kg in the lightweight version (Skytex 27). It now exists in a 'Pro' version for rougher take offs: fabric Skytex 38, 6.6 kg.

<http://www.mccaviation.ch>



ARE YOU
ready
to touch
the clouds?



new! even lighter!

Wani light, 2.6 kg (L)

www.woodyvalley.eu

SKY PARAGLIDERS

Sky's designer, Alexandre Paux (also owner of the make MCC Aviation), has decided to add a fairly pronounced SharkNose and leading edge rods to the new intermediate EN B (top of the range) Apollo.

This wing with an aspect ratio of 5.45 is the first model in the new 'Sport' range. Future models will be classed as either 'Comfort', 'Light' or 'Power' (for paramotors).

www.sky-cz.com



BACKBONE

The manufacturer, who has been at Gap Tallard for a long time now, doesn't just make fully finished classic paramotors, but also trikes designed for taking handicapped people paragliding.

They also offer an electric paramotor, whilst admitting that it will remain a niche market.

<http://backbone.fr/>



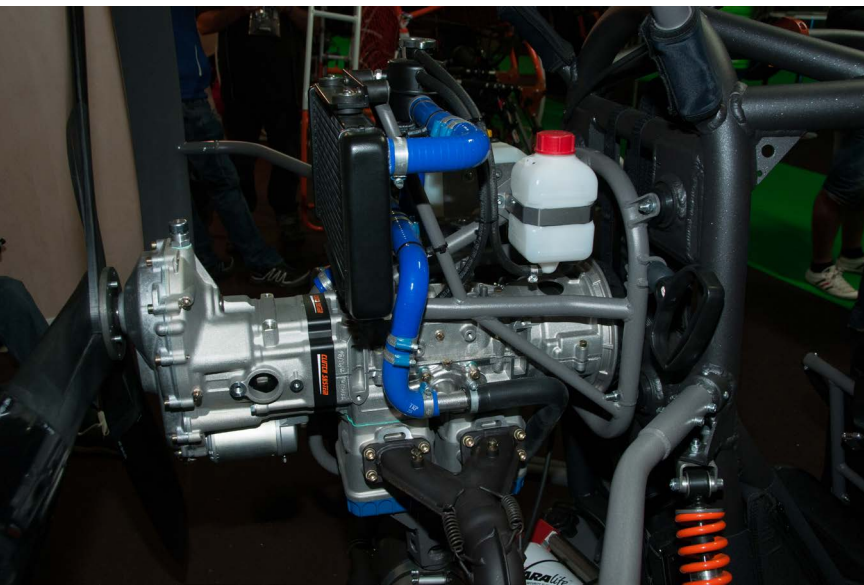
PMSWISS - FLY PRODUCTS

THE LUNA BY FLY PRODUCTS

At Fly Products, in collaboration with PMSwiss, a completely new trike like the XCiter, the Luna, has been created. Compared to an XCiter, it is amongst other things, shorter by 17 cm and the 48 l reservoir is under the back seat. This progress and the lowering of the centre of gravity is supposed to stabilize the trike compared to those of its competitors: Rotax 582 (64 HP) engine, maximum speed > 72 km/h, unloaded weight 152 kg and maximum all up weight 400 kg.

From 21 000 € (including the wing), delivery March 2016.

www.pmswiss.ch



GRADIENT

DENALI

The Czech manufacturer had lots new for hike and fly. The Gradient Denali is a lightweight EN A (between 3.9 and 4.5kg), very accessible but nevertheless easy to handle.

The Eiger is a wing designed for more advanced pilots, it has only been load tested. This very playful paraglider only weighs 2.5 kg in size 21 and 2.7 kg in size 23.

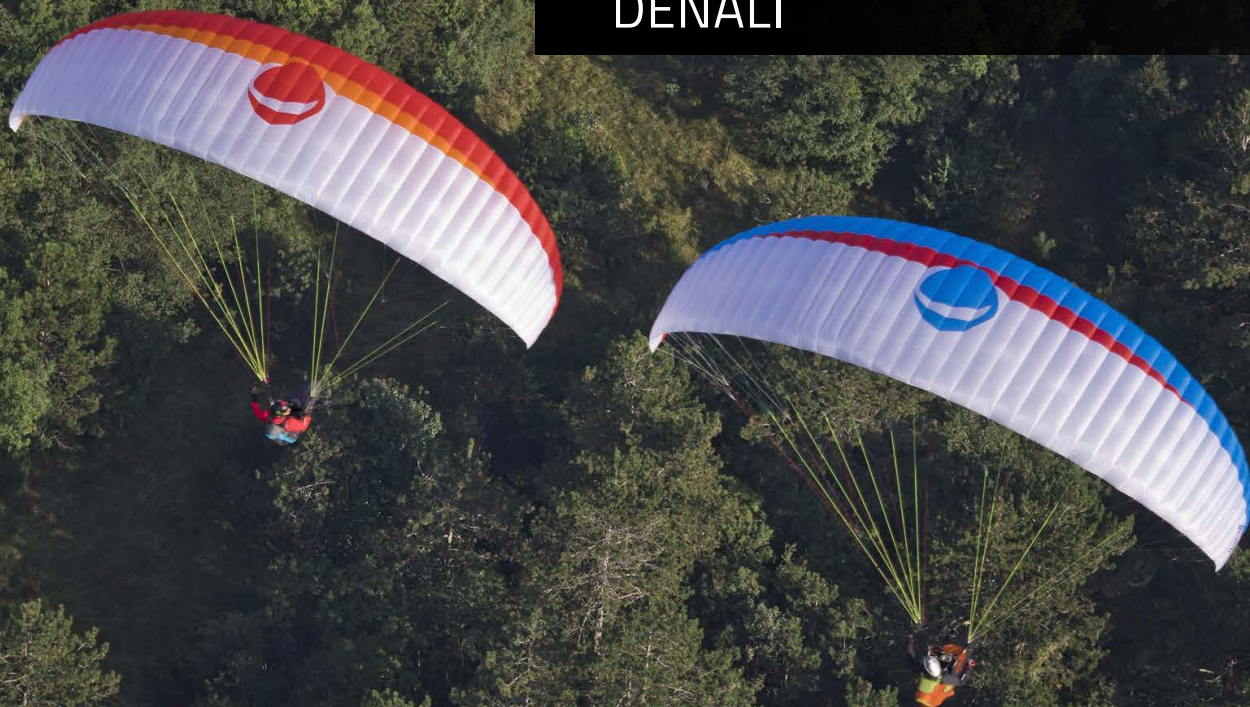
<http://www.gradient.cx>

DENALI TECHNICAL DATA

Manufacturer: GRADIENT - <http://www.gradient.cx/en/Denali>
Mail: gradient@gradient.cx Phone: +420 257 216 319

	24	26	28
SIZE [m ²]	24	26	28
CELLS	40	40	40
FLAT SURFACE AREA [m ²]	23,88	26,77	29,48
PROJECTED SURFACE AREA [m ²]	20,24	22,7	24,99
FLAT WINGSPAN [m]	10,73	11,36	11,92
PROJECTED WINGSPAN [m]	8,62	9,13	9,58
FLAT ASPECT RATIO	4,82	4,82	4,82
PROJECTED ASPECT RATIO	3,67	3,67	3,67
ROOT CHORD [m]	2,74	2,9	3,04
NUMBER/LENGTH OF LINES [m]	275,5	291,8	306,2
ALL UP WEIGHT [kg]	60-80	75-100	90-120
WEIGHT OF THE WING [kg]	3,9	4,2	4,5
CERTIFICATION	A	A	A

DENALI



GRADIENT



EIGER



CURE

The Cure has a flat aspect ratio of 6.75. The wing weighs 4.3 – 5.4kg depending on the size and will be certified in 2016.

BGD

Bruce Goldsmith launched a new category C wing, the Cure. Placed above the Tala, the Cure is a 3 line paraglider, equipped with a "Strong SharkNose", more pronounced than most 'SharkNoses' on the market, according to BGD.

It has mini-ribs not just along the trailing edge, but also on the leading edge, combined with BGD 3D shaping known as 'CCB', allowing a reduction in the number of cells - sixty instead of seventy for some wings in this category, which reduces the weight and the number of lines.

www.flybgd.com



NIRVANA

The Czech paramotor manufacturer announced a small revolution in the story of their successful models. Very soon their machines could be equipped with real 'low swing arm' attachments. Up until now, Nirvana only offered high attachments with supplementary small swing arms.

www.nirvana.cz





Photo: Revillard / Solar Impulse

Solar Impulse 2 at Abu Dhabi

SOLAR IMPULSE



Photo: Jean Revillard/Rezo.ch

Bertrand Piccard
at the controls of
the Solar Impulse



ICARE SHOW

AIR DESIGN



Air Design launched their single skin UFO wing and we'll publish the full test for it next month. Also new this year, the Volt 2 has just been certified in size M. This EN C has a pronounced SharkNose as well as technology called "Vortex Hole", which is also present in the new Pure 2 (EN D). The principle of these openings in the stabilo and in the trailing edge is that they are supposed to reduce the vortex at the wing tip, thus increasing the performance.

VOLT 2 - TECHNICAL DATA

Manufacturer : AIR DESIGN - Web : <http://www.ad-gliders.com>
Mail : info@ad-gliders.com

SIZE [m²]	XS	S	SM	M	L
CELLS	59	59	59	59	59
FLAT SURFACE AREA [m²]	21,20	23,07	24,79	26,39	28,58
PROJECTED SURFACE AREA [m²]	17,95	19,53	21,00	22,35	24,20
FLAT WINGSPAN [m]	11,46	11,96	12,40	12,79	13,31
PROJECTED WINGSPAN [m]	8,93	9,31	9,65	9,96	10,36
FLAT ASPECT RATIO	6,2	6,2	6,2	6,2	6,2
PROJECTED ASPECT RATIO	4,44	4,44	4,44	4,44	4,44
ALL UP WEIGHT [kg]	60-75	70-85	80-95	85-105	100-125
WEIGHT OF THE WING [kg]	5	5,3	5,6	5,9	6,3
CERTIFICATION EN/LTF	Ongoing	Ongoing	Ongoing	C	Ongoing



AIR DESIGN

Another effect according to Stephan Stiegler is to reduce the effort required on the controls, thus partly counteracting the secondary effects of the SharkNose. In addition, when pulling big ears, they flap less.

<http://www.ad-gliders.com/en/>





Photo: Bruno Lavit. <https://www.facebook.com/BrunoLavitPhotographies>

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