

Radio Controlled  
**Soaring Digest**

October 2016

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**Front cover:** Andy Meade's Boeing B-52 flying low along the ridge at the recent PSSA Fly-In at the Bwlch, South Wales, UK. The model is constructed from veneered white foam and is finished in a metallic ProFilm to represent an early NASA experimental scheme. It spans an impressive 108" and has a flying weight of approximately 12 lbs. Fitted with flaps and a working nose release for those aerotowing days away from the slope! Photo by Phil Cooke – Power Scale Soaring Association – more info at <[www.pssaonline.co.uk](http://www.pssaonline.co.uk)>. Canon EOS 7D, ISO 100, 1/1250 sec., f5, 100 mm

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# R/C Soaring Digest

October 2016

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## In the Air

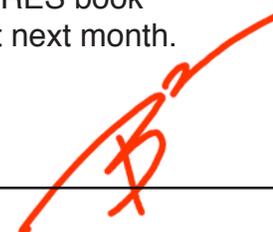
Another photo-filled edition of *RC Soaring Digest*! We very much enjoy setting up these "albums," particularly when the photos provide the reader with a unique perspective, show substantial action, or depict a model or full size aircraft to its advantage. *RCSD* continues to benefit from the remarkable skills of a number of photographers.



Elia Passerini (back cover photo) sent in the above shot of his recently completed Rhönbussard. Luckily, Elia took a multitude of pictures during the construction process and has promised to submit these for a future issue.

Unfortunately, we didn't complete the F3-RES book review in time for this edition. Watch for it next month.

Time to build another sailplane!



# LilAn Omega

# Final notes

Chuck Anderson, [chucka12@outlook.com](mailto:chucka12@outlook.com)



I cannot fly alone and must depend on others to set up a winch and launch my sailplanes. I don't test fly except in smooth air without strong lift or turbulence and have other LilAns to fly, so test flying Omega was slow.

Initial setup and trim has been completed and only a couple of differences from earlier LilAns have been found. The spoilers needed more down elevator mix, and less rudder was needed to produce the desired roll response.

The Omega wing is mounted on a pylon which puts the stab in line with the wing trailing edge. The stab and rudder are the same distance aft of the wing so there is no obvious reasons for the change in spoiler effects and rudder sensitivity from the 10 previous versions.

Adjusting spoiler/elevator mix and rudder throw was all that was required to make Omega fly like LilAn 4, the version I normally fly.

Since I can't travel to distant contests and all the local contests have been discontinued, Omega will join my retired original sailplanes hanging in my shop. I always sell surviving kit models I build, but never original designs. I plan to fly the electric ELilAn most of the time so I won't need a winch for normal fun flying.

I named this version Omega instead of giving it a number because I intended it to be my last winch launched sailplane. Unfortunately, it may be my last sailplane because my 84 year old eyes have trouble seeing sailplanes at altitude. I can design around my other handicaps but not this one.



Winamac

*Out of Sight*

Aerotow 2016

Stéphane Ruelle, [steffruelle@gmail.com](mailto:steffruelle@gmail.com)





*Title page: A view of the pit area, this field is very well equipped, benches, clubhouse....*

This will be the third edition of this event that I have attended, at one of my favorite place to fly. This site does benefit from some great installations: club house, paved runway, hangar, benches...

Miroslaw and Tim organized this event over a four day window this year, and it has been four days of pure joy.

Weather cooperated well. Rain fell during the night and left for the sun to come out with a blue sky every day. Humidity was reasonable, enough to contribute to some great lift during the day.

Attendance this year was good. We received the visit of a couple of eastern boys (Len and Jim), which contributed to the ambiance of the event. Tow duties have been spread as it can be quite a challenge to tow all day long, especially when you are the organizer.

Tow planes have been mainly Bidules 170 and 111 that are remarkable tow planes, Pete G. (MS) also helped with his Aeroworks Carbon Cub (beautiful to see this flying), and Tim filled the gaps with his Ugly Princess, a big trainer converted in a tow plane.

As far as sailplanes, well quite a good attendance as most of the crowd came with two or more sailplanes. Hangars were full in the evening. Benefiting from a hangar is huge for sailplane pilots, but even more for the tow pilots, as the tugs require quite some time to be put

together.

This event has been a real pleasure to attend. Big lift, light lift, no lift, morning flight, evening flight. You could have been sore of soaring after such an event, as lunch and dinner took place at the field. Non stop flying! I am sure that inflight refueling for the pilots would have been possible!

Saturday evening an award ceremony took place with some beautiful trophies that will be a great souvenir from that wonderful event. Five awards have been distributed: Best Sportsmanship goes to Len B. (CT) as the award for the best sailplane for his Paritech DG-1000; Best Towpilot goes to Jim D. (MD), a hardcore towpilot and the owner of High Point Aviation, the flying site that hosts Soar For Fun in Cumberland MD each fall (50th edition this fall); Best Scratch Build Sailplane trophy goes to Mike K. (KY) with his Texaco Eaglet; and longest flight goes to Stéphane R. (MI) with his DG-500.

It is certain that this event deserves even more pilots, so mark down the last weekend of August next year and come join us.

— Stéphane



*Above and below: Dan W. (MI) and his scratch built civilian TG-2. The model flew very well but was the victim of a bad receiver battery. Above right: Len B. (CT) helps with set-up.*





*Mirosław Z. (IL) with his 6m Fox which was very impressive in flight.*



*A 6.3m DG-500  
from CCM a former French  
producer of sailplane kits. Finished and  
maidened this year by Stéphane R. (MI).*



*Michael K. (KY) Franklin Eaglet with Texaco delivery. Winner of the Best Scratch Build Sailplane trophy.*





*Upper left: Stéphane R. (MI) Bidule 111 powered with a DA-100 showing the direction of the tow. Wanna go up?*

*Upper right: Miroslaw Z. (IL) and his YAK-12 powered by a DA-100 AND a turbine! Impressive in flight.*

*Left: Jim D. (MD), one of the finest towpilots, with his Bidule 170.*



*A Vampir by Michael K. (KY). Just look at the transparency of that covering!*



*Tim R. (IN) getting ready to start the turbine on this 40% scale Airworld ASK-21.*



*Len B. (CT) brought this enormous Paritech DG-1000. Looks like it's flying so slowly in the air!*





*Clockwise from upper left: Michael K. (KY) Balestruccio. Mathieu R. (MI) posing with his father's 4.7m Hangar 9 ASW-20; looks like the sailplane is OK after Mathieu flying it. Miroslaw Z. (IL) CZAPLA. What other than a Polish sailplane would a Polish pilot fly? 😊*



*Len B (CT) and Mathieu R. (MI) pose on the winglet of this new Schempp-Hirth Quintus from Radim Horký, one of the finest producers of RC sailplanes.*



*Above: The 6.3m DG-500 built by Stéphane R. (MI) comes in for a landing.*

*Right: Stéphane R. (MI) maneuvering the DG-500 on the ground, providing a sense of scale.*





*Above: Group picture after the award ceremony in the door of the storing hangar.*

*Left: Beautiful trophies aren't they?*



**In the November 2016 RCSD:**

## *The Soaring Scene Newsletter #5*

- Aerotow coverage
- Competition results



- Phil Elvy's 2M electric
- Slope soaring



- Carl McMillan's JW60
- Club competition
- YouTube stuff



# 44th VGC Rally

## Räyskälä, Finland



Räyskälä is a very small village about 100km North-West of Helsinki, with a large airfield with two runways, the 08-26L/R and the 12-30L/R. It was built in 1940 for the Finnish Air Force, but never used during the war. In 1976 it hosted the 15<sup>th</sup> edition of the World Gliding Championship and was host again in 2014. Today it is the National Gliding Center.

This year, from July 25<sup>th</sup> to August 4<sup>th</sup>, Räyskälä hosted the 44<sup>th</sup> Vintage Glider Club Rally, with over 50 pilots coming from 10 European countries, and 27 sailplanes.

Many gliders were from the host country, among them three PIK-5c, three PIK-16c "Vasama," and one PIK-3c "Kajava," all designed by the Finnish Polytecnic Aviation Club, which is similar to the German Akaflieds.

Some other sailplanes like a SZD Bocian, Roehnerle Ka4, Ka6, SZD Foka4, Slingsby Skylark and Bergfalke, came from Germany, Nederland, Czech Republic, England, Denmark and Italy.

The local Club rented to the foreign guests six sailplanes including two SZD Bocian, one Pik 16c Vasama and some modern gliders. Many pilots could also enjoy flying a Pik 5c.

Two parallel runways, operated from the 08-26L/R, one for aero tow with two Pawnee PA25 and one for winch with two cables, meant a very short waiting time. During the Rally 104 aero-tows and 156 winch launches were performed.

The meteorology was good during first part of the rally and variable toward the end.

Very enjoyable was the International evening with food and drink from 10

different European countries. Very successful also was the National evening proposing as the main course a complete 40kg (~90 lbs.) backed pork.

The rally ended on August 4<sup>th</sup> with great satisfaction of participants and organizers.

See you next year at Donaújváros in Hungary for the 45<sup>th</sup> VGC Rally.

— Vincenzo Pedrielli  
<vincenzopedrielli@gmail.com>



*A rebuilt PIK-5c and a PIK-5C in flight*

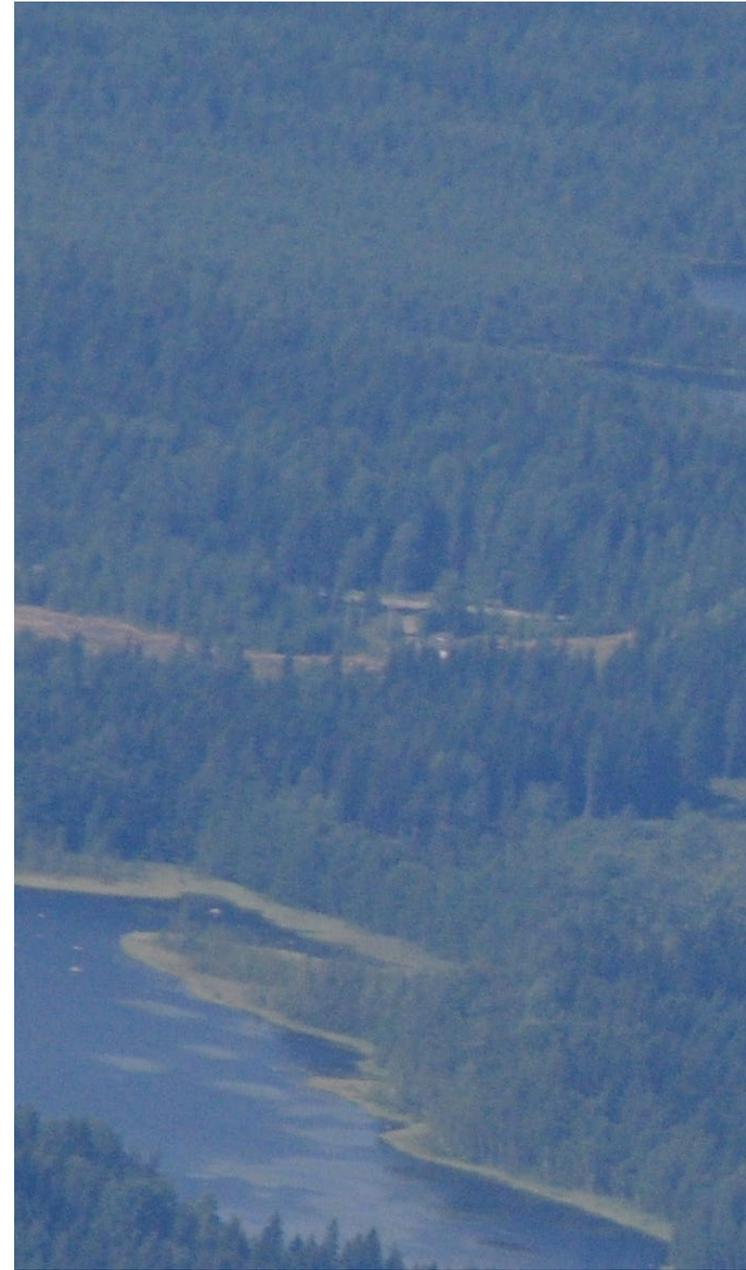




*A rebuilt PIK-5c towed by a Piper Pa 25 "Pawnee"*



*This PIK-5c was built in 1956*



*A PIK-5c in flight*



*PIK-3c "Kajava"*



*The Danish PIK-16c "Vasama"*





*PIK-16c "Vasama"*

*Ka4 "Rhoenlerche"*





*Ka4 "Rhoenlerche" on the winch*



*Schleicher Ka7*



*SZD "Bocian"*



*An SZD "Bocian" in flight*

*A "Bocian" landing, and the two club SZD "Bocian"*





*An SZD "Bocian" in flight*

*Two "Bergfalke 2"*





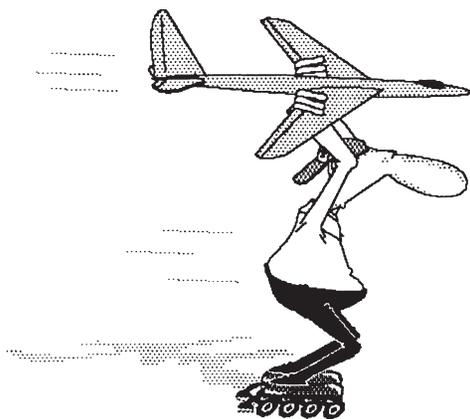
*A Slingsby "Skylark" flying over a local lake*



*Slingsby "Skylark"*



*Slingsby "Skylark" in flight*



## Gordy's travels

# Traveling Upwards with the Altis v4+ ALES/F5J Switch

I've been traveling again, well a little bit, and most of it has been to ALES contests or Unlimited Mixed Launch TD contests as I am working on the E-LSF Task program. (All I need to complete E-LSF4 is the 2km Goal and Return. Which level are YOU working on? 😊)

If you read my first article about ALES switches (Altitude Launch Limit Switches), I brushed lightly on the Altis v4+ by AerobTec and how its got a lot more precision and features than the other two switches available today.

At a glance you can see the high quality standard they chose. While they could have designed their products down to a price, they felt there would be a market for the highest quality... and they are right. The Altis is easily the most popular ALES and F5J switch in the work market today.

The Altis v4+ is specifically approved for use in FAI F5J competitions (that's electric launch sailplanes for those of you who aren't familiar).

After my first article Lukáš Palkovič of AerobTec contacted me urging me to learn more about their devices, and sent me a few pieces to use.

Once I saw their devices up close, saw how tiny they are and in fact easy to use, I got pretty excited about letting you all know more, too.

First thing I wanted to know was how they got started making an RC soaring altitude limiting switch in the first place?

Lukas sent me this short note:

"It all started around 2007:

"Jozef Rodina has been a R/C modeller since his childhood. As a student of



industrial informatics he discussed some new needs to measure the height when the motor turns off with more experienced modellers.

“A basic idea how to deal with it was proposed and and some time after that the very first Altis (v0) was born.

#### “The First ALTIS:

“It needed to shrink in size, customers liked the idea of height logging, the technology improved, so some new versions were created until - some school study duties made him put more development on hold.

“During his work on his PhD., new gained engineering experience and a new partner Lukáš Palkovič - the idea of an altitude limit switch was reborn, that idea seemed to have real market potential which lead to a professional approach toward bringing an actual product to market and the funding of AerobTec in 2011.

#### “The “learning” period:

“After collecting experience from the users, evaluating demands and studying weaknesses of existing products, the Altis v3 was created, though with the old concept that needed a separate USB and display.

“We learned a LOT about what an Altitude shut off switch needed to be to fill the needs of Electric Launch Sailplane competitors and sport users after the Altis v3 was introduced to many experienced users worldwide who evaluated its qualities, mainly the size and advanced user interface.

#### “The “Finished” Altis is born!

“The main breakthrough came with Altis v4 (the v4+ came out a bit later) - it was an all-in-one device - switch and logger with integrated display, USB and telemetry support for a comparable price as previous Altis v3. It spread worldwide, literally hitting the ground... soaring! 🤪



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*Jozef Rodina in the early days of development*

“Since its introduction many European competition organizers decided that all the pilots must have their own display, which was fortunate for us since we were ready to fill that demand.

“Since then other R/C products followed:

“ • Altis micro - as a smaller version of Altis v4 without display

“ • Altis GPS - probably smallest GPS logger with telemetry on the market

“ • Telemetry converter FF and Telemetry converter HS - devices making and interface for brands with telemetries working in a technically different way than the originally supported ones.

“In 2015 Altis v4 got a younger brother Altis v4+ with a newer sensor (less noise) and a white (easier to see outside) display.

“We are modelers at heart and hobbyists but along side E-launch products we are also very also active in similar product development for industry - A crash logger for fork lifts, Hemming roller cleaning devices and others which insure that we can have sailplanes to fly too! (And there are other innovative things we’re cooking in our kitchen!)

“Since our beginning we moved to a larger space and changed the place.

“Our products are designed and made here in Europe (Bratislava, Slovakia).

“The components are from the industrial leaders (for example the barometric sensor BMP280 used in Altis v4+ is the same type as used in Samsung Galaxy S7 Edge and probably many other smartphones).

“The technologically difficult part is done by high tech automated machines, the final assembly and testing is done internally by us.

“We have grown to six people in the company. We have fun and are planning more innovations for the Altis design.

“I would like to urge everyone to visit our website to see how busy we have been innovating and to find out more detail about our products.”

Lukáš Palkovič

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## Northrop Grumman B-21 “Raider,” named September 19 2016





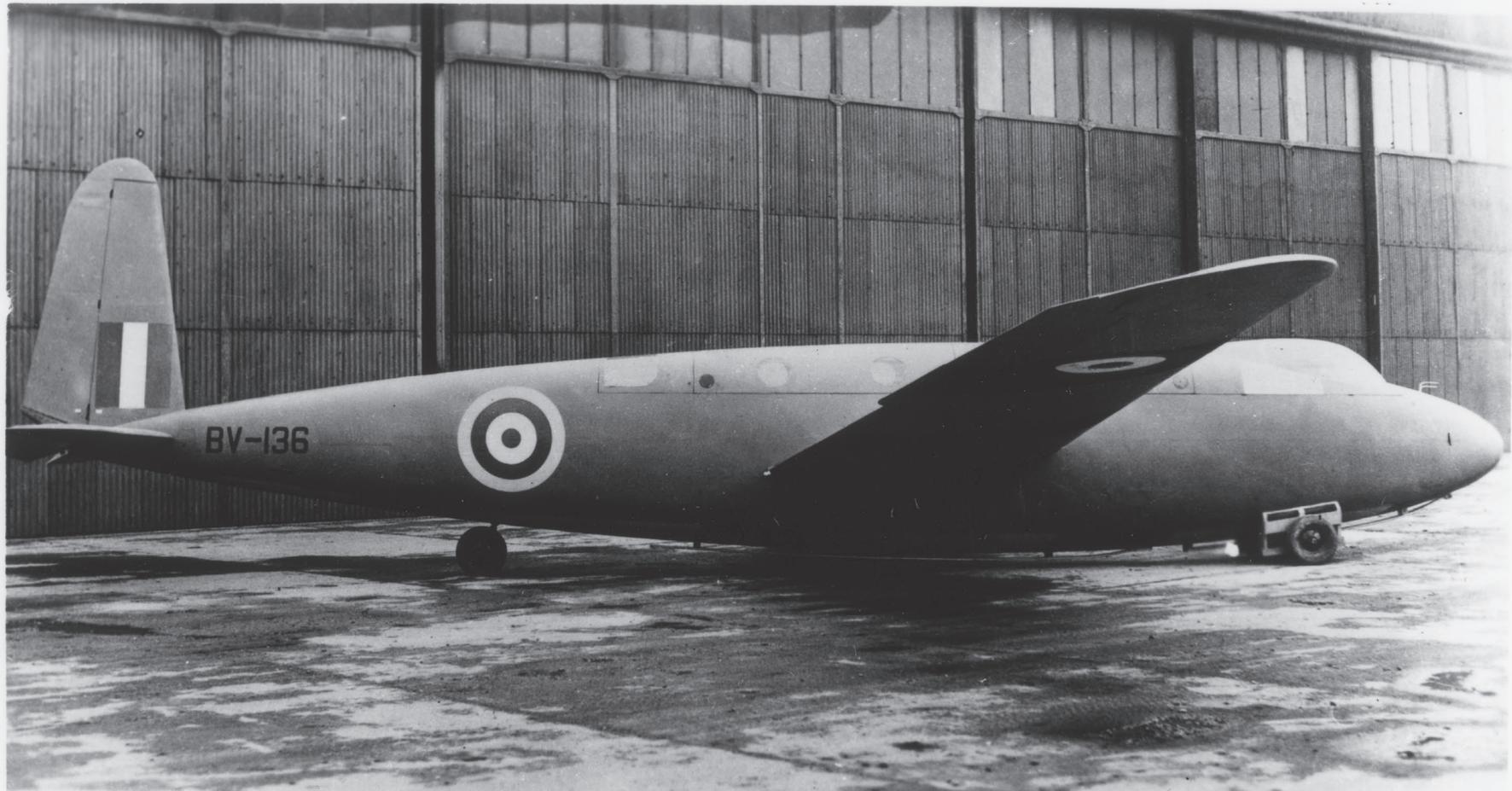


Arne's Libell appears to be a simple build and should be an interesting project for those with a penchant for some experimentation.

An airfoil thick enough to house thin micro servos and a revised fuselage just large enough to house a battery pack and miniature receiver should make for a great small field flyer or light lift sloper.

With the winter building season coming to the northern hemisphere, along with some great slope winds, we're eager to hear from any readers who tackle this project.





## General Aircraft Ltd. GAL48 Hotspur Mk I

Photo courtesy of Mark Nankivil, [nankivil@charter.net](mailto:nankivil@charter.net)

Designed as an assault glider during the early years of World War II, the Hotspur went through three revisions - the slightly smaller Mk II (13.99 m span) and Mk III (Mk II modified with dual controls for pilot training), and the Twin Hotspur which used two Hotspur fuselages and outer wings connected by an additional wing center section. Due to its small capacity - two pilots, eight personnel, it was used mainly as a training vehicle.

### Hotspur Mk I Specifications:

Span	64.9 ft. (19.8 m)
Length	33.1 ft. (10.10 m)
Height	11.8 ft. (3.6 m)
Weight, empty	1,661 lb (753 kg)
Weight, maximum	3,598 lb (1,632 kg)
First flight:	November 5, 1940; 18 produced



## More about the back cover

The back cover photo by Elia Passerini shows a Aviomodelli Vega contrasted against a cloudy sky. (Nikon D300, ISO 200, 1/8000 sec., f11, 70mm)

The Vega was produced by Aviomodelli, located in Cremona Italy, during the 1970s. The firm produced a number of interesting models, both gliders and motor boats, until the 1990s.

The Vega has a wingspan of 2.5m and used the Clark Y at the root and NACA 0009 at the tip. The fuselage is in two ABS parts connected by an aluminum tube. The V-tail uses the NACA 0009. This was a cutting-edge model for the time.

The flying site, Mount Subasio, is located in central Italy only a few kilometers from Perugia and overlooking the city of Assisi. We fly at a height of 1250 meters above sea level.



*Above: Elia shows off the 2.5m span Aviomodelli Vega.*

*Right: Elia launches the Vega from the Mount Subasio slope. The city of Assisi is below.*



