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Front cover: Three Impalas fly past the Sentinel and over Hout Bay, South Africa. Photo by Malcolm Riley. For the story behind this photo and more images from this day on the slope, please see Kevin Farr's article starting on page 4 of this issue.
Canon EOS 350D, ISO 200, 1/4000 sec., f7.1, 75mm

Back cover: Bill and Bunny Kuhlman's R-2, a Dave Jones/ Western Plan Service design, in the air over Camp Korey, the new Seattle Area Soaring Society flying field, during the recent Wood Wings contest. Piloted by Dave Beardsley, the R-2 was the top scoring entry. Dave loves flying the R-2 and is planning to enter it in the Wood Wings event at this year's CVRC Fall Fest in Visalia California.
Konica Minolta 7D, ISO 100, 1/800 sec., f8, 500mm

R/C Soaring Digest

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R/C Soaring Digest (*RCSD*) is a reader-written monthly publication for the R/C sailplane enthusiast and has been published since January 1984. It is dedicated to sharing technical and educational information. All material contributed must be exclusive and original and not infringe upon the copyrights of others. It is the policy of *RCSD* to provide accurate information. Please let us know of any error that significantly affects the meaning of a story. Because we encourage new ideas, the content of each article is the opinion of the author and may not necessarily reflect those of *RCSD*. We encourage anyone who wishes to obtain additional information to contact the author.

RC Soaring Digest is published using Adobe InDesign CS4

In the Air

Every once in a while there is a paucity of material for an issue, and this happens to be the case this month. Most readers must be out flying rather than writing about and photographing their RC soaring experiences for *RCSD*. Hopefully we'll have a plethora of material for the October issue.

FAI has received a Class F (Model Aircraft) World record claim:
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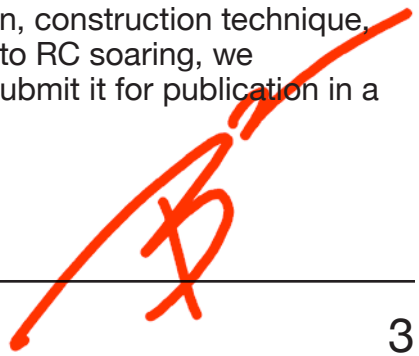
Claim number : 15505
Sub-class :F5 Open (Radio Control Flight)
Category: Aeroplane
Group : Electrical Motor Rechargeable Sources
Type of record : 176: Distance in a closed circuit
Course/location : Selles Saint Denis (France)
Performance : 342.5 km
Pilot : Vincent LABROUVE (France)
Members : Daniel LENTIN (France)
Date :01.07.2009
Current record : 315.50 km (21.06.1998 - Emil HILBER, Switzerland)
==========
The details shown above are provisional. When all the evidence required has been received and checked, the exact figures will be established and the record ratified (if appropriate).

If you have a photo, sailplane design, construction technique, experience, or any material related to RC soaring, we enthusiastically encourage you to submit it for publication in a future issue.

Time to build another sailplane!



FORMATION FLYING

OVER HOUT BAY

Kevin Farr, kevin@fvdv.co.za
Photos by Malcolm Riley

In the beginning...

Damian Hinrichsen and Steve Meusel had a bright idea.

“Lets get a formation team going under the Two Oceans Slope Soarers banner and see how well we can actually do at formation flying on the slope,” they said. Having tried on many occasions to fly formation with ill matched gliders or speed ships, we were tickled by the idea of having three or more similar gliders in the same place at the same time.

As far as we know, to date this has not been tried before on the slope. A suitable craft was chosen, the Impala, known to South Africans as one of our finest close support fighter planes in its day, and a conversion from the Aermacchi MB 326K specifically for South African conditions. The Silver Falcons flew the Impala for many years as a display team with great success.

A local RC glider builder of note, Anton Benning, produces a kit version of this great fighter and Damian was first to dress up the fibre glass fuselage, with foam core veneer wings, loosely basing the colour scheme on the old Silver Falcons display team colours.

The idea was to get the basics right and dress the entire team in the colours changing only the tail-fin and tip tank colours and adding numbers to the tail-fin, in the hope of creating some form of

The pilots, L-R Kevin Farr, Damian Hinrichsen, Steve Meusel. Note how the day-glo colours change in the sunlight... All three are exactly the same colours.

identification for three individuals who would be staring at basically the same glider, wondering who the hell was who!

In the end we were able to get three virtually identical gliders together, sort out the CG and weight in an attempt ensure that the gliders were as identical as possible. Travel on servos, throws and surface movement were also taken into consideration. The end result is that we have indeed three gilders that are docile in nature, with no bad habits to speak of, that are responsive yet stable, and can handle light lift as well as the odd thumping day. Steve Meusel and myself then took to the sky and immediately took on a bout of “bumper cars” as we attempted to find the optimum distance to get the look and feel correct while not taking each other out.

In the first flight alone we had three contacts, but as all the gliders are going in the same direction, there seems to be no damage done at all and the biggest headache is recovering a stalled Impala glider before terra firma leaps up and grabs it. The laughter that follows a contact has to be heard to be believed as nervous pilots giggle with glee while trying to rectify the situation as soon as possible. To date we have had the formation up a good few times and have found the light to moderate lift days the best.

The photographs shown were taken by Malcolm Riley at Chapmans Peak, Hout Bay, South Africa, on Saturday the 1st August in the most beautifully buoyant, smooth and light lift possible.

Malcolm is busy with team plane number 4 and that will add a whole new dimension to the idea, as three gliders are fun... Four might just be insane.

The beating your brain takes, looking at, and managing three gliders at the same time leaves the grey matter in need of rest after a pretty short time.

Quite honestly, the more the merrier, and we have accepted that it will take a very, very long time to get this taped, and develop a routine that could be similar to a real display team, but that is where we are aiming. At the moment we are simply trying to get to more or less the same place at the same time and in the same picture frame!

It’s going to take a lot of practice, practice, practice...

Asiago: la nascita del volo a vela in Italia
The Start of Gliding in Italy

Book Review

Author: Vincenzo Pedrielli
Photography: C.D. Bonomo
3-View Drawings: Carlo Zorzoli
Illustrations: Werner Meyer

This book chronicles the first motorless flight competition to be held in Italy, October, 1924. The contest was formulated by the National Aero League and sponsored by the "La Gazzetta dello Sport" newspaper and attracted a total of 19 gliders from Italy, Germany and Switzerland.

The site chosen for the competition was Mount Sisemol on the Asagio Plateau. Monetary prizes were to be awarded for the competitor reaching the highest altitude, achieving the furthest glide, etc., with predetermined minimums

By researching newspaper accounts of the day and various other resources, the author has succeeded in producing a detailed day by day account of the entire event, from its inception to its conclusion.

The text is in both Italian and English, and is written in a documentary style which easily holds the reader's interest. The photos are reproduced with exceptional quality, and there are 3-view drawings of several of the machines which participated in the competition. Where photos are lacking, the author has enlisted the aid of an artist to produce illustrative line drawings.

The binding is of the typical softcover "perfect" type, and a stiff dustcover is included.

This is an excellent volume for anyone interested in the early history of gliding.

For more information please send an email to vincenzopedrielli@fastwebnet.it

http://www.vincenzopedrielli.it

From the author, Vincenzo Pedrielli

If someone would have predicted that one day I would have written a book, I would have replied: “Impossible!”, because in my school time, Italian literature was not my favourite subject. Today I must admit that the Italian expression: “Never say never” is quite correct and as a matter of fact one day came and I wrote a book. How could that happen?

Sometime ago I happened to see some pictures of the first Italian competition for motorless flight in Asiago in 1924 and those old and primitive machines. The people posing near to them particularly fascinated me and my curiosity further grew once I read an article in an old magazine. The article was describing that competition, the first one of that kind, which was sponsored by the famous sport newspaper called “ La Gazzetta dello Sport”. The location where it took place was Mount Sisemol, on the Asiago plateau and the date was from October 1st till 15th. I think I had all that I needed for starting a detailed investigation.

I went to the public Library in Milano and made copies of all articles published by “La Gazzetta dello Sport” in those two weeks, describing in the finest details all what was happening day by day on the slope of Mount Sisemol. A huge amount of information, much more than I thought! A friend of mine, when he saw the result of my investigation, made a comment: “Wow, you collected enough material to write a book…!” Believe it or not, it was when I decided to write my book and I gave it the title: “Asiago, the Start of Gliding in Italy”.

I collected additional photos of that event and I added some drawings illustrating some peculiar circumstances happening during the meeting and finally, I included the three view drawings of the sailplanes, which took part in the competition.
My good friend Patrizia Treves of the Studio Grafico A&P assembled all my material with great graphic skill and expertise and ended up producing a small masterpiece.

using old Thermal Sailplanes on the slope

Pete Carr WW3O
wb3bqo@yahoo.com

With photos by Rich Skellen

Compared to places like Torrey Pines, Point of the Mountain or Cumberland, Maryland the hills around Northwest Pennsylvania are really small. Like many of you, I've watched Paul Naton's excellent Radio Carbon Art videos of slope events and read the many fine articles by Dave Garwood. Dave and Paul both mention flying sessions at less than ideal hills. This had inspired me to try out some of the local slopes to see if they would work.

One of the local industries is surface coal mining. Once the coal is removed the mining company is required to reclaim the land to prevent mine drainage and erosion. The hills are graded and then planted with grasses and some small trees. The grass holds the soil in place while the trees reduce wind erosion. The result is a series of slopes that are gentle but tall. Some of these slopes are bowl shaped so that slope lift is strong but concentrated in a relatively small area.

For several years I've flown Skeeters, OLY IIs and Zagis on these slopes. In 7-10 MPH winds they stay up really well. And, being lightly loaded, if the wind dies, an OLY II will hang in there remarkably well. The downside is, it's sort of boring to just fly figure-8 patterns until your thumbs get tired.

An old flying buddy, Rich Skellen and I had been flying thermal duration at the local school. I mentioned flying off the slope and he wanted to try it out. We took the OLY II, the Zagi and the Skeeter out to the hill and spent some quality time in the lift. While enjoying the sun and the air Rich asked about the difference between thermal and slope ships. This got me to thinking about the true difference between the two. Basically, it came down to size and weight. Many slope ships are smaller than 2-meter span and have wing loading over 20 ounces per square foot. By contrast, thermal ships are flown further away, so are larger and easier to see. Wing loading is much lower as well.

Launching is just a matter of giving it a gentle push. Once past the small trees the Jade found smooth air and fine flying.

A Whyte Wings Jade with the extended wing tips. Wing loading is about 13 ounces per square foot with veneer-over-white-foam construction.

There are a few hardy souls who will fly their thousand dollar thermal ships off the slope. I'd watched their flights on Paul Natons' DVDs and was amazed at the performance and also some of the less perfect landings. Still, it planted the seed in my head and the discussion with Rich put it in motion.

I chose a Whyte Wings Jade that had been in my hanger for several years. The ship had flaps and ailerons which were a very larger percentage of the wing area so it steered well. The wing loading is higher than many of todays' thermal ships and its 110 inch span is small by current standards. Like many pilots, I take ships like this out about once a year for a little thermal exercise and then they reside in the shop the rest of the time. The control throws had been set up for thermal flying so the large control surfaces did not need to deflect very much. Since I had to increase the rudder throw on the Skeeter and the OLY II for the slope I figured the same would be true for the Jade. In practice only the ailerons needed extra authority.

Rich and I met at the slope on a 20+ MPH windy day for some flying fun. The sun was high and the air warm so there were some excellent thermals being generated from the valley below. These bubbles caused the lift to stop occasionally as they came up the hill while at other times they sucked the ships up to vision limits. The rest of the time the wind made it easy to explore the lift band. The Zagi easily handled the choppy lift but it was obvious that the Skeeter had better stay in the van.

After several flights it was time to try out the Jade. I had expected to get bounced around quite a bit with the Jade due to its upturned wing tips and moderate loading. Not so! The rudder and ailerons were left coupled together on the first flight but I found that I didn't need the rudder. I also increased the aileron throw on each successive flight just to see what would happen. Elevator and flap compensation remained unchanged. Also, trims on the transmitter were unchanged from their previous thermal settings.

Compared to the OLY II and Zagi, the Jade flew through the choppy lift like

it was on rails. It appears that, on smaller slopes, the chop is of smaller size. Ships with spans about 2-meters really get bounced around. Ships with longer spans will have larger sections of the wing still lifting in the chop. The result was less need to play the ailerons constantly. I was also pleased with the air speed of the Jade. It easily handled the wind and had no trouble penetrating out over the valley. I also found that its stability inspired confidence to range out along the hill.

As you know, slope launches can be a challenge in the wind. Slope landings, on the other hand, have spelled the end for many a good slope ship. The hill on which were were flying had a row of Pines just over the crest and widely spaced trees of 2 to 3 feet in height scattered along the slope. The grass was knee-high with no large rocks. I'd had trouble in the past with rudder/elevator ships handling the turbulence of the Pines and dodging the smaller trees so had developed a landing plan. Basically, it meant flying cross-slope in front of the Pines, then turning away from the hill with the flaps down. The airspeed drop combined with the wind speed gave a ground speed near zero. I could then play the elevator and set the ship down safely.

This is exactly what happened. Rich and I spent the afternoon airing out the Jade and discovering a whole new use for it. Instead of just doing figure-8 passes we could range out over the valley and fly extended missions up and down the slope face. Hot thermal lift would pull the Jade high and behind the hill where it would turn into just another thermal flight. There were occasional loops and slow (very slow) rolls and some pattern flying with the crows. The extra control of the ailerons also made landings easy instead of the heart-in-mouth venture it usually is.

You know that you've had a good flying session when, days later, you still think of a particular moment in the lift when the aircraft and your fingers were as one. That vision of the dark shape of the Jade against the deep blue sky will stay a long time in my mind. And, of course, bringing everything home with no damage is the icing on the cake.

The Jade down from altitude and ready to turn back toward the landing zone.

The ALBATROS takes flight

Sanders watches as Dave operates the winch and Bill prepares to launch.

During the lunch break at a recent Seattle Area Soaring Society contest, Sanders Chai brought out the EMS Albatros which he recently acquired.

The Albatros was put out by EMS over a decade ago and the molds have been transferred to at least one other firm since then. A derivative of the Albatros, the Albatros II is currently available from PariTech GmbH <http://www.paritech.de/modellbau/albatros2.php>.

The Albatros is a large model with a four meter span and a weight of around ten pounds. It has a semi-scale appearance.

The fuselage is of fiberglass and epoxy and is quite cavernous. There is a vertical plywood keel which conforms to the inside of the removable nose cone.

The airfoil is an HQ with 2.5% camber and substantial aft loading. The stabilizer is of the full-flying type.

Sanders' Albatros has the full span ailerons separated into outboard ailerons

The Albatros rotated quickly and climbed steeply.

and inboard flaps. It is also equipped with large Multiplex spoilers.

Outfitted with an aerotow release as well as a conventional tow hook, this 'ship is ready for just about anything.

We managed two flights off the SASS club winch. As Bill Kuhlman had experience winch launching XC machines, he was drafted into the role of thrower. Dave Beardsley has a lot of stick time on large scale sailplanes and was the designated pilot. Steve Allmaras, SASS club president, served as photographer.

As you can see in the photos, the Albatros climbed out steeply and was truly magnificent in the air. The only snag in an otherwise perfect pair of flights was an inoperable right spoiler - only the left spoiler activated. Upon later investigation, it turned out that the right servo retract travel was excessive and had jammed the mechanism, preventing it from deploying.

The Albatros would be great for cross-country or sport flying, but because of its relatively high flying speed, it probably would not do well in our thermal duration contests.

The spoiler problem has now been fixed and Sanders is looking forward to flying the Albatros at various aerotow events here in the Northwest.