

Radio Controlled Soaring Digest

January 2016

Vol. 33, No. 1



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Front cover: Here's a view of our local slope site, a bluff in Victor Harbor South Australia, from the wing of my Estrella using a Mobius Action camera. - Adam Fisher

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Back cover: Photo by Dave Nutt at the Blue Sky Over Arizona DLG contest in mid-November. "After the competition on Saturday I laid out my hi-start and got a few flights in before the great dinner. It was one of those few times I have been flying and taking a picture at the same time."
Sony DSC-T99, ISO 80, 1/400 sec., f4.5

R/C Soaring Digest

January 2016

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In the Air

In mid-December the FAA released its plan for registering "drones" in the United States. This plan was the result the FAA taking into consideration input from a commission established in November, of which the Academy of Model Aeronautics (AMA) was a member. Since that announcement, the AMA has sent out a number of blog and email messages to members explaining this new regulation and recommending a course of action. Two of these messages are reproduced in this editorial.

AMA and the FAA Registration Process

<<http://amablog.modelaircraft.org/amagov/2015/12/14/ama-and-the-faa-registration-process/>>

Monday, December 14, 2015

Today the FAA announced plans for a model aircraft registration process to begin next week. AMA was a member of the task force that helped develop recommendations for this registration rule and argued throughout the process that registration makes sense at some level but only for those operating outside the guidance of a community-based organization or flying for commercial purposes.

Unfortunately, the new FAA registration rule does not include our advice. The rule is counter to Congress's intent in the Special Rule for Model Aircraft and makes the registration process an unnecessary burden for all of our members who have been operating safely for decades.

While we are disappointed with the new registration rule and still maintain that AMA members should be exempt from registration, the rule is being implemented over AMA objections. Therefore, we want to provide you with important information about the

registration rule and how AMA members can comply with the new federal requirements:

- All aircraft that are flown using a ground control system, such as a transmitter, are required to participate. This includes fixed-wing aircraft, not just multirotors or drones.
- Any pilot flying models weighing between .55 pounds (or 250 grams) and 55 lbs is required to register.
- You will not be required to register every aircraft individually. You only need to register yourself and can affix one registration number to all your aircraft.
- You must mark all aircraft with your registration number. The number can be inside the aircraft, such as a battery hatch – but should not require tools to access.
- The FAA plans to launch the online registration website on Monday, December 21.
- There is a \$5 fee to register, which is waived if you register within the first 30 days.
- You only need to register once every 3 years. We are still working out the logistics for this process.

Some details are still being discussed, including:

- We are seriously discussing with the FAA a system where your AMA number could be used as your federal registration number as well. At this point, this is only a proposal and details are not yet finalized.
- At this time, AMA members will not automatically be registered when the registration website launches next week. However, we are in conversations with the FAA about the best way to streamline the registration process for AMA members going forward. **TO BE CLEAR WE ARE NOT ACTIVELY SHARING OUR MEMBER DATA WITH THE FEDERAL GOVERNMENT.**

This is an ongoing process and we will continue to provide updates on the registration rule. Stay tuned to

modelaircraft.org/gov, social media and your email for the latest news on the registration process.

Thank you, AMA Government Relations and Advocacy Team

Hold Off on Registering Model Aircraft

<<http://amablog.modelaircraft.org/amagov/2015/12/17/hold-off-on-registering-model-aircraft/#comment-4303>>

Saturday, December 19, 2015

Dear AMA Members,

Yesterday, the AMA Executive Council unanimously approved an action plan to relieve and further protect our members from unnecessary and burdensome regulations. This plan addresses the recently announced interim rule requiring federal registration of all model aircraft and unmanned aircraft systems (UAS) weighing between 0.55 and 55 pounds.

AMA has long used a similar registration system with our members, which we pointed out during the task force deliberations and in private conversations with the FAA. As you are aware, AMA's safety program instructs all members to place his or her AMA number or name and address on or within their model aircraft, effectively accomplishing the safety and accountability objectives of the interim rule. AMA has also argued that the new registration rule runs counter to Congress' intent in Section 336 of the FAA Modernization and Reform Act of 2012, otherwise known as the "Special Rule for Model Aircraft."

The Council is considering all legal and political remedies to address this issue. We believe that resolution to the unnecessary federal registration rule for our members rests with AMA's petition before the U.S. Court of Appeals for the District of Columbia. This petition, filed in August 2014, asks the court to review the FAA's interpretation of the "Special Rule for Model Aircraft." The central issue is whether the FAA has the authority to expand the definition of aircraft to include model aircraft; thus, allowing the agency to establish new standards and operating criteria to which model aircraft operators have never

been subject to in the past.

In promulgating its interim rule for registration earlier this week, the FAA repeatedly stated that model aircraft are aircraft, despite the fact that litigation is pending on this very question. The Council believes the FAA's reliance on its interpretation of Section 336 for legal authority to compel our members to register warrants the Court's immediate attention to AMA's petition.

While we continue to believe that registration makes sense at some threshold and for flyers operating outside of a community-based organization or flying for commercial purposes, we also strongly believe our members are not the problem and should not have to bear the burden of additional regulations. Safety has been the cornerstone of our organization for 80 years and AMA's members strive to be a part of the solution.

As we proceed with this process, we suggest AMA members hold off on registering their model aircraft with the FAA until advised by the AMA or until February 19, the FAA's legal deadline for registering existing model aircraft.

Holding off on registration will allow AMA time to fully consider all possible options. On a parallel track, it also allows AMA to complete ongoing conversations with the FAA about how best to streamline the registration process for our members.

In the near future, we will also be asking our members to make their voices heard by submitting comments to the FAA's interim rule on registration. We will follow-up soon with more detailed information on how to do this. Thank you for your continued support of AMA. We will provide you with more updates as they become available.

Kind regards, The AMA Executive Council

Time to build another sailplane!



Hacker Model

Vagabond XL



Pierre Rondel, pierre.rondel@gmail.com

Introduction

One year after releasing the successful VTPR EPP glider Vagabond, Hacker Model decided to create a revisited and larger version with a wingspan of two meters. When I first saw the specs, I asked myself, “Will this version still be a VTPR plane (Voltige très près du relief/ aerobatic maneuvers very near the ground)?

What is the benefit of a larger wingspan?

This is what I propose to discover in this review.

What is different? Bigger is better?

Apart the wingspan, the length of the fuselage is the same. Comparing the fuselage shape side by side, the XL version has a bigger lateral area, a bigger fin and rudder.

The elevator servo that was located at the front is moved to the rear boom, close to the tails. This is a bit of a deception, because first specs and pictures were displaying a pulley. I don't know why this has been abandoned to be replaced by a more conventional control command. The wing features the same airfoil, with the wing tip extended to 2m. Ailerons are nearly 50% of the chord at the tip end!

Finally, the Vagabond XL only exists in covered version, unlike its little brother.



The kit card box



The fuselage with the radio compartment already done

Kit Overview

As expected with Hacker Model, the top quality is here and the kit is complete!

First, the wings are almost finished, covered with laminate film, just needing the servos, control horn and linkage installation.

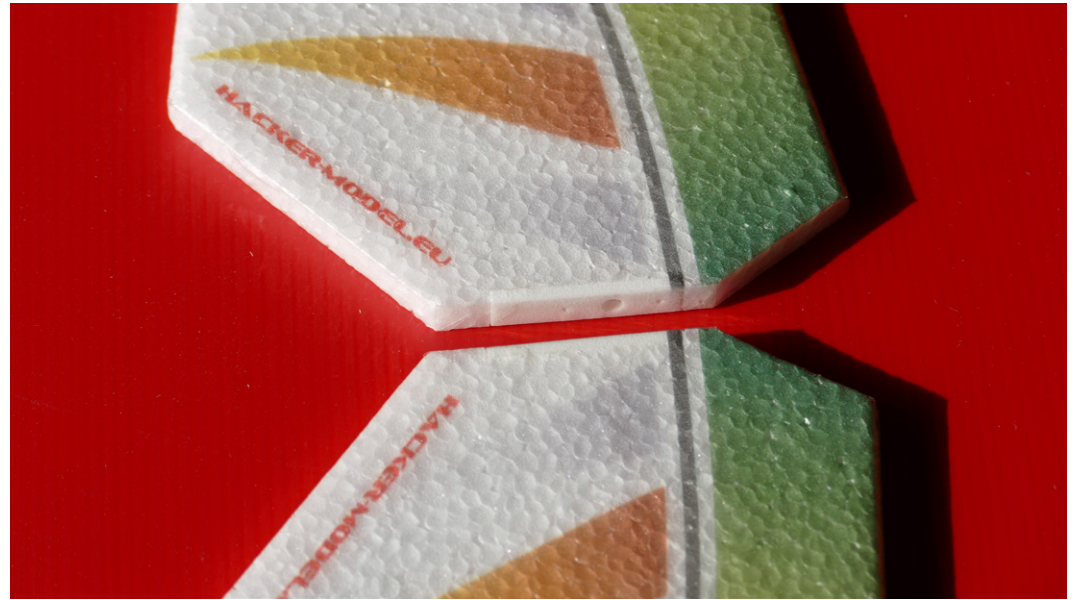
The fuselage arrives uncovered and needs some work: insert the carbon rods for the stiffness, the sleeves for the rudder and elevator control rods, the servos tray, the root section in the middle of the fuselage, the fin and the tails. It now has a tunnel in the boom for the elevator servo wire to reach the front servo tray where will be located the receiver.

The tail re-uses the same principle, is still not removable, with some minor difference on the control horn. Overall, apart the elevator servo, the rest is the same, and the assembly is similar, but why change a well thought design?

A quick assembly ...

The assembly is very similar to the Vagabond. Given that the fuselage needs more work, I started with it, by inserting and gluing in place some carbon rods to stiffen the boom. The fuselage must stay straight during this operation.

The root rib is positioned carefully at the exact center of the fuselage line before being glued with cyano.



The two tail halves covered with laminate film



The laser cut root rib already in place on the wing

There is an additional plywood part on top of the rib that provides guiding to the locking inverted U part.

The servo tray is then glued in place. I used an old 15mm metal gear servo for the rudder. I also glued additional small pieces of wood around the receiver to immobilize it well. I did a small support for the on/off switch.

On the tail, this time, I have been lazy and just glued the two halves together without making it removable. It is carefully glued together on a perfectly flat table with the center part, the control horn in place.

Once finished, the tail is fixed on the fuselage with cyano, then the fin.

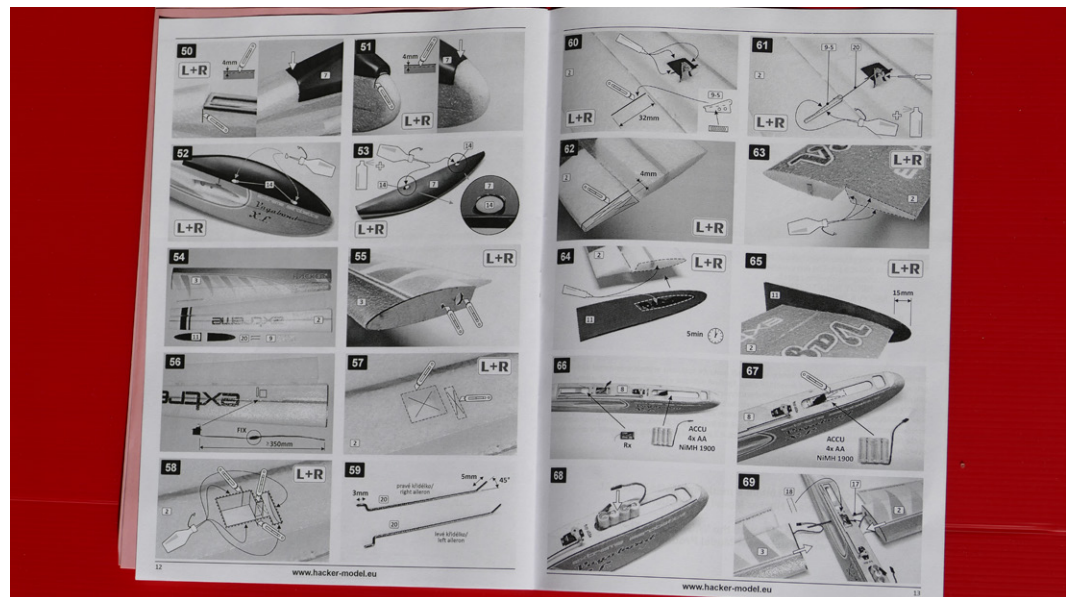
The elevator servo is a digital 9gr and metal gear in order to provide speed and accuracy. The control rod is made from a piano wire. I glued the servo in place with cyano. The elevator servo mounting would have been better secured I think with a small servo tray.

Let's switch to the wings. This time, given the control surface area, I used strong 15mm servos, metal gear, even if they are not completely inserted in the wing thickness.

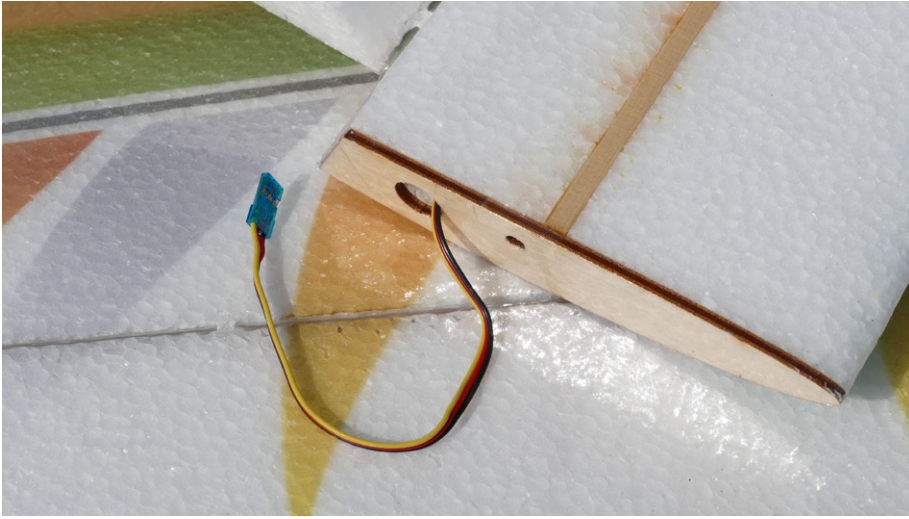
As I still had some big and robust servo arms, I didn't need to use the one provided in the kit.



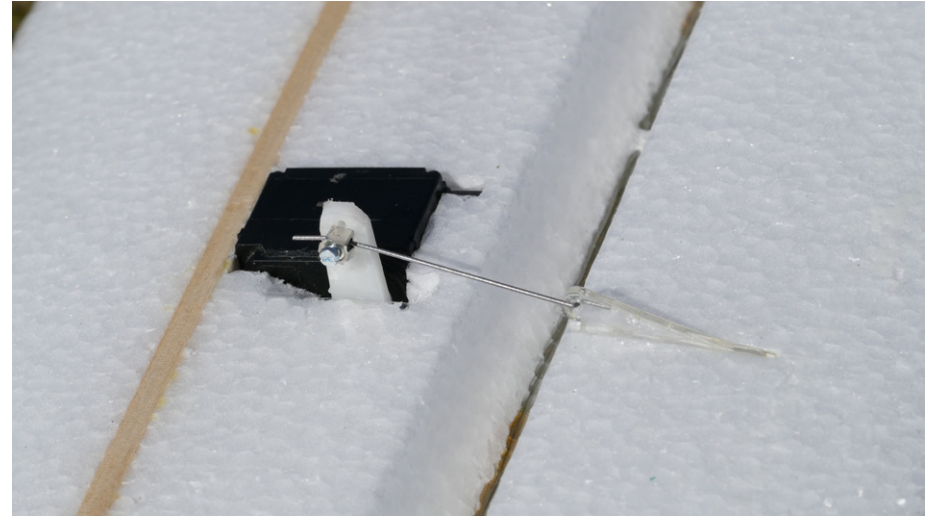
The accessories includes everything including a pair of winglets



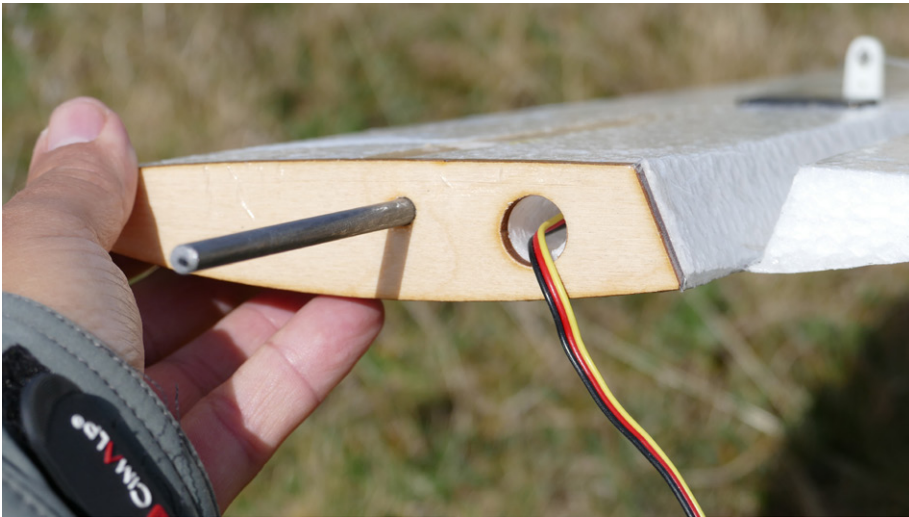
The assembly instructions with mainly pictures and drawings, but self-explaining enough



The root rib, with the spar, and the servo wire extension to reach the receiver



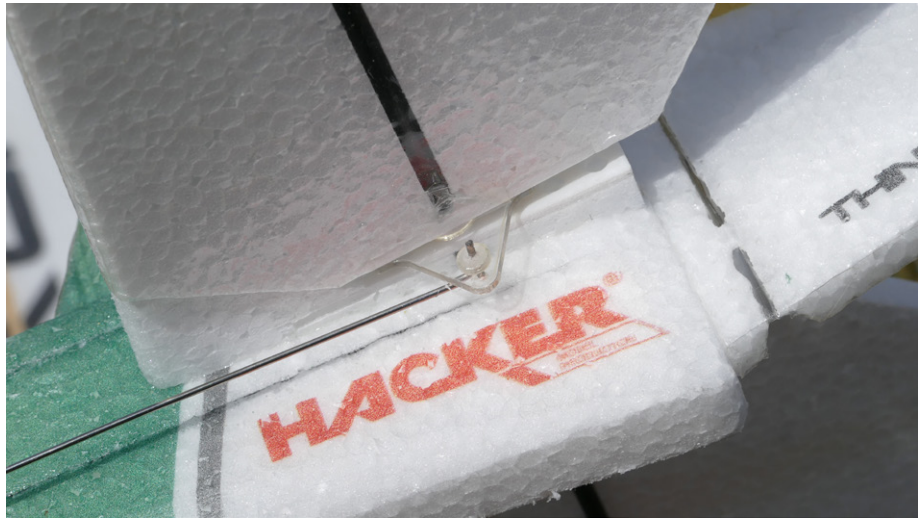
The aileron servo is a big 15 mm with plenty of torque for the large aileron



The root chord of the wing with the rib in place, wire tunnel done.



The elevator servo...



...and the elevator control horn



Close picture on the rudder control horn and rod end



The center fuselage rib, and the small plywood part provide guidance to the lock system



The rear part of the servo tray provides good access to catch the aileron servo wire when assembling the plane on the slope

At the opposite of the Vagabond, the XL accommodates itself very well with a 4-cell 2000mAh Eneloop battery which will give you plenty of flying time!

Final weight is at 830 grs, which is a bit above the indicated weight, but still light for this plane.

Flying the Vagabond XL

End of the summer and fall has been pretty nice for flying in the French Alps so I could fly it often, and compare it with the standard version of the Vagabond.

To be honest, I was a bit skeptical about the larger wingspan combined with the same fuselage length.

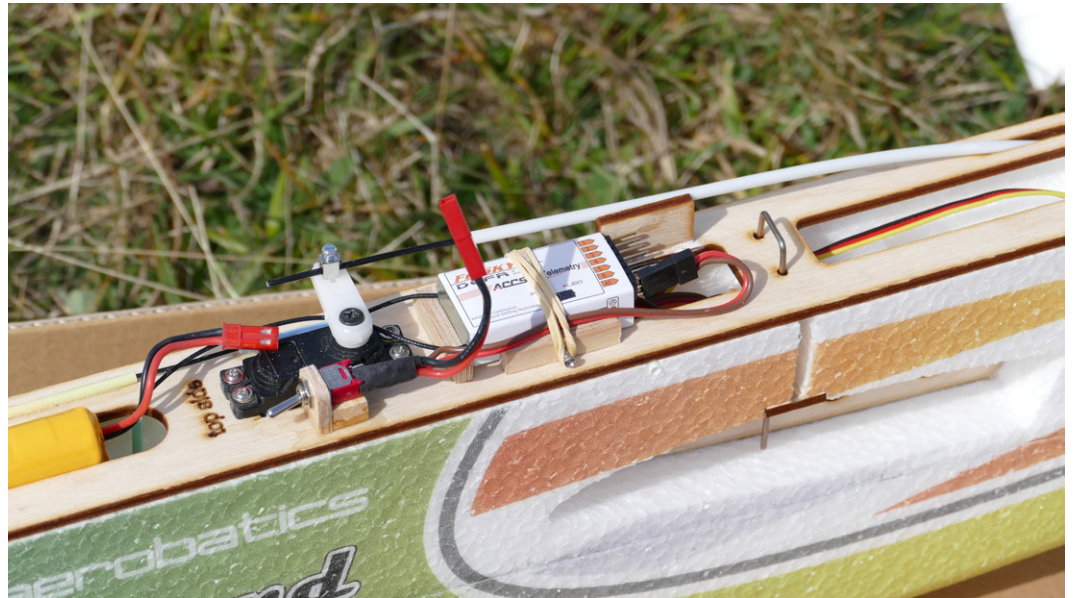
From the very first minutes my doubts have flown away.

The Vagabond XL is still very agile, but needs a little bit higher speed to perform like the small version. This is normal.

In light conditions, the Vagabond XL shows better capabilities than his smaller brother, but compared to the SKG Swift from the same manufacturer, we can say that it is still not a marginal-lift flyer.

It performs best in vertical lift and light to medium breeze when it can chain all manoeuvres easily, carve along the slope edge, and fly inverted for ages.

Wings are not bending thanks to the spar.



The rudder servos, an old but bit 15mm servo



The Vagabond standard version (front) and Vagabond XL (rear)



The Vagabond XL (front) and Vagabond standard version (rear)

Vertical manoeuvres have a bit more amplitude. Knife edge flight is better and easier thanks to the larger lateral area of the fuselage. The flip manoeuvre is still not possible, the tail movement being limited by the servo maximum rotation.

Overall, I would say the Vagabond XL has a larger flying envelope than the standard version, but at the opposite is a bit less VTPR or, in other words, “in-your-face” flying. This said, finally, I prefer the XL version over the standard Vagabond.

Again, better than 1000 words, here are two videos filmed this autumn that will give you a good and unbiased idea of its flying capabilities:

https://www.youtube.com/watch?v=w3iaV5x0_I

<https://www.youtube.com/watch?v=pPLDJRYaB-o>

In conclusion

Finally, Hacker didn't replace the Vagabond, but added a new plane to its product range, with little differences in terms of flying performance.

The kit quality is without any surprises. I only regret that the tail is not removable and that there is no pulley.

Now it remains that this Vagabond XL is still very addictive and delivers tons of fun and pleasure. I often like to land my F3F competition planes to fly the Vagabond and “relax.”

Characteristics:

Wingspan	2010mm
Length	990mm
Weight	830gr
Manufacturer	Hacker Model
Price	from 150 euros

My Settings:

CG	100mm (92 to 100mm)
Ailerons	40 mm up, 30 mm down
Rudder	+ / - 60 mm
Elevator	+ / - 70 mm
	(Exponential mandatory)

Flying photos on the following pages.

















*The Hacker Model Vagabond XL flies in formation with a Hacker Model Swift S-1.
The Hacker Model Swift S-1 will be reviewed in the February 2016 issue of RCSD!*



Chris Williams photo, Chris Garrod's mighty electric ASH 25 Mi. Canon EOS 70D, ISO 160, 1/1600 sec., f5.0, 182mm



2015 Highveld Thermal League Review



Jan Sime, jansime@rpmtv.co.za, with photographs by Helena Olwage, Eloff Mare and Derek Marusich

29 November 2015 - Heidelberg, South Africa
The last contest of the current Thermal League competitions...



As every year this was held at Heidelberg on a grassy field overlooking the N3 and the railroad to KwaZulu-Natal.



As is all too common these days, entries were limited and only 8 pilots arrived on a warm but blustery day. To allay the moans and groans about old, out-dated aeroplanes Mark Shepherd arrived with a Hobbie Hawk and was eventually only side-lined by a recalcitrant control linkage.



The Hobie Hawk lives to fly another day.



Flying commenced shortly after 09h00 and six rounds were flown.
Here Alan Smith's Supra is about to commit to flight.



As is traditional for this last competition of the year the scoring system employs a saw-tooth approach. If you land on or close

to an even minute you get a much higher score than landing close to an uneven minute.



So, deciding to land at eight, or even six minutes is better than landing close to nine minutes if you cannot get to the ideal time of ten minutes.



Also for every meter you land from the ideal designated spot you lose landing points. From this it is clear that it is very

difficult to attain the perfect score of 1000 points per round. (800 for flight time and 200 landing points.)



After six rounds, with the worst round being discarded, the scores were as follows:

Ian Sime - Supra - 4929 points



Paul Carnall - Maxa - 4398 points



Gordon Browne - Xplorer - 4309 points



Alan Smith - Supra - 4253 points



The top ten total scores for HTL 2015 are::

1. Ian Sime	18 409
2. Gordon Browne	13 268

3. Deo van der Spuy	12 850
4. Jan Sime	10 645



5. Jason Weber 9 997
6. Alan Smith 9 253
7. Herman Weber 8 984

8. Robert Ledbitter 8 695
9. Juanita Smith 7 414
10. Wolfgang Steffny 6 763



TOM'S iPS

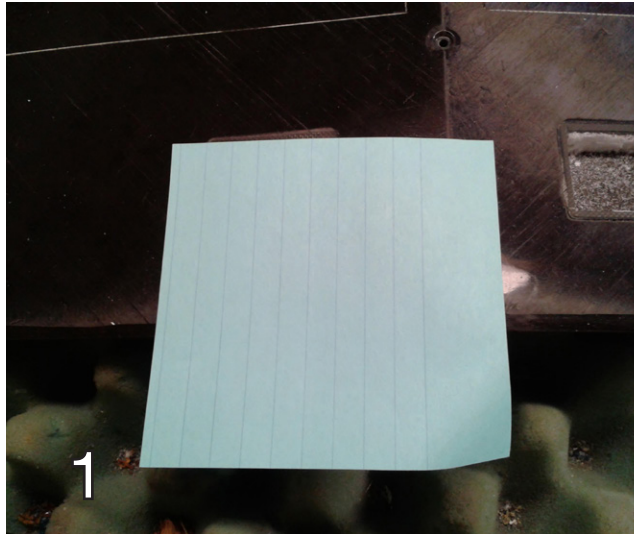
A quick way to get servo plug holes aligned

Tom Broeski, T&G Innovations LLC, tom@adesigner.com

Quick way to get your servo plug hole in the fuselage aligned with the servo plug hole in the center panel of the wing.

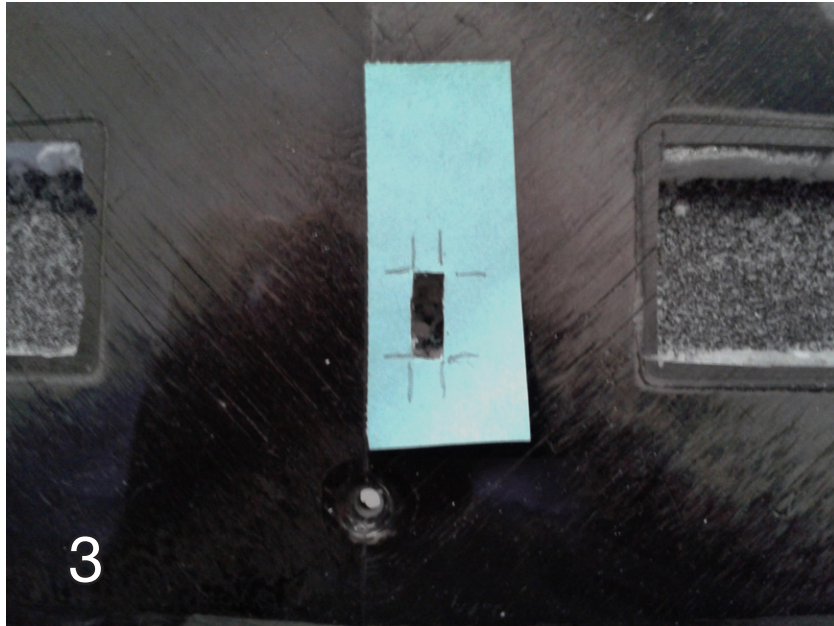
I can usually measure pretty accurately, but I was dream building again (seem to do it every night) and came up with this.....

(1) Take a Post-It-Note



(2) or a piece of paper with a very light tack glue or repositionable adhesive.





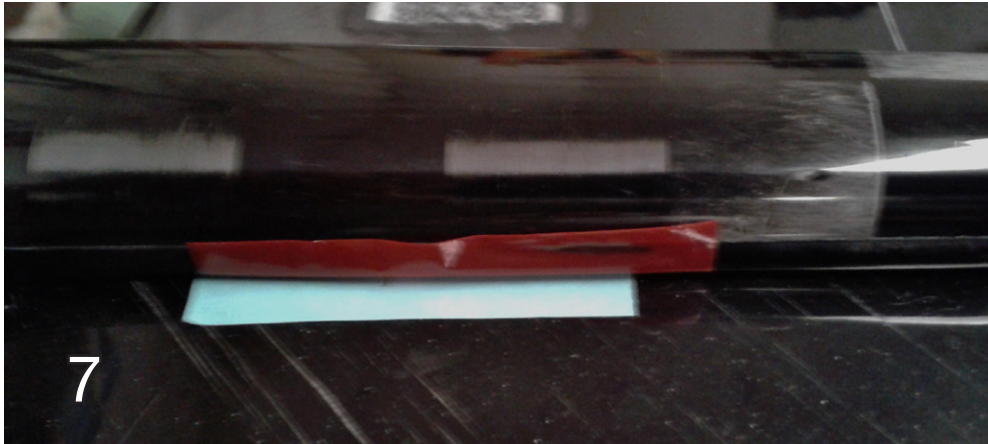
(3) Stick it where you want to cut your hole. Measure and cut. In this case it is a Stream NXT wing.

(4) Take a piece of double stick tape — I used some red so you can see it — and put it on the fuse or other part you want to transfer the hole to.

(5) Peel backing off. I left a bit extra over the side.

(6) Put your bolts (or dowels or whatever) in the wing so you can get the alignment right before pressing the wing all the way down.





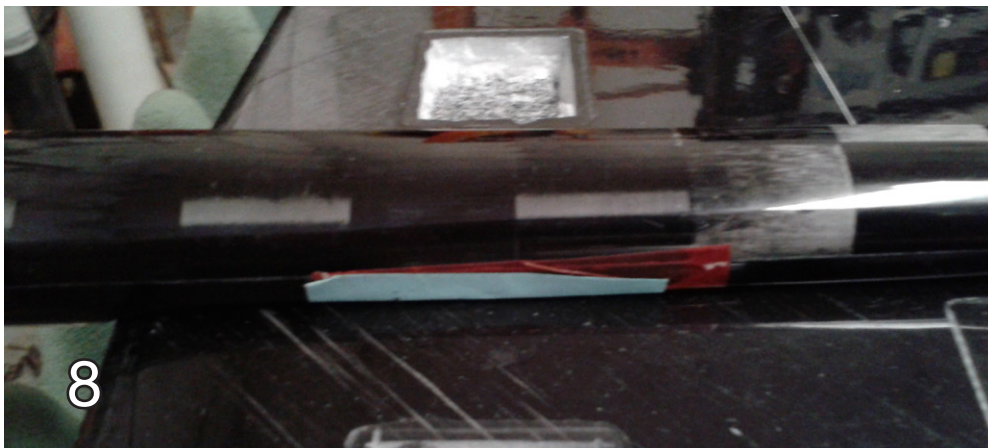
(7) Press the fuselage onto the wing

(8) and fold over the Post-It-Note onto the double stick tape to make sure it comes off easily.

(9) Remove the wing and... Voila! A perfect transfer of the hole.

(10) Cut it out, wire it up and...

(11) put your plug in. If you are accurate in your cutting, it will align just right.





43d Vintage Glider Club Rally

Terlet, Netherlands

27th July - 6th August 2015

Vincenzo Pedrielli, vincenzopedrielli@gmail.com



The 43rd Vintage Glider Club Rally was held in Terlet, a few kilometers from Arnhem in the Netherlands and about a hundred kilometers from Amsterdam, from 27th July to 6th August 2015, organized by the Vintage Glider Club, together with the local club Historische Vereniging Zweefvliegtuigen.

The event took place at the airport in Terlet, a small fraction of Arnhem, operated by the National Trust.

Seventy-six gliders were present, representing 12 different nations, with about a hundred pilots and flight attendants.

For the first time in the history of the VGC rallies, three Italian gliders participated: a Morelli M-100, a Bergfalke and KA6, plus eight between pilots and flight attendants, including myself.

The host club has deployed a team in of forty people, all belonging to the Historische Vereniging Zweefvliegtuigen, to support all phases of the event.

Two flight lines with winch and three lines with tow planes (two

Piper Cubs and one Husky), were put on place, allowing takeoffs with minimum waiting time.

The weather conditions were not so good in the first four days, so all gliders were relegated in their carts. In this regard, the organization suggested sightseeing within fifty kilometers from the airfield.

Then finally, on the fifth day, the sun appeared, so everyone was busy to mount his sailplane and to start immediately flight activity.

The good weather lasted until the end of the rally, allowing all participants to make a real full of flights.

Throughout the Rally were performed 345 winch launches for a total of 211.32 hours and 119 aero tows for 254.41 hours of flight.

Remarkable the efficiency of the organizers in all aspects of the rally, from the briefings to the Meteo and the evening after flight.

As usual in the VGC Rallies, also Terlet could not miss the International Evening, with its

gastronomic specialties offered by the pilots of the different countries. A kind of “Country Feast”, or rather European Festival” in which the Club members and their families had joined. Our Italian team had also organized a table with the most typical national food, such as Parma ham, Parmesan cheese, homemade salami, Gorgonzola Cheese and Lambrusco wine.

The traditional national evening was also very well organized with a special Indonesian menu, in memory of the historic Dutch colonies. Music and dance have colored the evening.

The Terlet Rally ended on Thursday, August 6th with great satisfaction of the participants and organizers, with a warm, “See you at Räyskälä” in Finland for the next Rally VGC 2016.



In line for winch launch



Schleicher Ka-4 Rhönlerche II (Rhön Lark) being winch launched



Left: The author in the cockpit of the Kranich II (Crane)
Above: ASK13 with 'cabrio' canopy



Slingsby Grasshopper, the English version of the
Schneider SG38 Schulgleiter (School Glider)



Scheibe L-Spatz/Leistung Spatz (Performance Sparrow)



Schleicher ASK 13 in flight



Focke Wulf Kranich III (Crane)



The Szybowcowy Zakład Doświadczalny SZD-9 Bocian (Stork).



Above: Slingsby T21 Sedbergh in flight

*Right: Szybowcowy Zakład
Doświadczalny (SZD) Mucha Standard
(Fly)*





The Kranich II (Crane) based in Denmark



Schneider Grunau Baby III



Schleicher Ka2 Rhönschwalbe (Rhön Swallow)



Schleicher Ka-4 Rhönlerche II (Rhön Lark)



The Deutsche Forschungsanstalt für Segelflug (DFS) Weihe (Harrier).



The Kranich II (Crane) from Denmark in flight

THE TIMER

Curtis Suter, suterc@msn.com

I'm a soaring competition junkie. There is nothing more I like than watching the long skinny wings of a glider soaring against the beautiful skies of Montana or anywhere for that matter. Unique to each flight is trying my best to figure out what Mother Nature and her ever changing weather patterns have in store for me.

I also find pure joy at soaring events even when I am not wiggling the sticks; such as when I'm a Contest Director and watching folks walking back from the pits with huge smiles on their faces talking about their flight. It makes all the work of a being a contest director worthwhile.

Also very special to me is the fine art of building from scratch and flying my own model to a contest win! Another awesome aspect of competition flying is helping a pilot maximize his/her flight time by being "The Timer." I find The Timer's job unique to soaring competitions in that The Timer is doing all that he/she can to help the pilot

achieve their task time but they are also a direct competitor of the pilot they are timing for!

There are many different soaring genres such as F3J, F3K, TD and ALES all of which require a little different aspect to what The Timer's responsibilities are and what the rules state a timer is allowed to do or say. As simple as it seems the task of The Timer is more than just starting and stopping a watch. It can also mean a contest win or loss for the pilot you're timing for!

The Timer has been appointed by the contest director as an official recorder of the pilots score. Thus The Timer's job is really only to start and stop the watch and to legibly record the official flight time and landing scores on the pilot's score card. However, a really good timer is so much more than that.

The Timer can help the pilot relax when in sink, he/she is another set of eyes for

safety when a plane has gone off course and has the possibility of hitting the pilot, and they guide the pilot from the launch area to the landing zone keeping them from walking into other pilots or stepping into holes in the ground. They can really help with low altitude saves by keeping the pilot abreast of how other pilots models are performing and of wind shifts or thermals in the area.

The pilot's expectations are about as varied as there are cows in the field. One pilot may prefer a countup whereas another countdown.

Some pilots don't mind a little side conversation during the flight when they are way up high and in a boomer of a thermal, whereas other pilots prefer complete silence other than keeping them abreast of the time.

Some prefer lots of other information from The Timer about the location of other planes and thermal indicators

such as wind shifts, birds, dust devils etc to aid them in what the air is doing in all quadrants around the field. In many contests the pilot gets to choose his/her timer and over time a relationship is formed that improves with working with one another. However, some contests assign timers to pilots thus a briefing of The Timer by the pilot is very important.

My Personal Preferences of what I like in a timer is like this.

First off, I prefer a countdown. I ask The Timer if they are ready with the watch and if their watch will count down. If not, I'll hand them my timing device and explain its use.

I also have them verify if the time on the watch matches the task time on the score card. This is also a good time to verify that you are actually to be flying in this Round and Group.

I also brief how I like the landing tape to be oriented if using one. I prefer to have the tape away from me. Some like the tape perpendicular to the landing approach.

I also discuss with The Timer the four quadrants of the flying site; where North, South, East and West are and some good reference points; such as the farmers house. This way The Timer can use these references to guide me to a different part of the sky if necessary. Good communication is paramount in flight.

Once the green light is given to launch and the time has started, I want my timer to tell me that the clock is running. This prevents The Timer from pushing the button then noticing a while later that the clock isn't running!

In ALES contests there is a 30 second motor run and my model has a little excess power and can get to altitude early, so I prefer to have a countup to the 30 seconds. This allows me to range out further and then climb near the end of the launch window. I prefer The Timer to state after launch that "The clock is running," then advise me every five seconds into the launch starting at 10 seconds, such as 10, 15, 20, then every second after 20 seconds until the motor cuts off or 30 seconds has been reached.

Once in flight if I am up high in a nice thermal I don't mind side conversations. However, during these side conversations when I'm relaxed in a boomer of a thermal I still want The Timer to be scanning the sky and knowing where the other pilots' models are in relation to mine and how they are doing. A periodic update keeping me abreast of their situation is real helpful. This helps me keep in the back of my mind a preferred bailout direction in the event that my boomer goes away.

I also expect The Timer to have a general idea of the performance of my glider as to its ability of being able to run to where

the other modeler's glider is. Advising me that another model is really going up in another quadrant of the sky and sending me that way when I have no chance of getting there will result in me not achieving the task.

I like The Timer to update me on how many minutes are left in the task; such as 9, 8, 7 etc... until two minutes are left. Then I prefer to know every 15 seconds until one minute is remaining, then under one minute every five seconds and then every second the last 20 seconds until 5 seconds; this is when I want The Timer to stop speaking and walk further behind me and concentrate solely on stopping the watch when the model touches anything attached to the ground. Some genres require pilots to stop speaking times with 10 seconds remaining. Timers as well as pilots should read and understand the rules of the contest genre they are competing in.

Missing a call-out in the countdown during the last minute or so can really throw off my traffic pattern thus affecting my precision of the landing to the last second. A nice even cadence or rhythm in the countdown is real helpful to me.

Contests are won by in the landing zone and by seconds off perfection. The Timer can be real busy in the last minute of the task, counting down the time, watching for other models and preventing a pilot strike, midair and getting the watch stopped on time as well as ensuring the

pilot's model doesn't slide into The Timer. In some genre's this can result in a zero landing score! If I fly over the task time The Timer doesn't need to say anything, just stop counting and stop the watch once I land.

As a Timer I like to review with the pilot while walking back to the pits about what he/she liked or disliked of my performance as their Timer. This goes back to pilot preference of what he/she likes in a good Timer. I am happy to follow what the pilot prefers the next time they ask me or I'm assigned as their timer. It is nice when you find that partnership works.

I've seen many mistakes from The Timer. Such as the watch not starting or stopping, incorrect flight time or landing points written on the scorecard or the scorecard not being legible for the individual who is transcribing the scores from the card into the computer system.

I know, because I've been one of them!

I'd like to share a side story. A few years ago we started Altitude Limited Electric Soaring (ALES) contests which are a very lite version of F5J here in Montana. There were only two of us with any glider contest flying experience. This was a small monthly contest and I was timing for a very new pilot who was flying a foamie glider.

He launched and the clock was running and he found some lift. Great! A few

minutes later I noticed that the other pilots were setting up for landing and the pilot I was timing for was quite high and doing well in a thermal.

Shortly thereafter he was the last pilot up with two minutes to go. We were so happy that he had won the round, being a new pilot and with a foamie! I said, "Just get as close to time as possible but make sure you get some landing bonus points."

He set up for landing and even got some landing points. We were out there jumping up and down "high fiving" one another about such a great flight and that he had buried the other pilots' scores.

It was really a great moment for both of us. We still talk about it to this day.

Uh, well, that didn't last long when we found out it was actually a six minute task and not the eight minutes he flew!

Ooops, that was a very bad deal and as me being "The Timer" that was my entire fault. I had his score card in my hand with the task time written on it and should have caught the mistake.

However, it was a very small contest and to this day it was a wonderful moment thinking how he had buried the other pilots!

In the end, soaring and contest flying is all about the fun moments and this was certainly one of them. However, had this been at a larger contest or on the

national level the feeling we had certainly wouldn't have been the same.

The equipment The Timer uses comes in a lot of varieties such as wrist watches, stop watches and even now cell phone apps!

First and foremost, The Timer must fully understand how to use their equipment and any quirks it may have. I've seen a watch with four buttons and if one of them is accidentally pressed it will zero the time! Yikes, that wouldn't be good.

It's also important to keep the device in working order. I recommend changing batteries at the beginning of each soaring/contest season. There is nothing worse than the watch failing in the middle of a task!

Some inexpensive watches have poor quality buttons causing them to not press properly. I've seen many times that a button will require more than reasonable pressure to actuate it. This isn't ideal as the actual flight time of the top pilots are scored in seconds and these errors can make significant differences in the overall placement in the contestant. Watches that aren't reliable need to be repaired or replaced.

The watch or timing device needs to be easily read in bright sunlight and have digits large enough for The timer to easily read. I've also seen countdown timers that when reaching zero cease timing



The Robic SC-707 mentioned in this article



Glider Timer by Chuck Norris

and won't continue counting up. That's not suitable for our purposes at all.

Some popular watches/timing devices that I've used are the Seiko321, Robic 707 or even my iPhone using apps such as RC-Timer by Leon Wubbe or Glider Timer by Chuck Norris. I can't speak to Android phones as this author has no experience with their apps. I'm currently using both a Robic 707 and the Glider Timer app on my cellphone. Glider Timer is a great app, easy to use and see in bright sunlight. It is customizable, counts up and down simultaneously. I always have my phone with me so the batteries are always charged too.

The task of The Timer initially seems a very simple straight forward task but as I've gained experience with soaring contests I've found it much more difficult than I'd first thought but it is very rewarding when the pilot aces their flight!

Lastly and most importantly, the pilot should thank The Timer!

I would like to thank the folks at RCGroups for inspiration and help in this article. Further discussion may be found on RCGroups at: <http://www.rcgroups.com/forums/showthread.php?t=2444115>

For a list of all the articles I've written for RCSD please visit Tailwind Gliders: <http://tailwindgliders.com/Articles.html>



3RD INTERNATIONAL SLOPE MEETING

“GLIDERS AT MONTE CUCCO 2015”

22 - 29 JUNE 2015

Roberto Ranocchia, <https://www.facebook.com/roberto.ranocchia>

This event at Monte Cucco is the biggest meeting in Italy for slope gliding.

Monte Cucco is located near the city of Sigillo, in Umbria, central Italy.

It doesn't matter what direction the wind has, Monte Cucco offers two slopes, one close to the other, and any direction of the wind is good for flying.

The slopes, located at 1000 meter above sea level, and near the Adriatic sea, always have strong wind and good conditions. Between the two slopes there is a forest with accommodations and services for tourists.

During the Gliders Meeting the flight of "delta" and paragliders is prohibited.

The meeting was held under the patronage of the municipality of Sigillo (PG- Umbria- Central Italy) in cooperation with AAVIP, Autonoleggio.it, Baronerosso.it, Easy-CNC, Edizioni Modellismo, Flight Composites, Fulcro-Services, Hobby&Professional, Italsoaring, Jonathan, PariTech, Sorvolando Compositi, Volo in Pendio, X-Models.

A fantastic meeting eight days long with strong conditions all the days.

Wind, sun and typical Italian food free for all, in Central Italy, in the Park of Monte Cucco.

Title page: Monte Cucco North slope

During the meeting some new gliders were presented in flight:

Paritech: Helix K2, Eb28

X-Models: Byhon

Volo In Pendio.it: Graecalis 2.9m

Flight Composites: Magma

A t-shirt was offered by the organization to any subscriber. Subscription free of charge, as usual.

The numbers of the meeting:

- 160 subscribers,
- 433 gliders in flight during the meeting
- 10 trophies of ceramic art, offered by the City of Sigillo.

Assigned for:

Best Model: The CVP1- Arlecchino by Antonio Paglia,

Luca Di Paolo: won a trophy for the career

Best flight: Gianluca Ragni (SZD Perkoz) and Jurgen Rammerstohfen (Duo Discus)

Best Aero: Paolo Dall' Acqua (Ka6E)

For Taranis Open Software development: Mr. Romolo Manfredini

To the organization and promotion: Valerio Ceccherini, Francesco Izzo, Nicola Ferrarese.

Alessandro Barnaba won the new Byhon offered by X-Models.

Luca Di Paolo won the new Graecalis 2,9m wingspan offered by Volo In Pendio.

Mauro Pancia won the new Helix- K2 offered by Paritech.

Stefano Artina returned home with the Centro Evo offered by Flight-Composite.

Andrea Gatti won a beautiful Pilatus offered by Edimodel.

A German friend won the X-Models Prismaray offered by the organization.

Any participant won a gift such as accessories, kits, and servos, offered by Easy-Cnc, Jonathan, Sorvolando Compositi, Baronerosso.it, Italsoaring and Hobby&Professional.

For eight days the organization supplied lunch on the slope for all the participants, managed the flights, take off and landings. On Friday evening also a BBQ under the wood of Monte Cucco.

Opposite page:

Upper: Bungee launch

Lower: Graecalis on the North slope





*This page and opposite:
Beppe Ghisleri and his PZL M-3
Pliska (Wagtail)*







Above: Antonio Paglia and his CVP1 Arlecchino (Harlequin)

Opposite page: X-Models Swift full composite



This page and opposite: This scale ASG 29/18m featured a Schubeler ceflix 500 retractable EDF self launch system









Opposite page upper: 4.5m span Zefir by Roberto Ranocchia

Above: X-Models Acro team with 320 Swift

Opposite page lower: Beppe Ghisleri's Manta Ray



The new Graecalis 2.9m



Launching on the North slope



Stakanovez by Luca Di Paolo





*Opposite page left: The new Magma from Flight Composite
Opposite page right: Jesko Dutting from Germany*

Above: Maiden flight of Antonio Paglia's CVP1 Arlecchino



Richard Borg lands his Arcus on the North slope

Typhoon Race 2015

Jeju, South Korea
30 October – 1 November 2015

Stanley Chan, photos by Pang Yong Wee



From the Hong Kong RC Sailplane Forum

Typhoon Race 2015 was held again in the beautiful Island of Jeju in South Korea. A total of 32 pilots participated in the contest including eight from Hong Kong, three from Taiwan, three from Singapore, one from France.

The Hong Kong team arrived at Jeju in the afternoon on Wednesday with a warm reception by the local pilots. Special thanks to Joon Lee for his car ride with seven of us squeezed into his small car!

After quickly unpacking luggage and assembling our models, we went straight to the slope of Geumak Oreum for practice. The slope is a cone shape of volcanic origin.

The Taiwan team and France team were already practicing the whole afternoon when we arrived.

Wind speed was moderate at only 5 m/s. So after a few flights we headed back to hotel to have dinner gathering with Taiwan, Singapore and France teams for the famous Ginseng rice soup.

The practice day

Unfortunately, very weak wind was expected, so we went straight to have some sightseeing, first to the EcoPark with a mini-train ride. Then in the afternoon, we went to the slope to check out the wind conditions and found there was virtually no wind, so we went sightseeing again in Halla Park. Dinner at a restaurant in a nearby hotel with famous BBQ pork.

1st day contest

Strong northerly wind was expected, so headed to a small slope for northerly wind at early morning,. This is a new slope which has never been used for a contest before. The hike up is a relatively easy 15 minute climb.

A Round Zero was run for pilots to get accustomed to this slope. Windspeed was 12 m/s and gusting to 16m/s. Strong wind coupled with this small slope made flying pretty

challenging. There were many penalties as a result of crossing the safety line. There were a few crashes due to strong turbulence.

Andreas Fricke of France got the fastest time in Round Zero but he crashed his model into the tree in the first round, too bad for him as he needed to fly his model repaired with three big holes for the rest of the contest!

A total of four rounds plus a Round Zero were completed. We headed back to hotel after sunset. Happy time followed when we had dinner at a BBQ restaurant. To celebrate the success of today's contest, we consumed many bottles of Korean liqueur.

2nd day contest

Strong north-easterly wind was expected, so we headed back to Geumak Oreum. One big advantage of this slope is that it can be reached by car and is much bigger than the slope we used in previous day.

Windspeed was at average 12m/s. This slope is much safer both for flying and landing, and therefore no major crashes happened.

Except perhaps LiMan's Stinger was lost during landing as it was sucked down by a strong side wind. Fortunately, his model was finally spotted at the end of the day when we walked downhill to search for it. It was hung on top of a tall tree with one wing fallen off and badly damaged.

The organizer managed to complete seven rounds in a day as the lady base judges were getting more experience on the buttons with very few base judge errors.

3rd day contest

Weather forecast was for weak north-easterly wind, so the organizer decided to push forward the contest by half an hour in order to get more rounds. So we got up very early and arrived at the slope at 8 am.



Unfortunately, the wind was too weak to be able to start the contest, leading to a waiting game and a perfect photo-taking session for everybody.

After 4 hours of waiting, rain instead of wind did arrive, so the organizer called off the contest at 12:30pm.

Typhoon Race 2015 was officially over with 11 rounds flown.

The winners are:

Individual

Champion: Stanley Chan (Hong Kong)

1st Runner-up: Joe Sung (Taiwan)

2nd Runner-up: Ho Kwok Wai (Hong Kong)

Best Speed: Imkil Joen (Korea)

Team award

Champion team: Chi-Sang Leung, Sunny Tse, Ho Kwok Wai

1st Runner-up team: Wing Wong, Andreas Fricke, Stanley Chan

2nd Runner-up team: Joe Sung, Rico Lee, Jeff Tan

Cheers!

<http://teamf3singapore.blogspot.com/>

Videos at: <https://www.youtube.com/playlist?list=PLCa-fqMpZuV0ukW8dP5vouifhrowLaOPC>



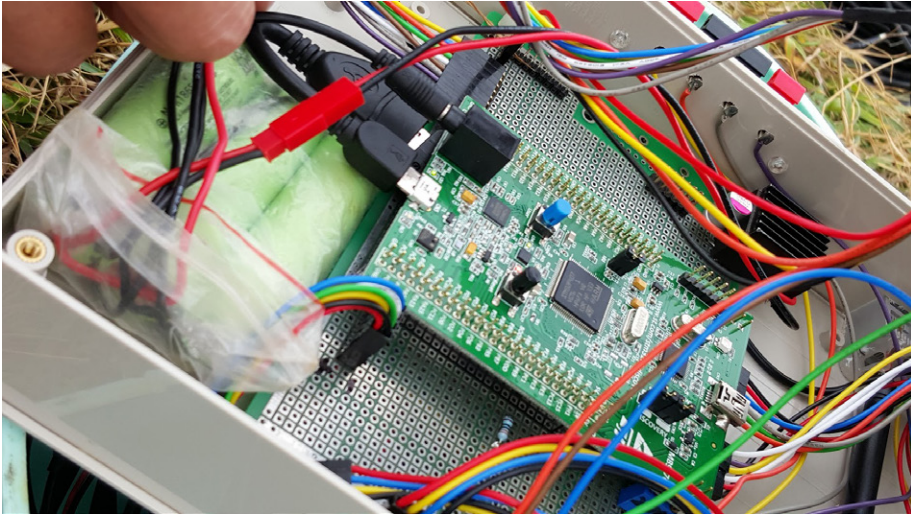


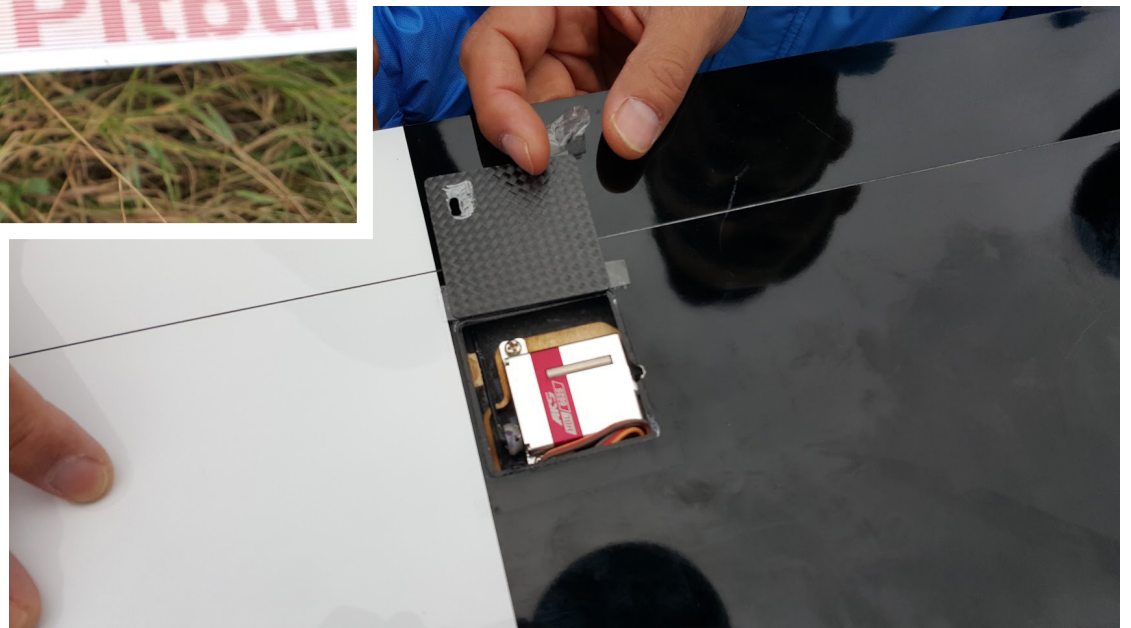
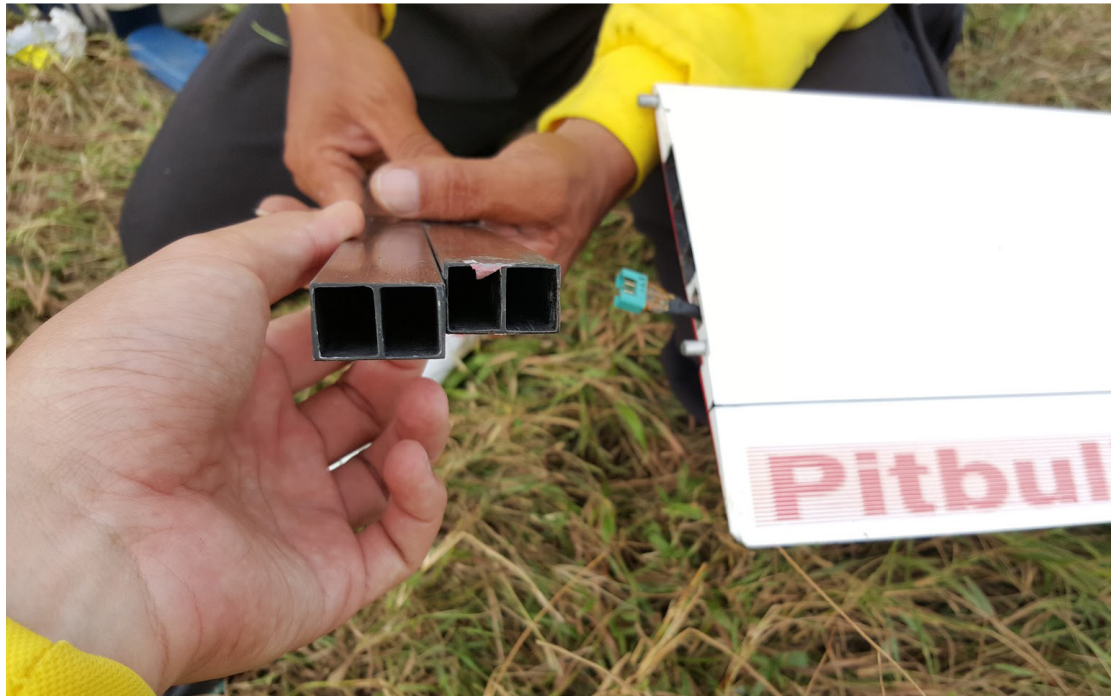












2015 FAI F3F TyphoonRace JEJU

Date: 10/31/2015 Jeju Korea

Best Time: 32.95 Jeon Im Kil

Nr	Pilot	Aircraft	Total Sum	RND	Penalty	Drop Rnd	Drop Rnd 2	8969.48		Overall Score	1				2				3				Best
								Total	Rank		Best	46.28	Ko Mun Kyu	16	Best	43.52	Son KwonSam	24	Best	41.54	Wing Wong	24	
1	Chi-Sang Leung		9234.13	11	0	703.35	0.00	8530.77	10	951.09	54.87	843.4		16	58.63	742.3		24	59.06	703.4		24	51.95
2	Jeon Im Kil		9388.06	11	200	740.30	0.00	8447.77	12	941.83	56.51	819.0		19	51.82	839.8		13	53.92	770.4	100.0	18	45.25
3	Jeff Tan		9077.86	11	0	737.96	0.00	8339.90	14	929.81	58.34	793.3		21	55.40	785.6		18	52.25	795.0		14	56.45
4	Ko Mun Kyu		9225.19	11	100	721.16	0.00	8404.02	13	936.96	46.28	1000.0		1	48.64	894.7	100.0	4	55.24	752.0		21	48.02
5	Standley Chan		8969.48	11	0	0.00	0.00	8969.48	1	1000.00	59.48	778.1		22	46.71	931.7		2	50.99	814.7		9	51.22
6	Hwang Haeryong		7893.72	11	500	0.00	0.00	7393.72	25	824.32	51.37	900.9	300.0	9	48.35	900.1		3	DNF	0.0		28	59.48
7	Lee JeongHeon		8752.60	11	0	678.83	0.00	8073.76	19	900.14	61.72	749.8		24	64.11	678.8		29	61.09	680.0		25	49.81
8	Sunny Tse		9354.53	11	0	710.13	0.00	8644.40	5	963.76	51.84	892.7		10	50.27	865.7		8	45.81	906.8		4	55.23
9	Kim TaeYeon		2450.11	11	0	0.00	0.00	2450.11	31	273.16	55.13	839.5		17	54.19	803.1		15	51.44	807.5		11	DNS
10	Wing Wong		9321.43	11	0	704.51	0.00	8616.92	7	960.69	53.49	865.2		12	51.75	841.0		12	41.54	1000.0		1	46.61
11	Jung SungCher I		7548.82	11	100	0.00	0.00	7448.82	24	830.46	65.05	711.5	100.0	27	50.60	860.1		9	DNF	0.0		28	51.07
12	Fricke Andreas		8523.60	11	200	0.00	0.00	8323.60	15	927.99	DNF	0.0	100.0	28	50.23	866.4		7	51.11	812.8		10	51.01
13	Ko HangYuk		5031.69	11	100	0.00	0.00	4931.69	29	549.83	DNS	0.0		28	DNS	0.0		31	DNS	0.0		28	DNS
14	Jeo Sung		9608.26	11	0	722.75	0.00	8885.52	2	990.64	46.48	995.7		2	50.11	868.5		6	43.61	952.5		2	48.20
15	Yu Yong Kyu		9378.63	11	100	706.48	0.00	8572.15	9	955.70	49.83	928.8		8	49.34	882.0	100.0	5	52.06	797.9		12	48.77
16	Kwok Wai Ho		9326.56	11	0	566.83	0.00	8759.73	3	976.61	48.34	957.4		3	51.49	845.2		11	48.51	856.3		5	51.05
17	Lee WonJong		6937.54	11	200	0.00	0.00	6737.54	26	751.16	54.23	853.4	200.0	14	59.31	733.8		25	58.48	710.3		23	DNF
18	Lee SangJun		0.00	11	0	0.00	0.00	0.00	32	0.00	DNS	0.0		28	DNS	0.0		31	DNS	0.0		28	DNS
19	Ray Leung		8846.03	11	100	695.00	0.00	8051.03	20	897.60	49.47	935.5	100.0	7	50.61	859.9		10	52.97	784.2		16	55.05
20	Son KwonSam		9545.63	11	100	728.82	0.00	8716.81	4	971.83	62.50	740.5		25	43.52	1000.0	100.0	1	44.64	930.6		3	48.58
21	Taft Lai		8798.39	11	0	669.72	0.00	8128.67	17	906.26	64.68	715.5		26	61.47	708.0		27	55.74	745.2		22	49.52
22	Kim Jin Ho		9118.50	11	0	633.41	0.00	8485.08	11	945.99	48.51	954.0		4	54.64	796.5		17	54.87	757.1		20	46.48
23	Yong Wee Pang		9374.55	11	0	746.82	0.00	8627.73	6	961.90	48.65	951.3		5	55.73	780.9		19	49.49	839.4		7	52.37
24	Lee JaeJin		2894.75	11	400	0.00	0.00	2494.75	30	278.14	61.51	752.4	100.0	23	59.99	725.5	200.0	26	61.95	670.5	100.0	26	58.27
25	Rico Lee		8440.51	11	200	0.00	0.00	8240.51	16	918.73	56.30	822.0	200.0	18	57.21	760.7		22	DNF	0.0		28	43.49
26	Han SungHo		8796.42	11	300	631.83	0.00	7864.59	21	876.82	53.59	863.6	100.0	13	56.61	768.8	100.0	21	49.07	846.5	100.0	6	53.91
27	Siu Man Li		8548.12	11	100	648.24	0.00	7799.88	23	869.60	53.03	872.7		11	56.15	775.1		20	53.58	775.3	100.0	17	51.39
28	Lee Joon		8812.40	11	200	0.00	0.00	8612.40	8	960.19	DNF	0.0		28	54.16	803.5	100.0	14	52.36	793.4		15	50.30
29	Frank Tan		8637.66	11	100	681.63	0.00	7856.03	22	875.86	58.29	794.0	100.0	20	62.76	693.4		28	49.92	832.1		8	47.48
30	Chong Hae Sok		6611.29	11	200	0.00	0.00	6411.29	27	714.79	54.65	846.8	100.0	15	68.69	633.6		30	52.15	796.5		13	55.14
31	Lee JinSub		6405.12	11	200	0.00	0.00	6205.12	28	691.80	DNF	0.0	100.0	28	58.25	747.1		23	66.54	624.3		27	57.05
32	Francis Choo		9025.40	11	200	728.61	0.00	8096.79	18	902.70	48.80	948.4		6	54.38	800.3		16	54.08	768.1		19	53.01

4			5				6				7				8				9				10				11			
43.49	Rico Lee		Best	38.14	Standley Chan	Best	32.95	Jeon Im Kil	Best	38.93	Lee Joon	Best	38.40	Ko Mun Kyu	Best	36.70	hi-Sang Leu	Best	41.21	Kwok Wai Ho	Best	39.25	Lee Joon							
Score	pen	rank	Time	Score	pen	rank	Time	Score	pen	rank	Time	Score	pen	rank	Time	Score	pen	rank	Time	Score	pen	rank	Time	Score	pen	rank				
837.2		18	44.67	853.8		7	41.30	797.8		2	48.26	806.7		17	44.55	862.0		12	36.70	1000.0		1	44.57	924.6		7	45.48	863.0		15
961.1		2	51.52	740.3		22	32.95	1000.0	100.0	1	44.93	866.5		7	42.71	899.1		9	48.34	759.2		18	45.58	904.1		11	47.37	828.6		18
770.4		25	44.88	849.8		8	44.65	738.0		7	48.98	794.8		19	40.33	952.1		2	47.30	775.9		15	46.68	882.8		16	41.75	940.1		4
905.7		6	52.38	728.1		24	45.69	721.2		12	47.05	827.4		13	38.40	1000.0		1	49.81	736.8		21	45.49	905.9		10	52.10	753.4		26
849.1		16	38.14	1000.0		1	DNS	0.0		29	39.75	979.4		2	40.81	940.9		3	44.55	823.8		10	44.32	929.8		6	42.57	922.0		7
731.2	100.0	28	45.16	844.6	100.0	9	49.56	664.9		20	52.76	737.9		23	54.85	700.1		26	43.30	847.6		6	55.80	738.5		27	47.40	828.1		19
873.1		11	40.62	938.9		3	44.73	736.6		8	54.34	716.4		25	42.80	897.2		10	51.12	717.9		23	45.61	903.5		12	45.63	860.2		16
787.4		24	45.93	830.4		13	46.40	710.1		14	46.02	845.9		12	43.04	892.2		11	47.05	780.0		14	47.53	867.0		18	40.21	976.1		2
0.0		29	DNS	0.0		30	DNS	0.0		29	DNS	0.0		29	DNS	0.0		29	DNS	0.0		30	DNS	0.0		29	DNS	0.0		30
933.1		4	51.70	737.7		23	46.77	704.5		16	44.96	865.9		8	41.54	924.4		6	47.90	766.2		17	50.64	813.8		24	45.13	869.7		14
851.6		15	50.49	755.4		20	60.21	547.3		27	55.93	696.0		27	50.48	760.7		21	51.56	711.8		24	49.81	827.3		21	47.45	827.2		20
852.6	100.0	13	43.49	877.0		4	46.05	715.5		13	44.52	874.4		6	42.23	909.3		8	45.17	812.5		11	46.09	894.1		15	43.18	909.0		9
0.0		29	59.54	640.6		29	68.19	483.2	100.0	28	47.26	823.7		14	54.17	708.9		25	46.77	784.7		13	53.11	775.9		26	48.18	814.7		22
902.3		7	43.98	867.2		6	45.59	722.7		11	50.42	772.1		21	49.84	770.5		19	39.74	923.5		3	46.05	894.9		14	41.83	938.3		5
891.7		9	47.35	805.5		16	46.64	706.5		15	54.05	720.3		24	41.39	927.8		5	42.87	856.1		4	43.42	949.1		4	42.99	913.0		8
851.9		14	45.32	841.6		11	58.13	566.8		26	48.45	803.5		18	41.31	929.6		4	44.14	831.4		8	41.21	1000.0		1	46.57	842.8		17
0.0		29	48.79	781.7		19	51.50	639.8		23	57.66	675.2		28	60.14	638.5		28	68.41	536.5		29	63.32	650.8		28	54.70	717.6		29
0.0		29	DNS	0.0		30	DNS	0.0		29	DNS	0.0		29	DNS	0.0		29	DNS	0.0		30	DNS	0.0		29	DNS	0.0		30
790.0		22	54.65	697.9		28	47.41	695.0		17	47.64	817.2		15	45.83	837.9		15	49.65	739.2		20	43.18	954.4		3	53.41	734.9		28
895.2		8	45.42	839.7		12	45.21	728.8		10	42.11	924.5		4	49.17	781.0		18	43.80	837.9		7	44.59	924.2		8	41.61	943.3		3
878.2		10	48.30	789.6		17	49.20	669.7		19	45.14	862.4		10	46.29	829.6		16	44.52	824.3		9	48.47	850.2		20	42.41	925.5		6
935.7		3	45.95	830.0		14	42.55	774.4		5	41.74	932.7		3	46.73	821.7		17	57.94	633.4		27	47.92	860.0		19	47.69	823.0		21
830.4		19	51.07	746.8		21	42.89	768.2		6	45.12	862.8		9	44.68	859.4		13	43.28	848.0		5	41.45	994.2		2	43.95	893.1		11
746.4		27	DNS	0.0		30	DNS	0.0		29	DNS	0.0		29	DNS	0.0		29	DNS	0.0		30	DNS	0.0		29	DNS	0.0		30
1000.0		1	39.78	958.8		2	50.30	655.1		21	49.17	791.7		20	41.97	914.9		7	52.67	696.8		26	43.47	948.0		5	43.98	892.5		12
806.7		21	45.19	844.0		10	52.15	631.8		24	47.80	814.4		16	57.00	673.7		27	47.75	768.6		16	45.93	897.2		13	44.55	881.0		13
846.3		17	53.75	709.6		25	50.83	648.2		22	45.86	848.9		11	53.56	717.0		24	49.20	745.9		19	50.30	819.3		23	49.69	789.9		24
864.6		12	43.87	869.4		5	42.37	777.7		3	38.93	1000.0		1	45.38	846.2		14	38.94	942.5		2	45.03	915.2	100.0	9	39.25	1000.0		1
916.0		5	46.13	826.8		15	48.34	681.6		18	50.96	763.9		22	51.49	745.8		23	45.77	801.8		12	49.93	825.4		22	51.86	756.8		25
788.7		23	54.53	699.4		27	45.18	729.3		9	DNF	0.0		29	50.08	766.8	100.0	20	67.61	542.8		28	DNF	0.0		29	48.62	807.3		23
762.3		26	54.42	700.8		26	52.39	628.9		25	54.87	709.5		26	DNF	0.0	100.0	29	52.21	702.9		25	52.48	785.3		25	52.76	743.9		27
820.4	200.0	20	48.39	788.2		18	42.39	777.3		4	44.43	876.2		5	51.35	747.8		22	50.37	728.6		22	47.42	869.0		17	43.56	901.1		10

http://www.rcsail.com/TR2015/2015_FAI_F3F_TyphoonRace.pdf



Champion: Stanley Chan (Hong Kong)
 1st Runner-up: Joe Sung (Taiwan)
 2nd Runner-up: Ho Kwok Wai (Hong Kong)
 Best Speed: Imkil Joen (Korea)





Champion team: Chi-Sang Leung, Sunny Tse, Ho Kwok Wai

1st Runner-up team: Wing Wong, Andreas Fricke, Stanley Chan

2nd Runner-up team: Joe Sung, Rico Lee, Jeff Tan





Steve Meusel photo, Cape Town, South Africa, iPhone 5, ISO 50, 1/5400 sec., f2.4



Stanley Slopefest 2015



Chris Adams, cjadams@bigpond.net.au

Every November, Sailplanes and Electric Aeromodellers of Tasmania (SEAT) organise Stanley Slopefest where pilots from around Tasmania and the Australian mainland converge on the tiny fishing village of Stanley (pop. 481) on Tasmania's North-West Coast for a weekend of camaraderie and excellent slope flying.

Stanley is most famous for the "Nut" (although it looks like a loaf of bread, to be honest) which is the remains of a volcanic

plug that juts out into Bass Strait defying the elements and providing shelter for the fishing fleet.

You can fly from it and we have done in the past but the landing is "taxing" thanks to, well, nowhere to land basically — just shrubs and gnarly rock outcrops.

We prefer to fly from the West-facing slope and what a slope it is; 1.5Km (1 mile) of 70m (200 ft) 45 degree sloping Nirvana. There are no trees and no powerlines. It's a perfect arena to blast around the sky.



Greg Potter launches Connor's Fazer.

Saturday gave us reasonable but less than ideal conditions, but thankfully Sunday provided powerful winds almost square-on and everyone was stuffing

whatever ballast they had in order to extract the best out of the air.

Landing is getting harder thanks to a row of young pines creating rotor turbulence

that travels a long way into the landing area. Pilots found that despite setting-up a stable conservative approach the rotor made it wildly exciting around 2m off the ground.



Stanley Slopefest 2015 pilot lineup.

The Pilots

Mostly local (Tasmanian) except for Greg Potter (of Glider Gear fame), Connor Thomas, Mike Sayfang and Gary Whitfield who all travelled furthest by land and sea to attend as well as compete in the Tasmanian Open Thermal Glider Competition the week prior.

Credit must go to these guys (and girls) who commit to spending two weeks in Tasmania.

The Models

There's always a wide range of gliders at Stanley from Warwick and Chris Jones' Weasles, Chris Adams' 4m modified

Riechard Lunak, Wen Nermut's veteran Middle Phase, Steve Boag's Carbon Blade 2M to John Skinner's F3B FOSA. Three RCRCM Sunbirds from Max Wiggins, Warwick Bonney and Chris Adams carved the slope up. With ballast these little rockets offer a vast flight envelope.



Launching Chris Adams' MK9 Spitfire. chasing after Greg Potter's Macchi 205 Veltro.



Greg Potter's Macchi 205 Veltro in flight.



A wing tip camera captured this view of Chris Adams' MK9 Spitfire chasing after Greg Potter's Macchi 205 Veltro.



The Spitfire and Veltro photographed from the edge of the slope.



Warwick Bonney readies to launch one of the three RCRCM Sunbirds.

Chris Adams' MK9 Spitfire flew like a Spitfire should, carving big turns and chasing Greg's Macchi 205 Veltro around the sky. The Spitty is an RCM&E "Dogfight Double" scaled-up to around 1.6m and vac-bagged, 'glassed with a HN483 section and 2.45Kg AUW.

Stingray Maiden

Jan Schilling chose Stanley to maiden his 2.9m X-Models Stingray. Jan had done an outstanding job of fitting it out and it flew beautifully. Unladen it hits 4.3Kg, but with the three ballast tubes you can push that out to 7.3Kg. Jan played it safe for the maiden, but post-Stanley subsequent flights showed how easily it swallows ballast. The Stingray proved fuss-free and a solid platform for high-speed aerobatics.

Stingray maiden video courtesy Warwick Bonney:

<<https://www.youtube.com/watch?v=eRlcaKKVdEE&feature=youtu.be>>.

Lunak Maiden

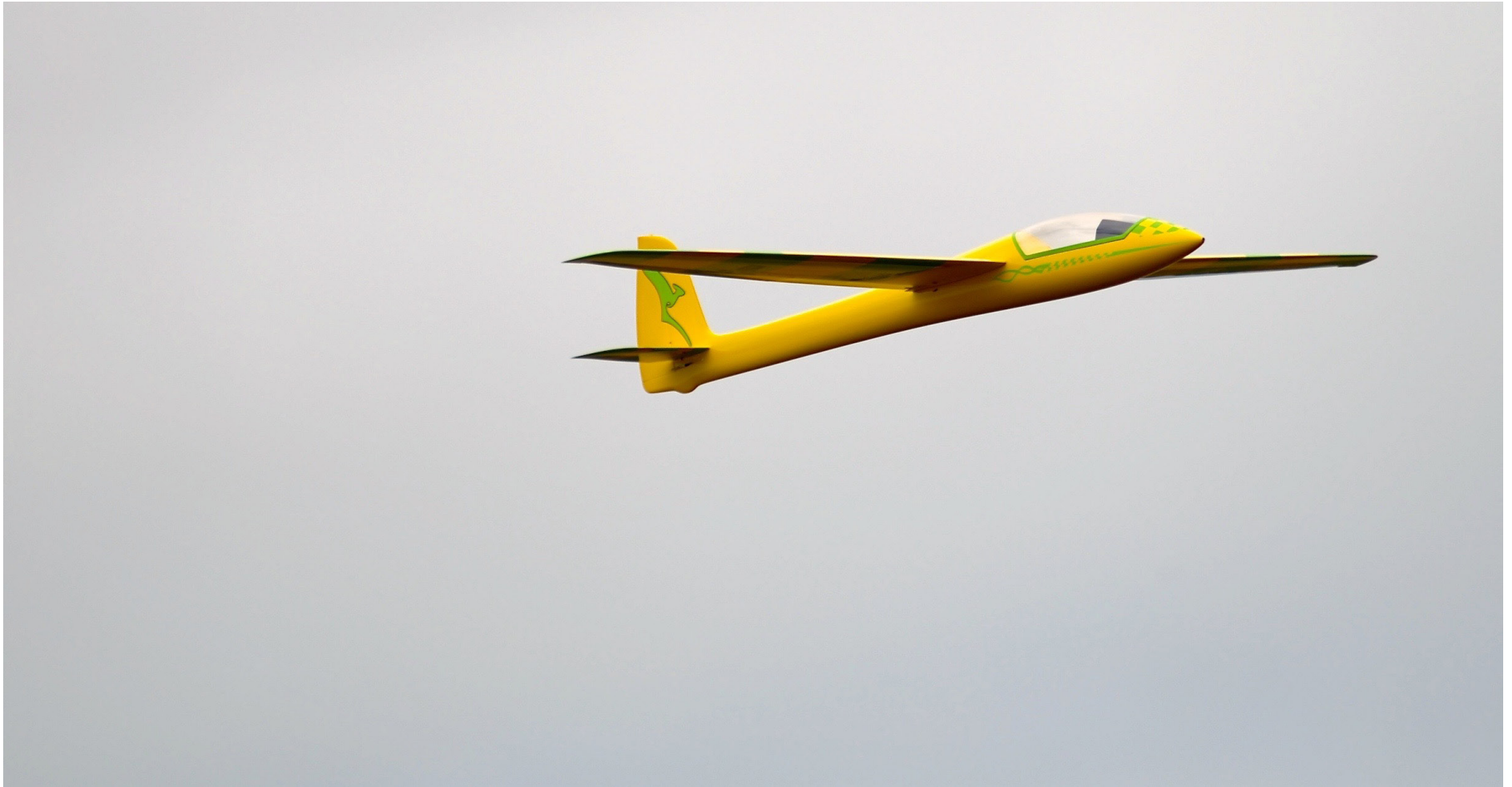
Was less successful thanks to a gust on launch that overwhelmed the launchers and tossed it like a leaf into the dirt. It's since repaired and raring to go, only this time with a bungee hook and the prospect of trying it in fairer conditions. Lunak shown post repairs.



Above: Chris, Greg, Connor, and Andrew.

Right: Chris Adam's Lunak after repairs.





Jan Schilling chose Stanley to maiden his 2.9m X-Models Stingray.

2016 Stanley

2016 Stanley will have to be extra special to better this year's event. Book your fares, book your cabins, finish that slope machine and before you know it November 2016 will be with us again.

More Event Photos

Additional event photos courtesy Mike Sayfang:

FLICKR <<https://www.flickr.com/photos/mikeblogs>>

SEAT: <<http://www.seat.org.au>>



Equipment installation in Jan Schilling's 2.9m X-Models Stingray.

TWO FOR THE SLOPE

Materials courtesy of Mark Nankivil, nankivil@charter.net, text by Bill Kuhlman



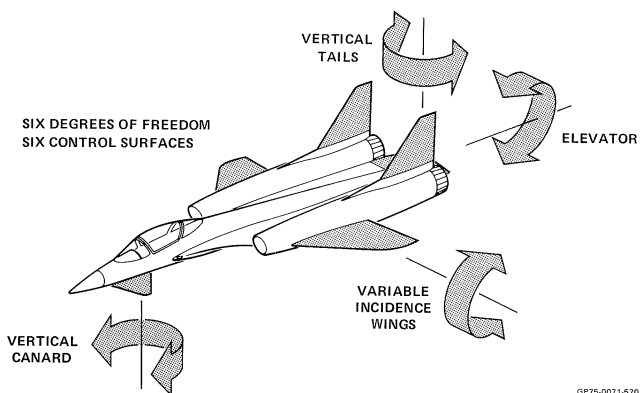
McDonnell Model 265 (1976) VLF Battlefield Fighter

The McDonnell Model 265 Vectored Lift Fighter appeared in MDC Report A4536, 15 November 1976. Vectored thrust, variable incidence wings, and a movable chin canard which could be made to operate in unison with the twin vertical tails, and fuselage aiming (made possible with vectored thrust, variable incidence wings and the chin canard) were its predominant features. As a model for the slope, control of roll through rotating outboard wing panels and pitch through the rather large elevator at the rear of the center section would be sufficient, although movable rudders might add another dimension to aerobatic maneuvers.



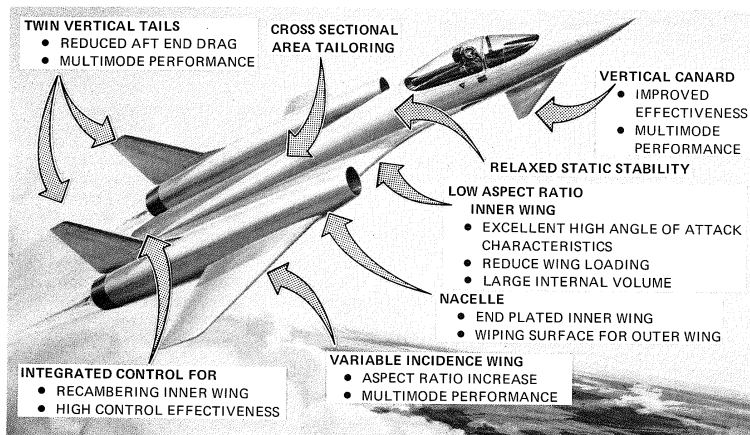
McDonnell Model 279 (1982)

The McDonnell Company, in coordination with Messerschmitt-Bolkow-Blohm GmbH, was involved in PIKT (Program to Investigate Key Technologies) and in Report MDC A5464 described a delta wing canard equipped fighter. The primary goal of Report MDC A5464 was to outline possible aircraft configurations which would take advantage of certain control avenues to increase maneuverability in combat. A high angle of attack mode was a desirable trait as it was deemed able to maintain an offensive posture and attain a positional advantage. Model 279 appears to be an outgrowth of this report. It featured VTOL capability and a front canard with both parallel and differential movement.



GP75-0071-570

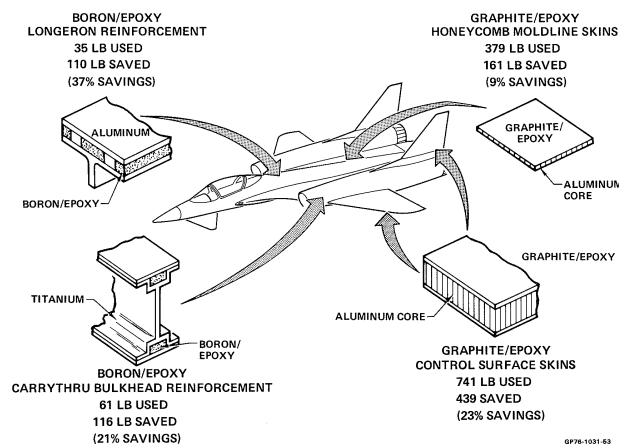
FIGURE 2-1
VECTORED LIFT CONTROL



GP76-1031-55

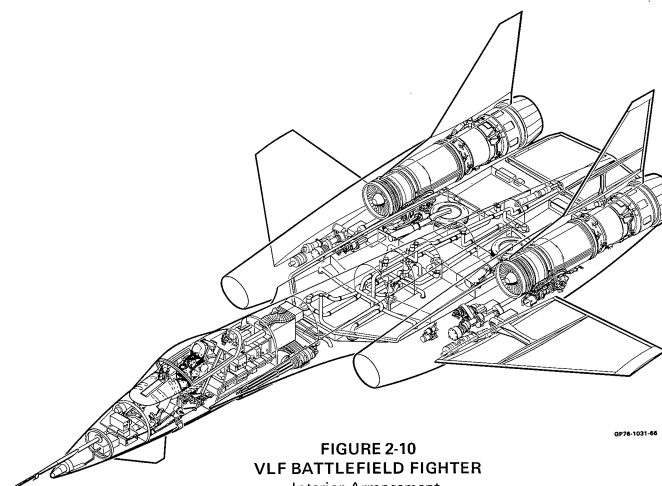
FIGURE 2-2
AERODYNAMIC FEATURES
Vectored Lift Fighter Concept
MCDONNELL AIRCRAFT COMPANY

2-2



GP76-1031-53

FIGURE 2-9
VLF BATTLEFIELD FIGHTER COMPOSITE APPLICATIONS



GP76-1031-48

FIGURE 2-10
VLF BATTLEFIELD FIGHTER
Interior Arrangement

MCDONNELL AIRCRAFT COMPANY

2-10

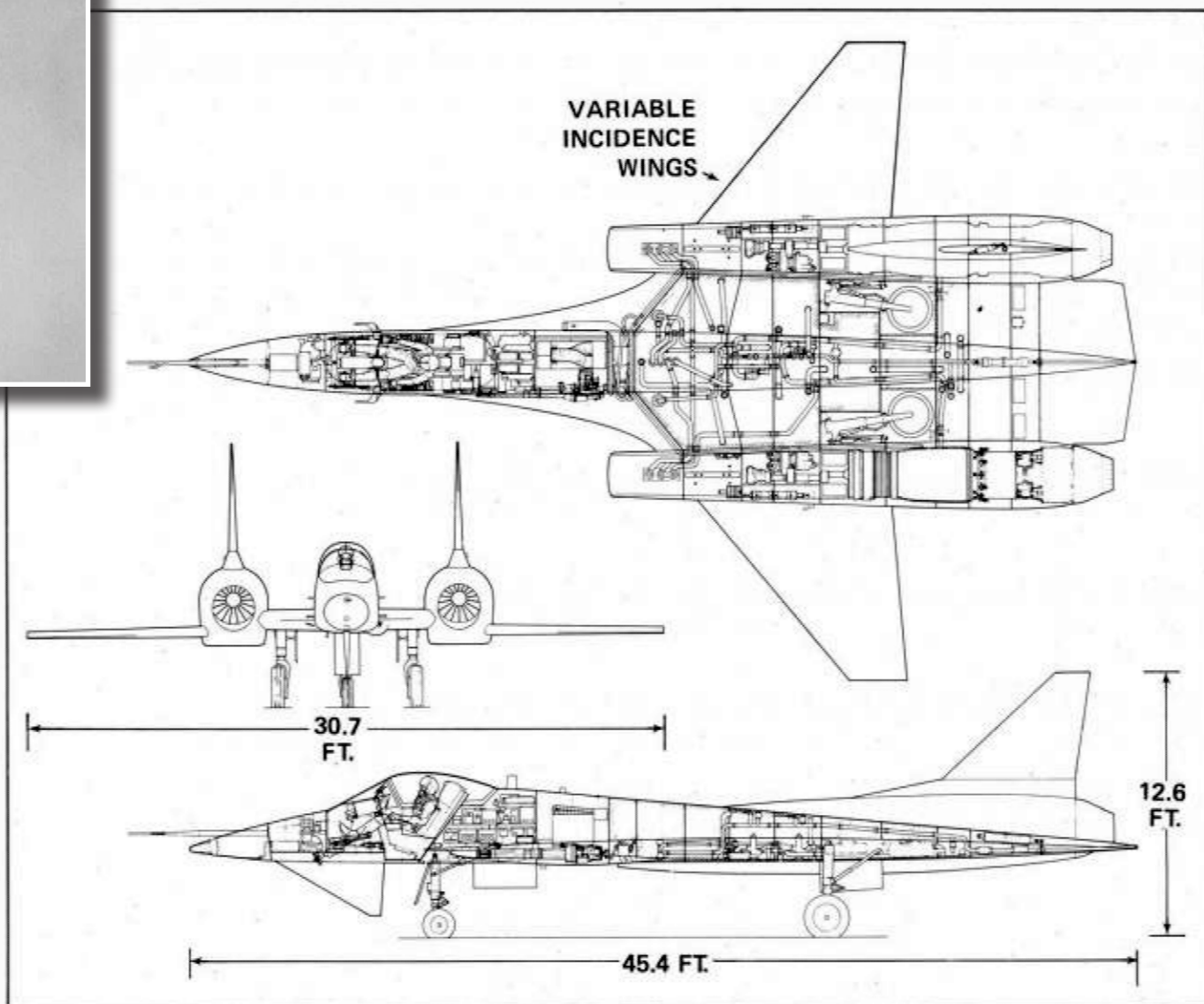
McDonnell Model 265

Report MDC A4536 page 2-2 (above) depicted the various Model 265 aerodynamic control systems and their benefits.

Page 2-10 described the internal component arrangement along with diagrams of the specific structural components. In addition to aluminum and titanium, the Model 265 utilized extensive areas of boron/epoxy and graphite/epoxy.



McDonnell Model 265



McDonnell Model 265

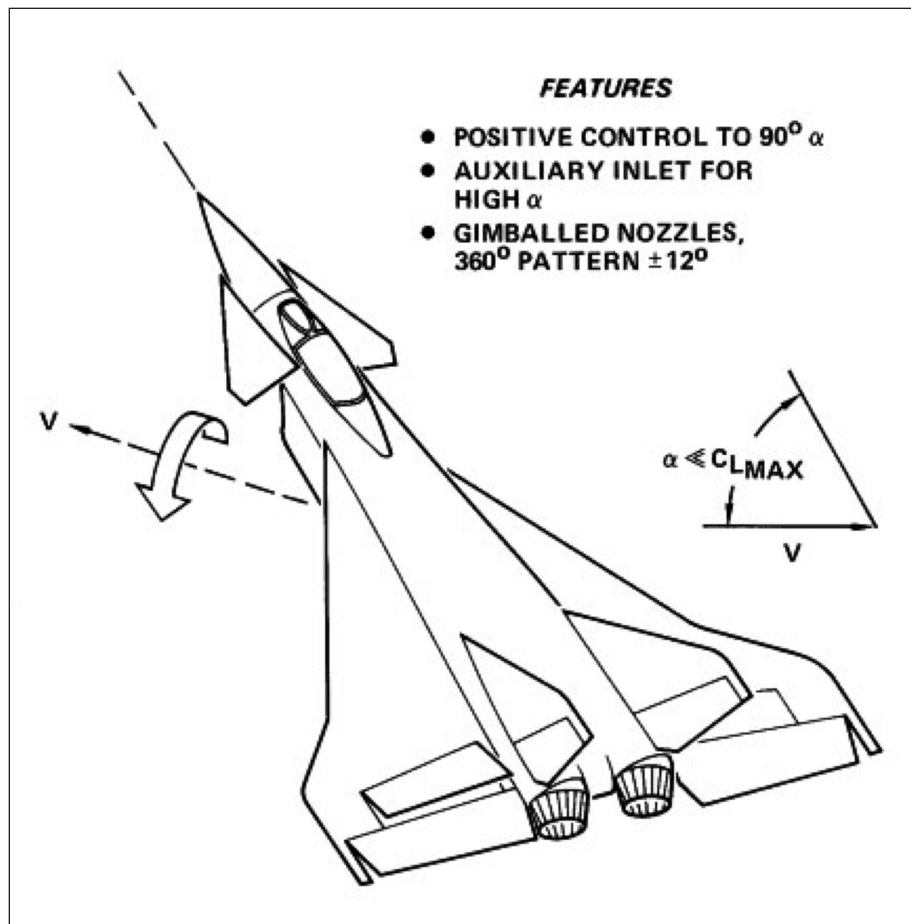
Span = 9.4m/30.7'

Length = 13.8m/45.4'

McDonnell F-4E Phantom

Span = 11.76m/38.58'

Length = 18.6m/61.0')

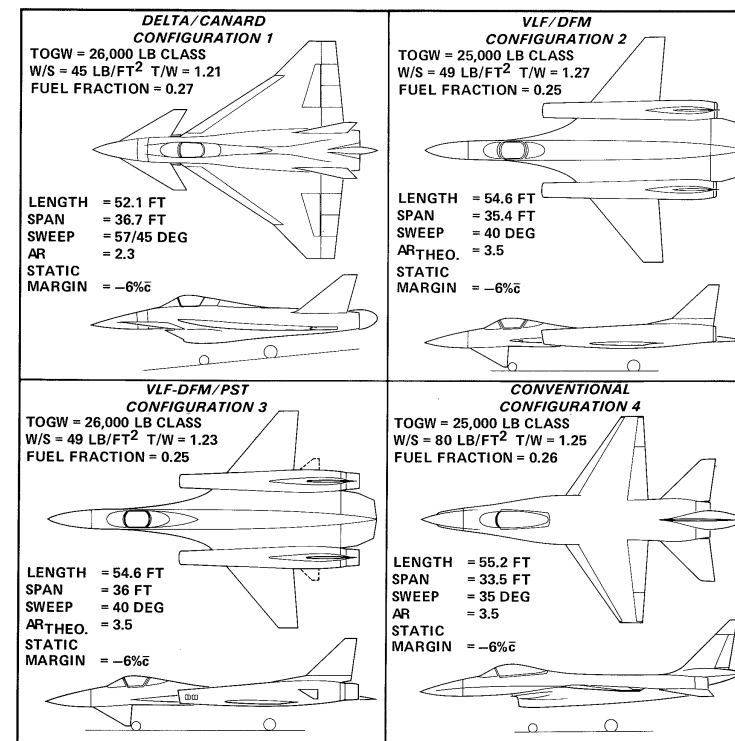


Report MDC A5464 p. 16 illustrated the various control surfaces envisioned for a STOVL fighter, including differential canard movement and trailing edge spoilers to assist with roll control, and vectored thrust to enable angles of attack of 90 degrees. Page 24 described the differences between a delta canard, two variants of the Model 265, and the conventional configuration which appears to be an F-16 equipped with two engines. All of the illustrated examples are described as having a static margin of $-6\%c$.

VERTICAL	DIRECT LIFT	+5 g -3 g $\pm 10^\circ$	MACH 0.9 AT 20,000 FT
	ELEVATION AIMING		MACH 0.6 TO 0.9, 1 g AT 10,000 FT
LATERAL	DIRECT SIDE FORCE AZIMUTH AIMING	± 0.6 g $\pm 5^\circ$	MACH 0.9 AT 20,000 FT MACH 0.6 TO 0.9, 1 g AT 10,000 FT
AXIAL	MODULATED DRAG	-2.5 g	MACH 0.9 AT 10,000 FT

GP78-0669-146

FIGURE 3-4
DIRECT FORCE DESIGN GOALS



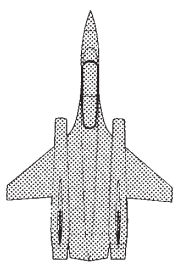
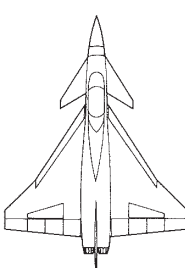
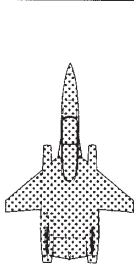
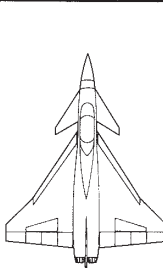
GP78-0669-147

FIGURE 3-5
STUDY CONFIGURATIONS
Figure 3-2 Mission, GE J7A12 Engines

Messerschmitt-Bölkow-Blohm, GmbH

MCDONNELL AIRCRAFT COMPANY

3-8

				
ENGINE AND THRUST CLASS	F404-GE-400 OR RB199-34R 16,000 LB		J85-GE-21 5,000 LB	
COCKPIT	TWO PLACE	TWO PLACE	TWO PLACE	SINGLE PLACE
TAKEOFF GROSS WEIGHT CLASS	19,000 LB	19,000 LB	12,000 LB	12,000 LB
WING LOADING	49 PSF	45 PSF	49 PSF	45 PSF
THRUST/WEIGHT (SLSU)	1.6	1.6	0.8	0.8
FUEL FRACTION	0.21	0.21	0.27	0.27

PIKT SIZE COMPARED TO F-4E

GP78-0669-99

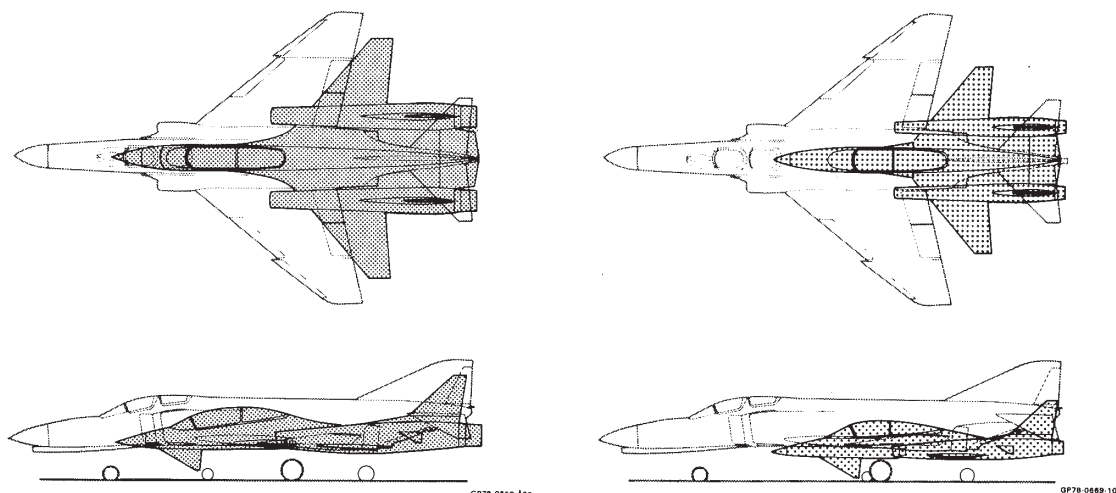


FIGURE 4-3

CANDIDATE PIKT AIRCRAFT

Major Features are Direct Force Modes and Post Stall Controls

The focus of the PIKT project was the combining of new technologies in an effort to design an air superiority fighter dedicated to the European environment. These technologies included digital flight control systems which allowed new aerodynamic control modes and a relaxed static margin (more rearward CG location).

Report MDC 5464 describes two variations of the McDonnell Model 265 VLF and the Messerschmitt-Bolkow-Blohm GmbH Delta Canard. Of interest is the relatively small size of these proposed aircraft when compared to the McDonnell F-4E "Phantom."

The McDonnell Model 279 exhibited a number of the technologies presented in Report MDC 5464 but in a VTOL configuration. Having a single engine rather than two as in the PIKT report designs, the Model 279 utilized rotating nozzles (as the Harrier) and, in contrast to the earlier Model 265, a single vertical surface.

The McDonnell Model 279 is, along with the Model 265, smaller than the McDonnell F-4E Phantom, although not by a very large amount.

Together, the McDonnell Models 265 and 279 are both very good candidates for scale slope soaring machines. Should you choose to model either or both of these designs, we'd appreciate hearing from you!

[illegible]

Technical drawing of the F-15C Eagle showing top and side views with armament and dimensions.

Top View Labels:

- 3,100 LB STATION
- 300 LB STATION
- 300 LB STATION
- 2,500 LB STATION
- 300 LB STATION
- AIM-9J
- 600 GALLON TANK
- AMRAAM MISSILES
- MK-82 LDGP
- STATION 1,150 LB
- BL 27.0
- BL 90.0
- BL 160.0
- BL 70.0
- BL 220.0

Side View Labels:

- 35.8 FT
- 17.34 FT
- 56.0 FT



Nikon D100, 1/1000 sec., f8, 170mm

Bréguet Br 905 Fauvette (Warbler)

This Fauvette was built by Murray Wills 15 plus years ago and is now owned by Darren Norman. It's 1/3 scale and was built from Murray's own fuselage and canopy molds. Wings are plywood skinned foam with a carbon and plywood joiner bar with Kevlar boxes built into the wings to carry the joiner loads.



Nikon D100, 1/800 sec., f7.1, 170mm

The model weighs around 12.5kg. Photos were taken at Tappanappa slope here in South Australia at the annual January Australia Day long weekend slope gathering. — Adam Fisher

