Holdfast Model Aero Club Inc.

Volume 15 Issue 03
May– June 2024

HOLDFAST BUZZ

Inside this issue:

Take Care

We have had very dry weather over the last few months and our reactive clay soil has opened up some nasty cracks. The irrigated area is not too bad but be careful walking to and from the clubrooms. Rain is expected shortly!

Watch out for this Beauty!

Bryan Christie has a big grin on his face after successfully flying his latest model. The P3 Pitts derivative requires a Heavy Model Permit to Fly and Bryan went to Constellation Model Flying Club for the certification. Read the full story on Page 4

The HMAC newsletter is your vehicle for sharing information, experiences, building projects, etc. with your fellow members. If you have photos of your latest model, a construction in progress or handy tip you'd like to share, please send it to The Editor at buzz@holdfastmac.asn.au for inclusion in a future edition of BUZZ.

Kingsley Neumann

"The Committee is always open to suggestions for improvements to our facilities "

From the President

I think that you would all agree the safety fence looks great. It is neat and functional. I particularly like the view from the southernmost pilot box when landing from the south to the north. Thank you to everyone who contributed to the project especially Geoff Haynes for the design and Kirk Winters for his coordination with the contractor. The construction went well despite some intrusive rain which resulted in some minor vehicle damage to our grass surfaces. However, a well-attended working bee a week later managed to spread some high-quality topdressing to fill the dents. Now we really could do with some decent rain to get the grass growing again.

I am pleased that the Committee's Budget proposed for 2024-25 went through the approval process without a hitch. A key item of expenditure relates to our intention to continue with improving the flying field surface as much as we practically can. Experiments have already started with a certain weedicide and fertiliser combination. There will almost certainly be further working bees to spread topdressing material and perhaps to modify the irrigation pattern.

A sealed runway is out of the question due to the tremendous cost. I think that a flat, well maintained grass runway is far preferable for most flyers. It will be a challenge to achieve but let's see what we can do.

I have received several messages regarding possible guest speakers for our Social Meetings. As soon as details are confirmed I will distribute notices to Members. I am happy for the very casual gatherings on the first Friday of the month to continue. Bring along any model for "Show and Tell" or just come along and have a chat with your fellow Club Members. All are welcome from 7.30 PM.

The Club's Financial year ends on May 31st The Club fees have remained unchanged, but we will very soon be informed of the 2024-25 MAAA and MASA affiliation fees for the total package. All current Members will receive an invoice for the new package in early June.

HMAC Is hosting a visit by the Southern section of the SA Scale Society on Sunday 21st July. This is an opportunity to bring out your favourite scale plane or even an ordinary sport plane and see what people from other Clubs are flying. There are some nice models out there and this is an opportunity to have a good look and chat with fellow modellers. It is not a competition, just an opportunity for some fun flying in the middle of winter. I am not taking bets on the chance of a fine sunny day! HMAC will put on a BBQ Lunch (for a fee of course). And there will be no Flying Training for that day.

The Committee is always open to suggestions for improvements to our facilities and I am currently considering a new location for the windsock. Don't hesitate to let me or any other committee person know about your ideas.

Kingsley

Acting President

Racing is well under way for 2024.

Fly Fast and Turn Left!

Pylon Racing Results

5 May 2024

Open class

Tom Jacobsen (Noarlunga)	105
Pete Robertson (HMAC)	102
Greg Leigh (Noarlunga)	90
Graham Paterson (HMAC)	89

Standard class

John Jefferson (HMAC)	64
Bryan Christie (HMAC)	55

Electric class

Trevor Pearce (Connie)	93
Pete Robertson (HMAC)	92
Greg Leigh (Noarlunga)	91
Craig Spratt (Connie)	85

P3 Prometheus

By Bryan Christie

This beautiful model was recommended to me by a good friend. It was advertised in RC Trader and located in Sydney. This is a rare Hangar 9 prebuilt kit that has been discontinued. The price included airframe and petrol engine with scale Pitts exhaust. The extras needed included a Spektrum PowerSafe 10400T receiver and 7 Savox 1270 servos. I installed a smoke system with a tankful of diesel and baby oil. I can't reveal how much it all cost me, but I have admired this model for a while now, so it doesn't matter.

The full-size aircraft is flown in USA and International Air Shows by Skip Stewart. He designed and built this powerful 400HP version of a Pitts S2S, known as a P3 Prometheus. There are many YouTube clips with his full story. Skip started flying RC at 9 years of age in the USA and has had an extensive career in aviation. He is a qualified captain on B727 and MD11 jets.

After careful checks and ground runs for the engine and radio I took the model to Constellation Model Flying Club recently to have the Heavy Model inspection done by Trevor Pearce. The model was fully inspected and was granted a Permit to Fly. My dad Alan, Peter Robertson and Graham Patterson came along to support me.

The first flight was nerve wracking, as expected, however the aircraft was stable and almost no corrective trim was needed apart from a little right trim on rudder. I did quite a few circuits then a couple of rolls and landed.

"The first flight was nerve wracking, as expected"

The model is slightly tail heavy and was very sensitive to control inputs, so I added exponential. Trevor said he could mark the permit down for light acrobatics - or I could take it up again and demonstrate a loop and a snap roll with all controls surfaces fully crossed over. I decided to go for it right there and then!

On this, the second flight after the maiden, I did a couple of circuits to settle my nerves. Then I did a large diameter loop and selected "smoke on". I dived and then pulled straight up and crossed the sticks full over. Well, it was spectacular! Smoke drifted across the field and lots of people were impressed! Mostly me...

I gained the certificate and had the best day!

A special thanks to all who helped me and came to watch!

Skip Stewart P3 Pitts.
Engine 55 DLE
Weight 9.4kgs
Colour Black/ Red and White.

John Jefferson

"I never throw away anything that could be used in a new model or to repair an existing model."

HANGAR QUEEN to OODALALLY—COMPLETION

By John Jefferson

It's taken eight months of on and off input to build the Oodalally (I still shake my head when using that name) model from bits and pieces salvaged from my (Hangar Queen) combat Fokker DVII.

The final stages included covering, installing servos, control rods and horns, electric motor, speed controller and receiver. Once the Rx and Tx were bound and servos centred, the control surface deflections were set along with high rates, medium rates and low rates with a little exponential.

I experimented with a couple of different prop sizes to see what power output they would deliver. I settled on an 11x8 E which delivered 160 Watts, a respectable output. Then a problem arose; 11 inch diameter prop resulted in minimal prop ground clearance when the model was horizontal. Given the rough condition of our field a prop strike would be a certainty, so I removed the undercarriage legs and fitted longer ones with larger diameter wheels which then gave adequate prop ground clearance.

I was pleased with the final weight which came out at 48.8 ounces (1300g) including battery. A wing area of 2.25 square feet resulted in a wing loading of 21.6 ounces per square foot; a relatively light loading which should make it a gentle flyer.

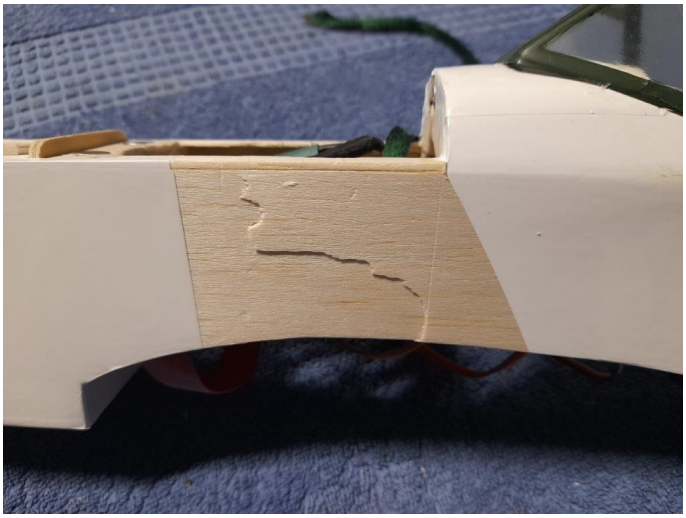
I was also pleased with the centre of gravity. No additional weight was needed to get the balance right other than a small metal spinner also salvaged from the DVII.

Recapping, the wing incidence angle is 2 degrees positive, prop thrust is about 2 degrees down and 2 degrees right, CG good, 32 equivalent electric motor, 50 Amp speed controller, 3S 2200 battery, weight 1.3 kilos. So, in theory all the factors appear to be within tolerances for the maiden flight to succeed. Now it's up to me to prove the theory in practice.

The day came for the maiden flight; very light south westerly breeze. I co-opted fellow instructor Graham Paterson to stand with me in case I needed help with trims. All checks completed, point into the breeze and start the take-off roll – oops, it nosed over. Not enough elevator authority to keep the tail down during the roll. Quick adjustment on the transmitter and try again. Up she goes, and then the wild gyrations started. It became obvious that there was way too much aileron authority and the model rolled left and right as well as up and down while I was trying to stabilise it in flight. No such luck. Definitely too much control surface movement. A few very anxious moments as I tried to settle the model down for a landing, head into wind, power off and try to glide in. A rough arrival ensued (I couldn't call it a landing) and it nosed over.

At first glance there were no obvious broken bits, but back in the pits it certainly became obvious that there was a fracture on the fuselage's left side approximately over the centre of gravity position. Also, the landing gear legs were pushed back.

Back home in the workshop a closer look confirmed the fracture. Oh well, back to the drawing board. The damage is relatively minor and repairable and I'll get around to it, eventually. The joys of modelling.



The highly modified Oodalally has turned out to be quite a nice looking machine. John put a lot of work into redesigning components. A rough arrival after the first flight resulted in some minor damage which was revealed after removal of some covering John is confident that it will fly again without too much trouble.

Around the Field - part 1

Test Stand and Table

Our thanks go to committee man Bryan Christie for this nice bit of work. The engine test stand and table had fallen into disrepair and consequently very little use was being made of this piece of club equipment.

What a difference! The table looks good enough to eat your dinner from! The top is now marine grade plywood and it has been stained a deep mahogany. All the metal pieces have been cleaned up and re-painted.

Bryan runs a home maintenance business in between doing stacks of work around the field for the Club, Instructing and model flying. Keep him in mind for any work you might need doing at your place.

WING INCIDENCE by John Jefferson

Over the years I've written about models I've built. One aspect of critical importance is setting the wing's angle of incidence, usually two or three degrees positive. So what is the angle of incidence and why is it important?

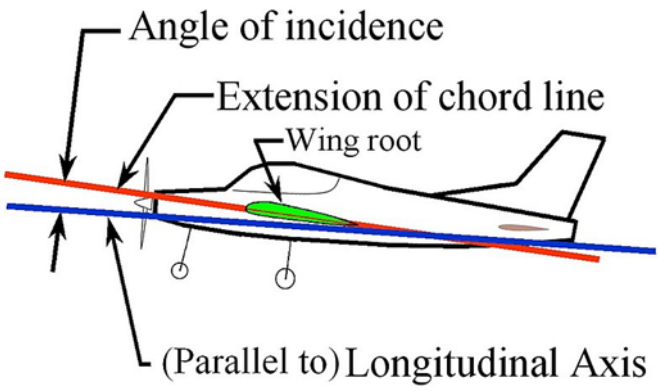
The following diagram shows the incidence angle in relation to the aircraft's longitudinal axis (a line from nose to tail). The chord line is a line from the wing's leading edge to its trailing edge.

My method of setting up a positive angle of incidence is first to make sure the horizontal stabiliser is set parallel to the longitudinal axis during the build. When using a plan I draw the longitudinal axis on the plan itself and use that as a reference to see if there is a positive angle of incidence for the wing, which you would expect to be so (a protractor comes in handy for this exercise).

The model is then set on my work bench, using a spirit level to ensure the longitudinal axis is level. Next I attach my trusty Robart incidence meter to the wing and hopefully there is a positive two or three degree angle. If not, then some adjusting may be necessary, e.g. changing the wing's mounting points and perhaps re-shaping the wing cut-out section on the fuselage sides.

Why is a positive angle of incidence important? Wing design and wing loading also have a role in how an aircraft will fly; but essentially having the wings at an angle and fuselage horizontal means that drag is minimized, while the wing has the required angle of attack. Simply put, the model should fly better with this configuration.

Aerodynamics is a vast subject and my comments are not definitive as different designs result in different performance capabilities.



Around the Field

Kirk, Matt and John

Matt with a Club Apprentice and proud Dad Thomas

14th April 2024 Congratulations to Matt Kerff on reaching Bronze Wings Standard. Instructors on the day were Kirk Winters and John Jefferson. Matt (13 years) his brother Ash (11 years) have been with us since July last year and have applied themselves diligently to flight training. Their Dad Thomas has supported the boys in between sports and other commitments. Ash will soon be ready for his flight test. Matt is now handling the family Mini Apprentice very confidently.

Ian Briggs joined us early this year and is steadily making progress in through the LIFT Syllabus. Last week he revealed this very attractive 3D printed model. He has done an excellent job. It looks to be a very sleek and fast flying machine, probably best left as a third model and transition firstly onto something more docile.

Well, I don't think I have ever seen one of these at HMAC! The magnificent five cylinder radial Saito was brought along to a Friday night meeting by Stewart Jackson. He has converted it to petrol ignition and made a special mount to ground test it. Stewart is an experienced modeller with a long term interest in all things mechanical. Stewart joined us last year and is on the Committee kindly helping out as Assistant Treasurer. There will be a profile on Stewart in the next BUZZ. I bet this engine sounds sweet!

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Newcomers to r/c modelling are catered for by setting aside every Sunday morning from 10 am when qualified instructors will teach all aspects required for the safe operation of the model. During the training period no other models are allowed to fly, ensuring the least possible distractions to the student.

UPCOMING EVENTS

Pylon Racing
Sunday June 2nd
Sunday July 7th

Scale Society Visit
Sunday July 21st

Social Meetings
Clubrooms
Friday June 7th
Friday July 5th

Committee Meetings
Via ZOOM
Tuesday June 11th
Tuesday July 9th

Annual General Meeting
Of HMAC Members
Via ZOOM
Friday August 2nd

New Members

There were no new members in the last two months, however we are still getting registrations for Come and Try visitors most Sundays.

It is to be expected that prospective new Members at this late stage will wait until the full membership year commences on July 1st

Instructors

We are very grateful for the work put in by our MAAA rated Instructors. We are about to lose Geoff Haynes. This will increase the workload on our current group of Instructors.

If you are an MAAA rated Instructor who is able to take a spot on the roster please contact the secretary.

If you are Gold Wings rated and would like to help out but do not have the MAAA rating please notify the secretary. You could be a nominated as a "Club Instructor" and attend the next MAAA Instructor course for an upgrade.

Flying Achievements

Name	Award	Instructors
Matt Kerff 14/04/24	Bronze (P)	J Jefferson, K Winters