Holdfast Model Aero Club Inc.

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HOLDFAST BUZZ

Inside this issue:

Save the Date!

The AGM will be held on Friday August 6th via Zoom, commencing at 7:30 pm.

Members will receive an invitation to the Zoom Meeting prior to the event.

Why not join us from the comfort of your own home?

Dawn for a New Beginning

Terry Gold snapped this atmospheric shot of his Flex Innovations Extra while waiting for the sun to rise on a recent Winter's Morning

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.

Terry Gold

From the President

Hi Everyone,

As I am writing this column for Buzz we are four days into our most recent lockdown and another winter storm rages outside. Hopefully you are home safe and warm with a project to work on to keep you busy. And if not, maybe a balsa kit or a 3D printer should go on your list of emergency preparedness items. I'm making good progress on my Electric Kaos with this extra time at home.

After last month's social meeting where we learned more about pylon racing, I was looking forward to getting together with everyone again for the upcoming Annual General Meeting. But given the uncertainty about what restrictions might be in place for the meeting, the committee has decided to do the AGM online using Zoom like we did last year. We had very good attendance last year and I hope we do this year as well. Watch your email for the details and mark your calendar for 6 August at 7:30 PM.

Speaking of pylon racing, I'm going on the record to say I'm going to give it a go, and maybe you will too. Peter, Kathy and Graham have had an idea about making it easy for people to try out pylon racing so there is talk about an afternoon where you can fly what you have around the course to see what it's like. Kind of an unlimited class for beginners. They assure me that anyone can do it and that you'll have fun, so look for more info on that upcoming event.

Since I'm enjoying building nearly as much as flying, I've decided to build a simple pylon racer. I'm thinking that an upcoming social event could be put together around Beginner Building to help others get started in this part of the hobby. I've now dabbled in foam board, Corflute, and balsa. You don't need a lot of room or a bunch of tools to get started and it is very satisfying (and a bit scary) to fly something you've built yourself.

Geoff Haynes tells me there is a lot of interest in the club around building with 3D Printing, and he's agreed to do a future social meeting about this new way to build aeroplanes. I can only imagine how exciting it is to see an aeroplane just appear on the bench and I know some of the traditional builders are starting to use it to create parts, such as detailed cockpits. Fun stuff.

When the weather warms up and the winds die down, there is talk about doing a night fly at the field. It's a nice thought to have on this cold, windy and rainy morning. As I often do, I just checked my phone to see what the wind is at the field today. No flying today, with or without the lockdown, so maybe I can get my wing done instead.

I'll end this column with a thank you to Bryan Christie who has put in many long hours doing building maintenance these past months. From demolition to mouse proofing, to painting and refinishing, he's gone after it with enthusiasm and craftsmanship. Thank you, Bryan!

Terry Gold

"Speaking of pylon racing, I'm going on the record to say I'm going to give it a go, and maybe you will too"

Terry's scratch-built Electric Chaos is coming on nicely.

Editor's Note: Is that the neatest, tidiest work bench you have ever seen?

Nostalgia

Who knows what this thing is and what it was used for?

See page 8 for the answer

Pylon Racing Results

John Jefferson

6 June 2021		4 July 2021	
Open class pylon		**Open class pylon**	
Pete Robertson (HMAC)	94	Pete Robertson (HMAC)	101
Greg Leigh (Noarlunga)	88	Tom Jacobsen (Noarlunga)	99
Tom Jacobsen (Noarlunga)	30	Graham Paterson (HMAC)	79
		Craig Spratt (Connie)	6
Standard class pylon		**Standard class pylon**	
John Jefferson (HMAC)	63	Bryan Christie (HMAC)	67
Bryan Christie (HMAC)	54	John Jefferson (HMAC)	66
Electric class pylon		**Electric class pylon**	
Trevor Pearce (Connie)	93	Trevor Pearce (Connie)	100
Greg Leigh (Noarlunga)	87	Craig Spratt (Connie)	2
Craig Spratt (Connie)	82		

Pylon Racing HMAC Style is held on the first Sunday of the month subject to weather.

Practice starts at 11.30 am and racing at 1.00 pm

All MAAA Members are welcome.

Come along and have a good look

Many thanks to Bob McEwin, Graham Paterson and John Jefferson for giving a great presentation on the history of HMAC's version of Pylon Racing at a recent Club Meeting. It has been going for 22 years in various formats, thanks to the keen support given by the Locals as well as visitors from other Clubs. And guess what? Plans are afoot for an even simpler version that is not too daunting for newcomers.

Extra 300S - The Maiden Flight

John Jefferson

continues the saga of his Extra 300 built from scratch.

Now it is time for the Maiden Flight!

At last, the end is in sight. After all that measuring, cutting, sanding, gluing and covering it was time to install the electrics and associated hardware. Once that was set up I thought it prudent to check the expected performance of the model using one of the on-line calculator tools where you input the specifications of the electric motor, electronic speed controller, propeller size, model's weight, wing size plus a few other details. The result was not too pleasing as it showed the flight characteristics would be marginal. In addition the centre of gravity was too far aft and I had to add 120 grams of weight to the nose. Clearly this was a legacy of the model being originally designed for a glow motor; not electric, even though I used 40 mm stand-offs to bring the weight forward.

My solution was to replace the 600 kv 32 size electric motor with a 670 kv 46 size motor, still using 40 mm stand-offs plus a slightly larger and heavier spinner. A little surgery to the firewall and cowling was necessary to accommodate the slightly larger motor; a quick fix. The 100 amp ESC installed would be more than adequate for the power output. This negated the need for any weight to be added to the nose and, importantly, the performance calculator showed the expected flight characteristics to be vastly improved. Using my power analyser I had a reading of 32 amps and 438 watts when running the motor, well within the capacity of the motor and ESC. So, the theory and ground tests showed the model was capable of sustained flight. Let's see if the theory is matched by reality.

As usual I waited for a calm day before attempting a maiden flight. That day came and off I went to the field. The model was set up and checked. Battery installed, range check satisfactory, fail safe satisfactory. On the field; some taxying first to get a feel of its ground handling; also satisfactory. No more procrastinating, time to take off.

Extra 300S (cont.)

I turned the model into what little wind there was and gently throttled up, gathering speed, so far so good. It lifted off and then started gently rolling to the left. I didn't like that! Normally I would gain some height and trim it out but this time I decided to come back straight away and land so I could adjust the ailerons on the ground. All I had to do was hold a little right aileron to keep it stable and set up for a landing. As I turned from downwind onto base I let the airspeed bleed off too much (not yet having tested the model's stall characteristics), then disaster. The left wing tip stalled and the model went into a spiral dive from a height of no more than 7-8 metres, not enough height to give me time to recover...crunch. Not even a full circuit and it went into terra firma terribly firmly.

Walking to the crash site in the middle of the field the damage didn't look too severe. The cowling had disintegrated but the rest of the fuselage looked to be intact. The wing had a fracture and was definitely compromised. Ah well, pick up the bits and pieces and take them home for a proper post mortem.

At home I stripped all the equipment and went over the whole airframe to assess the damage. Apart from the firewall and cowling the fuselage was indeed intact; an easy repair. The wing had a fracture running fore-aft plus some minor dents. I considered it would be preferable to build a new wing and be sure of its structural integrity rather than attempt a repair on the fractured wing.

An email to club member Bob McEwin and I soon had a new firewall and basic components for a new wing. Time to start repairs and see if I can get the Extra 300s to take to the air without drama.

3D Printed Bush Plane by Geoff Haynes

I've owned a 3D printer for a couple of years and found it very useful for creating custom parts for my models, such as battery trays, support brackets, etc..

More recently I noticed a few companies that specialise in the design of model aircraft that can be fabricated on a 3D printer. They have paid particular attention to thin-wall construction together with structural integrity. The resulting models are lightweight, quite robust and easy to put together. All you need is a 3D printer and a roll of plastic filament. The supplier provides a set of files at a cost of $30-90 depending on model size and complexity, which are used to print the aircraft.

I purchased files for a nice little 1.1m wingspan bush plane from Eclipson (www.eclipson-airplanes.com) for ~$40 and a 1 kg spool of filament for ~$30. The build used about half of the filament, so the cost of the airframe was ~$55. Time to print all the parts was approximately 40 hours, but is performed unattended so you can go about other things while the magic is happening.

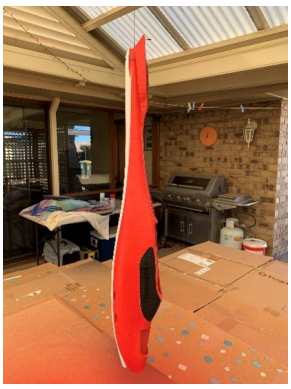
Printing fuselage section

Mock-up of fuselage before gluing

Completed airframe

Gluing the parts together, adding electronics plus miscellaneous hardware, masking & painting took another 15 -20 hours. With the build complete, I then configured the model in my transmitter for a useful combination of flight modes, expo and rate settings, verifying that failsafe behaved correctly with loss of connection.

Terry Gold took video of the maiden flight. It was fairly uneventful, requiring only some down trim to achieve level flight. With a flying weight of just under 900 grams, the plane is certainly susceptible to wind effects, but I can dial in some stability to smooth things out if it gets gusty. It tends to drop a wing in a stall but recovery is not difficult.



Adding some colour

On final approach during maiden flight

I am quite impressed with the design of the Eclipson models. The parts interlock precisely and the hinging system for control surfaces is excellent. I'm already looking at which model to choose as my next 3D printing project.

NOSTALGIA Page

The Mystery Object

Actually, it's not such a big mystery really. I am sure that there are plenty of older members who can easily remember the HMAC FREQUENCY TROLLEY! So this is a form of nostalgia for some but may be a revelation for the more recent entrants into the World of Radio Control.

Such devices were in regular use at Model Flying Fields in Australia for probably 30 years or more until the advent of today's clever 2.4 GHz radio systems. The older RC systems in the 1970's were sold initially on the CB frequency of 27 MHz until that became too crowded by trucks, and 4WD vehicles which caused interference. We then moved to 29 MHz and just a small number (12 from memory) of channels within that band. There were also just three channels available on 40 MHz. We were able to use a set of coloured pegs to indicate each frequency or channel. You collected the correct peg from the windsock area and clipped it onto your transmitter aerial before switching on. Everyone needed a peg to fly. We were still subject to interference from outside sources and also had a fatal interference with each other when identical channels were activated.

We felt quite sophisticated when the dedicated 36 MHz system was introduced in Australia. Many channels were available with the ultimate FM narrow channel spacing. Everyone had to have their radio tested once every 2 years by an approved MASA technician and certified with a sticker attached to the transmitter. The HMAC Frequency Trolley used a version of the Australian Silvertone Frequency Board to safely indicate separate channels. Some radios were better than others and had a relatively narrow band represented by a one inch (25mm) wide plastic "key". Others had a two inch (50mm) key . The keys were designed to fit into the special slots which you can see on the backboard of the trolley. The slots were cleverly designed to allow adjacent narrow key operations for the better FM radios, but those with wide keys (ordinary and cheaper AM radios) would overlap the narrow bands on either side. Anyone who had failed to get his radio certified was forced to use a FOUR inch key which covered five or six slots! If someone else was on your channel and had his key in the board, you could not fly until he had landed, switched off and removed his key. You could not even remove the key for him. It was the flier's own responsibility to clear the channel. And woe betide anyone who forgot to put a key in the board, allowing someone else to come along and, seeing the empty slot, place his key in the board. He would go back to the pits and innocently switch on his radio. He was probably only vaguely aware of the shouts coming from the flight line where somebody had suddenly lost control. In the post crash investigation all would be revealed.

Other features of the trolley were the transmitter pound on the top designed to keep the transmitters separated away from the actual model until required. The mounted windsock is on the stick out of view in the photo. There was a notice board with stern warnings and a system of hooks to hang your key on if your channel was occupied. This established the next in line for a popular channel. The trolley was ingeniously supported on two large pram wheels with a smaller dolly wheel fore and aft for balance. The trolley was stored in the garage (now the kitchen) and had to be wheeled all the way out to the pits and put away again at night. It also contained flags and markers for the flight line area.

Kingsley Neumann

(*Please let me know if you have any further nostalgic contributions for this regular page).*

What's Happening Around the Field

1. Well firstly, we cannot ignore the Lock Down. At least the weather so far over the week from 20th July to 27th July is so bad that nobody could fly. Even the magpies have taken the week off!
2. One thing is for sure, with all this rain, the weeds will start growing like crazy. We will call a Working Bee or two to address the problem (dates TBA)
3. Bryan Christie has completed the work on the old storage annexe and is now starting on the kitchen area. Bryan is a fastidious worker and model builder and his help is greatly appreciated. Sometimes extra help will be called upon. The Main Clubroom exterior is on the list and will definitely require helping hands.
4. The rubbish bins on the patio have been replaced with a smaller bin. Please try and keep the area tidy. We have a monthly rubbish bag collected by a contractor. The bag is on the NW corner of the Clubroom. Please don't fill our bins up with your rubbish if it can be taken home. This includes crashed model planes in the flight line bin.
5. A Word to the Wise #1. Please do not sit on or in front of the Safety Barriers at the Flight line. They are there for exactly that. Your Safety is important to us.
6. A Word to the Wise #2. Please do not fly your model from the shelter shed. It may be tempting on a cold or drizzly day, but don't do it. Safety again. You are welcome to carry a chair out to the Safety Barriers if required. Keep Safe.

Merchandise Sale

Did you know that the Club has some very nice merchandise for sale? It is always for sale but it seems to have been forgotten over the past year or two. I think there is nothing more unifying than to see our Club Members arrive at the field whether it be for a social occasion or to fly that latest masterpiece. The items consist of Polo Shirts, Caps, Cloth Badges, Metal Badges etc.

If you check the HMAC webpage you will find a link to the well illustrated advertising page:

https://holdfastmac.asn.au/merchandise/

Contact Kingsley on 0427 973902

CHECK OUT THE PRICES!

Even if the older styles do not appeal, how could you refuse such a bargain? The older styles are often worn for everyday visits and you can save the latest ones for Sunday best!

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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
August 1st
September 5th

Annual General Meeting
ZOOM Online
August 6th

Social Meetings
(Subject to COVID meeting room restrictions)
Friday September 3rd
"Turbines"

New Members

Welcome to new Members Jim Gardiner, Xavier Lomas (Junior), Rahul Chandan and Garry Head. Jim and Garry are well known experienced flyers and were previous Club Members. Xavier is the young son of Ian Lomas and Rahul is learning to fly. LIFT continues to attract potential new Members.

Instructors and Assistants

Andy Hollitt has refined a system of notifying Students and Instructors if Flying Training is to be cancelled due to unsuitable weather (Too Windy, Too Hot, Too Wet or Reduced Visibility). This notification comes out around 7.30 AM on a Sunday by SMS text.

The following Instructors are often available and are invited to assist when they can:

John Jefferson, Kingsley Neumann, Johan Van Wijk, Kim Whitburn, Dave Whitten, Kirk Winters and Ian Lomas. Midweek Instructors are Geoff Haynes, John Muckalt and Phil Norwood. Current Assistants include Garry Williams, Karl Heberle and Don Nairn.

The Club is fortunate to have such a dedicated band of Instructors and Assistants who offer their services to learners almost every Sunday. We would like to have more people available to ease the workload. If you can help, please speak up and we can arrange the necessary familiarisation with the LIFT program. Gold Wings standard is a prerequisite for all Instructors. A Working With Children (Dept of Human Services SA Govt) clearance is required for all persons working with children under the age of 18 years.

Check out the Model Flight web page for the latest on offer https://www.modelflight.com.au/

That E-Flite Piper Cherokee is so lovely and would make an ideal first scale model.