



HOLDFAST BUZZ

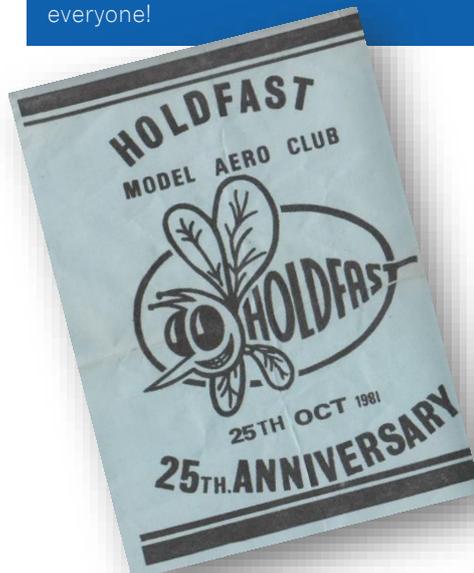
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HMAC's Low cost Integrated Flight Training (LIFT) training program has recently been had the problem of being too popular with not enough instructors and too many students. Thanks to the help of new instructors along with an initiative for mid-week training sessions by invitation, the students are getting the training time they need leading to rapid improvement and flying achievements (see page 6). Well done everyone!



Page 3:
Check out the blast from the past from HMAC's 25th Anniversary newsletter

**General Meeting
April 5th
Save the Date!**

Join us at 7:30pm on Friday 5th April for our general meeting for a presentation on balsa building.

See the President's report on page 2 for more information.

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 Chris at buzz@holdfastmac.asn.au for inclusion in a future edition of BUZZ.



"... the Club now has a record 126 Members. This is quite an achievement when other Clubs have experienced falling numbers..."

From the President

The Summer is drawing to a close. No sign of rain yet and so, like clockwork, our dehydrated field is cracking up again. The water just keeps the landing area safe, as long as you land on the "runway" strip between the fence markers. If you wander off into the rough areas, you may damage your aircraft's undercarriage. We have a Working Bee scheduled for Saturday morning 13th April and we will make a big effort to fill as many cracks as we can and to tamp down the sandy loam. It is a difficult job, but we must do it if we are to survive these drought conditions, including the possibility of a very dry winter

We have had a couple of incidents in the last week which highlight the hazards of RC flying. One involved severe lacerations to a member's leg and the other was the loss of a favourite training plane by an Instructor. A special feature will be published on how to minimise the risks of injury.

On a more positive note, the Club now has a record 126 Members. This is quite an achievement when other Clubs have experienced falling numbers. Our LIFT scheme certainly attracts newcomers and they are generally keen to join up after a few trial flights. CFI Kim Whitburn has implemented regular Mid-week training sessions to alleviate the overcrowding on Sunday Mornings. Fortunately, we do have a number of Students nearing the end of the training syllabus. In fact, in a recent week we promoted 6 Members to higher Wings Levels ranging from Bronze to Gold. The Committee has decided that Instructors should go straight for the MAAA Bronze Test at the end of LIFT, eliminating the HMAc Solo. This is more efficient and manageable for everyone.

HMAc has a well-deserved reputation as a Training Club. One great benefit of this is our Membership numbers. The challenge is to hold onto those Members. It is so easy to move on to more challenging planes with the fantastic RTF products available. Scale models look great and generally fly really well too, unlike the early days when you had to spend months or even years working on a project.

Our next General Meeting will have a presentation by two Members, Merv Harris and Mal Dyer who are dedicated balsa building enthusiasts. A very enjoyable part of our hobby was always time spent on projects out in the shed!

It may be time for newer Members to consider some of the competition classics such as Gliding, Pylon Racing and Aerobatics. There are groups in South Australia to cater for all of these interests. Just check out the MASA newsletter for details.

April will see the opening of the new Glenthorne Recreational Park which is an expansion of the old O'Halloran Hill Recreation Park. A large opening day event will be held on Majors Road on the first weekend in April. The Club will be manning an information Booth there to advertise our presence. Why not call in and see what is happening up the road? We have been reassured that we are safe to continue in our leased areas.

Don't forget the regular Club Competition day which is always held on the first Sunday of the month. A BBQ lunch is provided. It is a friendly competition day and just by talking to the entrants you could well become interested in these activities and start competing.

Our regular monthly competitions kick off again Sunday, Apr 7th, with pylon racing and combat.

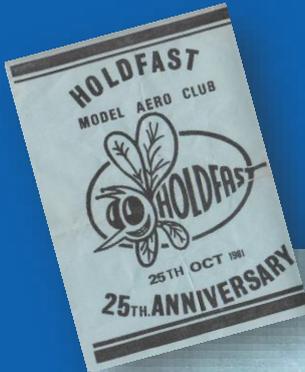
Kingsley Neumann

President

Working Bee April 13th

Please join us on Saturday 13th April at 8:00am for a working bee with the main task to fill the cracks in the landing strip and rubbish removal. Many hands makes light work so please bring along rakes, shovels and something to tamp down the soil if you can.





HMAC 25th Anniversary Revisited

Thanks to Andy Hollitt for finding and sending through the HMAC 25th Anniversary Newsletter which shares the early history of HMAC. Here is a section that could bring back some memories for our long time members...

HOLDFAST MODEL AERO CLUB

TWENTY FIVE YEARS OF AEROMODELLING

Aeromodelling has been successfully applied for about 100 years. It is no secret that when a new full size aircraft is designed many models are built and flown either in a wind tunnel or in actual flight. Every time an enthusiast designs and builds his own aircraft he joins that select group of aerodynamic designers. Holdfast members have been doing just that for 25 years.

In 1956 the control line model aircraft was the popular form of modelling. Motors were reliable and large stunters were all the rage. These were flown on Colley reserve Glenelg and future Holdfast members were amongst the flyers who entertained the public on Sunday afternoons. Radio control was still very experimental and in the preceding years only the daring would trust their models to the free air under the control or otherwise of this new form.

Colley reserve was now being used by modellers from all over Adelaide, and the older flyers could see from the interest of the general public that there was sufficient reason to form a club that could satisfy the many local queries that were received. Thus Holdfast was born. Early meetings were held in a senior members home but as the club grew it was found necessary to move to the community rooms of the town hall at Glenelg. Fortnightly meetings were instigated and this format has continued throughout the 25 years except for the venue change to the new community rooms in Partridge Street Glenelg.

Control line models still predominated and with the Colley reserve field being placed off limits a new area was obtained at the Morphettville racecourse.

As the interest in radio control became more popular with the advent of more reliable units the control line aspect of the club declined. More members began to fly radio and the diehards in control line drifted away to clubs specialising in this field. This of course happened over about eight to ten years. Members gained more expertise in Radio control techniques and with the introduction of the modern proportional sets the club became as we know it today.

Radio control requires large flying areas and various sites were used. The southern areas were the logical choice. These were of course not built up like they are today. In fact the first field was a privately owned airstrip now in the heart of Christies Beach.

At one stage it was unheard of to move stock out of a paddock and in fact now a landing strip (with the farmers permission) before any flying could be done at all. The club was now firmly established and the club could see the necessity for a more permanent (or at least semi-permanent) field. With the kind permission of another farmer at O'Halloran Hill and with a lot of help from the State Planning Authority the present field was established. We now lease this area from the State Planning Authority and there is no doubt that without their help we would not be in the position we are.

Fences were erected and car parks were laid out. The field has been planted and a water reticulation system has been installed. Regular rolling has made the field ideal for our purposes. A regular membership of 60-80 people has helped to make Holdfast Model Aero Club one of the leading Clubs in S.A.



Hybrid Model – Modifications by John Jefferson



"...The moment of truth had arrived; time to test-fly the Hybrid. I waited for a suitable day to see if my contraption would do what I hoped it would, although I still had reservations about its weight ..."

Now that the Hybrid was finished, I was not happy with its weight, particularly that I had to add 180 grams of lead to the nose to get the centre of gravity just right. The excess weight increased the wing loading which would mean a higher stall speed with corresponding higher take-off and landing speeds; not ideal! What to do? Rummaging through my copious parts bin I knew I had a set of 50 mm stand-offs; in fact, I had two sets. Fitting these moved the electric motor forward by 50 mm which in turn eliminated the lead weights in the nose. Now that the motor was moved forward the cowling needed to be extended also. Hmm...how was I going to make a lightweight cowling extension? Looking at the collection of bits and pieces in the workshop I spied a round plastic takeaway container that was about the right size. I cut the bottom out, sprayed it with white paint and it fitted reasonably well. It wouldn't win any prizes but at least it does the job.



The moment of truth had arrived; time to test-fly the Hybrid. I waited for a suitable day to see if my contraption would do what I hoped it would, although I still had reservations about its weight. Lining up into the wind I opened the throttle and she picked up speed, tracking nicely down the runway. I gave her a touch of up elevator, but she refused to lift off. More speed and more up elevator but still no lift off. The southern fence loomed ominously so I cut the throttle and taxied back. Obviously not enough elevator authority; a simple fix and the elevator had more upwards movement.

The second attempt was more successful. A nice track down the runway, a touch of up elevator and she was airborne. The controls were just a bit sloppy at slow airspeed but improved as the speed increased. Just a little down trim on the elevator had her flying hands off. Happy with that. Some basic manoeuvres were accomplished without drama, although the model's heaviness was apparent. Time to land, making sure the speed did not decay too much. She came back to terra firma in one piece. I decided not to follow up with another flight but take it home and see what I could do to reduce the weight.

Back in the hangar I decided the Hybrid definitely needed weight reduction surgery. No mucking about with diets, this was a job for the obesity surgeon. I started by removing all the electrics and undercarriage in order to look at what could be cut out or modified. I have this habit of over-engineering a model, usually by incorporating excessive reinforcing. Some surgery took out the unnecessary reinforcing.

Next, I cut sections out of the fin, rudder, elevator halves, rear fuselage sides and part of the turtle deck – surprisingly only a pitiful few grams of balsa came out of all this slicing and dicing. These sections would later be patched up with covering film. Instead of the fairly heavy 4S 4000 mAh battery I changed the setup to accommodate a smaller and lighter 4S 2200 mAh battery. The next obvious item was the heavy-duty aluminium undercarriage with wheel spats. I changed it to a much lighter aluminium undercarriage and deleted the spats.

After reassembling the model, I had hoped the weight reduction would be worth the effort. When I checked the centre of gravity, I still needed a little more weight in the nose, this time just 60 grams, which was way better than the 180 grams needed for the first effort. I hoped I wouldn't need extra weight but alas it didn't turn out that way for me.

The electronic scales indicated the revised weight with battery was 1.6 kg, a reduction of 310 grams or 16% from the previous 1.91 kg. Not as much reduction as I would have liked but at least the wing loading would be less, about 25 oz/ft² compared to the previous 30 oz/ft². The obvious benefit would be a reduction in stall speed with corresponding reduction in take-off and landing speeds. To further help reduce the stall speed I set both ailerons in a slightly downwards position to act like flaps; this effectively increases the wing camber which generates a bit more lift. The down side is that a bit more drag is generated.

The next test flight will interesting. Hopefully the modifications will result in a successful flight, or rather many more flights. The challenge of building something and seeing it fly is very compelling.

To be continued.



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**BEST
 BRANDS
 IN RC**

modellflight RC

Electric Model Safety by Ian Faulkner

Electric powered models are more dangerous than IC powered in at least one respect; if the battery is connected to the Electronic Speed Controller, then inadvertently bumping the throttle stick may turn the motor on. This can happen in the pits while preparing for flight or while carrying the model to or from the flight line.

There are several safety features that can be implemented.

1. Safe Tag

It is a requirement at HMAAC to use a Green ribbon Safe tag on all unattended electric models to give a visual indicator that the model is not armed. Details are on the website at <https://holdfastmac.asn.au/technical-articles/safetag-system/>

2. Throttle Cut

All pilots should implement this function if it is possible on their transmitter. There are many examples on the internet describing how to implement a throttle cut on particular brand transmitters. If you need help, ask an experienced club member.

Remember it is no use programming a throttle cut if you do not use it! If possible, program a throttle cut and develop the habit of activating it:

- a. Before turning on the transmitter (of course you turn on the transmitter before plugging in the battery and turning on the receiver, don't you?)
- b. Immediately after landing and taxiing back to the flight line. I.e. before picking up the model to take it back to the pits.

3. Arming Jack

This is especially useful for models that use a LiPo larger than 3S. It is harder to implement on small models. An arming jack is inserted between the battery and the ESC on the fuselage. This is placed in series with one of the leads and is held open circuit by a dummy plug with a green safe tag ribbon. At the flight line the dummy plug is removed and a plug inserted to complete the circuit. After flying the dummy plug is reinserted before carrying the model to the pits. It is important to not stand in front of the model when inserting and removing the arming plug.

4. ESC Switch

A few ESC's come with a switch which cuts power from the ESC to the receiver. The club Apprentices are fitted with such a switch. Ensure that the switch is turned off before plugging in the battery. Note that it is still possible for external interference to cause nasty consequences while there is power to the ESC.

5. Restrain Model

When programming an electric model, you must either remove the prop or restrain the model.

Finally, the most important safety feature is you the pilot. Safety features are like seatbelts in a car. Seatbelts are useless if you do not fasten them. Work out the best feature(s) to suit your model and train yourself to USE them.

Flying Achievements

Award	Member	Instructors
MAAA Instructor	Geoff Haynes	SFI
Gold	Geoff Haynes	Kim Whitburn, John Muckalt
Silver	Bryan Christie	Kim Whitburn, John Jefferson
Silver	George Yiambouranis	John Jefferson, Geoff Haynes
Bronze	Robin Moore	Kingsley Neumann, Kim Whitburn
Bronze	Terry Gold	John Jefferson, Ian Cole
Bronze	Kai Duffield	Kingsley Neumann, Kim Whitburn
Bronze	Geoff Loades	Kim Whitburn, John Muckalt
Solo	Peter Schwerzel	Bob Tait, Ashley West

"...There are many examples on the internet describing how to implement a throttle cut on particular brand transmitters. If you need help, ask an experienced club member ..."





UPCOMING EVENTS

- Wed Apr 3 - MASA Meeting
- Fri Apr 5 - General Meeting
- Sun Apr 7 - Pylon & Combat
- Sat Apr 13 – Working Bee
- Wed Apr 17- Committee Meeting
- Wed May 1 - MASA Meeting
- Fri May 3 - General Meeting
- Sun May 5 - Pylon & Combat
- Wed May 15 - Committee Meeting
- Sun Jun 2 - Pylon & Combat

HOLDFAST MODEL AERO CLUB

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 Newsletter Editor
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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.

Pylon & Combat Competition Results

February 3rd

Open class pylon

No competition due to weather

Standard class pylon

No competition due to weather

Electric class pylon

No competition due to weather

WW I combat

No competition due to weather

WW II combat

No competition due to weather

March 3rd

Open class pylon

Tom Jacobsen (Noarlunga) 105
 Pete Robertson (HMAC) 83
 Graham Paterson (HMAC) 79
 John Yianni (Constellation) 56

Standard class pylon

John Jefferson (HMAC) 64
 Barry Grivec (HMAC) 63

Electric class pylon

Craig Spratt (Constellation) 90
 Pete Robertson (HMAC) 44

WW I combat

No missions flown

WW II combat

No missions flown

Welcome!

We have some new members! Welcome to HMAC Andrew Kallinicos, Terry Gold and Waldek Duda. We hope you all continue to fly at our club and are enjoying being a part of a great sport.

Instructor Roster (Apr-Jun)

Date	Instructor	Instructor	Assistant
APR 7	Kingsley Neumann	Kim Whitburn	Geoff Haynes
APR 14	John Jefferson	Ian Cole	Ted Carter
APR 21	EASTER SUNDAY	(No official rostered)	Instructors)
APR 28	Kingsley Neumann	John Muckalt	Don Nairn
MAY 5	Kim Whitburn	Geoff Haynes	Ted Carter
MAY 12	MOTHERS DAY	(No official rostered)	Instructors)
MAY 19	John Jefferson	Kingsley Neumann	Don Nairn
MAY 26	Kim Whitburn	Ian Cole	Ted Carter
JUN 2	John Jefferson	Kingsley Neumann	Don Nairn

The following instructors are often available and are invited to assist when they can: Shawn Jones, Ian Williams, Ashley West, Dave Whitten, Philip Norwood, Andy Hollitt, Trevor Smith.

The Club is fortunate to have a dedicated band of Instructors and Assistants who offer their services to learners almost every Sunday. We would like to have more people on the Roster to ease the workload. If you can help, please speak up and we can arrange the necessary Instructor Course. Gold Wings standard is a prerequisite for all Instructors.

