Torque Back.

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Hobart Model
Aero Club inc.
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Inside this issue:

President's Report.

A happy New Year to all.

This year marks a milestone for me, because from coming July, I will be giving away my "day job" and retiring. I have bought a caravan, and my wife and I are going to the northern island for a bit of "grey nomading". So what's this got to do with aero modelling? As I indicated at the last AGM, I will not be able to continue in my role as President for HMAC and will not be standing for re-election. This is a fitting time to remind members and give sufficient time to find a replacement.

Over the years that I have been on the committee as Committee Member, Secretary and now President, it has become very evident that there is more to a model aircraft club than just flying model aircraft, however without the committee attending to all these "other matters", there would not be the facilities and good relationships with our neighbours that we have all come to take for granted. It saddens me (when nominations for committee are called for at the end of our financial year), at the lack of interest or responsibility from some of the rank and file membership; some years we literally have had to "press gang" to get a committee. For various reasons I believe that some current Executive members on the present committee may not be standing for re-election which is going to leave the club in an awkward situation, so I urge all members to seriously consider where their talents could be utilised in a committee position as the future of this club is very dependent on it. I have said this before but say again as a reminder, that should an executive committee and sufficient committee members not be forthcoming at time of election, as an Incorporated Body, Hobart Model Aero Club Inc. would, by corporate law, have no option but to close the gate and cease to operate.

As a footnote to the above and in keeping with this great nation's present precedent, maybe one of our lady members would care to run for President.

Regards to all and safe flying, Mike.

We are on the web. *hobartmodelaeroclub.org.au*

Around the hangar.

Thanks are due to Bob McAllister who repaired the old Rover mower for us. There was quite a bit of work involved including sourcing parts. Bob is one of those quiet achievers and undertakes various tasks without being asked. He usually chops the wood and lights the heater in the clubhouse during the colder months.

Well done Bob!

With Colleen Tonks touring on the mainland and Jan Wilmot retiring from catering duties we no longer have a barbecue lunch at the field. Perhaps it is time for someone else to step up to the plate.

It is quite obvious that visitors are not always being asked to sign the visitors" book. It is absolutely essential that the instructors make sure that this is completed before any form of instruction. "I forgot is no excuse!"

I can certainly recommend the storage system shown in the article from Jim Dicker. I have been using variants of that system for about 25 years.

Chief Flying Instructor Peter Ralph has gone on holiday to China for 2-3 months and Nils Powell has undertaken these responsibilities until Peter returns.

The club Boomerang 60 trainer is getting very tired, which is not surprising as it gets used to an extent far in excess of the original guidelines. Perhaps this matter should receive the attention of the committee. Somebody will have to pay for the eventual replacement. If the present practice is to continue it would be reasonable to make a charge for the use of the equipment.

Bob Morrison is one of the volunteers for mowing duties and often arrives at the field very early (5.00 a.m.?) to ensure that members are not inconvenienced by having to wait for completion.

Unfortunately Nils Powell has suffered a bout of ill health. I trust that it is not too serious and that he will be back soon to resume training duties.

We are currently finding it a bit hard to find sufficient instructors especially for mid-week sessions. Perhaps we should be seeking volunteers to undertake instructor training.

No doubt thanks are due to Tony Gray for running the control-line at his property, however it seems rather incongruous that this is necessary while we have a perfectly good control-line circuit at Kelly Field. Perhaps Tony just likes to have visitors!

I personally feel somewhat disappointed that the State Electric Fly-in is scheduled for only one day. I wouldn't expect interstate participation in view of this decision!

Advice has been received that there is an issue with the JR 2.4 transmitter, model DSX 9.
For safety reasons these transmitters should be checked before they are next used for flying.
The link for the fix is http://www.jrradios.com/Articles/Article.aspx?ArticleID=1822

The following Web Page address will take you to the Virtual Airplane Museum, where you will find a vast amount of information on full size aircraft of all shapes and sizes from around the world.

http://www.aviastar.org/index2.html

For Sale.

Seagull Ultimate Biplane complete with near new Force .46 and 5 servos.

An absolute bargain!

Garth Wilmot (on behalf of Rick Stillman)

Ph 62431790

Clearance Sale.

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Flight box kits	$30
Flight simulators	$30
40 amp brushless speed controller	$15
Fly cam 1 camera	$50

Garth Wilmot Phone 62431790.

TIPS FOR USING THE SMALL LATHE — Bob Morrison

The following is written for anyone who has just started using a small lathe for hobby purposes, and is not intended to instruct the experienced machinist.

The enemy of the small lathe is lack of rigidity, therefore ensure cutting tools are razor sharp. Using tools that have been ground on a home grinder are NOT sharp enough unless a fine grit finishing wheel is fitted. Where possible hone on slip stone until the tool will cut a sliver off your fingernail ! Pay particular attention to the point of the tool, as a tiny blunt tip often happens due to normal wear and tear. If you have to buy tool steel, DON'T buy good quality as it is too difficult to grind with home equipment. Particularly applies to Swedish tool steel and tools with carbide tips. Set tools to centre height or very slightly below. Use a small piece of rod sharpened to a point and held in the tailstock chuck to aid setting. In general use so-called "knife" tools rather than round nosed. The latter require more power and are more likely to "chatter". For the newcomer it's not a bad idea to buy a set of ready-ground tools until some experience is gained. Ensure both tools and work have minimum over-hang, and that all slides are correctly adjusted to minimise looseness. This is also very important in milling operations.

Always treat the bed and it's ways with respect, they are the heart of the lathe's accuracy. So keep the ways lightly oiled and cover them when using a file or grinder. Use paper rather than cloth to cover, and hold in place with tape or small magnets. Paper will do a lot less damage if caught in a rotating chuck.

If a job requires good concentricity then try to do all the relevant diameters in one operation without re-chucking. A three jaw, self-centering chuck is not particularly accurate. Even a "precision" chuck will only yield about .002" run out. You cannot expect better than about .005" with a standard chuck, and that IS NOT GOOD ENOUGH for something like a prop. adapter or spinner running at high RPM. It is, of course, possible to pack one of the jaws with shim or even paper or card to get things right, and it's desirable to use a DTI (dial test indicator) to achieve accuracy. Also, if re-chucking is unavoidable, then mark the work adjacent to number 1 chuck jaw, and then re-chuck using mark as a position reference. It goes without saying that the work and chuck jaws must be clean as just a small chip of swarf between will destroy accuracy and mark the work. For the same reason it's also good practice to close the jaws of a drill chuck, if it stays in the tailstock, to stop swarf ingress.

Try to avoid holding work at the tip of the chuck jaw, as it may lead to "bell mouthing" and poor accuracy. Also don't over tighten chucks. Just a final "nip" is enough.

Plan ahead. If the part to machine is small then do all machining whilst the part is "attached" to parent bar stock. The last operation is to cut or part off. Part off where possible if the part cannot be "back chucked" to do a final face operation.

Parting off. Ideally the parting tool's tip should have a slight chamfer so no "pip" remains on the parted piece. Don't overdo it though as the swarf chip will be wider than the groove cut, which will cause the tool to jam and possibly break. Within reason, the thinner the parting tool, the better. The tool MUST be set absolutely square to direction of feed. If parting ferrous metals, use a slow speed, positive feed, and cutting oil. If the machine is doing the job, swarf will come off the tool in a tight coil and sound like frying bacon !!

Threads. When using a tap or die, turn the chuck by hand after switching off power at the power point. NEVER try it under power. The tailstock should be un-clamped and free to move along the bed,

unless a sliding tap/die holder is used. Use of cutting oil on almost all metals will result in a clean thread without tearing. Cast iron is one exception, which should be left dry.

Drilling. Always use a centre drill to start a hole, and if the hole is deep, clear the drill often. Depth of centre drill should be sufficient so the diameter of the "V" is greater than that of the drill. To start very small holes, chuck the drill so only about 5mm protrudes, then extend as required. Use lubricant for deep holes. (kerosene for aluminium, cutting or screwing oil for ferrous and hard brass/bronze.)

Reaming. Often produces chatter marks and once they appear are very hard to remove. A difficult one to advise on. Again, try slow speed, positive feed and cutting oil. The amount of material to be removed has an influence too. Frankly, this one is "trial and error" ! One solution is using a home-made "D" bit, but that's a bit outside the scope of this article. Pun intended.

Spindle Speeds. In general as for normal drilling. For hard materials such as stainless the secret is dead slow speed, very positive feed, and cutting oil. Don't let the tool rub as heat builds up and material will "work harden". At that point you may as well start again! As some jobs will be much larger than normal drill sizes then the ability of the lathe to run *slowly* is important. In "old money" the rule to calculate spindle RPM is 4CS / D, where CS is cutting speed in feet/minute, and D is diameter of work. Typical cutting speeds (for the small lathe) in ft/min are: mild steel 60, hard brass and bronze 80, aluminium and soft or half-hard brass 100-120.

Milling. In milling operations minimum overhang is even more important. Any slide not being used for the operation should be locked with it's clamp screw. NEVER set up a milling cutter and feed direction which results in a "climb cut". NO EXCEPTIONS !! To explain: climb cutting, as the name suggests, is where the rotating cutter tends to climb over the work and pull the work towards itself. The cutter/feed direction should tend to push the work away.

Occasionally a slitting saw operation is necessary for a job like a collet. Before slitting, plug the collet bore with a piece of brass. Now, as the saw passes though the bore of the collet no burr is formed, and the bore requires no further finishing.

Holding thin wall tube. A trick here is to machine a temporary plug, about the same length as the chuck jaws, to fit inside the tube. This will prevent tube distortion when the jaws are tightened. Another trick with tube is, if a number of small pieces are to be parted off, reverse chuck a small drill or piece of rod or dowel in the tailstock and run this into the tube. Then the parted pieces are held and don't fly off all over the workshop!

Finally, the inevitable word on safety.

DO use eye protection. Brass is particularly bad at spraying swarf around, and a trip to the doctor to have it removed is not pleasant!

DON'T leave the chuck key in the chuck. I've seen one thrown right across the workshop when the switch was accidentally knocked on !

ALWAYS turn the power off at the power point if the chuck is turned by hand for setting-up or screwing etc.

And a post script. Tool companies such as P&N and Sutton publish small Engineers' pocket books. One which is available locally is the "Engineers Black Book", and is full of good stuff. This one costs about $50 which isn't cheap but better than spending $300 or $400 for a "Newnes" !!!

Plane Storage!

Storing planes at home can be a problem, although the more experienced flyers will most likely already have some similar type of storage.

Even so, I thought someone may find this useful.

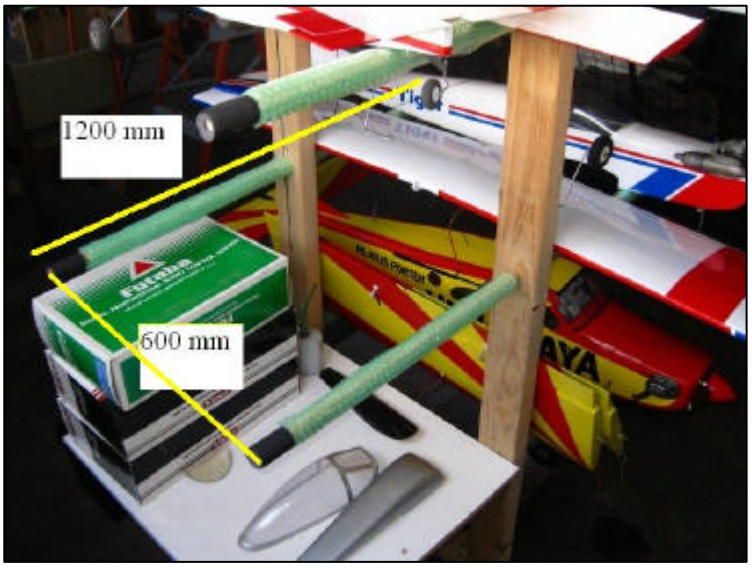
As you can see in the photos, it is fairly simple, with 2 verticals 600mm apart with 1200mm long 19mm dowels every 450mm in height.

These dimensions work well with smaller electrics, 40/46 size & a larger Pilatus Porter.

But before you build *make* sure you check ALL your planes will work.

You could make it single-sided (i.e. up against a wall) if required. Drill 19mm holes at required heights through verticals & slip dowels into holes. Some will probably be a big tight to get through, that's good. Each dowel will move around in its hole a little bit & the tight ones not as much. If the dowels are too sloppy glue may be needed. Cover dowels with something soft, bubble wrap is cheap & seems to work okay, as long it can't slide off.

Jim Dicker.



Coming Events.

State Electric Fly-in March 5th.

Tomboys 22nd May.

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Left.

Bob McAllister's Twin Stick powered by 2 OS .30 four strokes

Below.

Nils Powell about to effect a javelin throw.

State Electric Fly-in.

This event will be held at Kelly Field on Saturday 5th December. Members of all MAAA affiliated clubs are invited to participate.

Jottings from Nils Powell.

In the temporary absence of one Peter Ralph, CFI, I have been compulsorily volunteered to provide notes on the month's flying and activities.

First – Gold wings to Peter McGuiness, very well earned Peter – congratulations!

Second – the crash and burn segment. (In which I figure prominently!(&^%$@#)

I watched as a perfectly good model, my virtually new Sparrow Hawk with a 70 four stroke on it's 5th flight, was destroyed by sheer stupidity. Going well, down on base turning finals, to my astonishment the turn continued well through the desired 90 degrees losing height all the way, the model finally digging a neat furrow in the out field.

It was fairly obvious one aileron had taken annual leave depriving me of functional roll authority. It was tempting to blame the servo, but subsequent checking revealed that both servos worked perfectly. It turns out that an extension lead buried in the wing had come unplugged. Both leads were a bit short and needed a pull when fitting the wing which no doubt initiated the failure but I ignored this because I had taped the join which should have been perfectly secure. It would probably have been better if I'd taped the correct end of the plug! Both plug ends look identical and both wings had the wrong end of the join taped. One failed and the other close to separating. I wonder how many other prangs of unknown cause are down to this?

The other, the culprit will remain anonymous, having purchased my silence by either money or threats of violence (either works well), was quite interesting. The model a high wing trainer lacked power. I tried it and though it normally performed well, full power would not on this occasion have pulled a maggot off a hot BBQ plate, only inducing a leisurely stroll up the runway. Motor up to speed etc so what the hell was wrong? Walking back the owner finally mentioned a new prop, the only change from the last successful flight. Stop the motor - how right he was. The prop was on backwards.

The surprise came with the degree to which performance was lost. If you look at a master type prop the blade appears to have plenty of "bite" even if on backwards, only the aerofoil section being wrong. I reckon the decrease in performance was well over 50%. Interesting.

The training schedule, interrupted by Peter's absence, weather, job demands and in the last week a medical problem is badly out of sync. but we are working on it , and once the weather settles down, instruction should be reliably available on weekends and on reasonable week days.

So – to our students – bear with us we are trying to get training availability sorted out but as far as the weather goes even our committee lacks authority in that regard..

There is another note in the newsletter but to repeat – if anyone can help with training please let me know. We can bring experienced pilots up to the required Gold Wing standard and we will be running a course for instructor training. Despite the instructors' moans and groans it can be a rewarding, if sometimes scary experience.

Nils

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HMAC Survey with respect to a State owned flying field results so far.

These were the two questions that the HMAC Committee asked member to consider.

It is the essential that all members respond to the survey so that the HMAC committee can properly deal with this matter into the future.

Do you support the TMAA proposal for a state own field YES or NO?

To date, of our 80 registered members so far 51 have responded to the survey with the following results.

48 members voted NO

3 members voted YES

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Multiplex Cockpit SX Synthesised Digital 7 Channel 36 Mhz Radio

complete with Multiplex Dual conversion Synthesised Rx, charger and manual.

PRICE $250.00.

Spektrum DSM2 2.4 GHZ DM9 Module suitable for JR Radios, no loose wires. $75.00.

Stuart Smith phone 62477423

The Great Control Line Gathering 2011

William Deal

The much anticipated control line day was held in perfect weather at the Mangalore property of Elaine & Tony Gray on Saturday 22nd January. The clock was turned back too many years to remember as many of the modellers in attendance flew control line together in the 1950's! With 16 control line models on show all was ready for some serious fun. As Tony gave the grass circle a final trim the sheep soon found the quiet end of the paddock when the diesel & glow engines fired up.

Merv & Owen Cameron produced a brace of models including Owen's brand new mini Ramrod powered by a Taipan 2.5 glow. The very nicely finished Ramrod ended up bouncing off the turf after an ill timed loop with the motor off song. On inspection Owen exclaimed "they still sell glue don't they" Jason George surprised everyone by flying the Sabre Trainer first time after receiving only "do this" instructions from Owen. George Gray was thrilled to fly some laps with his Aeroflyte trainer and unlike his grandfather Tony, didn't try a vertical landing. John Moody put in some nice flights with his Blue Pants model and also presented all modellers present with a commemorative "Control Line Gathering "sticker. Many thanks John.

Faye & Bill Hellinger together with Kerry & George Carnie made the trip down and found out what the "good old days" were all about. Former control line modeller Peter Wisby heard of the event on the grapevine and was a welcome visitor. At one stage George & Merv ventured into Tony's big shed and there were grave fears that they may never be seen again, however they finally turned up.

Regular "round & round" modellers Dave Christian & Peter Allen had many flights on the day treating us to slick manoeuvres with their well sorted models. Tony Gray flew his newly built and very neat Aerobat powered by a Taipan 2.5 diesel. Fuel starvation problems led to an inglorious landing of the vertical variety which ended the day for the Aerobat. Fortunately no major damage sustained. Geoff Leverton, Gavin Hallam, Ron & Peter McGuiness all arrived a little later in the day with models and all had successful flights. Gavin's little Rascal model powered by a Philtech diesel was flown by Peter Allen who was heard muttering "I know why they called it the Rascal" Geoff flew a model with a drop off under cart originally from an old control line speed model. Geoff flew the fast little model showing he could "still do it" Greg Hall & John Jongbloed also enjoyed the day and flew some "wireless" models. With the control line models only taking up half a sphere there was plenty of room for JJ's electric glider & Greg's wild wing.

The flying session was paused for a magnificent BBQ lunch beside the pool. Sincere thanks to Elaine, Tony and family for providing such a lovely lunch and hosting such an entertaining and memorable day. Another Control Line day is proposed for autumn – details later.

Hobart Model Aero Club inc.

PO Box 1117
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7018

Danny Coles' Thunder-bolt on fly-by.

Your editor with Little Bo-gie from a Mountain Models kit..

<u>Below.</u>

Peter Ralph's interesting electric powered auto-gyro.