Tale Feathers

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Hi Club Members
Welcome to another issue of Tale Feathers and my apologies for its late appearance as the Boss took me away for some beachside R & R. I hope you will all find something of interest. Thanks for all the positive feedback. The negative stuff received appropriate consideration.

The usual Disclaimer:
Articles and comments by the Editor and contributors may not necessarily reflect the views of the Club Committee, probably won't be Politically Correct, but will be published anyway.

HOUSEKEEPING
Please remember that this newsletter is an information exchange and an open forum for anybody to have their say.
Please email stuff to me, (a Word, Excel or PDF document) be it technical, human interest, Club stuff, building/flying tips or if you just feel like a bit of a (polite) rant.

A warm welcome to our new Club member, Ken Taylor and I hope you have many enjoyable flights and soft landings. There will be more information on Ken and his UAV company, Silvertone Electronics, which should be of great interest to all members.

Photos (in JPEG format) are always welcome.

(Animal/bird/model photos courtesy of the Editor. A range of Hi-res copies available on request.)

Club Corner
****It is with very great sadness that we recognise the loss of a very likeable and friendly young man, Daniel Ridgwell, who has been a regular visitor to our Club with his IMAC aircraft.**
Daniel died on Wednesday, 27th in a house fire at Forest Hill. His quiet, happy outlook endeared him to all who knew him and he will be sorely missed.
The Club's condolences are extended to Daniel's family and friends.**

Working Bee's
Following the approval of the Club development plan by members at the November meeting, there has been a very enthusiastic round of activity putting the approved sections of the plan into action.
The very generous donation of a 40' container by long-time Club supporter, Bruce Dicker, has added impetus to this activity.
A new site for both containers has been decided after long debate and will be adjacent to the current position, but on the field side of the fence with the two containers set in an "L" shape. This doesn't seem to intrude into the heli flying area and all who have inspected the layout are happy with the plan.
At the same time, the fence will be re-positioned to take advantage of the new positioning so as to allow

more space for spectators at the Clubhouse end of the public area.
This has always been a popular and congested area during major events and the new arrangement should help a lot.
Moving the smaller container will allow the rabbit warren under it to be cleared up properly, while neither Ambulance access to the field nor camping facilities will be impeded.

Footings for the containers, designed by a structural engineer, have been dug with the kind assistance of Coates Hire who allowed the Club use of a Dingo with a large auger attachment. It made the work much easier.
Most of the accumulated rubbish, including damaged and unused items have been removed and the property owners, Bruce and Wendy Harris have already commented on how much neater the Club grounds look.

A very big vote of thanks goes to recent Club member, Bob Mearns of Riverina Joinery, who has very kindly donated a new kitchen to the Club. Bob has already replaced the old one with the new and the results are very attractive as well as being more hygienic.

The majority of members have reacted to the changes with great enthusiasm and the Committee would like to thank all those who have given their time, effort and support to this current round of improvement of our facilities for all to enjoy.

Committee Note:
Gas bottle and electric fence usage.
It appears that some members are not clear about the procedure for using the gas or turning on/off the electric fence.
Gas bottles
There are two gas bottles at the back of the Clubhouse in a protective mesh cage. They have a selector valve between them that has a pointer-shape as part of the selector. This should always be left pointing at the bottle in use and need only be changed when the other bottle is to be used.
Gas is turned ON/OFF via the knob on top of the cylinder in use. The selector valve need not be changed unless that bottle is empty.
A BLUE tag is hung on the mesh cage when the gas is turned OFF and is to be hooked 'thru a hole beside the main door when the gas is turned ON as a reminder to the last person to lock-up each day.
Electric Fence
Likewise the electric fence has a RED sign to be hooked beside the main door if the fence is turned OFF during the day.
Please follow these simple procedures and make sure that doors are locked, gas off, electric fence on and gates closed when leaving at the end of the day.

STILL FOR SALE

A selection of discounted, brand-new gyros.
All are solid-state and can be turned On/Off/Mode or Rate adjusted from your Transmitter. If you are planning a large model or perhaps a twin, a gyro is a great way to add some peace of mind. These gyros work equally well with all brands of radio system.

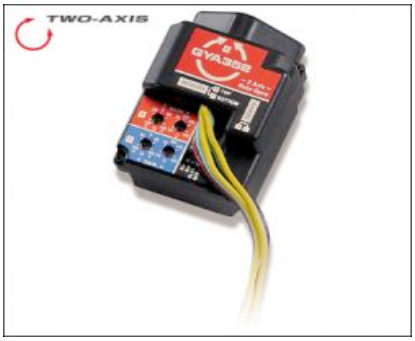
Futaba GY401 single-axis Heli or aeroplane gyro

This gyro is new in original box……..…**$80**

Futaba GYA 351…..2 available

This is a single-axis, dual-servo output gyro suitable for any size aeroplane. It will drive one or two servos for roll or pitch control. Tx switchable.
New in box……**$100 ea.**

Futaba GYA 352



This very capable & reliable aeroplane gyro is dual axis, driving two servos. E.g. roll and pitch dampening. Tx switchable. New in box……..**$150**
Offers considered-Contact: Ian on 0427 602 388

…And on another subject entirely…

Man; I'm bored!

TECH TALK

Continuing the efforts of trying to find explanations for some of those mysterious crashes for which there is no apparent reason, particularly with the general trend toward larger/faster/heavier models:

Fuel Supply;

Apart from landing at an excessively steep angle, most engine stoppages can be blamed on lack of fuel.

Either the tank is empty, or something is stopping it being emptied. It doesn't take much more than a speck of dirt to block off a fuel jet, yet it's easily prevented from getting in there in the first place.

Fuel should be strained or filtered when adding it to the field can and also when pumping it into the model. You should definitely have a filter fitted to the carby supply line as well and regularly back flush it or pull it apart and clean it.

A partly blocked filter will cause all sorts of strange symptoms to appear with the engine, including tuning adjustments that change for no apparent reason.
If your engine suddenly goes out of tune, you find that the plug is good and you absolutely, positively haven't fiddled with the needle valve, then something must be interfering with the fuel supply.

To prevent this unhappy state occurring, run through this checklist.

Is every fuel line connection from the clunk right through to the engine secure and airtight?

If the tank is held vertically with the outlet uppermost, does the clunk swing freely well clear of the rear wall of the tank? (*It the clunk touches the back wall, it can suck on and stop fuel flow until the engine stops, letting it drop free again, thereby hiding the problem. Good clunks have a slot cut across the end to prevent this happening, but don't expect this feature in the average ARF kit)*

Do all tubes that have a fuel line connected to them have a barb or a ridge of solder around them to keep the fuel line in place when it softens with use?

Are all connections inside the tank secured with small cable-ties or lock wire? (*Air leaks)*

Is the fuel filter cleaned regularly and checked for air leaks? (*Fuel line connections and the fuel filter are a major source of air leaks with air in the fuel getting to the engine the usual cause of erratic running and unscheduled stoppages. This unwanted air makes a mockery of any attempt to accurately set the needle valve)*

Is there a filter in the muffler pressure line to the tank?
(*Why is a filter needed here, you might ask? Perhaps because you are pumping a small proportion of exhaust gases, waste oil and everything else that has been sucked into the engine through the*

unfiltered *carby air intake, back into the fuel tank. The fuel won't mind a bit more oil, but it doesn't need the ground up bits of grass, sand, dirt, etc. that should be harmlessly spat overboard.) (There was a time when engines ran quite happily without the dubious benefit of muffler pressure)*

Has the carby end of the fuel line been trimmed lately? (*This is the end that you pull off all the time to fill the tank instead of using a dedicated fill line. If you haven't trimmed it for a while, you may find the end is nicely bell-mouthed to 20% oversize so that it slips on and off really easily. It also lets air in really easily!)*

Is the needle valve still tight to turn? *(Hold the spring finger away from the knurled section to test this)*
If it's loosened up nicely, that could mean that the tiny little "O"-ring that seals air out and fuel in isn't doing that job very well anymore. *(This is another major source of air-in-fuel problems)*

Do you have one of those really neat little fuelling fittings mounted on the side of your model?
(*You know; the nifty little jiggers that let you fuel up without having to disconnect any fuel lines. If you have one, get rid of it! They all leak air, generally sooner rather than later.*
Use a fuel dot. Simple, reliable and don't leak.)

More Battery thoughts:

It's fairly safe to say that apart from dumb thumbs, most "I've-lost-it" type crashes are due to battery problems.
Battery checkers are being used more frequently which is a really good thing, but how are you using yours?
If you charge your flight batteries and check them before the first flight of the day, that's good, but do you also check them after flying?
The difference could be very interesting.
For example, if you make one flight and the flight battery checks out at 22%, then the next flight will most certainly be the last for that model.
Either your flight system is using a lot of power, or your trusty flight battery, (*the one you purchased from Noah after he chased all the animals out and set up the first decent model shop),* is well past its expiry date.
Likewise, if a battery refuses to come up to 90+% after a proper charge, don't necessarily blame the charger. If it's an old battery, then it's had it. Finished. Carked it. Flick it and save yourself a whole world of hurt.

Battery checkers indicate the voltage of the battery and via some clever electronics, can fairly accurately display the percentage of charge remaining in the battery.
However, there are some traps.

A battery just off the charger will show a higher voltage and therefore charge percentage, than when it has been left to rest for 10-15 minutes.
Just off charge is a bad time to check capacity or charge level.
(I have seen a failing battery indicate close to 100% just off a top-up charge at the field, but by the time it was fitted to the model, just a few minutes later, it had dropped to 50%)
A resting battery will show a higher voltage than when it is subject to the demands of servos operating against air loads while flying.
(Unless you have really stiff hinges and linkages, just waggling the sticks in the pits will not replicate the drain of flight loads)

The best way to keep a close check on your battery health is:
Charge them when you get home after a flying session
Test for voltage/capacity after one week or before the next flight session
Ni-MH and Li-Po/Li-Fe batteries should indicate >90%, with 95-98% more usual.
Ni-Cad's will self-discharge quite quickly and will definitely need a top-up before flying. Ni-MH batteries can also be topped-up safely before flying.
Please don't top-up Lithium batteries unless they are below 80% capacity. They don't like it and useful life will be shortened.

Please do not use a snap-in type battery holder to hold rechargeable cells for the airborne pack. The resistance of the connections is very high which means that the voltage available to the receiver and servos will be less than it should be. Vibration can also cause loose cells to shift; maybe cutting all power.
It's not too bad for the Transmitter pack to use loose cells as the Tx draws a steady, low current in use, although a decent, soldered pack is much better.

You can choose to indulge in any of these nasty practices, but please consider the cost of your model and the safety of others before you do.

Chinese Aviation Philosopher, Confuse-Us says;

The probability of a re-kit job on landing is inversely proportional to the angle of arrival. Steep angle of arrival: very high probability of re-kitting and vice versa.

Good judgment comes from experience. Unfortunately, experience usually comes from lots of bad judgment.

Tale Piece thought from the Cat.

"I reckon I can get away with this for about another 10 seconds."

Straight Take-offs, Soft Landings and stay off the tyres.

"Farewell Daniel-keep flying."