Southern microlight club	

TRIKE NEWS

Newsletter of the Southern Microlight Club

October 2011 www.southernmicrolightclub.com.au

ANNUAL GENERAL MEETING

Chris Bullen has advised Millicent of the HGFA Office of the changes to SMC office bearers and future HGFA publications will reflect these changes.

TRIKE MAINTENANCE FORUM

I understand the SMC Trike Maintenance Seminar held Sat at Ken Jelleff's Trike Hangar, 83 Village Ave., Latrobe Regional Airport, on Saturday 10 and Sunday 11 September 2011 was an enormous success and well attended. Our thanks to Ken and Kev and Carole McNally for enabling this Seminar to go ahead and expand the knowledge of trike pilots as to what things they ought to be doing to ensure their trikes are well maintained and that we can all fly safely.

EXTRACTS FROM SMC MINUTES – Sept. Meeting

The following are the points of interest from the SMC September Meeting Minutes:

Gary Wheeler thanked Ken Jelleff for a fantastic Trike Maintenance weekend at Latrobe valley with Kev and Carole Macnally, and gave a short recap of weekend events!

Members talked about some sort of maintenance regime that the club could do in house.

Steve bell is to update the website with updated contacts emails, names and other relevant information.

The subject of Microlight test questions in exams to be made more relevant to Microlights in an updated set of questions, probably done by the instructors, rather than the members was discussed. Secretary to get back to the HGFA to discuss more of John Olliff's ideas.

Secretary to try and get John Olliff at the next meeting on October 11 to discuss HGFA/RAA Aus/CASA issues and new exam questions, and how a teaching segment at club meetings may proceed.

October official Microlight trip cancelled due not enough takers.

Noted was that due the maintenance weekend the Club got 2 new members.

A planned fun day is to be held at Locksley airfield.

A planned SMC fun day is to be held at Murrindindi airfield on 29 October for a 0900hrs start. There will be lunch and tea, coffee and Milo provided for a small donation. The events hopefully will include an engine off landing inside a particular size box, shortest landing distance, water bombing while carrying a passenger, touch and go in and out of a box shaped area and slalom through gates down the strip.

The Gathering of the Moths is on 18/19/20 November at Mount Beauty Airfield.

Club cards for handing out to people will be investigated and done by GNS Printing.

Gary wheeler volunteered to be the tool keeper of the Club's 3 betsometers and bearing testers when they come back to the Club by the searching endeavours of various members who will return found items to Gary Wheeler.

The club will also put in to the HGFA/VHPA a claim to buy various maintenance tools stemming from the Maintenance Weekend held at Latrobe Valley.

Tools being an electronic carbie balancer x 1 cable oiler x 2 oil filter cutters x 1 wire pliers x 1 hose clamp pliers x 1 electrical wire connector pliers x 1 leak tester to be obtained – subject to funding.

The event is a work in progress but this is prior warning that the event is happening, so get ready to attend and applaud or be a participant.

Any queries send by email to: secretary@southermicrolightclub.com.au

INTERESTING

Modifying Your Microlight

From: Kev MacNally, HGFA WM Technical Officer

I don't think I have ever seen a Microlight, other than in the factory, which has not been modified to some extent. Let's face it, even if you buy a top of the range model, with all the bells and whistles, you will generally still want to install a comms system and then a VHF radio and so on.

First of all, a modification to an aircraft is defined as 'a change or alteration to the standard specification.' In the HGFA, a 'mod' will be defined as 'a permanent change or alteration.' Any installation that does not require tools, for example where Velcro is used, will not be regarded as a modification and requires no logbook entry.

However, if the installation involves an electrical supply, a permanently installed panel or bracket, or secondary restraints, then these items would be classed as 'Minor Mods' and must be recorded. A 'Major Modification' is any mod to a structural component or integral part of an aircraft, ie, any part which would affect the safe operation of the aircraft, and as such must be authorised, in writing, by the manufacturer. Any such authorisation would be a legal document, and must remain with and become part of the Aircraft Logbook. Any other modification would be classed as a Minor Mod and may be made by the owner. Details of **any** modification made should always be entered in the Aircraft Logbook.

So, let us assume that you wish to install a VHF handheld radio into your trike. How hard can it be? All you need to do is find a space to put it, stick it there with Velcro and plug it in, right? Not quite. There are one or two other factors that you should be considering. After all, you are fitting an electrical device to an aircraft, not a car, and therefore, other factors apply. For example, if fitting the radio to the instrument panel with Velcro, some sort of secondary restraint, in the form of a lanyard or strap, should be fitted, in case the Velcro should fail during turbulence or a hard landing. I know of two separate instances, where an expensive GPS has been lost 'over the side' of a trike, due to insecure attachment. Fortunately, on neither occasion did it go through the prop!

If the installation involves the fitting of any electrical switches, then those switches should be mounted in the correct sense, ie, 'Down' for 'Off' (this is a general aircraft standard, hence the term 'Shut Down') and they should be labelled appropriately. There are additional considerations regarding the installation of antenna, comms box and power supply. Okay, this is all well and good, but this sort of information is not that easily available to the average trike flyer. Well, in the UK, it is. They have a severely regulated system and when they do any mod to their microlight, that aircraft is then grounded until it has been checked and signed off by an inspector. In order to facilitate this process, they maintain a list of Technical Information Leaflets which include Standard Minor Modifications. These include the installation of radio/intercom, transponder, strobe lights, camera, GPS and auxiliary power socket – just about everything you could wish to fit to a trike, and yes, panniers as well.

I would urge everybody who is contemplating modifying their Microlight (in the UK, ultralights are known as three-axis microlights), to visit the BMAA (British Microlight Aircraft Association) website and check out these Technical Information Leaflets. By complying with the scope and detail of these leaflets, you would be maintaining the best possible standard of modification to your aircraft. Isn't that what we all want?

Vibration onRotax 582 Engines

Kev MacNally, HGFA WM Technical Officer

The recent article on failures of the oil injection reservoir bracket on Rotax 582 engines has highlighted the need for owners to attempt to minimise undue vibration on their aircraft. Regardless of the results of this investigation, there is little doubt that any undue vibration will be a significant factor in any such failure.

The most common causes of undue vibration are propeller imbalance, carburettor synchronisation and too low an idle speed. Vibration caused by the propeller will be evident throughout the power range of the engine, although the severity may fluctuate with the power setting. In order to check the balance of the propeller you will require a BuzzMaster Prop Balancer or similar. If the propeller is found to be out of balance, then the action required will depend on the propeller type. The aircraft and or propeller manufacturer should be consulted in order to ascertain the correct method of balancing.

Needless to say, failure to repair damage to a propeller blade to the manufacturer's instructions can lead to imbalance. Vibration caused by a low idle speed will be evident only at idle. Vibration caused by incorrect carburettor synchronisation will be maximised at idle, and decrease in relation to the power setting. Carburettor synchronisation is accomplished in two stages. The first step is static or mechanical synchronisation and consists of adjusting the carburettors to an equal and optimal setting prior to the more accurate pneumatic synchronisation.

Mechanical Synchronisation

Back off the idle screws sufficiently to allow the throttle slides to close completely. Then screw them in until just touching the slides. If you have previously been suffering from vibration at idle, you may find that the idle screws are flatspotted or worn from contact with the slides. If so, this is not going to fix itself or go away if you ignore it. Replace the affected screws. Turn the mixture screws fully in, then back out one and a half turns. Adjust the slide bowden cables for simultaneous opening of throttles. This can be done by inserting the shank of a half inch drill bit, or similar, into the throttle opening and lowering the slide onto it with the hand throttle, then ensuring that the slide in the other carburettor matches. Alternatively, you can raise the slides on the hand throttle to be exactly level with the top of the throttle opening, and check both visually and by feeling with the index finger. When this is done, you should ensure that there is a minimum of 1mm lost motion on the cable. In other words, you should be able to lift the cable outer from the top of the carburettor at least 1mm before seeing any movement of the slide. Start engine and bring to operating temperature. Adjust idle screws equally as required to achieve idle speed of 2000rpm. An idle speed lower than this will increase vibration and induce unwanted stresses on the gearbox. Any further increase in idle speed will start to affect the enrichment or choke mixture and make the engine more difficult to start. Once the engine has started, the hand throttle can be advanced as required to reduce vibration. At idle, turn the mixture screws out to achieve max rpm, then turn the screw back in a quarter of a turn. If necessary, readjust idle.

Finally, further adjustment of the mixture screws may be necessary to bring your EGTs within limits. Turning the mixture screw out or anti-clockwise will lean the mixture and subsequently raise the relevant EGT. In most cases, mechanical synchronisation alone is sufficient to ensure a smooth running engine. If you have access to suitable equipment then this can be followed by a pneumatic synchronisation. On the side of your Bing carburettor you will find the primer nipple with a rubber cap on it. This is where you connect the synchro tester/gauge, which simply measures the air pressure (vacuum) in the carburettor venturi.

With reference to the gauges, the carburettors may be adjusted on the slide cables to achieve equal off-idle readings. The idle screws will be used to adjust the idle setting. The 1mm minimum lost motion on the slide cables should be maintained. As always, if you are at all unsure of what you are doing or how to operate any equipment, then consult, or arrange to be supervised by, somebody who is competent. Safe flying.

I TRUST AEROPLANES: Courtesy of Mark Andrews

























































FUNNY?

A blonde is on board a small two-seater airplane when suddenly the pilot dies.

Not knowing how to fly a plane she grabs the radio and shouts: "Mayday, mayday! The pilot just died!" Ground control receive her call for help and answers back: "Don't worry, madam. I'll talk you down, just do as I say. First I need you to give me your height and position."

Blonde: "I'm 5"2' and sitting in the right front seat." Ground control, after a short silence: "Repeat after me: Our Father..... who art in Heaven...."

NEAR MISS – 747 ON TAKE OFF FROM ASTERDAM

EVA Air Boeing 747-45EM taking off from runway 36L at Amsterdam, Schiphol, Netherlands. The great timing and angle just makes this shot, and the size of the 747, look surreal. The distance to the fence was 145 meters(475ft)... Yikes! I wonder if anyone computed the takeoff distance prior to the trip? This is an amazing picture of a disaster that didn't happen. From the smallest airplane to the largest, weight & balance calculations are a critical part of flight safety. From the looks of this 747, the weight was within the CG envelope, but if they'd have added one more 'marshmallow' to each snack tray, this BIRD might not have cleared the fence !!!!



To all the pilots out there, this will give you chills.

"Wow!"

This is a recent wing strength test video on the new Boeing 787 which has a 'composite wing' versus an 'all metal wing'. This particular wing test was taken to 50% beyond the design limit of the 787 wing without a structural failure -which is quite an accomplishment. Still makes a pilot cringe to see a wing bent this much even if it is a controlled test. Should be an amazing aircraft for the airlines.

http://787flighttest.com/hanger/wp-content/plugins/flash-videoplayer/mediaplayer/player.swf?streamer=rtmp://cp81820.edgefcs.net/ondemand/tpn/firstflig ht/&file=TestLog4.flv

LOOKING FOR AN ADVENTURE?

The following is a copy of a letter written to Jon Newell:

Dear Jon Newell,

Greetings from Avia Club Nepal!

Avia Club Nepal is the pioneer in Air Sports activity in Nepal. We have been operating commercial Microlight flights in Nepal since 1996 and we are the sole company operating microlight flights in Nepal.

We are looking for a Weight-shift control 'Trike' pilot (with min. 300 flying hours experience) for commercial flights in our company. Please help us finding suitable candidate if there is any in your country.

You can also know about our company by visiting our web-site www.aviaclubnepal.com

Looking forward to hearing from you soon.

Thanking you.

With best regards,

Praveen Gauchan Manager

Avia Club Nepal - Come Get High with us +977-61-462192, 61-461986 (Fax) 9856031180, 9851018105 (Mobile) Mustang chowk Pokhara, Nepal www.aviaclubnepal.com

BEAUTIFUL OLD AEROPLSANES: Courtesy of Mark Andrews





































FOR SALE

Due to my recent stroke "Old Man Emu" is for sale.

1998 Edge X with Rotax 582 with Wizard 1 and Steak 1 Wings. The engine has 326.1 hours on it but only 117.7 since being checked by Bert Flood. The Wizard Wing has 80.4 hours on it and has not been flown since 15 April 2001. It needs the nose channel to be upgraded and has a scuffed leading edge (a result of a dust devil rubbing it against a cyclone fence) that needs re-taping or other repair. Has always been hangared and or bagged and is structurally excellent. The Streak Wing has 162.9 hours, has always been hangared, comes with a Punkin Head wing cover and is in excellent condition. Training bars are fitted.

The pod is on the rugged side, has all the usual instruments plus headlight and strobe light, an Icom A22 Radio with John Reynoldson Intercom, Garmin 2 Plus GPS, Punkin Head under trike carry bag over a stone net and a masthead carry bag and panniers.

Two flying suits in good condition, 2 helmets, knee board and sundry other items are part of the deal.

Wayne Sternberg trailer in excellent condition is included.

This outfit would be an excellent entry level deal at reasonable cost.

Make me a realistic offer but do not expect me to give my pride and joy away. Contact details are at the end of this Newsletter.



NEXT MEETING

The next meeting is at the Manhattan Hotel, Canterbury Road, Ringwood, on Tuesday, October 11 at 1930hrs after a meal for those who wish to enjoy pleasant dining with fellow pilots at 1900hrs.

CONTRIBUTIONS

I welcome contributions from members and thank those who do contribute. Any story or item of interest adds to the pleasure we all get from our association. Do not be shy – Nobel Prize for Literature standard is not expected.

Newsletter Closing times: *Last Tuesday of the month.* Advertising enquiries and any articles or items of information to: Kel Glare: 03 9439 5920 O421 060 706, or, preferably, <u>kalkat@optusnet.com.au</u>