



AMPA

AUSTRALIAN MOONEY PILOTS ASSOCIATION

NEWSLETTER

Volume 3 No 4
February 1994

EASTER 1994 AT ECHUCA

Murray River Country - Victoria

"MORE SUNSHINE THAN THE GOLD COAST"
Just what all you Northerners need about now!

If you are planning to come & haven't sent a deposit to Bryan & Gwen, then I would suggest you do so, NOW. \$100 PLEASE!

Rooms will not be booked unless a deposit is received to hold them.

Please ensure you put your ETA on your form, so we know at what time to panic.

Just to refresh your memories: Bookings have been made at the Nirebo Motel, located right in the centre of the Port of Echuca.

If you are bringing children, please advise their ages.

DAILY ACTIVITY SHEET

Friday 1st April

Arrive 1300 - 1330 Echuca aerodrome
Refuel, have tea & coffee compliments of the Echuca Aero Club.

Bus to the Nirebo Motel, including an orientation tour of the City.

Meet in the Motel's Caldinia Restaurant at 1800 for pre dinner drinks, dinner afterwards.

The Meeting will be in the Games room downstairs after dinner. Coffee served at the meeting.

Saturday 2nd April

Breakfast in room or restaurant.

0900 - Choice of mini tour of Barmah River Red Gum Forest, Perricoota Station & Citrus Grove (more details supplied on arrival), or browse around the local shops.

1130 - Meet at the Motel entrance & walk to the "Paddlewheel Park" wharf to board the MV Mary Ann, fully licensed cruising restaurant for our cruise and lunch.

Free time - on return from the cruise.

1830 - Bus to rich River golf & Country Club in Moama (NSW) for the evening.

2000 - Dinner in the "Tatalia Restaurant".
Bus is available for the return trip.

Sunday 3rd April

Breakfast, smorgasbord in motel restaurant - details of Fly-out to be given out.

Fly-out/mini trial to Swan Hill Pioneer Settlement for lunch.

Return to Echuca & refuel

Free time until dinner

1800 - Pre dinner drinks & dinner at Caldinia Restaurant.

Meeting of any unfinished business and guest speaker: - Don Rowling* - in Games room downstairs, with coffee.

Monday 4th April

Departures to suit individual aircraft.

Don't forget all these wonderful things to do in your free time.

A choice of 5 paddle steamers to cruise on.

Hire canoe, kayak, barbecue pontoon.

Horse drawn carriage museum.

Murray River museum.

Echuca Wharf (filmed All the Rivers Run here).

Gem club.

Model railway & village.

Horse drawn carriage & buggy rides.

National Holden museum.

Local Aboriginal display.

Red gum sawmill, wood-turner & blacksmith.

Magic Movie House & Penny Arcade.

Tisdall winery.

Wax works.

3 Fauna parks - including a yabbie farm.

Golf.

* Don Rowling featured in our Dec Newsletter. He attended the Mooney Homecoming last year & sent us a letter concerning the Pilot Proficiency Program (see p6 Dec 93 issue)

LOOK FORWARD TO SEEING YOU AT ECHUCA

Thanks to Bryan & Gwen Baker for all their organisation. Have a look at the brochure enclosed with this newsletter.

Please send your cheques - made out to AMPA - to Bryan & Gwen Baker, 89 Lowndes St Bendigo VIC 3550. (See the attached entry form)

CENTURY 41 AUTOPILOT ADJUSTMENTS

A number of Mooney models have a factory-installed Century 41, an excellent autopilot - particularly when coupled to the NSD360A HSI.

In-flight adjustments can be made using a small screwdriver via the control panel (see diagram).

The aircraft should firstly be loaded with full fuel and typical cruise load. Maintain cruise power during flight adjustments. Climb the a/c to smooth air and trim for level flight.

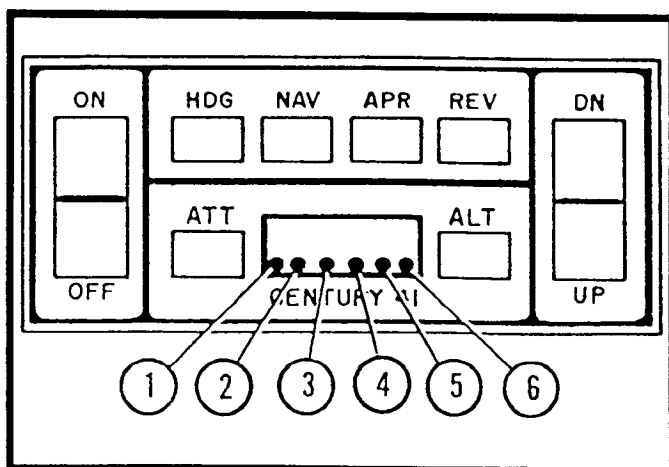
Remove the cover plate from the Mode Programmer to provide access to the flight adjustments. Rotate the heading bug to aircraft heading. Engage the autopilot to "ON".

ROLL CENTERING ADJUSTMENT: Observe aircraft heading relative to heading bug. If any offset exists, adjust roll centering pot (2) clockwise (CW) to make a/c turn right or counterclockwise (CCW) to make the a/c turn left as necessary to centre heading bug.

BANK LIMIT ADJUSTMENTS: Displace heading bug 90 degrees to left of lubber line and hold at the 90 degree position. Observe bank angle and adjust left bank limit pot (1) CW to decrease bank angle and CCW to increase bank angle as necessary to obtain 24 +/- degrees of left bank. Always adjust left bank angle first.

Displace heading bug to right of lubber line and hold at the 90 degree position. Observe bank angle and adjust right bank limit pot (3) CW to increase bank angle and CCW to decrease bank angle as necessary to obtain 24 +/- degrees of right bank.

ROLL STEERING CENTERING ADJUSTMENT: With the a/c in straight and level flight, observe roll steering presentation for level flight indication. Adjust roll steering centering pot (4) as necessary to centre roll steering presentation.



Flight Adjustment Locations

PITCH STEERING CENTERING ADJUSTMENT: With the a/c in level flight (ALT mode) observe the pitch steering presentation for level flight indication. Adjust pot (5) as necessary to centre pitch steering presentation.

GO-AROUND ATTITUDE PRESENTATION: Adjust pot (6) for best rate of climb speed, manufacturers recommended go-around speed or cruise climb speed, as appropriate. The airspeed selected should produce a positive rate of climb as soon as possible after the go-around transition.



WOOPS !

When preparing for the return leg of a charter flight, the pilot of the M20-J discovered that the engine starter motor would not engage. He elected to hand-start the engine, and briefed the passenger on the operation of the controls. No wheel chocks were employed. When the engine started, the aircraft commenced to move and the passenger's efforts to control the aircraft were ineffective. After travelling about 20 metres the aircraft ran into a ditch and the engine stopped after the propeller struck the ground.

[BASI, Wee Waa NSW 26 Feb 1987]



OTHER FLYING VENUES

For those that think their Mooney might be fast...

How about flitting along to the Skyrace Tasmania near Launceston, festivities commence Sat 26th Feb.

The Round Tasmania Navigation Race will be Mon 28th Feb, lunch at Wynyard. Overnight in Hobart, with appropriate festivities. Tues is a rest day in Hobart, next leg Wed to St Helens for lunch, finish at Launceston. The actual Pylon Racing commences at Valleyfield on Thur 3rd March, with qualifying days Thur & Fri. Heats on Sat 5 March, Finals Sun 6 March.

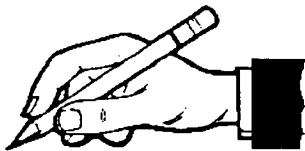
Aircraft will be allowed to fly into Valleyfield prior to 0945 & out after 1645 each day of racing.

The World War II bomber airstrip is 5 minutes flying time SW of Launceston airport. There are 2 grass runways of 1400 & 1200 metres.

Anyone game to enter their Mooney in the pylon racing? If not, how about the Nav Race? \$45,000 1st prize for the Nav Race.....!

Thanks Dave Morgan for the info, I know he is going, so if anyone else is considering it, talk to Dave.

Hans' On



Is the fitting of an air/oil separator approved in Australia for the Continental TS10 300 engine?

If not, what needs to be done to have it approved & are there any other 231 owners who are interested in having one fitted?

If yes, what needs to be done, how long will it take, and approximately how much will it cost?

HANS' REPLY:-

The air/oil separation on the engine crankcase breather link was introduced on the 231 Serial No 25-001.

It was fitted to return the engine crankcase breather oil vapour back to the sump instead of being vented to the atmosphere. Apart from pollution reduction it also keeps the aircraft cleaner.

There is currently no Australian approval that I could find to fit these units to aircraft outside the applicable range in the parts catalogue.

However, I believe it would be a minimal task to receive Australian approval for the change if done through the following steps.

Discuss the matter with your local C.A.R.35 approved either L.A.M.E. or Aeronautical Engineer. He should be able to give approval for the change and supply the necessary documentation.

The separator P No 6620065-501.503 or 505 which ever is most suitable would probably have to be back ordered from the USA through your local supplier. The plumbing and fittings may also be ordered from the parts book or manufactured to suit.

A L.A.M.E. will have to install the system in accordance with the instructions from the C.A.R. 35 approved person.

The main delay, I would anticipate, will be the acquisition of parts.

Below I give an approximate budget price:

Separator 620065-501 - \$300

Plumbing & fittings - \$100

C.A.R. 35 Approval - \$250

Installation & Labour - \$250

Thank you for your question, I hope this helps you.

MORE QUESTIONS PLEASE....!

Send them to HANS ON, AMPA Newsletter

Fax (03) 699 3239, Phone bh (03) 690 9399, ah (03) 347 2897, w/e (060) 723 632.

Post: 318 Station St Carlton North VIC 3054

NEWS BRIEFS

I expect to hear from Dave Morgan shortly, that we have a couple of new members.

To close the chapter on Russell Kelly's dilemma; he proved the medicos wrong and came up with an "All clear" from the angiogram he had in early January. He was flying again within an hour of the OK from CAA.

In this case Russell had a false positive stress ECG and subsequent thallium scan. \$2,500 later everything OK.

I heard that someone is going to try Pylon Racing in Tassie.

WELCOME !

To our new member this issue -

Brian McWhae (& Cath) from Merimbula, NSW. They have purchased HZF, a 1978 M20J 201. We look forward to seeing you both at a future fly-in.

Any gossip & scandal for this section? Let me know!

SWEARING AT THE PASSENGERS

When I was a Flight Steward the aircraft of the day was the trusty old Boeing 707. One of my many trips to Hong Kong in that type of machine I asked if I could sit in the cockpit to observe a landing. "Honkers" was being battered by a cyclone on this occasion and the Captain had made several attempts to put the aircraft on the ground at the tricky Kai-Tak Airport, in very difficult weather conditions.

After each missed approach over the houses and buildings he alternatively spoke to Air Traffic Control on the radio and then addressed the passengers via the PA system.

After his third landing attempt, which involved a firm contact with the runway and an uncontrolled bounce back into the air, the Captain, who was as busy as a one armed book-maker at that stage, succumbed to the high work load and became slightly flustered. As he carried out the subsequent missed-approach the Air Traffic Controller asked abruptly: "Well, what are you going to do now? Are you going to try another approach, or divert to Manila, or what?"

The Captain, who by this time was covered in a lather of sweat, grabbed a microphone and retorted: "Leave us alone for a minute, will you! We're not having a bloody picnic up here!"

With that the Chief Steward burst into the cockpit and said excitedly. "Captain! You're using the wrong microphone!. That just came over the PA!"

At least the passengers were fully informed, and the drinks were on the Captain that night in Manila!

An excerpt from Captain Bob Binning's book, "What a Way to Fly". First published 1987 by Ross Publishing for Lothian Publishing Company Pty Ltd.

I LEARNT ABOUT MOONEYS FROM THAT ...

Well I guess there is a first time for everything and experience is the best teacher so the saying goes. It started with a phone call, "We have a problem with the hydraulic press at Forbes could we take your 'plane? It's much quicker and there may be electrical problems as well. Yes, a mechanic is coming too, some tools and test gear as well."

A 0730 departure was planned, full fuel to allow for NVMC return if things dragged out a bit later in the day.

The day dawned, perfect weather and a great forecast on the fax. then the awkward bit, two large tool boxes appear - "Do you think you need all those tools?". "No we could leave the non-essentials behind." We now have only one rather heavy toolbox! That's better! "What's in this box?" "That's the pressure testing equipment". "It's not very light is it?" "No but we will have to take it." GLOOM! "And we need this and that."

The the Piece de Resistance! In the form of an 80kg, solid steel hydraulic pump that requires two men to lift. "Where do you want to put this Captain?" Ha Ha. We have to take it." I was beginning to look for a magic wand to convert the 201 into a C47 as this seemed what we really needed. Being 12 stone myself and on inquiry finding the mechanic also 12 stone with the Boss tipping the scales at a mere 1 stone we sure weren't lightweights.

One starts to wonder about the lifting qualities of one's aircraft and considers air temperature, length of run available etc., etc.

Well to cut a long story short, we loaded that pump wrapped in oodles of plastic foam on a piece of thick switchboard material on the floor between the front and rear seats.

to ease my conscience I did leave my thermos behind as a token of the laws of weight and balance. Fuel burn off was another plus for later in the flight.

Plenty of speed and a cool morning assisted the lift off with 500 fpm in the climb leading to an uneventful flight to Forbes. these Mooneyes are great! Maybe you have also alighted at Forbes to find an undulating runway surface which is not at all flattering to the stubby rubber disc suspension that Mr Mooneye designed. I'm sure my pax thought I was mishandling the controls to make the aircraft porpoise on the roll out like that. However every thing turned out OK.

Well we unloaded that pump and all the rest of the gear and we were greeted by our client and did the job, returning to the 'drome mid/late afternoon with, you guessed it, the faulty pump! All 80kg's of it and a solid iron shaft two inches thick and three feet long as well. We did leave the three metres of two inch, high pressure hose behind though. While I did a pre flight my companions loaded the pump as they had observed how the original was stowed that morning. "Don't drop it, it'll go right through the wing if you do!" was my warning. Phew - in ok, people are so helpful aren't they?

Well we weren't much lighter than at the beginning and it was a reasonably hot day at this point. I was thinking of the longer take-off run and the undulations, should I lift the nose wheel reasonably early to reduce the undulation effect

and control the resultant porpoising? Yes, that's the way I'll do it.

We charged down the strip attempting to reduce the rodeo ride to an acceptable level then Joy O Joy, we were airborne, let the speed build, then select gear up. Only it didn't go up. Never seen that before! Am I too slow? flaps up, less drag equals more speed, still no go. Time to check a few things, there, the circuit breaker was popped, reset, try again. Remember to fly the aeroplane! 500 feet AGL gentle left turn on to heading. Is the gear over centre, locked in place by those bumps? Try again with the override button pressed, no result. This is ridiculous, it shouldn't happen. A few more attempts. No better.

Time for plan "B". Return to Forbes? Gear could collapse, better crash at home than miles and miles away. Calculation time. Head wind, GPS says 80 kts ground speed, would arrive in daylight, enough fuel, but temp's rising now. Could land closer to home. Why won't the gear go up? Thinking time again. You can extend the gear manually, by pulling that handle and string thing. Pity it doesn't work in reverse! Have a look at it just in case.

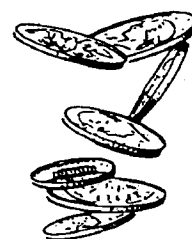
Well HOOLEY DOOLY!! LOOK AT THAT! The emergency extension landing gear engaging lever is tripped on! Reset. Select gear up. Hey Presto, everything returns to normal. Obviously my keen colleagues had inadvertently bumped the latch off while loading the hydraulic pump, unbeknownst to any of us.

I guess you know about it as soon as you began to read my little story, as it's already happened to you. If it hasn't, to be forewarned is to be forearmed!

MORAL: - DON'T LOAD 80 kg PUMPS INTO MOONEYS!

from Bryan Baker

IT'S RENEWAL TIME



**To ensure you receive future
Newsletters, and notices of Meetings
and Fly-ins
Please forward your annual**

\$30

**to David Morgan
Treasurer AMPA
Shop 9, Southfield Plaza NAROOMA
NSW 2546
Phn 044 764537 bh
Home & Fax 044 737214**

A NOTE ON ELT BATTERIES

In Dec 1993 Newsletter a very interesting note was written on an experience with the replacement batteries for the ELT system. I remember being incensed at the cost of new batteries, so I did a little homework too. I disassembled the out of date battery and took the cells along to the Mallory company who are nearby, and asked them if they were theirs. They said no, they were Eveready Energiser cells. The trick is to take the outside shell off the battery, and there you will find that the battery is really upside down, and the top is false and comes away with the outer shell. The battery now looks like the one in the ELT unit. So, in my case the Eveready is the one that fits. the Mallory is a little too big.

The combination battery needs to be assembled with suitable sealants and packaged to the same size as the one that it replaced.

Now come the next problem. The resultant battery is not approved for use by CAA! A licensed radio man cannot sign off the ELT in the radio log book! I got caught in just this way only recently. On radio inspection, the radio man threw out my perfectly good battery, and put in an 18 month to run battery and then charged \$120 for the effort! I can tell you I was not pleased.

Anyway, take heart, I read that by 2000, we shall have to replace our ELT's with ones capable of transmitting on 406MHZ, no doubt requiring different and more expensive batteries!

From David Coffey VHJXC

Dear Editor,

I have just read the December Newsletter again and am very impressed by the work that you put into it.

I have been speaking with many A.M.P.A. members over the last few days and we all agree and look forward to receiving each edition.

Congratulations Robyn on a job well done, we appreciate your efforts.

Gwen Baker

(Thank you very much, from an embarrassed editor)

This newsletter is for the interaction of Mooney owners & pilots, for mutual benefit.

Annual membership fee is only \$30, you may well find useful technical information, or even have your problems solved by Hans On, for free! Or just catch up on the latest gossip.

LOOK FORWARD TO SEEING YOUR NAME ON THE PERMANENT LIST.

Send your membership fee to the Treasurer,
Dave Morgan at: Shop 9 Southfield Plaza,
NAROOMA NSW 2546 (044) 737214

MOONEYS FOR SALE

Well, continuing on from last issue:
I think a lot of you will have heard by now that Juergen no longer has a Mooney, but I do believe he is still working on the solution.

Paul Smart of Byron Bay
is after a Mooney
under \$50,000

If you can help
please call him on
066 88 2205

Bracey & Tim Cooke
of Greensborough VIC
are also after a Mooney

phone 03 874 8881 bh
03 434 7190 ah

(Thanks for the info Lynn & John)

If you know of any Mooneys for sale, or future Mooney owners who would like to put in a request, please call Robyn Kelly bh(03) 690 9399, ah (03) 347 2897, or fax (03) 699 3239.

WING TIPS

If you think you have an air leak in your cabin, try a squeeze container of baby talc. Cover 2/3 of the holes, and whilst flying, have someone else puff gently near the suspected leaks. A pattern will emerge where there is a leak. (If you get too carried away you may end up IFR!)

A tip for "See & be Seen" - keep an eye on your shadow, on the ground and on the cloud tops.

Always clean you windscreen with vertical strokes, not circular, it can cause "halos".

"CANCEL SARWATCH" Ever forgotten it?

Try moving your watch to the opposite wrist when you call in, and only put it back AFTER you have cancelled it.

CARGO DOOR PROBLEMS

There have been numerous problems with the cargo doors on Mooneys over a number of years. Nearly all the problems have been due to pilot error in not checking that the door has been properly secured before flight.

There have been documented deaths not caused by the door opening but the subsequent events occurring after the hatch has opened.

Because there is considerable noise if either the cargo or main door opens the passengers (and often the pilot) go into panic mode and worry about falling out of the a/c or how they can close the door. Whilst there are well-known techniques for shutting the main door it is not advisable and the pilot must focus on making an orderly and calm return to the field for landing.

An opened cargo door is far more dramatic and loose items are likely to be sucked out of the cabin. Moreover, the cargo door will probably be torn from the fuselage causing considerable damage to the aircraft.

Pilots who have experienced opened cargo doors report that there is virtually no change to the handling characteristics (same applies to the main door).

Following a major accident in Australia, BASI recommended that a warning switch/light be installed. This should not be necessary if the hatch is properly secured before flight. It is highly recommended that the door be locked prior to flight and that this be part of the pre-startup checks. Escape can still be made from inside the aircraft if the door is locked. A good tug on the outside handle will test whether the locking mechanism is secure.

Remember that most serious accidents from opened cargo doors have been caused by failure to lower landing gear, stalling the aircraft in the circuit area and other loss of control problems.

From Russell Kelly

PLANNING A TRIP?

If you would like some company, not necessarily to travel in your aircraft, why not let me put a note in the Newsletter for you?

Someone else may love to go along with you. You may end up with a couple of Mooneys that hadn't thought of doing your particular jaunt.

Just a thought for you all.

.....

How about letting each other know where our various holiday or escape places are? If you have a hideaway of your own, maybe you would like to trade a weekend with someone else?

Naturally there would have to be an airstrip nearby.

EXPANDING YOUR CROSSWIND SKILLS

Quoted from Ron Fowler's book -
"Making Perfect Landings in Light Airplanes"*
(The aircraft on the front cover is a Mooney)

"Drills at Altitude

It is no wonder that, as student pilots, we had trouble learning the control coordination demanded by crosswind landings. With each landing we were exposed to unique and complex control movements for only a few seconds, during which our minds were diverted elsewhere - gritting our teeth with pitch and throttle control, trying to hear the instructor over engine and radio chatter, puckering in anticipation that the uprushing runway would smack us. We really had neither the time nor the opportunity to learn crosswind control.

"But crosswind drill at altitude is a method of learning this control in relaxed comfort. Here's how it works: Pick out a long road or similar straight line that lies crosswind. At 2000 feet above the road, establish a wind-correction angle that prevents drift. then throttle back and let your airplane descend along the road. Ease from the crab into the slip, using the road as a centreline. You have a good 2 minutes to play with the crosswind, completely relaxed. Level off at 1000 feet above the road, climb to your starting altitude, reverse direction, and practice with the opposite crosswind. Most pilots make an important discovery during this drill. The find that they have not been using nearly enough opposite rudder during their crosswind corrections, a fairly common shortcoming. As you try the drill, experiment with twice the rudder pressure you feel necessary. Make the discovery!"

Thanks Ron.

*Published by The Iowa State University Press
Fifth printing 1991

MESSAGE FROM THE PRESIDENT

Gordon Grant phoned me week three of February, and asked if I could include this message in the newsletter:-

"Would someone else be able to assume the duties of President for about 12 months?"

If you would like to volunteer, or have someone else in mind, please call Gordon on 07 265 5711 bh,- is the best time to catch him.