



## Recreational Pilot e-zine

Issue 101  
December 2015

### RAANZ 2016 National Fly-in

## **RAANZ 2016 National Fly-in**

**Hokitika Airfield**

**Waitangi Weekend**

**6-7-8 February 2016**

**Details and registration form attached.**

**Also [download from here](#)**

### RAANZ AGM 2015 reports

#### Presidents Report

It is with pleasure that I present the 2104/15 Presidents report.

Recreational Aircraft activity is indeed the growth part of GA. The development of recreational aircraft and the operational rule framework is proving to be very attractive for a variety of reasons. Many aviation participants that had previously looked sideways at our activity are now well and truly jumping on the bandwagon and while the modern micro does perform very well it is still a low inertia aircraft compared to a Cherokee or C172. The low inertia aspect does have to be reinforced during any micro training. We must be careful that we remain responsible members of the aviation community. No better or no worse than any other group.

We must also remember that while some of our procedures may appear to be “skinny” when compared to some other spheres of the aviation world they have served us well. Please do not try and short cut any of the procedures. They work on a minimal rule maximal pilot responsibility principle. A principle we are very keen to maintain. The majority of our aircraft are owner operated and as such the owners are generally very intimately involved with their aircraft. Our freedoms allow us to roll our sleeves up and work on our aircraft. This concept is a little foreign to some GA observers. Again this is a freedom that we do not want to lose.

Regrettably we had a double fatality during the year. Our thoughts are with the families and colleagues associated with the Timaru incident.

The National Fly-in at Waipukurau was enjoyed by many. The weather precluded some attendance and activity but the normal competitions and chin wagging was completed. Thanks to all those

involved with the organisation of this event. Roll on Hokitika, Waitangi weekend 2016.

Thanks to all those club members throughout the country who have professionally promoted and participated in the sport, instructed new students, inspected aircraft and mentored fellow pilots. RAANZ as a club based organisation relies very heavily on people looking after their patch reducing the need for any large scale national intervention. Having said that we do need feedback of things that are not working as well as they might. The intention is to put out the small fires before they become big ones.

An ATO seminar was held in Wellington during September. It was an impressive collection of aviators totalling 849 years and 97,920 hours of experience. Any aviation group would be very proud to have that fire-power. Thanks to CAA and Airways NZ for their generous sponsorship of this event.

Thanks to the executive for their participation during the year. While the majority of our business is done electronically we did have a face to face meeting over two days in Christchurch. The key people on the executive also met with CAA in Wellington after the ATO seminar to discuss items of mutual interest. This is an important meeting for us in ensuring we have and maintain a good working relationship with the regulator.

Items discussed with CAA include;

- Development of an Instructional Techniques Course. This will potentially allow for the transferring of more Micro time towards a Part 61 Certificate
- The provision for IAs to have some currency requirements. It is anticipated this will involve attendance at a refresher type seminar.
- The ability for selected IAs to be more involved in the initial certification of some aircraft.
- The possibility of some aircraft that are of a low use nature or those that are in a rebuild nature have their participation levy reduced or suspended.

Our Part 149 delegation is due for renewal early in the new year. This delegation does involve considerable handing down of substantial authority from CAA to several key people in our organisation. I thank those people on your behalf for taking on that responsibility. The renewal process has quite a bit of lead time and is well and truly underway.

Membership has increased by 75 members over the last year to 625 I am confident that the future of recreational aviation is healthy and confident that RAANZ is a very good platform to ensure it remains that way.

Thank You,  
Rodger Ward.

## **Ops report**

Another year has flown by and for some far too quickly. The executive of RAANZ has been quite busy and have got together regularly. From my perspective it has been quite rewarding in appointing new ATOs, upgrading and flight testing new instructors, presenting at road shows, assisting in organising an ATO seminar, reviewing our part 149 exposition, keeping in touch with CAA, fielding queries for all and sundry along with being able to get out and about to various fly-ins and participating in our great sport.

There has been some changes in who we deal with in CAA and RAANZ has spent quite some time this year getting to know and be onside with these personnel. The ever growing popularity of micro-lighting in NZ and acceptance by those in general aviation as a whole has meant that we have to ensure that our teaching methods, maintenance requirements, rule compliance and flying abilities are responsible and overall safe.

Colin and I completed a North Island road-show at the end of last year that included aircraft ownership, maintenance responsibilities, licensing and BFR requirements, safety issues along with a myriad of other topics. The attendance was very pleasing along with great feedback. It is important that the various messages delivered are taken aboard before and with every flight.

One area that is letting our organisation down is that we are not consistently reporting accident and incidents as we should be. If you are not sure if anything is reportable chat to your instructor or file through our RAANZ system and we will ensure anything significant will be passed onto CAA. This reporting system has the ability to recognise trends and issues that can be passed onto other aircraft owners and pilots to maybe prevent something similar. We must learn and capitalise on other's experiences.

In September we managed to get 20 of our ATOs together for two days in Wellington to discuss various topics but mainly to ensure that we are all on the same page when it comes to instructing techniques and that our standards are common. The theme was 'back to basics' in ensuring that all pilots receive a solid understanding of how, why and the consequences of what we do in the air to ensure safe and enjoyable flying. As a result of this seminar there has been a tidy up of what is required when training our budding instructors. We are also working on an Instructor Techniques course for which participation will be mandatory. The expertise and experience at this forum was mind boggling and is testament that RAANZ is in great hands with fantastic ATOs. CAA I believe were suitably impressed.

RAANZ, namely our Admin stalwart Stuart has produced an aircraft log book especially designed for microlights along with a pre-take-off check list sticker that can be attached on the dash. We are also about to introduce an aerobatic rating for those more adventurous.

It has been reiterated before but is always worth mentioning again that in a voluntary organisation like ours it is often not really understood the effort that our behind the scenes executive, instructors and ATOs put into making the success micro-lighting is today.

Well done all. Fly safe.

**Bill Penman**

## **Technical Report**

Perhaps I shouldn't begin this year's report with "WOW. I can't believe a year has passed already!" which is a line I have used a few times before.

The last twelve months have been an extreme challenge for me personally and also as technical officer of this organisation. We have had an incredible amount of feedback whilst on our IA road-show which has been very positive.

I certainly enjoyed meeting so many people and being given the benefit of their experience and

stories. We have so much to learn.

I wish to express my gratitude to all who assisted and those that made such a great effort to attend.

The challenge that we now face is how to improve and carry out our tasks and responsibilities even better. In reality, the aircraft we are flying are becoming increasingly more sophisticated and the level of expertise to pilot and maintain these aircraft is ever increasingly more demanding.

To add to this, we are also furthering our education and understanding which means that some decisions we made in the past might not necessarily have been totally correct or the best decisions. I myself am a culprit of this and once I have understood these requirements more clearly, I have tried to share this knowledge throughout.

So, if I neglected to do something last time or got something wrong last time, this does not give me licence to continue to make the same mistakes over and over. These acts are never intentional and the job of an inspection authority is a difficult one.

We owe a great debt of gratitude to the IAs out there.

We as IAs and aircraft owners and operators need to ensure that we understand our responsibilities for the airworthiness of microlight aircraft.

We need to ensure that if the manufacturers of the aircraft have a flight manual and or a maintenance manual, that the aircraft is maintained and operated in accordance with these instructions.

This action is required to satisfy rule part 103.207 which states that in order to revalidate a flight permit, any inspection, replacement, overhaul or any other maintenance of the microlight aircraft or its engine or engine components that is considered mandatory by the manufacturers has been complied with.

Also 103.209 states that where a class 2 microlight is modified in any manner that may affect the airworthiness of the aircraft, the operator shall ensure that the aircraft is re-inspected and re-assessed for compliance with 103.207 before further flight.

We need to ensure that before we present our aircraft for annual inspection that these criteria have been met.

We are coming under increased scrutiny by the regulators and need to ensure that our house is in order.

We can no longer hide behind the fact that it was done a certain way last time.

I know that the IAs are trying to up-skill and we are most grateful for the great effort these guys are making and have made. On the other hand, we want to keep things as simple and safe as we possibly can.

We have been given the green light for the compilation of our own log books for your aircraft. This

is a huge shift for the CAA and we look forward to the implementation.

Your executive has been and still is working on numerous projects with the CAA such as registration and aircraft certification etc. These task do not get resolved quickly and require a huge amount of work.

I would like to thank my fellow executive members for their huge support and wish you all the very best for the festive season with fair winds, clear skies and safe flying.

Colin Alexander

## Minutes of RAANZ AGM 2015

**Held at** Raglan Club, Raglan, Saturday 14<sup>th</sup> November 2015

1 The meeting was **declared open** at 1100 by the Chair **Rodger Ward** (RAANZ President) who welcomed members.

2 **RAANZ exec members present-**

- Rodger Ward, President
- Evan Gardiner, CEO
- Bill Penman, Operations Officer
- Colin Alexander, Technical Officer
- Deane Philip, exec member
- Stuart Parker, Admin

3 **Apologies** were received from John Issott, Claude Preitner, Richard Seymour-Wright, Ken McKee, Doug Yarrall, Neil Jepsen, Bradley Yorke, George Taylor, Easwaran Krishnaswamy (M: Ward, S:Gardiner, Carried).

4 **28 members** were in attendance.

5 **Proxies** were received from the following clubs

CRAC	Glenn Martin	16%
WRAC	Colin Alexander	7%
SRFC	Chair	5%
GYRATE	Tony Unwin	5%
BOPMA	Coin Alexander	4%
BOIAC	John Nicholls	4%
FFC	Stan Hyde	4%
MMC	Bill Penman	4%
WMLC	Stuart Parker	3%
SSFC	Wayne Richmond	3%
NZAA	Tony Turner	2%
WFC/NMC	Brian Millett	4%
WCMC	Chair	3%
MBAC	Tony Turner	1%
MMAC	Rainer Kunnemeyer	1%

6 With 66% of members represented in person or by proxy, a **quorum** was declared.

7        **Minutes of the previous AGM** (AGM2014) were read by Stuart Parker.

**Insurance cover** was reported back- no joy with RA-AUS piggyback option, and the high cost of RAANZ member-wide cover was expensive. Agreed to leave cover to individual members.

**Medical expiry date** capture to database. To be done.

The minutes were moved for acceptance (M:Parker, S:Philip, Carried)

8        The **President's report** was read by Rodger Ward.

Some discussion about membership, and the **source of new members**. Membership is increasing, with some bigger clubs noting younger members are joining.

Also some comments about the need to **update the training manual and exam question pools**.

**Crediting of microlight time** to Part 61 is expected in 12-18 months.

The Presidents report was moved for acceptance (M:Ward, S:Parker, Carried)

9        The **Operations report** was read by Bill Penman.

The Operations report was moved for acceptance (M:Penman, S:Martin, Carried)

10       The **Technical report** was read by Colin Alexander.

The Technical report was moved for acceptance (M:Alexander, S:Nichols, Carried)

11       The **Financial report** was read by Stuart Parker.

The **budget for 2015** was outlined, with a planned slight shortfall in income over expense due to expected Technical road-show in this financial year. It was agreed that RAANZ could absorb that deficit and that **membership fees should remain at \$70 per annum**.

The Financial report was moved for acceptance (M:Parker, S:Hyde, Carried)

12       **Election of executive** members.

There was one **vacancy** for an elected member on the Executive. No nominations were received, with the position left open should the executive wish to second a suitable candidate for a 1 year term.

13       **Remits** received

No remits were received.

14       **General discussion**

Considerable discussion regarding the Flying NZ re-entry into the microlight market. Agreed that RAA NZ needs to remain as low cost as possible, while providing a service meeting member needs.

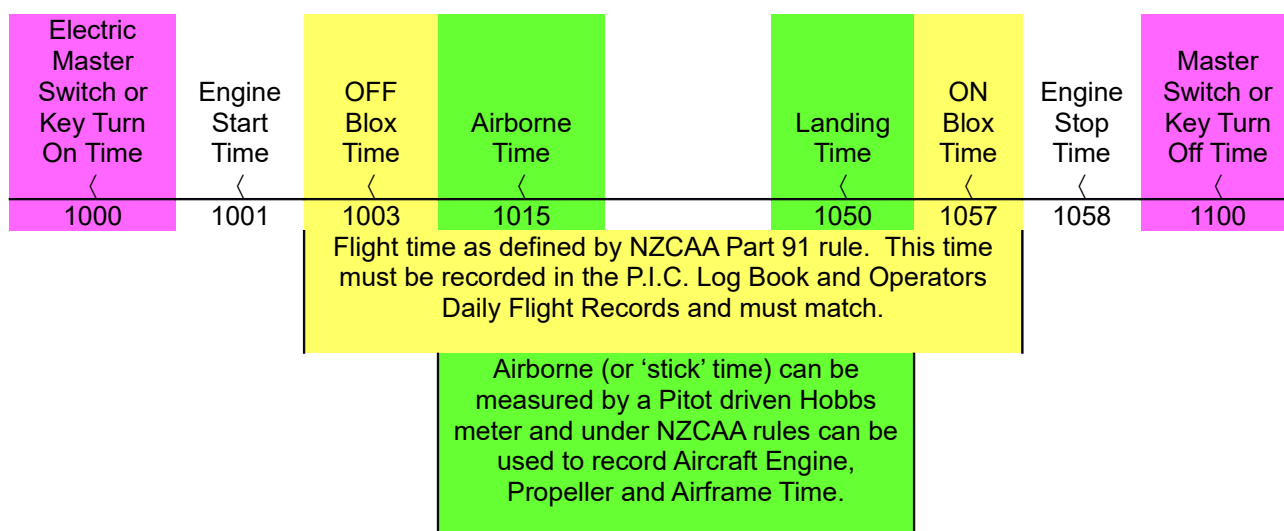
Some clubs running student work-for-flight schemes report good results, with some keen young student pilots emerging.

Exec have been asked to investigate the possibility of a member fuel discount scheme- apparently AOPA have such a scheme.

15 With no further items to discuss, the meeting was **declared closed** by Rodger at 1400.

## Aviation time recording

Jim Lyver/Mercer



### Hobbs meter displayed in decimals

- Electric – when master switch turned on or when power is supplied from the battery to power up systems.
- Engine oil pressure – when the engine is started.
- Airspeed increased through 20Kts (Switch in Pitot system).

### Tachometer displayed in decimals (from the engine rpm counter)

- Set to run when engine running. Set at 2400RPM, a typical cruise RPM setting. For any engine running at lower RPM, the Tacho will under read.

### Notes / facts

- Most Aviation Training organisations charge their customers on an hourly rate basis as measured by Electric Hobbs Meter to maximise the time / income.
- Most Aviation Charter, Skydiving operations and Private organisations record their Aircraft hours by Hobbs Meter driven by Airspeed to minimise Aircraft time and cost.

CAA rules require the following:

- |                          |                 |
|--------------------------|-----------------|
| – Daily Flight Records   | – Flight Time   |
| – Pilot Log Book Records | – Flight Time   |
| – Aircraft Technical Log | – Airborne Time |

### Definitions

- **Time in Service** means, for maintenance time records, aircraft log records, and similar purposes, the elapsed time from the aircraft leaving the surface until touching it again on landing. This can be obtained from an airspeed switch installed in the Pitot system driving a hobbs meter.
- **Flight time** means the total time from the moment an aircraft first moves for the purpose of flight until the moment it comes to rest at the end of the flight including all associated push back, taxiing and subsequent holding time. The difference between the off blox to on blox time. Record manually by watch or clock. (Airlines record this by release of park brake immediately prior to push back and when the park brake is set again when parked.)

### Daily flight records

*(Keep a 'Trip log' booklet in the Aircraft.)*

- (a) Except as provided in paragraph (c), an operator of an aircraft must keep accurate daily flight records that contain for each flight the following:
- (1) The name of the operator:
  - (2) The name of the pilot-in-command:
  - (3) The names of other crew members:
  - (4) The registration markings of the aircraft:
  - (5) The date of the flight:
  - (6) The purpose of the flight:
  - (7) The time of commencement of the flight:
  - (8) The name of the departure aerodrome:
  - (9) The flight time.
- (b) An operator must retain each daily flight record for a period of 12 months after the date of the flight.
- (c) A person required to keep daily flight records under rules 115.455, 135.857 or 137.503, is not required to comply with paragraphs (a) and (b).

### Current aviation practice disadvantages

Flying Training Organisations that charge their customers on an Electric operated Hobbs Meter can suffer the following:

- Over charging their customers (see example). The Pilot might only get 35 minutes 'stick'



time but be charged 1 hour.

- Some Pilots may be encouraged to taxi at too higher speeds to minimise the time on ground.
- Waiting time on the ground at busy Airports.
- Pilot not allowing the engine oil temperature to come up to minimum temperature (50°C in the case of the Rotax Engine) prior to applying full power for Take Off.
- Engine to be overhauled early (ahead of time), e.g. Manufacture requires an engine (Rotax) to be overhauled at 2000 hours. If the aircraft's life is spent Flight Training, then it is possible to have the engine overhauled at 1200 hours (or 800 hours too early) increasing the running costs unnecessarily.
- Tachometers that are used to record flight time when used in lower power situations during training can cause it to under-read, causing engines to be overhauled late, maintenance on the Airframe done after minimum times set by the Manufacture is reached and the customer to be undercharged.
- As most Hobbs Meters measure time in 0.1 of an hour (i.e. in blocks of 6 minutes), this can be unfair, as one customer may be slightly undercharged and the next overcharged, depending on when the Hobbs Meter clicks over next. In addition, the Hobbs Meter can linger on after the power supply is switched off until it clicks over to the next 0.1 of one hour. It is best to record flight time in hours and minutes. In the example given, the flight time is 1057 hours less 1003 hours, 54 minutes. Take it to the nearest 5 minutes so it becomes 55 minutes. A flight time of 52 minutes becomes 50 minutes.

Adding up your Pilot's Log Book is no hardship. First add the minutes column, then divide it by 60. The rest is easy.

- If the Hobbs Meter is set to read airborne time, time in service, simply place the total hours in decimals at the end of the day directly into the Aircraft Log Books and Tech Log.
- In the example given, the Flight time of 55 minutes is reasonably typical of a training flight. It can be seen when the flight is a short one, e.g. NZAR to NZME the:
  - Electric Master Switch Hobb time can be 35 minutes
  - The Flight Time may be 30 minutes
  - The Airborne time will be 14 minutes

This is a distortion of time keeping, 60% of time record as kept by the Hobbs Meter, powered by electric means. Conversely, a long flight such as a cross country flight, e.g. NZME to NZGS could be:

- Electric Master Switch Hobb time may be 2 hrs and 20 minutes
- The Flight Time would be 2 hrs and 20 minutes
- The Airborne time will be 2 hrs and 00 minutes

A difference of only 17%.

- Off Blox to On Blox time is measured in hours and minutes by most airlines when the park

brake is released on push back, the Off Blox time is automatically recorded, conversely, when the park brake is set again at the completion when taxiing onto the gate, the 'On Blox Time' is automatically recorded.

- In light Aircraft, the only reliable way is to write down the time Off and On Blox. The difference is Flight Time.
- Aviation time recording advantages
- Provided the Hobbs Meter is set to run on an airspeed switch installed in the Pitot system, this time can be placed into all 3 of the Aircraft log books at the end of the day. This is simple to do and any under and overs of the total days flying can be made up the next day and will not effect the time to service / overhaul.
- Time recorded in the above manner is accurate and legal. It is well known by experienced Aviation engine overhaul professionals and engineers that most engine wear is experienced at high power settings. Idle speeds do not contribute significantly to engine wear. Loading does not come onto the Airframe until airspeed such as in take off and flying, so the Airframe time is only recorded when the air load is on. The same situation exists with the propeller. This is why the CAA accept time recorded in this manner for the Aircraft Log Books; is acceptable.

I suggest writing to the relevant Engine Manufacturer that specify engine hours must be recorded from when the engine is started until it is stopped. If they don't approve recording engine hours in the manner on which all other manufacturers do, show them this document and seek their approval to record Engine Time in the above manner to cut down the premature engine overhaul time. This is accepted practice by the world's leading and by far most engine manufacturers, e.g. Continental and Lycoming.

(Most of the world's Airlines run their engines on condition, they don't have set overhaul times.)

I was the first skydiving operator in NZ to get a CAA approved 20% increase in overhaul engine hour times (TBO escalation). This was due to operating the engines over a long time in the correct manner and having a very competent and experienced PT145 Aircraft Engineer to strip report and overhaul my engines.

#### **Defect report- Tecnam P92 nose gear failure**

On 25/07/2015 the nose leg on Tecnam P92ES, registered ZK-CDL, failed due to fatigue and collapsed whilst the aircraft was turning at the end of runway 07 (WAAP). The collapse resulted in a propeller strike and subsequent damage to propeller, engine and engine mount. The fork plates showed signs of extensive long term fatigue.

Owners of a Tecnam P2004 Bravo witnessed the incident involving ZK-CDL and decided to check their fork plates for cracks. A visual inspection did not clearly show any defects. Cracks were found on these fork plates when checked off site.

The fatigue cracks were not easily detectable, visually, during preflight, nor during regular services.

The replacement fork plates were measured to be 33% thicker than the fork-plates supplied as

replacements at ~700 hours flight time. There are no known ADs or Service Bulletins regarding the nose leg on this model, or models using the same nose leg design (i.e all P92 models with tri-gear, the P96 Golf, the P2002 Sierra and the P2004 Bravo). Newer aircraft might be fitted with the thicker fork plates.

A procedure for checking and monitoring fork plates on any of these models used by the flying school has been implemented. This involves dimensionally checking and conducting die penetrant testing to expose cracks.

## **Description of Incident**

After returning from the second flight of the day (first training flight), the aircraft was being turned around at the end of the runway for a back track to the hangars. The radius of the turn increased as the aircraft slowed to near stand still and, as the PIC was about to apply throttle, the nose of the aircraft dropped and the propeller struck the runway, stopping the engine. The student applied shut-down procedures whilst the PIC notified traffic on final approach of the incident.

A nose wheel support plate (Fork Plate RH) on the aircraft failed during the turn at the end of the runway. This resulted in a collapse of the nose wheel and propeller strike on the runway.

The aircraft travelled a distance of ~30cm during the nose wheel collapse, of which ~10 cm during the propeller strike.

The engine was running at ~2200 rpm, fuel load estimated at 65 litres, pilot and student on board at ~83 kg and ~77 kg, respectively.

## **Investigation**

### **Aircraft**

- Airframe TTIS: 2369.15 hrs
- Since Last Inspection: 23.97 hrs
- Nose Leg TTIS: ~1500 hrs (replaced ~700 hrs TTIS due to bent plates)
- Loading at time of incident:
- Aircraft: ~ 303 kg
- Fuel: ~65 lt (~47 kg)
- PIC: ~83 kg
- Passenger / Student: ~77 kg
- Shelf: ~5 kg
- Total Estimated Weight: ~515 kg.
- Estimated Take-off Weight: 526 kg (additional 15 lt of fuel)
- Maximum Take-off weight for type: 544 kg

### **Damage**

Propeller and nose leg damaged (see photographs 1 & 2). Nose Leg Fork Plate (RH) had broken at the shock absorber mounting bolt and the leg had collapsed backward (photograph 2).

Later investigation by Leading Edge Aviation found the engine mount to be cracked and the engine crankshaft run-out to be out of tolerance.

The aircraft left a skid mark and two divots (from the propeller blade strike) in the runway..



*Photograph 1: Front View of Aircraft*



*Photograph 2: Detail of Collapsed Nose Leg*

Due to the damage to the engine, propeller, engine mount and nose leg, the aircraft was written off by the insuring company. The airframe was sold for rebuild and installation of a new engine.

### **Failed Component/s**

The Right Hand Fork Plate had failed through the bolt hole. Failure was through progressive fatigue, evidenced by thumbnail crack formation over time, with leading “beach marks” (photograph 4). The whole of the trailing section of the fork plate (i.e. that section behind the shock absorber mounting bolt hole) had fatigued through.

This indicates a fatigue through torsional loading, with the highest loads being experienced by the material at the rear of the fork plate, around the mounting bolt hole.

Further metallurgical analysis was not conducted. However, the dimensional details of the fracture surface are recorded in Photographs 5 to 10. Features of the failure can be seen in these photographs. Final fracture of the fork plate occurred when approximately 70% of the available load bearing cross sectional area had already cracked through due to fatigue.

It is also possible to see the typical features of fatigue failure in these photographs.

Whilst the Fork Plate LH had bent as the wheel collapsed, it was possible to see fatigue cracks once the component was bent.

### **Other Information / Comments:**

#### **Preflight and Regular Inspection**

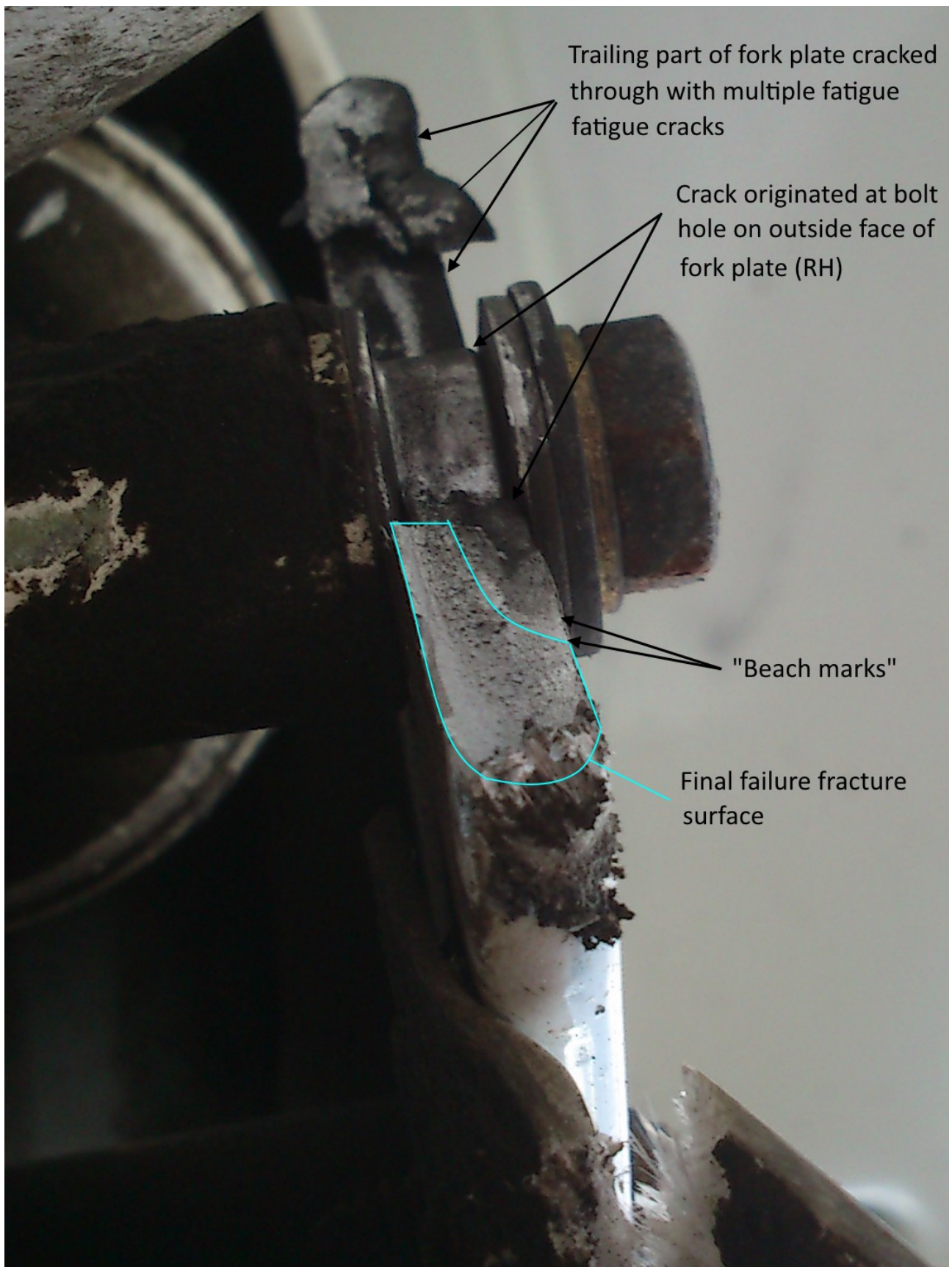
Preflight inspection of the aircraft did not yield any sign of the defect cracks on the fork plate. The aircraft had been pre-flighted effectively three times on the day – before operations began, and then for each of the flights, where a full preflight was demonstrated by the PIC for both students who were new to the aircraft.

Additionally, a couple of the school's students are particularly pedantic about pre-flighting the aircraft, to the point that they get down on hands and knees and physically check out movement in each undercarriage leg.

After the incident, other pilots that had been using the aircraft reported having felt the nose leg felt “loose” during preflight inspection, but had not found anything untoward on closer examination.

To further underscore this, the owners of a Tecnam P2004 Bravo that was undergoing 100 hr check on the day of the incident, checked their side plates and found no cracks visually. As their aircraft had similar flight hours to ZK-CDL, they decided to strip the nose leg and have the plates checked for cracks off-site. Cracks were found in both plates and they have replaced their plates with new plates from Tecnam.





*Photograph 4: Fracture Features on Failed Fork Plate (RH)*



*Photograph 5: Thickness of failed Fork Plate (~6.1 mm)*



*Photograph 6: Total Width of Fork Plate – note fracture surface features*



*Photograph 7: Leading Section Width (Final failure section)*



*Photograph 8: Trailing Section Width (this section was fatigued completely prior to final failure)*



*Photograph 9: Thumbnail Crack Width*



*Photograph 10: Thumbnail Crack Thickness*



ZK-CDL is regularly maintained, every 50 hours, by Leading Edge Aviation and a LAME. Whilst the undercarriage requires regular inspection during these checks, this is merely a physical inspection, of components on the assembled undercarriage. No defects had been detected recently during these checks.

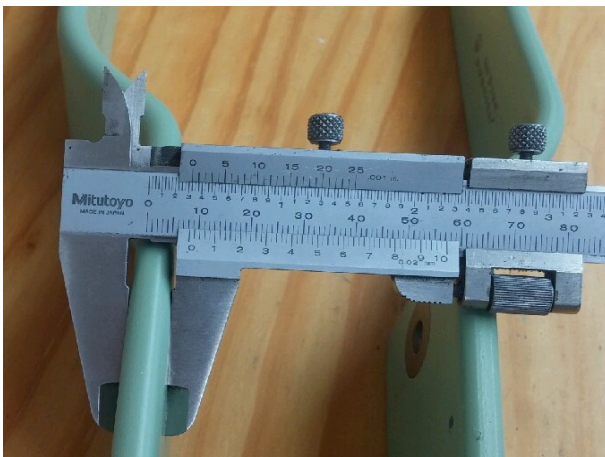
### Loads on the Fork Plates

Bending stresses are applied to both fork plates during take-off (application of right rudder as power is introduced) and during taxiing, particularly in cross winds and during turning, as the turning forces are primarily applied through the displacement of the nose wheel. The crack originated at the bolt hole, which could have been a source of a defect to start the cracking under such loads.

### Replacement Fork Plates & Tecnam ADs

The replacement fork plates ordered to repair the damaged nose leg on ZK-CDL are 2 mm thicker (i.e. 8mm instead of 6mm) and the bushes for the shock absorber attachment bolt have been re-engineered (Photographs 11 & 12). Given the same load bearing width, this would increase load carrying area by 33%, or reduce the stress due to normal operations by a similar degree.

The change in dimension of the fork would indicate that Tecnam are aware of potential problems with the fork plates.



*Photograph 11: Replacement Fork Plate Thickness (~8.1 mm)*



*Photograph 12: Replacement Fork Plate General View – Note Bushing in Central Hole on new plates*

The same nose leg design, and thus forks, are used on other aircraft such as the P92 series (J, Echo, Super Echo, Echo Super, Eaglet), P96 (Golf), P2002 (Sierra), P2004 (Bravo).

There are no current Service Bulletins or ADs regarding the fork plates on P92's on the Tecnam Australasia websites.

### Conclusions

- The damage caused to Tecnam P92 ES was as a result of fatigue failure of the fork plate (RH) on the nose leg.
- Cracks were not easily identified by visual inspection of the nose leg assembly and may not be detected visually during preflight or regular service inspections.



- The fatigue cracks possibly developed due to continued training use primarily on sealed runways, with a normal cross wind component.
- The replacement fork plates issued by Tecnam are 33% thicker than OE supplied with the aircraft. This would reduce the stress on the plates by a similar degree.

### **Actions**

- Any Tecnam aircraft entering service with FlyWest will be evaluated for nose leg fork side plate revision and safety.
- If the side plates are 8mm thick, a die penetrant test of the plates will be required. If no cracks are found, then no further testing will be required.
- If the plates are 6mm thick, then a die penetrant test of the side plates will be conducted – this can be done whilst the nose leg is still assembled to the aircraft. If cracks are detected, then the following will apply:
  - Cracks detected less than 15mm long (sum of all cracks along a load line): Notify owner (if applicable) and use die penetrant testing every 50 hours of flying time.
  - Cracks 15mm long or more (sum of all cracks along a load line): Notify owner (if applicable) and take the aircraft off line until the side plates have been replaced.

This is to be applied immediately. Richard **Seymour-Wright/FlyWest**

### **A Flight into Wellington International Airport**

**Harvey Lockie/Parakai** (from the West Auckland Airport newsletter)

On a recent visit to Wellington, the Dynaero ZK-WIK flew into Wellington International NZWN. It's never a certainty to be able to get into Wellington... apart from the possibility of having to hold for a long time if they are busy with commercial traffic, the weather around Cook Strait is unpredictable. It can be blowing 40 knots at Wellington while only 15 knots at the Kapiti Coast Airport, NZPP. The distance between them is similar to the distance between Auckland International NZAA and West Auckland Parakai NZPI, so its best to plan for both and let the weather decide... like the sea, "The weather is always the boss."

At NZWN you have to keep the speed up until down to 300ft, and in this shot ZK-WIK is coming downhill at 130 knots with the controller's requirement to "Keep your speed up, and expedite vacating, 737 on final behind".



*Mid final Wellington International Airport, NZWN. The knowledge that there is 70 tonnes of heavy metal closing fast behind does sharpen the mind.*



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**WINGS OVER WOODVILLE**  
**11<sup>th</sup> Annual New Year's Day fly in**  
**The Worlds first New Years aviation event**

Date: 1<sup>st</sup> January 2016

Time: In time for midday **\$10** lunch.

Place: "Athbey Farm" airstrip Woodville

How to find: 4 NM NE Woodville approx 1 NM west of SH2 on a line, Papatawa highway/rail over bridge – Whariti peak. 620m x 28m, vectors 31/13, 490 ASL

40° 18' 09 S                      175° 54' 51 E                      119.10                      15-knot sock

**Caution:** West end displaced threshold has trees, two storeyed house and power wires. Woodville is well known for fog, wind and turbulence. If unsure of you and your aircraft capabilities, please contact a previous visiting experienced pilot.

Past visitors have been, C 150 & C150/160, C152, C172, C180, C185, C188; Rallye; Piper PA 18A 150, PA22, PA25, PA 28 140, 151, 160, & 180, ; FU 24 950, 954 & Cresco; Rand Kar Xair & Hanuman; Avid Speed wing & STOL; Meteor Sky arrow; Jodel D9 & D11; Rans S6ES, S-7 & S-9; Gardan Minicab (& UL); Pelican PL & GS; Alpi 200 & 300; AirBorne Outback; Fisher Horizon; Savannah; Maranda; Tecnam P 92, P 96, P 2002 & P 2008; Dyn'Aero MCR01; Zlin 37T; Edgar Percival EP9; Gruman Agcat; DHC 2 Beaver; DH 82 A Tiger Moth; DH 60G Gipsy Moth; DH Chipmunk Mk 22; Aero Commander 100; Maule MXT-7-180 & M-5-210C; Stinson 108-2; Skyfox Gazelle; Zenair CH 200, 601 & 701; Jabiru; Stolp V Star; Europa Tri Gear; Glasair; TL2000 Sting; Vans RV 3 & RV10; Bantam B 22; Sonerai; Drifter; Pitts S-1D Special; Auster J1; Champion 7GCBC; Titan T51 Mustang; RF Dominator (&Sub4 tandem), Bensen B8m, Magni Gyro M 16, M 22 & M 24; Europe MT 03 Eagle; Celier Xenon; PS KB 3; H 300; R22, R44 & R66; Bell 206B; DG Flugzeugbau 10005.

Ground support crews will find "Athbey Farm" airstrip on Valley Road, via Condoit or Pinfold Roads off SH2 north of Woodville.

**Contact; Manawatu Microlight Club President**

Colin MacMillan 063287882 – 0274515817 email: macmillan@inspire.net.nz

**THIS EVENT IS FOR AVIATORS ONLY – NO PUBLIC ADMITTANCE.**

# **RAANZ National Fly-In 2016**

## **HOKITIKA AIRPORT**

**FEB 5-8**



The West Coast (SI) Microlight Club in association with the Hokitika Aero Club invite all pilots and crew to the RAANZ 2016 Fly-In to be held on Waitangi week-end. Fly over the alps and enjoy the magnificent scenery, uncluttered skies and great weather.

Over the three days we will arrange flying competitions, scenic flights, good food and the chance to meet old and new friends. This Fly-in is open to all pilots and all aircraft types.





Take the time to read the NZHK page in your AIP. Note the two sealed runways. Do not land on the grass. Landing fees will be waived. BP Avgas available on field with swipe card. We will run a shuttle to town for Mogas.

### **PROGRAMME**

Friday: We anticipate some of you will arrive this day. No activities are planned. Camping is free-of-charge. Registration and BBQ Dinner.

Saturday: Arrival. Registration. Local flying. Group dinner at a local hotel.

Sunday: Breakfast, Pilot Briefing, Competitions, Lunch, Fly-Away. Transport provided to town. BBQ Dinner

Monday: Breakfast, Local Flying, Departures.

### **ACCOMMODATION**

Camping will be permitted on the airfield. Contact Hokitika I-Site for other accommodation on 03 755 6166

## **COMPETITION PROGRAMME**

Nominated Distance Takeoff and Spot Landing to a mark. Standard 1000 ft circuits. Aggregate of two each. Penalty scoring.

## **REGISTRATION**

Please register your aircraft (\$25) no later than Friday 15 Jan 2016. Please advise numbers of crew and passengers. This greatly helps our caterers. Payments for meals will be made on arrival.

WCMC Direct Payment Details:

ANZ Bank. West Coast (SI) Microlight Club 06 0845 0005292 00

Enter your name and "2016 Fly-In" then email [drew.howat@xtra.co.nz](mailto:drew.howat@xtra.co.nz) so that he can record the details.

NB. NZHK Hokitika is a certified airfield. Scheduled commercial flights of Air NZ Q300 or Beach 1900 aircraft occur each day. There is also a commercial helicopter operator and a scenic flight operator active on the field. Hokitika is a mandatory broadcast zone (MBZ ).Class G airspace. No dogs allowed on the field. Collect all rubbish and prevent FOD.

## **CONTACTS**

Event coordinator: Mark Ralfe [markralfe@gmail.com](mailto:markralfe@gmail.com)

Event Sec/Treas: Drew Howat [drew.howat@xtra.co.nz](mailto:drew.howat@xtra.co.nz)

West Coast Microlight Club CFI Ray Leach [ray.leach@xtra.co.nz](mailto:ray.leach@xtra.co.nz)

Hokitika I-Site [hokitika@i-SITE.org](mailto:hokitika@i-SITE.org)

# RAANZ NATIONAL FLY-IN

## 2016 HOKITIKA FEB 5-8

Please reply by return email to [drew.howat@xtra.co.nz](mailto:drew.howat@xtra.co.nz)

The following prices are approximate and are to be confirmed and paid at registration upon arrival. ( Cheque or cash. No eftpos available)

		Numbers
Registration	\$25	(     )
Friday BBQ Tea	\$15	(     )
Sat Breakfast	\$5	(     )
Sat Lunch	\$10	(     )
Sat evening dinner	\$40	(     )
Sun breakfast	\$5	(     )

Name.....

Email.....

Contact Phone.....

Registration Includes All Day Tea/Coffee Biscuits

Breakfast= Fruit Juice, Fruit and Cereal, Toast, Tea Coffee

## Membership changes

Chris Anderson	Canterbury Recreational Aircraft Club	Advanced Local	IA appointment
Rod Hall-Jones	Fiordland Aero Club	Senior Flight Instructor	Upgrade
Gregory King	Bay of Plenty Microlight Assn	Advanced National	Upgrade
Matthew O'Connell	Mercury Bay Aero Club	Novice	Joined
Gordon Moloney	Canterbury Recreational Aircraft Club	Novice	Joined
Devon Samuel	Mercury Bay Aero Club	Novice	Joined
Allan Kearney	Mercury Bay Aero Club	Novice	Joined
Robin Langslow	Central Hawkes Bay Aero Club	Advanced National	Upgrade
Michael Everard	Gyrate Flying Club	Novice	Joined
Raymond Parsons	Canterbury Recreational Aircraft Club	Advanced National	Joined
Graeme Bayliss	Wairarapa Ruahine Aero Club	Novice	Joined
Lindsay Nicol	Hawkes Bay Microlight Club	Novice	Joined
Stuart Pain	Canterbury Recreational Aircraft Club	Novice	Joined
Gerard Sullivan	Canterbury Recreational Aircraft Club	Novice	Joined
Steven Campbell	Hawkes Bay and East Coast Aero Club	Novice	Joined
Nathan Mauchline	Wanganui Aero club	Senior Flight Instructor	Joined
Todor Prodanov	Canterbury Recreational Aircraft Club	Novice	Joined
Jason Tassell	Parakai Aviation Club	Novice	Joined
Scott Moody	Canterbury Recreational Aircraft Club	Novice	Joined
John Healey	Whangarei Flying Club	Senior Flight Instructor	Joined
Ross Gaddes			IA appointment
Adrian Gloyn	Hawkes Bay and East Coast Aero Club	Novice	Joined
Alan McGregor	Stratford Sport Fliers Club	Advanced National	Joined
Marcel Huth	Opotiki Aero Club	Novice	Joined
Sinead Dunne	Wairarapa Ruahine Aero Club	Novice	Joined