



The newsletter of the Sport Aircraft Association (Auckland Chapter) Inc

# Sport Aviator

August 2014



[www.saaauckland.org.nz](http://www.saaauckland.org.nz)

# Committee 2014

## EXECUTIVE COMMITTEE

<b>President:</b>	<b>Evan Wheeler</b> 09 238 6081 027 924 807
<b>Vice President:</b>	<b>Warren Sly</b> 09 534 2364 021 266 0585
<b>Secretary:</b>	<b>Gavin Magill</b> 09 298 7174 027 291 0525
<b>Treasurer:</b>	<b>Gordon Sanders</b> 09 534 2364 021 266 0585

## COMMITTEE MEMBERS

<b>Nev Hay</b> 09 521 7077	<b>Don Wilkinson</b> 09 576 5009
<b>Peter Armstrong</b> 09 576 3676	<b>David Campbell-Morrison</b> 09 817 4782

## OPERATIONAL POSITIONS

<b>Safety Officer</b> Norm Bartlett 09 528 0108	<b>Technical Library</b> Sandy Wilson 09 536 4018
<b>Tool Library</b> Manfred Scherbius 09 298 0221 021 081 365 03	<b>Newsletter Editor</b> Gavin Magill 027 291 0525
<b>Catering</b> Carl Pudney 027 430 5303	<b>Airspace Users Group</b> Steve Chilcott 09 625 5273

## TECHNICAL MENTORS

Wood & Fabric	Mike Tunnicliffe	09 237 8173
Composites	Alistair McLachlan	299 2775
Metal Skin	Kevin Paulsen	296 5125
Avionics	Liviu Filimon	268 1199

### **FRONT PAGE**

Peter Armstrong's DynAero 4S sits at Omarama airfield with a stunning backdrop of the snow capped Southern Alps during the AOPA Winter Fly-In last month.

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## Next Meeting

**WHEN:** Thursday 28th Aug 2014 -7:15pm

**WHERE:** Auckland Society of Model  
Engineers Club Rooms  
Peterson Road, Panmure Basin  
Mt Wellington

**SUBJECT:** Pilot Improvement Programme

**SPEAKER:** Grant Benns

Grant Benns will, guided by Nev Hay, start out on Nev's initiative of a Pilot Improvement Programme for the membership.

Aerobatics plus widening ones skills and awareness should be an interesting start.

Many of todays Sport Pilots have bought their planes and have not gone too far into what they like and don't like. It's good for one's health to know, and its fun finding out once one or two apprehension barriers are broken down.

Grant is an Air NZ skipper, Instructor and also a very accomplished Aerobatic Pilot. He once even owned a Corby Starlet but alas, it got too small for him. What's changed?

Grant will be good



Have been home two weeks and catching up with the chores. One of which is a fifty hour on the plane. So Saturday morning the plan was to go for a short fly to heat the oil and do the engine checks then get into it. The pre flight completed and a QNH of 1029, 12 degrees of lovely cool air and climbing out as if I had an extra 50 horsepower I turned to join the downwind at 1200 ft. but noticed Ruapehu and Mount Egmont contrasted against a perfectly clear blue sky. My first flight behind the stick in 6 weeks and with conditions like this, it did not

take very long at all to put the 50 hour check on hold and head off into the wild blue yonder. Headed down to Naikē out west from Huntly to look at the extended airstrip apparently being constructed there to be the base for a small aircraft related business. The strip that was meant to be where it was happening had not had any new work obvious taking place so decided to head back home when I noticed an enticing long new airstrip just to the east of Naikē. Thinking this could be the place I landed and met Wayne Garrett. After a cuppa and establishing that it was not the location of the new proposed venture headed off to check out another strip at Wayne's suggestion just to the west of Naikē.

Dropped in here to another nice strip and met Jeremy Lee and his mum who were in the process of drafting bull calves to which they welcomed and extra hand for a while. I mentioned the purpose of my mission in looking for this airstrip under development. "No said Judy that's got to be the doings of some ratbags causing problems in this area and proceeded to give me a bit of background. There is no development under way and ignore anything one reads on the internet relating to it. The good thing though is I have two new contacts and strips that can be arranged for a fly around in the not to far distant future to be discussed at the committee meeting this week.

So with a Ranfurly shield challenge kicking off in Pukekohe at 4.30pm I was back into the plane and off home to Patumahoe with the idea that I could start the 50 hour check Sunday morning. What, with a lucky but successful shield challenge under the belt it was off to the club for tea and another great game to watch underway at Eden Park.

Sunday morning and another brilliant day. Out to warm up the oil and get into that check. Again the conditions were so good I lacked the discipline to get back on the ground and put on the overalls so that check has been postponed to next week. I trust others also got out to enjoy our airspace in such great flying conditions.

Just completed my CAA submission on cost structure and hope others have had time to do also.

See you Thursday night.

Evan





Hi Everyone

I don't know about anyone else but August is always the month for me when I feel the worst of Winter is behind us and it is time to start looking forward to the coming

Spring and Summer seasons. And as if to confirm this, the weather this last week has certainly taken on a definite Spring feel to it. Its still pretty chilly in the mornings but the fine days certainly make up for it. It's great to see blue skies and sunshine again.

During August Gary Briggs hosted the Chapter for a visit to his home workshop to see progress on his scratch built Sonex. I, like everyone else who visited, was very impressed with not only the quality of the build and the progress Gary has made on his Sonex but also on the great workshop setup he has. Special thanks must go out to Gary's wife Susan for patiently hosting a bunch of aviation mad geeks who talk nothing but aeroplanes.

The coming months look to be very busy for the Chapter. Our September meeting is currently on track to be held at North Shore airfield in David Wilkinson's hangar instead of the at the ASME clubrooms. The meeting will be on Saturday 27th September instead of Thursday 25th and will include a fly-in, BBQ lunch and other activities. David is in the process of organising the day and more details will follow shortly. Please keep Saturday the 27th free and I will send out reminders closer to the time.

Also on the horizon is the possibility of a Chapter visit to a number of airstrips south of the Bombay hills. As you may have already read in the Presidents report, Evan has been out and about visiting a number of strips south of the Bombay's and he is thinking the Chapter should look to organise a visit to a number of these strips.

This would be a great opportunity for the non-flying members of the chapter to buddy up with flying members and go see some of the scenery south of the city. It would also be a great opportunity for those with limited strip flying skills to practice these. I will keep you posted on what plans are in progress.

Thanks must go to Martin Ferrand for his entertaining presentation at last month's meeting on his recent motorcycle tour of the southern tip of South America. It looked to be quite a challenging journey. This month we have Grant Benn's speaking to us regarding developing and improving our flying skills through aerobatics. Should be a good night.

The mystery aircraft last month was correctly identified by Bob Keith as a Messerschmitt ME109 mit V Leitwerk (with V tail Assembly/Empennage - thanks David for the translation). Chocolate fish were duly distributed at the meeting. Please feel free to have a go at identifying this months mystery aircraft. Warren Sly is away overseas this week so those that wouldn't normally have a go should give it a try.



Enjoy the newsletter.

See you all on Thursday

Cheers

Gavin

## MEMBER NEWS

## New Member – Craig Thomas

**By Craig Thomas**

*Craig Thomas has recently joined the chapter and sent through the following update for the newsletter.*

Hi Gavin

Well I am 1/2 way thru building a Wittman tailwind W8 , with W10 mods, Clements mods, running an 0320,

Wings are finished , fuse almost finished ready to paint, then start fabric.

Somewhat more complete than this photo.



Maybe the group would like to visit sometime around Xmas for a look at this genuine 160kt rocket ship.

Note , I am looking for 0320 parts , Mpa4 carburettor, and flywheel.

Cheers

Craig

## MEMBER NEWS

## New Member – John Cooney

**By John Cooney**

*John Cooney has also recently joined the chapter and sent through the following introduction for the newsletter.*

I first went for a flight with a friend who had a PPL when I was 15. Not long after I started lessons with Ardmore Flying School and the late Kelvin Stark. The training aircraft was a Cherokee 140 2K Cub and cost \$9.00/hr to hire or \$12.50 with an instructor. I passed my PPL then soon after went to work in US. Flying lapsed for several years, When I returned I clocked up several hours but not long after I went to work in Sydney. I joined a Flying School at Schofields about 1 hour west of Sydney at an old Airforce field.

Returned home after 2 years to marriage, family and no money for flying. It had always been my intention to build an aircraft when time and finance permitted. I had recently started looking at different types and was looking at a Steen Skybolt or a Carbon Cub. Then one day trolling through Trade Me I saw a Tiger Moth rebuild project for sale. Some hectic last minute bidding and I was the new owner. Now the big problem - I had to tell the wife.

[The Tiger] is in Nelson and I have had to relocate it to a storage yard till I can go and collect it. I have a large workshop that had 25 years of accumulated "stuff", some would call junk. I have finished emptying the shed and hope to collect the Tiger in the next couple of weeks when work permits. The Tiger was first registered to the RAF on 15.01.1941. It turns 75 on 15.01.2016 and it is my aim to have it airworthy for its 75th birthday.

John Cooney.

## PROJECT UPDATE

## Gary Briggs – Sonex #1531 Update

**By Gary Briggs**

The forward fuselage sides are making good progress, there is a lot of thick structural parts, as the wings and engine transfer the loads into the fuselage here. It has been quite time consuming as there is a lot of filling drilling and cutting of aluminium angle to make parts. The main spars are the only other parts I remember being this much filling.



I hope to start riveting them soon then so they can be fitted to the rear fuselage

Regards Gary

## MEMBER UPDATE

## Warren Sly &amp; Peter Walton

**By Warren Sly**

2014 Titan Fly-In Astinburg Ohio USA

Warren and Peter holding up the side as the NZ contingent.



## PROJECT UPDATE

## Gavin Magill – Sonex JQP

**By Gavin Magill**

Repairs to JQP's canopy are progressing slowly. Paul Blackmore and myself went out to Mike Tunnicliff's place recently and Mike bent a piece of 3/8" 4130 steel tube and a piece of aluminium tube to enable us to repair the broken canopy bow. Mike's tube bender did the trick with ease.



The results are a good match.



I have since cut and fit the steel tube into the existing broken canopy bow ends and re-assembled the canopy bow. All that is required to complete the repair is some riveting.





## MEMBER UPDATE

## David Wilkinson – RV8

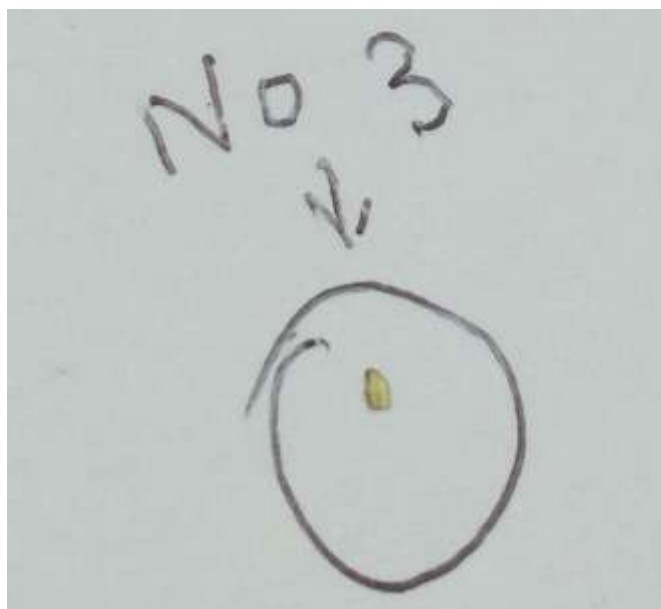
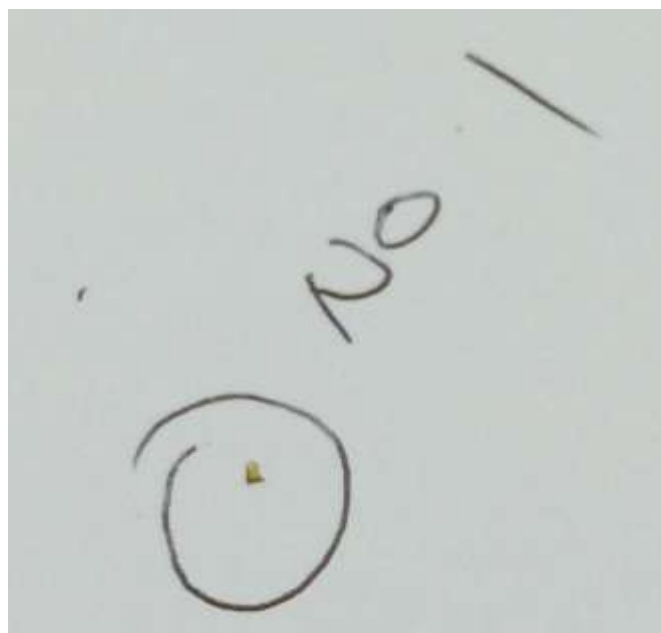
## By David Wilkinson

Many people will be familiar with fuel injection systems but still interesting.

Number 3 cylinder on WLK has always been warmer than the other 3 by 15-20 degrees Celsius and this always tends to be the warmer cylinder on Lycoming's I have been told. I have flown 120 hours approx. in it now and every now and again have had trouble getting the fuel flow below 37 LPH. Some days it was impossible to lean it below 40 LPH without rough running. I just assumed that this is the fuel burn as it had been like this from the beginning.

Last week I took off and noticed it would not lean below 44 lph and when I leaned the mixture it felt like it was missing. I was heading out around the Hauraki Gulf with James (my son) on board and decided we had better go back to North Shore (we were only late downwind) as something had changed. We climbed over head the airfield and I tried both ignition systems and that revealed no change. I increased the manifold pressure and it ran rough like it was missing really badly. Anyway we landed with no issues and put the aircraft away.

After a phone call to Kevin Paulson, he suggested blocked injectors and he was bang on. Today we found very small particles in both the number 1 and number 3 injectors. They are max 1mm in diameter and look like some sort of sealant that has dislodged.



Cleaned all 4 injectors out and test flew. What a difference it will now run happily lean of Peak at 26 LPH at 24 squared and all temperatures are within 10 degrees of each other. I believe the No 3 has been blocked from the start and when the No 1 blocked it really made it noticeable.

Kevin said it is not uncommon for new engines to have this issue after a few hours. Very interesting learning curve and a satisfying outcome.

David Wilkinson

## INDUSTRY NEWS

## ATSB Report On Jabiru Prop Loss

By Nev Hay

This finding has just been released.

The ATSB has released its investigation report into the Propeller loss involving Jabiru Aircraft J430, north of French Island, Victoria on 8 March 2013.

On 8 March 2013, during climb after departure from Tyabb aerodrome, Victoria, the pilot and sole occupant of a Jabiru J430 aircraft, registered VH-TJP, reported the onset of vibration through the airframe. As a precaution, the pilot began to turn the aircraft back towards Tyabb. During the turn, the propeller separated from the aircraft, necessitating a forced landing upon tidal flats at western edge of Westernport Bay. The pilot was not injured and was able to disembark the aircraft safely.

The ATSB investigation found that most of the cap screws connecting the propeller mounting flange to the engine crankshaft had failed by bending fatigue fracture – principally due to repeated relative movement between the mounted components. This movement was traced to a combination of an ineffective, multi-step torqueing method and the relaxation of tension within the crank-flange joint due to the compression of multiple layers of paint within the joint. It was also found that there were some anomalies within the maintenance documentation that related to these areas.

After attempting to analyse the origin of the worsening vibration in the aircraft, the pilot correctly followed emergency procedures both before and after the propeller loss. The over-water return decision limited the risks associated with the forced landing, and the pilot effectively maintained control of the aircraft throughout the descent and landing.

ATSB report:

[http://www.atsb.gov.au/publications/investigation\\_reports/2013/aa/ao-2013-046.aspx](http://www.atsb.gov.au/publications/investigation_reports/2013/aa/ao-2013-046.aspx)

News Article:

<http://www.atsb.gov.au/newsroom/news-items/2014/jabiru-propeller-loss.aspx> 055.aspx

Additional reading:

<http://www.atsb.gov.au/publications/2010/avoidable-3-ar-2010-055.aspx>

## MEMBER UPDATE

## 787 Electrics

By Gary Briggs

These pictures were taken in the rear equipment bay of the Boeing 787-9, which is located between the main gear and rear cargo compartment. This is where all the high voltage gets controlled. You can see how thick these aluminum cables are, they feed 235vdc from the engines which gets converted and fed to all the other systems.





## MEMBER NEWS

## SAANZ Pre-Build Course

By Mark Duxbury

Hi Gavin,

I attended the aircraft Pre-build course run in Blenheim at the beginning of this month by the SAA national organisation. The SAA course covered basic information about the rules and regulations surrounding home building and an introduction to home building techniques. About 17 people attended the course from all over New Zealand. As someone who has only just joined the SAA, the timing of this course couldn't have been better from my point of view.

The course was run by Bruce Cooke from the Waikato SAA who gave very good presentations about home building, with the assistance of Rex Newman from the Marlborough Aero club. I found the course particularly helpful as it gave me a chance to see some techniques which I had read about but not seen in action such as fuel pipe bending, pipe swaging, dimpling and riveting. I now know that there is a difference between driven rivets with a bucking bar, aviation grade blind pulled rivets, and ordinary "Pop" pulled rivets, and I now know what an "Oops rivet" is.

Several Blenheim homebuilders had their aircraft in various stages of construction available to view for the course. Seeing the difference between construction with driven solid rivets with a bucking bar on an RV and blind aviation rivet pulling on a Murphy and getting the chance to try the techniques certainly was enlightening. Also getting the chance to talk to several people in various stages of construction with different materials (eg. Fisher Tiger Moth in wood versus RV14 in metal) was also very useful.

I have attached three photo's from the course, the first shows the course participants looking at an RV and a Murphy being built at Marlborough, the second shows Rex Newman demonstrating dimpling and riveting, and the third shows Bruce Cooke and Rex Newman demonstrating wood building techniques.

Mark Duxbury



Course participants check out Rex's RV.



Rex Newman demonstrating dimpling.



Rex and Bruce demo wood building

## PROJECT NEWS

## Mike Tunnicliffe – Pietenpol

By Gavin Magill

I recently caught up with Mike Tunnicliffe and got to see how he is progressing on his steam powered Pietenpol.



Mikes has finished painting the fuselage,



And completed much of the cockpit fitout.



All the controls between the two cockpits will be linked including the trim and throttles.



As is the case with all things Mike puts his hand to, the finish of the cockpits and fittings is immaculate.



The front cockpit has no instruments but sports a nifty little glove compartment.



## PROJECT NEWS

## Mike Tunnicliffe – Pietenpol Continued

Mike tells me the harness arrangement he has used is based on the original Sutton harness as used in the De Havilland aircraft but uses modern nylon strop material instead of canvas.



This is Mikes home made mechanical ASI.



As for the engine and boiler. Mike has all the major components complete however after completing his steam powered motorcycle to test some of the principles, Mike is now considering not using the engine he has built for the Pietenpol but creating a different design instead. He says he is looking at developing a small 50CC prototype engine to test different valve configurations to find the optimum configuration for the aircraft engine.



The sharp end components laid out on the bench. Left to right. Water tank, burner casing, boiler tube coil, three cylinder radial engine.

## CHAPTER NEWS

## Membership Update

**By Gordon Sanders**

The Chapter membership list includes 82 members. At 24<sup>th</sup> August 69 have paid their \$20 subscription for the 2014-15 financial year. There are 4 Life Members and 1 Honorary Member, leaving 8 members who have yet to renew their subscription.

If you are one of the 8 please take the appropriate action. Either pay (details have been emailed several times) or, if you wish to resign, tender your resignation. While the Chapter is always sorry to lose members it is appreciated that people sometimes move on to new adventures. Just please advise me so I can stop hassling you (and spend my time more productively).

Thank you

Gordon Sanders, Treasurer



## MEMBER NEWS

## AOPA Winter Fly-In

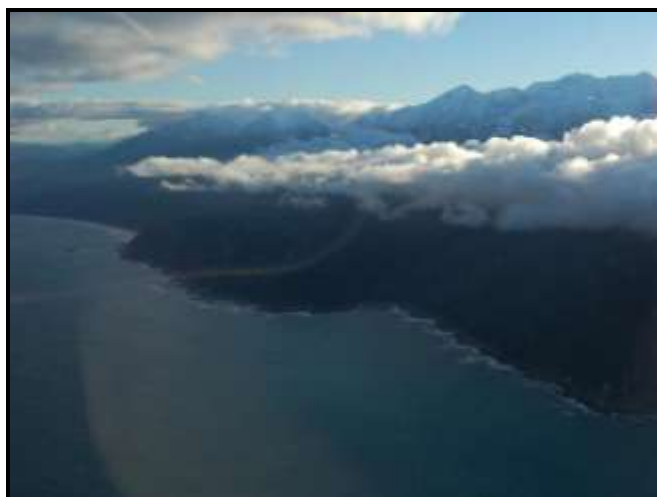
By Peter Armstrong

Peter Armstrong shared with us some of his photos of the AOPA Winter Fly-In at Omarama in July.

Firstly some of the trip down.



Raglan



Kaikoura Coast??



Canterbury Plains



Southern Alps in the distance



On the ground at Omarama



Aircraft parked up for the night



Looking back down the valley

# 13 AOPA Winter Fly-In 2014 – Cont.



The next morning things had changed somewhat.



Looking a bit bleak



Not much chance of anyone going anywhere.



A chance to take some winter atmosphere shots instead.



Brrrr. Looks blimin' cold to me.



The locals probably thought it was just a bit crisp.





Gary shows visitors his garage



Dave Wilkinson brought James straight from his game.



Gary's Rotax 912.



The crack in the block just visible at centre.



Gary has a considerable interest in model aircraft.



More models wings up on the wall rack.



Panoramic view of Gary's workshop with Gordon Sanders, Gary and Peter Armstrong at right.



# 15 Mystery Aircraft Quiz by Barry Gillingwater

A test for all those plane spotters out there.

Identify the mystery aircraft in the picture below and email your answer to the editor at [gavin.magill@gmail.com](mailto:gavin.magill@gmail.com) before the next Chapter meeting and the first person to correctly identify the aircraft will earn themselves a chocolate fish prize.

Note you will need to turn up to the meeting to collect your prize. ☺



## ON THE WEB

## Three Avro Sisters

From Barry Gillingwater

A great video.

<https://www.youtube.com/watch?v=uXEsMrITsWA>



## ON THE WEB

## Cameron Airshow

From Bob Keith

Some pretty hairy flying!

Awesome shots - some great flying!

<http://allthingsaero.com/airshows/video-smokin-hot-video-highlights-from-the-cameron-airshow>



## ON THE WEB

## Carrier Ops

From Gavin Magill

A video found on Chonday.com

<https://www.youtube.com/watch?v=wTZbY06U0qk>



## ON THE WEB

## Incident Compilation

From Karl Pudney

I thought this may be of interest.

<https://www.youtube.com/watch?v=bM4G1Toe3h0&feature=em-subscriptions>



## ON THE WEB

## New Movie Preview

From Gavin Magill

A new movie from the director of One Six Right

<http://www.aviationtheinvisiblehighway.com>



## ON THE WEB

## Oshkosh 2014 Youtube Compilation

From Gavin Magill

From the Slick YouTube list. Very good.

<https://www.youtube.com/watch?v=hmOPgYEBwEw>



## ON THE WEB

## How Close Do You Want Me?

From Robin Hickman

You have probably seen this before but it is certainly spectacular. They must have great control on these fly by wire machines.

A RAF Typhoon pilot drives up to the back of a C-130 (Hercules) for a photo opportunity.



He radios, "How much closer do you want?"



They radio, "How much closer can you get?"



Pilot radios ..... "Close enough?"



". . . or do you want me to come in?"

You have to be a tad mad to be a fighter pilot in today's world but, even crazier to be a photographer looking into those big air intakes!

Have a wonderful day!!!!



**Aug 28 Auckland Chapter Monthly Meeting**  
**Speaker:** Grant Benns (tentative)  
**Title:** Aerobatics  
 The NZ Aerobatic Club, getting started in aerobatics, how it is judged and the skills and disciplines involved.

**Sep 27 Auckland Chapter Monthly Meeting**  
**Venue:** North Shore Airfield  
**Speaker:** Gary Allport  
**Title:** 737 Pilot with Jet connect  
 Will tell us of his career flying Caribou's for the UN in Africa. Oversize Bush plane flying.

## Aviation Calendar

2014

**Every Sat Dargaville Aero Club**  
 The place is buzzing every Sat, wet or fine, windy or calm, and the \$12 lunch at 12.30 is good value. Club on the web at [http://www.flyingnz.co.nz/club\\_pages/dargaville.html](http://www.flyingnz.co.nz/club_pages/dargaville.html). If going as a group please have the courtesy to ring in advance so the cook expects you. Contact Murray on 027-478 4308 or the club house on 09-439 8024.

**3<sup>rd</sup> Sun Turangi Aero Club Fly-In**  
**Each** All welcome for a BBQ lunch.  
**Month** Contact Tony on 027-453 3740

**Sep 06 Tail Dragger 2014**  
**Bridge Pa, Hastings**  
 STOL/ JailBar Bombing/ \$10 Wild food lunch. Go for the weekend. Enjoy the famous Aeroclub Friday night dinners. For more details contact Stephanie. Email [stephanie@stm.net.nz](mailto:stephanie@stm.net.nz) or phone or txt 021-769-963

**Oct 18-19 Tiger Moth Club Spring Fly-In**  
**Taumarunui**  
 Annual return to club roots 45 years ago at this magnificent aerodrome. Some competitions. Contact Secretary Graeme Wood. Ph 09 418 3044, 027 293 2318 [woods@clear.net.nz](mailto:woods@clear.net.nz)

## Aviation Calendar

2015

**Jan 16-18 Wings Over Wairarapa**  
**Hood Aerodrome, Masterton**  
 A 4-day aviation event combining 3 flying display days, an adventure aviation rides day, a tradeshow, etc. Theme is 'Experience 100 years of aviation'. Over 70 aircraft expected.  
<http://www.wings.org.nz/>

**Feb 06-08 Great Plains 2015**  
**Ashburton**  
 SAA SportAvex annual gathering. Details to be confirmed.

**Apr 03-05 Classic Fighters Omaka Airshow**  
**Omaka Airfield, Blenheim**  
 SAA Easter weekend. Friday is Practice Day, including the Marlborough Lines Twilight Extreme of sunset flying, concert and fireworks. Sat and Sun are the main airshow days with over 100 aircraft participating. Full info at: <http://www.classicfighters.co.nz/>

If members are aware of other events that could be of interest to others please pass the details to Gordon Sanders - [gordon@sanders.gen.nz](mailto:gordon@sanders.gen.nz).