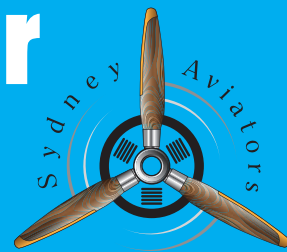


Sydney Aviators Newsletter

April/May 2015



It's been a while, and we have missed doing this for you, so we thought we would get on top of this and start our Bi-Monthly newsletter again...

The newsletter was always full of the latest Goss on what has been happening in the world of Sydney Aviators, we thought now we would make it a little more exciting for you to read!

We have created a full colour newsletter with exciting stories, images and articles to keep you up to date with Sydney Aviators, our staff, our students, our aircraft and events. Even if you haven't been able to make it for a while, you still get up to date with all that's happening at SA!

There has been so much that has happened since the last newsletter, I don't think we have enough room or time for us to include it all, so, we are going to move forward and give you a little about what's happened the last few months and what's coming up.

We are going to include regular sections in the newsletter, such as why Sydney Aviators is really here and celebrate our student's fantastic milestones since the last edition in our "Hall of Fame" section.

Our ever inspiring and wealth of knowledge CFI, Charles Thompson will give us an article he has created on a topic he thinks suits best for the edition.

You will meet our team in "Interview with an

Instructor". We have been lucky enough to get inside the YSBK tower, they will give us a little "Word from the Tower" each edition, which should be a great little note to read.

We have also have created a regular section, "Notice Board", this is going to be a great little tool for us to communicate with you the reader and also, if you would like to communicate with each other. We might have events/theory/fly always that we would like you to know about and you might be searching for a pilot to share the cost in doing an Ayres Rock fly away, or you might want to sell the old head set, I think this one will be beneficial to everyone seeing as the newsletter will be sent to nearly 600 aviation enthusiasts. Space will be limited so first in first served for the notice board and any requests for space will be selected.

We also have the "Photo of the Month"!! We want you to send in your best Sydney Aviators aviation inspired pic, first place will receive a prize each edition, see below for more details. This should be great fun!

On top of this we will add new and exciting topics and articles each edition, as great opportunities and experiences pop up for us to share to you. We really look forward to this too.

As a final note, we love any form of feedback at Sydney Aviators, it really gives us a chance to make your experience with us so much more enjoyable and we are always eager to hear new ideas and hear what you feel can make us better at what we do. Feel free to send any exciting ideas for the newsletter and any form of feedback on your experiences with us at Sydney aviators to:
adrian@sydneyaviators.com.au

Enjoy the read!



Read on to find out how you can win a double pass to see the theatre production Grounded!!

Hall Of Fame



Below is a list of Student Flight Achievements. All of these are days that a pilot never forgets and we are so excited to share these moments with our students.

First Solo:

- Attillahan Kongel
- Joe Stevens
- Maciej Konieczny
- Ziv Yeung
- Jarrod Vest
- Derek Wong
- Adam Cranston
- Ibram Kamil
- Ren (David) Zhizhon

Recreational Pilots Licence:

- Angat Vora
- Mochenguang Hong
- Helen Marshall
- Shane Donlon
- Peter Forrest
- Michael Roberts

Private Pilots Licence:

- Perdansyah
- Craig McKay
- Ketan Gulabdas
- Simon Bleuler
- Pally Bargri

Commerical Pilots Licence:

- Robert Heifetz
- Andrew Green

A big congratulations to you all on your milestones!

CFI ARTICLE BY CHARLES THOMPSON: Hot Starting Fuel Injected Engines

As we transition from our PPL trainers to our Commercial training aeroplanes we are going to make the transition from our easy starting carburetted Warriors and Archers into aeroplanes such as the fuel injected Arrows and the Cessna 206. I will include the Cessna 172SP as it is also fuel injected.

There are two common fuel injection systems which are the TCM (Continental engine) system and the Bendix system used by Lycoming. These systems are completely different with the TCM having a fuel return system whilst the Bendix system does not. Therefore we start Continentals with the mixture rich and we start Lycomings with the mixture at idle cut off.

Given that all our CPL trainers at Bankstown are Lycoming powered I will restrict this article to those engines. Read the Flight Manual for the recommended starting procedures. However there have been pilots who have had difficulty starting fuel injected engines so I will try and give a few tips which may make life a bit easier and reduce the stress of trying to start a temperamental engine when you have shutdown somewhere remote and away from base.

The COLD start. (The easy one).

1. Remove keys from pocket and insert in ignition switch ready to go. Check fuel is selected on.
2. Push **Throttle**, **Pitch** and **Mixture** all the way forward. Fully open.
3. Turn on the master switch and turn on the fuel pump to establish fuel flow.
4. Once you have got the fuel flow gauge to move turn off the fuel pump.
5. Close the **Throttle** and then crack it open about ¼

inch or about 5mm.

6. Bring the **Mixture** all the way back to idle cut off.
7. Crank the engine and when it fire bring the **Mixture** up very **SLOWLY** to full rich.
8. Set **Throttle** to not above 1000 rpm and lean the Mixture for smooth running.

Simple and easy. However there will be occasions when we will need to start the engine when it is hot. So why can we have difficulty hot starting fuel injected engines.

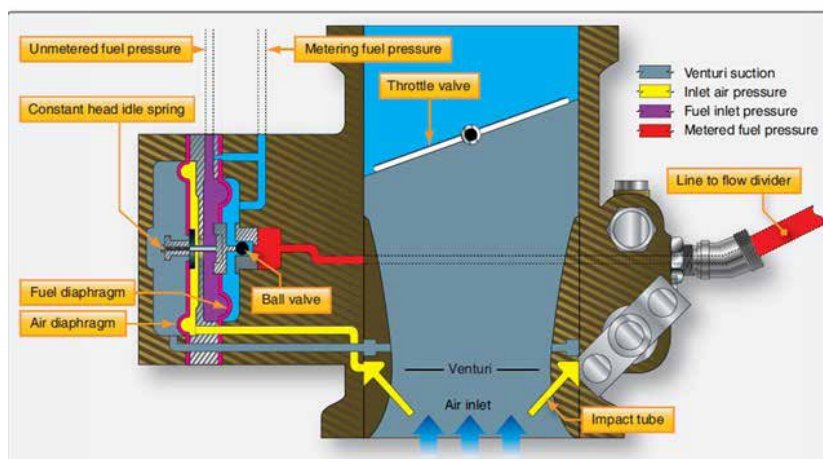
For an engine to start we need three things:

1. Fuel in a liquid form.
2. Air
3. Spark.

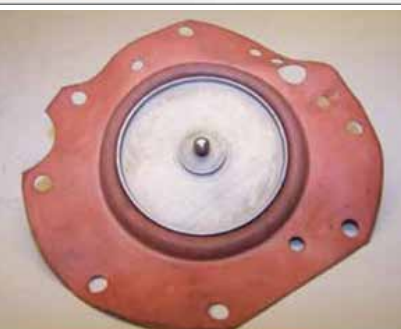
Our first problem is fuel in a liquid form. Avgas boils at only 57C. The fuel lines to the injectors run along the top of the engine. When we stop a hot engine, particularly on a hot day, it is easy to see that the fuel will boil and vaporise thus depriving us of liquid fuel. We can minimise this effect by facing our aeroplane into the wind when we shut down so we get some cool air into the engine compartment and try and cool the engine down. We could also flip up the access hatch to the oil filler on top of the engine cowl and let some of the hot air escape that way.

The amount of fuel that is used by the engine is controlled by the fuel metering unit and we need to have a basic understanding of how this works. Within the fuel metering unit there are two diaphragms one of which reacts to differential air pressure between the ram air pressure going into the fuel control unit and the low pressure air fed from the venturi in the throat of the unit. The second diaphragm reacts to the differential pressure between the metered and unmetered fuel flow. See the schematic below:

FUEL INJECTION (BENDIX)



Three small tubes sense ram air pressure.



Fuel Diaphragm

This system works just fine when the engine is running but does not work at all when we are trying to start the engine because there is no pressure differential at the very low cranking speeds, so there is no way the fuel control unit can sense the fuel required to start the engine.

We do however have some help here. The throttle on a fuel injection unit doesn't just control the throttle butterfly. It also manually controls the fuel at idle (due to the low air pressure differential at low rpm) and it also controls the fuel augmentation when we open the throttle and accelerate the engine. It does the same job as the accelerator pump in a carburetted engine.

The HOT start. (The tricky one).

1. Insert key.
2. Do **NOT** touch the fuel pump. The Bendix system has no return line and you will flood the engine.
3. Push the **Throttle** and the **Mixture** all the way open together and then close both together. This will dribble sufficient fuel into the injectors to get a start.
4. Crack the **Throttle** ¼ inch, about 5mm open.
5. Crank the engine and as it fires push the **Mixture** in **S L O W L Y**. It will keep running. There is no rush. If you push it in too fast you may flood the engine.
6. If the engine does not fire then slowly open and close the Throttle while cranking. This will admit some more fuel through the idle fuel control and the accelerator fuel control. See explanation above.

How do we know if it is a hot or cold start? If the oil temperature gauge has a positive reading assume it is a hot start. If you make a mess of it and you flood it you may have to do a:

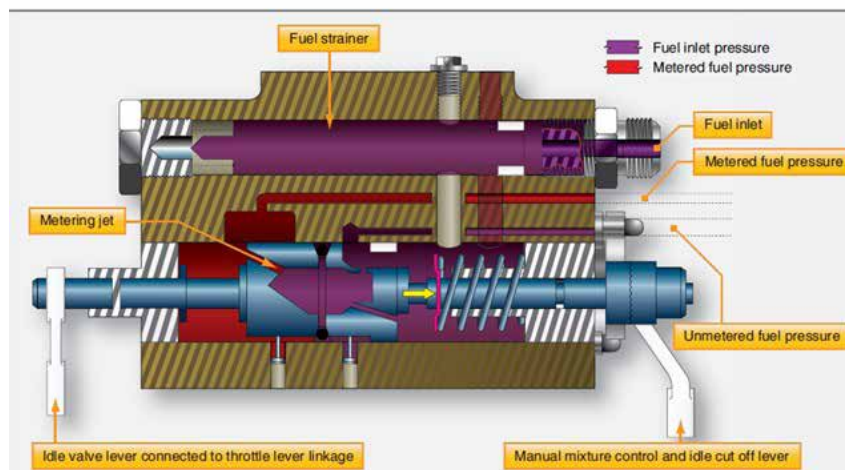
FLOODED Start.

1. **Throttle** and **Mixture** fully open.
2. Fuel pump on and establish fuel flow.
3. Leave the **Throttle** open and close the **Mixture**.
4. Crank the engine. When it fires bring the **Throttle** back first and then richen the **Mixture**.

These tips are from my own experience only. I have found that the four cylinder engines can be a bit trickier to start than the sixes which I suspect is because they are smaller capacity and move less volume of air through the fuel control unit when starting. I operated a Partenavia (which has two Arrow engines) and a Twin Comanche (2 X IO320's) for quite a few years and have never been caught out with a hot start. But then again the bloke that taught me how to start them had more than thirty thousand hours experience so I suppose somewhere along the line he worked it out.

The other thing to remember is if you are starting an engine with separate magneto switches always start on the left magneto as it is fitted with the impulse coupling which will retard and amplify the spark. On keyed ignition switches when you select start the right magneto earths out. Additionally on some of the larger engines like the IO540 the spark is boosted by a high voltage coil to give a "shower of sparks" to aid starting.

FUEL INJECTION (BENDIX)



Throttle and Mixture Schematic

FUEL INJECTION (BENDIX)



What it really looks like cut away.

Interview with an Instructor: Perry Valeontis - Grade 3 Flying Instructor



Tell us a little bit about yourself?

I was born in a Sydney however was lucky enough to spend 3 years of my early childhood years living in Jakarta, Indonesia. I went to Marian College Kenthurst, a couple of months after I graduated I started learning how to fly at Sydney Aviators.

When did you decide you wanted to be a pilot?

Apparently I have always been interested in planes, since before I can remember. When I lived in Indonesia my favorite toy other than the Nintendo 64 was a rocking plane. This interest was probably due to my dad who had done some previous flying in light aircraft, however stopped because he had kids. If the decision was not already made by then, watching all the aircraft at Brighton Le Sands, and the C17's come over my high school might have done it. I then became addicted to FSX, which led to me doing a TIF, after that there was no other thought in my head.

Note from a student: AWWPA Conference - SA Girls go in search of the Tassie Devil

What is the AWWPA you may ask?

It stands for Australian Women Pilots' Association. The AWWPA was formed "to foster closer relationships and unity among women pilots, to assist women to undertake flying in Australia and elsewhere, and to develop public interest in aviation, and generally to assist in the development of aviation". Members aged from 16 to 90 years, range from pre-solo students to commercial, airline and military pilots, and certainly also include some of the Sydney Aviators Girls Crew...

Four of us Sydney Aviators Girls (Daniela Stock, Christine Wright, Joanne Mikl and Tessa Beyersdorff) set out to attend this year's annual AWWPA Conference, held in Launceston, Tasmania. It was a full packed schedule of

Why didn't you start flying after School?

N/A

Do you remember your first flight and solo Flight?

My first flight was at a flying school called "Proflite" it was a very early 15th Birthday present, we were just in the area and my parents decided to surprise me with a TIF. My First Solo was in a C152 when I was 16, it was only 0.2 command, but I'll never forget that one.

When did you start flying at Sydney Aviators?

Well I started at Sydney Aviators a few months after I finished school, however at that point I was the customer. I finally became a part of the crew in November 2014.

What do you enjoy most about your role as a Flying Instructor at Sydney Aviators?

The atmosphere of the school! Although every one is professional and the school maintains it's high standards, the instructors and student relationship is great, which I have seen from both points of view. Also the free coffee, biscuits and BBQ helps!

Tell us something about you that no one else knows?

I am scared of heights; I blame this on my dad. When I was around 9, we went skiing. Anyway long story short, he pushed me off a chair lift.

What advice do you have for students RPL, PPL, CPL?

The 5 P's, Prior Planning Prevents Poor Performance. If you work hard on the ground, learning your theory, and preparing for your flight it will definitely pay off once you get airborne. If you are well prepared for your flight it will reduce your work load immensely, which will also give you a bit more time to enjoy the scenery outside!

networking, education sessions, the AGM Nav trial and Awards Dinner with an Anzac Day theme, so no chance of twiddling thumbs.

The girls' report:

Daniela Stock (PPL holder, ~200 flying hours, all with Sydney Aviators, starting April 2012)

"Last year Christine, MJT and I flew to Cowra where we attended our first AWWPA conference. After that it was a done deal that we would fly to this year's conference in Tasmania. Charles in his wisdom pointed out that we needed an IFR rated plane and pilot to make it to Launceston and so we recruited Tessa and ZSD. A few



days before takeoff ZSD went through her 50 hourly and Tess renewed her IFR currency and we were ready for departure!

Unfortunately our trip started with a Low (in form of a cat. 1 cyclone that hovered over Sydney from Monday till Wednesday afternoon). I was so upset that I considered not going and rather wanted to take ZSD on x-wind circuits all week. Luckily Christine and Tess convinced me to go and we booked a last minute Virgin flight to Launceston. OzRunways didn't seem fussed about ZSD's capability of flying some 400 kts at F360 and guided us to YMLT with some hypothetical intercepts of the East Sale NDB. After a perfect approach into Launceston we touched down just in time for the welcome dinner.

The actual conference started on a definite High. The surprise dinner speaker was no other than Matt Hall and everyone attending (certainly me) wants to do aerobatics now.



The next day was filled with more interesting talks - from Tasmanian ex-wing commander Linda Corbould's account of a successful RAAF career to how to run an airstrip in the Antarctic followed by an unexpected encounter with the 1972 Melbourne cup.

By Friday the bad weather had made it to Launceston and the Nav trial (cleverly thought up by Tasmania's ex flying cop Heather Innes) was relocated to the Aero club's table tops. Another personal highlight was the pre-arranged group photo with an incoming all-girl-crew QuantasLink DH-8 posing behind us.

Now we are back we are hoping for better weather for our flight to next year's AWP meeting in Victor Harbour, SA!"

Christine Wright, PPL holder;

I started flying training in June 2010 at Basair, switching over to Sydney Aviators prior to GFPT because I heard they had a good coffee machine and a shorter walk to the aircraft!! I completed PPL in December 2012 and only then did I find out that the Australian Womens' Pilots Association (AWPA) offered scholarships for flying training. I joined the AWPA and applied for 2 scholarships for Night Flying Training. One of the conditions of the scholarships was attendance at the 2014 AWPA Annual conference at Cowra, so I also signed up for that.

So Daniela and I flew off to Cowra last May. I hoped to pick up a scholarship and I was surprised that I was awarded both! This was because there are more scholarships offered than applied for!!

But the best bit about the AWP is that members are so friendly, fun, encouraging and supportive. We cheer each other on in our flying endeavours (the FB page is fantastic for this). Members often share job vacancies and we meet a few times in the year to catch up and network.



Flying across Bass Strait is on most pilots' bucket-list, however our plans were thwarted by that Category 1 cyclone in Sydney and we resorted to RPT to get us there and back.

Fabulous town, fabulous fun (did I mention the table-top Nav trial and the Unofficial and Unsanctioned Pub-crawl on Friday night?)...looking forward to next year's conference and the social events during the year. definitely

Joanne Mikl, PPL holder:

This year was my first time at an AWP conference. I only joined AWP last year, after Christine Wright told me of the organisations existence, and recommended it. It was a really good experience. Everyone was very friendly and welcoming. It was a real mix of women: in ages, flight hours, licences and endorsements held, aircraft flown, journeys to their involvement in aviation, what kept them flying. I enjoyed hearing everyone's stories. Our guest speakers were a well chosen mix, just like the participants. I had never thought about what it took to maintain an airport in Antarctica, and I am very glad at Bankstown, though it may not seem like it at times, has much more obliging weather - no need to prepare the runway for 6 hours before the first flight of the day. The weather was sunny apart from the day of the navigation trial; but we made do, by answering cryptic clues and imagining we flew to the various places around Tasmania! All in all a good experience and I am looking forward to heading to South Australia next year, hopefully flying-in!



Message from the Tower

Word from the YSBK tower.

As winter approaches there is an increase in night flying operations. It's a good time to read up on the specific requirements at night and some of the issues to consider at Bankstown:

1. LSALT, MSA - will you require a clearance into Class C airspace to enter the circling area at your preferred altitude? What about your requirements on departure? Will runway direction make a difference to your levels?
2. At night the unlit runways are active. Do not cross any runway without a valid ATC clearance.
3. Following traffic in the circuit at night is made more difficult due to the amount of other traffic you can now see. It has happened more than once at Bankstown that an aircraft on left downwind for runway 29 has been mistakenly following someone on final for runway 07 into Sydney. If in doubt, ask the tower to update you on the traffic you are following.



Royal Federation of Aero Clubs of Australia

Annual Flying Training Conference

Last month I attended the RFACA conference along with representatives from the following organisations: Manning River Aero Club, Royal Newcastle Aero Club, Schofields Flying Club, Darling Downs Aero Club, Rockhampton Aero Club, Echuca Aero Club, Latrobe Valley Aero Club, Royal Victorian Aero Club, Royal Aero Club of Western Australia, Basair and Yarra Valley Flight Centre.

After the initial session covering elections and general business, with which I will refrain from boring you, the conference was opened by Sir Angus Houston. After he had opened the conference Sir Angus gave us a very interesting talk on the MH17 recovery mission into Ukraine including negotiating their way in to the crash site, surrounded by separatists with Kalashnikovs in one hand and bottles of vodka in the other.

We then had the opportunity to hear and meet with new Director of CASA – Mark Skidmore who outlined his plans for CASA.

Greg Hood - the General Manager Air Traffic Control spoke on behalf of Airservices.

Roger Crosthwaite from CASA took plenty of questions on Part 61, the MOS and flight crew licensing.

Roger Weekes (CASA) spoke about Part 141 and Part 142 flying training operations and the importance of schools getting their expositions in early to make sure that their approvals are in place prior to 2017.

John Folley and Melissa Hofman from AusSAR gave a very interesting talk on how the search area for MH370 was determined with the “handshake” between the engines and Rolls Royce and the use of Doppler to establish the search area. John and Melissa also stressed the importance of remembering to cancel your SARTIME when you cancel a flight plan. Pilots have been assuming that cancelling a flight plan will cancel your SARTIME. The two are separate with the flight plan held by Airservices and the SAR held by AusSAR. You need to cancel both with a call to CENSAR. Ashwin Naidu from the Bureau of Meteorology spoke about the new Grid Point forecasts that will be coming in and advised of the removal of several TAF's which many of you would be aware of by now, including Cessnock and Cowra. ATSB gave us a 45 minute talk but did not cover any specific incidents or issues. I guess this means that there are no problem areas that ATSB are concerned about at the moment which is a good thing.

If anybody has any specific queries or wants to discuss any of the points raised above please feel free to come and have a coffee and a chat.

Charles Thompson



Noticeboard

New Theory Classes

Sydney Aviators is holding BAK and PPL theory shortly, call our office on 02-9793 8900 to reserve your place as spots are limited. BBQ lunch is provided for course candidates.

- BAK theory runs for 3 weekends starting, Saturday 9th May and Sunday 10th May 0900-1700 Course Cost is \$490.00 including exam. Text books not included
- PPL theory runs for 4 weekends starting, Saturday 23rd May and Sunday 24th May 0900- 1700
- Course cost is \$690.00. Not including exam and text books

Australian Civil Air Patrol joining Sydney Aviators

The Australian Civil Air Patrol is a volunteer aerial Search and Rescue organisation with over twenty years experience in the provision of quality air operations. AusCAP is a not-for-profit organisation whose mission statement is "to serve the community by providing aerial support in times of need".

Sydney Aviators is now a proud supporter of the Air Patrol. Sydney Aviators is donating some hangar space for the Patrol to store some necessary operational equipment and also offering rooms for them to hold Ops meetings once a week. We thought this is a great, not for profit cause and wanted to help out. The AUSCAP team will use Sydney Aviators for training their team and the use of Patrol Aircraft. We look forward to working together and helping them provide their aerial support.

For more information on their great cause and/or to become a member of the Australian Civil Air Patrol visit www.auscap.org.au



Dubbo flying competition

The 2015 NSW Interclub Flying Competition is Approaching! This year's venue is Dubbo Aerodrome! It's always a great day to show your talent and try your skills to win it for Sydney Aviators!

Sydney Aviators has had great success in the past flying comps and we are confident our students can do it again. The date is the 6th June 2015 and the comp starts approx. 1000. Cost of entry is \$15 and any level of skill can join, it is recommended you are close finishing the RPL stage though. There is BBQ lunch provided and if you chose to you can make a night of it and stay in Dubbo with a next day departure, there will be a big gala dinner the evening after the comp.

You can do a Duel Nav up with an instructor or if you are a PPL holder or hirer fly yourself up. We have some instructors going with students, though the more the merrier. Our instructors will be part of the judging team on the day also (see attached judging sheet for what is required to win).

We always have a great time up there so if you are interested call our office on 02-9793 8900 to book your spot and for more information!

Grounded!

She's an F16 fighter pilot; a rock star of the great big blue above. Suddenly pregnant. Now, she sits in an air-conditioned trailer in Las Vegas flying remote-controlled drones. As the pressure to track a high-profile target mounts, the boundaries between soldier and mother begin to blur.

Grounded, the theatre production runs 1 – 16 May as part of the Reginald Season at the Seymour Centre.

For your chance to WIN a double pass to the event 7.30pm be one of the first 5 participants to sign up for the Dubbo flying competition.

More Info - <http://www.seymourcentre.com/events/event/grounded/>



Best photo competition

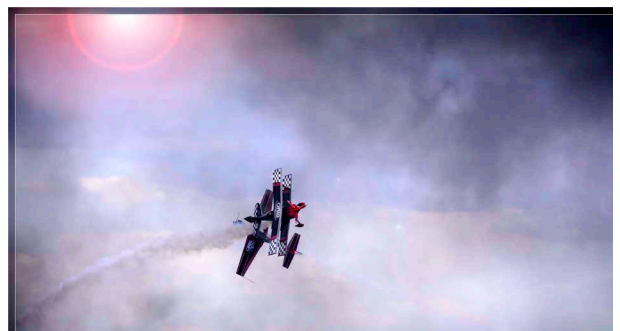
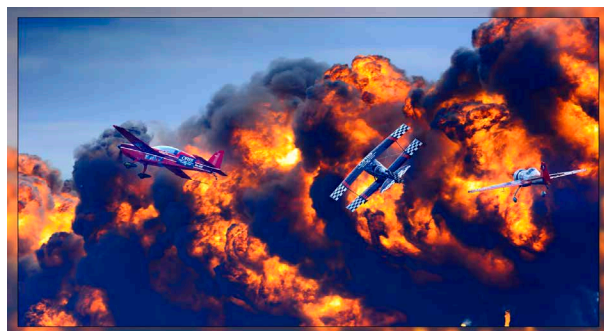
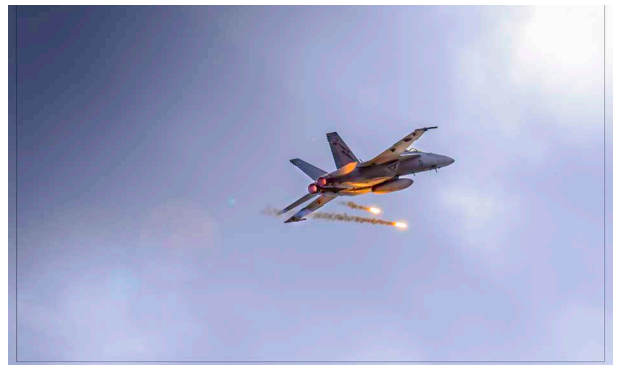
So we have decided to run a Sydney Aviators Photo of the month Competition for our Bi-Monthly newsletter! We will offer a prize for the best aviation inspired pic that you send in, this photo must be taken by you and your camera though!! We want photos taken on your different experiences, fly a way's etc. while flying with us at Sydney Aviators. We will post the top 3 every month, first place will receive a prize!

Only send one photo which is your best, "SA Photo of the month" in the subject line and your name/number to: tcollins@sydneyaviators.com.au

Since the last newsletter we have had some great events pass, such as our "Wings Night 2014" which was a blast, such a great location looking over the runways of Sydney International Airport. I think everyone who attended remembers the A380 taking off during a presentation! Was hard to keep any one on their seats for that... This moment was captured below by Paras Tailor one of our faithful instructors! Also he captured VH-IJD mid sunset on Bankstown Flight line. Great photos Paras! (But you are an instructor, so no prize for you!) ;-)

Another event was the 2015 Avalon Air Show! Now, anyone who has watched "Top Gun" or just loves to watch planes, this is an event which can't be missed! What a great 2 days of excitement! Especially the JETS!!! The two aerobatics shots and the two jet shots below were captured by our Faithful French Connection Student Franck Sudre... What an awesome group of photos! Hard to beat these four photos!!

Maybe you can next month..?



BIRDSVILLE RACES 2015

**It's time to pack your chariot and get
ready for the races once again:**

WHEN: 2nd—7th SEPTEMBER 2015

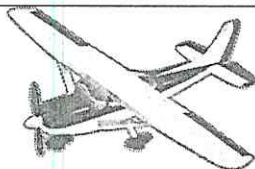
**If you would like to sign up and for
further information,**

CONTACT Tessa at Sydney Aviators

email: tessa@sydneyaviators.com.au



FOR SALE
This Space
 Contact John Ciardi
 02 4572 5724 0414 725 724



NSW Interclub
Flying Competitions
Inc.

Name _____ Number _____
 Club _____ Aircraft _____
 Air Judge _____ Date _____

BLIND CIRCUIT

Nominated Airspeeds
 Climb Downwind Final

--	--	--

Climb Control

3 Good
 1 Fair
 0 Poor

Climb Speed

10 \pm 5 Knots
 4 \pm 10 Knots
 0 $>$ \pm 10 Knots

Crosswind Turn Started @ 500'

10 \pm 50'
 4 \pm 100'
 0 $>$ \pm 100'

Downwind Turn Completed @ 1,000'

10 \pm 50'
 4 \pm 100'
 0 $>$ \pm 100'

Mid-Downwind Speed

10 \pm 5 Knots
 4 \pm 10 Knots
 0 $>$ \pm 10 Knots

Mid-Downwind Height

10 \pm 50'
 4 \pm 100'
 0 $>$ \pm 100'

Pre-Landing Checks

2 Complete
 0 Incomplete / Missing

Base Turn Completed @ 1,000'

10 \pm 50'
 4 \pm 100'
 0 $>$ \pm 100'

Final Turn Completed @ 500'

10 \pm 50'
 4 \pm 100'
 0 $>$ \pm 100'

Final Speed

10 \pm 5 Knots
 4 \pm 10 Knots
 0 $>$ \pm 10 Knots

Landing

10 Good / Normal
 4 Fair
 0 Poor

Lookout

5 Good
 0 Poor
 -5 Unsafe

SPOT LANDING

Nominated Airspeeds
 Base Final

--	--

Downwind Height @ 500'

5 \pm 50'
 0 $>$ \pm 50'

Pre-Landing Checks

1 0 Mixture rich / Primer locked
 1 0 Fuel On
 1 0 Fuel Contents Checked
 1 0 Brakes Off
 1 0 Harness & Hatches

Base Flap Used

5 Non-Flapped A/C or up to 2/3 Stages
 0 $>$ 2/3 Stages

Base Airspeed

5 \pm 5 Knots
 0 $>$ \pm 5 Knots

Final Turn Completed @ 500'

5 \pm 50'
 0 $>$ 550'
 -5 $<$ 450'

Flap Used

Flapped Equipped A/C

5 Full Flap
 0 $<$ Full Flap

Non-Flapped A/C

5 Slide Slip Completed by 200'
 1 Slide Slip Completed by 100'
 0 Slide Slip Below 100'

Final Airspeed

5 \pm 5 Knots
 0 $>$ \pm 5 Knots

Final Approach

5 Good / Normal / Constant
 0 Safe
 -5 High / Low or Unsafe

Landing

5 Good / Normal
 0 Poor
 -5 Heavy / Rough / Bounce
 -10 Nose Wheel
 -10 Unsafe

Lookout

5 Good
 0 Poor
 -5 Unsafe

FORCED LANDING

Nominated Airspeeds

Clean Flapped (or Sideslip)

--	--

Initial / Trouble Checks

1 0 Fuel On, Both / Other Tank
 1 0 Fuel Pump On / Check Pressure
 1 0 Mixture Rich
 1 0 Carby Heat Hot
 1 0 Oil Pressure & Temperature
 1 0 Magneto Switches Checked
 1 0 Throttle
 1 0 Distress Message (3)
 1 0 Passenger Briefing (3)

Glide Speed (Clean)

5 \pm 5 Knots
 0 \pm 10 Knots
 -5 $>$ \pm 10 Knots

Safety Checks

1 0 Brakes Off
 1 0 Mixture Idle Cut-Off
 1 0 Fuel Off
 1 0 Switches (Mags / Master) Off
 1 0 Hatches Unlocked
 1 0 Harness Tight

Base Flap Used

3 Non-Flapped A/C or up to 2/3 Stages
 0 $>$ 2/3 Stages
 0 Flaps Retracted

Base Airspeed (Flap / Clean)

5 \pm 5 Knots
 0 \pm 10 Knots
 -5 $>$ \pm 10 Knots

Final Flap / Slide Slip Used

Flapped Equipped A/C

3 Full Flap
 1 $<$ Full Flap
 0 Nil Flap
 0 Retracted above 300'

Non-Flapped A/C

3 Slide Slip Completed by 200'
 1 Slide Slip Completed by 100'
 0 Slide Slip Below 100'

Final Airspeed

5 \pm 5 Knots
 0 \pm 10 Knots
 -5 $>$ \pm 10 Knots

Final Approach

5 Good / Normal / Constant
 2 Safe
 -10 High / Low or Unsafe

Landing

4 Good / Normal
 0 Poor
 -4 Heavy / Rough / Bounce
 -10 Nose Wheel
 -10 Unsafe

Lookout

5 Good
 0 Poor
 -5 Unsafe

INSTRUMENT CLIMB

Nominated Climb /

Descent Speed

Crosswind 500' Turn @15° Bank

6 ± 5°
3 ± 10°
0 ± 15°
-4 Failed to take heading
-4 Height in turn wrong

Crosswind Heading

6 ± 5°
4 ± 10°
2 ± 15°
0 ± 20°

Crosswind Airspeed

6 ± 5 Knots
4 ± 10 Knots
2 ± 15 Knots
0 ± 20 Knots

Downwind 1,500' Turn @15° Bank

6 ± 5°
3 ± 10°
0 ± 15°
-4 Failed to take heading
-4 Height in turn wrong

Height In Turn (1,500')

7 ± 25'
3 ± 50'
0 > ± 50'

Downwind Time (90 sec)

6 ± 10 sec
3 ± 20 sec
0 > ± 20 sec

Downwind Height (1,500')

7 ± 25'
3 ± 50'
0 > ± 50'

Downwind Heading

6 ± 5°
3 ± 10°
0 > ± 10°

Base 2,000' 270° Turn @15° Bank

6 ± 5°
3 ± 10°
0 ± 15°
-4 Failed to take heading
-4 Height in turn wrong

Base Turn Airspeed

6 ± 5 Knots
4 ± 10 Knots
2 ± 15 Knots
0 ± 20 Knots

Base Leg Time (30 sec)

6 ± 10 sec
3 ± 20 sec
0 > ± 20 sec

Base Leg Height (3,000')

7 ± 25'
3 ± 50'
0 > ± 50'

Base Leg Heading

6 ± 5°
3 ± 10°
0 > ± 10°

Base Leg Airspeed

6 ± 5 Knots
3 ± 10 Knots
0 ± 15 Knots
-4 ± 20 Knots

Final 2,500' Turn @15° Bank

6 ± 5°
3 ± 10°
0 ± 15°
-4 Failed to take heading
-4 Height in turn wrong

Final Turn Completed Height (2,500')

7 ± 25'
3 ± 50'
0 > ± 50'

1,500' - Level Off & Turn Downwind
- Maintain 1,500' for 90 secs

Climb to 3,000' after 90 secs

500' - Turn Crosswind

400' - Hood On
- Climb to 1,500'

Hood Off

2,500' Level Off &
Turn Upwind

Decend to 2,500' at Climb
Speed after 30 secs

2,000' - Turn Base
- 270° Climbing Turn

3,000' - Level Off
- Maintain 3,000' for 30 secs

FLOUR BOMB

Released Above 200' YES / NO

Distance

STREAMER CUT

Time