WATTS BRIDGE MEMORIAL AIRFIELD INC.

Watts News

WINTER EDITION 2016

Watts Bridge Memorial Airfield continues to go from strength to strength. The autumn flying season has already seen a wide range of flying activities held at the airfield with excellent participation by pilots, navigators and aviation enthusiasts throughout S.E. Queensland.
The impressively noisy Red Thunder warbirds ripped the sky apart in mid-May followed by the BVSAC Poker Players keeping the airwaves crowded just a few weeks later. The end of July sees the Aerobatic Club hosting the annual Queensland State Aerobatic Championships.
With the airfields future now assured there has been a much anticipated renewal of building activity in both the chalet area and also the home base group's precinct.
But by far the most exciting news must be the announcement of the Brisbane Valley Airshow, which promises to take Watts Bridge to a whole new level in the airfield's ongoing history!!

Volunteers, Volunteers Wanted !!

With the Watts Bridge / Brisbane Valley Airshow only a matter of a few short weeks away, now is the best time to consider putting your hand up and volunteering an hour or two of your time to ensure the success of this amazing airshow. Be it aircraft marshalling, car parking, or assisting visitors, there is sure to be something that allows everyone to get involved and help out.
Contact info@brisbanevalleyairshow.com.au to register for duty!

WATTS INSIDE

Welcome to the Winter 2016 Edition of the Watts Bridge Newsletter.

- President's Corner: Phillip reflects on ANZAC history, updates airfield activities and sets the scene for the Watts Bridge Brisbane Valley Airshow. Bigger than big!!
- In May the fabulous Eastern Block Warbirds of Red Thunder invaded the airfield for their annual training and aerial exercises.
- For as long as anyone can remember the Brisbane Valley Sport Aviation Club has hosted the Fun Fly Poker Run. 2016 was the best year ever with nearly 50 players.
- Christmas in July brings fine wining and dining to the airfield, courtesy of the Aerobatic Club's Queensland Chapter.
- ANZAC Day is a time to pause and reflect on those who have gone before.
- Watts 4 Breakfast? grows success upon success on the last Sunday of select months.
- On "dark sky" weekends the South East Queensland Astronomical Society quietly view the wonders of the heavens .
- Early Days in Aviation
  Understanding The Sound Barrier.
- Aviation humour, cartoons and other news worthy snippets from around the airfield.

President's Corner

Dear Members,

I am writing this report on the 100th anniversary of the battle at Fromelles where Australia had its worst 24 hours in history with over 5500 casualties. During this year's Anzac Day Ceremony at Watts Bridge, I cast my mind back to the time when my family and I stood in the cemetery at Fromelles and reflected on the young Australians that were led needlessly to an almost certain death. As time moves on these events are relegated to history and to many people have less meaning. It is therefore important to keep the relevance of Anzac Day alive by explaining to the young people the reason why we attend the Anzac service, why officials dress in a respectful way and explain that an overflying F/A-18 aircraft is not there for an air show, but to pay homage to the young men and women who have made the ultimate sacrifice for our country. Each year RAAF Amberley supports the Watts Bridge Anzac Day Ceremony by providing a speaker and an overflying aircraft. Watts Bridge is thankful of the support and intends to foster this special relationship well into the future.

Often reports such as this focus on what's happening around the airfield on the outside of the hangars. Sometimes members have little knowledge of the many projects occurring inside the hangars. For example, did you know that Darryl Hardy is building a 3/4 scale Grumman Bearcat that is now sporting a menacing coat of black paint. I don't wish to give away too much, but the workmanship on this aircraft is superb and is a credit to this experienced engineer. Hopefully members and visitors to Watts Bridge will get a glimpse of the aircraft during the Brisbane Valley Airshow. Another Watts Bridge member, Brian Fitch acquired an Acrosports aircraft from Bruce Clarke. The aircraft required a new engine. Not being a person to mess around, Brian arranged a replacement Lycoming 0-320 engine, painted the cowling and wheel spats a sporting red colour and presto the aircraft was up and away in no time. The aircraft is a spritely machine and stands out well in the sky with its red nose, I just hope the children don't get too confused around Christmas time. Speaking of Bruce, he and Mary hosted another work experience student for a week in July. Toogoolawah High School student, Jordan, son of Councillor Helen Brieschke worked on Bruce's Nieuport 24. The main focus for the week was metal construction, rigging and the art of fabric covering. You never know, we may now have another budding aviator in the making.

The big topic this month is of course the up and coming Brisbane Valley Airshow, which will be held on the 27 & 28 August 2016. Details of the event can be found on the dedicated website and Facebook pages. In addition to the spectacular air displays, there will be a large number of static displays. The military will be represented by Australian Defence Force Recruitment and RAAF Amberley. The Queensland Fire and Emergency Service is a great supporter of the event and will not only be providing an aerial helicopter display, but will have a large static display including a rescue vehicle. Tecnam and Cirrus aircraft will be there promoting the virtues of their aircraft. The children will be kept happy with a jumping castle and face painting and the young adults should enjoy the Extreme Hobbies display and the re-enactors. Oh yes, and there is the food, does Asian, Pizza, Steak Sandwiches, Pickwicks Hot Potatoes, American Fried, and Ice Cream take your fancy? If so, you can get it at the Brisbane Valley Airshow. There may also be one or two additional surprises, so don't miss out and tell your friends.

I look forward to meeting you at the air show and don't forget to book your Saturday night dinner tickets.

Phillip Cooper

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brisbane valley airshow

27-28 AUGUST 2016

WATTS BRIDGE MEMORIAL AIRFIELD

Watts Bridge Memorial Airfield proudly presents this inaugural air show event. Visitors should look forward to a massive weekend showcasing a huge collection of civilian and military aircraft. There will be fun for all the family including great food and activities for the children.

FEATURING

- Skydivers
- Jet and Piston Warbirds
- RAAF C-17 Globemaster
- Vintage Aircraft
- Model Aircraft
- Fire Fighting Helicopter
- Great variety of food, including ice cream for the kids
- Jumping Castle and Face Painting
- Reenactor groups
- Vintage cars
- A large number of stalls and displays
- Public Address system keeping guests informed throughout the day
- Evening event, featuring *Jazz Australis Trio*
- Camping

... and more, for details and booking visit:
http://brisbanevalleyairshow.com.au

Red Thunder 2016 was a great success this year with over 25 warbirds attending the event. We also welcomed a few 'civil types' who helped to provide Forward Air Control to our final day exercise, exercise Pohalei, as well as the transporting of our most precious cargo, our Natasha's, to their various luncheons and winery visits on the Sunshine coast.

The 2016 Red Air Dinning Inn night welcomed over 60 guests, successfully over-flowing the Toogoolawah Hotel's facilities. Planning for Red Thunder 2017 is already underway, and we expect bookings to fill quickly. Ensure to look out for our advertisement of Red Thunder 2017 later this year, or checkout our website at www.redthunder.net.au !!

KONTACT

Enquiries are always welcome by contacting organizer Gill Vardi on 0412-963-106.

All photographs courtesy of Tom Fisher.

BVSAC - Fun Fly Poker Run

Absolutely perfect flying conditions set the stage for the best ever Brisbane Valley Sport Aviation Club's annual Fun Fly Poker Run. In this game of good fortune, the players find their way to several airfields in the district, selecting a random card in an envelope at each location. The winning poker hand is completed back at Watts Bridge with two cards drawn by the house.

Competition was fierce with nearly 50 aviators (flying no less than 35 aircraft) battling it out for first place. But as always there can only be one winner.
And so it was that Bill Coman from Redcliffe, flying a Cessna 182G, took the coveted trophy and became the undisputed BVSAC Fun Fly Poker Champion for 2016.

Now as it happens, Bill has his Cessna outfitted with several cameras so we can all ride along with him and his co-pilot Selina as they go round the course picking up their winning hand.
The video can be watched on the Watts Bridge Website www.wattsbridge.com.au/events/pokerrun2016.php

AAC-QC Christmas in July

And as the sun set over the airfield, the Australian Aerobatic Club - Queensland Chapter opened their clubroom doors for the annual Christmas in July celebrations.

Great atmosphere, great wining and dining, some live entertainment and just the odd tall story to be told.
Could a day at an airfield get any better than this ??

Watts 4 Breakfast ?

continues to grow in popularity month after month by attracting an increasing role call of aviators and their aircraft to the field.

The tried and true formula of a traditional Sunday breakfast is set to continue with dates planned for September, October and November. For additional info see the Watts Web or contact organizer Mark Purdie on 0413-646-922.

ANZAC Day Remembrance

Each year, on the 25th April, we pause to honour and remember all Australian service men and women. The Remembrance Service, which is held at the memorial cairn, includes Bible readings, speeches and the laying of floral wreathes. For 2016 Guest Speaker Sgt Corey Faehrmann gave a particularly moving address with speeches by President Phillip Cooper and previous President Mike Nelson.

At the conclusion of the service an F/A-18F Super Hornet based at the RAAF Base Amberley performed an impressive low level steep turn across the airfield.

More than 70 people attended the ANZAC Day service. A traditional Australian BBQ lunch was served in the AAC-QC clubrooms to bring the morning to a conclusion.

A brand new Carbon Cub visits the airfield.

Jim and Viv Peter's dream hangar and chalet taking shape in the Chalet Precinct.

Infrastructure volunteer Mark Purdie hard at work painting up a new batch of runway markers.

An Air Tractor on floats in the Watts Bridge parking area. Seriously impressive!!

South East Queensland Astronomical Society

Article and photographs provided by
Julie Straayer -SEQAS Vice President

The South East Queensland Astronomical Society is a group of amateur astronomers who get together to share their views, ideas and telescopes.

SEQAS has expertise within the club in areas of astrophotography and deep sky, lunar and planetary observation and amateur telescope making. There is a range of ability within the club starting from beginners to more experienced observers.

SEQAS holds regular field nights at the Barrett St Reserve, Bracken Ridge on the first and third Sundays of each month and weekends away at Watt's Bridge Memorial Airfield, a few times a year where we enjoy beautiful skies away from the light pollution of Brisbane.

SEQAS also participates in public displays and conduct astronomy nights for schools and other groups.

Our meetings are held at the Bracken Ridge Library on the third Tuesday of each month (except December) from 7.30pm where we often have guest speakers giving presentations on all things related to Astronomy. Everyone is welcome.

Our website is www.seqas.org

We are also on Facebook
https://www.facebook.com/SEQAS-South-East-Queensland-Astronomical-Society-1466794780214827

Early Days In Aviation

Understanding The Sound Barrier

by Stephen Dowling

On 14 October 1947, US test pilot Chuck Yeager did what many thought was impossible. Strapped into the seat of the Bell X1 rocket plane – painfully so, having broken two ribs a few days before in a horse-riding accident – Yeager became the first man to fly faster than the speed of sound.

While Yeager's name may be the one celebrated in the record books, there were other pilots who got close – very, very close – to this challenging aerodynamic barrier in the years before. Some even lived to tell the tale. What is all the more impressive is the aircraft they flew were physically incapable of reaching the speed of sound. Just getting close could cause planes to break apart.
A handful of flights in Supermarine Spitfires – the single-seat fighter plane that helped win the Battle of Britain – were crucial in helping scientists understand the forces that would have to be overcome if a plane was able to fly faster than sound.

Chuck Yeager's record-breaking flight in the Bell X-1 was helped due to the information gathered by the high-speed dives The Spitfire entered service just before World War Two, the brainchild of designer RJ Mitchell.

Later models of the Spitfire could fly well over 400mph in level flight, thanks to their powerful Rolls-Royce Merlin engine and the four-bladed propeller that helped generate extra thrust. Photo reconnaissance versions were even faster, flying without the dragging weight of machines guns or ammunition.

The plane's superlative performance also made it a natural for test flights, especially for high-speed research. It was on these flights that some Spitfire pilots took the aircraft into previously uncharted territory – encountering the strange aerodynamic forces that occur when the sound barrier is within reach.

"The propeller ripped off and the diving aircraft reached more than 620mph (1,000km/h) "

According to famed test pilot Eric 'Winkle' Brown's book Wings on My Sleeve, the high-speed trials began in late 1943. During the programme, Squadron Leader J R Tobin took a Mark XI Spitfire into a 45-degree dive; the plane reached a top speed of 606mph (975km/h), or Mach 0.89 (Mach 1 being the technical term for the speed of sound). It was the fastest speed a Spitfire had ever flown – or at least the fastest that a pilot had lived to tell the tale. But a far more dramatic flight was soon to take place.

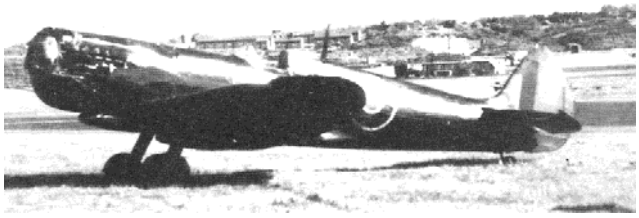
In April 1944, Squadron Leader Anthony F Martindale, put the exact same Mark XI Spitfire into a dive. This time, the reduction gear designed to limit its speed failed. The propeller ripped off and the diving aircraft reached more than 620mph (1,000km/h) – Mach 0.92 – as it plunged towards the ground.

Martindale was saved by simple physics. With the heavy propellers wrenched off, the aircraft was now tail-heavy, and this change in the centre of gravity forced it to climb up from the dive at great speed. Martindale was knocked unconscious from the stress of the climb, and woke to find his aircraft flying at 40,000ft (13 kilometres). Somehow he managed to glide the aircraft back to his base, and emerged unscathed. The stress of the plane's dive had bent the wings, giving

them a slightly swept shape – the kind of shape that would eventually help other aircraft travel through the sound barrier.

Martindale was lucky to survive when his high-speed dive ripped the propeller blades off his Spitfire. This warping would have been caused by the airflow over the wing as the plane picked up speed, explains Rod Irvine, the Royal Aeronautical Society's aerodynamics group chairman. "When you start approaching Mach 0.85 or 0.95, what happens is you get this subsonic flow over the wing, and it starts to accelerate beyond the sound barrier," he says. "It starts to flick around all over the place, and it feels like the aircraft is starting to shake itself to bits because you get this fundamental change in the aerodynamics." Irvine says this problem remains today – airliners such as the Airbus A380 will travel as fast as they can without causing the air flowing over the wings to reach supersonic speed, which can create vibrations and buffeting.

"The combination of the piston engine and the propeller are a kind of symbolic limitation of ever-increasing speed - Jeremy Kinney, Smithsonian"



Planes like the Spitfire had another big problem – the propeller itself. Older aircraft had a propeller that was directly connected to the engine – more power meant the propellers would spin faster and faster. Even with a plane travelling under 300mph (480km/h), the air travelling over these fast-spinning blades could reach supersonic speeds. The shock waves formed from this air travelling so fast over the propeller blades then added drag, buffeting and noise.

Jeremy Kinney, a curator at the Smithsonian Air and Space Museum in Washington DC, says the Spitfire's designer, RJ Mitchell, had understood some of the issues around propellers from designing racing airplanes in the early 1920s.

The American P-51 Mustang was also used for high-speed flights that paved the way to breaking the sound barrier. "Say you're standing under one of those racing planes at an air racing event at Cowes on the Isle of Wight in 1923," says Kinney, "you'd hear this banging and clanking as the aircraft went overhead. That's the tips of the propellers going supersonic." Mitchell and his contemporaries realised simply connecting a propeller so it span faster and faster wouldn't necessarily help an aircraft go faster and faster. Variable pitch propellers – where the propeller would automatically match the RPM of the engine – were much more efficient and helped planes like the Spitfire fly much faster.

But only so fast, says Kinney. "The combination of the piston engine and the propeller are a kind of symbolic limitation of ever-increasing speed," he says. "And it builds the case for how monumental the turbojet revolution was. You can only get a piston engine to do so many revolutions per minute.

"There was this paradigm, at least for the first half of the 20th Century, that planes had to go higher, faster and further. The work required to make a propeller that could work through the supersonic regime was just too much," says Kinney. "And why try, when the jet engine suddenly gives you that capability."

Those high-speed dives in Spitfires – and other Allied fighter planes like the American P-51 Mustang and P-47 Thunderbolt – helped researchers glimpse the kind of challenges supersonic flight would bring. It led to the development of a different aircraft shape, one that could deal with the shockwaves created on the way to the sound barrier. A pointed nose, smaller wings, and a smooth fuselage that limited the effect of the shockwaves.
A lot like Chuck Yeager's Bell X-1, for example.

Burn Off & Clean Up

As members visiting the airfield will have seen, a couple of areas were burnt off late June. Included in this burn off was the large pile of rubbish that has been collecting in the gravel pit area becoming a retreat for feral pests.

A local fire warden managed these controlled burns with several WBMA volunteers assisting. Other areas around the airfield will be burnt off in the next few months as airfield events and conditions permit.

There are many benefits to be gained by controlled burn offs. One of the greatest is the safety factor created by the removal of the dry fuel that has the ability of causing serious problems if it catches fire in the wrong conditions when there are few people at the airfield to control the situation.

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