

BRISBANE VALLEY FLYER

OCTOBER - 2013



Watts Bridge Memorial Airfield, Cressbrook-Caboonbah Road, Toogoolawah, Q'ld 4313.



A Flea amongst Eagles! A rare bird indeed and another scene from the past.

Patrick Martin's Pou de Ciel.

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Yet Another Life Changing Moment. (from the FAA files)

Physician Robert Frayser lifted off in his Comanche 400 from the North Bend, Kansas, airport at 7 a.m., en route for a meeting in Topeka. He was flying alone, cruising at 5,500 feet on autopilot, with the sun coming up on a clear, beautiful day. Per established routine, he switched the fuel selector to the auxiliary tank and set up the navigation system for nearby Topeka.

About 90 minutes later, Dr. Frayser found himself in a hay field. The engine was silent. He was confused, disoriented, and groggy as he struggled to rouse himself from a deep sleep. His head was throbbing.

Thinking he was still in the air, he went through his landing checklist. As he became more oriented to his surroundings, a new reality dawned: The airplane's right wing was nearly torn off from an impact with a tree, but the plane was otherwise intact. Aside from a fractured wrist, minor cuts, and bruises, he seemed to be relatively uninjured. But he had no idea where he was. He had no memory of landing.



Dr. Frayser stated that there were no early warnings or symptoms to alert him. "I just went to sleep." The plane, trimmed for cruise flight and on autopilot, flew a perfectly straight course over Kansas and into Missouri until it ran out of fuel, and then the autopilot gently brought the Comanche in for landing.

Since the engine had stopped, no one heard the aircraft glide to a landing on the open field. "I was alone, disoriented, injured, and had a severe headache and ringing in my ears," he said.

Extracting himself from the aircraft, he struggled a quarter of a mile through snow-covered fields for help, finally stumbling onto a farmhouse. Dr. Frayser was taken by ambulance to a hospital, where the emergency room physician put him on 100 percent oxygen to overcome near-fatal blood levels of carboxyhemoglobin.

Carbon monoxide poisoning from a cracked muffler had allowed the deadly, odourless gas to seep into the cabin through the heater and caused him to fall asleep. The crack, which had apparently opened after the last annual inspection, was concealed by the heat shield and could not be detected during the pre-flight inspection. "The crack could have been there for a long time, just waiting for someone to turn on the heater," he said. Frayser did not have a carbon monoxide detector on board to alert him of its presence.

Another 30 minutes in the air might have been fatal. Carbon monoxide poisoning would have claimed another victim.

Overlooked Safety Issue

Carbon monoxide poisoning is a safety issue that pilots tend to ignore, even though it is the most common industrial poisoning accident in the United States. When carbon monoxide poisoning occurs, it can have significant and fatal consequences for aircraft occupants.

Carbon monoxide is a by-product of the incomplete combustion of carbon-containing materials. Aviation fuel contains carbon and is a ready source of carbon monoxide when burned. Expect carbon monoxide whenever an internal combustion engine is operating, and even though piston engines produce the highest concentrations of carbon monoxide, exhaust from turbine engines could also cause carbon monoxide poisoning. In addition, expect carbon monoxide whenever a fire occurs, as commonly happens in a post-crash environment. Carbon monoxide is truly a hidden menace because by itself, it is both a **colourless** and **odourless** gas. An individual would not be aware of its presence until symptoms developed, or during treatment it was determined exposure had occurred. The least desirable situation would be incapacitation. In this case, the victim is powerless to do anything about the exposure. Fortunately, because it is a by-product of combustion, carbon monoxide is frequently associated with other gases that do have an odour and colour.

By avoiding an environment with known combustion fumes, you will also avoid carbon monoxide. The true problem comes when exposure is so gradual that you don't perceive it. You can become incapacitated before you can vacate the environment. In an airplane, the result most likely will be a fatal accident.

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Why Carbon Monoxide Poisoning Should Concern Pilots

What is not known is the full extent of carbon monoxide poisoning in aviation. Analysis of toxicology samples from fatal U.S. aircraft accidents between 1967 and 1993 showed that at least 360 victims had been exposed to sufficient carbon monoxide before or after the crash to impair their abilities. Non-fatal carbon monoxide poisoning in aviation is likely a more common occurrence than currently believed. No one is sure how many times pilots or passengers became ill, not realizing they had been exposed to carbon monoxide. Because no significant incident or incapacitation occurred, the matter was not reported and, hence, not investigated. Symptoms that could be attributed to airsickness, altitude hypoxia, fatigue, or a variety of other conditions actually could have been carbon monoxide poisoning.

Exposure and symptoms may occur repeatedly over several flights until, finally, someone suspects carbon monoxide or, tragically, an accident claims a victim. No database presently exists that accurately collects or tracks non-fatal aviation carbon monoxide exposure information.

Toxicity Mechanism

Carbon monoxide has a very high affinity for haemoglobin, the molecule in blood responsible for transporting oxygen through the body. Carbon monoxide has affinity of 240 times that of oxygen. Carbon monoxide tightly attaches to the haemoglobin, creating the compound carboxyhemoglobin, which prevents oxygen from binding, thereby blocking its transport. The result is hypoxia but through a mechanism different from that produced by altitude. However, with respect to symptoms, the end-effects can be very similar.

There should be little or no carbon monoxide in the blood of individuals who have not been exposed to smoke or other by-products of combustion. People living in polluted urban environments may have between 3-10% carboxyhemoglobin concentrations because of the carbon monoxide contained in the smoke and fumes they inhale, while a cigar smoker could have up to 15%. People in certain occupations such as foundry workers, welders, mechanics, fire-fighters, and tollbooth or tunnel attendants that expose them to products of combustion may also have elevated carbon monoxide baseline levels.

Symptoms

The most common symptoms of carbon monoxide exposure are shown in Table 1. These symptoms are typical for an individual with normal haemoglobin at sea level. You can expect these symptoms to worsen at altitude and/or appear sooner than they otherwise would. Wide personal variations may also occur, depending on the circumstances and whether or not the individual smokes.

Protection from Carbon Monoxide Exposure

First and foremost is pilot education and awareness. Pilots must understand the danger posed by carbon monoxide poisoning and should be alert to the symptoms.

Any unusual cabin smell or sensation of illness should call for immediate troubleshooting.

- Turn the cabin heat fully off.
- Increase the rate of cabin fresh air ventilation to the maximum.
- Open windows if the flight profile and aircraft's operating manual permit such an action.
- If available (**provided it does not represent a safety or fire hazard**), consider using supplemental oxygen.
- Land as promptly as possible.
- Do not hesitate to let Air Traffic Control know of your concerns, and ask for vectors to the nearest airport.
- Once on the ground, seek medical attention.
- Before continuing the flight, have the aircraft inspected by a certified mechanic.

Percent CO in Blood	Typical Symptoms
<10	None
10-20	Slight headache
21-30	Headache, slight increase in respirations, drowsiness
31-40	Headache, impaired judgment, shortness of breath, increasing drowsiness, blurring of vision
41-50	Pounding headache, confusion, marked shortness of breath, marked drowsiness, increasing blurred vision
>51	Unconsciousness, eventual death if victim is not removed from source of CO

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Safeguards

- The best protection against carbon monoxide poisoning is to avoid exposure.
- Aircraft operators and pilots must ensure that heating/ventilation systems and exhaust manifolds in their aircraft are all in good working order, as specified by the manufacturer and the Federal Aviation Administration.
- Properly trained engineers must conduct all required inspections.
- Special attention should be paid to older aircraft because of corrosion or simple wear and tear.
- A certified mechanic should verify firewall and aircraft structural integrity and seal any defects.
- Finally, several devices are available to monitor for carbon monoxide. The least expensive are handheld or stick-on colorimetric devices that change colour in the presence of carbon monoxide. While effective, they are not perfect or foolproof. Powered detectors for aviation use are available as either portable or panel-mounted units and provide greater reliability.

Happy flying

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When The Eagles Gathered

August 31, 2013, broke with the seeming tradition of inclement weather on fly-in days at Watts Bridge. The Gathering of Eagles fly-in was pleasure to attend and once again the engines roared, the crowds wandered through the parked lines of aircraft and a stupid idiot made a fool of himself doing a low run downwind over the lined-up and other ready to roll aircraft. Perhaps he merely forgot to take his medication that morning.



David Briffa's 150 hp Cessna 150M. Looks nice doesn't it?



The semi-scale Grumman Panther, the JG2.



Every fly-in must have a Chipmunk. This was the DHC-1 for the day.



Michael Redmond's beautiful vintage DH 60M Moth, one of a very few left.

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Neil Aitkenhead 's Falco F8L.



Peter Gardiner's Yak 52, ready to rumble.



Thatcher CX-4. This one was for sale – better check it out!



Capt. Geiser returns from another successful sortie in his Nieuport 17.



Peter Freeman's GR-912 Lightwing, resplendent in the bright sunlight.



The Jodel DR 1050 belonging to Kevin Haase.

NOTICE:

As noted in the minutes reproduced on the back page, the date for the next BVSAC meeting, which is also to be the AGM, will be held on the 12th October which is the second Saturday in the month. This is to avoid the long weekend which is a result of Labour Day having been moved from May to October.

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The Humble Pre-Flight (Rob Knight)

We all do it – a pre-flight inspection I mean. It's that quick check to see if the aeroplane still has wheels, and the wings haven't fallen off. Or is it? Carried out incorrectly, a pre-flight might be the last check you ever make.

This "before-every-flight ritual" should be an in-depth check on the total airworthiness of the aeroplane, its engine, its airframe and its instruments. It is also the time to check that sufficient consumables are on board to allow the take-off, to carry out our planned operation and to return with a safe reserve to cover likely contingencies. It is also the time to consider whether the consumables and the planned load can be loaded aboard the aeroplane in a safe manner.

Everyone can obviously check their aeroplane has two struts, the tyres look OK and they can't see any bolts without nuts anywhere; but a good pre-flight goes far beyond this. Some lateral thinking, as well as keen vision, makes a good team.

To illustrate the potential hazards of a sloppy pre-flight, in my own personal experience the following problems have occurred on aircraft that I have been required to fly in:

- I. Fuel caps left off (PA18 Cub, PA28 Cherokee, Cessna 150, Victa 100),
- II. Early return, emergency declared – gritted walkway separated in flight (Victa 100),
- III. Early return because of insufficient fuel (Victa 100, T3, PA38 Tomahawk).
- IV. Early return because of fuel tank leaks (Cessna 172).
- V. Complete separation of right side control yoke from shaft (Cessna 172),
- VI. Return - rattle in port wing – spanner left in wing by engineer (FU24 Fletcher),
- VII. Return - door catch failure (in flight) - (Beechcraft A36 Bonanza),
- VIII. Early return from aerobatics - oil cap left off (Victa 115),
- IX. Early return - stiff elevator control – stick caught in hinge (Maule M4),
- X. Early return from over-water flight – student forgot lifejackets (PA28 Cherokee).

As a matter of interest – these incidents occurred either on PPL flight tests or bi-annual flight reviews, CPL bi-annual flight reviews, or flight instructor rating renewals.

Don't you get caught by any such as these!

Each of the items above was easily visible and should have been discovered and remedied before the flight on which they occurred. The gritted walkway caused very serious control loss by blanketing the elevator and destroying lift on the inboard section of the starboard wing and, had the in-flight peeling away occurred more quickly, the results could easily have been fatal. The spanner left in the FU24 wing could have jammed an aileron, and the door catch failure in the Bonanza was identifiable by looseness in the handle that was noted by the pilot being examined, but not remedied. The Maule exhibited heavy and very stiff controls. The pilot noted the control stiffness, and could actually see the stick jammed between the tailplane and the aerodynamic balance on the left side outer section of the tailplane during his pre-take-off checks, he did not correct the problem because he erroneously assumed that the stick would eventually break. However, the reverse occurred. He was under examination at the time and that alone would have resulted in a forfeit of the test.

The problem in the Maule illustrated another unseen danger in flying when things are 'not quite right'. As the trim could no longer move the elevator, as trim was applied it became a second stage elevator and gave a reversal in trim sense i.e., nose up trim caused the nose to pitch down. This made it even more difficult to fly and land.

A pre-flight is the last chance to find an excuse not to fly.

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FLY-INS Looming

Saturday October 5	Mt Archer - Archer Falls Airfield Fly In Drive In
Saturday October 12	Murgon, Angelfield – Burnett Flyers Breakfast Fly-in
19-20 October	Tamworth, NSW – Tamworth Festival of Flight

Photo Competition

This month's winner is.....

SORRY - STILL no images sent in

I need your images - I really have run out. (Ed.)

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Protect your Loved Ones & Yourself from Carbon Monoxide poisoning!

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Mystery Aircraft (October Issue)

Mystery Aircraft for October.

Clues – very well known manufacturer. One featured prominently in the Australian news media, although not recently.

Mystery Aircraft (September Issue)

This is an image of a Cessna 175.

Still no winner for the After Dark Technology memory stix.
The two stix offered for the prize for this month will carry over to October.



Joke for the Month



Quotes (or, "There's wisdom in the air):

1. Where am I? – (Charles A. Lindbergh, upon arrival in Paris)
2. Flying is not dangerous; crashing is dangerous. (unknown)
3. A fool and his money are soon flying more airplane than he can handle. (Unknown)

BirdsiPhotography

Want an air-to-air shot of you flying your dream machine? It's easy to arrange and will cost less than you might think. Grab the phone and contact Peter Davies or Rob Knight on 0400 89 3632, or email kni.rob@bigpond.com



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Keeping up with the Play (Test yourself – how good are you, really?)

- Which of the following statements is/are correct?
 - A. For a given angle of bank, a lower airspeed provides a smaller turn radius.
 - B. V_S decreased in a climbing turn.
 - C. Rate of climb depends on maximum lift being produced.
 - D. If two aeroplanes are on finals, the lower one ALWAYS has the right of way.
- Which of the following cloud types would indicate the most severe turbulence?
 - A. CC and AC.
 - B. NS & AS.
 - C. TCU and CB.
 - D. SC & FS.
- Left hand circuits are normally made at non-towered airfields. Where are exceptions to this listed?
 - A. The VTC for the area.
 - B. The ERSA.
 - C. The PCA (Planning Charts-Australia)
 - D. The VFRG.
- A TAF prediction of SCT NS MEANS:
 - A. Slight cloud and turbulence but nil significant.
 - B. Scattered cloud but not significant to flying.
 - C. Substantial cloud and thunderstorms in Nimbo Stratus cloud
 - D. 3 to 4 eighths of the sky covered by Nimbo Stratus cloud.
- What minimum cloudbase must be existent before an aeroplane may depart from a non-towered airfield?
 - A. 5000 metres.
 - B. 500 feet AGL.
 - C. 500 ft AMSL.
 - D. 1000 metres if mist is within 5 km of the airfield.

ANSWERS: 1. A, 2. C, 3. B, 4. D, 5. B.

If you have any problems with these questions, call me (in the evenings) and let's discuss it! Ed.

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BRISBANE VALLEY SPORT AVIATION CLUB Inc

MINUTES OF THE 7th September 2013 GENERAL MEETING

MEETING LOCATION: Watts Bridge Memorial Airfield – BVSAC Clubrooms

MEETING DATE: 7th September 2013
MEETING OPENED: 12:06 PM
MEMBERS PRESENT: 10
APOLOGIES: Wayne Petty, Glenda Faint, Vern Grayson, Neil Bowdon
VISITORS: 0
NEW MEMBERS: 0
MINUTES: August 2013 meeting of the BVSAC Inc.
Proposed: Mike Smith Seconded: Bruce Clarke Acceptance motion carried.

PRESIDENT'S REPORT: The President did not attend the meeting so there was no report.

SECRETARY'S REPORT: Richard advised that the Queensland Fire and Rescue Service would be using the club rooms on 08.09.2013 as a base for their training day at Watts Bridge.

TREASURER'S REPORT: Priscilla provided a financial statement advising the BVSAC Bank Account Balance is \$15,284.90 and provided a summary of the major income and expenditure items.

WBMA REPORT: Bruce Clarke spoke about the possibility of a rates increase for Watts Bridge and how being a member of the association contributes toward the running of the airfield.

BUSINESS ARISING: Nil

GENERAL BUSINESS: It was noted that progress has been made on completing the BVSAC Clubrooms with painting work nearing completion and the fitting of Exit Signs and Vertical Blinds the next items to be addressed.

NEXT MEETING: The next meeting will be 12th October 2013 in the BVSAC Clubrooms Watts Bridge starting at 10:00AM. This is the second Saturday of the month so as to avoid the Labour Day long weekend.
The Annual General Meeting will be conducted at this meeting. Several members have expressed an interest in the various board positions which are elected at the AGM.
A BBQ lunch will follow the meeting.

MEETING CLOSED: There being no further business, the meeting was declared closed at 12:41PM.
A BBQ lunch was held after the meeting.

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