ROB FOX

Caught in cloud

CA28 Ceres (converted Wirraway)

A lucky escape for a visual pilot with a life-threatening case of "get-home-itis".

Name withheld

IN OVER 20,000 HOURS of flying, one particular flight still sends shivers up my spine. I have never come so close to death nor, through my own stupidity, have I been so reckless with the lives of my passengers.

It was Christmas Eve and I had just finished a superphosphate job near Kojonup, a small town about 130nm southeast of Perth.

Anxious to get back to Jandakot to be with my family, I didn't waste time getting airborne. I was flying a CA28 Ceres (a converted Wirraway) and there were two of us on board: me – an overly confident 1,500-hour ag pilot; and my loader driver, who was in the rear seat.

I climbed to 1,500ft and by late afternoon met up with, and began following, the Albany highway to Perth. It was a route I had flown many times before and I knew the area well.

Everything was going well until, about 60 miles from Jandakot, it started raining. I could see that the cloud base was getting lower. I doggedly followed the ribbon of bitumen and started descending to stay under the clouds. It never entered my head to turn back: I had to get home for Christmas!

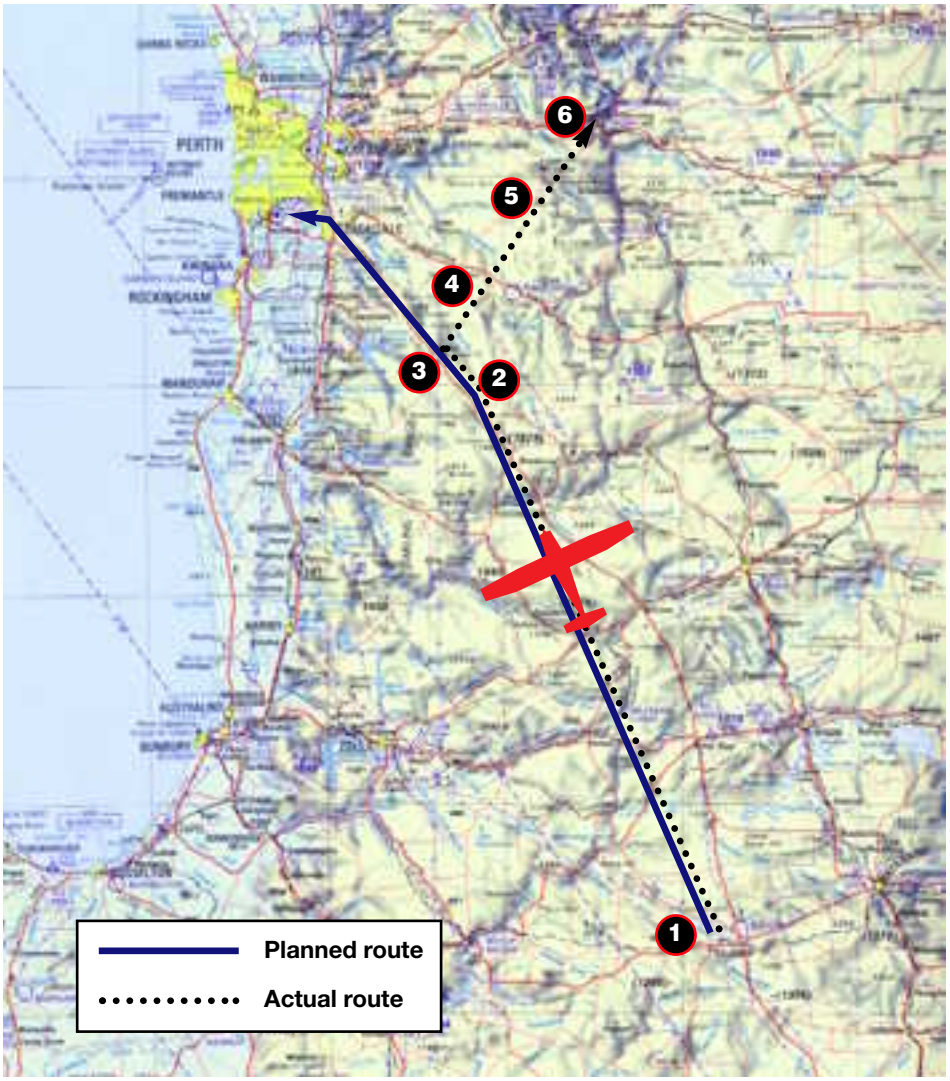
I kept getting lower and lower until the cars and trees were close to my wheels and then I was in cloud.

"God, now I'm in trouble!" I thought.

I had no option but to try to climb straight ahead. The Ceres instrument panel was extremely basic: airspeed, altimeter, turn-and-bank and compass. There was no artificial horizon and no directional gyro.

I concentrated on keeping the airspeed at 70kt and the turn-and-bank level. We were climbing but I couldn't seem to stop the compass from turning. My plan was to continue climbing, hoping I would come out on top of the cloud or find better conditions.

I flew on for some time, climbing and trying to head east, but it was getting harder and harder to keep control of the aircraft. I remember seeing 7,000ft on the altimeter and then the speed started to build up. I pulled back on the stick but the speed kept increasing.



Graveyard spiral – **1** Aircraft takes off at an ag strip near Kojonup. **2** Encounters rain and lowering cloud base. **3.** Enters cloud. **4.** Loses nearly 5,000ft in a spiral dive. **5** Recovers and climbs to 12,000ft. **6** Exits cloud and lands at York.

More back stick produced even more speed. Then I noticed the turn indicator was hard over to the left and the altimeter was unwinding rapidly. "My God, I'm in a spiral dive!"

Suddenly I remembered my commercial licence training and the unusual attitude recoveries I had done under the hood.

"Get the bank off and then pull out of the dive," I said to myself in a semi-panicked state. I threw the stick over to the right and glanced at the rapidly unwinding altimeter, now passing 2,300ft.

"This is it," I thought, "I'm going to hit the ground any second." With the wings now level I pulled back on the stick and watched with some relief as the altimeter stopped unwinding. We seemed to be climbing again and I was concentrating like mad to keep it that way.

> "I noticed the turn indicator was hard over to the left and the altimeter was unwinding rapidly."

"Where the hell are we?" shouted my loader driver from the back seat. The poor bloke sounded very concerned. He'd flown in the back seat many times and was obviously aware that this was not a normal flight. I turned around, feigned my most convincing "everything's fine" smile and gave him a thumbs-up.

I was now more confident that we were going to be okay: the airspeed was constant, the turn indicator was central and I was holding a roughly easterly heading.

I battled on for maybe 10 or 15 minutes until, at almost 12,000ft, we emerged into bright sunshine. Almost simultaneously, the cloud suddenly ended and there was the most beautiful sight I have ever seen – the ground 12,000 feet below.

It was a lucky escape, both for us and for any other aircraft that might have been in the area. The message for VFR pilots who fly in marginal weather is simple, "Just don't do it".

ANALYSIS

Survival rate for visual pilots in cloud less than 25%

Steve Tizzard

WHEN PILOTS fly into cloud without being properly trained, their chances of survival are not good.

In 1999, researchers at the University of Illinois studied VFR into IMC events in the US between 1990 and 1997. They found that while these accidents accounted for just 2.5 per cent of the more than 14,000 general aviation (GA) accidents in that period, they made up 11 per cent of the total fatalities.

And while the fatality rate of other GA accidents was 18 per cent, 75 per cent of all VFR into IMC accidents were fatal.

In the 1960s, UK researchers performed a simple test exposing pilots without any instrument flying training to simulated instrument flight conditions. The pilots lost control within 10 seconds to two minutes.

This demonstrates the very real dangers of entering cloud if you are not qualified to do so.

The author should be commended for sharing his experience. Perhaps his comments will be viewed simply along the lines of: "Ah well he got caught out, what else was he supposed to do".

At some early stage of the flight the pilot, despite his desire to get home, had options such as returning to the departure aerodrome, diverting to another aerodrome or ALA and, finally, doing a precautionary search and landing in a paddock. From his record of the incident, he had progressively fewer options until he finally entered cloud, which was almost a fatal mistake.

When operating under VFR in marginal weather conditions, you need eyes in the back of your head to ensure you have at least one option other than entering cloud.

Strange as it may seem, many pilots faced with this predicament tend to fly too high, figuratively with the "fin in the cloud", making inadvertent cloud entry more likely.

By flying a little lower, you may be able to ascertain a clearer definition of the cloud base and make a decision before inadvertent entry into IMC is the only option available.

Additionally, slow the aeroplane down (use flap and drop the gear) so you can manoeuvre in a tighter area. It will invariably improve your forward vision. Much more could be said but is outside the scope of this analysis.

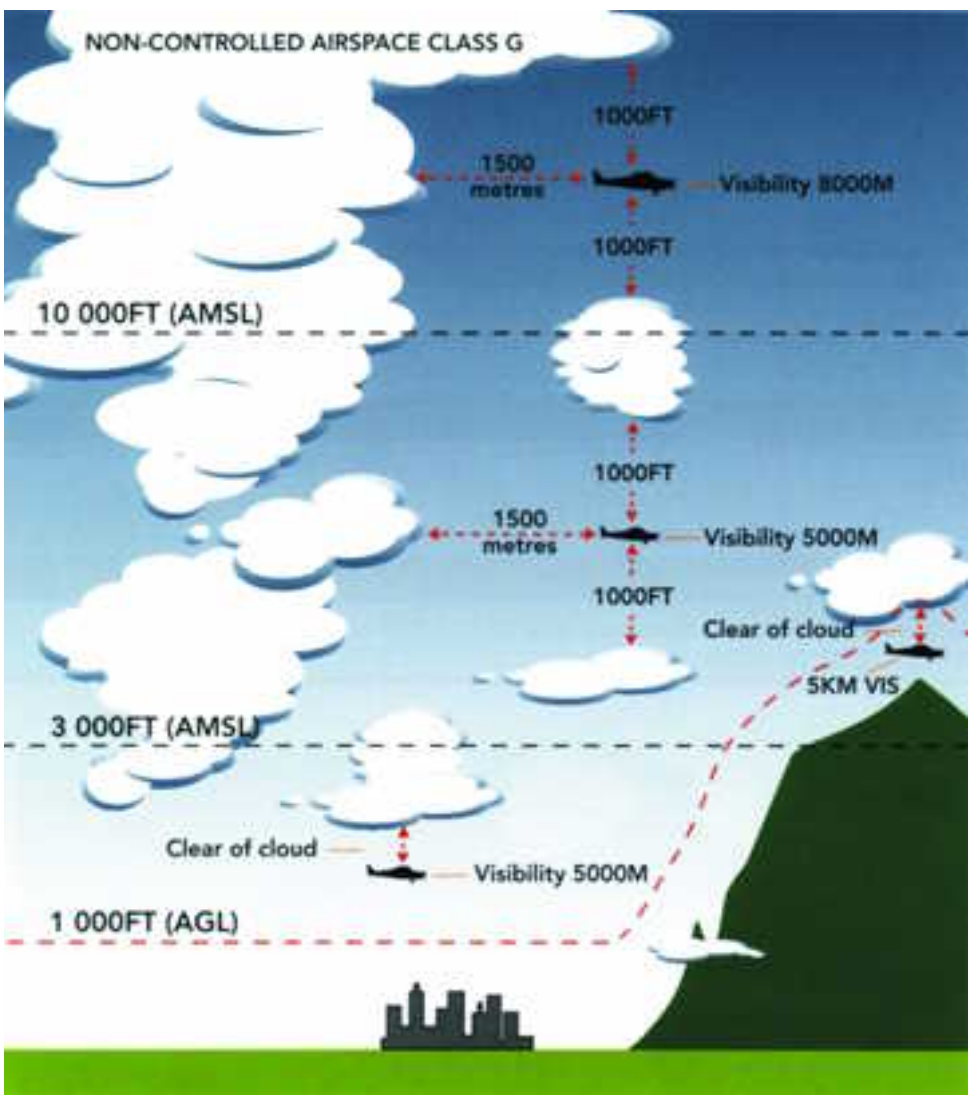
Inadvertent entry into IMC simply should not occur when flying under cloud.

However, there is generally a higher probability of "getting caught" when operating above cloud or between layers.

No matter how well you did in the instrument flying component of your PPL or CPL training, there is a vast difference between flying in cloud and "hood flying" (with the occasional sneaky look outside) where you have a flying instructor to take control if matters get out of hand.

Instrument flying is not similar to riding a bike as the sensory illusions of cloud flying can be very powerful if you are not both proficient and current.

Steve Tizzard is a CASA Flying Operations Inspector.



This diagram illustrates the ***minimum*** legal requirements for visual fight in Class G airspace. Many pilots set higher personal minima to increase their safety margin.