I learned about radio telephony from this //

ROMEO, ROMEO WHEREFORE ART THOU?

This pilot has many, many years of flying experience and his story comes from when he was a student. What it says about correct radio procedure is a lesson for today as much as it was then.

With initial solo flights completed, the students were flying solo as often as possible to increase confidence and flying skills.

It was mid-morning and half a dozen student pilots were in the circuit at a satellite aerodrome, landing, turning off the runway, taxiing slowly back to the holding point, lining up on the runway when cleared, and taking off, repeating the exercise six or seven times in an hour.

The engine of the Percival P.56 Provost was a 550-horsepower multi-cylinder radial – quite a powerful and complicated piece of machinery for an ab initio training aircraft. Our instructors had continually emphasised the importance of monitoring the engine instruments in flight, for should some malfunction, like low oil pressure, go undetected, the engine would begin to overheat, and eventually fail and stop. »

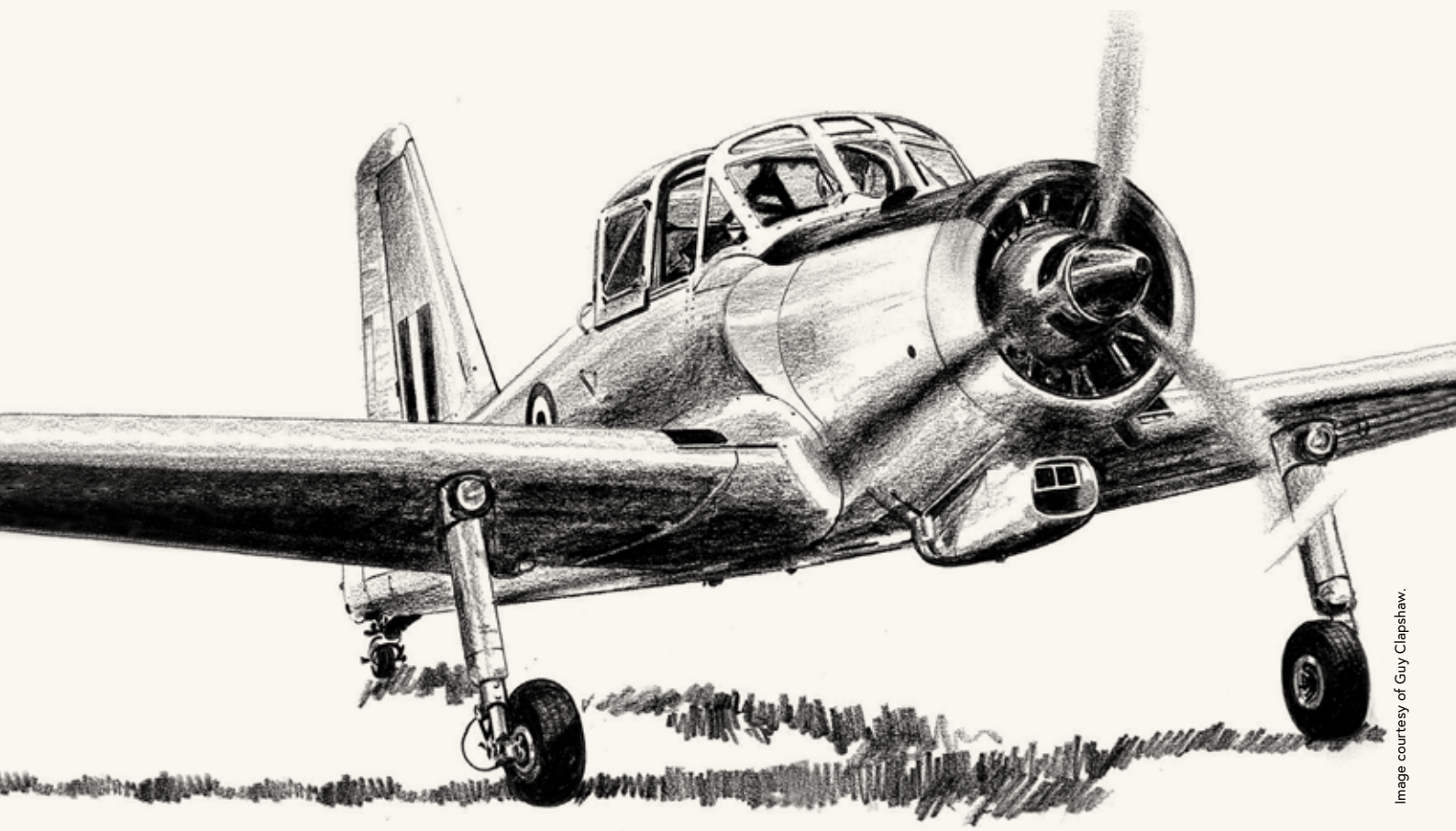

Image courtesy of Guy Clapshaw.

// "In an emergency, clear and timely communications help get the quickest and most appropriate response." *Plane Talking*, p5.

The unfortunate pilot would then be faced with the choice of a deadstick forced landing, or a parachute jump over the side, neither of which was particularly desirable.

So students quickly developed the habit of continually monitoring their instruments in flight.

On the ground, when the engine was only ticking over slowly, temperatures and pressures dropped below the normal in-flight operating range.

Today's student had soloed for the first time a week previously and was now on his second solo detail.

Five other students were in the circuit when he called.

"Tower, this is Romeo Romeo, my oil pressure is only 15 psi."

There was a pause on the radio channel until the student's instructor asked, "Romeo Romeo, what is your oil pressure now?"

"Fifteen pounds still," his student answered calmly. Fifteen pounds per square inch was a dangerously low figure. The normal operating range varies between 70 and 80 psi. A lower figure in flight could indicate imminent oil pump failure or a bad oil leak.

The instructor gestured to the duty air traffic controller to alert the fire crew and medical section, then get the station engineering officer on the phone.

"OK, now what about your oil temperature – is that excessively high?"

"Negative sir, it's 60 degrees."

"All right, that's well within limits. Now open your oil cooler fully and tell me if you can see any oil streaks on the windshield or fuselage."

A brief pause ensued while the student checked for traces of oil.

"No evidence of oil anywhere that I can see. But I'm..."

His instructor cut across him. "OK, OK, now what's your cylinder head temperature?"

This question was the important one. If the cylinder head temperature exceeded its upper limit of 230 degrees C, the engine would eventually seize and stop. The inexperienced student pilot would then be faced with the formidable task of a deadstick landing in whichever field or paddock he could find, in the 60 seconds before the aircraft hit the ground.

"A hundred and fifty degrees," the student replied quietly and calmly.

"The fire crew's alerted and the medical section's on standby," the senior air traffic controller reported. "But the station engineering officer is away."

The instructor grimaced – it would have been good to have had a technical opinion on the problem.

The senior air traffic controller radioed the circuit traffic. "All solo aircraft in the circuit continue orbiting at

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circuit height. Romeo Kilo and Hotel, you are to proceed back to main base with your instructors. Remaining aircraft keep orbiting."

Each aircraft acknowledged its understanding – the circuit was being cleared for an emergency. Beside the control tower, the crash crew's fire truck rumbled into life.

The instructor spoke again, in carefully measured tones. "OK, Romeo Romeo, the final approach and runway have been cleared of all aircraft. What's your oil pressure now?"

"Er, 15 sir...but I'm..."

"OK, is it steady or fluctuating?"

"Fluctuating, sometimes it drops to 12 but..."

"OK, OK, don't worry too much about the amount of pressure, don't panic – just be grateful some lubrication is getting to the engine."

There was another long pause on the radio. Other students tried to imagine their mate alone in the cockpit with his problem. His chances of successfully carrying out a deadstick landing away from the airfield without damage or injury were slight. His was a fast, heavy aircraft – it glided at 100 mph and came down fast. Everybody hoped like hell the oil pressure would hold out long enough for the student to make it back to the airfield.

The instructor picked up the microphone.

"Romeo Romeo, the approach path and runway are clear. Try moving the pitch lever back about eight centimetres. This should stabilise the oil pressure. Then check your oil cooler's fully open."

After a short pause, the student confirmed he'd done as instructed.

"Oil pressure fluctuating or steady?"

"Still fluctuating. Pulling the pitch lever back didn't make any difference to the revs."

"That indicates an oil leak in the propeller," the instructor swore to himself. "The temperatures and pressures will go off the bloody clock once all the oil's drained away."

He picked up the microphone again. "Romeo Romeo, head straight for the airfield for a straight-in approach to runway one seven . . . or two three if you prefer. The wind's a light southerly. Emergency services are alerted. What's your present position and altitude?"

"Um...I'm parked on the taxiway in front of your control tower, sir..."

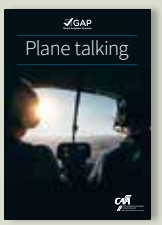
The student had been on the ground all the time! Taxiing back from his previous landing, with the engine ticking over slowly, he'd checked his engine instruments and had noticed their readings were considerably different from what they normally registered in flight.

So he thought it best to report it...

What they all could have done better:

- Stuck to standard operating procedures.
- Used correct radiotelephony procedure.
- Instead of jumping to conclusions, the instructor should have treated the 'emergency' as a MAYDAY. That would have established the facts at the start, including position, height, and nature of the problem.
- More student instruction on engine operation and management would have avoided embarrassment!

// PLANE TALKING



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