

It's Not Over Till It's Over – Postflight Checks

You've made a textbook approach and landing, and taxied to the parking area. You've quickly shut down the engine and run a cursory once-over of the after-landing checklist. Yeah, yeah, pretty much looks all in order...



Control locks prevent damage from wind gusts.



Don't rely purely on your aircraft's park brakes. Chocking the wheels will add security – and peace of mind.

...You grab your bag and head off to the outdoor concert. During the evening, the wind changes and intensifies, and you realise, with a sinking stomach, that your aircraft is now tail into the prevailing wind and is being battered to death by the gusting air.

Or perhaps you don't think about it at all...

"Parking properly is one of the most important things to do, after you land," says Canterbury Aero Club Chief Flying Instructor (CFI) Jay Peters. "You need to take note not just of which direction the wind is blowing from, but if it is likely to change before you get back the next day."

Jay tells the story of landing at Dunedin and heading off to Carisbrook for a cricket game. "I realised halfway through that the wind was changing. I couldn't enjoy the game thinking about the controls banging around." He rang the aero club to ask them to move the Partenavia which, lucky for Jay, they had already done.

Others are not so fortunate. Warren Sattler, CFI of Ardmore Flying School, once took a Cessna twin 404 out for a flight rating over the Hauraki Gulf, but while running through the asymmetric drills he lost directional control at about 115 knots.

"An engineer later found the push rods were completely bent – legacy of an American pilot who hadn't anticipated a directional wind change at Wellington, and who had left the rudder to be whipped back and forward all night."

Parking intelligently is not even the first post-landing skill a pilot should be exercising, according to CAA's Standards Development and Training Officer, Carlton Campbell.

"There's an art to just manoeuvring the aircraft around to park. Be aware that your propwash could be blowing dust and other rubbish over people who are trying to preflight, or worse, into a hangar with engineers getting increasingly brassed off at the thoughtless pilot.

"Tight turns on differential braking can create a slipstream that can hassle other aircraft and damage your own prop because its 'vacuum' is sucking up loose material from the ground.

"Such tight turns with an accompanying reduction of throttle in aircraft with a constant speed unit may put the counterweights in the propeller under stress, ultimately causing damage or failure."

With the buzz of a good flight and landing, too many pilots – and that includes experienced ones – do just a cursory check of the aircraft before getting on their way.

"That buzz should be contained until the plane is 'put to bed' in the hangar or on the pickets," says Carlton. "The job of flying is only half done without a proper postflight check. You should always leave the aircraft in a state of airworthiness and readiness for the next pilot – which could also be you," he says.

That includes making sure the control locks are in/on.

"If not," says Warren Sattler, "all it takes is a short blast from the slipstream of another aircraft to cause damage to the rudder, ailerons and elevator that cannot be seen."

Carlton Campbell says time should be taken over stabilising temperatures and shut down checks.

"It's easy to leave the master switch on and flatten the battery. I've been embarrassed by seeing the rotating beacon still on, so no matter how experienced the pilot, it's all too common."

He says using a checklist is good, particularly with more complex aircraft.

"As long as it doesn't become mindless box ticking. It's important to properly 'interact' with the checklist so you are conscious all the time of what you are actually checking."

Once parked, the aircraft needs to be properly picketed and/or chocked.

"A friend of mine," says Warren Sattler, "a Queenstown air traffic controller, once emailed me at Ardmore to say she had just watched three of our parked aircraft, from a group that had set out from Ardmore, turn 180 degrees in the wind!"

Chocking the aircraft also allows the opportunity to check the tyres for damage or under-inflation.

Next should be the pitot covers, Carlton says, and then a walk around the aircraft looking for things like oil or fuel leaks, or the impact damage of any bird strike.

Jay Peters suggests checking your fuel use on the just-completed flight. "The actual amount of fuel burned during your flight may vary from the figures quoted in the Pilot Operating Handbook. It will also vary depending on each pilot's approach to 'leaning' the aircraft (remember leaning in the cruise should be done at any altitude). So check it every now and again. Look at what you have actually used, so there's no chance that you'll be caught short.

"And think about refuelling straight away rather than leaving it until the next day when you might be under time pressure.

"If the ground is uneven, you could get cross feeding of fuel tanks. That could lead to significant imbalance of load beyond flight manual limitations, let alone leaking from the overflow. So choose your parking area carefully."

People sometimes forget the importance of cleaning the machine. Bugs can bake on the windscreen and limit visibility. Things like bugs and bird droppings can degrade the performance of the aerofoil. Even a basic clean can help you to identify damage that would otherwise go unnoticed.

Make sure you take away all your own equipment, possessions and litter. Loose gear left behind can have catastrophic consequences.

"A recent crash at Feilding was caused by a loose screwdriver jamming the controls, but you very rarely get into an aircraft that does not have someone else's junk in it," Carlton says.

Once inside the clubrooms or terminal, terminate your SARTIME or company plan – they like to know you are back in one piece.

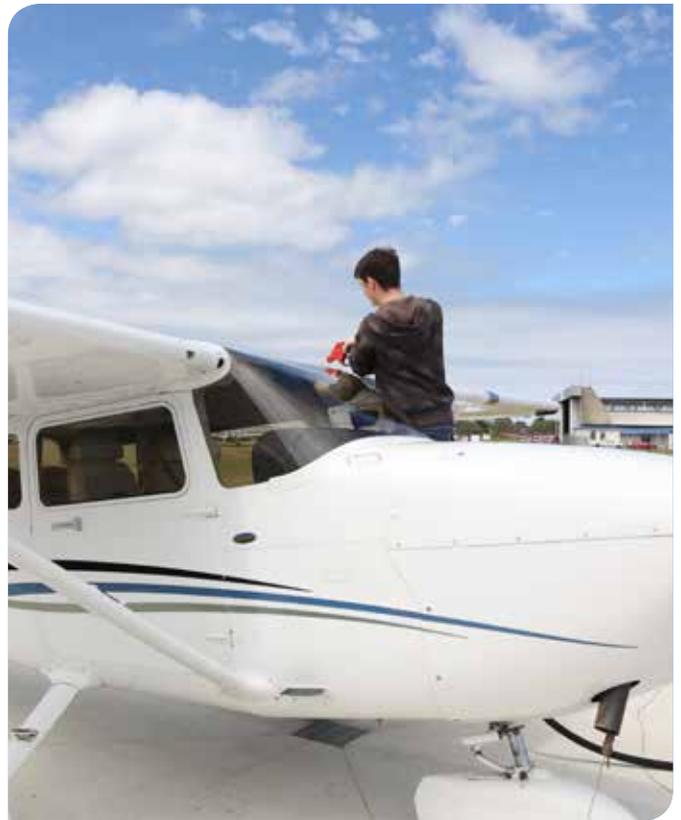
Carlton says after-flight paperwork is really important and too often dismissed.



Benjamin Petersen of Kapiti Aero Club picketing the aircraft. That will stop the aircraft being moved around, or even flipped over, by a buffeting wind.



Accurate airspeed indication is vital, so keep the pitot tube covered to keep bugs out when not flying.



Benjamin says that topping up fuel tanks after landing will minimise the chance of condensation forming if the aircraft is going to be left for some time. It will also add mass to the aircraft providing stability in wind.

“People scribble their notes, and don’t fully complete the daily flight record. But it’s a legal requirement and necessary for the operators,” he says.

Warren Sattler says there is a huge reluctance to report something like a heavy landing. “But it’s critically important that the defects sheet at the end of the trip be properly completed.”

Roger Cruickshank, CFI from Waikato Aero Club, agrees that many pilots, including experienced ones, are sloppy about entering details of a defect.

“What sometimes happens is that when people come back from a flight they may have found some maintenance issue with the aeroplane. It could have been a radio or instrument not working right, or even their headsets not working right. But when they come into the office to check in – even instructors are bad at this – they don’t give enough detail as to what actually went wrong.

“So when the maintenance controller comes to tell the engineers what’s happening, they just say something like ‘the artificial horizon’s broken’. Well, that’s not much good to the engineers, they need to know what the artificial horizon was doing that told the pilot it was broken. They need details.”

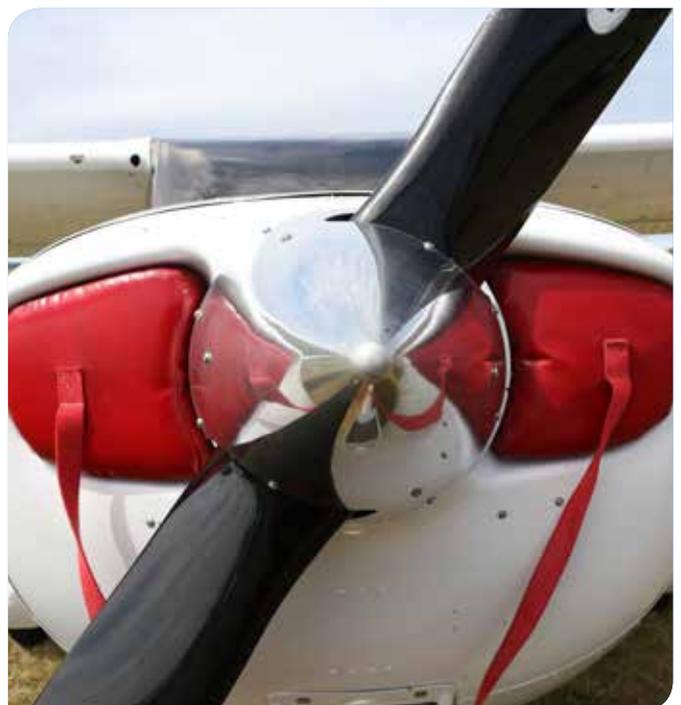
Even if flying solo, a postflight ‘briefing’ is important. “In your mind, review the different phases of the flight, and seek the opinion of someone more experienced if anything troubles you,” says Carlton Campbell.

As a final postflight note, Jay Peters recommends pilots exercise what he calls “general anticipation”.

“If you plan to stay for a day or three, look ahead at the weather forecast for your planned departure, and don’t be afraid to

change your departure date – or time – to suit. Never put yourself in a position where you feel pressured to fly in poor weather, simply because of passenger demands, or having to return your aircraft. Decisions made under pressure can have disastrous results.”

For more information, read *Secure Your Aircraft*. Email info@caa.govt.nz for a free copy. ■



Engine blanks prevent nesting birds and windblown dust and dirt damaging the engine.