

I learned about flying from that //

THE TAKE-OFF THAT APPROACHED DISASTER



This story from the archives shows how even an experienced and skilled pilot can become complacent.

After leaving the air force, Jack secured himself a prestigious job flying a four-seat Percival Proctor Mark 5 for a prominent motor dealership with branches in New Plymouth, Auckland and Whangārei.

The Proctor had evolved from Percival's pre-war racing aircraft, and early models had sparkling performance, superior to contemporary American Cessnas and Pipers.

Regrettably the later, larger, heavier Proctor Mark 5 had inferior performance compared with the Marks 1, 2 and 3.

Jack would regularly fly the Mark 5 to any of the company's branches, and on the day of this story, had been called to fly three branch managers to New Plymouth.

Flying conditions were perfect and the somnolent roar of the Proctor's Gypsy Queen engine soon lulled his three passengers to sleep.

"Wind variable at less than four knots, temperature two four, altimeter setting one zero three zero. The kettle's on if you want a cuppa," New Plymouth Tower reported on first contact.

Misjudging his straight-in approach to the south-east runway, Jack ended up high and fast, necessitating early application of full flap. The aircraft initially ballooned upward before achieving the correct approach profile, crossing a field of grazing dairy cattle before landing on the runway's long grass surface.

Jack taxied to the aero club and cut the engine. The sudden silence roused his passengers. "Nice flight, Jack," the senior member of their party commented. "That's how I like it. See you back here around 2.30. Fill 'er up and we'll be home in time for afternoon tea."

Jack headed toward the aero club after re-fuelling. "Lovely day for flying," the CFI commented. "They were supposed to have cut the grass yesterday. Recent rains have made it grow a lot."

Conversation then ranged over the usual topics discussed by flyers – employment, new aircraft, pay, and working conditions.

Temperature and barometric pressure increased considerably over the next two hours, prompting Jack to open the cockpit doors to cool the cabin.

His passengers returned at 2.30. "All set then," the party's leader announced. "Gotta heavy box to go in the back locker if you don't mind."

Jack loaded the box while his passengers boarded. »

» It was 28 degrees C, and the wind light and variable. There were patches of cumulus at 1500 ft, and the barometric pressure now 1032 mb.

With full tanks, three heavy passengers and more than 15 kgs of luggage, the aircraft was probably at its maximum take-off weight. But runway length of 1200 metres was more than enough for their requirements.

Out on the airfield, a hawk circled in a thermal.

The temperature had risen another degree by the time Jack lined up on the north-west grass runway. He chose not to use flaps for take-off.

“All set?” He turned toward the rear seat passengers. “OK then, here we go.”

But they were already asleep.

Maximum weight, high temperature and pressure, local thermal activity causing wind shift – and something else...

Opening the throttle gradually and initially holding the control column back to assist directional control, Jack concentrated on tracking straight while checking his instruments.

RPM 2400, boost pressure over 14 inches, engine instruments within limits, air speed not indicating yet.

Overhead, the hawk had centred in on a thermal to their right.

Jack centred the control column when the aircraft felt light on its wheels, noting the airspeed had moved off its stop. Aero club members watched as he passed the halfway mark, still earthbound.

Forty knots and 500 metres of runway remaining, the airspeed wasn't increasing. Jack checked throttle and pitch levers fully forward, the brakes were off but the airspeed seemed reluctant to increase.

Forty knots still, and 400 metres of runway remaining. Now 45 knots. A Proctor will stall at 52 knots with the flaps up and 44 knots with full flap extended.

One hundred metres of runway remaining and they weren't going to make it, but it was too late to stop the take-off.

Over on the other side of the wooden airfield boundary fence, the dairy cows had ambled to the milking shed.

Airspeed increased slightly and the aircraft felt lighter on its wheels. But it still refused to become airborne when Jack cautiously eased the control column back.

There was now insufficient runway remaining to abandon the take-off.

A desperate idea occurred to Jack as the aircraft entered the grass over-run area.

Cranking down full flap, the aircraft ballooned up in ground effect, as the flaps extended to the full down position.

They cleared the wooden fence by less than a metre.

Fifty knots of airspeed now but the Proctor refused to remain airborne, touching down on the close-cropped grass surface of the dairy farm paddock.

Sixty knots now and accelerating, Jack felt emboldened to cautiously ease the control column back, while slowly milking the flaps up to the take-off position. Ahead, a line of Macrocarpa trees waited to entrap him and his passengers. Sixty-six knots now and increasing.

Converting his speed to height, Jack cleared the trees by scant metres.

At 70 knots, 200 feet altitude and climbing at 400 feet a minute, Jack turned on to course. He didn't dare imagine what his passengers were thinking.

// **He didn't consider that the thermalling hawk and patchy cumulus were warning him of possible wind shear with tail wind on take-off.** //

The flight home gave him time to partially recover from his narrow escape, but as he touched down on Ardmore's grass runway 25, he noted his hands were still shaking.

An embarrassingly long silence ensued after he parked and shut down.

Anticipating some adverse comment would be passed to head office about the recent incident, Jack busied himself recording the flight times.

"Yes, well er... I'm sorry about that," he muttered apologetically. "This old girl doesn't perform very well on long grass, with heavy loads and high temperatures..."

When nothing was said in reply, Jack opened the cockpit doors noisily and announced to the passengers in the rear cabin that they had arrived.

"Quarter past three, gentlemen. You should be home in time for ..."

They were asleep.

"We've arrived," he repeated. "My apologies for the..."

"Nice flight!" one interrupted, waking up and rubbing his eyes to counteract the soporific effects of the lunchtime beer. "I slept the whole way."

"Yeah, that's how I like it, Jack." The leader of their party had awoken.

"Nice quiet flight, no dramas. See you next week for the Whangārei trip then, eh?"

In his favour Jack had thought outside the square when disaster seemed inevitable, and came up with a unique solution that saved them all.

But he never did tell his passengers about the incident – his rationale being that he wanted them to retain their confidence in executive travel...

He did, however, share the experience with fellow pilots, so they could learn what he had learned.

What did Jack learn?

He realised he:

- was in too much of a hurry to "get home in time for tea"
- didn't consider all parameters before take-off, especially the effect of long grass on the take-off run
- didn't consider that the thermalling hawk and patchy cumulus were warning him of possible wind shear with tail wind on take-off
- ignored the effect of weight, density altitude and temperature on aircraft performance
- didn't make a decision to abort the take-off early enough when sufficient runway remained
- did not reconsider his decision not to use flaps for take-off in view of the state of the runway (long grass). ➡

