I Learned About Flying From That

A welter of human factors left an aircraft floundering in the shallows and its pilot facing a big repair job. He shares what happened and the decisions he made.

The Good: We got out unhurt, didn't hit any of the throng of beachgoers, my 'co-pilot' thinks I saved his life, good experience is gained by surviving bad mistakes...

The Bad: New wings to be built, undercarriage and fibreglass skin to be repaired, new crankshaft... money and hard work.

The Ugly: Didn't prepare for all threats to the flight, didn't resist pressure to fly, didn't devise Plan B should the worst happen. The unforgiving would say stupid.

The first mistake occurred a week earlier. After rebuilding the engine, we decided to replace the fuel lines. Some difficulty was experienced pulling the new polyurethane tubing through the tunnel between the seats. We fuelled the right tank only, measured the flow and did some test flying.

The second mistake was on the fateful day. New fuel drains arrived and we fitted one in the (empty) left wing tank, but not the right – which had seven litres in it. Fuelled the left tank for a flight to Whangarei, 27 litres, but we didn't check the fuel flow!

The third mistake: leaving the right tank nearly empty to make it simpler to fit the new drain later. The fuel cross-feeds when the fuel valve is turned to both – the normal position – and had we fuelled the right we might have noticed something amiss before fuel starvation eventuated.

Some five miles off Martins Bay Beach at 2500 ft, the engine started to falter. Intermittently it provided some power, and then quit. It didn't look good.

I set up a comfortable glide – without looking at the airspeed indicator I have to say – and eventually landed. Everyone was at the northern end of the beach building sandcastles; we made it to the empty, somewhat rocky southern end.

The manager of the local camping ground turned up; the council had given us permission to land! The police joined the party, keeping in touch with the CAA. Women came to thank us for not mowing down their offspring.

Some ex-RNZAF engineers offered help. We all agreed none of the 27 litres in the left tank was getting to the engine. Locals offered tools, brought cans, and a funnel to transfer that fuel to the right tank.

In an Ardmore workshop. "New wings to be built, undercarriage and fibreglass skin to be repaired, new crankshaft... money and hard work."

Photo supplied by author.
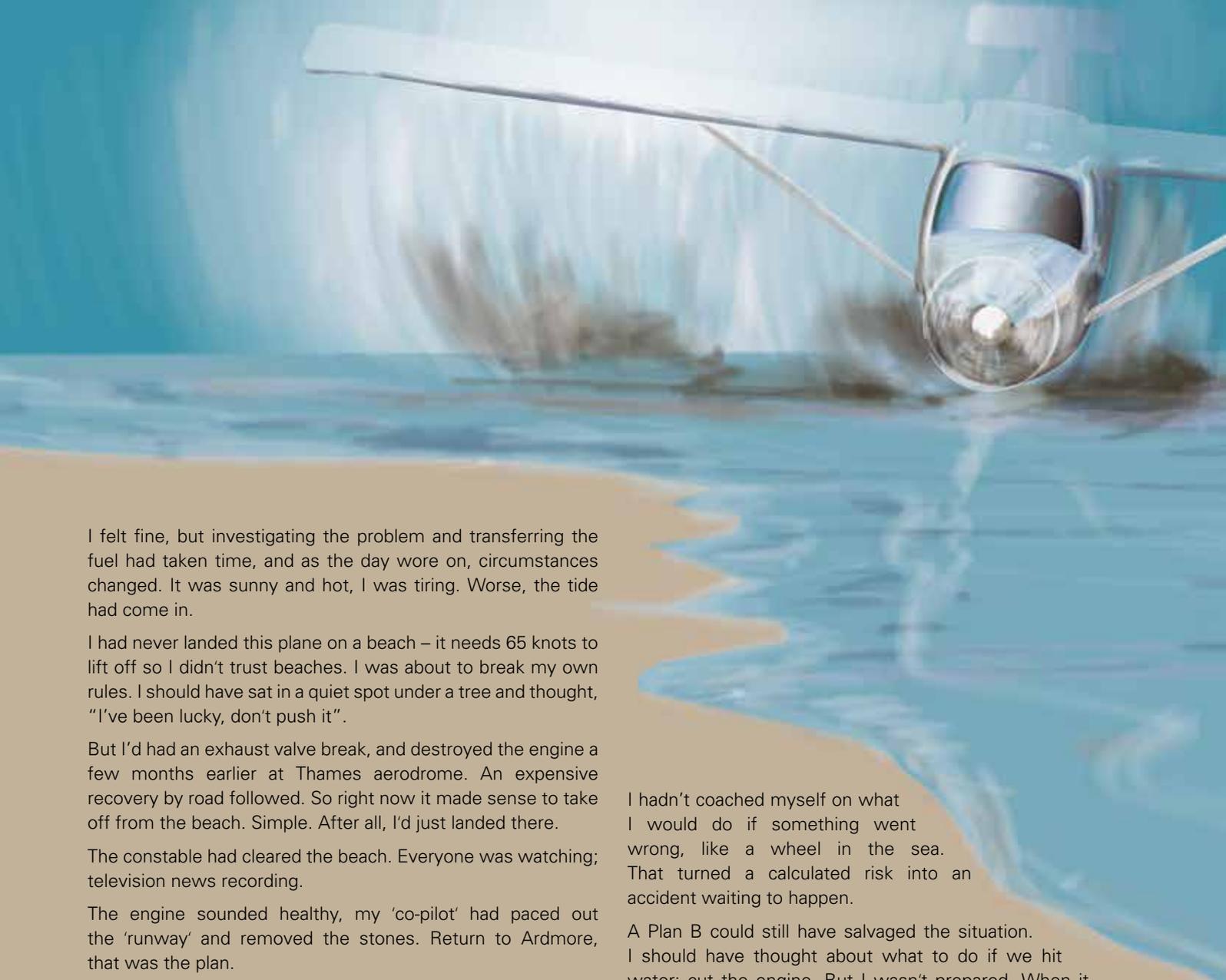
I felt fine, but investigating the problem and transferring the fuel had taken time, and as the day wore on, circumstances changed. It was sunny and hot, I was tiring. Worse, the tide had come in.

I had never landed this plane on a beach – it needs 65 knots to lift off so I didn't trust beaches. I was about to break my own rules. I should have sat in a quiet spot under a tree and thought, "I've been lucky, don't push it".

But I'd had an exhaust valve break, and destroyed the engine a few months earlier at Thames aerodrome. An expensive recovery by road followed. So right now it made sense to take off from the beach. Simple. After all, I'd just landed there.

The constable had cleared the beach. Everyone was watching; television news recording.

The engine sounded healthy, my 'co-pilot' had paced out the 'runway' and removed the stones. Return to Ardmore, that was the plan.

As we gained speed, I lifted the nosewheel to reduce drag. With full right rudder the aircraft rolled straight ahead, but at 50 knots a wave came up. The aircraft swung abruptly, the left wing dug into the sand under the surf, and we nosed over, breaking the prop and bouncing off the right wing.

It was over.

There was a big dent in the left wheel. We had hit a rock in the surf.

Back in the hangar later we found a kink in the new fuel line. Now we knew why we had ended up on the beach!

But why hadn't we checked the fuel flow from the left tank to the carburettor? We'd done a lot of work since the new engine core had arrived, and we had done a lot of checking. But what I hadn't done was sit down quietly and go through everything in my mind. Make sure we'd done everything that needed doing. I usually did.

I had been impatient. Fixated perhaps with running in the new engine. Felt we had mucked around long enough and I wanted to visit my brother in Whangarei. Let's go! NOW!

And, once on the beach, what had I been thinking, attempting to take off again? I knew it wasn't a 'beach' aircraft. Prior to the takeoff roll, I hadn't done all the things I do routinely at unfamiliar or challenging aerodromes.

I hadn't coached myself on what I would do if something went wrong, like a wheel in the sea. That turned a calculated risk into an accident waiting to happen.

A Plan B could still have salvaged the situation. I should have thought about what to do if we hit water: cut the engine. But I wasn't prepared. When it happened I was thinking, this is like hitting a wet stretch at Turangi aerodrome, I can get out of this...

But the conditions were different. The slope of the beach and lack of sufficient rudder authority meant there was no possibility of getting out of the water. I should have decided that before I started. It was obvious.

Had I been pressured into taking off by the expectations of my 'audience', including the television crew? Allowed myself to become an actor, part of a scene with a happy ending? I don't know. I think it was more resignation, feeling fed up. Get home!

I wasn't aware of any symptoms of shock when we reached the beach. Certainly I was relieved we hadn't fired the ballistic parachute. Perhaps I should have felt fear. I didn't. Was my brain numb?

In Germany, if you have a forced landing, you don't fly again that day. I would certainly counsel pilots who survive a life-threatening forced landing to impose that rule on themselves. At least talk to some uninvolved pilots. Two professional pilots did come to see us, but after the crash.

Remember, if you're not at your best you probably won't recognise it; that is the conundrum. You don't know you're not making good decisions… that would take a good decision! ∎