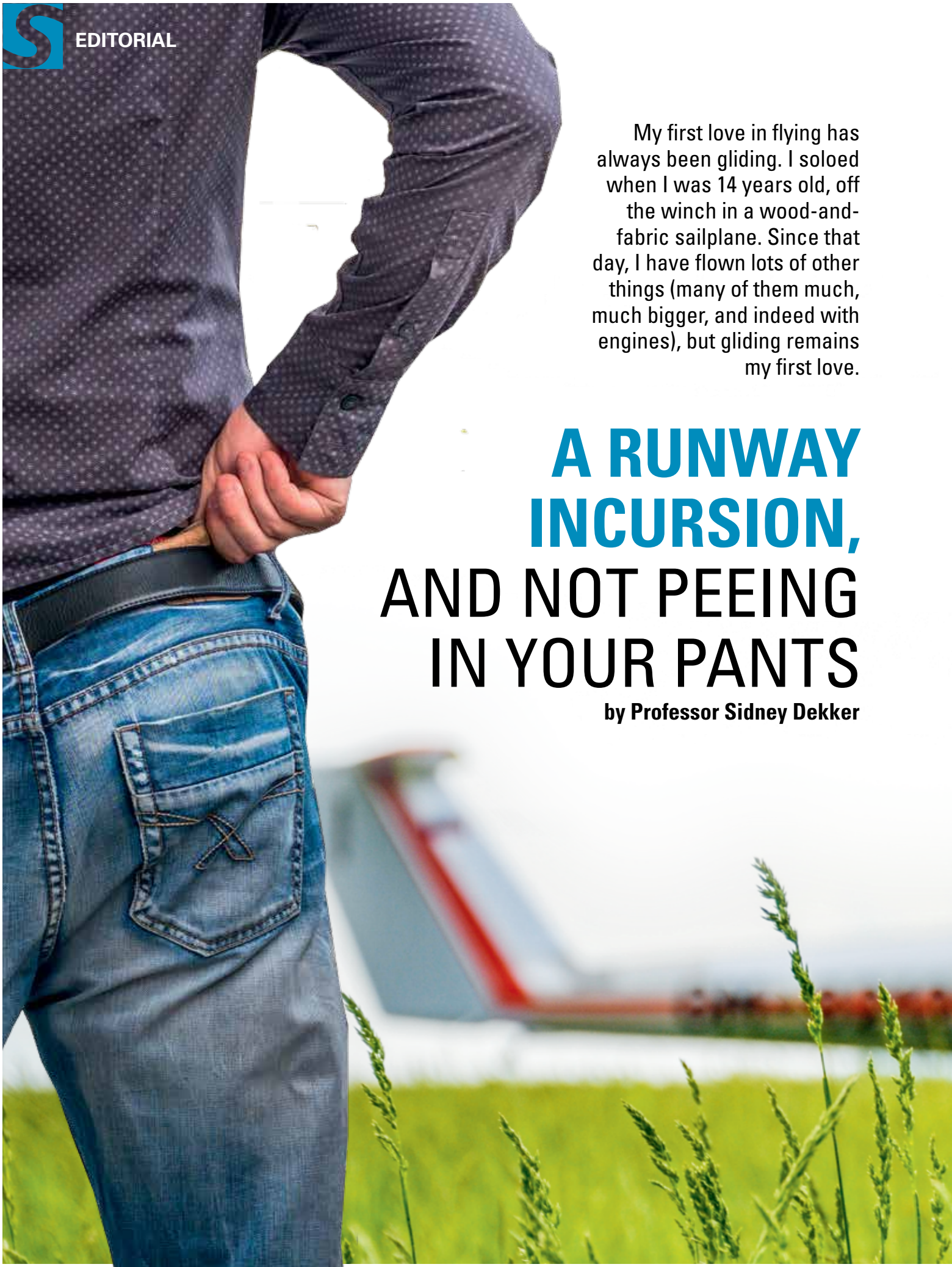
My first love in flying has always been gliding. I soloed when I was 14 years old, off the winch in a wood-and-fabric sailplane. Since that day, I have flown lots of other things (many of them much, much bigger, and indeed with engines), but gliding remains my first love.

A RUNWAY INCURSION, AND NOT PEEING IN YOUR PANTS

by Professor Sidney Dekker



I am currently in the role of Chief Flight Instructor (CFI) at a club on the other side of the ranges from where I live. We operate from a CTAF council airfield with a paved runway, some 1750 meters long. To get the gliders airborne, we use a Piper Pawnee, one of those old crop-dusting planes with a 235 horsepower six-cylinder engine.

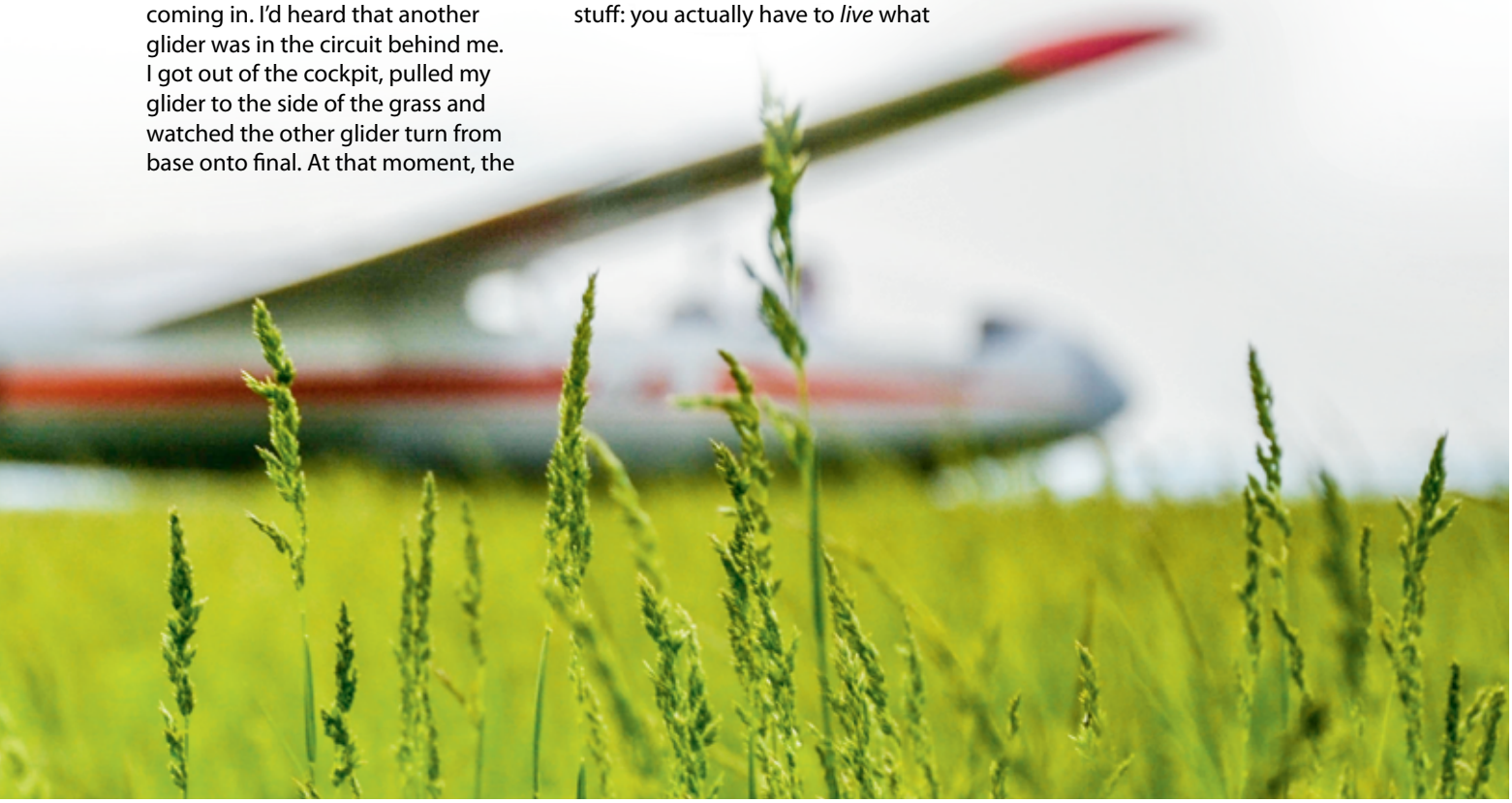
In reality, though, we don't operate from the runway. Like many gliding operations the world over, we take off and land on the grass beside the runway. This has various reasons: one is that gliders can't move under their own power (because they have none, except motorised gliders…) so they tend to take up space on an active runway and need to be pushed off by hand. Another reason is that the grass is wider than the paved runway, so you can line up gliders for takeoff and still have space next to them to land. Landing on grass is also a lot kinder on the tyres.

Toward the end of a nice day not long ago, with high cloud and almost no wind, I had just landed with my own glider (yes, on the grass). No other gliders were waiting to take off anymore: people were done flying for the day. But they were still coming in. I'd heard that another glider was in the circuit behind me. I got out of the cockpit, pulled my glider to the side of the grass and watched the other glider turn from base onto final. At that moment, the tow plane, which had been parked to the side of the grass as well, started up. With not much delay, it lurched forward and taxied out in front of the glider on final approach. I heard repeated calls from the glider pilot, directly addressing the tow plane, but to no avail. The tow plane kept on taxying along the grass parallel to the runway, past me and toward the hangars where it was going to be refuelled and parked. The glider that had been on approach (a go-around is impossible, for obvious reasons) had squeaked to the side of the tow plane to find a place to land, still on the grass. The paved runway was not in use at the time.

As CFI, you are responsible for the safety of operations. It is at moments like these that I feel that my ideas and writings, that my books and arguments, are being put to the test like never before. That is, of course, the beauty and credibility of being operationally active when writing about safety in aviation (and, incidentally, the beauty of a publication like this one, as most people who write in it are operationally active and often in positions of responsibility). This means that it's not just talking about stuff: you actually have to *live* what you talk about. You have to walk that talk. At least if you don't want to pulled apart by cognitive dissonance, or some ethical conflict inside your own head.

Because what I wanted to do, was to run out to the tow pilot, and give him a royal talking-to. What on earth was the idiot thinking? Didn't he look out? What about not hearing the calls of the other glider pilot? Was he even qualified to drive the darned thing? You know the sorts of reactions you can have in a situation like that.

I restrained myself. How many audiences, I thought, have I counselled in not engaging in peeing-in-your-pants management? That is the kind of management where you are so upset, or so concerned, that you feel you really need to go, you really need to do something now, *now*. And so you do it. That is like peeing in your pants (not that I speak from personal experience, at least not before conscious age, but I have three kids…). It's like peeing in your pants because you feel really relieved when you do it. *Aaaah*, the feeling of letting go (again, this is judging from how



my kids occasionally looked when they were young). But it is also like peeing in your pants, because of what happens shortly after.

What happens shortly after is that you start to feel cold and clammy and nasty. And you start stinking.

And, oh by the way, you look like a fool.

That's what peeing-in-your-pants management does to you. Makes you feel relieved, but only for a short while. Then you feel nasty and dirty and you look like a fool.

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So what did I do instead? Well, I happen to have written a couple of books on this, so I should know, right? Again, knowing and applying are two different things. But here I went, thinking to myself standing there next to my glider in the honey-coloured light of the setting sun. The starting assumption (and I really needed to convince myself of this) is that people don't come to these activities to deliberately do a bad job. What they did made sense to them at the time, given their goals, their knowledge and their focus of attention. If human errors show up, then these are consequences of issues much deeper in the system. They aren't causes of trouble; they are the result, or one expression of trouble that was already there.

So the tow pilot had the best intentions. What he did must have made sense to him, otherwise he wouldn't have done it. Others might do this sort of thing too. As responsible for the safety of the operation, I had to find out why. Ultimately, the question that I needed to answer was this: *what* was responsible for this event to occur, for this runway incursion to happen? I had to avoid asking *who* was responsible. Because that, after all, would lead to a quick and false answer. The tow pilot, of course! He should have watched out more. He should have tried harder. He should not have lost (oh good grief) his situation awareness…

Right. Try that, and see how far it gets you in your next investigation. No, I needed to find out *what* was responsible. To answer that question, you need to go *up and out* in your thinking. Don't just go *down and in* and ask the tow pilot what on earth he was doing. No, you need to set the event in a larger context, connect the actions of those involved at the time to other activities, processes and actions, many of which stretch out in space and time beyond those few people, beyond that afternoon.

I won't bore you with the details, particularly because a CTAF airfield doesn't have ATC (which is the whole point of CTAF). So some of you might wonder what this whole fuss is about after all (just get a controller in to sort out the mess!!). If we were, however, to start far away and high up, you can already start to discern the conditions of possibility for an event like this one. Airports in the country where this happened are funded Federally, built at State level and operated at Council level. Sometimes they are also regulated federally, but the extent of that depends on whether the aerodrome is 'registered.' It is possible to have an unregistered aerodrome, from which federal regulation can wash its hands. So lots of levels of government are involved (or sometimes not). Depending on where you are on the political spectrum (i.e. how libertarian or not), this is either a good thing or a bad thing.
Next, the country's AIP. It turns out that glider operations are not specified in it as taking place from the grass besides the runway. The first time anybody might discover gliders in that spot is when they show up at the field, or watch pictures on the club's website. The first can be a bit too late; the second is not an 'official' source of operational information. So in bureaucratic reality, we don't operate from grass at all. Or shouldn't. Or may not. Or can't. Yet we do – in reality, that is.

Then the tow plane. There's an injunction against starting the engine with the radio switched on. There are good electronic reasons for that, which are way outside the scope of this column. So first you start up (which involves toggling the separate magneto systems and various other buttons). And that's where it gets typical, of course (in the Don Norman/James Reason errors-in-a-sequence sense). Once the engine is running, you can taxi. Your goal is achieved: you can now move the plane under its own power. So you move. Why engage in any other actions? Like switching on the radio? Then it is the end of the flying day, so there's no more movements, right? And you are going to stay off the official manoeuvring areas of the airfield, because you'll just stay in the grass beside the runway. So it isn't actually necessary to use the radio there – or at least you could argue as much.

Which brings me to the crunch: according to the AIP, this isn't even a runway incursion. Because it isn't a runway. In practice, yes. On paper, no. I didn't react. I learned later that day that the glider pilot and tow pilot had spoken to each other, and were deciding how to put in an official incident report.

So next time, when someone does something you really find idiotic, obviously dangerous or unnecessarily risky, remember: don't pee in your pants. Find out why it made sense to them. Think up and out, not down and in. Ask *what* is responsible, not *who* is responsible.