

The Not-so-safe **Safety Belt**

Given that seat belts are there to make things safer, it seems ridiculous that there have been four reported instances where the seat belt has led to a potentially serious occurrence in a helicopter. So what is causing this and how do we stop it happening?

The problem is caused by the seat belt buckle for the passenger's seat lying to the left of the collective lever. If that belt isn't done up, it can slip and fall between the lever and the rear stop plate, making it impossible for the pilot to increase collective pitch because the buckle is preventing the collective lever moving backwards.

The best fix, according to Neil Scott of Garden City Helicopters, is to have all the belts done up. "But if passengers get out and leave the seatbelt undone and the pilot's hovering on the side of a hill where they can't let go of the controls to do the belts up, then this situation could occur.

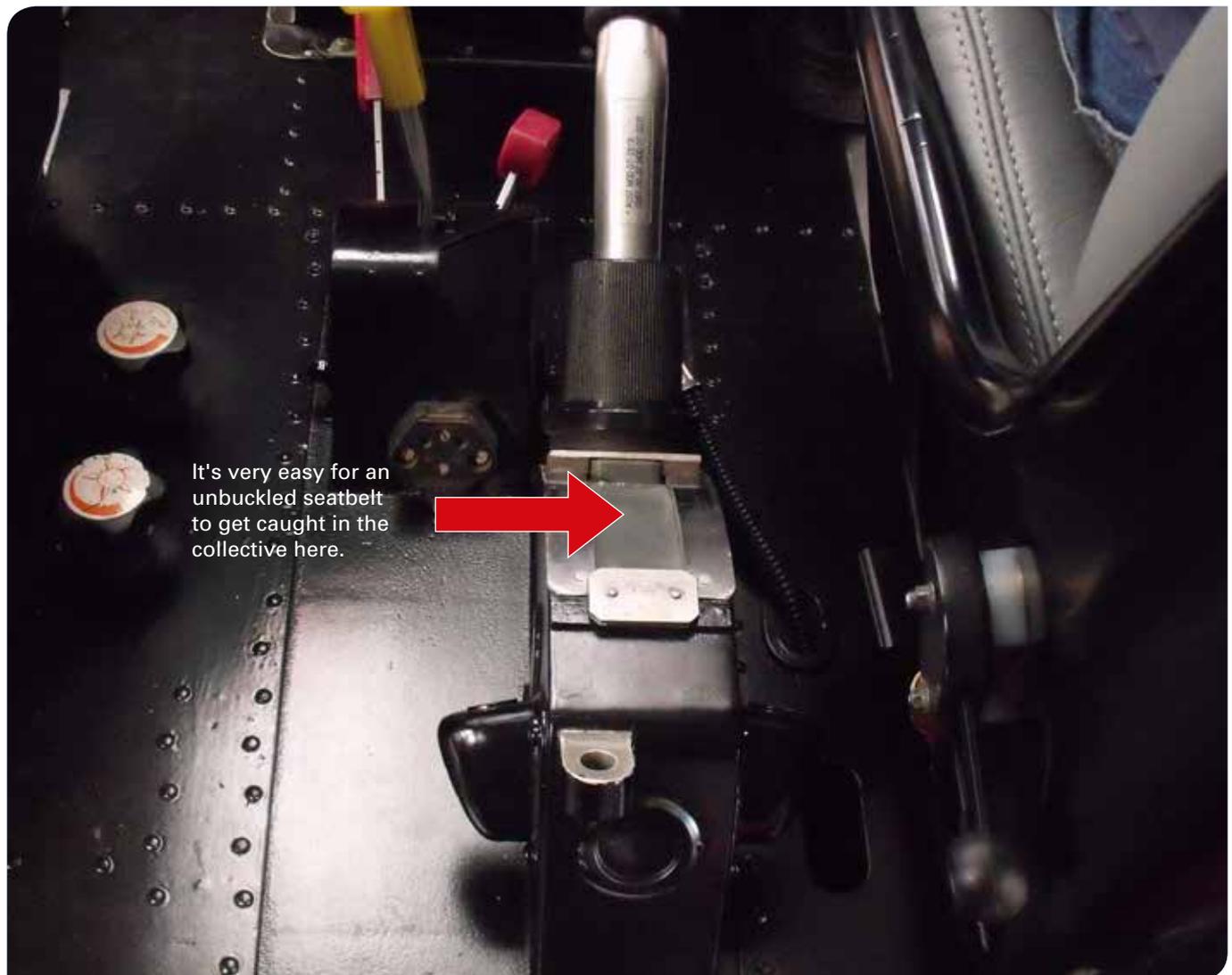
"The buckle only has to fall off the adjoining seat and into the notch between the collective lever and the rear stop plate.

Once there, the only way to get it out is to lower the lever and if you're close to the ground, that's not really an option. So awareness of the issue is key."

One pilot who experienced such a situation recently was Toby Wallis from Alpine Helicopters in Wanaka.

"I would've been at 250 feet up and 300 metres back from the pad, and doing a gentle right turn into it. As the helicopter slowed, I was increasing the collective but it got to a point where I couldn't pull any more and the sink rate increased dramatically."

He rolled the helicopter away from the hangar, applied forward cyclic trying to get through translation, but there wasn't enough power to fly away or hover.



Toby says he knew what it was straight away but didn't have time to drop the collective and release the buckle. "I had already done the turn in and was pulling the power in. It happened in that critical transition going from flying nicely to a huge rate of descent. I managed to arrest a considerable amount of descent to reduce the impact of landing.

"I was lucky for three reasons," adds Toby. "Firstly, I was able to level the helicopter and get it away from the hangar. Secondly I had a huge stretch of run-out grass in front of me, and thirdly it was wet and soft so when I touched one skid first it took impact out of it.

"I believe that guard installation should be mandatory," says Toby. "It's all very well saying 'Seatbelts must be done up when not in use' but it only takes one time – you could be distracted, or a passenger climbs out and leaves it undone – for something to happen."

Alpine Helicopters have now fitted guards to stop this happening.

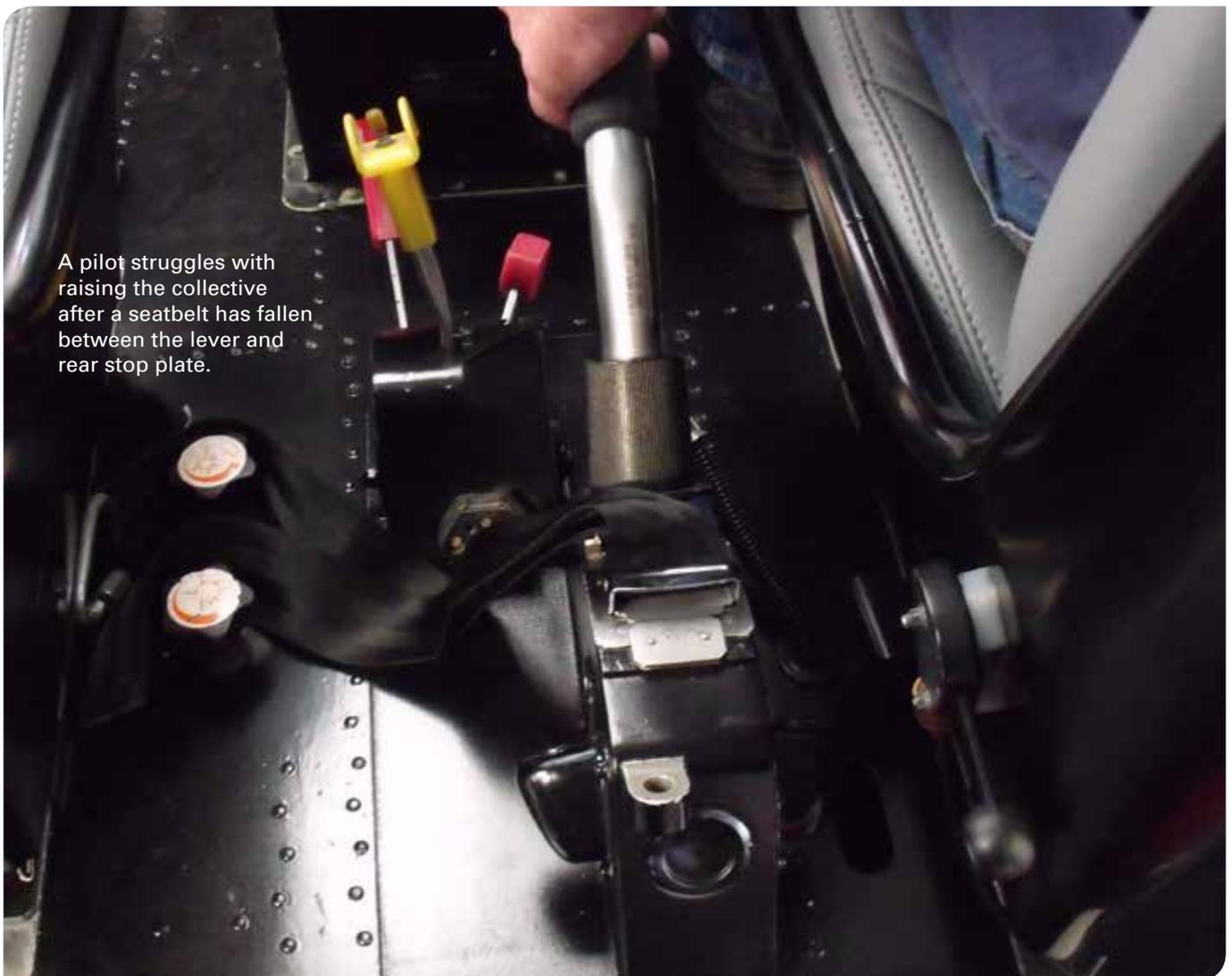
Toby says they're essential, "I think this happens more than we realise. It will happen again, and it's only a matter of time before it ends more seriously."

Toby says he was "very lucky" for the jam to have happened at an aerodrome where the terrain was flat. "If this had happened during the likes of a heli ski operation where you do ridge landings it could've been a very different ending!

"The other instances I'm aware of have all been situations similar to mine, with clear run-outs where they can fly out and prevent something more serious – we've all been incredibly lucky."

While it was a pretty scary ordeal for Toby, who knew how much worse it could be, his passengers were oblivious to the situation, although one of them said something along the lines of, "That was a bit of a rough landing!"

If you're flying a helicopter, make sure you are aware of whether your helicopter could be affected, and make sure you follow your manual's procedure about having unused seatbelts done up. ■



A pilot struggles with raising the collective after a seatbelt has fallen between the lever and rear stop plate.