I Learned About Flying from That

A high-hours helicopter pilot learns that assumption is the mother of all foul-ups.

On the day, I flew according to the conditions I expected, rather than those that really existed. I had 7500 hours flying, 2600 on the helicopter (MCTOW 4875 kgs) I was flying that day.

I was an instructor in flying that helicopter, and an aerobatic display pilot.

I tell you this so you know that what happened that day was no rookie mistake. It came from familiarity and complacency.

I was operating amidst a high tempo of operations, moving people and cargo between three sites, (10 to 15 kilometres apart, see figure 1) almost on a 'bus timetable' type schedule.

I was comfortable and familiar with the aircraft, with the programme, with the area, flying conditions, and the people I was flying with.

Figure 1

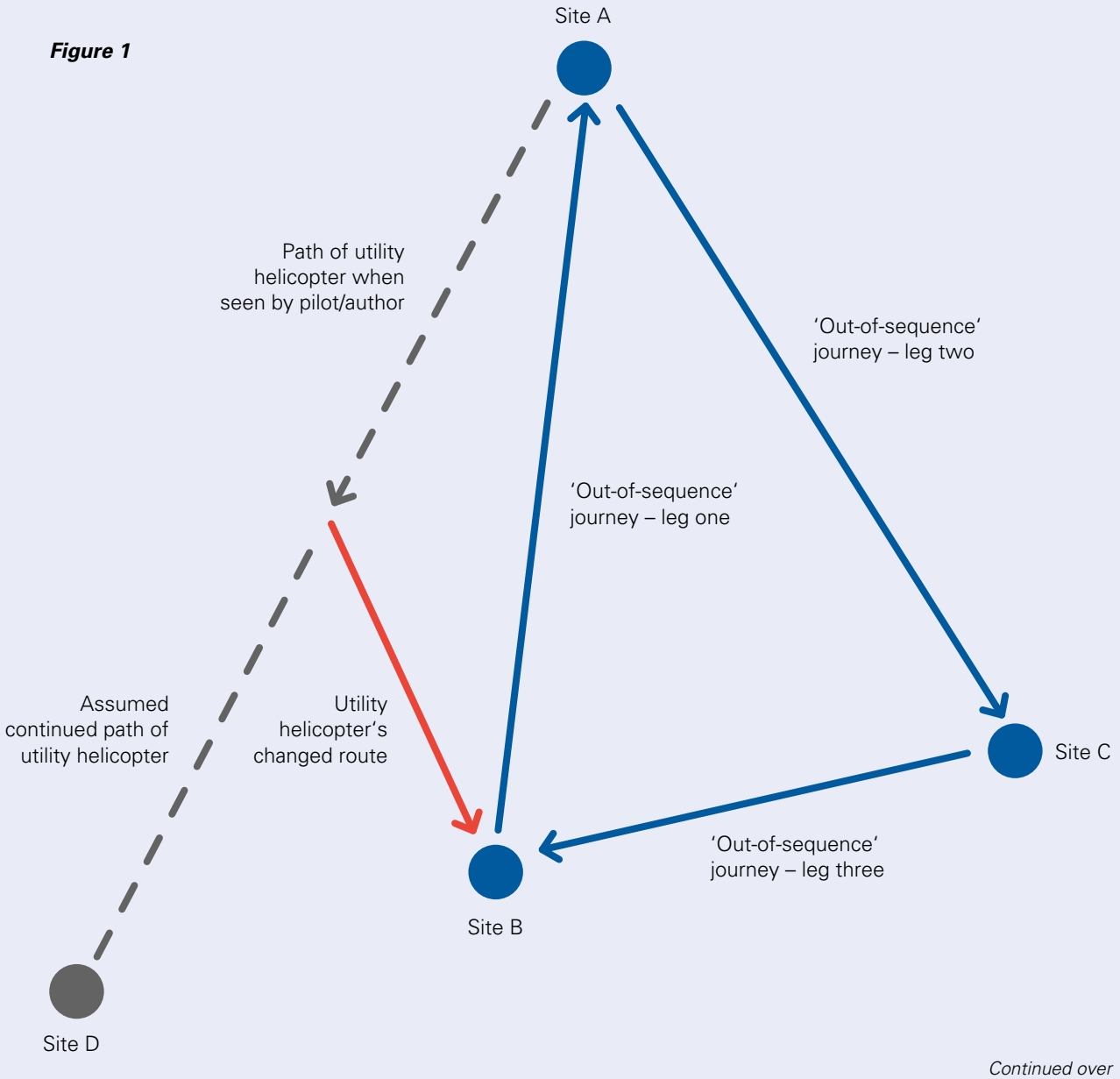

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Figure 2 (Site B)

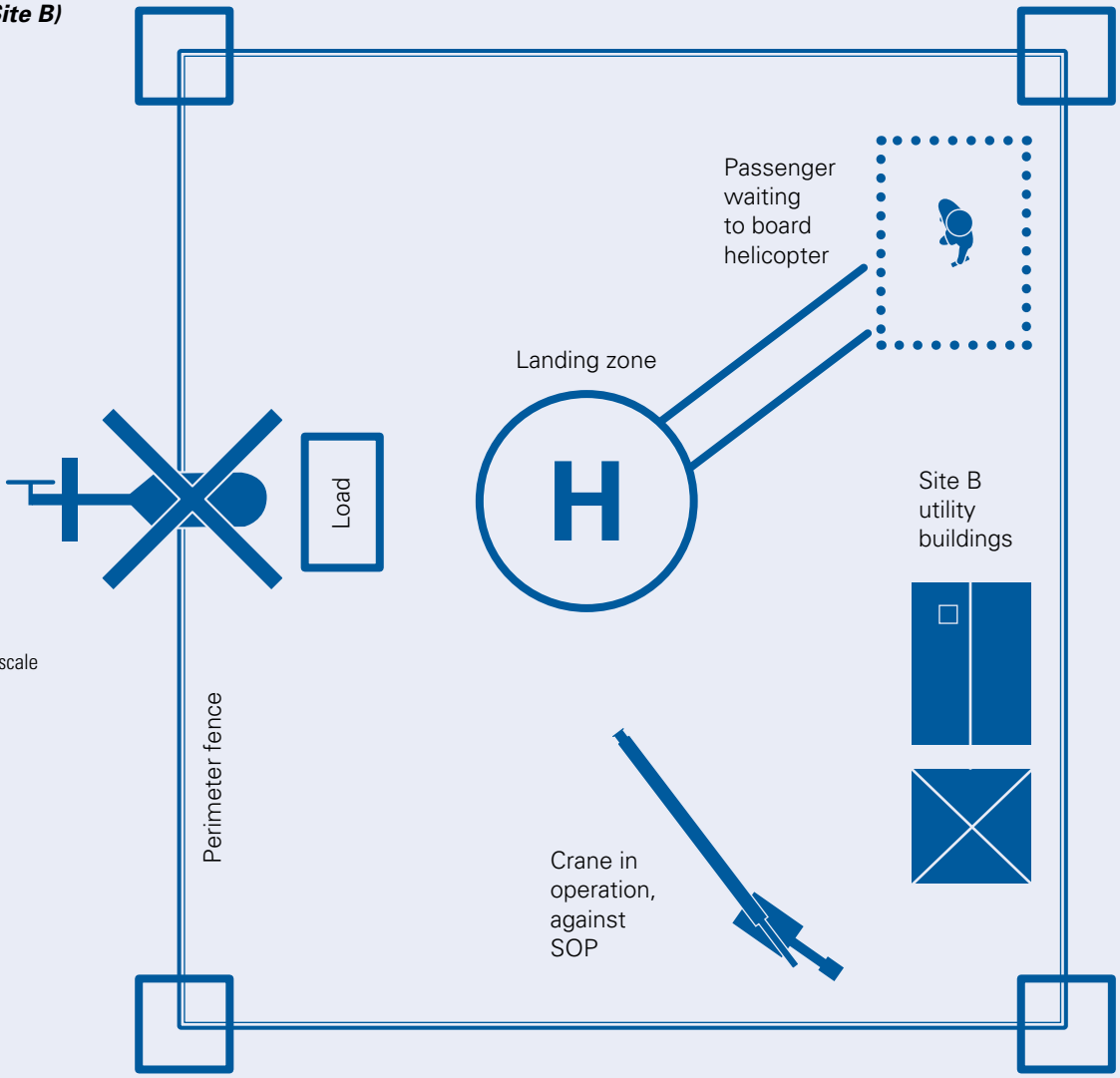

Diagram not to scale

I'd just lifted off from site B and was heading for site A, when I received an 'out-of-sequence' instruction to continue flying north to site A to pick up nine passengers, but then fly them to site B via C.

Flying from site B to site A, I noticed out the left hand window, a utility helicopter heading south, carrying an underslung load. According to the 'bus timetable' he would have been heading to site D.

I picked up the passengers from A, routed to C, dropped one person off, and picked up another.

I then headed back to where I'd lifted off from, just minutes before, site B.

The organisation I worked for had a policy of a pilot reconnoitre at 1500 ft over the landing zone, to check its suitability to land.

But I was under a time constraint, because this latest journey was squeezed into the timetable, and I'd been at site B only six to eight minutes before.

I'd also been into that locale maybe 1500 times, in total, and several times already that day.

So we went straight in across the top of the fence (see figure 2). My attention, and that of my co-pilot, was briefly drawn away by the crane in operation to our right, its jib extended and swinging, breaching standard operating procedure (SOP) that it should not operate when a helicopter was landing.

As we established in the hover, the tail rotor struck a previously unseen object...

We later discovered that the helicopter I'd seen earlier heading south did not go to site D, but had 'mis-navigated', turning left behind me, and dropping its consignment of goods off in B.

The SOP was that an underslung load was to be dropped directly on top of the landing site, effectively closing it to helicopters.

That was supposed to encourage the ground crew to unpack the load as quickly as possible and clear the helicopter landing site.

But the utility helicopter did not do that.

It dropped the 12 ft high load between the fence and the landing site, just inside the fence, and in its shadow.

And nobody moved it.

Because of the low level at which I came in over the fence, I didn't see the cargo, nor did anyone else in my helicopter. We descended right on top of it.

The tail rotor hit it, and was stripped of three of its four blades. The gear box was smashed, and I lost tail rotor effectiveness.

The aircraft began to spin very fast (we were at a very high power setting), between five to ten feet off the ground.

The nose came up about 45 degrees and about 45 degrees left wing low. The centrifugal G-forces had thrown me onto the centre console and the other pilot was G-loaded against the left hand door – he couldn't do anything.

So with my left hand I reached into the roof – because that is where the engine condition levers are – and closed down both engines, and simultaneously with the palm of my right hand pushed the cyclic forward and right, which levelled the aircraft.

We spun round three full revolutions before landing very heavily on the skids, splaying them to a point where the helicopter's cargo hook imbedded in the concrete.

Several of the crew suffered minor back injuries. I carry the consequences of mine, today. But everyone managed to walk away.

We left behind us $14 million worth of totalled machine.

I knew we had lost the tail rotor but couldn't understand why, as we had been well clear of the fence.

But after clambering out of the still upright aircraft I could see the cargo, and it immediately dawned on me what had happened.

I was in shock, firstly due to the violent nature of the incident, and more so at the thought that I had missed such a fundamental obstruction to my flight path. I was very experienced, I was familiar with the location, and with the type of operation.

My shock was shared by the whole crew.

The formal investigation exonerated me due to the 'extenuating circumstances' surrounding the crash. Those circumstances included the utility helicopter dumping its cargo at site B instead of site D, and not dropping the load squarely on the zone.

However, I cannot say I was snow white in this. My familiarity with the locale had made me blasé about the operation, and careless.

Had I carried out a reconnoitre, as required, I would have noticed the underslung load.

Had I used my radio and called the base to see if there was any difference, they would have told me about the utility helicopter just dropping the load off.

I made a number of assumptions that everybody would be following the SOPs.

My first assumption was that the utility helicopter was going to the correct place.

My second was that I didn't need to check the landing zone because I had just been in there.

I assumed there would be no change to the landing site, and I assumed it would be clear.

And I was wrong on all four counts.

Forty-eight hours later, one of the senior fliers in my organisation flew with me to do a post-crash debrief to make sure I was okay. He wanted to fly the same profile that I'd flown two days before, so I described it to him, and he flew it.

As we came over the fence at site B, and into the hover, he'd just started to lower the lever to land, and I said, "stop stop stop, hold the hover" which he did, and I said "just turn 180 degrees" and we turned, and the stack of goods was still sitting there…

Although it's hardly a new lesson, I've learned first-hand a very embarrassing one, "always check, *never* assume".

We all walked away from this, but it could have been a very different story. ■