DISPATCHES FROM HELL

REFLECTIONS ON SURPRISE AND PERSONAL RESILIENCE

Coping with unexpected events is part of the raison d'etre of military life. In this article, **Air Commodore Dai Whittingham** reflects on what he learned from two military surprises.

The catastrophic effects of the Covid-19 pandemic on our industry led to considerable discussion about resilience, a concept that means different things to different people, and that applies to systems, organisations and individuals. This exploration of personal resilience is just that – my personal experience, and yours will be different. However, there are some insights that might be useful, and they are offered in that spirit.

I am neither a commercial airline pilot nor an air traffic controller, but prior to my 10 years with the UK Flight Safety Committee I was a pilot in the Royal Air Force for 37 years and was lucky enough to fly fighters and a large 4-jet. I spent three years as a basic flying instructor and made a brief but late acquaintance with helicopters. I have also been a regulator for military flying activity.

When I was asked to speak at the EUROCONTROL/CANSO conference on resilience in December 2021, I was forced to think about my own resilience and why I had come through various 'testing' situations without too much apparent difficulty. I decided the answer lay in experience and especially the experience provided through training.

The Phantom Fire

In the early 1980s, I was flying the Phantom F4K from RAF Leuchars, in Scotland. We had been working with the radar unit at Benbecula, an island in the Outer Hebrides, and it was traditional to overfly the coastal airfield to say hello. There was heavy rain and very strong surface winds that had turned the sea into a churning mass of foam and spray. We arrived at the airfield boundary at 250 ft and about 500 knots but when I put on the reheat (afterburner) there was a large bang, prompting an immediate return to cold power. A few seconds later my attention was drawn to a large red caption which appeared on the left side of the instrument panel. It said "FIRE".

I duly informed my navigator and started the memory items, calling out as I did them. The drill was very simple and common to most jet engines: throttle to IDLE and wait. If after five seconds the warning was still on, you shut down the engine and wait for a further 30 seconds. The Phantom did not have a fire extinguisher and so, if the warning remained on after 30 seconds, the drill stated: "If fire confirmed...EJECT"

The 30 seconds came and went, and the warning stayed on. As we were not sure whether we were on fire or not, and I recognised the aircraft was still flying normally, I decided we could delay our ejection decision and we circled the airfield for a couple of minutes looking for confirmatory signs. Neither of us was keen on ejection, as the risk of death or injury was significant from landing in a

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45 kt wind or from going into the sea and being dragged by the parachute. I had considered and rejected landing because the runways were far too short for us.

The FIRE light stayed on, but we elected to divert 120 nm to the nearest suitable airfield. During the transit, the caption went out and then reappeared, which was a cause for concern. But the aircraft was still behaving normally. We found later that a partially contained engine failure had damaged the fire detection system, hence the warning.

So, what has this 'war story' got to do with resilience? As you might imagine, there was a little bit of adrenaline running about at the time, and while the event was attention-getting, there was nothing that might today be recognised as startle or surprise. I have a distinct memory of looking at a very bright red caption and thinking, *"Oh, and this isn't the simulator…"*. And then all that simulator training kicked in and we treated it like a simulation.

We both knew exactly what we each needed to do because the scenario was entirely familiar. As a junior pilot at the time, I was in the simulator twice per month for an hour and it was that training that carried us through. Handling the aircraft and its systems was second nature, and we both had spare capacity to think about our situation. Without discussion, we had both tightened our seat straps and mentally rehearsed the ejection drill while the clock ticked down 30 seconds.

There was plenty of other training to be had on the front line. The Cold War was in full swing and there were exercises to ensure we were ready to respond to whatever was thrown at us. The hooter and a backup telephone cascade system would summon us all to work, almost always at unsocial hours, and we would be expected to generate armed and crewed aircraft against a fixed timeline. Sometimes this could even culminate in a live missile firing against a towed target.

Exercises would usually involve 'ground play' where the directing staff (known as 'umpires') would inject stressors into the system such as intruders, injuries, suspicious packages, fuel contamination, or supply or armament defects – all simulated but all designed to find weak spots in the organisation and its training. The umpires increased the level of complication until people began to struggle. If you tried to bluff your way out of things, they would know. This was why I once ended up loading an 85 kg Sidewinder missile onto a head-height weapons rail for the first time (not my job) while wearing full chemical warfare gear. It was not my finest moment.

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While I did not recognise it at the time, the process I was put through as a junior commander on exercises was not just to prove the system, but to train me so that I was able to handle whatever difficulties came my way.

My Personal "Day from Hell"

In the event, the live test was to come in January 1999 with my personal "day from hell". I was standing in as the commander of an RAF main operating base in Lincolnshire when I took a call from the NATO ops centre at Vicenza wanting to know why we had not returned to Aviano AFB (Italy) from our operational pause. It seemed nobody had told us we were required back in theatre, and Kosovo conflict ops were imminent. I kicked off the process of producing three E-3D (AWACS) aircraft and four combat-ready crews, and sending them to Aviano: *"Today would be good."*

About 30 minutes later, the local radio station reported a mid-air collision involving a fast jet, so I returned to the ops room. Information was sparse but it quickly became apparent that two aircraft were down, there was scattered wreckage, there had been loss of life, and we were the closest unit.

After a couple of calls to coordinate and confirm actions, I brought the ops room to silence and then spoke just six words: *"Action the crash and disaster plan."* The ops officer promptly broadcast the message to the whole unit on the PA and a well-rehearsed, complex plan began to swing into action. Over the next few hours, many decisions were needed, especially where the plan and reality did not quite align and where the parallel aircraft generation and crash response activities conflicted.

With all this in progress, I was told that RAF Brize Norton, our main air transport hub, had gone down in fog and there would be up to 6 VC10s coming our way. A little later, I heard one of the new arrivals had been involved in a taxiway excursion and was up to its nose axle in mud. In the subsequent hour, I had several calls about its recovery from angry people, including one from a pilot who was also suggesting it was our fault for not providing a marshaller and for sending him down a narrow taxiway. All were politely advised that we were working at full stretch and the VC10 was currently No. 3 on the priority list. I may have said something extra to the VC10 pilot, but memory fails me on its content!

By mid-afternoon there were still plenty of balls being juggled so I called a 'How goes it?' leadership group meeting. We were just discussing arrangements to support the inbound inquiry team when the PA went off: *"Fire! Fire! Fire! A fire has been reported in the air electronics building."* I ended the silence by demanding to see the exercise umpire. *"Bring him in here now. This is getting ridiculous!"* That broke the tension and meant that people simply treated the new situation as another twist in the scenario, even though there was no umpire, and it was very definitely for real. A bit of humour can help when people are under pressure.

There were many other tasks for me during the remainder of that 18-hour day, during which I barely had time to grab a coffee, never mind eat. I remember taking a very cheerful and clearly excited young photographer to one side before he went out to record the crash site. I explained to him gently that what he would be seeing would

not be pretty or pleasant, and then ensured there would be some pastoral care awaiting him on his return. I cannot unsee his photographs and I don't suppose he can either.

In the final analysis, we coped. The plans worked, though there were plenty of lessons learned and changes made – simple steps such as insisting on separate ringtones to distinguish between incoming callers, so that the on-scene commander could get through when required. And while it seems obvious with hindsight, deploying female staff to a field site means you need to provide access to appropriate toilet facilities.

Training for Resilience

On the resilience side, people were pushed hard but they got through it, aided by the plans and their personal training. In fact, they all stepped up a gear, further evidence that there is no substitute for reality. But be in no doubt that a combination of training and planning is the only route to dealing successfully with real challenges.

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I took it as both a compliment and a lesson when, after the post-op review, one of the ops officers told me that they could not believe how calm I was throughout, and that it had calmed them down too. I may have looked and sounded calm, but I might not always have felt it! The lesson was that calmness is 'infectious' and that it spreads. On the other hand, so does panic.

Key to remaining calm is to control your breathing; the advice to 'take a deep breath' is sound. If you simply regulate your breathing, your own internal biofeedback mechanisms will help you by reducing the levels of stress hormones in your system. It works, try it next time you feel under pressure.

Train Home

The Phantom fire and diversion had one last test for us. After a night stop at RAF Lossiemouth, we were ordered back to base by rail and the journey included changing trains at Aberdeen. We had only our flight gear, so were stood on the platform in our immersion suits, wearing our life jackets and carrying our helmets. It was an interesting 30 minutes. It seemed most of the North Sea's oil rig workers had spent their off-shift morning filling themselves with beer before popping down to the station to see what was going on and making helpful and witty remarks such as *"Eh, pal, you've lost your jet!"* If you ever want to experience real stress, try being the unwilling star of an impromptu pop-up comedy routine…

See the talk!

CANSO/EUROCONTROL Global Resilience Summit (from 13m30s)

https://www.eurocontrol.int/event/canso-eurocontrol-global-resilience-summit-2021

Air Commodore Dai Whittingham became Chief Executive of the UK Flight Safety Committee in 2012 after a full career as a pilot in the RAF. He is active in a range of safety bodies including the EASA HF and CAT analysis groups, and he is Vice-chair of the European Advisory Committee for the Flight Safety Foundation.