Infringement is not always by "puddle jumpers"

By Captain Ed Pooley

This is a story about how an experienced pilot inadvertently became an airspace infringer and took his paying passengers into an active danger area after becoming distracted from navigational reality because of weather avoidance.

It happened to a good friend of mine who was known as a careful but commercially aware flyer. Commercially aware? I mean that he always made every effort to leave on time, give the passengers a nice ride, arrive on time and not carry too much extra fuel unless the company had a tankering policy from a particular airport because of a cheap price there.

Captain Ed Pooley

is an experienced airline pilot who for many years also held the post of Head of Safety for a large short haul airline operation.

He now works as an independent air safety adviser for a range of clients and is currently acting as Validation Manager for SKYbrary.

Careful? I mean that he was known for getting the best out of his co-pilot, but also for consciously putting safety first when deciding who should be PF for a particular approach.

At the age of 54, he had spent his flying career entirely in turboprop flying, because of a decision early on that family life was better if he was at home most nights and had a job based at a regional airport in a nice part of the country. No jet time, but lots of "real" flying and no boredom in what was currently a 50-seat twin turboprop. Of course there were by now few unexpected challenges, and, with little expectation of any serious challenges in aircraft management or handling, there was perhaps at least a risk of complacency.

This was the third flight of four that morning. It was a little unusual in that the route took them on a direct track from near the departure airport to near the destination airport, following a route largely outside controlled airspace. It was a nice day, with just a risk of some heavy showers later on in what was scheduled as a one-hour flight, so keeping a good visual lookout and carefully monitoring traffic on the FIS radio frequency were the only real priorities during the cruise. Any weather ahead would be obvious and thus avoidable. The BRNAV was set up for the flight-planned route and the AP was engaged in LNAV. My friend decided that he would be PF as it was actually over a year since he'd flown this particular route. His company was now one of Europe's biggest regional operators and about five times bigger than when he had joined it ten years before. As a result, there were more new faces in the right-hand seat, most of whom were less than half his age and at the very beginning of their professional flying careers. He had described them to me as having the usual combination of lack of experience and apparent naivety balanced by little more than enthusiasm. He suspected that they might not be that much use if he really needed them.

Forty minutes into the flight, an unexpected build-up appeared on the weather radar ahead. It was difficult to see which way it might be moving, so for the time being, they decided to continue on track as per their planned route. It seemed as if they might be able to get away with a slight corner-cut at their next way-point in order to miss the worst of the weather. And probably the APP radar at their destination would be able to help get them

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straight onto long finals. They might even be early.

Ten minutes later, the build-up had only moved a little and it was beginning to look like quite a significant corner-cut would be needed. They advised their FIS frequency that they would make an early free call to the destination APP radar and obtain vectors from them. The crew members were aware that a series of permanently active danger areas which lay to the right of their flight-planned route would be nearer to their requested "direct to final" track than normal, but they knew that the peripheral danger areas which surrounded the permanent ones, some of which were within little more than 5 NM of their normal track, were rarely notified, and they felt sure that they would be able to rely on ATC to know if any were currently active.

APP were, as expected, happy to help. Their radar had no conflicting traffic, and the crew explained where the worst of the storm appeared, since the ATC primary radar had recently been upgraded to a "weather free" version. Once ATC had identified the aircraft, a direct track was obtained from the present position to a 10-mile final where they would be visual – and there was no mention of anything about getting only "radar advisory" service until they entered controlled airspace about 15 miles north of their destination.

They were abeam of the danger areas when, all of a sudden, a flare appeared ahead and slightly to right of track. As they were considering this development, another similar flare appeared, this time a lot closer. APP radar was advised and suggested that a left turn of about 40 degrees would take the aircraft clear of the firing range, which was the reason the danger area cluster existed.

And that was it, until they were taxiing in after landing, at which point ATC sent a message asking the crew to come and see them after shutdown…

Of course, the "peripheral" danger areas had been notified active for that morning – apparently the range was hosting a visiting team of ground-to-air missile specialists for an important demonstration, and the incursion had resulted in this being suspended for a critical 25 minutes. The landline between the APP radar unit and the range had been temporarily down, with no fallback comms procedure. And neither the ATCOs on shift at APP radar nor the flight crew had read the NOTAM about the exceptional activation of the whole range area…

Both the radar controller and the captain were "counselled" by their respective employers as to their lack of professionalism. The civil and military ATC unit managers agreed a comms back-up to cover landline outage. And the operator decided that a specific caution box would be inserted on the pilot navigation log sheets for the route, that a review of all scheduled operations involving routing through class G airspace would be subjected to a further operational risk assessment, and that a new general brief would be produced to remind flight crews of the various additional considerations relevant to flight outside controlled airspace. They also decided to enhance flight crew recurrency training on the role of the monitoring pilot, since it seemed that, in this case, there had been little evidence of its contribution to incident prevention.

My only thought on hearing the story and its consequences was that we still seem to rely on incidents to produce solutions, when an effective and proactive safety management system should easily have been able to stop incidents such as this from occurring, when so many of the preventive measures were found with hindsight to have been absent. Our "layered approach" to managing the risks of airspace infringement does not easily accommodate the absence of a series of the obvious defences against it.