What have we missed?

By Anthony Seychell

"Er ... ABZ Approach, there seems to be traffic at our 4 o' clock, about 1000 feet below. It's a small plane and it doesn't show on our TCAS!"

Here we go again, another GA aircraft without a transponder and a pilot who has lost his way and ended up inside the TMA. These infringements seem to have increased lately and it is not yet summer. Imagine how it is going to be as the weather gets better. I was lucky because I did not have any loss of separation as a result of the infringement, but a couple of my colleagues were not so fortunate. Anyway, I still need to write an occurrence report about it. What is causing these infringements all of a sudden? What has changed? Had something been missed?

Airspace infringement is regrettably a common occurrence and its causes are various. Often there is little an ATCO can do about it, particularly if the aircraft is not a cooperative target and only secondary radar is available. However, it is important to report such occurrences, because they contribute significantly to trend analysis and the identification of root causes. Of course, finding the root cause is only part of the process, because the next step is to come up with a corrective action plan.

Time and time again, it is noticed that the root cause is something common and the corrective action quite simple, and that it had been implemented before, likewise again and again. If the same cause is being repeated and the same corrective action taken, then why is it happening again? Is something being missed? Regrettably the answer is often YES.

One of the most effective tools in the prevention of recurrences is lesson dissemination. Human memory is short and organisational memory even shorter. It is not often that the same occurrence happens in the same sector/unit/airspace (luckily), but this, on the other hand, contributes to the organisational loss of memory. This makes lesson dissemination even more important. ATC/ATM is not just the ATCO sitting at the CWP but a series of interlinked units which

ensure safe flight from point A to point B to point Z.

One of my 'old' instructors was fond of saying that 'coordination is the name of the game'. He was of course referring to coordination between sectors and units regarding traffic, but his saying could easily be interpreted as a need for lesson dissemination. Much of such 'coordination' takes place in conversations in the restrooms or while on break, but this is not enough. They do say that word of mouth is the best form of marketing, but an SMS is by definition a systematic, explicit and comprehensive process for managing safety risks. Consequently, lesson dissemination cannot be left to just word of mouth.

Often, lesson dissemination is the 'Cinderella' of SMS processes. Frequently, great attention is paid to safety assessments and investigations, and it is forgotten that these processes/procedures identify hazards and possible mitigations not only arising out of 'changes' but also already present in the system. Lesson dissemination is also a very cost-effective means of mitigation. Though details might need to be different between sectors/units/airspace to take into account their specific environment, the generic lesson is often applicable everywhere. After all, distributing a lesson between sectors/units/airspace is much cheaper than performing an occurrence investigation and even less damaging to all concerned. When it comes to safety assessments, it can save lots of effort as it cuts duplication.

Lesson dissemination can take various forms. The humble newsletter/safety bulletin, which nowadays can be electronic, is just one of them. Refresher training needs to include lessons learnt. Other forms of lesson dissemination could be on-line fora or even dedicated workshops/seminars. Someone might consider the latter to be expensive and disruptive, but if you think that safety is expensive, try an accident. Luckily accidents are rare but occurrences more common, and they DO still have a financial, human and emotional cost.

So in this case, what had we missed which was leading to all the infringements? It took quite some time to find the answer and it was so simple that it was almost unbelievable. In the vicinity there was an NDB. It was now considered obsolete; after all, many modern airliners do not need en route ground-based navaids at all, and none need something as ancient as an NDB. It was simply switched off as there was no further need for it. However, everyone forgot that the TMA was not used solely by modern airliners. There were the modest GA aircraft, which used this NDB to stay away from controlled airspace, but they now no longer had a reference point for the TMA boundary.

There are also lessons missed – not conducting a proper safety assessment, not including ALL stakeholders in the process, not reviewing past occurrences – but that is another story.

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