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AUSTRALIAN PLOTS, BRITISH BLUNDERS AND AMERICAN TRAILBLAZING:

but would you deny boarding in the absence of evidence?

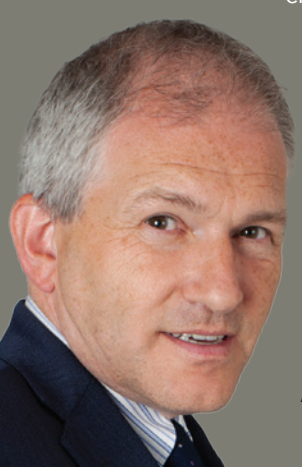
by Philip Baum

In these northern hemisphere summer months, aviation security-related incidents and issues seem to be a constant fixture in the news headlines. The debacle over the restrictions on laptops and other personal electronic devices (PEDs); a terrorist plot against an airliner departing Australia; the trial surrounding the alleged intended detonation of a pipe bomb on board a Ryanair flight to Italy in January; the astonishing revelation that the same pipe bomb, once confiscated, was kept in a Manchester Airport security manager's pocket for three days in the mistaken belief that it was not a viable IED; and, the incessant incidents of drunken individuals, rowdy stag parties, brazen girls on hen dos, sexual deviants and loud, selfish or egotistical passengers' behaviour, which constantly tax the patience of aircrew and fellow travellers alike.

Yet, despite it all, there is good news. On 3 August 2017, Amendment 15 to Annex 17 (to the Chicago Convention) came into force, and with it the recommendation that behavioural analysis become part of the screening process. And, better still, I'm delighted that the latest proposals to enhance security on flights to the United States do at least make sense, unlike the originally proposed blanket restrictions on PEDs. This autumn (or should I say 'fall'?), all carriers operating flights to the US will be required to instigate procedures that could actually result in the identification of an individual with negative intent without unnecessarily inconveniencing passengers by depriving them of PEDs inflight.

So often in the past, I feel, I have been critical of the American administration and have argued that, despite the public image of their being innovators, their procedures have actually inhibited the detection of individuals wishing to hijack or sabotage commercial flights. The latest measures – which, for obvious reasons, I cannot expound upon here – might actually make a difference and the rest of the world would do well to follow their example. There are imperfections and loopholes to be addressed, but the United States is now truly leading the way and, in turn, embracing the essence of the latest amendment to Annex 17.

It is often argued that we should have harmonised security procedures and that states should avoid taking extraterritorial measures not in keeping with global standards. Yet if such measures raise the baseline they are to be encouraged. We must remember that Annex 17 only stipulates the minimum standards which should be attained; all regulators should be aiming to exceed them.



The news of the detection of a terrorist plot against an Etihad flight departing Sydney on 15 July was received with mixed emotions. On one hand, hats off to the Australian security services, and their international partners, for identifying the plot; on the other hand, it seems that the intel was received after the attack was attempted and that lady luck, or poor planning, resulted in the suitcase containing the meat mincer device not being accepted for check-in as it was too heavy. The plot serves as a reminder that not only is the terrorist threat alive and well in Australia, but that the types of weapons, explosives, devices and substances that the terrorist community might use are continually evolving. It would seem that phase two of the plot involved the use of a chemical dispersal device, using hydrogen sulphide, against another target.

> "…the United States is now truly leading the way and, in turn, embracing the essence of the latest amendment to Annex 17…"

This is hardly surprising as we know that there has long been a desire to use chemical or biological agents. This would not be a 2017 innovation; after all, it has been more than twenty years since Sarin was used in an attack on the Tokyo subway, let alone the post-9/11 anthrax attacks in the US and their frequent use in the Middle East. Aircrew, as I have pointed out in this column many times, have long been required, under Annex 6 to the Chicago Convention, to be able to manage such an incident inflight. There has, however, been no drive towards preventing such substances being taken on board in the first place. Most airport screeners are not even taught the rudimentary characteristics of CB materials and devices. It would seem that we are, as ever, waiting for an incident to take place before implementing protocols to counter future attacks.

Had the attack against the Etihad flight been successful, we may well already have been witnessing the roll out of additional screening measures. Yet, bizarrely, we are almost hampered by the plot's failure. News of the plot will quickly dissipate from the headlines and will be forgotten by the general public. Likewise with the second plot, whatever its intended target. However, we within the industry cannot forget and should take the necessary steps to counter the CB threat to aviation now before it is, one day, realised.

For now, until next generation CB-detection technologies are commissioned and deployed, behavioural analysis is probably the best way to do this. Refreshingly, either due to reluctant acceptance of the nature of the threat or due to enforcement by specific regulators, many airlines and airports are educating their staff in the necessary techniques.

The Ryanair 'pipe bomb' incident, however, illustrates one of the challenges associated with threat detection and resolution. Identifying unusual behaviour or prohibited or restricted items is the easy part of the equation; knowing what to do thereafter is far more taxing.

From what we know, an item resembling a pipe bomb was found in the luggage of a passenger, Nadeem Muhammad, boarding a Ryanair flight to Bergamo, Italy on 30 January this year. The item was screened by both X-ray and explosive trace detection (ETD) technologies; there was no alarm. The

passenger was released and the suspicious item was then put in the pocket of the security manager for safe keeping! On 5 February, the passenger boarded another flight to Italy and, whilst he was there, further concerns were raised around the original 'find' resulting in the item being re-inspected. It was at that stage that the pipe bomb was found to be a viable IED, albeit a fairly crude one using smokeless powder and nitroglycerin as a main charge.

The positive news is that the device was identified and never made it on board. Yet the fact that the passenger was released after he was found to have an item that did at least look like a pipe bomb in his bag, and the, quite frankly, shocking revelation that, having found the device, Manchester Airport and the local police were unable to determine that it was actually a viable device, and the security duty manager felt that it was safe enough to simply carry around on her person for three days, illustrates their complete faith in X-ray and ETD as threat-resolution processes.

And that's where behavioural analysis might fail. If the response to concerns expressed by security officers is to simply rely on technology to make the final decision, we are back to square one. There are many explosive types that cannot be detected by ETD; there are ways of shielding explosives that are normally detectable from identification by X-ray technology; the advanced imaging technologies currently deployed have limited penetration capabilities for screening people (illustrated by drug traffickers boarding commercial flights every day); reliance on centralised screening fails to address the insider threat (as illustrated by the incident in Mogadishu last year, and in Sharm el-Sheikh the year before); weapons, and even more hazardous substances and devices, can be manufactured airside at airports; we are not even screening for chemical or biological agents; and then of course, there's the pressure that the checkpoints themselves are put under – judged by throughput rate, rather than security outcome.

For behavioural analysis to have the chance of succeeding, we need not only to train staff how to do it, but also our supervisors and managers how to respond when concerns are expressed. Finding nothing, or finding nothing that alarms, at the checkpoint does not mean a passenger is safe to board. The ultimate decision whether to accept a passenger is often put in the hands of the airline's gate supervisor or the aircraft's captain. If they are to make an educated decision, they too need to understand the limitations of the checkpoint operation. Yet how many times have you heard somebody say, "But it was screened", or "Did they find anything on him/her?" In other words, behavioural analysis is, like the evermore capable screening technologies, simply a layer of the security system. Alone, it may identify some people with negative intent. Its true value in preventing the next terrorist atrocity is realised when the managers and regulators, to whom concerns are reported, respect the concerns expressed and are prepared, alarm or no alarm, to say, "Denied boarding."

Until that day, we shall have to rely on the security services to interrupt the next terrorist plot. They did a pretty good job of that in Australia in recent weeks, and their counterparts around the world have also had some major success stories worthy of our respect. But what if they don't detect it beforehand? What if the terrorist is at the airport ready to attack? ■