BEGINNING TO GET THE BENEFIT FROM JUST CULTURE BUT STILL SOME WAY TO GO….

by Ian Weston

In June 1972, a Hawker Siddeley Trident aircraft, crashed very shortly after take-off from London's Heathrow airport. Whilst the accident killed nobody on the ground, all 118 occupants were fatally injured and the aircraft was destroyed. A subsequent Public Enquiry (a procedure established in English law and rarely used for air accidents) found that the crash occurred after the aircraft had entered a "deep stall" from which recovery was impossible following an inappropriate crew response to a crew-initiated change of wing configuration During the Enquiry it became apparent that previous, similar incidents had occurred to the Trident fleet but that they had either not been previously reported or, where they had, they had not been appropriately acted upon. The Enquiry made a number of recommendations, one of which was that cockpit voice recorders be required on all British registered, passenger carrying aircraft with a maximum operating weight of more than 27000kg.

The Enquiry also raised awareness that, had lessons been learned from the previous, similar incidents, the accident could have been avoided. The newly established UK Civil Aviation Authority realised that, as the responsible safety regulator, they had no automatic awareness of safety occurrences unless they were deemed serious enough to warrant an independent investigation in accordance with ICAO Annex 13 or were reported as a mid-air collision risk. It was therefore decided that there should be a requirement for all specified safety events involving UK CAA licence holders to be reported to the Authority by the individuals and operators involved. The Mandatory Occurrence Reporting (MOR) Scheme (ii) was launched in 1976 to collect, collate, edit and disseminate those reports. An assurance was given that the prime aim of the Scheme was the advancement of flight safety and that, except in cases of gross negligence, the CAA would not institute proceedings in respect of unpremeditated or inadvertent breaches of the law that had come to its attention only because they had been reported under the Scheme. The CAA also made it clear to employers that, except in cases where action was needed in order to maintain flight safety, or in circumstances that could be considered to exhibit gross negligence, they would expect employers to refrain from disciplinary or punitive action which might inhibit reporting. The MOR Scheme has been refined and reinforced over the years and now incorporates the requirements of the EU Directive 2003/42/EC on occurrence reporting in civil aviation. The success of the Scheme can be gauged by the fact that the occurrence database now holds details of over 250,000 incidents and updates are regularly passed to the ECCAIRS project. The CAA continues to stand by its original assurances, now reinforced by statute, relating to unpremeditated or inadvertent breaches of the law. (iii)

The concept of what is now referred to as "Just Culture," which the MOR Scheme embraces does, however, cause problems. EUROCONTROL's definition of Just Culture (iv) is widely accepted across the aviation spectrum but in the UK, for example, those who breach any civil aviation safety regulations can be prosecuted under the criminal law. Whilst most of the civil aviation community can see that to remove the threat of prosecution for "honest errors" will lead to a more open and frank reporting culture to the benefit of flight safety, others believe and, in some cases demand, that aviation professionals are not subject to criminal sanction under any circumstances. Those outside the industry, especially if they have either been bereaved or injured as a result of an aircraft accident, may take a different view. Certainly, the civil aviation community cannot consider itself to be above the law and, therefore, a careful and considered approach needs to be adopted to allow Just Culture to

play its part. Nevertheless, even once established, care needs to be constantly applied as it only takes one event for trust that has been built up over the years to be undermined.

In England and Wales, criminal prosecutions are only taken after reference to the Code for Crown Prosecutors. This document gives guidance and advice to prosecutors as to where a prosecution may or may not, be appropriate. Even where it is clear that the law has been broken, English prosecutors have a degree of discretion as it has never been the case that sufficient evidence alone has been sufficient grounds for suspected criminal offences to be the subject of prosecution. This discretion is not necessarily available to other jurisdictions.

The benefits of a Just Culture would seem to be common sense to an industry such as civil aviation that has an enviable safety record. Nevertheless, not only are there some disbelievers in our industry but there is a greater reluctance to accept the concept in the wider world. In order to gain a wider acceptance, evidence of the benefits is needed so that it can be presented to those yet to be convinced especially those in regulatory and judicial positions of power. Despite the amount of safety data collected, such evidence is not necessarily easy to find but two serious incidents that occurred in the UK in the 1990s can be used as an example.

In June 1990, a British Airways BAC One Eleven aircraft suffered an explosive decompression whilst climbing through 17,000ft outbound from Birmingham UK when a flight deck wind screen failed.(v) Although the aircraft remained controllable, the commander was sucked out of his seat and became wedged half inside and half outside the aircraft where he remained until the aircraft landed some 22 minutes later. Demonstrating very considerable skill, the co-pilot made an emergency descent and diverted to an aerodrome on the south coast of England. The accident investigation conducted by the UK Air Accidents Investigation Branch (AAIB) focused primarily on the airworthiness cause of the event, it also noted that there had been shortcomings in the area control service that was provided to the flight following the decompression and subsequent declaration of a “Mayday.” The controller who had initially been providing that service had not given the co-pilot the help and assistance that would have been appropriate. During the subsequent interview of the controller he accepted that he had been overwhelmed by the event and had felt unable to cope. This interview was given in the knowledge that the UK operated a Just Culture policy and the controller was able to provide a full and frank description of his thought processes and actions without fear of prosecution or punitive action. That a previously well thought of aviation professional could fall victim to serious failings during an emergency situation gave rise to serious concerns. The investigation found that for various reasons, the ATC training package approved by the CAA as Safety Regulator had not prepared the controller to deal with emergency situations and that this weakness had not been highlighted during his subsequent service. Therefore, one of the eight safety recommendations made by the investigation called for controller training in both the theoretical and practical handling of emergency situations during initial training and for it to be subsequently enhanced by regular continuation and refresher exercises. The recommendation was accepted by the Regulator and the ANSP and appropriate training packages were introduced. The controller received remedial training to address his shortcomings, returned to operational duty and went on to a long and successful career.

The second incident occurred in February 1995 to a British Midland Airways Boeing B737 climbing out of East Midlands airport en route to the Mediterranean.(vi) In this case the aircraft received indications of rapid loss of engine oil contents on both engines followed

quickly by indications of low oil pressure on both engines. When the commander initially requested an immediate return to his departure airfield, the controller, a trainee on the sector, granted the clearance as requested but pointed out that another suitable airfield was considerably closer. This was accepted by the commander and the flight then was given all necessary clearances, assistance and information and a safe landing was made nine minutes later. The controller's mentor chose not to intervene and reported later that "he was doing as good a job as I could have done." Once the aircraft was on the ground it was found that engineering work on the aircraft the previous evening had required the removal of the borescope plugs on both engines which had then not been replaced allowing almost all of the engine oil to escape. The AAIB Investigation Report noted that "ATC on all frequencies but particularly the initial London frequency had provided all the assistance that (the aircraft) required but with no extraneous distractions" Following the incident the aircraft commander praised the ATC service that he had received and said that it had played no small part in the successful outcome. The controller subsequently reported that he had received the continuation training that had been introduced as a result of the BAC One Eleven event only a few days before and that it had been of exceptional use to him during the incident. It could be argued, therefore, that the successful outcome of this potential disaster and the saving of well over 100 lives can be attributed to a great extent to the application of the principles of Just Culture.

References :

(i) Accident to Trident 1, G-ARPI. Report of the Public Enquiry into the causes and circumstances of the accident near Staines 18 June 1972. www.aaib.gov.uk

(ii) CAP 382 The Mandatory Occurrence Reporting Scheme, Instructions and Guidance. www.caa.co.uk/CAP382

(iii) CAP 393 Article 226 The Order and Regulations 2009 www.caa.co.uk/CAP393

(iv) EUROCONTROL definition of Just Culture : "A culture in which front line operators are not punished for actions taken by them that are commensurate with their experience and training, but where gross negligence, wilful violations and destructive acts are not tolerated."

(v) Report No 1/1992 Report on the accident to BAC One Eleven, G-BJRT, over Didcot, Oxfordshire, 10 June 1990. www.aaib.gov.uk

(vi) Report No 3/1996 Report on the incident to Boeing B737-400, G-OBMM, near Daventry, 23 February 1995. www.aaib.gov.uk