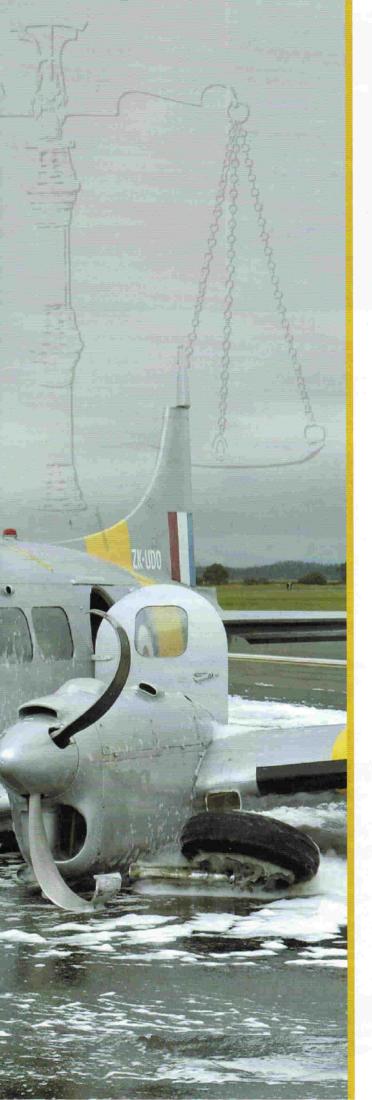


Safety is the number one priority for all good pilots, right? So what happens when the supposed quest for safety impinges on a pilot's normally accepted rights and privileges? **Leigh Neil** reports on a recent court case in Hamilton that highlights some potentially serious issues with New Zealand's aviation safety investigation structure and its application.

Photography by the NVZAP





Before I get into a difficult, dry and possibly tedious dissection of relevant ICAO standards and recommendations, I invite you to consider the accident that is the background to this article. If you are a pilot, please try to imagine yourself in the position of the pilot in command of this particular flight.

In February 2006, a Warbirds Devon aircraft departed Hamilton on a VFR flight to Wellington. The pilot was in possession of the appropriate weather forecasts and reports, indicating that the flight was able to be conducted safely in the anticipated timeframe. However, the weather en-route deteriorated more rapidly than forecast and the pilot elected to divert to Ohakea in the interests of flight safety. After obtaining the correct clearances into the Ohakea TMA and control zone, the experienced Warbirds display pilot commenced his approach. When on short finals, at about 100 ft agl, the aircraft yawed and rolled uncontrollably to the right and crashed.

Now, just in case you are jumping to the conclusion that our intrepid pilot stalled on approach, remember that he is an experienced display pilot, and radar plots showed his approach speed to be too great to have caused a stall. The aircraft's flight manual also makes it clear that the Devon's stall characteristics are docile.

Thankfully, no crew or passengers were injured in the crash, and during the ensuing accident investigation, the conscientious pilot gave full and frank statements, providing the New Zealand Civil Aviation Authority (CAA) investigators with all information at his disposal, obviously in the interests of enabling a thorough safety analysis of the crash (as would we all, I'm sure).

After carrying out their investigation, the CAA elected to prosecute the pilot, charging him with "Unnecessary Endangerment", apparently on the basis that he had pushed ordinary VFR weather limitations and height limits, and then flown the aircraft poorly, to the point of stalling and crashing. Not being party to every shred of evidence, it is **not the intent of this article to argue the validity of the charge**. Indeed, it is the court's duty to establish its validity and it can be reasonably argued that the CAA is correct in laying charges if it appears, after a comprehensive and thorough investigation, that there may be a case to answer. What is of concern are the questions of what evidence the CAA used to establish the alleged offence, how that evidence was obtained, what defines a comprehensive and thorough investigation, and, at an organisational level, how the CAA came to be carrying out both investigation and prosecution in the first place.

By the way, for those of you that are easily bored and don't want to read the full article, the pilot was acquitted after a jury trial.

It was relevant to the pilot's defence that the prosecution confirmed in court that the crash was a relevant factor in their case and that they were not simply prosecuting the pilot for pushing beyond weather limitations. The defence appointed Andrew McGregor, a forensic engineer who was assisted by LAME Paul Waterhouse and who contended that the Devons' left-hand flap actuator had failed in flight. This would explain the sudden and uncontrolled yaw/roll to the right in an aircraft known to have docile stall characteristics. Obviously, once this had been presented to the jury, the prosecution's case was unlikely to succeed. What is of major concern is that this finding was only made by the defence after it appeared that the CAA investigation had been somewhat superficial.

Produced in evidence against the pilot were his own statements, made to investigators for the purposes of the accident investigation.

Left: The crashed Devon—ZK-UDO— sitting in a pool of foam on Ohakea's runway.



Left: An aerial view looking east showing the relative position of the Devon on Rwy 27/09.

This brings up the biggest issue of crucial importance that has been raised by this case: can there be any assurance that statements given in good faith for the purpose of accident investigation will not be utilised in subsequent criminal or disciplinary procedures?

The extremely worrying conclusion that must be drawn is: No, there can be no such assurance.

Most of us are under the impression that statements made for accident investigation purposes are privileged, and will not be used against us in criminal or disciplinary proceedings. This belief is based on the provisions of Annex 13 to the Convention on International Civil Aviation, which states:

OBJECTIVE OF THE INVESTIGATION

3.1 The sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents. It is not the purpose of this activity to apportion blame or liability.

It later clarifies this with the following:

5.4.1 **Recommendation.**— Any judicial or administrative proceedings to apportion blame or liability should be separate from any investigation conducted under the provisions of this Annex.

It is abundantly clear that the investigative and disciplinary functions should be entirely separate, and Annex 13 includes the following standard that not only prevents disclosure of most information gathered from the investigation, but also goes on to explain exactly why that prohibition is vitally necessary to flight safety.

Non-disclosure of records

5.12 The State conducting the investigation of an accident or incident shall not make the following records available for purposes other than accident or incident investigation, unless the appropriate authority for the administration of justice in that State determines that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigations:

 a) all statements taken from persons by the investigation authorities in the course of their investigation;

- b) all communications between persons having been involved in the operation of the aircraft;
- medical or private information regarding persons involved in the accident or incident;
- d) cockpit voice recordings and transcripts from such recordings; and
- e) opinions expressed in the analysis of information, including flight recorder information.

5.12.1 These records shall be included in the final report or its appendices only when pertinent to the analysis of the accident or incident. Parts of the records not relevant to the analysis shall not be disclosed.

Note.— Information contained in the records listed above, which includes information given voluntarily by persons interviewed during the investigation of an accident or incident, could be utilized inappropriately for subsequent disciplinary, civil, administrative and criminal proceedings. If such information is distributed, it may, in the future, no longer be openly disclosed to investigators. Lack of access to such information would impede the investigation process and seriously affect flight safety.

New Zealand's Civil Aviation Rule Part 12.63 provides:

- the Authority shall not use or make available for the purpose of prosecution, investigation or for prosecution action any information submitted to it by a person unless the following criteria are met:
- (1) the information reveals an act or omission that caused unnecessary danger to any other person or to any property; or(2) false information is submitted; or
- (3) the Authority is obliged to release the information pursuant to a statutory requirement or by order of a Court.

It can be seen above that the ICAO standard permits disclosure of that information, but only where it is deemed of such vital importance that the substantial and acknowledged negative impact on flight safety is outweighed by the benefits of disclosure. The New Zealand Rule appears to be much less demanding in its criteria for release of information and therefore

is potentially at odds with the **intent** of Annex 13. Notwithstanding CAA's Rule, in order to claim compliance with Annex 13, therefore, CAA must have the genuine belief that the Devon pilot's transgression was so serious, so terrible, so injurious to the public good that his prosecution justified jeopardising all future accident investigations in this country.

Pacific Wings magazine understands that, in a letter to Irene King of the Aviation Industry Association, the Director of Civil Aviation, Steve Douglas, took issue with several points made in the Aviation Industry Association's press release. When requested by this magazine, Mr Douglas re-iterated those concerns, including stressing strongly that the court did not determine the cause of the crash, as that was not the court's job. This can be seen as being deliberately obtuse when it is remembered that the prosecution confirmed that the crash was a relevant factor in their case and the determination of the flap failure was undeniably crucial in casting substantial doubt on the pilot's guilt.

It may not have been the duty of the court to establish the cause of the crash, but evidence as to the actual cause of the crash played a major role in allowing the court to find on the matter that was before it, i.e. whether the pilot was guilty of unnecessary endangerment.

Mr Douglas also justifies the disclosure of information as being appropriate and consistent with the ICAO "principles of exception". This statement should raise a very large, very bright red flag to all aviation personnel because, if it is true, every accident in New Zealand that may result in avoidable danger to life or property (in CAA's opinion) will justify full disclosure. ICAO Annex 13's protection will, therefore, have virtually no effect whatsoever. Accordingly, no pilot could ever reasonably be expected to provide safety information to investigators in future. This is an intolerable situation that undermines flight safety in New Zealand to an unacceptable and unnecessary degree.

Disclosure of information gathered during accident investigation opens one more can of worms. At what point is the provider of that information notified of his rights under the New Zealand Bill of Rights Act? It is unreasonable to expect that the pilot is to be treated with less consideration or given fewer rights than the criminal who is arrested red-handed at the scene of a crime. Who is to advise him or her of those rights? I somehow doubt that any pilot will be particularly forthcoming in an accident situation if the first thing investigators tell him is that he has the right to refrain from making any statement, any statement he makes may be used in court and that he has the right to have a lawyer present. Mr Douglas fails to address this issue, commenting only that the AIA's claim that CAA breached both the ICAO "no blame" process and the criminal investigation process merely indicated the AIA's "poor understanding of the principles that govern the operation of the civil aviation system". It is the view of this

It can be seen from the foregoing paragraphs that the prosecution of this pilot, therefore, seems to breach two extremely important processes. Firstly, the **intent** of ICAO Annex 13, with the concomitant degradation of future flight safety, and secondly, the application of the criminal investigation process, including Bill of Rights protection, supposedly able to be taken for granted by all New Zealanders.

magazine that the AIA press release indicates a thorough understanding of the principles promoted under ICAO Annex 13 and the principles of

fairness that are an integral part of the criminal justice system.

In relation to the separation of the judicial and investigative proceedings, ICAO established in a recent audit of the New Zealand structure that our system did not comply with that recommendation. At that time, those functions were carried out by two separate branches within CAA, with a bureaucratic "brick wall" to bolster

their separation, and the audit determined that insufficient separation existed to meet the intent of Annex 13.

Subsequent to that audit, CAA have not strengthened the barriers between the two branches but have actually merged them into one unit. It appears now that only when an accident is investigated by the totally independent Transport Accident Investigation Commission (TAIC) can compliance with that part of the Annex be ensured. Unfortunately, Mr Douglas failed to address how this issue is seen by the department or how it can be addressed.

It is also interesting that the Coroner's Report into the Air Adventures multiple-fatality crash contained the following recommendation.

"That consideration be given to the feasibility and desirability of establishing an independent confidential air safety incident reporting system in New Zealand taking account of previous difficulties with the system known as Icarus, and/or an office of aviation ombudsman."

While targeting a slightly different scenario, this recommendation reflects the coroner's recognition of the importance of having a robust, independent and confidential system in place to gather data on aviation incidents in the interests of enhancing flight safety.

The major remaining issue highlighted by this case is that of the degree of robustness of a comprehensive investigation for accident analysis and prevention purposes, compared to the preparation of a case for presentation in court. Most people would believe that, by taking an incident to court, the most complete and thorough determination of fact would be made. Unfortunately, those people do not understand that our judicial system is an adversarial one, whereby only those matters that are specifically at issue

or relevant to the charge are considered. This only increases the relevance of a thorough **safety** investigation and highlights its importance ahead of the need to prosecute.

To illustrate this, consider the Devon. It can be seen that the flap failure was a vital factor in the case; however, even the defence forensic engineer was not required to carry out a complete investigation. Once he established the flap actuator had failed in flight, his job for the defence was done; the pilot was a victim of catastrophic mechanical failure, the

court case can be resolved and the judicial system is satisfied. But why did the actuator fail? A comprehensive accident investigation would have made every attempt to determine that, as its purpose is to find all available facts in an attempt to improve flight safety.

No doubt, both the CAA and Andrew McGregor would prefer to be carrying out professional, thorough work that enhances flight safety. How can the New Zealand system be improved to enable that ideal to be achieved? Certainly not by creating tension and enmity between our regulatory bodies and the aviation industry. As is invariably the case, the answer starts with an open and inclusive relationship between all interested parties. I am uncomfortable when the first reaction of the director of a governmental agency appears to be justification, rather than the seeking of a forum to discuss and, hopefully, resolve issues of concern.

We are very fortunate in New Zealand that corruption is almost non-existent in our regulatory bodies, while their staff members are predominantly highly skilled, ethical and hard-working. However, as long as pilots have little trust in the system, that lack of trust will reflect on their dealings with governmental agencies and personnel.

I believe that the most important step necessary in the aviation industry's quest for improved safety is to recognise the drawbacks in the existing structure and then work co-operatively to rectify what seem to be glaring deficiencies. I'm hoping but I'm not holding my breath!