



# Précis Paper

## Aviation Law

David Chitty's experience in aviation as a lawyer and concerned with governance and also with experience as a pilot has lead us into a very interesting discussion which includes the mystery of the Malaysian airline loss. An excellent session.

### Discussion Includes

- Inherent and additional flight hazards
- Safeguards in place to mitigate hazards
- The Civil Aviation Safety Authority
- Conflict Zones & Flights over conflict zones
- Approved Safety Management Systems
- Dutch Safety Board Investigation Final Report

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## Aviation Law

1. In this edition of BenchTV, David Chitty (Barrister) and Ian Benson (Solicitor) discuss the various issues that arise in aviation law including the MH17 and MH370 disasters. Before coming to the Bar in August 2014, Mr Chitty worked at Qantas for 18 years as a simulator instructor on Boeing 767s and then moved into the compliance and regulatory field, as head of compliance and industry relations, which involved maintaining the Qantas air operators certificate, safety management systems within in-flight operations and an elected role for policy and safety developments within the International Air Transport Association for Asia.

### Aviation Risks

2. There are certain inherent hazards in relation to aviation. It should be considered that when you fly internationally you are flying in a composite-type machine between 35,000-41,000 feet in the air at a speed of 1,000 km/hour over the ground, with other aircraft in the vicinity all around you. At any given moment over a 24-hour period, there are in excess of 3 million people flying around the world. Up until 1997-98, there used to be 2,000 feet separation between aircrafts, but that has been reduced to 1,000 feet separation as a result of the increasing demand for air travel and need for more available space in the sky. There are hazards of altitude, temperature (-50 degrees Celsius outside), speed, and excess fuel (which Mr Chitty likens to a bomb).
3. However, all of those inherent hazards are made incredibly safe by safety management systems that are approved by the regulator in each national state. Those regulations are harmonised with the requirements from the *Convention on International Civil Aviation 1994* (the Chicago Convention) which provides a means of safe international air travel for civilian aircraft, standardised across the globe and administered by the International Civil Aviation Organisation (ICAO).
4. There are a number of annexes to the Chicago Convention, from 1-19. The most recent, Annex 19, is for Safety Management Systems. The Chicago Convention requires each individual signatory state, whether it is Australia, Malaysia or the United States, to embed or embody the Annex requirements into their domestic legislation for their operators to be compliant to.
5. In Australia, civil aviation orders are provided for under the *Civil Aviation Act 1988* (Cth). Civil Aviation Order 82.5 provides that every high capacity regular public transport operator will have a safety management system (including hazard identification and risk assessment) approved by the Civil Aviation Safety Authority. Thus, while some of the risks of aviation are

embedded in the activity itself, they get mitigated to a level as low as possible by the safety management system.

6. However, additional hazards arise in many different forms including conflict zones (such as the demilitarised zone between North and South Korea), cosmic radiation from the sun (more significant at the polar regions of the globe), fallout from the Fukushima Nuclear Disaster (as the nuclear cloud reached 32,000 feet) and satellites returning to earth or 'space garbage'. If an airline had to risk assess every inherent hazard that exists in their day to day activity, there would be no industry and no one would be able to afford to fly. However, sometimes events occur which require additional measures to be taken. Airlines are expected to identify hazards and proactively risk assess those hazards to a certain level depending on the risk choice of the airline.

#### Case of MH17

7. Malaysian Airlines flight MH17 was a regular flight from Holland to Kuala Lumpur in Malaysia. There was known fighting between separatists in Ukraine and the Ukrainian Government and the aircraft was shot down from an altitude of 32,000 feet on the 17<sup>th</sup> of July 2014. The airline was flying along a published airway, but the Ukrainian government had closed the airspace in the vicinity up to 31,000 feet due to the conflict. This raises a question regarding hazard identification and risk assessment, that is what were the crew expected to do if the aircraft had had an engine failure or had depressurised. Both of those equipment malfunctions would require the aircraft to descend to either 10,000 or 25,000-27,000 feet. A missile from a Russian surface-to-air missile system was fired, with altitude capabilities of 70,000-80,000 feet, and the aircraft was destroyed. There is an ongoing criminal investigation into who was responsible for launching the missile.
8. The key question is what the aircraft was doing where it was. Eight aircraft operators were reported to have avoided the airway in the subsequent investigation. In the preceding weeks to the loss of MH17, there were 15 military aircrafts shot down in the same area, one of them at 26,000 feet by a surface-to-air missile. The hazard was thus known and the pre-eminent aviation authority, The Federal Aviation Administration (USA), had even closed the airspace to all of its operators in the weeks leading up to the loss of MH17. Mr Chitty believes it is incumbent on an international airline to assess hazards, whether through a security department or key operational people who then have a forum or structure to raise concerns, assess risks, and make decisions to mitigate concerns such as re-routing, delaying, or cancelling flights.
9. In the case of MH17, it is public knowledge that Malaysian Airlines did not identify the hazard or conduct an adequate risk assessment of flying through a known conflict zone. The Dutch investigation report concluded that Malaysian Airlines had not undertaken an additional risk

assessment on the known conflict in Ukraine and Mr Chitty believes the fair-paying passengers certainly deserved better.

#### Future Preventative Action

10. A further question is what did the international aviation bodies do to try to try and prevent such a catastrophe occurring in the future. ICAO have developed a single conflict zone repository where states can inform the globe as to its position on various conflict zones around the world. This database is readily accessible on the ICAO website and can be entered after accepting a disclaimer which recognises that even though ICAO has provided a database the states and operators are obliged to look for other information and the responsibility rests with them, not ICAO.
11. For example, in regards to the airspace over ISIS territory in Iraq, the repository displays Notices to Airmen (NOTAM) from a number of states including the UK, USA and France saying that they either recommend operators exercise extreme caution due to risk of surface-to-air missile attack or complete avoidance and a closing of the airspace. For Australian travellers that travel to Europe, there are at least four flights a day that fly through that area, but the Australian Civil Aviation Safety Authority has not made a contribution to the conflict zone repository.

#### Case of MH370

12. MH370 was a Boeing 777, a modern generation airliner, which departed Kuala Lumpur for Beijing in China but disappeared on the 8<sup>th</sup> of March 2014. Mr Chitty believes that the last voice transmission of "Good night" from the pilot was perfectly normal and customary when changing to a new air traffic control region. Mr Chitty also believes, from his experience through flight training, that there are technical reasons for why the aircraft turned 180 degrees off its route and the transponder (a secondary surveillance radar system) was turned off. Firstly, pilots are taught to fly the airplane, then navigate it and to communicate last. Secondly, if an aircraft wants to descend, it would not want to do that in the airway as there are aircraft above and below it travelling both ways, thus it would want to turn off the airway (which could explain the 180 degree turn). Thirdly, it is possible that a battery or cargo fire was of such high intensity that it required them to immediately act. Convention would normally dictate that if the pilot was flying the aircraft it would be turned to the left (which was the case with MH370). Fourthly, regarding the transponder, it is not necessary in modern aircraft to turn the transponder off in order to enter a code. But in old aircraft, the transponder needed to be turned on standby to enter a code. Mr Chitty does not believe it is beyond the realms of fantasy that a human being would revert to the first thing they were taught when facing a stressful situation such as a major fire. However, if the fire was so great that it would

enable a person in such distress to revert back to what they first knew, Mr Chitty cannot explain why the aircraft continued to fly for a further 7-8 hours considering the aerodynamic forces on the aircraft. Thus, Mr Chitty's view is that the disappearance was caused by human interference, either hijacking by passengers, a suicide mission by one of the pilots or interference from someone on the ground. He believes this will remain a mystery until the aircraft is found.

### Claims and Litigation

13. Under the *Convention for the Unification of Certain Rules for International Carriage by Air 1999* (the Montreal Convention), family members have a two year time limit to make a claim. There is liability on the airline and damages are capped under the Montreal Convention, unless you can show some sort of gross negligence on the part of the operator. If it can be proven that the flight was hijacked or there was some other sort of human interference, and that human interference could have been prevented through a proper safety management system or security program, then the airline operator may well be further exposed to additional damages than what is provided under the Montreal Convention.
14. Regarding MH17, Mr Chitty believes there has been scant regard to the criminality of the corporate side which allowed the aircraft to be where it was, and too much focus on the people who fired the missile. A question arises whether there is a criminal prosecution available for corporate manslaughter. While the Australian Foreign Minister has talked about bringing the perpetrators to justice through the International Criminal Court, the corporate perpetrators who did not take reasonable risk assessments have largely gone undiscussed which Mr Chitty believes is unjust. Mr Chitty believes the Malaysians have largely deflected their liability and argues that there is potentially a criminal action against the accountable managers on the airline operator's certificate under the Malaysian penal code or work place health and safety legislation.

### Position in Australia

15. In Australia, the federal Civil Aviation Safety Authority (CASA) governs aviation law, orders and regulations. In the case of *Heli-Aust Pty Limited v Cahill* [2011] FCAFC 62, Cahill was a helicopter instructor and there was a helicopter crash when the helicopter was undertaking surveying work and it ran into power lines. A number of people were killed and Work Cover held that the helicopter was a work place and brought a prosecution under State workplace health and safety legislation. It was challenged on constitutional grounds that Work Cover do not have the jurisdiction to bring a prosecution. The Full Court of the Federal Court of Australia, held that Work Cover did not have the jurisdiction to bring that prosecution because CASA intended to cover the field with its own regulations for air safety.

Consequently, Work Cover could not bring a prosecution under State workplace health and safety legislation but CASA could bring a proceeding for reckless endangerment of life under its operational safety regulations. In Malaysia, there have not been cases similar to *Heli-Aust v Cahill*.

16. It is only the areas which CASA intends to cover the field that the work place health and safety regulations are excluded. One example within Australia of an area where the *Workplace Health and Safety Act 2011* (NSW), and corresponding acts in the other States and Territories, can have reach is cosmic radiation exposure. This is because CASA regulations do not require an operator to monitor the cosmic radiation exposure of its crew. As an aircraft is a workplace under the *Workplace Health and Safety Act 2011* (NSW), an employer is required to monitor health and safety hazards to its staff, thus employers have an obligation to monitor for cosmic radiation under each particular State or Territories workplace health and safety act.

#### Reporting of Hazards and Mistakes

17. There has been ongoing tension within the airline industry for many years regarding reporting. For there to be robust safety, any high risk industry requires a strong reporting culture amongst employees which is supported from higher levels of each organisation. From an aviation perspective, any high capacity regular public transport operator in Australia must have a "Just Culture Program" embedded within their safety management system, which promotes the reporting of hazards and risks. It is neither a blame-free nor punitive culture, both of which can have a degrading effect on safety within an organisation. When an employee reports a hazard or mistake on their behalf, the organisation itself has to look at the reasons why it occurred as it might be the case that a certain procedural step cannot be accomplished. This leads to improvement in the safety processes of an organisation. When reckless acts are made by employees, mistakes should be forgiven but violations punished.
18. It should also be noted that any report made of a mistake, lapse or security breach has the potential to be used in litigation through the discovery process, as it is not privileged. The key question through discovery is to know what to ask for in a technical industry. Accident investigation reports have always been an area of conflict as to whether they should be used in litigation because they are of a no-blame nature. However, there is authority in the UK where the House of Lords did find that an accident report into a helicopter crash could be used and brought into litigation with regards to findings about shortcomings and civil liability. Regarding the case of MH17, the Dutch Investigation Report is a public document which would not need to be discovered, but other documents that might need to be discovered from the Malaysians would include their external audit reports, especially around the co-chairing nature of the flight with KLM, as KLM relied on Malaysian Airlines' IATA Operational

Safety Audit (IOSA) certificate indicating they met the IOSA standards regarding safety management systems, risks, security and training.

#### Expert Evidence

19. This area is ripe for the use of experts as there are numerous fields of specialty including safety management, engineering, piloting technique, international conventions, aircraft manufacturing etc. The key question is whether the expert has the right kind of expertise, as opposed to a general knowledge of the area. For example, an expert for piloting technique would need to have knowledge and experience of the specific aircraft at issue.

## **BIOGRAPHY**

### Davit Chitty

Barrister, Denman Chambers - Sydney

David Chitty was admitted to the Supreme Court of New South Wales in 2011 before being called to the NSW Bar in 2014. Before being called to the Bar, David held a senior Executive position with Qantas Airways Ltd as the Head of Compliance and Industry Relations (Operations). He also holds a Commercial Pilot Licence with qualifications on Boeing B767 aircraft. He lectures at the UNSW in their advanced aviation law and regulation subject. Outside of the law David has interests in Motorsport and has competed both nationally and internationally.

### Ian Benson

Ian Benson is Special Counsel at AR Conolly and Company and holds a First Class Honours degree in law.

## **BIBLIOGRAPHY**

### Cases

*Heli-Aust Pty Limited v Cahill* [2011] FCAFC 62

### Legislation

*Civil Aviation Act 1988* (Cth)

*Workplace Health and Safety Act 2011* (NSW)

### Other

*Convention on International Civil Aviation 1994*

*Convention for the Unification of Certain Rules for International Carriage by Air 1999*