



SUBMISSION TO THE AVIATION SAFETY REGULATION REVIEW

CARNEYS LAWYERS

Background – History of Accidents

It can be said that the aviation industry has seen more than its fair share of horrific accidents. Aviation is not an inherently safe activity – the high level of safety currently observed in the aviation industry has come about through much research, study, and plain hard work. The result is that the aviation industry has generally learned from its accidents, both severe and minor, and has attained a level of safety unimagined in times past.

It is tempting to think that the ‘bad old days’ are behind us. Just in the eastern States of Australia, the following serious accidents have occurred:

- **30 November 1961.** A Vickers Viscount registered VH-TVC, operated by Ansett-ANA, was lost in Botany Bay shortly after takeoff from Sydney Airport. All aboard the aircraft, 11 passengers and 4 crew, died in the accident. It was Ansett’s first fatal accident since commencing operations in 1935.
- **21 February 1980.** A Beech 200 King Air registered VH-AAV and operated by Advance Airlines suffered an engine failure after taking off from Runway 07 at Sydney Airport. The aircraft collided with the sea wall whilst attempting an emergency landing on Runway 34. The pilot and 12 passengers were killed in the accident.
- **11 June 1993.** Piper Navajo Chieftain VH-NDU, operated by Monarch Airlines crashed at Young, New South Wales whilst approaching for landing in low cloud and darkness. Two pilots and five passengers were killed.
- **2 October 1994.** An Aero-Commander registered VH-SVQ was lost enroute between Williamtown and Lord Howe Island, New South Wales. The Bureau of Air Safety Investigation was unable to determine the factors that directly related to the loss of the aircraft, but all nine persons aboard were killed.

The last two of these accidents, in particular, triggered a review of aviation safety regulation in Australia. Without entering into detail about that review, the result was the division of the then Civil Aviation Authority (CAA) into two bodies: the Civil Aviation Safety Authority (CASA) and Airservices Australia (Airservices). CASA was charged with regulatory functions, whilst Airservices managed the provision of aeronautical services such as air traffic control (ATC) and airport rescue and fire fighting (ARFF). It was thought that this would resolve a conflict of interests – the CAA, as regulator,

required the provision of services to the industry (in the interests of safety), but it also received revenue for providing those services.

Although it must be said that there has been a vast improvement in the level of safety experienced in the aviation industry, another major accident occurred at Lockhart River in northern Queensland on 7 May 2005. In that accident, a Fairchild Swearingen Metroliner registered VH-TFU and operated by Transair collided with terrain whilst approaching to land at Lockhart River Airport. All fifteen people on board died. The accident served as a reminder to the industry that serious accidents can still occur, although they are less frequent, despite improvements in industry safety. As an industry, aviation should not forget those 'bad old days', lest they rise again.

The improvement in the level of aviation safety can mostly be attributed to the development and implementation of safety systems. An early advocate of the systems approach to safety was Professor James Reason, who is still a leading researcher in the field of safety science. Reason's model of accident causation has attained much respect in the aviation industry. The key feature of Reason's model is the need for 'defences-in-depth'. That is, an effective safety system should have multiple layers of defences to protect against accidents. Such a system allows for the exigencies of the 'real world', meaning that the system designers must understand that no defence is perfect.

Reason also considered that the causes of an accident reach beyond the immediate operational circumstances in which the accident occurred. The concept of an 'organisational accident' means that such 'active failures' are often just the manifestation of 'latent conditions' existing within the systems of the organisation. Latent conditions are things such as poor design, gaps in supervision, unworkable procedures or policies, unsatisfactory training and inadequate resources. A sound accident investigation should go beyond the active failures and identify any latent conditions that may also have been causative.

In the same vein, an effective safety system will aim to identify and eliminate any latent conditions before an active failure is triggered. As an industry, the aviation industry can now be said to understand this. The development and implementation of Safety Management Systems (SMSs) is now quite commonplace in the industry. In the Australian aviation industry, CASA can take some of the credit for the level of acceptance of the ideas of system safety and the implementation of SMSs. CASA has introduced regulatory requirements for some operators to implement SMSs within their operations, and highly recommends it for other operators. CASA is also involved in producing an incredible quantity of good quality safety promotional materials, educating the industry about systems safety, risk management and SMSs.

Change in Regulatory Approach – Safety-Outcomes

Almost mirroring the development in safety science towards a systems safety approach is the change in regulatory approach from highly prescriptive methods of compliance to descriptive regulations setting a safety standard to achieve by means appropriate to an operator. The old method insists on strict compliance with a particular method prescribed in the regulations which is said to achieve safety. In essence, the new method merely describes the level of safety an operator

is required to achieve, and allows the operator to devise its own methods and systems, under the supervision of the regulator, to achieve the safety target.

What the old style gains in clarity and certainty, it loses in its ability to control the level of safety. It assumes that the method prescribed is safe in all circumstances, and that compliance with it will ensure a safe outcome. It places an incredible responsibility on the regulator to ensure that the prescribed method is compatible with the operations of all operators. Furthermore, it causes operators to rely on the regulator to tell them how to achieve an acceptable level of safety.

The new style of regulation tells operators not *how* to be safe, but *what* level of safety to achieve. It is based on an understanding that strict compliance does not necessarily mean safety. This method shifts focus from the regulator to the operator to develop systems and engender its own internal safety culture. However, it rightfully leaves the regulator responsible for ensuring a good safety culture exists throughout the industry, making the regulator a leader that must set the standards to be reached and monitor the activities of operators to ensure that level is met.

New Regulations

Enacting the new style of regulation into legislation is a long and ongoing process. The process started with the development of the *Civil Aviation Act 1988* (Cth). The scheme of legislation introduced was in three tiers:

1. *Civil Aviation Act 1988* (Cth);
2. *Civil Aviation Regulations 1988* (Cth) (CAR), made under s 98 of the Act; and
3. Civil Aviation Orders (CAO), made under reg 5 of the CAR.

Supporting the legislation is a series of other subordinate publications setting out operational procedures, such as Aeronautical Information Publications (AIP), bulletins such as AIP Supplements, Aeronautical Information Circulars (AICs), Notices to Airmen (NOTAMs) and Airworthiness Directives (ADs). These documents provide highly specific information, usually to those directly involved in the daily operation of aircraft (such as pilots, air traffic controllers and aircraft mechanical engineers), about operations. The provisions in the documents often have the force of law because the legislation refers to them. Accordingly, aviation regulation is highly prescriptive. Guidance as to compliance is set out in Civil Aviation Advisory Publications (CAAPs), which describe means of operating that CASA will accept as compliant with the requirements of the CAR and CAO.

Regulations are progressively being enacted in the new style and under a new system. The new system of regulations will simplify the legislative structure, meaning only two tiers of legislation:

1. *Civil Aviation Act 1988* (Cth); and
2. *Civil Aviation Safety Regulations 1998* (Cth) (CASR), made under s 98 of the Act.

Replacing the CAAPs in this system are publications known as Acceptable Means of Compliance (AMC) and Guidance Material (GM). The AMC provides guidance in a manner similar to a CAAP, whereas a GM provides further guidance about CASA's interpretation of the legislative provisions, the rationale behind their development, and how it intends to apply them. Accompanying each CASR Part will be a Manual of Standards (MOS), setting out further rules and safety standards to be achieved.

CASA and the Regulatory Reform Program

It must be understood that the regulations cannot simply be changed all at once, or even in a short space of time. To do so would create extensive shocks to the industry, which would be required to adjust every single system within its operations in an unreasonably short time. On the other hand, making the changes too slowly creates frustration and uncertainty among operators. Aviation is an industry that is highly capital-intensive, but generates thin profit margins. Accordingly, operators prefer to be on steady regulatory ground. CASA, then, must select a sensible pace for regulatory change, and make the changes in a sensible order.

Reforming the regulation of an entire industry, especially one as technical as aviation, is an onerous task that must be done methodically, systematically and carefully. Decisions must be made in a public policy setting, which means that some people affected by the decisions will feel aggrieved. The duration of the current program has meant a constant state of regulatory change, imposing an increased strain on the industry as well as the regulator.

In those circumstances, it is not difficult to imagine that the relationship between the regulator and the regulated may deteriorate over time. It is, however, incumbent upon CASA to maintain a good relationship with industry, and not the other way around. Among other things, this means that CASA should be sensitive to industry concerns such as the cost of compliance with regulation, and the cost of changing systems to comply with changed regulations. CASA should recall that an impecunious operator is more likely to lack the resources to implement and maintain effective safety systems, which means that operators should not be forced into impecuniosity either by the rate of changes, or by changes made for the sake of change without a valid safety case.

It is important for changes to the substance of a regulation to be reasoned. In the context of the aviation industry, such reasoning is always safety-based. Indeed, s 9A of the *Civil Aviation Act 1988* (Cth) requires that, in the exercise of its duties and performance of its functions, CASA regards the safety of air navigation as its most important consideration. Of course, this does not prevent CASA from considering other things, but they must always be less important than safety. Following from this, the industry has a reasonable expectation that substantial changes to the regulations will be based on evidence that suggests improved safety outcomes. The setting of thresholds, caps or limits should accordingly be based on logical reasoning from that evidence, rather than arbitrarily selected.

Another important part of maintaining the relationship with industry during the regulatory reform program is to ensure all sectors of the industry feel that their opinions are being heard. Industry consultation should be more than just a process that to be endured. The process currently involves forming working groups both within CASA and drawing upon the CASA Standards Consultative Committee, a committee of government and industry representatives within interests in aviation. CASA may then call for Discussion Papers for consideration in the preparation of a draft rule. The draft rule is then published as a Notice of Proposed Rule Making, with an associated call for comments. Upon reviewing any comments received, CASA may make any changes to the draft as it sees fit, and then proceed to enact the new rule in the regulations through the ordinary process of enacting delegated legislation.

Many submissions to CASA receive no response, or only a cursory response. To improve the consultation process, any organisation or individual that responds to a request for Discussion Papers

or to a Notice of Proposed Rule Making should at least receive an acknowledgment that their submission has been received. The ideal situation would be an individual reply given to each respondent, addressing and analysing the concerns raised in the respondent's submission. Of course, given the volume of submissions CASA receives in some cases, that is not always possible. However, it should be done where it can be achieved. Where it cannot, respondents should be given some kind of increased level of service in relation to their submissions, such as being delivered a copy of the collated 'Summary of Responses'. It is important for CASA not only to hear the opinions of industry, but to ensure that industry knows its opinions are being heard and taken into account. This may also lead to increased industry participation in the development of new regulations, which, properly managed, should lead to enhanced safety outcomes.

Administrative Action

How the regulations are enforced is just as important as what they provide. The new style of regulation can place a regulator in an unenviable position. On the one hand, the regulator is asked to foster the development of aviation safety systems, while, on the other, strictly enforcing regulations according to law. Making the task especially difficult is that an essential element of a safe organisation is a 'just culture'. A just culture is one that encourages the reporting of safety incidents, and does not seek to exact punitive consequences on individuals on the basis of those reports, even where they disclose breaches of rules, policies or regulations. However, the just culture also understands that people sometimes engage in behaviour with the specific intention of breaching rules, policies or regulations, and that appropriate action should be taken against those individuals. There is a clear tension between avoiding punitive action in order to encourage reports and the sharing of safety information, and taking punitive action to prevent intentional contraventions of the law.

During the regulatory reform program, CASA is required to administer and enforce regulations of both the old and new style. This requires a certain flexibility of CASA Inspectors, many of whom are experienced in the ways of old style regulation. Accordingly, CASA must educate not only operators and industry personnel, but also its own Inspectors and other staff in the ways of safety outcome-based legislation.

In applying and enforcing the regulations, CASA, much like a police force, has wide discretionary powers to take enforcement action, to apply other remedies or controls, or to do nothing in relation to identified contraventions of the regulations. Also like a police force, the use of heavy-handed enforcement tactics can lead to public resentment and encourage disrespect for the authority of the regulator. It may also encourage adversarial interactions between the regulator and the regulated. Accordingly, as with many aspects of regulation, CASA must tread a narrow path.

It is unfortunate that CASA sometimes engages in adversarial administrative action. A client of this firm was recently involved in such action with CASA. CASA issued the client with a 'Safety Alert', instructing it that it could not exercise the privileges of its Air Operator's Certificate (AOC) until such time as CASA acquitted the Safety Alert. The Safety Alert was issued to the client on a Friday afternoon, just before the CASA office closed for the weekend. The effect of the Safety Alert, then, was to 'ground' the client's operations at least until the CASA office reopened on the following

Monday morning. The client was required to cancel its charter bookings for the weekend, and refer its customers to other operators, resulting in lost revenue and embarrassment. It also caused rumours to be spread around the industry about the client's safety credentials, meaning that the loss of revenue was not necessarily isolated to that weekend.

At issue here is not the power of CASA to issue Safety Alerts. That is a very important power that must be retained in order for CASA to prevent the operation of dangerous operators at short notice. The issue is the use of the Safety Alert, which is a *de facto* suspension of an operator's AOC, where a less intrusive approach may have worked just as effectively. It must be understood that issuing a Safety Alert instructing an operator not to operate has the same effect as suspending the operator's AOC. Normally, the suspension of an operator's AOC cannot be done without issuing the operator a Show Cause Notice setting out the factual and legal basis for a suspension, and allowing the operator a reasonable time in which to respond. Circumventing that due process of the law should properly be an emergency power, not the first response.

In another instance, a client of this firm was audited by CASA. Following the audit, a number of Non-Compliance Notices (NCNs) were issued. An NCN is a record of a contravention of the regulations in which CASA requests an operator to explain why the contravention occurred and set out systems it has established to prevent similar contraventions occurring in the future. This is a sound procedure for many NCNs, but it is somewhat problematic in cases where the contravention is genuinely a 'one-off', is a minor lapse with no safety consequences, or where CASA is mistaken either in fact or in law.

After taking our advice, the client responded to the NCNs, and they were eventually acquitted. However, CASA refused to remove any NCN from the client's records, even where the NCN was issued erroneously due to a clear error of fact made by CASA. The very presence of an NCN on the records of an operator is prejudicial to some extent, and it is improper for operators to suffer that prejudice where CASA is in error. If there is any legal, policy or procedural impediment to CASA removing an NCN from an operator's records, that impediment should be eliminated.

Although the NCNs were all acquitted, approximately a year after they were issued, CASA raised the issues identified in each of those NCNs again (aside from those previously issued in error) in the form of a Show Cause Notice issued to the Chief Pilot. This essentially amounted to a re-litigation of the issues surrounding the NCNs. In a judicial process, the *res judicata* rule prevents matters being raised that have already been finally determined. There is no such control on an administrative process, so a regulator is within its legal rights to raise the issues again. However, in doing so, the regulator might be considered to engage in sharp practice.

It is not argued here that CASA should be prevented from raising issues again. What is in issue is the maintenance of a good regulatory relationship with industry. Engaging in regulatory practices such as those outlined above on a regular basis will lead to the further deterioration of the relationship, which may have consequences on the overall level of safety in the industry. CASA should be encouraged, then, to ensure that such practice is minimised and reserved only for emergencies.

In this context, however, it is understood that recent regulatory scandals involving Avtex Air Services and Alligator Airways loom large, and that the rule of law, as well as public sentiment, requires that the regulator enforce the regulations. For the safety of the travelling public, operators with poor

safety records or consistently unsafe breaches of the regulations must be removed from service. It is completely understandable, then, that CASA exhibits a level of frustration with operators who breach the regulations. However, CASA should enforce the regulations with sensitivity, rather than approaching an enforcement action as an adversarial matter which leads to mistrust and disrespect.

Conclusions

Much progress has been made in recent decades in assuring and improving the safety of the aviation industry. CASA must take some of the credit for that improvement, with its introduction of regulations relating to Safety Management Systems, and its programs of safety systems promotion. However, CASA faces various challenges in relation to its regulatory reform program. It must continue to administer and enforce regulations of two distinct styles: the 'old style', which prescribes how a safety outcome is to be achieved; and the 'new style', which allows operators to develop their own systems to assure safety. To do so requires a certain level of flexibility. CASA must also educate the industry, as well as its own staff, in the 'new style' and its benefits. CASA also needs to select the appropriate pace and order to make regulatory changes. Too fast, and the industry suffers from the shock of change; too slow and the industry becomes frustrated at the lack of progress. Changes should also be based on evidence of improved safety outcomes.

Administrative enforcement is another challenge faced by CASA. Taking a heavy-handed or adversarial approach is within CASA's authority, but it is not necessarily good regulatory practice. Such activities may engender disrespect or mistrust, and inhibit the sharing of safety information, or the industry's participation in regulatory development. Both of those outcomes could have detrimental effects on safety.

Overall, CASA's approach to both legislative reform and administrative enforcement has an impact on the relationship between CASA and industry. It is important for CASA to maintain that relationship in order to remain an effective regulator.

This paper has identified some of the issues facing CASA and the aviation industry in the process of regulatory reform. Carneys Lawyers trust Committee finds it useful that those issues were identified and clarified.