

Submission to the Aviation Safety Regulation Review

Introduction

This submission is unfortunately made in haste because having retired from active aviation involvement, having passed the age of 70 years, and having been somewhat occupied tending to my wife who is unwell as well as entertaining friends from the UK, I had been unaware of this review. I started drafting this submission on 29 January 2014 at 5 pm!

I have some aviation experience and more importantly some Australian aviation regulatory experience. See Annex 1 for details.

I believe the safety of Australian Aviation has been compromised by many factors over the last 25 years and more. I will try to highlight some of those in the following paragraphs but the detail will be less than comprehensive and will be extracted primarily from memory. Time does not permit otherwise. However I am willing to provide limited further information if required, preferably in person in the initial stages.

Structures, effectiveness and processes of all agencies involved in aviation safety

Effectiveness: Probably the last time Australian Aviation Safety oversight agencies were seen as being in the top drawer was around the time the Department of Civil Aviation (DCA) was disbanded some 40 years ago. Since that time severe financial constraints applied by governments of all colours have led to the steady erosion of technical staff numbers and the steady expansion of administrative personnel with little or no aviation knowledge, experience or even interest. This at a time when civil aviation was expanding at its fastest rate ever and aviation technology was becoming far more complex and diverse. Today it would be interesting to compare staffing levels of the relevant sections of the last Department covering aviation regulation and safety oversight with those of CASA and allied organisations today. It would be fair to say that today CASA is not seen as the intellectual powerhouse that was the old DCA. Is it therefore not surprising that the effectiveness of CASA is seen as little better than a bad joke by most who have to deal with it.

Structures: The rot started with the introduction of the CAA. Government saw this organisation as a means of making money rather than, as the old Department had been, a large drain on their finances. They were supported by such aviation luminaries as Dick Smith an electronics salesman with a paper thin knowledge of aviation. From the start pressure was on all departments in the CAA to make money, even the regulators. Somehow those who oversaw the industry and wrote the different levels of legislation and internal organisation policy had to add to the coffers. Unlike the police it was not possible to make money from speeding or parking offences! Many safety related tasks had to be dropped and it was not long before it became evident that safety was getting out of hand. This led to CASA being formed as a fragment of the disbanded CAA. As the safety regulator it was seen fit to add the word 'safety' to its name so that senior management and government ministers would be reminded of its primary role.

One possibly unintended consequence of splitting up the CAA was that it now became impossible for working level pilot regulators, pilot accident investigators, air traffic officers and aerodrome experts, to name a few, to discuss mutual issues of interest. Problems and misunderstandings that

could be fixed at low level in minutes now take months if not years to resolve and in the process become political or turf war issues. Often these problems just became lost in the fog between agencies. Misunderstandings grow when free and unhindered liaison between related technical staff is denied by having senior management involvement. This senior management interference becomes more and more disruptive the more fragmented organisations become. Serious consideration should be given to freeing up technical cooperation between as many of the old DCA departments as is practical, or to recombining organisations.

Processes: I am unable to discuss other than CASA in the next few paragraphs.

In all activities including our own personal activities, we are constrained by rules and the procedures we are expected to follow to abide by the rules. The procedures we should follow I like to call policy. Policy is essential in a widely scattered and publicly exposed organisation such as CASA. The industry is quick to react to the uneven application of regulation and rightly so. Likewise it is not reasonable to allow CASA personnel to 'do their own thing', or to have to devise a way of carrying out their duties. That is the role of policy.

For some unexplained reason a previous CEO of CASA decided that policy was no longer needed and did away with almost all of it. Needless chaos ensued and I believe continues to the present. I have not served under the present CEO so I am not up to date with the present CASA. Policy is not easily written, it needs considerable consideration by technically knowledgeable personnel to be balanced. Then it needs almost constant oversight and revision in the light of an ever changing world. I project managed the development of a policy manual in CASA known as the Air Operator's Certification Manual. This manual was devised so that CASA personnel might follow legally acceptable and consistent procedures to assess a potential operator and to issue an Air Operator Certificate (AOC). The manual had a secondary value in that it enabled the prospective operator to understand what was required of his organisation before he started the costly and lengthy process. Staff who used the manual appreciated its usefulness, others did not even understand the reason for the manual let alone its processes and procedures. At the time of writing it I told management that it would require approximately one man year each year to maintain the manual in a relevant and useful state. From the start this did not happen and one manager who never understood the manual at any level insisted on changing its format so that processes, explanatory material and allied references were all jumbled together, making the manual almost incomprehensible. It would be instructional for the committee to look closely at how CASA issues an AOC to a large RPT operator.

The CAA and CASA have been trying to update its suite of legislation since 1988. To date, after changing direction with every senior management change, and on the most trivial of whims little has happened other than the creation of pockets of legislation that do not fit unto other pockets of existing legislation. In other words a total mess. 1988 is 26 years ago!

I personally drafted the first acceptable version of Part 121B which became Part 135. It took a few years because as the previous attempt had rightly been seen by the industry as unworkable a different approach to the task had to be devised and assessed. I had many other duties and responsibilities, so the drafting progressed reasonably slowly. Furthermore I believed in working with industry as I progressed the task, choosing a number of reputable operators to provide me with advice and feedback. This process was most effective and successful. On top of that CASA had a review process with the industry at large which was so unwieldy and overloaded with ego and turf

wars that little of any benefit was gained. The net result was enormous slippage in time with little tangible result. After all that, and at the time the previous CEO arrived on the scene, we were within 6 months of gazetting much of the flying operations legislation. The industry largely liked Parts 121 and 135. These Parts were intended to work in tandem, but had been drafted by two individual drafters at the Attorney General's Department. All that needed to be done was to align the wording of the Parts so that the same requirements were written using exactly the same words. Different words in legal hands have to mean something different! Don't they?

Two months later the whole project was cancelled by the CEO, he wanted us not to follow the JARs format but the new EU system still very much in draft form. This change of course had happened before. Previously we had changed from the FARs to the JARs as our basic format along with many other changes in general structure and layout of the documents. These consistent changes caused enormous delays and general disruption. This latest change effectively destroyed the previous 15 years of work, and the industry, looking forward to the new legislation, was left still trying to comply with the creaking existing old legislation. With the new legislation effectively destroyed but still required for the future, and the old legislation in need of more than the usual amount of maintenance in order to keep it nearly workable and legal, the CEO decided he did not need an operations staff in central office. Those were the very people who had the responsibility for developing the new CASA operational legislation, CASA policy such as it was, the maintenance of the old legislation to keep it vaguely legal, and much else. They were given redundancy and packed off. I was overjoyed!! Some 20 years after we had started the development of the new legislation with no added staff to do this extra new work as well as continue to maintain the existing legislation and policy, we still had nothing new, indeed we were worse off because the overall legislation covering aviation safety was more chaotic than it had been in 1988. Years of work wasted, and for me a large chunk of life wasted, mine. Yes the process needs looking at!

May I suggest for starters that, no one should be appointed to be CEO of CASA unless they have extensive experience in aviation legislation and policy determination and a sound understanding of the necessity for clear logical direction and the ability to talk to their technical staff at any level as equals when technical subjects are discussed. The previous CEO failed on all counts as did most of his predecessors to a lesser extent.

The Suitability of Australia's aviation safety related regulations when benchmarked against comparable overseas jurisdictions

As I have already intimated the present 'hotch potch' of aviation regulation is a national disgrace. After 26 years of endeavour by many initially keen, enthusiastic and knowledgeable pilots, engineers and maintenance experts, and the expenditure of countless millions of dollars this is where we have arrived. I cannot say this any other way; it is a national disgrace. I believe in the same time Canada has written and re-written their coherent legislation twice. The problem now is that the people who can do the job have long gone without them being able to train their replacements.

You might suggest that any pilot or engineer can just take on the job. I have to disagree. I may not be the sharpest person around but it took me over 5 years, with all my varied experience, to become a regulator's boot lace. Many very talented people groomed me over an extended timeframe in many different situations. Being a good regulator takes a great deal of 'on the job' training.

Furthermore the personality of a regulator needs to be such that he/she be open to learning new tricks and to have an ability to get on with a wide variety of people. It is going to be a long process to recover with many inevitable mistakes on the way. CASA needs a Henry Royce at the top!

Any other safety related matters

I hope this is not too 'in the weeds' for such a high level panel. A little background. Australia is a very large country with a very small population, similar to Canada or Africa. While most of our legislation must be almost identical to that of the major ICAO nations there are areas where this will not hold true. One of those is legislation for air transport operations which are conducted predominantly in remote areas and in small aeroplanes. The proposed legislation that covers such operations is what I spent many years considering - Part 135. During that time I was also given the task of sorting out, with an airworthiness maintenance expert, the air transport operations in the Torres Strait and Far North Queensland. At the time all passenger carrying operations had been suspended by CASA, the year was 1999. The job took almost a year and during that time I devised and then actioned the process to convert 3 charter operators into RPT operators while they were permitted to restart and continue normal operations. We were also to more closely oversight all aviation activities in the area. What we found when we arrived there was almost unbelievable. During that year I learned a great deal about the problems of conducting safe air operations in the outback. By the time we left we had 3 RPT operators and one on the way, but with much still to accomplish. That year's experiences would make an excellent book and TV series, although it may have a negative effect on the flying population! This experience reinforced in me the absolute belief that if flight operations are to be carried out in remote places, legislation must be devised that more closely balances the necessity of such transport with the types of safety rules required and the affordability of such a transport medium. It also needs more thought by Commonwealth and State governments in relation to infrastructure support, but this is outside the scope of your inquiry. Appropriate safety legislation for remote area operations which predominantly use small aeroplanes requires some thought outside the usually accepted square, but absolute safety outcomes need not be compromised as a result.

From my experiences in the Torres Strait and North Queensland I learned a lot more about the problems confronted in the isolated parts of our country, those experiences fed into 'my Part 135'.

In my view Part 121 and Part 135 should be complimentary, the same where this is practical and different where it is not. One area which needs further consideration in Part 121 is in the area where aeroplanes designed under Part 23 are expected to operate as if they were designed under FAR Part 25. I believe Part 121 should cater only for aeroplanes designed under FAR Part 25 or similar legislation. Part 135 should cater for all the rest, with a sliding scale of operational requirements appropriate to the aeroplane's design philosophy. That is what I did with 'my' legislation drafts. However, there were always a few grey areas which CASA management seemed reluctant to address. They revolved around the number of seats permitted to be fitted to the aeroplane (the Cessna Caravan is designed to carry up to 14 passengers), and the issues surrounding SFAR 41 designed aeroplanes. I strongly believe that operational rules should be tied to the aeroplane design rules and these operational rules, after considering the design rules, should all fall into Part 135. Part 121 is too important a part to contain small aeroplane distractions. It should cater only for FAR 25 aeroplanes.

Just before I left CASA I drafted a new definition for small aeroplanes, I believe it is the way of the future and is much more logical than the present definitions.

The old definition for small aeroplanes was:

This Part applies to operations by the holder of an AOC that authorises the operation of:

- . (a) an Australian aircraft that is an aeroplane of 5 700 kg MTOW or less, engaged in air transport operations; or
- . (b) a foreign-registered aircraft that is an aeroplane of 5 700 kg MTOW or less:
 - (i) engaged in regulated domestic flights that are air transport operations; or
 - (ii) operated by Australian operators engaged in air transport operations within Australian territory.

The present proposed definition is:

"Small aeroplanes" in Part 135 means an aeroplane:

with a maximum take-off weight (MTOW) not exceeding 8618 kg, and
fitted with a passenger seat configuration of not more than 9.

My preferred definition for a small aeroplane is:

This Part applies to operations by the holder of an AOC that authorises the operation of:

- . (a) an Australian aircraft that is an aeroplane of 5 700 kg MTOW or less, or an aeroplane categorised as commuter category under FAR 23, engaged in air transport operations; or
- . (b) a foreign-registered aircraft that is an aeroplane of 5 700 kg MTOW or less, or an aeroplane categorised as commuter category under FAR 23:
 - (i) engaged in regulated domestic flights that are air transport operations; or
 - (ii) operated by Australian operators engaged in air transport operations within Australian territory.

In my draft of Part 135, the operational rules were arranged as a sliding scale, becoming more demanding as the aeroplane weight and passenger numbers increased. To my mind this is the only way small aeroplanes can be used effectively and at reasonable cost, balancing safety and practicability.

Conclusion

Since the demise of the DCA some 40 years ago the organisation that it encompassed has been in decline. That decline in my view is the result of:

- The fragmentation of the organisation which makes it almost impossible for the technical staffs across the various organisations to work in a coherent manner,
- The decline in the technical knowledge and regulatory ability of senior management,
- Senior management inability to liaise with their technical staff,
- The large decline in the numbers and qualifications of the technical staff,
- The financial constraints placed on the organisations by Government.

Part 135 should provide the flying operations legislation for all aeroplanes not designed to FAR FAR Part 25.

Recommendations

1. CEOs of CASA should have, over and above extensive aviation experience, extensive experience in aviation legislation and policy determination, a sound understanding of the necessity for clear, logical and consistent direction of the organisation and the ability to talk to all staff at any level as equals when their areas of speciality and employment are discussed.
2. Parachute future CEOs into CASA after considerable consideration, the process has not succeeded yet to my knowledge.
3. Senior management should be drawn from people who have a profound understanding and experience of the issues and subject matters related to their areas of management. 'Professional' managers are almost never up to the task.
4. Management at all levels needs to be trained to understand the importance of working with their staff and listening to their staff.
5. Consider the overall structure of the various aviation agencies with a view to enhance the interaction of technical staff to ensure a less fragmented approach to technical issues.
6. Consider the appointment of more technical staff, they should have specialist knowledge and administrative and preferably leadership experience. Members of this staff should be seriously considered for advancement up the management ladder.
7. Draft Part 121 should cater for aircraft designed under FAR FAR FAR Part 25 or its equivalent, and Part 135 should cater exclusively for all other aeroplanes conducting RPT operations.