Question no.: 132
Senator Fawcett asked:

Senator FAWCETT: I will come back to that at another time. Thank you for that clarification today. On another issue of safety, does CASA have any record of incidents or accidents in Australia arising from pilots who have a colour vision deficiency?

Mr McCormick: I will have to take that on notice.

Answer:
CASA's occurrence data files do not show a record of any accident or incident attributable to pilots' colour vision deficiency.

Question no.: 133
Senator Fawcett asked:

Senator FAWCETT: I recognise that, and if you look at Australian aviation history, with things like DME and T-VASI we have led the world on a number of occasions and the rest of the world now thanks us for that. My concern is that there is considerable talk and concern within the industry that CASA is not only seeking to prevent this person from exercising the privileges of an ATPL but is in fact seeking to wind back the decision to pre-1989—pre the Denison case—to realign itself with the FAA and other people. I am just trying to understand whether there is in fact that intent, but, also, if the evidence base is very clear both in the Denison case and in the thousands of hours of flying since, that pilots can operate safely, then what is the safety case for not actually allowing someone to exercise the privileges of an ATPL?

Mr McCormick: As to the exact nature of the AAT proceedings, I would prefer not to talk about it. We will take on notice your question about whether we are attempting to withdraw anything. The issue around medical standards is that quite a lot of these medical standards are not set by CASA. In fact we do not set any medical standards. We use whatever the expertise in that particular area says is the requirement, unless we have good reasons to do otherwise. The fact that we have had many years without accidents or incidents—and I will assume for moment we have not, but I will take that on notice—I think we are in a situation where, to go even further, we would need more than a safety case. We would most probably need medical science to tell us that that is probably not too far. As I said, we are already out in front of the world on this. So, we are not actively trying to stop anybody doing anything, but we do have to exercise some degree of caution.

Answer:
CASA is not seeking to wind back the colour vision policy or to conduct a de facto appeal of the Administrative Appeals Tribunal decisions in the matters of Pape and Secretary Department of Aviation [1987] AATA 354 and Denison and Civil Aviation Authority [1989] AATA 84.

Each application for a medical certificate is required to be determined by reference to the statutory scheme and the individual circumstances of the medical certificate applicant. From that perspective, the Denison and Pape decisions are not binding on CASA in terms of the way in which it deals with the medical certification of pilots with colour vision deficiency.

Both of those cases were decided over 20 years ago under a different legislative framework and have been largely superseded by advances in aviation medical science and increased use of colour in aviation, especially in the cockpit.

The current aviation medical standards for colour perception are set out in item 1.39 of table 67.150 of the Civil Aviation Safety Regulations 1998 (CASR), which requires a person to "readily distinguish the colours that need to be distinguished for the safe exercise of privileges, or performance of duties, under the relevant licence."

 Regulations 67.150(6) and 67.155(6) of the CASR, which apply to the class 1 and 2 medical standards respectively, require an applicant to demonstrate he or she meets the medical standard by undertaking specified testing in the prescribed order.
The first level of testing an applicant must undertake is the Ishihara Pseudo-isochromatic 24 Plate (PIP) colour vision test.

If the person fails that test then he or she must undertake a second level of testing, the Farnsworth Lantern (FALANT) test.

If the person fails the second level of testing, then an applicant may be required to correctly identify all relevant coloured lights in a test, as determined by CASA that simulates an operational situation.

If a person fails this third level of testing, then no statutory provision is made for the person to be further tested.

Some international regulators have more recently funded research into the development of aviation specific tests for colour vision. One such aviation specific test, which has now been adopted by the United Kingdom Civil Aviation Authority, is the Colour Assessment and Diagnosis (CAD) test which is based upon aviation specific colours and operational requirements.

CASA is presently considering the use of the CAD test for the third level of testing as a more targeted and appropriate method of testing to simulate an operational situation. CASA will seek and consider the views of aeromedical specialists before any final decisions are taken on this matter. Although no rule changes are envisaged at this time, any rule changes would be consulted with industry in accordance with CASA’s normal regulatory development process.

**Question no.: 140**

Senator Fawcett asked:

1. What resources has CASA provided in the AAT investigation of colour vision deficiency in the current AAT investigation? Please provide details in terms of:

   - Current AAT case (to date)
   - CASA dollar inputs
   - Number of CASA personnel involved
   - Total CASA man hours
   - Third party man hours
   - Third party costs

2. What is CASA's total allocated budget for the current AAT hearing - forecast or approved as per table above?

3. How do all the above figures compare in broad terms to the AAT Denison case of 1989?

**Answer:**

1. Current AAT case (as at 4 December 2013)
   - CASA dollar inputs $10,200 (employee costs)
   - Number of CASA personnel involved 3
   - Total CASA man hours 146 hours
   - Third party man hours 115 hours
   - Third party costs $33,510 (expert report fees)

2. CASA does not allocate a specific Budget to individual litigation matters.

3. CASA has not been able to locate sufficient material which would allow such a comparison to be made.

**Question no.: 141**

Senator Fawcett asked:

*Senator FAWCETT:* I assume you have been watching on the monitor the proceedings with CASA. Are there any accidents or incidents or concerns in Australia that have been brought to ATSB's attention as a result of a pilot having a colour vision deficiency?
Mr Dolan: I am not aware of any investigations we have undertaken where a contributing factor to an accident was colour vision deficiency. My colleagues might have a different view.

Mr Walsh: No, we would have to take it on notice to do a search of the database to see if we have any cases on record.

Mr Dolan: We will search the database to confirm, but we are reasonably certain that we do not have one of those.

Answer:
A review of the ATSB's data base revealed one occurrence in 1996 that makes reference to colour blindness.

The incident (ATSB reference 199603027) happened on 20 September 1996 and involved a privately operated Piper Navajo that landed with the landing gear retracted at Roma, Queensland. The investigation found that the pilot probably forgot to lower the landing gear when he became distracted after landing checks were delayed and as a result of trying to sight another aircraft.

The occurrence record noted that the pilot had a colour vision deficiency where he could not discriminate between red and green. It is not clear whether the colour vision deficiency played any role in the pilot not observing the landing gear position, noting the landing gear indication lights are red (up) and green (down), but the pilot should still have been able to observe only one light illuminated for the up position as opposed to three lights for the down position. Pilot distraction is a common cause of occurrences involving wheels up landings, irrespective of any colour vision impairment.