

Senate Standing Committee on Rural and Regional Affairs and Transport
ANSWERS TO QUESTIONS ON NOTICE
Supplementary Budget Estimates October 2008
Infrastructure, Transport, Regional Development and Local Government

Question No. CASA 01

Division/Agency: Civil Aviation Safety Authority

Topic: Atomising Mixture Nozzles

Hansard Pages: 90-91 (21/10/08)

Senator ABETZ asked:

Senator ABETZ—Thank you very much. I have three brackets of questions, the first of which involves two technical areas. Has there been an increase in aircraft safety incidents that have been associated with the use of atomising mixture nozzles?

Mr Byron—I will have to get some technical advice on that one?

Senator ABETZ—And that would be Mr Quinn.

Mr Quinn—I am not aware of any particular operational area. I am not aware of any increase in this particular phenomenon that you are talking about. I am happy to take that on notice and go away and do some discovery work, but it is certainly not something that has come to my attention during our recent browsing of air safety incidents. It may be a question you may wish to pose to the ATSB.

CHAIR—They will be on later today.

Senator ABETZ—If you could be so kind as to take these questions on notice and hopefully they could be fed through me to the ATSB. That would be helpful. I understand that in 1979 the atomising mixture nozzle was removed from the list of parts that met the airworthiness standards and therefore were prohibited from use in aircraft engines. But then back in 1999 that directive was overturned. Could you possibly confirm for me whether in 1979 or thereabouts the atomising mixture nozzle was removed from the list of parts that met airworthiness standards? Then that directive was overturned 20 years later in 1999. Has there been an increase in aircraft safety incidents associated with the use of the atomising mixture nozzle? For those of us who cannot get to sleep at night we read the *Australian Pilot Extra*. In the October edition on page 11 this matter is referred to: Leading up to 2005, Ralph's Warriors suffered a series of crashes. The cause was found to be a carburettor mixture nozzle of the 'atomising' type. I will leave that with you and simply ask whether any testing has been undertaken to suggest that the atomiser nozzle is any safer than any other type of nozzle that has been specified in the past.

Answer:

The Airworthiness Directive in question (*AD/PA-28/76 - Carburettor Nozzle*) requiring the replacement of atomising fuel nozzles with non-atomizing nozzles was cancelled in 1987 (not 1999). This AD was in response to a 1979 Engineering report, MS-14, which hypothesised that the atomizing fuel nozzles could cause carburettor icing and recommended their replacement. In 1987, a further evaluation was carried out and CASA determined that the recommendation could not be supported.

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CASA has not received any Service Difficulty Reports from operators regarding the atomized fuel nozzles mentioned in either the article or the unique Australian airworthiness directives. A search of CASA records and the ATSB database focussing on 'carburettor' incidents for the Piper PA-28 aircraft and occurrences associated with known or suspected carburettor icing revealed no evidence suggesting an increase in carburettor icing occurrences since the cancellation of the AD.

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Question No. CASA 02

Division/Agency: Civil Aviation Safety Authority
Topic: The Aileron Control Stainless Steel Fitting
Hansard Pages: 91-92 (21/10/08)

Senator ABETZ asked: Senator ABETZ—I do not pretend to be a Biggles so the chances are it would be wasted postage on me. In relation to this specific issue with the atomiser nozzle that would be very helpful. I have similar questions and you might be able to help me, Mr Quinn; is it the aileron?

Mr Byron—A flight control, yes, aileron.

Senator ABETZ—The aileron control stainless steel fitting. Senator Adams is up with this as well. Have there been any reports of specific failures with this particular fitting on aircraft?

Mr Quinn—Are we talking about a particular type of aircraft here? Can you be a bit more specific?

Senator ABETZ—I understand it is fitted on smaller aircraft. As to shapes and sizes, are they fitted to all aircraft?

Mr Quinn—Generally, yes.

Senator ABETZ—What is our definition of smaller aircraft? That is what my constituent has referred me to.

Mr Quinn—I would say below 5,700 kilos is probably what they are interested in, which are single-engine, piston aircraft and small, twin-engine, piston aircraft.

Senator ABETZ—That sounds right to me, knowing my constituent. In relation to those smaller type aircraft, have there been any reports of specific failures with these fittings?

Mr Quinn—I am aware of the issue of control flutter. It is a known phenomenon in the industry, but there is certainly no spike in incidents that I am aware of at the moment. I do have an aeronautical engineer here with me who would be able to provide some more detail if that would help. But certainly from an incident point of view I am not aware of anything significant.

Senator ABETZ—Chances are it might even be lost on me, and given the time constraints the committee has what I would ask you to do is let me know what number of incidents there have been in relation to this particular fitting and when reports of this problem were first received and then what action, if any, CASA has taken. Could you take that on notice?

Mr Quinn—We will take that on notice.

Answer:

CASA is aware of a total of four failures of aileron control cable terminals in Australia the first being in 2001. None of these failures resulted in loss or damage to aircraft or personal injury or death.

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CASA is also aware of a United States (US) National Transportation Safety Board (NTSB) report (*A-01-6 to-8*, issued in April 2001) which identifies six known failures in the US and a further four aircraft with cracked terminals that had not yet failed. The NTSB recommended that the US Federal Aviation Administration (FAA) issue an Airworthiness Directive requiring that control cables in certain aircraft types be replaced every 15 years. The FAA has not done so.

In response to the first Australian failure and the NTSB report, CASA issued *Airworthiness Bulletin 27-1 Issue 1* in August 2001. This document is still current and available on CASA's web site. CASA also addressed this matter in an article on ageing aircraft in March-April 2005 *Flight Safety Australia* magazine. (p. 44).

Following the later Australian failures, CASA issued a Discussion Paper (DP0602CS) in April 2006 seeking industry views as to how the problem could best be addressed given the potential costs and disruption involved. Most aircraft have several such cables and there are over 13,000 aircraft on the Australian register. Many of these aircraft will be fitted with cables over 15 years old or of indeterminate age.

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Question No. CASA 03

Division/Agency: Civil Aviation Safety Authority
Topic: Cases of Violations of Controlled Airspace
Hansard Pages: 92-93 (21/10/08)

Senator Abetz asked:

Senator ABETZ—I personally would, yes, but having regard to other senators around the table I would have to decline that kind offer, but I am appreciative. In relation to violations of controlled air space, are you able to tell us how many cases of violations of controlled air space are known to have occurred between 2005 and June 2008?

Mr Byron—I do not have those specifics in front of me.

Senator ABETZ—But would it be in the thousands?

Mr Byron—That was a three-year period?

Senator ABETZ—Yes, between June 2005 and June 2008, so three years.

Mr Byron—Are we talking about Australia wide?

Senator ABETZ—Yes.

Mr Byron—I do not think it would be in the thousands, but I would need to check.

Senator ABETZ—A figure has been provided to me that is very specific. I am not sure from where it is sourced, but it is 4,468.

Mr Byron—I stand to be corrected, but we track violations of controlled air space as one of our safety outcome parameters. We are sitting down on, I think, 5 November to look at the last quarter's figures. But going back to the last quarterly safety review that we, as a full senior management team, did, we know that in terms of the incidents that occur, which are reported through the Airservices electronic information reporting system, violations of controlled air space are one of the highest problems that we have. We certainly have worked education wise with the industry and also with Airservices—

Senator ABETZ—I am sorry to interrupt, but I think time is at a premium—

CHAIR—We do have until 6.30 pm, but I know that Senator Heffernan will have questions. I can come back to you if you want to. Do you want to put them on notice?

Senator ABETZ—What we might do is truncate this now. We can let the other senators have a go and if we have time left then we might revisit this, and I might even ask the engineer to assist us as well if we have the time. Can you take on notice for me how many cases are known to have occurred and then how many cases were pursued by legal action? Do you know how many there have been?

Mr Byron—Not off the top of my head, no.

Senator ABETZ—I understand there has only been one and I would be interested in you either confirming or denying that. All I can say is that I have this constituent who has been giving me this information and, if that is wrong, then please tell me why it is wrong as to the actual number.

CHAIR—That constituent probably reads *Hansard* as well and can get the answer.

Senator ABETZ—Yes, but these will be on notice so I doubt that he will get them unless I pass them on. If it was only the one case, what were the particular circumstances that warranted it being prosecuted? I refer to page 21 of this great, well

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read magazine. This is the October 2008 edition. I think I referred to that previously. It asserts: It's strange that this went to court after a CASA FOI had decided no further action in 2005. But the real strangeness is CASA confirms that from 2005 to June 2008 there has been only one prosecution for a VCA (this case) against our estimate of around 4,468 VCA during that period, some of which (not this one) required aircraft avoidance action. I would be interested to find out whether this article is correct. It may well be that the article is not. I do not seek to make any allegations. All I am seeking to do is ascertain the proof about the figures. If the figures are correct, it would beg the question why only this one out of the 4,000 has been pursued. I know in my home state of Tasmania the police are given certain quotas for speeding tickets, et cetera, to fulfil. I would assume CASA officials do not have such quotas.

Mr Byron—Our objective is the safety outcome. If we think we can fix a problem through enforcement, that is the only way we will do that. If we think it is an error that was made unintentionally, we will probably take a more educational approach, particularly if it is a learning pilot. A lot of the VCAs we get are with student pilots. But we will provide those figures.

Answer:

At the Estimates hearing of 21 October 2008 Mr Byron, following up a question from Senator Abetz, advised the Committee that there were approximately 1,400 Violations of Controlled Airspace (VCAs) over the past three years. That figure is incorrect.

There were 5,112 VCAs between January 2005 and June 2008, according to Australian Transport Safety Bureau statistics.

Between 2004 and 2008, prosecution action was initiated in relation to two VCAs. In both cases, the VCA has been one of several offences the defendant was alleged to have committed. One resulted in a guilty plea by the defendant, with the matter being dismissed under section 19B of the Crimes Act (no conviction recorded, although the defendant was found guilty of the offence). The second matter is currently with the Director of Public Prosecutions for consideration (along with 19 other offences).

CASA can, and has undertaken other administrative and enforcement actions for VCA-related contraventions.

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Question No. CASA 04

Division/Agency: Civil Aviation Safety Authority

Topic: Coronial Recommendations

Hansard Pages: 95-96 (21/10/08)

Senator Heffernan asked:

Senator HEFFERNAN—This is from 28 May. I take it these are the incidents Lockhart River, Thargomindah, Kununurra, Mackay and Jandakot?

Mr Carmody—I am sorry, what was the question again? Now that I have the question on notice, I just want to hear your question, I am sorry.

Senator HEFFERNAN—What action has CASA taken in relation to each of the incidents in which it was adversely reflected upon?

Mr Carmody—It depends on the incident. What we normally do is take the recommendations of the coroner or the ATSB—

Senator HEFFERNAN—I will make it a bit easier for you. If no action was taken, please explain why? We will take the Lockhart River accident. ‘Expedite the introduction of mandatory crew resource management training’ was a recommendation to the coroner, was it?

Mr Byron—All the recommendations from the coroner in that particular tragic accident CASA is implementing. We are certainly implementing mandatory—

Senator HEFFERNAN—In relation to the accident at Thargomindah on 13 October 2004 with a commercial aerial mustering gyroplane—a gyroplane is a great way to get killed, I might say—it states CASA should fund an investigation into gyroplane manufacture and maintenance procedures, facilitate regular industry forums, fund the production of an industry code of practice for aerial mustering et cetera.

Mr Byron—On that particular one I will ask Mr Vaughan, who heads our general aviation operations group, to give you some specifics.

Mr Vaughan—I understand your question is relating to an accident with a gyroplane involved in mustering operations?

Senator HEFFERNAN—Yes.

Mr Vaughan—We have re-engaged with the Australian Sport Rotorcraft Association to drive some safety initiatives. That is ongoing right now. There was a period probably where it was not as robust as it should be, given that these aircraft were operated in what was a commercial environment. Next month the first instructor seminar takes place in Brisbane for gyroplane instructors, which is an initiative to improve the safety standards of these types of aircraft. We are currently working through this re-engagement with the Australian Sport Rotorcraft Association. We will actually be working through implementing these coronial suggestions.

Senator HEFFERNAN—Is CASA providing \$250,000 to ASRA likely to happen?

Mr Vaughan—What happening right now is that we are redefining the deeds. There are 10 sport and recreational organisations approved by us to administer that portion of the civil aviation regulations that apply to that sector of activity. We are sitting down with them to renegotiate these deeds of agreement by which we carry out our business. In that deed of agreement is a financial model. It probably does not

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adequately reflect what contribution they make; that is, what they take off us and administer on our behalf. It is unlikely that it would be a figure that significant. As we speak we are currently working to apply a logical model to how much these organisations get.

Senator HEFFERNAN—Do you have to have a licence to fly a gyrocopter?

Mr Vaughan—There is a licence for it; that is correct.

Senator HEFFERNAN—You have to do so many hours?

Mr Vaughan—That is correct. There is a syllabus—

Senator HEFFERNAN—It used to be a great way to get killed, and ultralights were the same. Do you have to have a licence these days for an ultralight?

Mr Vaughan—You do.

Senator HEFFERNAN—They are probably out of date, are they?

Mr Vaughan—It depends which type of ultralight we are talking about. There is a VH registered-type ultralight which takes a CASA pilots licence. For the majority of the ultralights as they are known, which are aircraft that are below 544 kilograms gross weight, a licence is issued by Recreational Aviation Australia in accordance with the syllabus.

Mr Byron—You are obviously going to be interested in the specifics for the coronial recommendations. Activity has been going on in CASA for probably about six to eight months now following a directive that I issued to our senior management. Our Deputy CEO of Operations actually runs an activity that covers a lot of this double-checking of recommendations that are made to CASA. I will ask him to give you some detail.

Mr Quinn—It is important to speak about the process. I probably cannot give you the detailed specifics here.

Senator HEFFERNAN—That is all right. I think that is what we want to find out.

Mr Quinn—It is an important initiative that was taken by two bodies. The first one was actually set up before the Miller report was published into the relationship between the ATSB and CASA. That is a body called the Accident Investigation Report Review Board, which I currently chair. It is a committee based upon all of the operational members and also some of the headquarters members of CASA, including our legal staff. We review in detail the specific incidents and the specific accident reports from the ATSB and also those recommendations that come from coronials. The basis of this report and review board was to streamline the CASA involvement in the accident investigation process, an important process, and support the outcomes of aviation safety by providing a technical viewpoint from the regulator's perspective into safety recommendations made by either coroners or the ATSB. As Mr Byron said, that has been up and running now for approximately a year, maybe more. It was chaired by Mr Carmody prior to my joining the organisation. Another body that has recently been established gives us the capability to engage even further with the ATSB, the Accident Liaison and Investigation Unit. This is comprised of specialists who are trained in aircraft accident investigation within the regulator, who can focus on providing technical assistance in the actual accident investigation process and also specialise in this area and work closely with the ATSB. I am pleased to say that the relationship certainly between the two organisations has improved significantly since the formation of these two bodies. I am sure my colleagues from the ATSB will back me up on that.

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Mr Byron—One thing this is designed to do is to make sure recommendations do not slip between the cracks and that there is clear accountability for us to address its recommendations.

Senator HEFFERNAN—The same applies to Kununurra, Mackay and Jandakot. What would it cost to take the actions recommended by the coroners in all of those cases? How would implementing these recommendations impact on the aviation industry? Take those questions on notice.

Answer:

CASA reviews all coronial and ATSB recommendations.

CASA does not implement all recommendations but undertakes cost benefit analysis on those being considered for implementation.

CASA responses to ATSB recommendations (for current year) are published on the CASA website.

CASA is not in a position to cost recommendations or determine impacts on industry at this point in time.

CASA is not willing to allocate resources as this is not part of its usual process.

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Question No. CASA 05

Division/Agency: Civil Aviation Safety Authority

Topic: Enforcement Action on Breaches of CASA Regulations

Hansard Page: 96 (21/10/08)

Senator Heffernan asked:

Senator HEFFERNAN—In relation to the response to question on notice No. 14 on 28 May, which indicated that CASA may decline to initiate enforcement action in the event of a breach of regulations, what percentage of breaches attract enforcement regulations?

Mr Carmody—I am not sure I would know the percentage. I would like to get the acting head of our legal services to take that up.

Senator HEFFERNAN—Yes, you can take that on notice. You have not got a calculator there?

Answer:

CASA regulations that allow for enforcement may involve administrative, infringement notice and/or prosecutorial action. For 2007-08, 90 actions were taken on licences and certificates including show cause conferences, variations, show cause notices, suspensions, cancellations and other actions. There were 19 suspensions and cancellations relating to medical certificates. 146 infringement notices were issued and 17 matters referred to the Director of Public Prosecutions.

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Question No. CASA 06

Division/Agency: Civil Aviation Safety Authority

Topic: VCA Prosecutions

Hansard Page: 99 (21/10/08)

Senator ABETZ asked:

Mr Byron—Through the acting chair, if I may, a question was asked by one of the senators earlier about violations of controlled air space. I have some figures, they may be of use, that the VCAs were talking about. The one figure I have for you is that I have been advised that we have had approximately 1,400 over the past three years.

Senator ABETZ asked—How many of those have been prosecuted?

Mr Byron—We will need to give you that information on notice.

Answer:

Between 2004 and 2008, prosecution action has been initiated in relation to two Violations of Controlled Airspace (VCAs). In both cases, the VCA has been one of several offences the defendant was alleged to have committed. Of these two matters, one resulted in a guilty plea being entered by the defendant, with the matter being dismissed under section 19B of the Crimes Act (no conviction recorded, although the defendant was found guilty of the offence). The second matter is currently with the Director of Public Prosecutions for consideration (along with 19 other offences).

CASA can undertake, and has undertaken other administrative and enforcement actions for VCA-related contraventions.

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Question No. CASA 07

Division/Agency: Civil Aviation Safety Authority

Topic: Relationship with Industry

Hansard Page/s: Written Question

Senator Heffernan asked:

Recently a Senate committee inquiry (18 Sept 2008) criticised CASA for its close relationship with industry.

1. What steps does CASA intend to take to ensure that it is better informed of industry maintenance processes?
2. How might these steps affect the way in which CASA scrutinises overseas maintenance?

Answer:

1. The formation of CASA's Airworthiness Engineering Group provides a focus for maintenance issues within the organisation. The Group is developing a new maintenance regulatory consultation framework. The consultation process with industry has begun and the implementation of the new program will commence in 2010.
2. CASA is investigating ways of aligning maintenance standards and oversight across various countries. CASA will continue to undertake formal surveillance programs for overseas maintenance organisations.

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Question No. CASA 08

Division/Agency: Civil Aviation Safety Authority

Topic: Integrity of CASA's Officers

Hansard Page/s: Written Question

Senator Heffernan asked:

The integrity of CASA's officers has been called into question.

1. What steps, if any, has CASA taken to deal with staff misconduct?
2. How are CASA staff in rural areas supervised?

Answer:

1. CASA as a government agency has policies and procedures in place to deal with staff misconduct. These are made available to all staff and include:
 - The CASA Code of Conduct and CASA values including procedures to manage breaches of the Code;
 - Discipline procedures provided under clause 67 of the CASA Collective Agreement 2008-2010;
 - CASA Fraud Control policy and plan; and
 - CASA Conflict of Interest policy.

CASA has a reporting framework that allows the public and the aviation industry to report suspected CASA staff misconduct. This framework includes the Industry Complaints Commissioner and the CASA Whistleblower-Protective Disclosure Policy. All complaints or allegations are investigated. Where the complaints are proven, CASA takes the appropriate sanction against the employee concerned.

2. There are five regional offices that are responsible for the oversight of general aviation operations throughout Australia. CASA activities in rural areas come under the supervision of these regional offices. Each office is headed by a Regional Manager who has oversight of staff in the office.

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Question No. CASA 09

Division/Agency: CASA

Topic: Audit of Qantas

Hansard Page/s: Written Question

Senator Heffernan asked:

I understand that CASA is only required to perform an audit of Qantas once per year. I presume that a similar practice is adopted for other passenger carriers.

1. Has CASA reviewed this policy?
2. If not, when was it last reviewed?
3. How frequently does CASA believe audits of this kind are necessary?
4. Does CASA have the capacity to increase the number of these audits?

Answer:

1. Yes. In 2006, CASA commenced the implementation of risk-based surveillance, and this new approach to safety oversight is achieving increased surveillance of airline operators. Large airlines are now subject to one audit and a larger number of operational surveillance activities each year. This approach replaced the two formal audits performed by CASA each year. The scheduled audit provides a broad 'snap shot' of activities within an operation, and the operational surveillance provides a flexible mechanism to target specific activities and items based on a range of information, such as safety intelligence, trend information or reaction to events.
2. See answer to Question 1.
3. See answer to Question 1.
4. Yes. CASA has the ability to change the policy regarding the frequency of the audits. Any decision would have to be based on a perceived need for increased levels of auditing taking into account demands on CASA's auditing inspectorate.

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Question No. CASA 10

Division/Agency: CASA

Topic: Safety Systems Audit and Specific Operational Surveillance

Hansard Page/s: Written Question

Senator Heffernan asked:

CASA is required to perform both safety systems audit and specific operational surveillance.

1. What has CASA's approach been to balancing these requirements?
2. Is one given priority over the other?
3. How frequently are the safety systems of major airlines audited?

Answer:

1. CASA's approach to balancing these requirements depends on a variety of factors. This includes risk profiling of organisations, scheduled and non-scheduled surveillance activities (which are determined by risk data and operational surveillance). Priority is given to passenger carrying operations in accordance with the *CASA Industry Sector Priorities and Classification of Civil Aviation Activities* policy.

There are two types of risk that CASA considers when selecting the method of surveillance. Primary risk is based in accordance with CASA's passenger carrying policy. CASA will make an informed decision on surveillance based on the estimated degree of public risk. Secondary risk is based on factors which include risk analysis identified from risk indicators and valid risk data from industry intelligence.

2. Systems audits are the scheduled component of operational surveillance. A systems audit is to determine if the operator's system design is managing the safety of the operation and is in compliance with the regulations.

Operational surveillance is carried out based on a number of factors. This includes the maturity of the organisation and the type of organisation. The purpose of operational surveillance is to determine the effectiveness of the operator including non scheduled and scheduled surveillance.

3. Large airlines are now subject to one safety systems audit and numerous operational surveillance activities each year.

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Question No. CASA 11

Division/Agency: Civil Aviation Safety Authority

Topic: Self-checking Safety Systems

Hansard Page/s: Written Question

Senator Heffernan asked:

Qantas, and other airlines, have been entrusted by CASA to rely on self-checking safety systems.

1. Were these systems largely different between different passenger carriers?
2. How did CASA monitor these (presumably different) systems across the industry?

Answer:

1. The term 'self-checking safety systems' is not one CASA has ever used in relation to either Safety Management Systems (SMS) or Integrated Safety Management Systems (ISMS).

The principles that CASA is applying to safety systems are those generally applied across the corporate world in regard to organisational management and governance responsibility. The procedures are also endorsed by ICAO. CASA has been reinforcing the philosophy that the operators are responsible for what they do to manage the risks of their operations. CASA's role is to oversight activities and provides confidence that the system is working as intended. CASA should and does apply appropriate intervention strategies when necessary. However, it is not considered appropriate, or desirable, for CASA to either act for an operator as its quality control function or assume responsibility on behalf of an operator. Safety Management Systems expand on and apply necessary rigor to the basic management functions within an organisation with particular attention given to safety risk management. Systems will be different because operators are different.

2. Large airlines are subject to one safety systems audit and a larger number of operational surveillance activities each year.

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Question No. CASA 12

Division/Agency: Civil Aviation Safety Authority
Topic: Series of Incidents aboard Qantas Planes
Hansard Page/s: Written Question

Senator Heffernan asked:

Following a series of incidents aboard Qantas planes this year, I assume CASA has performed an audit of all planes in the Qantas fleet.

1. Is this correct?
2. If not, why not?

Answer:

1. CASA has not performed an audit on every aircraft in the Qantas fleet. CASA has conducted sample audits of most types of Qantas aircraft.
2. It is the responsibility of the operator to ensure the aircraft are compliant with the safety regulations. CASA approves the operations manual and maintenance systems of all operators as part of the process of issuing an Air Operator's Certificate. CASA has chosen to audit one aircraft from each of the major aircraft types of Qantas' Boeing fleet. As this is an extensive audit, it is expected this process will take some months to complete, and is seen as a reasonable sample to determine the condition of the Qantas fleet.
3. CASA then audits compliance.

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Question No. CASA 13

Division/Agency: Civil Aviation Safety Authority

Topic: Overseas Maintenance in Malaysia

Hansard Page/s: Written Question

Senator Heffernan asked:

One Qantas plane that returned from overseas maintenance in Malaysia came back with 95 defects (July 2008)?

1. When a plane returns from an overseas maintenance trip how long is it before another full maintenance check is required on that aircraft?
2. Are there any discrepancies between reporting requirements when checks are performed in Australia and when checks are performed overseas?
3. Does CASA perform audits of Australian maintenance operations?
4. If so, are the same audits performed on overseas maintenance operations?

Answer:

1. The timing of maintenance checks depends on the system of maintenance approved for that operator, what check was carried out during the last maintenance visit and what the next visit will require. These processes would be the same regardless of where the previous maintenance was carried out.
2. CASA's reporting requirements are identical for maintenance organisations regardless of whether they are based in Australia or overseas. They all hold the same approval issued by CASA. It is a regulatory requirement to report defects found at any time on Australian registered aircraft.
3. CASA performs scheduled annual audits on all maintenance organisations that hold a Civil Aviation Regulation (CAR) 30 Certificate of Approval.
4. The same audits are performed on overseas maintenance operations holding a CAR 30 Certificate of Approval as they are on similar Australian maintenance operations.

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Question No. CASA 14

Division/Agency: Civil Aviation Safety Authority

Topic: Levels of Maintenance Checks

Hansard Page/s: Written Question

Senator Heffernan asked:

I understand that there are different levels of maintenance checks. "C" is a heavy check where most of the airplanes parts are checked.

1. How often are these "C" checks performed and are more, less, or the same amount of these checks performed domestically than abroad?

Answer:

The frequency of maintenance checks can vary between operators. Aircraft maintenance schedules are developed in accordance with the manufacturer's Maintenance Planning Data (MPD). The MPD document outlines what maintenance checks are required throughout the life of the aircraft, from line maintenance transit checks through to the larger heavy 'C' & 'D' checks. The operator then proposes a system of maintenance that includes the maintenance schedule, which is approved by CASA.

The decision of how many maintenance checks are to be performed domestically or at international locations is one taken by the operator. CASA's concern with respect to maintenance is that it is performed safely and is not in breach of any Australian regulations.

CASA does not maintain statistics on checks performed in Australia versus checks performed overseas.

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Question No. CASA 15

Division/Agency: Civil Aviation Safety Authority

Topic: Qantas Admitted to not Performing Maintenance Procedures

Hansard Page/s: Written Question

Senator Heffernan asked:

On 13 August 2008, Qantas admitted to not performing maintenance procedures relating to fatigue cracking. These maintenance procedures were ordered 8 years ago.

1. What procedures does CASA have in place to ensure that such directives are complied with?
2. What has CASA's follow up with Qantas been on this issue?

Answer:

CASA legislation requires the operator to maintain and adhere to a documented system embodied in his/her procedures to ensure Airworthiness Directive (AD) compliance. Compliance is legally the responsibility of the operator.

CASA carries out a sample check of compliance to applicable Airworthiness Directives (ADs) during an audit or surveillance, and reviews the operator's procedures to ensure that they are appropriate for the task.

When CASA or a delegate of CASA is requested to issue a Certificate of Airworthiness or Export Certificate of Airworthiness for an aircraft, he or she must be satisfied of 100% compliance to all applicable ADs. This usually only occurs when an aircraft is imported or exported. For the life of the aircraft after that, the operator is legally responsible to ensure continuing compliance with all applicable ADs.

CASA conducted a systemic safety review of Qantas and the results were released to the CASA CEO in early September 2008.

CASA has set up a Qantas evaluation projects team which liaises directly with Qantas and monitors issues that arise. Any regulatory action that may be necessary will be taken by CASA in an appropriate and timely fashion.

CASA is undertaking 2 additional intensive audits of Qantas. The first audit is focussing on one aircraft from each of the Qantas Boeing 737, 767 and 747 fleets and involves a physical check of the aircraft and maintenance documentation. The second audit is reviewing Qantas' maintenance systems and external procedures relating to ADs.

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Question No. CASA16

Division/Agency: Civil Aviation Safety Authority

Topic: Qantas has increasingly relied on Overseas Maintenance

Hansard Page/s: Written Question

Senator Heffernan asked:

I understand that Qantas has increasingly relied on overseas maintenance.

1. Is this a trend across the industry and to what extent?
2. What kind of relationship does CASA maintain with overseas safety authorities?
3. Is CASA advised by these authorities of their domestic maintenance issues or problems?

Answer:

1. A number of large operators have for many years carried out heavy maintenance at overseas maintenance organisations and this is part of a global trend. Over the past five years, approximately 10% of Qantas flight maintenance is performed overseas. This has increased recently to between 15% and 20% due to a number of factors, including:
 - Increased fleet numbers and activity; and
 - Delays in delivery of New Generation aircraft thereby creating the need to continue operating older aircraft. This requires more maintenance than was originally planned and therefore this can be difficult to undertake on-shore.

Overseas operators use similar, and in some cases, the same maintenance organisations, to carry out heavy maintenance requirements on their aircraft. These organisations are quite often approved for this maintenance by the Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA) as well as smaller national civil aviation authorities like Australia.

2. CASA maintains a strong relationship with overseas safety authorities.
3. Yes. CASA is advised of current areas of concern and has recently participated in a multi-lateral technical board to discuss maintenance issues and problems. Hong Kong, Canada, New Zealand and Singapore are working together with Australia to improve the relationship between overseas safety authorities.

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Question No. CASA 17

Division/Agency: Civil Aviation Safety Authority

Topic: Audits of Maintenance Facilities during 2006-2007

Hansard Page/s: Written Question

Senator Heffernan asked:

On 21 July 2008, in an article in *The Age*, it was reported that CASA refused to release audits of maintenance facilities in Hong Kong, Singapore, Malaysia, Philippines and New Zealand during 2006 – 2007. The Aircraft Engineers Assn has said that CASA's refusal to disclose these audits make it difficult for engineers to certify the safety of aircraft.

1. Is this true, if so, why the secrecy?
2. How does CASA ensure that engineers are provided with relevant and up to date information about aircraft maintenance?
3. When will these audits be released?

Answer:

1. The Australian Licensed Aircraft Engineers Association sought access to documents pursuant to the *Freedom of Information Act 1982*, in particular copies of all audit reports and findings of Civil Aviation Regulation 30, relating to aircraft maintenance facilities located in the following geographical locations, Singapore, Malaysia, Hong Kong, the Philippines and New Zealand, carried out in 2006 and 2007 and copies of all audit report and findings on Australian registered aircraft undergoing maintenance in those locations and on those dates.

CASA identified ten audit reports relevant to the request and determined that documents relevant to the request were exempt documents. This decision was confirmed by an internal review requested by the applicant. Some of the organisations made representations to CASA as to why they considered the documents should not be released. On 18 January 2008, the applicant lodged an application for review with the Administrative Appeals Tribunal. The Tribunal will make a decision as to whether the audit reports are exempt documents after a substantive hearing is held, likely to be March 2009.

2. CASA ensures that engineers are provided with relevant and up to date information about aircraft maintenance with the release of Airworthiness Directives and Service Bulletins. This information is posted on the Internet and subscriptions are available. CASA aviation safety advisors also notify industry of new and upcoming changes to legislation. It is also up to the airline operator employing the engineer to provide the required information and documentation on their role, responsibilities and the necessary action required for the highest levels of safety.
3. See the answer to question 1. The Act requires CASA to consult with the organisation concerned as part of the FOI process.

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Question No. CASA 18

Division/Agency: Civil Aviation Safety Authority

Topic: Flying Operations Inspectors (FOIs)

Hansard Page/s: Written Question

Senator Heffernan asked:

Concern has been expressed that CASA flight operations inspectors (FOI) do not have sufficient knowledge of the CASA regulations and how they apply.

1. Could CASA detail how frequently FOIs are updated with respect to the CASA regulations review process? Particularly those that are operating in regional and rural areas.

Answer:

CASA has a technical training matrix which covers technical training requirements for all inspectorate staff. This matrix was reviewed earlier this year and work is underway to update course material and/or identify training providers to deliver training programs to staff. All new CASA staff (including FOIs) attend a 2 day Orientation Program and included within that Program are sessions on CASA's Legislative and Regulatory Frameworks. New staff also receive on-the-job-training and guidance from within CASA Field Offices on commencing with CASA. For example, three Inspector Induction Training courses have been run in the last eighteen months.

Commencing in January 2009, CASA's Legal Services Group will be conducting one-day, on-site regulatory training targeting all inspectors, system safety specialists and aviation safety advisors, dealing specifically with the interpretation and operation of the regulations and the processes by which decisions may be reviewed.

CASA, in conjunction with Swinburne University of Technology, has developed a Diploma in Aviation Safety Regulation. This course was developed and piloted during 2006 and 2007 and commenced full implementation in 2008. Currently there are 72 enrolments in the Diploma. Of those staff, 17 are FOIs. The Diploma aims to provide a formal development program to CASA inspectorate and other staff covering a range of critical regulatory skills. This is available for all CASA staff.

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Question No. CASA 19

Division/Agency: Civil Aviation Safety Authority

Topic: Shortage of Air Traffic Controllers

Hansard Page/s: Written Question

Senator Heffernan asked:

A shortage of Air Traffic Controllers has meant that passenger flights are often travelling through uncontrolled airspace. CASA has approved of the procedure whereby pilots 'self-separate.'

1. Has CASA undertaken a risk assessment of this practice and of unmonitored airspace?
2. If so, what was its outcome? Furthermore, concerns have been raised that international pilots may not be fully aware of self separating procedures and there have been reports of international pilots being briefed mid flight. CASA (on the 11 July 2008) began quizzing foreign pilots about these procedures.
3. Prior to this undertaking had CASA assessed international pilots' understanding of these procedures?
4. If so, were all international airlines subject to the testing?
5. What was the outcome of these most recent tests?
6. What steps did CASA take, or intend to take, against pilots who did not pass the test?

Answer:

- 1-2. CASA has reviewed and is satisfied with the risk assessment process undertaken by Airservices Australia prior to the implementation of Traffic Information Broadcasts by Aircraft (TIBA) procedures and in advance of operators being required to fly in un-controlled airspace.

TIBA is an ICAO-endorsed, internationally recognised practice.

3. Surveillance associated with TIBA procedures forms part of a coordinated and targeted surveillance plan. CASA does not "test" pilots. The holder of a pilot licence is responsible for ensuring that he/she complies with all the relevant rules of the air and procedures as prescribed by the appropriate regulations and procedural publications.
- 4-6. In July 2008, CASA wrote to all Foreign Aircraft Air Operator's Certificate (FAAOC) holders advising of the TIBA procedures detailed in Australia's Aeronautical Information Publication. In July 2008, CASA also carried out eighteen spot checks at Brisbane, Melbourne and Sydney. During August and September 2008 CASA conducted twenty-two international ramp

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inspections with an emphasis on airspace downgrades and crew knowledge of TIBA procedures. During the ramp inspections, CASA inspectors enquired:

- Whether Notices to Airmen (NOTAMs) were reaching crews, highlighting that airspace with reduced or no Air Traffic Control (ATC) coverage required the use of TIBA procedures;
- If crews understood the impact on their flight of such an airspace change and the need to use TIBA procedures; and
- If crews were knowledgeable in TIBA procedures.

The results overall were satisfactory, with 19 of the 22 operators being familiar with TIBA procedures. CASA subsequently provided guidance material to the operators unfamiliar with TIBA procedures.

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Question No. CASA 20

Division/Agency: CASA

Topic: CASA's Obligations under its Changing Regulations

Hansard Page/s: Written Question

Senator Heffernan asked:

Concerns have been expressed that CASA does not adequately inform industry of their obligations under changing CASA regulations.

1. Could CASA advise as to how industry are kept informed about changing CASA regulations?

Answer:

CASA has an extensive consultation and information provision process. CASA established the Standards Consultative Committee (SCC) to bring together CASA staff and representatives from a diverse range of aviation community organisations to work jointly during the development phase of regulatory material. The SCC serves as the principal consultative body used by CASA to provide advice and recommendations to CASA on regulatory issues and proposals and associated documentation.

CASA has developed and maintains a website-based page that provides users with links to information on regulatory development projects proposed, underway or completed, consultation being undertaken and project progress/status reports. See <http://www.casa.gov.au/corporat/regplans.htm>.

These regulatory developments are communicated to industry through publications (pamphlets and CASA's *Flight Safety Australia* magazine); through the internet (all Civil Aviation Safety Regulation Parts and projects are promulgated on CASA's web page); by making CDs available for users unable to access the internet, and through newspaper advertisements and post and email notifications directly to affected parties and stakeholders.

The consultation notification advises CASA's intention to seek comment on a proposed rule; describes the manner in which copies of the consultative document can be obtained and provides advice as to the period and method by which responses may be made and lodged in relation to the proposal.

Generally, CASA allows up to eight weeks for respondents to comment on the proposal. In cases where the proposal is easy to understand, or is minor or non-controversial, it can be subject to comment for shorter periods as determined by CASA. The response period may be extended for large and complex proposals.

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Question No. CASA 21

Division/Agency: Civil Aviation Safety Authority

Topic: Air Controllers Union

Hansard Page/s: Written Question

Senator Heffernan asked:

CASA has rejected calls from the Air Controllers Union to perform a review of the safety procedures for passenger jets in unsupervised areas.

1. Why is this seen not to be necessary?

Answer:

Traffic Information Broadcasts by Aircraft (TIBA) is an ICAO-endorsed, internationally recognised practice. CASA conducts operational surveillance to verify compliance. See answer to CASA 19.

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Question No. CASA 22

Division/Agency: Civil Aviation Safety Authority

Topic: Passenger Planes Flying through Unmonitored Airspace

Hansard Page/s: Written Question

Senator Heffernan asked:

In August 2008, CASA undertook to restrict the number of passenger planes flying through unmonitored airspace.

1. Does, or did, CASA hold concerns about the number of unmonitored aircraft passing through unmonitored airspace?

Answer:

CASA has concerns about all interruptions in air traffic services in Australian airspace. However, it is not accurate to say the aircraft and airspace are unmonitored. Aircraft are separated from one another by air traffic controllers prior to entry into the airspace where Traffic Information Broadcast by Aircraft (TIBA) procedures apply and the airspace is monitored by Airservices supervisory staff during the period of the interruption.

CASA continues to closely monitor and as appropriate conduct audits and operational surveillance to ensure ongoing regulatory oversight of TIBA procedures.