

Rural & Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Budget Estimates May 2013

Infrastructure and Transport

Question no.: 112

Program: n/a

Division/Agency: (ATSB) Australian Transport Safety Bureau

Topic: Estimate projections

Proof Hansard Page/s: 111 (29/05/2013)

Senator Fawcett asked:

Senator FAWCETT: So, taking into account inflation and the cost-growth pressures, which are normally real inflators on top of that, have you calculated the real cost, or the real cuts, that these estimate projections represent to your budget?

Mr Dolan: No, there is not a readily available figure that I could give you on that. I am certainly happy to take it on notice.

Senator FAWCETT: Can you take it on notice? And, as we have been saying to every other group, because there is a looming election, the normal time frame will not work. If you could come back to the committee with an indication of what you used for your indexation and your cost-growth pressures that then enable a calculation of what this real cut is over these estimate figures, that would be useful.

Mr Dolan: Yes, Senator.

Answer:

The ATSB budget as presented in the 2013-14 Portfolio Budget Statements was developed to take into account estimated inflation and the cost-growth pressures. The figures therefore present changes in projected revenue and expenses in real terms over the forward estimate period. The estimates were developed in accordance with the Government's budget process and operating rules, and took into account a number of factors that include:

- 1) The application of economic parameters (estimates of inflation/cost growth) as advised to the ATSB by the Department of Finance and Deregulation;
- 2) The application of the Government's efficiency dividends and other savings from the Government's budget measure 'Targeted Savings – public service efficiencies;
- 3) A \$1.5 million decrease in appropriation in 2014-15 due to the end of transitional funding for the national transport safety reforms;
- 4) A reduction of \$0.740 million in external revenue in 2014-15, reflecting the end of the current program of funding for the Indonesian Transport Safety Assistance Package (ITSAP); and
- 5) An estimate of revenue to be received from several States to meet the costs of an expanded investigation function under the national transport safety reforms.

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ANSWERS TO QUESTIONS ON NOTICE

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Question no.: 113

Program: n/a

Division/Agency: (ATSB) Australian Transport Safety Bureau

Topic: Retrofitting

Proof Hansard Page/s: 113 (29/05/2013)

Senator Xenophon asked:

Senator XENOPHON: So you are saying that the retrofitting would not have made any difference?

Mr Dolan: That would be our general assessment.

Senator XENOPHON: Take it on notice, because I have a few other matters to raise. You are saying that, from a causation point of view, even retrofitting the helicopters with that protective bladder, it still would have been a fatal accident?

Mr Dolan: On the facts that were available to us. We are not aware of any previous to Cessnock. I do not think we are aware of any of the low-energy collisions leading to that sort of thing. There were, as you say, a number of high-energy collisions that would have led to a ruptured fuel tank in any helicopter and therefore a great likelihood of a post-crash fire. Those are the sorts of accidents that generally are not survivable.

Senator XENOPHON: If you would not mind taking that on notice, even if it is just referring us to what you consider relevant, that would be very helpful.

Answer:

An indication of the impact forces and survivability of the accidents in 2003, 2006 and 2008 is at Attachment A.

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113 – Attachment A

IMPACT FORCES AND SURVIVABILITY

Accident	Impact forces	Survivability
<p>Collision with terrain 43km north-west of Kununurra Airport, Western Australia on 8 November 2003 involving Robinson R44 Astro helicopter, registered VH-YKL.</p>	<p>Initial impact was with a tree at a point about 36 ft above the ground. The fuselage continued on a bearing of 282 degrees, pitched nose down and impacted the rough, boulder-strewn terrain down slope of the hill and 25 m from the initial tree contact at about 48 kt (89 km/h). The descent profile into the terrain was relatively steep and there was extensive fragmentation of the main rotor blades.</p> <p>The helicopter came to rest on its left side on a reciprocal heading, 38 m from the initial tree contact.</p>	<p>The helicopter was most likely under the control of the pilot until the moment it contacted the trees at about 36 ft above the ground with a groundspeed of about 48 kt (89 km/h). From that point, the helicopter departed from controlled flight due to the damage to the main rotor system caused by the impact with the trees. The helicopter came to rest 38 m from the initial tree contact.</p> <p>Three-point lap/sash-type seat and shoulder harnesses were fitted to all four seating positions in the helicopter. On-site examination revealed that all seat belts were fastened at the time of impact.</p> <p>The ATSB found that the accident was not survivable.</p> <p>At inquest, the Coroner received evidence from a forensic pathologist. The Coroner summarised this evidence, stating that ‘...all [of the persons on board] died at the time of the crash from the injuries which they sustained as a result of it.’</p>
<p>Collision with terrain 10 km west of Gunpowder Aircraft Landing Area, Queensland on 21 February 2006 involving Robinson R44 Astro helicopter, registered VH-HBS.</p>	<p>On-site examination determined that the helicopter contacted a small tree before impacting the top of a hill in an area that was considered unsuitable as a normal landing area for an R44.</p> <p>The impact forces were severe enough to have</p>	<p>The United States Navy (2001), <i>The Naval Flight Surgeon’s Pocket Reference to Aircraft Mishap Investigation</i> (5th Edition) (available online at http://safetycenter.navy.mil) includes guidance for flight surgeons on the possible conclusions from the examination of flight crew post-mortem reports. This</p>

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Accident	Impact forces	Survivability
	<p>compressed the stainless steel vertical engine firewall to less than half its original height. Given that the cabin starts at the bottom of this firewall, this finding suggests that the severity of the forces in the rear of the cabin would have been similar to those affecting the firewall.</p> <p>Both landing skids separated from the helicopter due to impact forces. The engine air induction and oil sump systems, which are located at the bottom of the engine, both sustained significant crush damage.</p>	<p>includes in respect of injuries sustained as a result of pre- and/or post-impact fire.</p> <p>The ATSB reviewed the impact damage to the helicopter, the relative position of the occupants in the wreckage and the findings at autopsy in the context of the guidance in the US Navy handbook. This review found that the physical evidence was consistent with the occupants being fatally injured as a result of impact injuries, before the post-impact fire took hold.</p> <p>The ATSB assessed the impact with the ground not survivable.</p>
<p>Collision with terrain 6 km north-east of Purnululu Aircraft Landing Area, Western Australia on 14 September 2008 involving Robinson R44 Raven helicopter, registered VH-RIO.</p>	<p>Immediately preceding the accident, the helicopter was about 100ft overhead the accident site. Both landing skids separated from the helicopter on impact with the ground due to overload forces.</p> <p>Damage to the engine and engine firewall indicated that the helicopter's ground impact was severe, in a generally upright, right skid-low attitude with high vertical velocity and little or no forward speed.</p> <p>The main rotor blades displayed low rotational energy at ground impact.</p>	<p>Drawing from the post-mortem reports, the ATSB investigation report notes varying degrees of injury to the four occupants of the helicopter, consistent with the high vertical velocity impact.</p> <p>The Coroner addressed the survivability aspects of the accident in her findings that were handed down following the coronial inquest. In establishing these findings, the Coroner consulted with the Chief Forensic Pathologist, who reviewed the post-mortem information to clarify the causes of death.</p> <p>As a result of that process, the Coroner formed the view that the three passengers '...died as a result of the injuries they received on impact, which also severely disabled the Pilot.'</p> <p>In respect of the pilot, the Chief Forensic Pathologist</p>

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Accident	Impact forces	Survivability
		was reported to have advised the Coroner that the 'physical injuries located at post mortem, although severe, would not normally be expected to be fatal alone. They were consistent with severe vertical impact trauma. In addition, the Pilot had sustained significant burns. These, in conjunction with some focal coronary artery disease would account for a fatal outcome from the physical and thermal injuries observed.'

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Question no.: 114

Program: n/a

Division/Agency: (ATSB) Australian Transport Safety Bureau

Topic: R44 accidents

Proof Hansard Page/s: 115 (29/05/2013)

Senator Xenophon asked:

Senator XENOPHON: Thank you. I want to ask Mr Dolan to take something on notice. Going back to the R44 accidents that occurred in 2003, 2006 and 2008, my understanding is that four people died in each of these accidents, so 12 in total. Can you provide information on notice as to whether they were categorised as high-impact accidents and whether there was an appropriate engineering or other expert assessment undertaken as to whether retrofitting of the aircraft with the safety bladder for the fuel tanks would have made any difference?

Mr Dolan: I can say in each of the cases there was no direct consideration given to the retrofitting issue, which was a subsequent issue from Robinson Helicopter. We can certainly give you the information that relates to our assessment essentially of the survivability questions related to those three accidents.

Senator XENOPHON: Which will go to the issue of how high the impact was et cetera. Thank you.

Answer:

As advised by Mr Dolan, in the case of the R44 accidents referred to above that occurred in 2003, 2006 and 2008 there was no direct consideration given to the bladder-type fuel tank retrofit. A service bulletin that required R44 helicopters with all-aluminium fuel tanks to be retrofitted with bladder-type tanks as soon as possible, but no later than 31 December 2014, was first released by Robinson on 20 December 2010.

Survivability matters are dealt with in response to Question number 113.