# Chief Commissioner's remarks – Release of Fox Glacier Inquiry Review and Review of Investigation Process – 2pm, 29 October 2015 – Check against delivery

(Note: punctuated for delivery; you are welcome to adjust for print/online quotation.)

Good afternoon.

Today, the Transport Accident Investigation Commission has published an addendum to its final report published in 2012, concerning the September 2010 parachuting aircraft accident at Fox Glacier. All nine occupants died in the accident which occurred during take-off.

The Commission has also published an independent review of the investigation process employed, with an emphasis on the on-scene examination of the wreckage.

## Agenda

I want to address the main points to emerge from what has been an extensive review of disputed aspects of the original inquiry, and give you an overview of how it was carried out.

I will then address the investigation process review findings and the resourcing, policy and procedural changes made since.

I will conclude by returning to the safety issues identified in the first report. These all still stand, following the review. I will update you on progress that has been, or is being taken, to implement the recommendations made by the Commission to help improve transport safety.

I will then take questions, and will be joined for this by the Chief Investigator of Accidents Captain Tim Burfoot.

## Review Findings

First, to the review findings.

The review is being published as an addendum to the original inquiry report because essentially that report still stands. Nothing in the review has challenged the key safety issues identified and the recommendations made during - and following the inquiry. After a lot of revisiting, new work, expert opinions, and a consideration of all the possibilities – we still cannot determine the cause of the excessive pitch-up at take-off that led to the steep climb, stall and crash.

We are not in this position due to any problems with the original investigation. When there is such extensive destruction, an absence of recoverable data, and those who experienced it are dead or unable to recall what happened it is simply not always possible to determine the precise cause. This is disappointing from an inquiry point of view and of little comfort to those grieving, but it is sometimes the unfortunate reality of accident investigation.

However, the Commission is now able to rule out some of the challenges, and the probability weightings of some potential factors have been adjusted.

There were suggestions that the control stick may have been an issue. The scene investigators' original conclusion that the control stick had broken on impact has been confirmed. We have also been able to make a new finding that

it was exceptionally unlikely that the pilot had attempted the take-off with the control stick locked.

Meanwhile, we have refined an original finding that weight and balance was the most significant contributing factor. However, the Commission still emphasises that the risks of parachuting operations were increased by the pilots flying without knowing the aircraft weight and balance for each flight, and as we said in the original, routinely flying overweight and out of balance when carrying eight parachutists.

Other review findings have refined the technical wording of the original report to reflect the consensus of consulted experts, but these changes do not alter the essential thrust from the original.

## Review Process

Before setting out the review process itself, it is worthwhile reminding ourselves of the Commission's purpose, how it is constituted, and the way it goes about its job.

The Commission is a standing Commission of Inquiry which has the purpose of investigating the circumstances and causes of accidents and to make recommendations to help prevent recurrences.

While we do not shy from telling it like it was, it is not our role to lay blame and our reports cannot be used for that purpose. Indeed section 4 of our Act guides us not to ascribe blame to any person.

I now head a Commission of four Commissioners who review the facts, make those findings, identify the safety issues, make any recommendations as and when required, and issue our judgements in the form of reports.

The law ensures we are completely independent from, and impartial to, the competing interests often concerned with an accident, whether political, regulatory, industry, involved individuals, or affected families.

Our only interest is to do the best job we can and to get things as right as possible with the evidence, resources and science available.

The Commission does its work by reviewing evidence assembled by an investigation team, directing further investigation and analysis, seeking expert and independent advice when required, and weighing the evidence and competing theories to reach final conclusions.

When finalising our views we formally consult with - and consider the views of - the organisations and individuals involved. We do this to ensure accuracy, completeness and the observance of natural justice. These very important steps took place in both the original inquiry and in the review.

However, after publication of the original report challenges to aspects of the Commission's process and its conclusions were raised through the later Coroner's inquest. Then, a television current affairs segment broadcast in March 2014 raised additional theories and also alleged that poor investigation practice had led to incorrect or missed conclusions.

Any statutory decision-maker is open to formal challenge through judicial review. No such proceedings were taken here. In fact, nobody had requested the Commission re-open or review, and no new or significant evidence had been provided to it. The Commission invited any further evidence to be submitted. There was none.

Nevertheless, the Commission resolved in April 2014, to review its original inquiry, and the Chief Executive commissioned an independent review of the investigation practice, because we believed that certainty and confidence is owed to those involved and affected by the events we inquire into.

This was only the third time in its 25-year history of about 930 completed inquiries, that the Commission has contemplated such a voluntary review of an inquiry, and only the second time it has carried one out.

To conduct the review, the Commission assigned investigators who had not worked on the original inquiry to project manage the work. The review team re-examined the wreckage. This team involved groups of external experts in a variety of ways – including experts used by the television programme. It revisited calculations and measurements, commissioned flight tests, and more. This is all detailed in the Conduct of the review section of the addendum report.

The review has been exhaustive. It has included the Victoria University Maths and Statistics Department and the School of Aerospatial Engineering of Cranfield University, England. Commissioners were kept briefed and had input throughout. We have kept the parties involved – including the families – updated on key milestones and involved them formally in the consultation to finalise the addendum.

## Process Review

I will turn now to the separate independent review of investigative practice, which was commissioned by our Chief Executive following criticisms made at the Coroner's inquest but particularly through the television current affairs programme.

The reviewer's findings highlighted gaps and weaknesses in the Commission's investigative resourcing and procedures that existed in 2010. These allowed some decisions and practices to occur in respect of this inquiry, due to its unique circumstances which, with the benefit of hindsight, were not ideal. The findings should be read as commentary on the organisation as it was five years ago, and not as criticism of individual staff dealing with the circumstances of the day. You have the report in front of you, but I will address the more critical ones.

- Only one TAIC investigator was available on the day for reasons beyond the Commission's control. The accident occurred on the same day as the first significant Canterbury earthquake, which impacted the assigned investigator, his family and home. (And, of course the February 2011 quake occurred as the inquiry progressed.)

- The issues surrounding the resourcing of the investigation on the day of the accident, and the consequent additional workloads and pressures this created, had flow-on effects for the management of the evidence on site and the depth of analysis undertaken.

- Seconded Royal New Zealand Air Force investigator support provided to the scene investigation, was not used for as long as it could have been, including into the analysis stage.

- It would have been preferable for the investigation team to have arrived earlier although this wasn't possible, and for them to have spent longer on site and to have made more extensive site notes.

- Some of the wreckage was, on balance, released for disposal prematurely - although the process of release and disposal was appropriate. (In fact, wreckage is often buried when no longer needed.)

- Analysis following the scene investigation could have been enhanced by pursuing some issues and competing theories further than they went, and by better recording the analytical steps as these occurred.

Action has been taken or is underway to address the issues identified by the process review. Key actions include:

- the deployment of at least two accident investigators to every site, and ensuring every team has a mix of technical and operational investigative skills

- the securing of additional government funding to better resource investigations, including employing six additional investigators and allowing more experts to undertake detailed testing where required

- the tightening of evidence processes, including a default position of removing all evidence when able from an accident site, securing it for the duration of the investigation, and placing tighter controls on access to, and the release of, evidence

- a greater use of external experts, including the holding of expert conferences where this would assist in analysing the circumstances and causes of an accident

- continuing the Commission's substantial investment in safety investigation training for all investigators through the internationally recognized Cranfield University programme and, finally,

- ensuring that accident reports provide more detail on the conduct of the investigation process.

The Commission's staff strive to continuously improve their practice. This process review has provided an opportunity to do that. It could be said we have taken our own medicine.

The policy and practice changes will go further and faster than they might have been able to, due to the recent welcome increase in funding for the organisation. This should allow us to both maintain overall quality, and reduce the length of time inquiries take to complete. We are increasing investigator numbers from nine plus a chief investigator to 16 in total. We now have an extra Commissioner, and some extra support for investigation and inquiry processes.

## Update on safety issues recommendations

As we know, the main inquiry review has not led to new safety issues or recommendations being identified. Let's recap on what these are because we should not lose sight of them.

Within a week of the accident the Commission, on the advice of the investigation team, had made two urgent safety recommendations to the Civil Aviation Authority.

The first was, to restrict the number of parachutists in the rear cabin of the aircraft type, to six, and requiring weight and balance calculations for every flight based on actual weights. The CAA did this.

The second urgent recommendation was to ensure more accurate centre of gravity calculations were made for the aircraft type, including all aircraft currently in service. The CAA did this, and also commenced a wider review of parachutist-loading requirements.

At the conclusion of the inquiry the Commission made six more recommendations to the CAA relating to:

- the modification of the aircraft from topdressing to parachuting operations,
- parachuting operators' compliance with civil aviation rules
- regulatory oversight of aircraft modifications and operational category changes
- study of the potential for appropriate cabin restraints to enhance parachuting safety
- regulatory oversight of the introduction of the accident aircraft to parachuting service, and
- regular external validation of drop pilots' skills

Post-mortem results identified that some of the parachute tandem masters were cannabis users. The Commission made a recommendation to the Secretary for Transport to promote the introduction of a drug and alcohol detection and deterrence regime for people working in safety critical transport roles. In March this year, the Ministry released a discussion paper on options to reduce the risks of alcohol and drug-related impairment in the aviation, maritime and rail transport sectors. Action is underway on that issue.

Other relevant safety actions, taken since the original inquiry report was released, are also detailed in the addendum.

## Conclusion

So in summary, the main points are:

- An extensive review by the Commission of its inquiry into the 2010 Fox Glacier parachuting aircraft accident has reconfirmed the safety issues and recommendations originally identified.

- The cause of the pitch-up on take-off remains unknown. The scene investigators' conclusion that the control stick broke on impact is confirmed.

- An independent expert's separate review of the investigation process found that there were not enough investigators available to deploy on the day. It would have been ideal for the investigation team to have arrived earlier on scene, and to have spent more time working with the physical evidence. Some of the record-keeping and analysis processes could have been more extensive.

- But these issues did not affect the conclusions and recommendations reached by the original inquiry. These were primarily issues of organisational resourcing and policy or practice as applied in the unique circumstances of this accident, and not of individual staff performance.

- The Commission has secured funding allowing it to increase its investigator numbers, have additional Commissioners, and increase some investigation and inquiry support services. This should help maintain the quality of inquiries and increase our throughput as the new staff become fully effective.

- Finally, progress is being made or is ongoing, to address the safety issues raised and recommendations made by the Commission in its original inquiry, in order to improve parachuting, aviation and transport safety generally.

Thank you. I will now take questions with the support of Chief Investigator of Accidents Captain Tim Burfoot.