Chapter 3
The ATSB investigation and methodology

Background

3.1 The Australian Transport Safety Bureau (ATSB) produced a report on the ditching of VH-NGA Westwind II, operated by Pel-Air, following a lengthy investigation.[1] The report has generated much debate and attracted considerable criticism.

3.2 In order to assess the ATSB investigation report, its conclusions and criticism of both, the committee sought a great deal of evidence on how investigation reports *should* look.

3.3 This chapter looks at the investigation model used by the ATSB, and what in the committee's view the ATSB report should have covered, with a particular focus on the requirements under Annex 13 of the International Civil Aviation Organisation's (ICAO) Chicago Convention and the ATSB's own procedures, as outlined in the agency's submission.

3.4 The chapter also looks at issues around the agency's decision to not retrieve VH-NGA's flight data recorder, as well as the inordinate amount of time taken to produce the investigation report.

3.5 Finally, this chapter explores the reasons the ATSB report took almost three years to complete.

Accident investigation analysis model

3.6 Investigation analysis models are usually based on the widely-used 'Reason' model of accident causation. The application of the model extends beyond the aviation sector. The Reason model has become an industry standard and includes a broad examination of potential organisational deficiencies, holding that explanations for accidents which focus on individual performance alone are inadequate. Essentially, the model considers the complex interaction between individual and latent organisational factors, which, when aligned in a particular way, allow an accident to occur. In effect, it highlights the system an individual works within.

3.7 The ATSB informed the committee that the Reason model of accident causation consists of five levels of safety factors. These are:

- Occurrence events
- Individual actions

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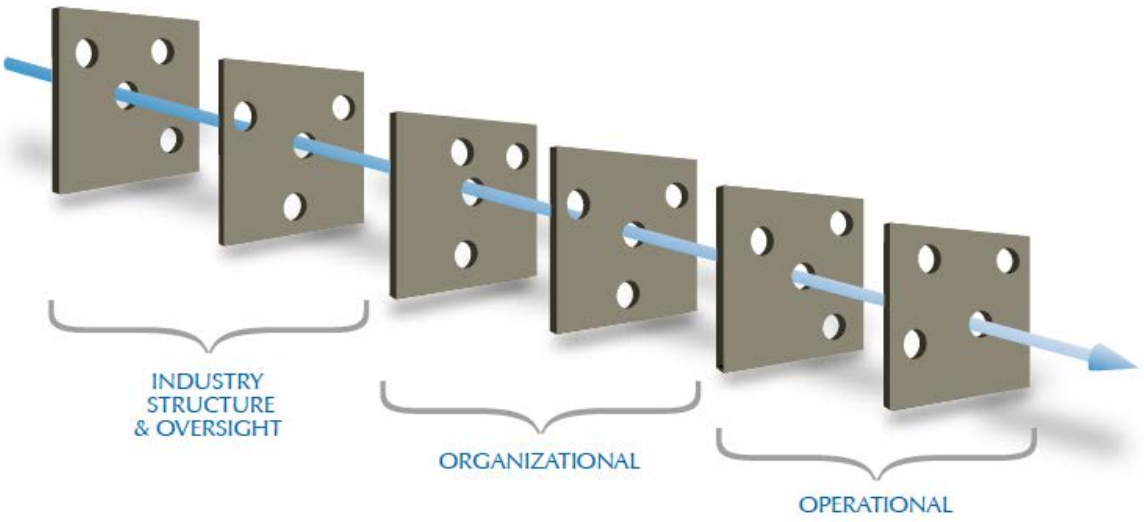
1 Ditching – Israel Aircraft Industries Westwind 1124A, VH-NGA, ATSB Transport Safety Report AO-20090072 (ATSB Report), www.atsb.gov.au/publications/investigation_reports/2009/aair/ao-2009-072.aspx.

- Local conditions
- Risk controls (in this instance, Civil Aviation Safety Authority [CASA] regulatory oversight)
- Organisational influences (in this instance, the operator, Pel-Air)

3.8 According to the model, defences against accidents act as a series of barriers, often illustrated by consecutive slices of Swiss cheese. Each hole in each slice—and holes are of varying sizes and may change over time—represents a weakness in a part of the overall system. The system fails when holes—that is, weaknesses—momentarily align, allowing an accident to occur.

3.9 The committee was provided with the following figure[2] depicting how the Reason model works:

Figure 1—How the Reason model works



3.10 The ATSB report found that individual action, that is, not factors to do with the operator or regulator, caused the accident. The report identified only three contributing safety factors, and all three were concerned with individual action:

- The pilot in command did not plan the flight in accordance with the existing regulatory and operator requirements, precluding a full understanding and management of the potential hazards affecting the flight.
- The flight crew did not source the most recent Norfolk Island Airport forecast, or seek and apply other relevant weather and other information at the most relevant stage of the flight to fully inform their decision of whether to continue the flight to the island, or to divert to another destination.

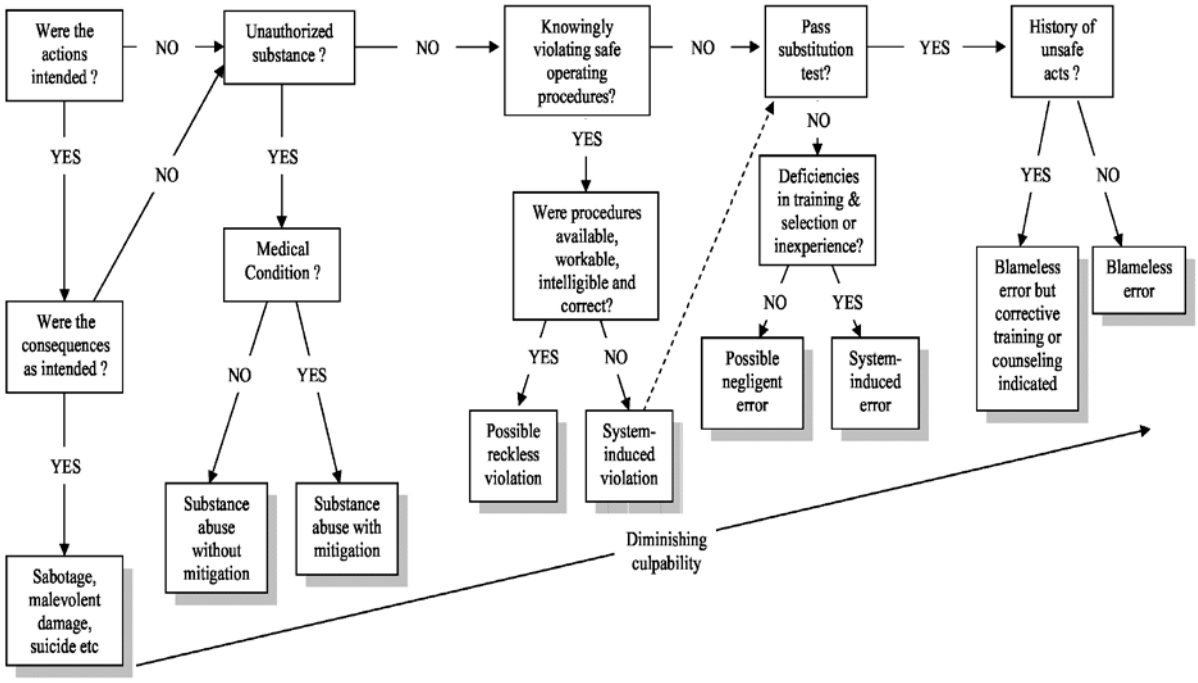
2 Illustration courtesy of Aerosafe Risk Management.

- The flight crew's delayed awareness of the deteriorating weather at Norfolk Island combined with incomplete flight planning to influence the decision to continue to the island, rather than divert to a suitable alternate.[3]

3.11 The ATSB did not identify any wider systemic issues that affected its conclusions. It is for this reason that the ATSB's report has drawn criticism, as it appears to determine responsibility without analysing context.

3.12 Mr Mick Quinn, an aviation safety consultant, offered the committee a flow chart[4] explaining diminishing culpability, developed by Professor James Reason:

Figure 2—Diminished culpability



3.13 Examining the large volume of evidence received about the investigation, the committee noted an apparent discrepancy between the findings of the ATSB report and the agency's own submission, which stated:

> The most important safety factors to identify are those that occur at the risk control and organisational influence levels. These are the levels where changes can be made which can have a meaningful influence on safety. Safety factors which exist at these levels are safety issues.[5]

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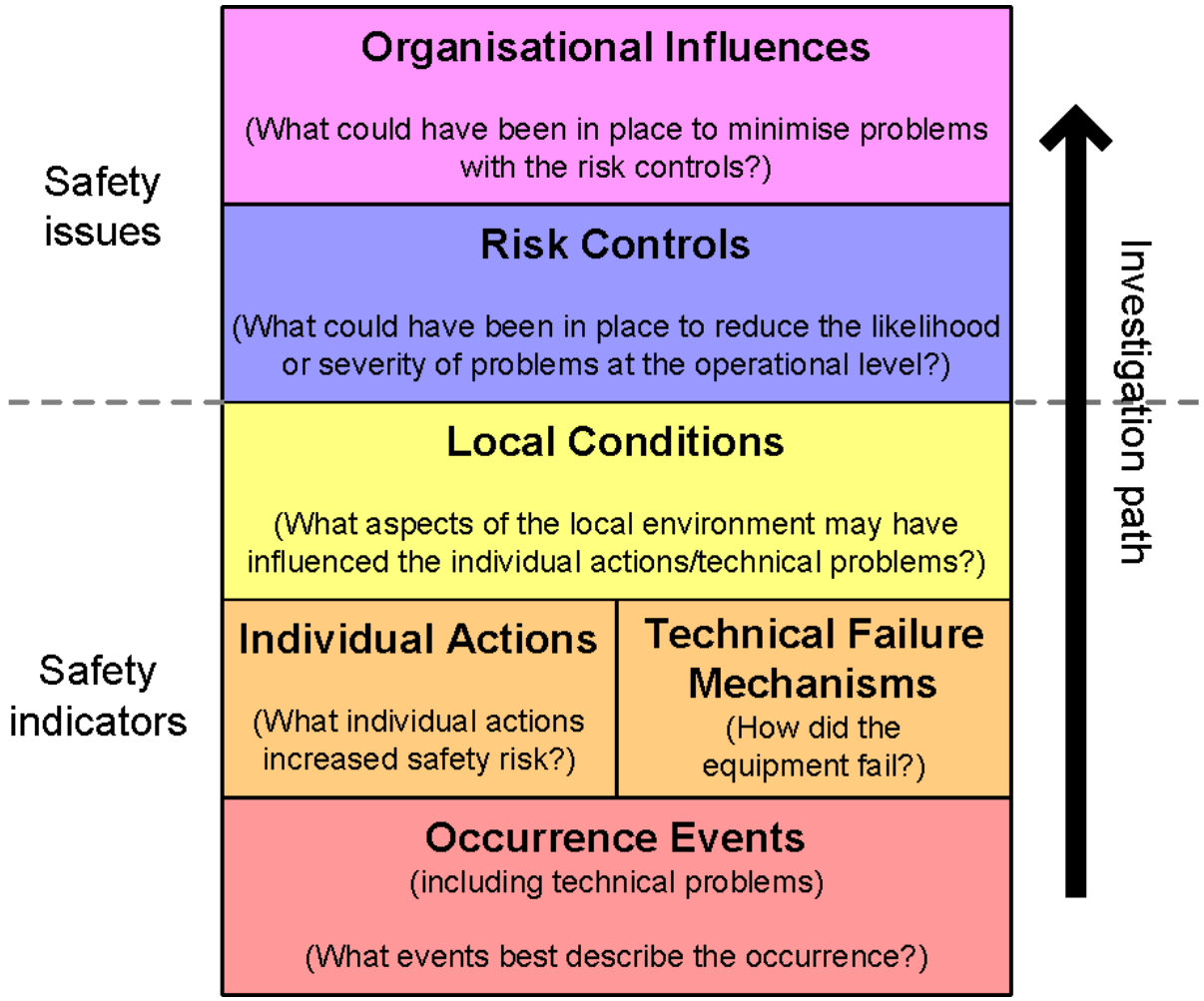
3 ATSB Report, p. 43.

4 Mr Mick Quinn, *Submission 11*, p. 22.

5 ATSB, *Submission 2*, p. 13.

3.14 Despite the widespread use of the Reason model, the ATSB told the committee that its investigation analysis model, although based on the Reason model, 'does not attempt to describe all of the complexities involved in the development of an accident.'[6] The components of the ATSB model are depicted in the figure[7] below:

Figure 3—The ATSB investigation analysis model



3.15 However, given that the principal function of an investigation report is to reduce future risk by exposing how an accident was able to occur, the committee believes that a best practice report *should* describe the complexities involved.

3.16 In simplified terms which best explain the context of this particular accident, three separate defences should have been in place to prevent or reduce the likelihood

6 ATSB, *Submission 2*, p. 12.

7 ATSB, *Submission 2*, p. 13.

of the Norfolk Island accident: the flight crew, the operator (Pel-Air) and the regulatory environment (CASA).[8]

Compliance with ICAO guidelines/structure

3.17 The committee is aware that Annex 13 of the International Civil Aviation Organization's (ICAO) Chicago Convention, to which Australia is a signatory, places certain requirements on the ATSB and CASA.[9] This means that ATSB reports should, in theory, comply with these requirements.

3.18 The annex sets out rules for the notification, investigation and reporting of an accident, who should conduct the accident investigation and how, which parties can be involved and their rights, as well as how results of the investigation should be reported. Accident investigations conducted by member states are required to:

- gather, record and analyse all available information on a particular accident or incident;
- issue safety recommendations where appropriate;
- determine the causes of the accident if possible; and
- produce a final report.[10]

3.19 The investigation authority, in this instance the ATSB:

> …shall have independence in the conduct of the investigation and have unrestricted authority over its conduct, consistent with the provisions of this Annex.[11]

3.20 The annex stipulates that final reports should be released as soon as possible in the interest of accident prevention, preferably within 12 months. If reports cannot be produced within 12 months, an interim report is to be released on each anniversary of the accident.[12]

3.21 Once produced, the final report is required to analyse factual information gathered and list findings and causes established over the course of the investigation. This list is required to include 'both the immediate and the deeper systemic causes' of the accident.[13]

3.22 The annex also requires states to re-open an investigation should new and significant evidence become available.[14]

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8 The committee notes that there are other defences, such as maintenance, but no issues were identified with these.

9 See Annex 13 of the Chicago Convention, 10th Edition, July 2010.

10 Annex 13 of the Chicago Convention, 5.4.

11 Annex 13 of the Chicago Convention, 5.4.

12 Annex 13 of the Chicago Convention, 6.5, 6.6.

13 Annex 13 of the Chicago Convention, Appendix.

14 Annex 13 of the Chicago Convention, 5.13.

3.23 The Australian and International Pilots Association (AIPA) reinforced the need for analysis to focus on systemic issues in order to help stakeholders draw meaningful conclusions, make relevant recommendations and propose any required safety action:

> …[A]ccidents and incidents should be seen as organisational, but preferably systemic, rather than individual events. In this context, that system includes not only the groups listed above [individuals] but also the regulators, the clients and even government departments. There should be no sign that any organisation is "touched lightly" by an investigation as a consequence of perceived power in interested party consultation, particularly at the apparent expense of an individual.[15]

3.24 AIPA was not of the view that ATSB analysis in this instance helped produce the desired outcome. Asking 'Has the system improved as the result of this investigation?' AIPA suggested the answer is no, or not much. AIPA also asked:

> Was this an opportunity missed to examine more broadly the system that placed the flight crew on that aircraft in the belief that they were adequately qualified and competent to achieve the task in whatever circumstances may arise?[16]

3.25 This view was held by other submitters as well, who made the point that the lack of systemic issue analysis in the ATSB report stands in stark contrast to the focus placed on individual error.[17]

3.26 The committee notes the widely held view that the ATSB has failed to discharge its responsibilities under ICAO guidelines. Mr Bryan Aherne, an independent aviation accident investigator and safety risk adviser to the aviation industry, analysed the requirements and informed the committee that the ATSB's report does not contain an analysis of organisational and regulatory issues:

> …I have itemised the ICAO annex 13 format, which CASA and the ATSB have signed up to, and the format [of investigation reports] can be different but the content cannot be different… So I have detailed from ICAO's aviation accident manual the types of things that are required to be in the report which are not in this report, and it is completely devoid of organisational issues and regulatory issues. It is almost as if the flight crew perished. There is no explanation of why this thing happened. I find it quite incredible.[18]

3.27 The committee now turns to a significant deficiency identified in the ATSB's report – the absence of systemic issue analysis.

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15 Australian and International Pilots Association (AIPA), *Submission 8,* p. 7.

16 AIPA, *Submission 8*, p. 19.

17 *Confidential submissions.*

18 Mr Bryan Aherne, *Committee Hansard*, 22 October 2012, p. 9. The committee notes that the ATSB may hold the view that insufficient evidence existed to suggest that organisational and regulatory issues were primary factors leading to the accident.

How the ATSB report falls short

3.28 The committee heard that the ATSB's report represents a low point in the agency's standard of reporting.[19] It is not a report the ATSB Chief Commissioner himself expressed a great deal of pride in when questioned by the committee:

> Senator EDWARDS: Chair, since we have started, there has been mea culpa after mea culpa after mea culpa in this thing. Now you are hearing evidence for the first time of what is supposed to be a forensic investigation. I have heard that this report would be a joke in the international standing—if other reviewers were to have reviewed this. I think that the evidence that Senator Xenophon and Senator Fawcett are drawing out would suggest that. We haven't even got to the black box yet. Are you proud of this report?
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> Mr Dolan: I certainly would not hold this report as a benchmark. I am still satisfied that the key elements—
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> Senator EDWARDS: Three years in the making. Mea culpa after mea culpa. Are you proud of this report?
>
> Mr Dolan: No, I am not proud of this report.[20]

3.29 The committee notes that Mr Dolan was satisfied that the key elements of the report were in place; however, this view was not shared by most other witnesses and submitters. By not dealing with organisational, regulatory and human factor issues, witnesses contended the report fails to meet the standard the aviation community and industry expects to see. It fails against ICAO requirements and the ATSB's own procedures, both of which are discussed in Chapter 4 of this report. One witness stated:

> The ATSB public report released on 30 August 2012 is factually incorrect and contains flawed analysis. On reading the first draft [released for DIP comment, dated 26 March 2012], I was of the opinion that the problems with the investigation were due to incompetence, but on seeing the second draft [released for DIP comment, dated 16 July 2012] and subsequent final report I have a different opinion. In light of the CASA special audit now in the public arena, I believe that the ATSB report is partly incompetence but I am now of the opinion that it contains deliberate and intentional omission of safety-critical facts and evidence which would substantially change the findings and analysis. Any aviation safety professional who reads the drafts and the final report alongside the now public special audit can only form the same reasonable conclusions. I believe the committee should determine whether there has in fact been an attempt to breach the TSI Act 2003.[21]

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19 This view was put forth by a number of *in camera* witnesses.

20 See discussion between the committee and Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, pp 64–65.

21 Mr Bryan Aherne, *Committee Hansard*, 22 October 2012, p. 8.

3.30 Similarly, Mr Quinn found the ATSB's report to be seriously flawed and biased.[22] In commenting on the report's analysis section, Mr Quinn stated:

> Human factors analysis—there is none in this report. Organisational aspects—there basically are none in this report. Aspects regarding crash survivability and such things as life jackets, as we have discussed, are not provided in the report.
>
> The analysis section itself is flawed. The analysis section actually has facts in it not analysis, and it is so brief that—the way accident investigation goes is that your analysis section is basically your proof. That is your argument that you are making, so what is in the analysis needs to be borne out in the factual information, findings, conclusions and recommendations.[23]

3.31 These views were put to the ATSB and rejected multiple times. In evidence given before the committee at public hearings, the ATSB asserted that its accident investigation did in fact look at systemic issues, including the operator and regulatory environment involved:

> [W]e as an organisation were trying to look at this on a systemic level rather than an individual detail level. We looked at the overall components of the current system to deal with the risks that go with operation to remote islands and the particular case were we were dealing with which was the situation where the weather forecast on departure was for weather suitable for landing at the destination and that changed en route.[24]

3.32 The committee, however, could not see any evidence of this in the ATSB report.

3.33 When asked by the committee whether, given the evidence of deficiencies with both Pel-Air's operations (the CASA Special Audit) and CASA's oversight of those operations (the Chambers Report), it would be logical to conclude that these factors should have received greater attention in the ATSB's report, Mr Dolan answered:

> ...The methodology that we have designed for our investigations, which draws, among other things, on the accident causation model of Professor Reason, is essentially an inductive basis of reasoning. We start with the facts of a particular event, to the extent we can reasonably establish them, and then, from those, build possible hypotheses, further test them and so on. So we are building from facts to a bigger picture and seeing what we can assemble there with what certainty...
>
> From our process, we would start with the facts, as we understand them, of the occurrence. We would take account of the layers in the Reason model that get, in the end, to organisational factors but start with individual actions, and therefore, work up—as appropriate, based on the facts we have available to us—towards, potentially, that organisational level. As a general

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22 Mr Mick Quinn, *Submission 11*, p. 1.

23 Mr Mick Quinn, *Committee Hansard*, 22 October 2012, p. 16.

24 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 57.

> rule, although it is useful to understand context of how a regulator is doing his job and a range of other things, we do not start with the alternative proposition that there is something wrong at the organisational level and we are trying to find evidence to prove that. That is some context in which I am answering the question.[25]

3.34 This response from Mr Dolan only served to reinforce the committee's concern that, by starting with a set of facts which did not include all available information, the ATSB investigation could not be anything but flawed. This model would appear to be biased towards establishing contributing factors at the individual level to the potential exclusion of organisational level issues. A more impartial process would see each level—individual, organisational and regulatory—considered in each individual investigation.

3.35 The committee notes Mr Dolan's assertion that what is contained in the final report may not reflect the full scope of the preceding investigation. In this vein, when asked by the committee why the ATSB took such a conservative approach to the range of issues canvassed in its final report, Mr Dolan stated:

> ...there was a range of lines of inquiry that we went down. We satisfied ourselves that there was not a safety issue involved in it. Among the massive documentation we have provided to you, there is a range of lines of inquiry that clearly we went down. We did not reflect that process in our report and on reflection that is not ideal...[26]

3.36 The committee also notes however, that in continuing the above statement Mr Dolan in effect argued that systemic issues surrounding the Norfolk Island accident, although examined, did not in the ATSB's view warrant inclusion in its report:

> On some of the things you are concerned about [the lack of systemic issues in the report], our view is we did take a look at them and formed the view that they were not directly relevant to the issues we needed to address in the report.[27]

3.37 In light of evidence contained in the CASA Special Audit and the Chambers Report (both discussed below) the committee does not share this view.

Committee view

3.38 On the basis of evidence received and the committee's own assessment of the ATSB report on the Norfolk Island accident, the committee has formed the view that the investigation report does not provide sufficient information about the system within which the flight crew operated. The ATSB's almost non-existent analysis of the

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25 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 15 February 2013, pp 24–25. The ATSB investigation process only allows inclusion of evidence that is linked to a high risk event. As the VH-NGA flight was classified as aerial work, the Pel-Air accident had little chance of being properly assessed. For more on the risk assessment process see Chapter 4.

26 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 58.

27 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 58.

organisational and regulatory environment does not provide a balanced report, nor does it appear to comply with the requirements if ICAO Annex 13. Ultimately, the report does not meet the ATSB's own written standards, nor does it help the industry learn from this accident, which is a fundamental and vital aspect of ATSB investigation reports.

3.39 Because of the unbalanced nature of the ATSB report, the only conclusion that a reader could plausibly reach is that the accident in question was caused by pilot error. In turn, this appears to imply that the suspension of that particular pilot's licences by CASA was the only action necessary to enhance safety and reduce future risk.

3.40 On the basis of evidence presented, however, the committee does not accept this analysis or conclusion. Decisions made and actions taken by the crew are certainly important and are often the last line of defence in terms of aviation safety. This instance was no exception, and the committee is aware of errors that may have been made by the pilot. However, all flight crews clearly operate in circumstances significantly structured and influenced by the regulatory and operational environment. As put by the pilot in command on board Pel-Air's VH-NGA:

> As the pilot in command, I wish to make it clear that on that night I was not operating by myself in a vacuum. I was licenced by CASA, trained by structures that CASA created and worked for a company [Pel-Air] using procedures CASA had approved, and yet CASA found I was the problem.[28]

3.41 This view is not unique to a minority of submitters or the committee. The ATSB's report into this accident was controversial from the moment it was publicly released. The committee is reminded of the ATSB's own statement:

> The quality of a safety investigation's analysis plays a critical role in determining whether the investigation results are accepted and whether it has been successful in enhancing safety.[29]

3.42 There are reasons why this investigation and the resulting report have attracted so much criticism from submitters. Having spent over seven months listening to and reviewing arguments put forth by critics of the ATSB's report, as well as the evidence of the ATSB and CASA, the committee is confident that in general this criticism is supported by evidence and sound logic.

The CASA special audit

3.43 In the aftermath of the VH-NGA accident, CASA initiated a special audit of Pel-Air. The audit identified serious deficiencies with the operator and also raised concerns about CASA's oversight. The ATSB only requested the document from CASA in July 2012,[30] one month before its investigation report was published. The

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28 Mr Dominic James, *Committee Hansard*, 22 October 2012, p. 1.

29 ATSB, *Submission 2*, p. 11.

30 The request came only after a lawyer acting on behalf of the VH-NGA pilot-in-command wrote to the ATSB querying why the CASA Special Audit did not feature in the investigation report.

ATSB was not of the view that information about operational and oversight deficiencies contained in the audit should alter its own report. The audit is discussed later in this report.

The Chambers Report

3.44 Among a large volume of material provided to the committee by CASA following an order for the production of documents, the committee came across an internal CASA report titled 'Oversight Deficiencies – Pel-Air and Beyond'. The document was commissioned by CASA following the Norfolk Island accident, completed and handed to senior CASA management on 1 August 2010, and is known as the Chambers Report.[31]

3.45 The Chambers Report centred on the effectiveness of CASA's oversight of Pel-Air, and considered the effectiveness of Pel-Air's oversight of its line pilots. In essence, it looked at organisational and surveillance factors which may have played a part in the Norfolk Island accident.

3.46 The report unequivocally concluded that indicators existed which 'could have identified that the Pel-Air Westwind operation was at an elevated risk and warranted more frequent and intensive surveillance and intervention strategies.'[32] In summary the report continued:

> It was also apparent that the data systems, training, surveillance tools, resources and inspector capability showed varying degrees of inadequacy and contributed to Bankstown Operations and CASA's inability to fully understand the operator's risk exposure and consequently to intervene to ensure the operator reduced the risk appropriately.
>
> The Oversight review has identified the need for improvement in Surveillance methodology; Inspector recruitment, training, standardisation and assessment; and Oversight Information management. The present level of Inspector resourcing allocated to front line surveillance requires review as the indicators are that current resources may not be adequate for the task.[33]

3.47 In other words, Pel-Air was lacking, CASA's oversight of Pel-Air was lacking, and the accident occurred in an environment of serious aviation safety deficiencies. In the committee's view, the CASA Special Audit and the Chambers Report are evidence that there were systemic issues at play.

3.48 Presented with this information, the ATSB remained firm in its position and defence of its Norfolk Island investigation report:

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31 The Chambers Report, Additional Information number 11. Available at: www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=rrat_ctte/pel_air_2012/submissions.htm.

32 The Chambers Report, p. 2.

33 The Chambers Report, p. 2.

> ...the principal purpose of an accident investigation, or an occurrence investigation, is to understand 'cause', which in our case we do by way of identification of safety factors and safety issues…Our mandate is really to look at, and to understand to the extent necessary, the context and the relevance of the context within which the occurrence happened. There is still nothing in our assessment that we could see, acknowledging that there were deficiencies in CASA's surveillance and activities, and acknowledging that there were problems with the way Pel-Air operated its safety management system, that was going to lead us to the question of contributing safety factors and, more particularly, to the identification of areas for safety improvement. We were conscious that CASA, for it is regulatory purposes, was undertaking steps in relation to the pilot, in relation to Pel-Air as the operator and, indeed, in relation to itself in terms of those improvements, so the question was: if there is an intervention from CASA in terms of rectifying some problems of noncompliance, what is the extent to which we have to retrace that territory in the interests of safety improvement? They are the balances we are undertaking in the course of scoping and re-scoping our investigations.[34]

Committee view

3.49 The committee was and remains deeply concerned by this response of the ATSB Chief Commissioner. The ATSB report contains not the merest hint of oversight deficiencies, deficiencies which in the committee's view must have increased the risks to aviation safety. That the ATSB would maintain its position despite evidence of serious operational, oversight and regulatory deficiencies is extremely concerning.

3.50 The committee can only conclude that, in the absence of analysis of systemic issues involved in the Norfolk Island accident, this report contributes little if anything to the enhancement of aviation safety in Australia. As a result it fails to comply with its own purpose and function.

3.51 Furthermore, the committee has no confidence that the systemic issues raised in the CASA Special Audit, the Chambers report and elsewhere, have been adequately addressed since the 2009 accident. If any changes have been made to the regulatory environment within which this accident took place, the catalyst for such changes was certainly not the ATSB's report.

3.52 The CASA special audit, the Chambers Report and CASA's decision to withhold the later from the ATSB, as well as why the ATSB chose to scope systemic issues out of its investigation are matters discussed in greater depth later in this report.

Retrieval of the flight data and cockpit voice recorders

3.53 In its submission the ATSB informed the committee that 'work commenced to examine the capability and need to recover the aircraft's cockpit voice (CVR) and flight data recorders (FDR)' after an initial interview of the captain on 23 November

34 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 28 February 2013, p. 3.

2009.[35] Retrieval of the recorders, the committee notes, is an important opportunity for safety learning for the aviation sector. From evidence provided, the committee understands that retrieval of the recorders would be particularly useful in this instance, as there may not be another example of a night ditching where all passengers survived.[36] Recorded data is less subjective than witness accounts.

3.54 The committee understands that the ATSB has certain responsibilities, set out in ICAO Annex 13, when it comes to retrieval of aircraft involved in accidents. It is an assumption throughout Annex 13 that, where a FDR exists, the accident investigation body will prioritise its retrieval:

> The aftermath of a major accident is a demanding time for any State's investigation authority. One of the immediate items requiring a decision is where to have the flight recorders read out and analysed. It is essential that the flight recorders be read out as early as possible after an accident.[37]

3.55 The committee approached the ATSB on this particular point, asking Mr Dolan whether he was comfortable that the agency had complied with the requirements of the annex in choosing not to recover the VH-NGA FDR because of the associated cost. The committee received the following response:

> That was why I drew your attention to that paragraph that I just read [paragraph 5.4 of ICAO Annex 13]. With the decision I made in relation to the value as opposed to the cost of recovering the recorders, I was viewing it in the framework of 'where feasible.' I consider cost as opposed to benefit to be relevant to the question of feasibility.[38]

3.56 During the course of the committee's hearing on 28 February 2013, an issue emerged relating to the wording of paragraph 5.4. Mr Dolan, explaining that he was reading from the current version of the paragraph in question, challenged the committee's reading of the annex, according to which an investigative body would be required to gather, record and analyse all available information on an accident or incident. This would include the flight data recorder.

3.57 Mr Dolan asserted that the copy of the annex in his possession, being more current and dated 18 October 2010, contained slightly different wording. This version does not say that investigations 'shall', but rather 'shall normally', gather, record and analyse all available information.[39]

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35 ATSB, *Submission 2*, p. 35. FDRs and CVRs are two different types of recorders used for incident and accident investigation purposes. CVRs are typically used to record audio in the aircraft flight deck, while FDRs record parameters such as altitude and airspeed with respect to time. The committee uses the term FDR to refer to both.

36 Mr Bryan Aherne, *Committee Hansard*, 22 October 2012, p. 12.

37 See *Committee Hansard*, 28 February 2013, p. 9.

38 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 28 February 2013, p. 9.

39 See discussion between Senator David Fawcett and Mr Martin Dolan, *Committee Hansard*, 28 February 2013, p. 8.

3.58 However, although the version of the document Mr Dolan relied upon before the committee to support his decision not to retrieve the VH-NGA FDR may have been more current, it was not the version in force at the time of the accident or its immediate aftermath, when such decisions were being made.

3.59 Furthermore, the ATSB had no disagreement with the committee's reading of paragraph 5.7 of the annex, which clearly sets out a state investigation body's responsibilities in this regard:

> Effective use *shall* be made of flight recorders in the investigation of an accident or an incident. The State conducting the investigation *shall* arrange for the read-out of the flight recorders without delay.[40]

3.60 Despite this, the Chief Commissioner maintained that, according to his reading of the paragraph, the ATSB was not required to retrieve VH-NGA's FDR:

> What I read that [paragraph 5.7] in the light of, in the structure of this document [Annex 13], is that 5.4 is a general paragraph setting the context with the others, and so we have the question of whether to retrieve them in the first place—had we retrieved them, we would agree: effective use shall be made, and we have to arrange for the read-out, without delay. As I say, the decision I made was in that general context of feasibility.[41]

3.61 The ATSB position remained that the relevant paragraph of Annex 13 provided the agency 'the necessary discretion…in its conduct of the investigation.'[42]

3.62 The committee does not accept this argument. At the time the decision against retrieving the FDR was made the imperative existed for the ATSB to do so. To ignore this imperative by arguing that the benefit did not justify the cost appears disingenuous. To imply that the revised wording in the current version of Annex 13 was the basis for the ATSB's decision in 2009/2010, before this version was in force, is even more disingenuous.

3.63 This is not the only example of a FDR which has been under water for some time being retrieved and useful data being produced. Furthermore, the ATSB appears to be of the view that the data is not worth the cost of retrieval as information could be obtained from the flight crew, both of whom survived the accident.

Committee view

3.64 The committee finds the ATSB's refusal to retrieve the FDR incongruous and questionable. Furthermore, the committee takes a dim view of the ATSB's reliance on a version of ICAO Annex 13 that only came into force in late 2010, nearly a year after the accident, to justify this decision. Mr Dolan's evidence in this regard is questionable and has seriously eroded his standing as a witness before the committee. Flight data recorders are routinely recovered around the world despite the existence of surviving crew. They provide objective records of how events transpired, and allow speech

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40 Paragraph 5.7, ICAO Annex 13, emphasis added.

41 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 28 February 2013, p. 9.

42 ATSB, answer to question on notice 8, 28 February 2013, p. 3.

specialists and psychologists to determine stress levels and what was going on in the cockpit at the time.[43] This could offer valuable lessons for the whole aviation industry, not just about why an accident occurred, but, in this case, how such a successful ditching was executed under extremely difficult circumstances.

3.65 The committee is of the view that the ATSB is taking a very loose interpretation of its obligations under ICAO Annex 13. Furthermore, the committee has evidence indicating that by early 2010 two lines had been attached to VH-NGA which were strong enough to raise the wreckage. This evidence calls into question whether the ATSB's argument concerning cost or associated occupational health and safety concerns was valid, and reflects the fact that the ATSB was not overly concerned to robustly examine options and costs.[44]

3.66 Having received *in camera* evidence on the likelihood of VH-NGA's flight data recorder yielding useful information about the accident despite more than three years passing since the event, the committee supports calls for the recorder to be retrieved.

3.67 The fact is, the primary consumer of ATSB investigation reports is the aviation industry. There is much to be learned about what led to this accident, and how injuries were minimised upon impact.

Recommendation 1

3.68 The committee recommends that the ATSB retrieve VH-NGA flight data recorders without further delay.

Time taken to produce the ATSB report

3.69 The ATSB's statement of intent, available online, includes an undertaking to conduct investigations in a timely manner and 'aim to issue final reports on investigations within one year from commencement.'[45]

3.70 The aspirational goal certainly did not translate into reality in this instance. Instead, the ATSB's report on the ditching of VH-NGA took nearly three years to complete. The committee is not aware of any suggestions that this was a reasonable, or indeed helpful, timeframe within which to produce a report meant to allow the industry to learn lessons from this accident.

3.71 On the contrary, witnesses called the three year timeframe unreasonable and described it as being 'outside the performance expectations set by the ATSB and other international agencies.'[46]

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43 *Committee Hansard, in camera.*

44 *Confidential document.*

45 See www.atsb.gov.au/about_atsb/ministers-expectations/statement-of-intent.aspx (accessed 25 March 2013).

46 Mr Mick Quinn, *Committee Hansard,* 22 October 2012, p. 14.

3.72 ATSB Chief Commissioner Dolan admitted that the time taken to produce the report was unsatisfactory:

> I should say up front that there are two areas where we think we could have done better with this investigation and report. The first and obvious one is that it took us far too long by anyone's standards, including our own, to get to a completion of the investigation. There are reasons for that, which I would be happy to discuss, but they do not excuse the three-year time frame for the report.[47]

3.73 Mr Dolan's explanation for the time taken to produce the report essentially revolved around resource allocation and prioritisation:

> When, nearly 3½ years ago, I joined the newly independent ATSB as chief commissioner, we had over 100 aviation investigations on hand, including four that we classified as level 2—so substantial investigations requiring major and continuing use of our resources. We were averaging about 18 months for the completion of investigations, with some serious outliers in that. We had more work on hand than we knew how to deal with, and we would normally expect in any given year to get one of those level 2 investigations. So we had a lot more work than we were used to. That led to delays in a range of reports and, as new investigations came in, the shifting of resources to different priorities as they arose. It is clear that, in managing that allocation of resources to always-shifting priorities, we did not give enough attention to getting to an expeditious conclusion of this Norfolk Island report. However, that is the context in which that happened.[48]

3.74 The committee understands that strategic guidance from the minister leads the ATSB to prioritise investigations into what are referred to as 'fare-paying passenger operations'.[49] These generally exclude the type of flight VH-NGA was undertaking at the time of the accident, which is categorised as aerial work. The Australian and International Pilots Association (AIPA) suggested that the non-fatal nature of this accident suggests that its investigation was not accorded a high level of priority.[50]

3.75 Like AIPA, the committee understands that the ATSB, like most organisations, has to prioritise its workload.

3.76 When the committee asked whether the ATSB had considered outsourcing any of its work, or insourcing extra capacity to expedite the production of reports, Mr Dolan replied in the negative:

> Our resources are largely tied up in maintaining our existing investigative capability, who are permanent staff of the organisation. We have a

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47 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 54.

48 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 55.

49 Although the ATSB is an independent body, the TSI Act obliges the agency to 'have regard' to strategic guidance from the minister. Prioritising fare-paying passenger operations has been bipartisan policy for some time. See discussion between the committee and Mr Martin Dolan, *Committee Hansard*, 28 February 2013, p. 4.

50 Australian and International Pilots Association, *Submission 8*, p. 9.

> longstanding view that in almost all circumstances it is better to have, if possible, the range of expertise available to us on a permanent basis and therefore immediately available than to rely on potentially risky external outsourcers.[51]

3.77 The committee confirmed with Mr Dolan that this was the case even when the ATSB budget was underspent and its workload was clearly excessive:

> Senator FAWCETT: I am not talking about normal [ATSB] operations. I am talking about a situation where you have a budget underspend and a clear excess of work. Was it [outsourcing or insourcing] even considered? That is all I am asking.
>
> Mr Dolan: In that small underspend, no, we did not consider it.[52]

Committee view

3.78 The committee does not believe that an adequate explanation for the delay has been provided.

3.79 Given that the ATSB could not, or certainly should not, have known that it was only going to identify two relatively minor safety issues at the onset of its three-year investigation, the delay itself had the potential to risk lives by not alerting the industry to the causes of this accident in a timely fashion.

3.80 The committee considers the fact that it took the ATSB close to three years to produce its investigation report following the November 2009 ditching of VH-NGA unreasonable. The committee also believes that the ATSB made a significant oversight by not considering external assistance despite a budget surplus of $0.3 million in 2009-10.[53]

3.81 Furthermore, the quality and complexity of the final report once it was produced—as will be discussed in later chapters of this report—certainly would not appear to readily justify a three-year timeframe. This being the case, the committee is firmly of the view that the stated aim of producing reports within one year of an incident or accident is attainable and should be met in all but the most extraordinary and justifiable of circumstances. During the course of its investigation, if it becomes apparent to the ATSB that it will not meet its one year timeframe, the ATSB should release an interim report, as required by ICAO, which would include a public timing update to ensure that the aviation industry is kept informed of progress and expected timing.

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51 Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 55.

52 See discussion with Mr Martin Dolan, Chief Commissioner, ATSB, *Committee Hansard*, 22 October 2012, p. 55.

53 For information on the ATSB's financial performance in 2009-10 see ATSB Annual Report 2009-10, p. 28, available at: www.atsb.gov.au/publications/2010/ar_2009-2010.aspx (accessed 19 April 2013).