Chapter 9

Key issues around recommendations and ensuring action

9.1 The ATSB report contains no formal recommendations. Instead it identified two 'minor safety issues'. This chapter will discuss the reasons provided by the ATSB and the concerns raised with the committee in relation to the lack of recommendations. The committee will then outline the areas where it believes recommendations should have been made. It also includes a range of related matters such as the difficulties with tracking actions and recommendations, as well as delays in CASA responding to recommendations.

Fulfilling legislative requirements

9.2 Several witnesses seemed genuinely bewildered at the lack of any formal safety recommendations in the report, expressing the view that it is the function of a safety report to make recommendations for improvements in safety[1] as detailed in the *Transport Safety Investigation Act 2003* (TSI Act). Section 12AA of the TSI Act details the functions of the ATSB which includes 'making safety recommendations' as a way of communicating factors that contribute to or have contributed to or affect or might affect transport safety.[2]

Minister's requirements

9.3 The committee notes the statement of expectations by the minister issued under section 12AE of the TSI Act which mentions the ATSB making safety recommendations and 'providing [the minister], as part of its Annual report, a status report on formal safety recommendations issued by the ATSB'.[3]

Why are there no formal recommendations included in the ATSB report?

9.4 The committee notes the Memorandum of Understanding (MoU) with CASA outlines the ATSB's approach towards recommendations for CASA:

> The ATSB understands actions may be taken by CASA in response to safety issues during the course of an ATSB or CASA investigation, and the ATSB will include this information in the investigation report to the extent it is practicable to do so. The ATSB encourages safety action that obviates the need to make safety recommendations.[4]

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1 See for example Mr Mick Quinn, *Submission 11*, p. 1; and Capt. Geoffrey Klouth, AIPA, *Committee Hansard*, 22 October 2012, p. 23.

2 TSI Act, subparagraph 12AA(1)(d)(ii).

3 Available from: www.atsb.gov.au/about_atsb/ministers-expectations/ministers-statement-of-expectations.aspx (accessed 26 March 2013).

4 MoU between ATSB and CASA, February 2010, p. 8, paragraph 5.3.1.

9.5 The ATSB indicated that in relation to ICAO Annex 13, Paragraph 6.8 requirements, it has filed a difference regarding the use of recommendations arising from safety investigations:

> The definition of safety recommendation (Chapter 1): The essence of the definition is adopted in legislation and in policy and procedures documents. However, Australia reserves the term safety recommendation for making formal recommendations which are used as a last resort.[5]

9.6 The ATSB explained the rationale for its position is that the overuse of safety recommendations tends to devalue them and its policy is to reserve them as a tool of last resort for addressing significant safety issues where safety action has not been taken.[6] Another part of its justification is that the ATSB has no power to enforce the implementation of its recommendations.[7] The ATSB explained its process around using recommendations as a last resort:

> The ATSB has moved away from this traditional view of making recommendations in final reports and instead identifies Safety Issues during the course of an investigation, communicates these issues to the relevant organisations for consideration, and then reports on the safety actions taken to address the issues. In this regard, the ATSB prefers to encourage proactive safety actions that address the safety issues identified in its reports. Other benefits of this approach are that the stakeholders are generally best placed to determine the most effective way to address any Safety Issues and the publication of the Safety Actions undertaken is generally viewed very positively.
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> This approach has marked benefits in regard to improving safety, in that identified safety issues are usually addressed before the final report is issued, and all safety actions taken by organisations are reported in the ATSB final report. In the event that no, or limited, safety actions are taken, the ATSB can still issue a formal safety recommendation. This process is identified in the ATSB's Annual Plan and forms a part of the ATSB's Key Performance Indicators.[8]

9.7 The ATSB defines a safety issue as:

> A safety factor that: can reasonably be regarded as having the potential to adversely affect the safety of future operations, and is a characteristic of an organisation or a system, rather than a characteristic of a specific individual, or characteristic of an operational environment at a specific point in time.[9]

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5 Answers to questions taken on notice from 22 October 2012 hearing, number 10.

6 See ATSB, *Submission 2*, p. 24; ATSB, *Supplementary Submission*, 11 November 2012, p. 8; Answers to questions taken on notice from 22 October 2012 hearing, number 10; and Answer to question taken on notice from 21 November 2012, number 18.

7 ATSB, Answers to questions taken on notice from 22 October 2012 hearing, number 10.

8 ATSB *Submission 2*, p. 24.

9 ATSB, Answers to questions taken on notice, 21 November 2012, attachment to the 26 February 2012 ATSB letter to CASA.

9.8 The ATSB highlighted its view that the response to a safety recommendation is unlikely to differ from the response to an identified safety issue which, according to the ATSB is likely to be more proactive and timely. The ATSB advised this was its view regarding the Norfolk Island investigation.[10]

Ability to track action taken in relation to safety issues

9.9 Several witnesses expressed concerns about the reduced number of recommendations[11] and the effect of the preference of the ATSB not to issue safety recommendations. These concerns centred on the ability to transparently track progress with the actions being taken.

9.10 Capt. Geoffrey Klouth, Australian and International Pilots Association (AIPA), told the committee that the use of safety issues instead of recommendations appears to indicate a reliance on the regulator or operator to devise solutions to any safety issues identified. Also, unlike formal safety recommendations, there would appear to be no formal process in the system to monitor and follow through on safety actions.[12] AIPA noted:

> One point worth reinforcing from a previous comment relates to promising to implement something just to avoid a safety recommendation being made – in that case, is the proposed action tracked by anyone?[13]

9.11 First Officer Ian Whyte, AIPA, pointed out that future actions, which have not yet occurred, are being accepted as safety actions:

> One of our areas of greatest concern is that there are no formal recommendations that can be opened and then accepted as complete or remain open. And who is reviewing that goes even further in that the safety actions that are listed are not actually actions. They are things that are going to happen sometime. If they were actually in place, I would accept that it is a safety action and can be closed off, but at the moment they are not. It is, 'We are going to issue a notice of proposed rulemaking at some point in the future.' They have not yet, so how can it be a safety action when it has not happened? In terms of improving safety, which is why we are here, certainly one of our greatest concerns is who is developing those recommendations and then monitoring the implementation or accepting that we cannot go there and assessing that process.[14]

9.12 The committee notes from the ATSB submission that there appears to be an internal mechanism to review safety actions, however unlike the formal process with recommendations, this appears to be an internal process which is not transparent to the industry, the broader public, other agencies or the Parliament:

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10 Answers to questions taken on notice from 22 October 2012 hearing, number 10.

11 See for example Capt. Geoffrey Klouth, AIPA, *Committee Hansard*, 22 October 2012, p. 26.

12 Capt. Geoffrey Klouth, *Committee Hansard*, 22 October 2012, p. 24. See also First Officer Ian Whyte, *Committee Hansard*, 22 October 2012, p. 24.

13 AIPA, *Submission 8*, p. 28

14 First Officer Ian Whyte, AIPA *Committee Hansard*, 22 October 2012, p. 24.

> Where the ATSB is advised that safety action is in progress or is proposed to be undertaken, the safety action is placed on 'Monitor' pending finalisation/implementation of the safety action. Tools within the analysis module of SIIMS [Safety Investigation Information Management System] enable recording and monitoring of all aspects of safety issues, including setting of alerts to prompt checking of progress on safety action in circumstances such as when a safety action is on 'Monitor'.
>
> As noted above, once an organisation has taken safety action (whether pro-active after communication of the safety issue by the ATSB or as a result of a recommendation), the ATSB conducts another risk assessment to determine if the level of risk has reduced to an acceptable level. If it has, then no further action is taken. However, if the level of risk remains at the significant level, the ATSB will consider whether there is a realistic prospect of reducing the risk further and if necessary pursue further safety action.[15]

9.13 Mr McCormick spoke about CASA's process to track formal ATSB recommendations:

> With the tracking of legal outcomes, coroners' recommendations and ATSB recommendations, we are scrupulous about that, and we have the numbers and we can tell you exactly why we have done it. Sometimes we do not implement some recommendations, for various reasons. Sometimes it is overtaken by time, because it is already regulated in that area. Sometime[s] it is just out and out impracticable and not possible, particularly some of the motherhood type statements we occasionally see. But the legal division tracks all of those recommendations, we know the status of every one and we take them very seriously. Whether this was done in the past—and I will go back numerous years, I suppose—I agree with you that that is a question for others. But I can guarantee you we certainly do now.[16]

9.14 However, it appears this process was only put in place since 2009[17] and the committee is unclear whether CASA also tracks safety issues.

Committee view

9.15 The committee notes the ATSB's view regarding the overuse of safety recommendations and its policy to use them as a last resort. The committee has concerns with this approach given the lack of ability to rigorously and transparently track actions taken in response to safety issues which are the ATSB's preference to issuing recommendations.

9.16 As an example, with some issues such as those around the safety of lifejackets, ATSB documentation indicated an assumption that the regulator would act so no recommendation was made[18] but no safety issue was identified either. If the

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15 ATSB, *Submission 2*, p. 28.

16 Mr John McCormick, *Committee Hansard*, 15 February 2013, p. 21.

17 Mr John McCormick, *Committee Hansard*, 22 October 2012, p. 45.

18 Senator David Fawcett, *Committee Hansard*, 15 February 2013, p. 21; *Confidential document*.

ATSB are not making public recommendations, the committee is concerned whether every safety issue is being appropriately documented so that there is a formalised way of tracking identified safety issues that may or may not be passed on to CASA or others. The committee is concerned that there are potentially safety issues being missed or overlooked by the lack of a structured transfer of such information.

9.17 From the evidence received, the committee believes that the formal process used to track recommendations better supports transparency and accountability to assure Parliament and the public that issues of aviation safety are being or have been addressed. This is clearly demonstrated by the fact that it is possible to follow regulatory recommendations made by the ATSB to CASA over 10 years ago that have not been implemented and affected this flight. These are discussed below. The committee wants to assure itself, the Parliament and the travelling public that safety issues/recommendations are appropriately captured and that safety actions can be tracked transparently.

Recommendation 17

9.18 The committee recommends that the ATSB prepare and release publicly a list of all its identified safety issues and the actions which are being taken or have been taken to address them. The ATSB should indicate its progress in monitoring the actions every 6 months and report every 12 months to Parliament.

Safety issues only relevant to specific operators

9.19 Another criticism of the ATSB's approach was that safety actions would only be relevant to a specific operator when the lessons should provide a learning opportunity for the industry as a whole. Mr Mick Quinn highlighted this issue:

> The Norfolk Report not only had significant omissions in factual information and analysis, it also contains no recommendations. Instead, the ATSB rely on Safety Actions that have been taken by relevant bodies involved. Part of the reason this takes place is that often by the time a report is released, the industry has made fixes and moved on. I challenge this approach as the Safety Actions are only relevant to a specific operator, in this case Pel-Air. The lessons from Safety Recommendations are relevant to the entire industry and not just the operator in question. Therefore the safety system is improved for the travelling public.[19]

9.20 The Pilot-in-Command also voiced his concern that only Pel-Air has changed its operating procedures:

> I know Pel-Air has modified their procedures. However, they no longer undertake aeromedical operations, but for all those operators out there that operate in a similar capacity to Pel-Air or operate in an environment that resembles the one that I operated under, none of those operators have been compelled to make changes, and no outcomes have been distributed into the

19 Mr Mick Quinn, *Submission 11*, p. 13.

> industry that reflect what has been learnt from the accident. So as for the generic issues that affected me on the night, nothing has been changed.[20]

Significant delays implementing ATSB recommendations

9.21 A broader issue appears to be that even when recommendations are made, there is no effective closed loop system to track recommendations to ensure they are addressed in a timely fashion. AIPA highlighted concern when CASA does not act in a timely manner or not at all:

> AIPA presumes that, if and when the ATSB fails to adequately 'influence' CASA to do something that it undertook to do, the matter would be resolved by the Secretary of the Department of Infrastructure and Transport (DIT) in the first instance and eventually by the Minister. Ultimately, given the constant tensions of priorities and resources, the resolution of the issue will be driven only by the politics of the inaction, i.e. as a function of the length and strength of public attention.[21]

9.22 The committee found two regulatory areas, directly relevant to the Westwind flight, where recommendations by the ATSB had been made and over a decade later the issues remained. These two areas are:

- upgrading aeromedical flights from 'aerial work' to 'charter' in order to afford passengers greater protection (recommended by the ATSB in September 2001). CASA has not implemented this change; and
- to be more prescriptive about fuel requirements for remote islands (recommended by the ATSB in February 2000). This was implemented by Pel-Air following the accident and the CASA Special Audit and CASA has undertaken to again look at the issue.

Categorisation of aeromedical flights

9.23 The committee heard that aeromedical evacuations involve many unknowns, variability and a dynamic environment. Such operations:

- are done on the run;
- are reactive to requests such as EMS (emergency medical service) work;
- have crews going into unfamiliar areas and facilities may be basic;
- can involve limited airports in the area;
- have unplanned and unexpected things happen such as no suitable lighting and deterioration of patients.[22]

9.24 Given these factors, the committee was surprised to hear the classification of such flights has a long history. The activity was classified as Aerial Work which includes operations such as agricultural spraying. It has lower safety requirements

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20 Mr Dominic James, *Committee Hansard*, 22 October 2012, p. 7.

21 AIPA, *Submission 8*, p. 28.

22 Mr Bryan Aherne, *Committee Hansard*, 22 October 2012, p. 11.

than passenger carrying operations. Given the high risk involved in aeromedical flights, the committee was surprised to hear that the reclassification of such operations has been an issue for over 10 years.

9.25 Mr Aherne drew attention to the ATSB recommendation issued 7 September 2001 to CASA regarding improving protections for non-fare paying passengers in aerial work activities.[23] In 2002 CASA advised consultation would take place in 2003. On 2 February 2009, CASA's response,[24] indicated the proposed amendment to CAR 206 was 'problematic'. However, under the new Civil Aviation Safety Regulations (CASR) corporate operations will be classified as Aerial work and will be regulated under CASR Part 132. The carriage of patients and other personnel (other than air transport operations) will be regarded as Aerial Work under subpart of Part 136 to be titled Emergency and Medical Services Operations.[25] The recommendation was listed as closed – partially accepted.[26]

9.26 Mr McCormick told the committee that nearly 12 years since the recommendation was issued, such flights are still classified as aerial work under CAR 206.[27] CASA indicated that it is currently consulting with relevant stakeholders with a view to the reclassification of aerial ambulance operations as passenger transport operations once the new operational regulation suite is enacted.[28] Mr McCormick informed the committee the work in this area continues:

> There are significant issues around charter and aerial work. My personal view is that there should be no difference between aerial work and charter when it comes to these matters. Public transport will disappear under its current guise in the new ops regulations.[29]

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23 Mr Bryan Aherne, *Submission 10*, p. 4. Information available from: www.atsb.com.au/publications/recommendations/2001/r20010195.aspx (accessed 13 March 2013). The recommendation asked CASA to consider proposing an increase in the operations' classification, and/or the minimum safety standards required, for organisations that transport their own employees and similar personnel (for example contractors, personnel from related organisations, or prisoners, but not fare-paying passengers) on a regular basis.

24 Information available from: www.atsb.com.au/publications/recommendations/2001/r20010195.aspx (accessed 13 March 2013).

25 It is proposed that 'Emergency Services Flights' will cover aerial fire-fighting, law enforcement and search and rescue operations, while 'Medical Services Flights' will cover air ambulance flights, health services flights, and emergency medical services flights. See www.atsb.com.au/publications/recommendations/2001/r20010195.aspx (accessed 13 March 2013)

26 Information available from: www.atsb.com.au/publications/recommendations/2001/r20010195.aspx (accessed 13 March 2013).

27 Mr John McCormick, *Committee Hansard*, 22 October 2012, p. 44.

28 CASA *Supplementary submission*, October 2012, p. 7.

29 Mr John McCormick, *Committee Hansard*, 22 October 2012, p. 46.

9.27 Mr Aherne highlighted that it is over 10 years since the ATSB recommendation was made and change is still some time away. He argued that if the operator had had to comply with the flight as a charter flight, it could not have been conducted in a Westwind as it is not capable of uplifting enough fuel to hold an alternate for Norfolk Island on a flight from Samoa.[30]

9.28 He also highlighted that passengers on an aeromedical flight do not have the choice of whether they go on an aircraft or not and most of the time they are not in a fit state to make that choice. Medivac passengers assume they are being provided with high safety standards.[31] CASA informed the committee that following the accident, it audited all aeromedical operators and confirmed that operations manuals were appropriate for these flights.[32]

9.29 Mr Quinn advised the committee that he was involved in trying to address the categorisation issue in 2009. A policy was developed by the former CEO of CASA and others including Mr Quinn. The policy paper recognised that:

> …in air ambulance flights there are crew, there are task specialists, there are participants and there are passengers, and therefore they should be treated exactly the same whether they are charter or RPT [Regular Public Transport], even. The plan of this policy was to take this type of operation out of the air work category, recognizing that there were participants on board. Unfortunately that policy…never saw the light of day, and we are still in a situation now where this has not been addressed.[33]

9.30 The Royal Flying Doctor Service highlighted the operational environment and conditions that need to be taken into consideration for providing aeromedical operations to remote, rural and regional Australia.[34] AIPA expressed the view that the investigation was a missed opportunity to examine the appropriateness (as distinct from legal availability) of the aerial work classification for sophisticated air ambulance operations and the operational decision to use a lower standard.[35]

9.31 Pel-Air supported the change to bring passenger carrying aerial work operations in line with regular public transport operations to remote islands, including the requirement to carry an alternate.[36]

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30 Mr Bryan Aherne, *Committee Hansard*, 22 October 2012, p. 9: and Mr Bryan Aherne, *Submission 10*, p. 7.

31 Mr Bryan Aherne, *Committee Hansard*, 22 October 2012, p. 9; and Mr Gary Currall, *Submission 9*, p. 2.

32 See also CASA, *Supplementary submission*, p. 17.

33 Mr Mick Quinn, *Committee Hansard*, 22 October 2012, p. 19.

34 RFDS, *Submission 2*0, p. 1.

35 AIPA, *Submission 8*, p. 11.

36 Pel-Air, *Submission 7*, p. 4.

Fuel requirements for remote islands

9.32 In February 2000, the ATSB made a recommendation for circumstances similar to the Westwind flight, noting the difficulty in forecasting the weather at Norfolk Island. The ATSB recommended that BoM review the methods and resources for forecasting at Norfolk Island to make them more reliable.[37] The recommendation was recorded as 'Closed – Accepted'[38] and this appears to be on the basis that BoM is 'actively participating in the review of fuel requirements for flights to remote islands being undertaken by CASA'.[39] The issue about forecasting weather is discussed further below but the committee asked Mr McCormick about the status of this review of fuel requirements. Mr McCormick explained that CASA has reviewed the fuel requirements for remote islands but not Norfolk Island.[40] Subsequently, CASA advised that the:

> …review of fuel requirements for flights to remote islands referred to a CASA review for flights to remote islands which resulted in an amendment to Civil Aviation Order (CAO) 82.0…Regular Public Transport operations were not included in the amendment to CAO 82.0 as it was already a condition on an RPT [Regular Public Transport] Air Operator's certificate (AOC) that CASA approved both the route over which an RPT was flown and the fuel policy of the operator. Thus for RPT operations, CASA already had in place a means to regulate the carriage of adequate fuel…CASA initiated a project (OS 09/13) in 2009 to address ATSB concerns that fuel quantity issues were becoming problematic. That project remains in place and CASA agreed action in the Pel Air accident report is to review in part the fuel and alternate requirements for operations to remote islands.[41]

9.33 The committee notes that as a result of the CASA Special Audit, Pel-Air's fuel policy was revised to require an alternate for Norfolk Island. This appears to be a lesson that would be relevant to the broader aviation industry.

Committee view

9.34 Both of these unaddressed recommendations point to a regulatory issue and it was put to the committee that if either of these had been addressed 10 years ago when recommended, then this accident probably would not have happened. The committee is therefore puzzled as to why these broader regulatory issues are not mentioned in the

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37 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013)

38 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013)

39 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013)

40 Mr John McCormick, *Committee Hansard*, 22 October 2012, p. 46.

41 CASA, Answers to questions taken on notice from 22 October 2012 hearing, number 4.

report. It also highlights the need for a more robust and proactive system to implement and track recommendations and to ensure recommendations translate into action in a timely manner.

9.35 To illustrate the danger of this process, the committee notes that AIPA pointed out that it appears that none of the safety actions attributed to CASA have yet been completed. While it may be a function of the regulatory review program, it is not apparent what other defences have been put in place. AIPA pointed out that as things stand it is not clear from an industry compliance perspective if any safety improvement has been achieved.[42]

9.36 As noted above the ATSB has no enforcement powers so the extent to which ATSB investigations enhance aviation safety is limited by the extent to which any safety recommendations made are actioned. Therefore there is a need for a closed loop feedback system to ensure they are all implemented in a timely manner.

9.37 The committee notes the mechanism contained in Section 25A of the TSI Act which is supposed to ensure that ATSB recommendations are responded to in a timely manner. That section requires a person, association or agency to provide a written response to recommendations within 90 days of the report being published. The response is then published on the ATSB website.[43] While the front end of the process to receive an initial response to a recommendation appears to be covered, this does not include a robust tracking and follow up process.

9.38 The MoU notes that where consideration and implementation of a recommendation may be protracted, CASA will inform the ATSB of progress at regular intervals.[44] The ATSB received its initial response from CASA on 4 February 2002, an update on 14 November 2002 and then nothing until 2 February 2009 which resulted in the ATSB assessment of closed – partially accepted.[45] The committee notes that where the response relegates action to some time in the future, then years could pass before any timely action is taken. This is evidenced by the recommendations which lingered for over 10 years and affected this flight. This timeframe is unacceptable.

9.39 The committee accepts the need for versatility to ensure immediate action is taken, for example, in cases where safety is threatened. However, the issue and the action taken should still be transparent. The committee believes that in order to ensure appropriate tracking, if a safety action is not closed before a report is issued then a recommendation should be issued. Even where a safety action has been completed, a report should indicate what the action was, who was involved and how it was resolved.

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42 AIPA, *Submission 8,* p. 16. See also Mr Dominic James, *Committee Hansard*, 22 October 2012, p. 1.

43 TSI Act, Section 25A.

44 MoU, paragraph 5.3.5, p. 9.

45 See www.atsb.com.au/publications/recommendations/2001/r20010195.aspx (accessed 15 April 2013).

Recommendation 18

9.40 The committee recommends that where a safety action has not been completed before a report being issued that a recommendation should be made. If it has been completed the report should include details of the action, who was involved and how it was resolved.

9.41 To ensure actions are addressed in a timely manner the government should consider setting a time limit to implement or reject recommendations, beyond which ministerial oversight is required where the agencies concerned must report to the minister why the recommendation has not been implemented or that, with ministerial approval, it has been formally rejected.

Recommendation 19

9.42 The committee recommends that the ATSB review its process to track the implementation of recommendations or safety actions to ensure it is an effective closed loop system. This should be made public, and provided to the Senate Regional and Rural Affairs and Transport Committee prior to each Budget Estimates.

9.43 The committee considers that the ATSB should institute processes to ensure that there is greater visibility of recommendations that are rejected or remain unactioned for long periods of time.

Recommendation 20

9.44 The committee recommends that where the consideration and implementation of an ATSB recommendation may be protracted, the requirement for regular updates (for example 6 monthly) should be included in the TSI Act.

Recommendation 21

9.45 The committee recommends that the government consider setting a time limit for agencies to implement or reject recommendations, beyond which ministerial oversight is required where the agencies concerned must report to the minister why the recommendation has not been implemented or that, with ministerial approval, it has been formally rejected.

9.46 The committee considers that these new processes should be applied to the closure and acceptance of the recommendations regarding the classification of aeromedical flights and the ability to accurately forecast the weather at Norfolk Island.

Areas where recommendations are necessary to ensure actions are taken

9.47 The committee is also concerned about several areas which are discussed below where it believes the evidence has demonstrated that recommendations (or at the very least the identification of a safety issue) should have been issued to ensure appropriate action was taken to address issues that affected the flight and the outcome.

Passing on relevant weather

9.48 Evidence provided to the committee revealed problems obtaining the most up-to-date and correct weather information on which to base in-flight decisions.

9.49 As background, the ATSB advised that in the interests of efficient management of large areas of contiguous airspace, international agreements have decided which ATC provides air traffic services in blocks of airspace.[46] Norfolk Island is an Australian territory but the airspace over it is not. Like Christmas Island, the airspace is operated by another jurisdiction. In the case of Norfolk Island it is within the New Zealand flight information region (FIR) which is managed by the Airways Corporation of New Zealand on behalf of the New Zealand Government.[47] However, the flight in question from Samoa passed through airspace managed by New Zealand[48] and by Fiji.[49]

Critical weather information not passed on

9.50 The committee received evidence that critical weather information was not passed on to Capt. James at a point where, had he comprehended the deteriorating conditions at Norfolk Island, he could have decided to divert. At 803 an amended forecast (TAF) was issued by BoM but was not provided to Capt. James by Fijian or New Zealand ATC as there was no requirement to do so. The ATSB report indicates this fact and then focuses on the fact that the crew did not ask for any updated forecasts.[50]

9.51 The SPECIs issued after the 0800 SPECI and until arrival at Norfolk Island show the cloud was periodically below the landing minima and that rain was falling.[51] Witnesses were concerned that the ASTB made no comment on the duty of the Air Traffic Service (ATS) to warn of known hazardous conditions.

9.52 Pel-Air submitted that the cause of the ditching was the change of weather en route and that timely notification of the change in the weather would have averted the accident. It called for a review of the role of the ATC to see whether any systemic improvements in this regard could be made.[52]

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46 Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 8.

47 Airservices Australia, *Submission 17*, p. 2.

48 Mr Peter Hobson, Airservices Australia, *Committee Hansard*, 19 November 2012, p 1. See also Airservices Australia, *Submission 16*, p. 1.

49 ATSB Report, pp 5–6. See also Airservices Australia, *Submission 17*, p. 2.

50 ATSB Report, p. 16. The ATSB was unclear whether this was not required by ICAO, the AIP or the Pacific Agreement. The committee asked the ATSB for a copy of the Pacific Agreement to which it replied that it did not have a copy and did not seek one. The committee therefore does not know on what evidence the ATSB claims there was no requirement to pass on the information.

51 ATSB Report, p. 57.

52 Pel-Air, *Submission 7*, p. 2.

Usual arrangements when weather conditions deteriorate en route

9.53 Airservices Australia advised that in Australia when it receives information that differs from the forecast such as a hazardous weather event (or SPECI), there is a hazard alert service where the change in circumstances is proactively notified to all aircraft en route to that destination.[53] Mr Jason Harfield, Executive General Manager, Air Traffic Control, Airservices Australia explained what would occur:

> What we would do, for example, if an aircraft which had a terminal area forecast for Sydney was flying between Melbourne and Sydney and the weather conditions rapidly changed is issue a hazard alert and notify all aircraft going to that destination of the change in circumstances.[54]

Arrangements for flights to Norfolk Island

9.54 In the case of the deteriorating weather conditions on Norfolk Island, these were not proactively conveyed to the pilot by Fijian Air Traffic Control (ATC) whose airspace the aircraft was in when the updated weather information became available. The information was not passed on either by New Zealand ATC which manages the airspace over Norfolk Island.[55] As indicated, the ATSB report only notes that it was not required to be passed on.[56]

9.55 Mr Harfield admitted that given what occurred 'that weather information was critical in the sense that if that bit of information was seen, the outcome may have been different…Here was a piece of information that should have been passed to the aircraft which could have prevented this outcome.'[57]

9.56 Surprisingly, when the committee asked whether it had contacted Fijian ATC or New Zealand ATC to discuss this issue, Airservices Australia confirmed that three years on from the incident it had not.[58] When asked why it had not, Airservices stated that it was not aware of the information contained in the ATSB report until it was published in August 2012.[59] It was stressed by Airservices Australia that it relies on ATSB reports to provide information about how the system is working and lessons to be learned.[60]

9.57 Documentation provided to the committee by the ATSB indicated that Airservices Australia was not included in the DIP process. The committee asked

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53 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 2.

54 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 2.

55 Witnesses were not clear on exactly who should have passed on the information which is concerning in itself but the point is there is no requirement to do so which needs to be addressed by those managing the airspace.

56 ATSB Report, p. 16.

57 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 4.

58 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 5.

59 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 5.

60 Mr Harfield, *Committee Hansard*, 19 November 2012, pp 2–3.

Airservices Australia to check if ATSB had conveyed any information to it during the course of its investigation. It responded that it only received a copy of the final preliminary[61] and final[62] reports as part of normal processes.[63]

9.58 Airservices Australia described its normal process to address recommendations or safety factors raised in ATSB reports. The issue is entered into its safety action incident reporting tracking, and responsibility for addressing it is assigned to the relevant area. Airservices Australia also indicated that it conducts its own investigation and if it identified the need for a regulation to change it would make a recommendation to CASA.[64] However, as this incident occurred in a foreign jurisdiction it would not normally conduct its own investigation and would therefore be heavily reliant on the ATSB report.[65]

9.59 Ms Margaret Staib, Chief Executive Officer, Airservices Australia, admitted there 'is room for improvement in managing the cross-boundary areas of the different jurisdictions, because inevitably it is very difficult to see the line drawn on a map in the air'.[66] Airservices Australia stressed that although it can speak about these issues with its ATC counterparts, this issue is a matter for the Civil Aviation Authority of New Zealand.[67]

9.60 When asked directly whether there would now be communication with Fiji and New Zealand to ensure that critical safety information is conveyed to pilots en route, Ms Staib replied that it will happen. She added that the first opportunity to discuss the issue would be at the Pacific Forum to be held before the end of 2012.[68] However, Airservices Australia admitted in that as at 19 November 2012, it had not seen the agenda but it would ensure it is raised in the forum by being placed on the agenda.[69] In subsequent information, Airservices Australia clarified that the South West Pacific Safety Forum actually met on 8–9 November 2012 and its next meeting is not scheduled until May 2013.[70] Airservices Australia admitted that the issues were not discussed during the November meeting but will be raised in May 2013.[71]

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61 Advance copy of finalised Preliminary Report provided three weeks before publication.

62 A copy of the final report was provided upon publication.

63 Airservices Australia, answers to questions taken on notice from 19 November hearing, number 2; Mr Harfield, *Committee Hansard*, 19 November 2012, p. 4.

64 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 10.

65 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 11.

66 Ms Margaret Staib, *Committee Hansard*, 19 November 2012, p. 5.

67 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 3.

68 Ms Margaret Staib, *Committee Hansard*, 19 November 2012, p. 6.

69 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 8.

70 Airservices Australia, Answers to questions taken on notice at 19 November 2012 hearing, number 5.

71 Airservices Australia, Answers to questions taken on notice at 19 November 2012 hearing, number 6.

9.61 It was also pointed out by Mr Aherne that if there is no requirement to pass on hazardous weather conditions, this contradicts the ICAO Annex 11 Air Traffic Services Standards.[72]

View of ATSB

9.62 When this issue was discussed with the ATSB, Mr Dolan stressed that he sees a broader issue which is the en route support provided to flight crews in terms of assessing their situation, getting access to weather and other related information. Mr Dolan stressed the provisions of the AIP which states that principal responsibility is with the pilot to acquire weather-related information, including forecasts.[73] Confusingly, Mr Dolan then stated 'there is some provision for air traffic services to proactively draw attention to the existence of an updated forecast, normally in the case where aircraft are within an hour of their intended destination'.[74]

9.63 Mr Dolan concluded that in the view of the ATSB, it did not see anything that needed to be done to enhance the system.[75]

Committee view

9.64 The committee finds this response by the ATSB disturbing. The ATSB processes appear to deliberately preclude suggestions that another agency could have taken action that may potentially save another flight from repeating this accident.

9.65 To the committee this emphasis on the pilot seeking updates seems designed to avoid the rather obvious issue of whether the more proactive provision of information to pilots flying into hazardous conditions could provide an additional barrier to this incident occurring again. Stressing it is principally the pilot's responsibility, particularly as the proactive provision of information about deteriorating weather is a recognised issue which is addressed in Australia, understates the role of other barriers and ignores whether flight crews can be better supported by available services.

9.66 The committee is of the view that the provision of deteriorating and hazardous conditions would have been of assistance to the flight crew and could have changed the outcome. Australia should take steps to ensure that in future, relevant information is provided across jurisdictional borders to avoid a recurrence of this situation.

9.67 TAFs are issued at routine intervals. If an amended TAF (issued on an ad hoc basis) is not brought to a crew's attention how do they know to ask for it? The committee accepts the need for crews to proactively seek their own information at particular points in their flight and is not suggesting the responsibility for this be abrogated. But surely under such circumstances where a TAF is amended and it

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72 Mr Bryan Aherne, *Supplementary submission 2*, 8 February 2013, pp 4–5.

73 Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 8.

74 Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 8.

75 Mr Martin Dolan, *Committee Hansard*, 22 October 2023, p. 57.

fundamentally affects the safety of an aircraft in flight, extra assistance in the form of proactive provision of relevant information would be welcome and should be required.

9.68 The committee finds it worrying that this issue was not raised in the ATSB report as needing to be addressed and to date the committee has received no satisfactory explanation from the ATSB.

9.69 The submission from Airservices Australia following its appearance and answers to questions taken on notice do nothing to assure the committee that the issue is being proactively addressed. Waiting until May 2013 is nine months after the publication of the ATSB report and six months after it was raised with Airservices Australia at the 19 November 2012 hearing. As Airservices Australia informed the committee that it would speak with its counterparts, the committee is disconcerted that progress cannot be achieved more quickly. The committee's concern centres around this situation occurring again and Australia having done nothing to proactively address it.

9.70 The committee accepts that Airservices Australia was not part of the DIP process so the first it would have been aware of this issue would have been when the final ATSB report was issued at the end of August 2012. The committee also concedes it is by no means clear from the ATSB report that anyone needed to take action to address this issue. However, there appears to have been some level of awareness of the issue in Airservices Australia following publication of the final report which was not acted on until it was raised with Airservices Australia by the committee. The committee is concerned that had the inquiry not occurred, current processes mean this issue would never have been highlighted or addressed. Even now the committee has not received any assurance that it is being addressed in a timely manner.

9.71 The committee received conflicting information about whether the requirement to pass on hazardous weather information exists. Given the lack of clarity on this issue there appears to be two, equally concerning possibilities. One is that the requirement to pass on this deteriorating weather information does not exist. The committee is of the view that it should. From the evidence, the committee remains unclear whose responsibility it would have been to pass on the information but it is clear that Airservices Australia needs to address this with Fijian and New Zealand counterparts to ensure that in future such information is proactively provided.

9.72 The second scenario contemplated by the committee, is that the requirement does exist but that it did not occur for some reason. Clearly that would also need to be addressed. The committee heard there is a duty to provide and initiate provision of known hazards. Section 172.93 of the New Zealand AIP was also pointed out to the committee which appears to indicate the requirement to pass on information.[76]

9.73 The committee also notes information in the CASA Special Audit report which may indicate another possibility that would need to be investigated: 'It is reported that Nadi weather updates are extremely difficult to obtain as Nadi ATC only

76 *Confidential submission*.

communicate to the RVSM aircraft'.[77] If this is the case other, aviation operators should be made aware so they can inform crew. The committee notes that this information also does not appear to gel with the view of the ATSB that (non-RVSM) aeromedical flights are allowed to operate in RVSM airspace.[78]

9.74 Airservices Australia, although not directly responsible for the provision of ATS to the crew, has not proactively tried to address or communicate to the flight crew the different ATS standards that exist in different Flight Information Regions.[79]

9.75 The committee recommends that in order to put in place a barrier to such an event occurring again, Airservices Australia needs to firstly clarify FIS delivery responsibility for Norfolk Island and whether the requirement to pass on non-routine weather information exists, and if it does, where that is stated, whose responsibility it is and why it did not occur on the night in question.

9.76 If the requirement to pass on the information does not exist, Airservices Australia should discuss this practice being adopted by New Zealand and Fijian counterparts. The possibility that non-RVSM aircraft are being treated differently should also be explored.

Recommendation 22

9.77 The committee recommends that Airservices Australia discuss the safety case for providing a hazard alert service with Fijian and New Zealand ATC (and any other relevant jurisdictions) and encourage them to adopt this practice.

Another lost opportunity to pass on information

9.78 At 0833 there was a conversation between the Unicom[80] at Norfolk Island and Auckland ATC where the Unicom stated that conditions on Norfolk Island were deteriorating and asked what time the aircraft was arriving. Auckland ATC replied the pilot was running a bit late but did not pass the weather information to the pilot.[81] Mr Mick Quinn noted that had the Unicom operator been approved as a meteorological observer he could have contacted the pilot directly instead of having to contact New Zealand ATC. Mr Quinn highlighted that at that time the flight crew could have easily diverted to Nadi.[82]

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77 CASA Special Audit, p. 14.

78 Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 16. See also ATSB, Answers to questions taken on notice from 21 November 2012 hearing, number 4.

79 *Confidential submission*.

80 Universal communications services are non-ATS radio communications services provided on an MBZ frequency or CTAF to enhance the value of information normally available about a non-controlled aerodrome….General aerodrome weather reports provided by a Unicom operator are to be limited to simple, factual statements about the weather, unless the Unicom operator is authorised by CASA to make meteorological observations. See CASA Manual of Standards, Part 139, section 14.4.

81 Mr Bryan Aherne, *Submission 10*, p. 35.

82 Mr Mick Quinn, *Submission 11*, p. 17. See also Mr Bryan Aherne, *Submission 10*, p. 35.

9.79 The committee explored with BoM whether the operator should communicate directly with the pilot. BoM did not see value in its weather observer broadcasting directly to the aircraft. BoM informed the committee that the automatic weather station has an Aerodrome Weather Information Service (AWIS).[83]

9.80 It was later clarified that at Norfolk Island there is no Automated Weather Information Service (AWIS) radio broadcast. Weather information is broadcast to aircraft by the airport Unicom operator.[84] It was also clarified that the information can only be accessed by satellite phone[85] which Capt. James did not have. The Unicom operator at Norfolk Island is not an approved observer recognised by CASA or BoM. The committee heard that in order for this to occur there would be about two weeks' dedicated observer training. Authorisation would be valid for two to three years.[86]

9.81 Mr Quinn noted that BoM, ASA and CASA have ceased training the Unicom officers as approved meteorological observers and argued that Norfolk Island represents no better case for maintaining trained meteorological observers Unicom officers.[87] Had the Unicom operator been approved as a meteorological observer he could have contacted the aircraft directly at 0833 instead of advising Auckland of the deteriorating conditions.[88]

Committee view

9.82 The committee notes that the pilot did not have a satellite phone to hear the broadcast weather observations from the AWS, a situation which has now been remedied by the operator. The committee believes this action would constitute a useful learning for the industry and should have been included in the report.

9.83 This was another lost opportunity to alert the pilot to the deteriorating conditions and again the information was not passed on which reinforces the need to address this issue as discussed above.

9.84 The committee understands that CAR 120 states that a pilot may not use meteorological reports or forecasts provided by a person who has not been authorised by BoM or approved by CASA.[89] CASA informed the committee that it has not received any application from the Unicom operators for approval to provide meteorological reports.[90] In the committee's view CASA must be aware that this

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83 Mr Jackson and Mr Hainsworth, *Committee Hansard*, 19 November 2012, p. 18.

84 BoM, Answers to questions on notice, received 3 May 2013.

85 Mr Hainsworth, *Committee Hansard*, 19 November 2012, p. 18, 21. See also Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 9.

86 Mr Gordon Jackson, Head, Aviation and Defence Weather Services, BoM, C*ommittee Hansard*, 19 November 2012, p. 18. Note: new procedures and validity period are being finalised.

87 Mr Mick Quinn, *Submission 11*, pp. 6–8.

88 Mr Mick Quinn, *Submission 11*, p. 17.

89 CAR 120.

90 CASA, *Supplementary submission*.

limitation could pose a risk to operators given the difficulties with accurate forecasting at Norfolk Island but took no action to mitigate or communicate the risk to industry. The difficulties with forecasting at Norfolk Island are well known and discussed further below.

9.85 While appreciating the need for pilots to check weather conditions, Capt. James clearly was not well supported by the system to achieve a better or more timely understanding of the deteriorating weather conditions. He was given incorrect weather details; he did not hear all or did not assimilate the information contained in the 0800 SPECI and hazardous conditions were not proactively passed on. The system failures left the retrieval and appreciation of the weather conditions entirely with the pilot and again he became the last line of defence. In addition, the difficulty in forecasting weather conditions at Norfolk Island also played a role as discussed below.

Known difficulties in forecasting weather on Norfolk Island

9.86 Norfolk Island is clearly a difficult location for forecasting weather. For example it is prone to the incidence of low cloud, and has a history of problems associated with the accuracy in weather forecasting.[91] The committee heard from the BoM that about 10 per cent of the time the cloud will be below the alternate minima for that airport. On the night in question the cloud base was around 200 feet which is a rare event with the likelihood of encountering this at less than one per cent.[92] The BoM submission noted that the probability of encountering unforecast adverse weather conditions is 2.7 per cent (for cloud base) and 1.3 per cent for visibility.[93]

9.87 The ATSB also emphasised that the sequence of events leading to the accident could only have occurred in a very narrow range of circumstances:

> Namely, where a flight is aerial work or other general aviation and the weather on arrival at destination has deteriorated significantly from that forecast on departure.[94]

9.88 The rarity of the event should not be a reason not to review processes to see whether further protections can be put in place. Incidents similar to the accident flight were recognised in an ATSB report 13 years ago.

Previous ATSB recommendation regarding weather forecasting at Norfolk Island

9.89 This difficulty in forecasting the weather at Norfolk Island was recognised in the recommendations from an ATSB report 13 years ago on 22 February 2000.[95] The safety deficiency identified was that:

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91 AIPA, *Submission 8*, p. 14.

92 Mr Barry Hanstrum, Regional Director NSW/ACT, Bureau of Meteorology, *Committee Hansard*, 19 November 2012, p. 15.

93 BoM, *Submission 14*, p. 2.

94 Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 6.

95 Mr Mick Quinn, *Submission 11*, p. 13.

> The meteorological forecasts for Norfolk Island are not sufficiently reliable on some occasions to prevent pilots having to carry out unplanned diversions or holding.[96]

9.90 That ATSB report highlighted:

> A pilot flying an aircraft that arrives at a destination **without alternate or holding fuel and then finds that the weather is below landing and alternate minima is potentially in a hazardous situation**. The options available are:
>
> - to hold until the weather improves; however, the fuel may be exhausted before the conditions improve sufficiently to enable a safe landing to be made;
> - to **ditch** or force-land the aircraft away from the aerodrome in a area of improved weather conditions, if one exists; or
> - attempt to land in poor weather conditions.
>
> **All of these options have an unacceptable level of risk for public transport operations**.[97]

9.91 The recommendation stated:

> The Australian Transport Safety Bureau (formerly the Bureau of Air Safety Investigation) recommends that the Bureau of Meteorology should review the methods used and resources allocated to forecasting at Norfolk Island with a view to making the forecasts more reliable.[98]

9.92 The ATSB recommendation appears to deal with the same issues encountered by the Westwind flight crew and lists a number of examples where aircraft departed with good weather forecasts, reached points where they were committed to continue to Norfolk and discovered the weather was very different from the forecast.

Norfolk Island weather assets

9.93 BoM has a station at Norfolk Island where it has an automatic weather station (AWS) that has a ceilometer[99] and a visibility meter.[100] Observations are transmitted

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96 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013).

97 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013). Emphasis added.

98 Recommendation R20000040. Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013).

99 Measures the cloud base.

100 BoM, *Submission 14*, p. 3; Note: Range of the radar, if heavy rain, would be in the order of 150 to 200 km in a radius around the island, Mr Hanstrum, Regional Director NSW/ACT, Bureau of Meteorology, *Committee Hansard*, 19 November 2012, p. 19.

to the Sydney office, to head office in Melbourne, and then distributed to Airservices Australia and internationally to adjoining FIR through the Australian Aeronautical Fixed Telecommunications Network (AFTN).[101] Supplementary input is provided by qualified observers when on duty.[102]

9.94 The committee discussed with BoM what changed as a result of the 2000 ATSB recommendation. BoM advised that a weather radar was installed in 2003. BoM further advised:

> Other recommendations related to the way in which weather information was passed to weather forecasters. In 2002, a ceilometer [which measures cloud base] and visibility meter facility was installed on the island, which transmits its information automatically and immediately to forecasters. That facility has largely superseded the need for there to be a call to our forecasting office from the observers, as was the case before that instrumentation was available to the forecasters.[103]

9.95 BoM told the committee that there has been no change to the equipment since 2009. In discussion with the committee, BoM said that perhaps observations from all over the island could improve the forecast slightly but the existing observation station is representative of the conditions and reflects the conditions adequately for forecasting.[104]

9.96 The 2000 ATSB recommendation was recorded as 'Closed – Accepted'.[105] This appears to be on the basis that BoM is 'actively participating in the review of fuel requirements for flights to remote islands being undertaken by CASA'.[106] Mr Quinn pointed out that at the time of the accident the fuel requirements for flights to remote islands in aerial work passenger-carrying operations had not changed.[107]

9.97 Witnesses questioned the accuracy of BoM forecasts at the time of the flight stating that the 0437 TAF was significantly different to the four SPECIs and METARs issued during the flight. In addition the 0803 amended TAF (not received by the crew and which did not forecast that the weather would deteriorate below the landing minima) did not resemble the subsequent METARs or SPECIs.[108] On this issue the

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101 Mr Barry Hanstrum, 19 November 2012, *Committee Hansard*, pp 15–16.

102 BoM, *Submission 14*, p. 3.

103 Mr Hanstrum, *Committee Hansard*, 19 November 2012, p. 19.

104 Mr Hanstrum, *Committee Hansard*, 19 November 2012, p. 20.

105 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013).

106 Information available from: www.atsb.gov.au/publications/recommendations/2000/r20000040.aspx (accessed 25 January 2013).

107 Mr Mick Quinn, *Submission 11*, p. 15.

108 Mr Mick Quinn, *Submission 11*, pp. 6–8.

committee heard that as pilots are not forecasters of weather, they should not be held to a higher standard of accountability than BoM:

> According to John McCormick it should have been obvious to the PIC that the weather at Norfolk Island was deteriorating such that at the expected time of landing the weather would have been below the landing minima (preventing a landing from being made) then surely it should have been obvious to the forecasting office. Why did it take them approximately 115 minutes to issue a TAF that reflected that the weather would deteriorate below landing minima? The BoM information dissemination processes should have been examined closely by the ATSB.[109]

Ensuring awareness of conditions by crew

9.98 AIPA offered the view that the operator is generally best placed to conduct the research and ensure crews are aware of the peculiarities of weather in specific locations where it is problematic.[110]

9.99 The committee heard that the disclosure of forecast reliability for all aerodromes may be of value to pilots in attempting to determine a safe fuel load or operators trying to develop a safe fuel policy. The committee was informed that the ATSB should have made recommendations as to how forecast reliability information could be best communicated to operators to allow them to manage any risk that may result from that unreliability.[111]

Committee view

9.100 The committee recognises that it is the responsibility of the pilot to seek weather updates and that, apart from the 0830 update, Capt. James did so. CASA and the ATSB believe it should have been obvious to the flight crew that the weather was deteriorating, but from reviewing the forecasts and reports it seems that even the forecasting office was experiencing difficulty. Between 0800 and 0925, depending on what time an update was requested, conditions were fluctuating between being below the alternate minima, above the alternate minima and below the landing minima. At no time did the forecasts indicate that the conditions would be below the landing minima.[112] Clearly weather at Norfolk Island is difficult to forecast even for the professionals.

9.101 The committee notes that the forecast available to the flight crew on departing Samoa reported scattered cloud at 2000 feet and no issues but when they arrived it was overcast with cloud at around 200 feet – complete cloud cover, a radical difference from the forecast.

9.102 The committee notes that the conditions encountered by the flight crew were particularly rare but that the ATSB report from 2000 indicates that encountering

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109 *Confidential submission*.

110 AIPA, *Submission 8*, p. 14.

111 *Confidential submission*.

112 ATSB report, pp 57–59.

unforecast adverse weather conditions is not unusual at Norfolk Island. In addition to this higher incidence of encountering unforecast adverse weather conditions, the lack of nearby aerodromes present crews with a very different set of circumstances from most aerodromes in eastern Australia where there are other aerodromes fairly close by. Further, given the ATSB can articulate the narrow range of circumstances that occurred on the night of the ditching, the committee believes this is even more reason to looks at the system to see what additional assistance can be provided under those circumstances. The rarity of the occurrence and the fact that 'the existing safety arrangements covered all other cases…'[113] is of little comfort to those affected and any flight crew which may face those circumstances in the future. One of the roles of the ATSB is to improve transport safety by identifying factors that contribute to occurrences or that might affect future ones.

9.103 Given the known and continuing difficulties with forecasting the weather on Norfolk Island, the committee wants to ensure that all feasible steps to improve weather forecasting have been undertaken and any barriers to passing on relevant weather have been addressed. Aircraft carrying more fuel is one way to attempt to address this issue and the committee notes the changes in the Pel-Air fuel policy and that CASA agreed action to review in part the fuel and alternate requirements for operations to remote islands. However, the committee believes it is timely for the relevant agencies to review whether any equipment or other changes at Norfolk Island would be of assistance in improving weather forecasting. The review should revisit the issue of whether the Unicom operator should be an approved meteorological observer, in part due to their local knowledge.

Recommendation 23

9.104 The committee recommends that the relevant agencies review whether any equipment or other changes can be made to improve the weather forecasting at Norfolk Island. The review would include whether the Unicom operator should be an approved meteorological observer.

9.105 The committee heard that Norfolk Island is prone to incidence of low cloud and considers that for a person who has never experienced it, there may be no information (in training manuals for example) to bring this variability to their attention. The committee heard from BoM that current information on Norfolk Island is in the ICAO standard format and there is no annotation to TAFs or SPECIs to indicate that while the information is valid it could, at Norfolk Island, vary considerably without notice. The committee believes that for those who have not experienced the variability, it would be helpful to have this information available. The committee notes that the fact that it is in the ICAO standard format does not prevent Australia from working with ICAO to change that if that would be the most helpful way of ensuring the information is available.

113 Mr Martin Dolan, *Committee Hansard*, 21 November 2012, p. 6.

Recommendation 24

9.106 The committee recommends that the relevant agencies investigate appropriate methods to ensure that information about the incidence of, and variable weather conditions at, Norfolk Island is available to assist flight crews and operators managing risk that may result from unforseen weather events.

9.107 The committee notes that the key AIP document used by aircrew to understand the airport where they are planning to land is the En Route Supplement Australia (ERSA). The Norfolk Island entry in the ERSA meteorological information section only identifies the existence of the AWIS and TAF CAT A. There is no note or caution that forecasts are unreliable and conditions can change rapidly.[114]

Recommendation 25

9.108 The committee recommends that the Aeronautical Information Package (AIP) En Route Supplement Australia (ERSA) is updated to reflect the need for caution with regard to Norfolk Island forecasts where the actual conditions can change rapidly and vary from forecasts.

9.109 The committee notes that where relevant the recommendations above relating to Norfolk Island should also be applied to other remote destinations such as Christmas, Cocos and Lord Howe Islands.

Other improvements

9.110 Other improvements that were suggested for Norfolk Island include a Global Navigation Satellite System (GNSS) approach would allow a lower minima, had such an approach been published.[115] The committee notes a change made at Norfolk Island since the ditching which was not mentioned to the committee but which may have had an effect on the outcome. Documentation provided under the Order to Produce Documents from CASA indicates that a satellite assisted approach (RNP/RNAV [required navigation performance] approach) was pending approval at the time of the accident. This technology allows a more precise approach and would have allowed the pilot to descend lower than the landing minima available at the time in order to achieve visibility of the runway. It seems the aircraft had the required avionics and the pilot was licensed/certified to fly RNP/RNAV approaches. In the documentation CASA's attention was being drawn to the delay in publishing the new plates and being asked whether the process could be expedited to enhance safety.[116] Had this been in place at the time of the accident the outcome may have been different. The committee notes that since the accident, this has been implemented by Airservices Australia for Norfolk Island in June (runway 29) and August 2012 (runway 11).[117]

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114 See AIP, ERSA, Norfolk Island, 7 March 2013.

115 Mr Mick Quinn, *Submission 11*, p.10.

116 *Confidential document*.

117 Mr Mick Quinn, *Submission 11*, p. 10; See AIP, Departure and Approach Procedures (DAP), Aerodrome and Procedure Charts, Norfolk Island.

Conclusion

9.111 The committee wishes to assure itself that organisations contributing to Australian aviation have a proactive culture that seeks every opportunity to enhance air safety. The committee was disappointed that some key organisations that gave public evidence, acknowledged the existence of various problems. However, because it was not their direct responsibility, these organisations had done nothing to bring issues to the attention of those who could take action, and in the absence of this inquiry may never have done so.

9.112 This silo mentality has allowed issues to persist for the three years that the ATSB report took to produce and beyond. This is clearly unacceptable. The committee, and more importantly the travelling public expect that in the interests of enhancing air safety, that an issue will be drawn to the attention of the relevant organisation when it becomes apparent. If it affects the safety of the travelling public, our aviation safety organisations have the responsibility to pursue it with the responsible jurisdictions in a timely manner. In addition, if an organisation becomes aware of an issue which is not within its powers or rules they should proactively draw it to the attention of relevant areas so appropriate actions can be taken.

9.113 The committee was not reassured by the responses from Airservices Australia and found them confusing. Airservices Australia reported 'constantly having those discussions with them [neighbouring air navigation service providers] to try to improve the integrity of the system.'[118] Yet Airservices Australia decided to wait until a regular forum instead of proactively bringing the issue to the attention of its counterparts.[119] Airservices Australia also assumed that the ATSB report would have been provided to New Zealand and Fiji[120] and that the New Zealand ATC would be doing its own review. However Airservices Australia admitted that it had not spoken with its counterparts on the issue.[121]

9.114 The committee finds it odd for Airservices Australia to assume that New Zealand is conducting its own investigation. If Airservices Australia was unaware of the issue until the ATSB report was published and there was no recommendation or safety action on the issue, then why should New Zealand ATC have more awareness if the issue has not been brought to its attention? The committee certainly hopes this is the case but recognises that hope or assumptions are not valid mechanisms for ensuring such safety issues are addressed.

9.115 The committee is also concerned about the lack of clear processes in the absence of recommendations. If there is no mechanism for a foreign jurisdiction to be aware of the issues then we cannot expect them to act. In addition, even if the committee accepts that Airservices Australia knew nothing about the issue until

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118 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 3.

119 Ms Margaret Staib, *Committee Hansard*, 19 November 2012, p. 6.

120 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 8.

121 Mr Harfield, *Committee Hansard*, 19 November 2012, p. 4.

August 2012 when the ATSB report was published, the committee is concerned that no timely communication or action has been taken since that time. The committee has no confidence that without this inquiry this issue would have made it onto the agenda for the next South West Pacific Safety Forum or have been addressed at all.

9.116 Documentation provided to the committee by the ATSB indicates that as part of the DIP process the report was not provided to Airservices Australia but it was provided to the Fijian Civil Aviation Authority and the New Zealand Transport Accident Investigation Commission. Given the lack of detail in the report around this issue, that neither organisation had any comment to make and that it was sent to the New Zealand Accident Investigation Commission and not the Civil Aviation Authority, it seems unlikely and understandable that no action in this area has been taken by these jurisdictions.

9.117 The lack of urgency shown by Airservices Australia is both disappointing and remarkable. Given the significance of this issue, the ATSB appears to have provided no information to Airservices Australia during the course of its investigation so Airservices Australia could commence discussions with the relevant jurisdictions. It is even more remarkable that there has been no information or recommendation in the ATSB report around this issue. The committee considers this to be a serious omission from the report which needs to be addressed.

9.118 The committee's greatest concern is that in the three years that it took to produce the ATSB report and the lack of urgent action since, another incident of the same nature could occur again.

9.119 As for the requirement to provide deteriorating weather information itself, the committee notes that this has been identified as an issue which is addressed in Australia. Therefore the committee finds it difficult to comprehend why there would be no recommendation in the ATSB report that it would be an enhancement to safety for a neighbouring service provider to proactively provide the equivalent of a hazard alert. The committee believes that negotiating the provision of a proactive hazard alert approach with the relevant jurisdictions would enhance aviation safety for all using that airspace and provide another barrier or defence to such an incident occurring again.

9.120 Whatever else occurred, if the flight crew had been made proactively aware about the deteriorating weather conditions they may have made a different decision. If the ATSB report had contained a recommendation around this issue which said this action could be a barrier to a future accident and that it should be put in place, then the organisations involved would have known to take action. Without that recommendation, it is conjecture whether the issue would have been addressed. The committee is of the view that without this inquiry to highlight the reliance on such recommendations to ensure appropriate action is taken, it is likely that it would not.