Deciding whether to investigate

Introduction

This section provides information on the decision process for investigating a transport safety matter.

Background

The ATSB is resourced each year to undertake a finite number of investigations. It is acknowledged, however, that an occurrence with a large number of passenger fatalities would represent a major accident that may require supplementary funding.

Following the initial assessment of a notification, a decision is made whether or not to conduct an investigation.

Full investigations are classified on a scale of 1–4. An occurrence may also be subject to a limited scope Level 5 fact gathering investigation. Refer to <a href="https://doi.org/10.1007/jhap-10.1007/

Priorities for investigating

The ATSB's primary focus is on enhancing safety with respect to fare paying passengers, and in particular, those transport safety matters that may to present a significant threat to public safety and are the subject of widespread public interest.

The following broad hierarchies for aviation, marine and rail must also be taken into account when deciding whether to investigate and when determining the level of investigation response.

Aviation broad hierarchy

In applying these guidelines, the ATSB will allocate its resources in line with the following broad hierarchy of operation types:

- 1. Passenger transport large aircraft.
- Passenger transport small aircraft:
 - o RPT and charter on small aircraft
 - humanitarian aerial work (for example, RFDS, SAR flights).
- 3. Commercial (that is, fare paying) recreation (for example, joy flights).
- 4. Aerial work with participating passengers (for example, news reporters, geological surveys).
- 5. Flying training.
- 6. Other aerial work:
 - non-passenger carrying aerial work (for example, agriculture, cargo)
 - private transport/personal business.
- 7. High risk personal recreation/sports aviation/experimental aircraft operations.

Continued on next page

Page 6 of 12Status: RELEASEDVersion: 1.00ATSB Safety InvestigationAuthorised by: Chief CommissionerDate of issue: Feb 2010

Deciding whether to investigate, continued

Marine broad hierarchy

In applying these guidelines, the ATSB will allocate its resources in line with the following broad hierarchy of marine operation types:

- 1. Passenger operations.
- 2. Freight and other commercial operations.
- 3. Non-commercial operations.

Rail broad hierarchy

In applying these guidelines, the ATSB will allocate its resources in line with the following broad hierarchy of rail operation types:

- 1. Passenger operations.
- 2. Freight and other commercial operations.
- 3. Non-commercial operations.

Level of response

The level of investigation response is determined by resource availability and such factors as detailed below. These factors are presented in no particular order and may, depending on the circumstances, vary in the degree to which they influence the ATSB's decision to investigate and the level of response.

- anticipated safety value of an investigation, including the likelihood of furthering the understanding of the scope and impact of any safety system failures
- likelihood of safety action arising from the investigation, particularly of national or global significance
- existence and extent of fatalities/serious injuries and/or structural damage to transport vehicles/other infrastructure
- obligations or recommendations under international conventions and/or codes
- nature and extent of public, interest, in particular the potential impact on public confidence in the safety of the transport system
- existence of supporting evidence or requirements to conduct a special investigation based on trends
- relevance to an identified and targeted safety program
- the extent of resources available and projected to be available in the event of conflicting priorities
- the risks associated with not investigating including consideration of whether, in the absence of an ATSB investigation, a credible safety investigation by another party is likely
- · timeliness of notification
- training benefit for ATSB investigators.

Continued on next page

Version: 1.00Status: RELEASEDPage 7 of 12Date of issue: Feb 2010Authorised by: Chief CommissionerATSB Safety Investigation

Deciding whether to investigate, continued

Initiation of an investigation

With increasing resource pressure, initiation of a full investigation under s21(1) of the *TSI Act* can only be done by the relevant Team Leader in consultation with the Director, the Deputy CEO and Chief Commissioner.

Level 5 fact gathering investigations can be initiated by the relevant Director.

Occurrences that require a full investigation are initially classified as Level 4 unless agreed to be above this level at the outset. Any upgrading in level (with accompanying resource commitment) must be authorised by the relevant Director in consultation with the Deputy CEO and Chief Commissioner.

Fatal accidents not investigated

The ATSB's justification for electing not to investigate a notifiable fatal accident will be documented in the database record for that occurrence.

Trend monitoring

Occurrences that may fit the definition of an aviation safety accident or incident but that in isolation do not represent a risk to safe aviation, do not require individual investigation.

Such occurrences may be referenced during trend monitoring of occurrences with similar factors. These are Level 5 occurrences.

Marine and rail do not have the same weight in numbers for trend monitoring, although the team leaders monitor obvious trends in accidents in the industry which forms a part of the decision making process to decide whether or not to investigate.

Classifying

Introduction

This section provides information on the classification process.

Introduction

The objective of the classification process is to quickly identify and manage appropriately, including the allocation of resources, those occurrences that:

- require detailed investigation
- need to be recorded by the ATSB for future research and statistical analysis
- need to be passed to other agencies for further action
- do not contribute to transport safety.

Three ways to action

Transport safety matter reports can be actioned in one of three ways to contribute to the Bureau's functions.

- 1. A report of an occurrence that suggests that a safety issue may exist should be investigated immediately. Investigation may lead to the identification of the safety issue, including its significance, and provide the justification for safety action.
- 2. A report of an occurrence that may not warrant a full investigation but which would benefit from additional fact gathering for future safety analysis to identify safety issues or safety trends.
- Basic details of an occurrence, based primarily on the details provided in the initial occurrence notification, can be recorded in the database to be used in future safety analysis to identify safety issues or safety trends.

Note: In the third approach, the occurrence is not investigated immediately, but may be the subject of a future investigation.

Pros/cons first approach

The advantages of the first approach are a quick identification of a safety issue, and a thorough investigation of all the data relating to the occurrence.

The disadvantage in this approach is that a full investigation uses considerable resources and time.

Pros and cons of the second approach

The advantage of the second approach is that a richer data set for a greater number of occurrences is generated with minimal resource overhead which, in turn, is likely to result in improved future research and statistical analysis outcomes. These short, fact gathering investigations also provide an opportunity to upgrade to a full investigation when the initial fact gathering suggests that the issues are more complex and warrant more detailed examination and analysis.

Continued on next page

Version: 1.00Status: RELEASEDPage 9 of 12Date of issue: Feb 2010Authorised by: Chief CommissionerATSB Safety Investigation

Classifying, continued

Pros/cons third approach

The advantage of the second approach is that it can be used for a large number of occurrences using far fewer resources than the first two approaches.

The major disadvantage is that a safety issue may not be identified until after a considerable period of time.

Who classifies?

With aviation, classifying a transport safety matter is normally the task of the Notifications Officer; however, the Team Leader NCR needs to liaise with the relevant Team Leader or Director.

Surface notification classification is the responsibility of the relevant Team Leader.

The investigation levels

Investigations are classified by the level of resources and/or the complexity and time required to complete the investigation—the levels are 1 to 6.

The table below describes the transport safety investigation levels used by the ATSB.

Level	Description
1	 likely to involve the majority of ATSB resources, in addition to significant external resources, for up to 24 months
	likely to require additional one-off Government funding
2	involves a large number of ATSB and possibly external resources and/or
	scale and complexity of which usually requires up to 18 months to complete
3	involves in-the-field activity, several ATSB and possibly external resources and/or
	scale and complexity of which usually requires up to 12 months to complete
4	a less complex investigation which requires no more than 9 months to complete (may at times be a 'desktop' exercise requiring no in-the-field activity) and/or
	involves only one or two ATSB resources
5	 Represents a transport safety matter under the TSI Act but which has been assessed as either: Level 5 (short) – limited scope factual information only based investigations, which result in a short summary report of 1 to 2 pages. Generally completed within 4 to 6 weeks and published quarterly. Requires only one ATSB resource. Level 5 (data entry) – not requiring an investigation. The unverified information is entered into relevant databases for statistical purposes.
6	Not a transport safety matter by definition of the <i>TSI Act</i> .
	Not a transport safety matter by definition of the 101 Act.

Page 10 of 12Status: RELEASEDVersion: 1.00ATSB Safety InvestigationAuthorised by: Chief CommissionerDate of issue: Feb 2010