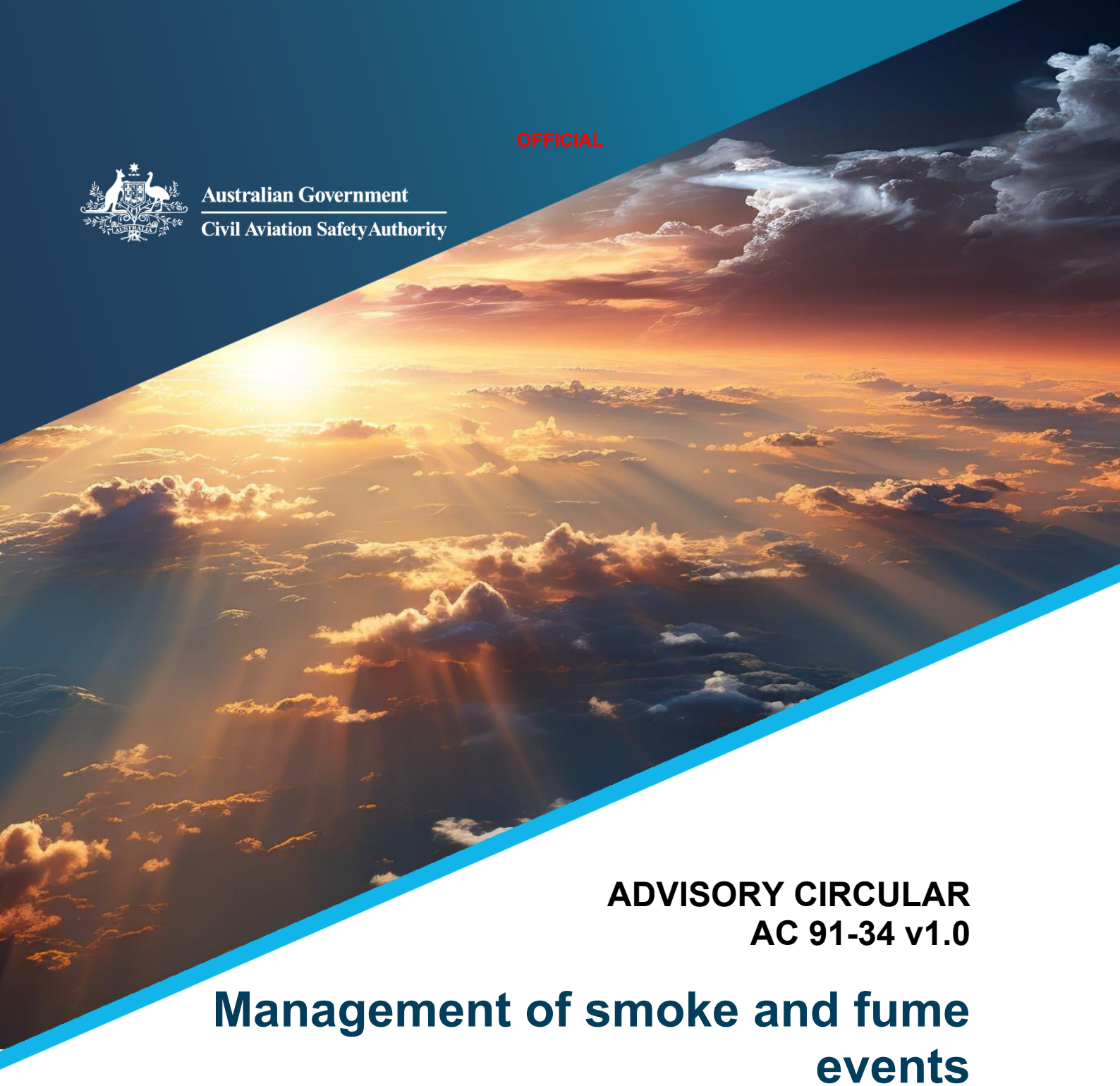

Australian Government
Civil Aviation Safety Authority

ADVISORY CIRCULAR
AC 91-34 v1.0

Management of smoke and fume events

File ref: D24/164148

February 2026

Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Artwork: James Baban.

Audience

This advisory circular (AC) applies to:

- operators and owners of aircraft carrying passengers
- flight and cabin crew training departments
- crew members.

Purpose

This AC provides guidance to operators and crew members on recognising and responding to the presence of fumes, particularly those originating from aircraft air supply systems. It includes considerations for crew awareness training, response procedures, and occurrence reporting.

For further information

For further information or to provide feedback on this AC, visit CASA's contact us page.

Status

This version of the AC is approved by the National Manager, Flight Standards Branch.

Table 1: Status

Version	Date	Details
v1.0	February 2026	Initial AC. Content moved from Cabin Safety Bulletin 13 and adjusted where appropriate.

Contents

1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Table 2: Acronyms

Acronym	Description
AC	advisory circular
ATSB	Australian Transport Safety Bureau
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
EASA	European Union Aviation Safety Agency
FAA	Federal Aviation Administration
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
MOS	Manual of Standards
TSI	*Transport Safety Investigation Regulations 2021*

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by 'grey shading'. Should there be a discrepancy between a definition given in this AC and the civil aviation legislation, the definition in the legislation prevails.

Table 3: Definitions

Term	Definition
aircraft	an aircraft to which Part 91 of CASR applies.
cabin crew member	a crew member who performs, in the interests of the safety of an aircraft's passengers, duties assigned by the operator or the pilot in command of the aircraft but is not a flight crew member.
cargo	things other than persons carried, or to be carried, on an aircraft.
crew member	a person is a crew member of an aircraft if the person is carried on the aircraft and is: a. a person: i. who is authorised by the operator of the aircraft to carry out a specified function during flight time relating to the operation, maintenance, use or safety of the aircraft, the safety of the aircraft's passengers or the care

Term	Definition
	or security of any cargo which may affect the safety of the aircraft or its occupants, and ii. who has been trained to carry out that function, or iii. a person who is onboard the aircraft for the purpose of: iv. giving or receiving instruction in a function mentioned in subparagraph (a)(i), or v. being tested for a qualification associated with a function mentioned in subparagraph (a)(i), or vi. a person authorised by CASA under these regulations, or by the operator, to carry out an audit, check, examination, inspection or test of a person mentioned in paragraph (a) or (b).
compartment	of an aircraft, includes the space inside a non-compartmentalised fuselage.
contaminant	an airborne constituent that may reduce air quality.
exposition	a. for an Australian air transport operator, means: i. the set of documents approved by CASA under regulation 119.075 in relation to the operator, and ii. if the set of documents is changed under regulation 119.085, 119.095 or 119.105, or in accordance with the process mentioned in regulation 119.100—the set of documents as changed, or b. for an ASAO, means: i. the set of documents approved by CASA under regulation 149.080 in relation to the ASAO, or ii. if the set of documents is changed under regulation 149.115 or 149.120, or in accordance with the process mentioned in paragraph 149.340 (i)—the set of documents as changed, or c. for a balloon transport operator: i. the set of documents approved by CASA under regulation 131.085, or ii. if the set of documents is changed under regulation 131.095, 131.105 or 131.115—the set of documents as changed.
flight crew member	a crew member who is a pilot or flight engineer assigned to carry out duties essential to the operation of an aircraft during flight time.
fumes	odorous, gaseous compounds which are not visible. **Note:** in the context of this Advisory Circular (AC), fumes and odours are deemed to be synonymous, and the term "fume(s)" includes both fumes and odours.
operator	of an aircraft, means: a. if the operation of the aircraft is authorised by an AOC, a Part 141 certificate or an aerial work certificate – the holder of the AOC or certificate, or b. otherwise – the person, organisation or enterprise engaged in aircraft operations involving the aircraft.
passenger	in relation to an aircraft, means a person: a. who: i. intends to travel on a particular flight on the aircraft, or ii. is on board the aircraft for a flight, or iii. has disembarked from the aircraft following a flight, and b. who is not a crew member of the aircraft for the flight.
protective breathing equipment	means equipment that is designed to prevent a person from having to breathe in, and to protect the person's eyes from, toxic gases and fumes.

Term	Definition
pilot in command	in relation to a flight of an aircraft, means the pilot designated by the operator of the aircraft as being in command and charged with the safe conduct of the flight.
smoke	the product of burning materials made visible by the presence of small particles.

1.3 References

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Table 4: Legislation references

Document	Title
Part 91 of CASR	General operating and flights rules
Part 119 of CASR	Australian air transport operators - certification and management
Part 121 of CASR	Australian air transport operations - larger aeroplanes
Part 133 of CASR	Australian air transport operations - rotorcraft
Part 135 of CASR	Australian air transport operations - smaller aeroplanes
Part 121 Manual of Standards	Australian air transport operations - Larger Aeroplanes Manual of Standards
Part 133 Manual of Standards	Australian air transport operations – Rotorcraft Manual of Standards
Part 135 Manual of Standards	Australia Air Transport Operations - Smaller Aeroplanes Manual of Standards
Regulation 121.125 of CASR	Procedures for reporting and recording incidents
Regulation 133.095 of CASR	Procedures for reporting and recording incidents
Regulation 135.105 of CASR	Procedures for reporting and recording incidents
Part 2 of TSI	Aircraft operations

Advisory material

CASA's advisory materials are available at https://www.casa.gov.au/publications-and-resources/guidance-materials

Table 5: Advisory material references

Document	Title
AC 20-06	Defect reporting
Multi-Part AC 91-19, AC 121-04, AC 133-10, AC 135-12 and 138-10	Passenger Safety Information
Multi-Part AC 119-11 and AC 138-02	Training and Checking Systems

International Civil Aviation Organization documents

International Civil Aviation Organization (ICAO) documents are available for purchase from http://store1.icao.int/

Many ICAO documents are also available for reading, but not purchase or downloading, from the ICAO eLibrary (https://elibrary.icao.int/home).

Table 6: ICAO references

Document	Title
Annex 6 Operation of Aircraft - Part I	International Commercial Air Transport - Aeroplanes
ICAO Cir 344-AN/202	Guidelines on Education, Training and Reporting Practices related to Fume Events (CIR 344)
ICAO Doc 10002	Cabin Crew Safety Training Manual

Other references

Table 7: Other references

Document	Title
Air Accidents Investigation Branch (2018)	Fumes event Boeing 777-236, G-VIIJ
ATSB AO-2016-033	Smoke and fumes event involving Boeing 787, N36962
ATSB AO-2019-073	Hydraulic system malfunction, return and evacuation, involving Airbus A330, VH-EBC, 94km west-north-west of Sydney Airport, New South Wales, on 15 December 2019
EASA Rep_RESEA_2014_4	CAQ Preliminary cabin air quality measurement campaign
EASA Rep_RESEA_2015_2	Characterisation of the toxicity of aviation turbine engine oils after pyrolysis
FAA	Aircraft Cabin Bleed Air Contaminants: A review

Document	Title
IATA	Cabin Operations Safety Best Practices Guide, 11th edition
Committee on Toxicity (2013)	Position paper on cabin air
Ramsden, J. (2012)	Contaminated aircraft cabin air: aspects of causation and acceptable risk

2 Background

2.1 Most commercial aircraft (except for the Boeing 787) use bleed air, i.e., air drawn from the engine or Auxiliary Power Unit (APU), to feed the air conditioning system. Engines are lubricated with oils, and many aircraft systems rely on hydraulic power. By design, these fluids, and their thermal decomposition products (including ultrafine particles) can contaminate the compressed air which is destined for the cabin and flight deck, known as a 'fume event.' This can occur over a short period with higher concentrations (i.e., an acute fume event, ranging from transient in normal operations to sustained failure conditions) or a chronic long-term exposure to low-level concentrations.

2.2 Fumes[1], smoke, haze, or mist contamination may originate from various sources, including:

- bleed air contaminated with engine oil, hydraulic fluid, or engine exhaust
- ground service vehicle exhaust, fuel, de-icing fluids, or ozone
- recirculation fans or components of the air distribution system
- electrical systems or cabin-related sources such as carry-on baggage, galley or lavatory equipment, cleaning agents, disinfectants, and disinsectants.

2.3 Exposure to oil or hydraulic fluid fumes or smoke can, in some cases, lead to crew members experiencing acute symptoms in flight[2]. Such exposure has the potential to impair crew performance and affect safe operation of the aircraft. It is therefore important that crew members are able to recognise, respond to, and promptly report such events, as effective management and reporting support ongoing operational safety and awareness.

[1] For the purposes of this AC, the term *fume*(s) includes the concepts of both fumes and odours. Fumes are odorous, gaseous compounds that are not visible. Within this AC, the terms fumes and odours are considered synonymous.

[2] ICAO Circular 344 – Guidelines on Education, Training and Reporting of Fume Events (2015).

3 Recognition and understanding of fumes events

3.1 Sources and types of fumes

3.1.1 Fumes, smoke, haze or mist in the cabin and/or flight deck may originate from a range of sources. Broadly, these can be grouped as:

- **Ventilation air supply system**: Contaminants may include engine or APU oil fumes, hydraulic fluid fumes, exhaust gases, de-icing or anti-icing fluids, electrical system emissions, engine compressor wash residues, or recirculation fan particulates. In some circumstances, oil or hydraulic fluid fumes generated by the engines, APU, or environmental control system may enter and be distributed through the aircraft's ventilation ducting to the cabin and flight deck.
- **Cabin or flight deck items**: Contamination may arise from carry-on baggage, galley or lavatory equipment, cleaning products, disinfectants or disinsectants.

3.1.2 Crew members are reminded that visible smoke or haze is not always present, and that odours or physical symptoms may be the only indication of a fume event. Understanding the potential sources of fumes supports more effective recognition, response and reporting.

3.2 Recognising Fumes and associated symptoms

3.2.1 Once the sources of fumes are understood, crew members may detect the presence of fumes through smell or by the onset of physical symptoms. Common odour descriptors associated with typical sources of contamination are provided below for training and awareness purposes:

Table 7: Common odour descriptors

Odour description	Typical source
Dirty socks, smelly feet, wet dog, musty, old cheese, acrid, foul, chemically, oily, electrical, burning.	Oil.
Acrid, pungent, chemical, burning.	Hydraulic fluid.
Sweet.	De-icing fluid.
Acrid, 'electrical', burning.	Electrical.
Kerosene.	Fuel.

3.2.2 Odour perception is subjective, and fatigue of the sense of smell may reduce detection over time.

3.2.3 Fume events are most often smell-related only, though a haze, mist, or visible smoke may occasionally occur.

3.2.4 Crew should also be aware of potential symptoms following a fume event, which may include:

- eye or respiratory irritation, sinus congestion, or gastrointestinal upset
- neurological effects that may impair performance, including reduced alertness, attention, working memory, or response times.

3.2.5 Symptoms may develop gradually, and degraded performance may not be immediately apparent. Training should emphasise the importance of early recognition and response.

3.2.6 Regular or recurrent odour-only events should not be discounted, as they may indicate abnormal system operation or potential safety risks.[3]

3.3 Crew response and procedures

3.3.1 Once fumes have been recognised, their potential sources understood (see Section 3.1 of this AC), and possible symptoms identified (see Section 3.2 of this AC), crew members should respond in a way that protects themselves and minimises the impact of fume events on all aircraft occupants[4].

3.3.2 Operators are encouraged to develop procedures covering:

- communication between cabin and flight crew regarding the presence, location, and intensity of fumes
- use of protective breathing equipment if available and in accordance with operator procedures
- relocation of affected occupants, if safe and practicable
- following established checklists or guidance for smoke or fumes
- reporting the event through the operator's internal safety system.

3.3.3 Operators should ensure that crew understand the rationale for each procedure and the importance of timely reporting, even if the fume event appears minor or transient.

3.4 Training and awareness

3.4.1 Part 121 operators are required to provide smoke and fumes training to flight and cabin crew as part of conversion and recurrent training.[5] Operators not operating under Part 121 are encouraged to include similar training for their crew to enhance operational safety.

3.4.2 Training is recommended to ensure that crew can recognise, respond to, and report fume events in accordance with operator procedures by covering:

- typical sources and types of fumes and their potential origins in the cabin and flight deck
- common odour descriptors for air supply system contaminant[6]s
- symptoms that may occur following exposure and the potential impact on crew performance
- procedures for responding to fume events, including self-protection and communication with flight crew
- reporting requirements and documentation, including the importance of reporting even minor or transient events
- coordination and communication procedures during fume events to support operational safety.

[3] EASA, "Guidelines on Cabin Air Quality and Fume Events," 2011; CEN, "Air Quality Standards for Aircraft Cabins," 2022; ICAO Circular 344, "Cabin Air Quality and Fume Events," 2015.

[4] Multi-Part AC91-19, AC 121-04, AC 133-10, AC 135-12, and AC 138-10.

[5] Flight crew: Part 121 MOS 12.15 Conversion Training; Cabin crew: Part 121 MOS 13.29 Conversion Training and 13.34 Annual Recurrent Training.

[6] For example, oil, hydraulic fluid, de-icing fluid, electrical, fuel.

3.4.3 Training content for cabin crew is outlined in Section 4 of this AC, which provides additional detail on communication, passenger management, and post-event actions.

3.5 Continuous improvement and monitoring

3.5.1 Operators are encouraged to use internal reporting data alongside information from relevant international and regional bodies—such as ICAO, EASA, and the European Committee for Standardisation (CEN)—to support ongoing operational safety. This may include:

- monitoring fume-related trends across the fleet
- reviewing and updating crew awareness and training content
- refining procedures and response protocols based on observed occurrences
- sharing lessons learned within the organisation and, where appropriate, with industry partners.

3.5.2 Regular review and analysis reinforces a proactive safety culture, ensures crew training remains relevant to observed occurrences, and supports continuous improvement of operational procedures.

4 Training for smoke and fume events

4.1 Under Part 121, cabin crew members are required to receive smoke and fumes training as part of conversion and recurrent training. Operators not subject to Part 121 are encouraged to provide similar training to enhance operational safety.

4.2 Cabin crew training

4.2.1 Training is recommended to ensure that cabin crew are competent to carry out the procedures described in Section 3.3 of this AC and are prepared to recognise and respond to fume events, including:

- **Recognition and source identification**
  - Crew attempting to identify and locate the source of fumes (air supply system or cabin/flight deck item), as well as assess the type, such as musty/mouldy, acrid, dirty socks and intensity (mild, moderate, strong).
- **Communication**
  - During a fume event, crew need to communicate with each other. The senior cabin crew member should establish communication with flight crew.
  - Crew training is recommended to cover the specific information to be communicated, including:
    - » nature and intensity of the fumes
    - » any visible signs such as haze or mist
    - » apparent source and for suspected air supply system fumes, confirmation that cabin sources have been ruled out to the extent possible
    - » location within the cabin
    - » solo crew member operations and interface with able bodied passengers
    - » phase of flight when the odour was first noticed, as well as subsequent times when it was noticed
    - » action(s) already taken (if any) and coordination with flight crew members on actions to be taken
    - » barriers to communication with flight and cabin crew members, for example, wearing protective breathing equipment and potential impediments in speaking with aircrew or able-bodied passengers
    - » presence of any affected passengers and/or crew members including the type of symptoms and the administration of first aid, if applicable.
- **Passenger and cabin management**
  - managing passengers and the cabin, including but not limited to:
    - » relocating passengers, if required
    - » informing passengers and providing reassurance
    - » administering first aid to passengers and/or crew members
    - » where smoke or fumes are heavy in the cabin, access to the flight deck is not advisable.
- **Post-event procedures**
  - applying post-event procedures for the remainder of the flight, including but not limited to:

  - » monitoring the area
  - » continued communication with the flight crew and other cabin crew members
  - » applying crew member incapacitation procedures, if applicable
  - » post event debriefing between flight and cabin crew.

- **Documentation and reporting**
  - Completing the applicable documentation[7], such as the smoke and fumes reporting form and witness reports (as applicable), in coordination with the flight crew to ensure comprehensive information collection.

4.3 Managerial and supervisory training

4.3.1 Managerial/supervisory personnel are recommended to receive an orientation to fume event causality and the potential impact on flight safety. The depth of training is recommended to commensurate with the management role.

4.3.2 Training for this cohort is recommended to address the following elements:

- **Background**
  - a description of the potential causes of the fume event and the potential impacts on flight safety
- **Role specific responsibilities**
  - a description of the responsibilities specific to the role, for example, cabin crew manager, including raising awareness of the importance of reporting
- **Cooperation**
  - highlighting the importance of cross disciplinary cooperation, for example, continued liaison with flight operations, engineering and cabin crew training areas
- **Safety management**
  - the importance of monitoring the issue through the operator's safety management system and its existing processes, for example reporting events.

4.3.3 Training for senior managerial personnel can be achieved through a briefing, incorporating the above elements and should include specific responsibilities of senior managers.

[7] Regulations 121.125, 133.095 and 135.105 of CASR.

5 Reporting and investigation

5.1 Reporting of fumes events

5.1.1 Operators' expositions must[8] include procedures for reporting and recording incidents that endanger, or could endanger, the safe operation of the aeroplane, including smoke or fume events.

5.1.2 A rich source of safety data comes from direct reporting by front-line personnel, including cabin and flight crew. Ensuring crew are familiar with these procedures supports timely and consistent reporting of all fume events, particularly those originating from the ventilation air supply system. Information captured in reports assists other disciplines, such as engineering, to establish the cause of fumes, and enables safety departments to conduct trend analyses and disseminate learnings to enhance operational safety.

5.2 Standardised reporting

5.2.1 Standardised reporting will assist operators to systematically gather all information pertaining to a specific type of event and interpret results in a consistent manner. This information will enable an operator to monitor data trends over time; event causality; operational impact; determine potential causes and log increases and decreases in the frequency and severity of fume events.

5.2.2 To obtain standardised data collection, operators are recommended to ensure that there are clearly defined sections built into a report template. This will encourage reporters to input concise information in a systematic manner using common terminology. The sample template included in Appendix 1 to this AC sets out the following sections:

- flight and report details
- smoke or fire information, as appropriate
- fume information (including the nature and apparent source of fumes)
- other observations
- symptoms/reactions
- maintenance follow-up and information.

Note: Standardised smoke and fumes reporting forms are recommended to be developed and/or reviewed by a cross disciplinary team (for example, flight operations, engineering, cabin crew, safety departments) in order to validate user experience and verify data collection effectiveness.

5.3 Reportable matters

5.3.1 Under the *Part 4B of the Civil Aviation Regulations 1988* (specifically CAR 51 -53 relating to reporting of defects in Australian Aircraft) and *Subdivision 42.D.6.2 of the Civil Aviation Safety Regulations 1998* (regarding reporting defects), smoke or fumes in the cabin is specifically referenced as a reportable event within the Defect Report Service web-page. Appendix 'A' to CAAP 51-1(2) Defect Reporting also mentions smoke, toxic or noxious fumes inside the aircraft as a reportable major defect.

[8] Regulations 121.125, 133.095 and 135.105 of CASR.

5.3.2 The requirements for reporting aviation accidents and incidents to the ATSB are detailed in the Transport Safety Investigations Regulations (TSI Regulations).

5.3.3 The TSI Regulations set out the ATSB's safety occurrence reporting scheme and prescribe what occurrences must be reported to the ATSB, the timeframes those reports must be made in, the 'responsible persons' who are required to make a report, and the particulars to be included in a report.

5.3.4 Further information can be found at: Aviation reporting requirements | ATSB

5.4 Fume event investigation

5.4.1 Following a fume event, an operator may decide that an investigation is warranted.

5.4.2 Safety investigators are recommended to focus their attention on:

- gathering factual and standardised information from flight and cabin crew members, and engineering personnel
- gathering technical findings on any replaced components
- identifying the cause of the event, if possible
- developing recommendations to prevent recurrence.

5.4.3 Points listed below are recommended to be addressed in an investigation relating to a fume event:

- general information on the event flight (i.e. data from the smoke and fumes report form)
- relevant documentation (for example, maintenance logs, release forms, injury reporting forms)
- aircraft information (for example, condition of aircraft systems, types and results of troubleshooting procedures)
- human performance (that is, crew member and engineering actions)
- additional information (for example, medical reports, first responder reports)
- interviews, if applicable, including perspective of one or more flight crew, cabin crew members and engineering personnel.
- propose rectification to prevent the event from occurring again.

5.5 Safety message

5.5.1 In the final report 'An analysis of smoke and fumes events' (ATSB, 2014)[9], research revealed that data collected by CASA and ATSB provided visibility of occurrences from an operational and engineering perspective. A significant impediment to the information collected however, was that many reports relating to smoke and fume events did not include enough detail for coding of the source or affected components.

5.5.2 The safety message in the report stated that smoke and fume events are generally managed appropriately by crew resulting in little consequence; and good reporting by operators with sufficient detail provided to CASA and the ATSB, where relevant, will assist ongoing efforts to monitor the risk of such events.

[9]Australian Transport Safety Bureau (2014). An analysis of fumes and smoke events in Australian aviation – https://www.atsb.gov.au/media/5394101/AR-2013-213.pdf

Appendix A
Sample - Smoke and fumes report

Note: For each question, check all that apply. If one answer is dominant for a given question, write an * next to that item.

Table 8: Section 1: Flight and reporter details

Reporter	Phases of flight	Completed by
Flight date: Click or tap to enter a date. Reporter name: Click or tap here to enter text. Employee no. Click or tap here to enter text. Email: Click or tap here to enter text. Phone: Click or tap here to enter text.	A/C number: Click or tap here to enter text. A/C type: Click or tap here to enter text. Tech log# (if known) Click or tap here to enter text. Departure: Click or tap here to enter text. Arrival: Click or tap here to enter text.	☐ Flight crew ☐ Cabin crew ☐ Engineering ☐ Other PIC signature: (operator discretion)
Estimated duration of incident: (hrs.) (min.) **Engine power level changes:** ☐ Yes ☐ No ☐ Unknown **Known history of similar conditions on same aircraft?** ☐ Yes ☐ No ☐ Unknown	**Phases of flight:** ☐ Parked (pre-flight) ☐ Pushback ☐ Engine start ☐ Taxi-out ☐ Take-off ☐ Climb ☐ Cruise ☐ Descent ☐ Approach ☐ Landing ☐ Taxi-in ☐ Parked (post-flight) ADD: **Event** ☐ Single ☐ Multiple Estimated duration: ___:___ Engine power changes ☐ Yes	**Known history of similar events on this aircraft** ☐ Yes ☐ No ☐ Unknown **Recent aircraft service history** ☐ None ☐ De-icing or anti-icing ☐ Engine/APU oil serviced ☐ Hydraulic fluid serviced ☐ Pesticide application ☐ Fuelling ongoing ☐ Other:

Reporter	Phases of flight	Completed by
	☐ No ☐ Unknown **Configuration at event start:** Pack 1: ☐ ON ☐ OFF Pack 2: ☐ ON ☐ OFF Bleed 1: ☐ ON ☐ OFF Bleed 2: ☐ ON ☐ OFF APU Bleed: ☐ ON ☐ OFF X-bleed: ☐ CLSD ☐ OPEN External Airco: ☐ YES ☐ NO Ext. Air Starter: ☐ YES ☐ NO	

Table 9: Section 2: Smoke or fire information

Evidence of smoke or fire	Type of smoke or fire	Location of smoke or fire
☐ Smoke ☐ Fire ☐ Neither smoke nor fire ☐ None	☐ Localised smoke ☐ Generalised smoke ☐ Open flame ☐ None	☐ **Cabin** **(if cabin:)** ☐ Forward cabin ☐ Mid cabin ☐ Aft cabin ☐ Upper deck cabin ☐ Flight deck ☐ Flight crew rest area ☐ Cabin crew rest area ☐ Lavatory:_____ ☐ Galley: _____ ☐ Cargo ☐ None **Skip to Section 4**

Table 10: Section 3: Fume information

If fumes, describe type	Intensity of fumes	If fumes in cabin	Apparent location of fumes in cabin/flight deck	If fumes in flight deck	If fumes in cargo	Potential source of fumes coming from outside the aircraft
☐ Acrid ☐ Chemical ☐ Dirty socks ☐ Exhaust ☐ Electrical ☐ Fuel ☐ Musty or mouldy ☐ Oily/burning oil ☐ Vomit ☐ Other:_____	☐ Mild ☐ Moderate ☐ Strong ☐ Nauseating	☐ Forward cabin ☐ Mid cabin ☐ Aft cabin ☐ Upper deck ☐ Cabin crew rest area ☐ Galley ☐ Lavatory	☐ Air supply system vents ☐ Cabin item ☐ Flight deck equipment ☐ Galley equipment ☐ Unknown ☐ Other: _____	☐ General flight deck area ☐ Flight crew rest area	☐ Known source ☐ Unknown source If known, identify: Click or tap here to enter text.	☐ De-icing or anti-icing underway ☐ Fuelling underway ☐ Proximity to ground service vehicle exhaust ☐ Proximity to other aircraft (exhaust) ☐ Other: _____

Table 11: Section 4: Other observations – All events

Note: For each question, check all that apply.

Other observations	Air supply source
☐ Blocked drain ☐ Cabin item: _____ ☐ Galley equipment malfunction ☐ Inflight entertainment system malfunction ☐ Irregular equipment noise ☐ Leak or spill ☐ Lights flickering or malfunction ☐ Other:_____	☐ APU ☐ Engines ☐ Ground conditioned air unit ☐ Ground air starter ☐ Other: _____

Section 5: Symptoms and reactions – All events

Note: For each question, check all that apply.

Symptoms reported:

☐ No

☐ Unknown

☐ Yes

If **'Yes'**, please complete the table below.

If yes, symptoms reported by:

☐ Flight crew

☐ Cabin crew

☐ Maintenance

☐ Passenger(s):

Seat # _____ _____

Table 12: Symptoms reported

Symptoms/reported by	Flight crew	Cabin crew	Maintenance	Passenger(s)
Abnormal taste				
Dizziness				
Fatigue or weakness				
Headache				

Symptoms/reported by	Flight crew	Cabin crew	Maintenance	Passenger(s)
Irritated eyes, nose, throat				
Slowed thinking				
Tingling				
Trouble breathing				
Other				

Comments

Section 5a: Equipment

Emergency equipment used:

☐ No
☐ Yes

> **Note:** If 'Yes', please complete the table below.

Table 13: Emergency equipment used

Equipment/used by	Flight crew	Cabin crew	Maintenance	Passenger(s)
Oxygen mask				
Smoke goggles				
Portable breathing equipment				
Portable oxygen bottle				
Fire extinguisher				
Drop down masks				

Table 14: Section 5b: Medical assistance

Medical assistance required?	Type of medical assistance (if applicable)	Additional details
☐ None ☐ Flight crew ☐ Cabin crew ☐ Passenger(s): Seat # _____ _____ ☐ Maintenance	☐ On-board only ☐ Medical advisory service ☐ Emergency medical services met aircraft ☐ Emergency room or clinic ☐ Other: _____	_____ _____ _____ _____ _____ _____

Table 15: Section 6: Maintenance follow-up and information – All events

Note: For each question, check all that apply.

Maintenance fault or source identified?	Impact on operation	Maintenance action(s), if known:
☐ Yes ☐ No	☐ None ☐ Diversion ☐ Return to base ☐ Aircraft change ☐ Flight cancelled ☐ Gate delay ☐ Other: _____	_____ _____ _____ _____ _____ _____

Note: If needed, provide additional comments on separate paper.