TE KOWHAI
AIRFIELD

Te Kowhai Aerodrome (NZTE)

Safety Management Plan

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1. Preface

The purpose of this manual and associated manuals is to document the policies and procedures required for the safe and effective management of Te Kowhai Aerodrome for all users.

This manual is prepared in part to satisfy the obligations under the Civil Aviation Rules to promote safety at a Non-Certified, Unattended Aerodrome.

It also contains details of procedures that may not be entirely safety related, but may be required to satisfy other legal, operational and statutory requirements.

Te Kowhai Aerodrome is owned and operated by TK Airfield Land Limited and managed by NZTE Operations Limited. It is a public space available for use by all pilots in compliance with New Zealand CAA legislation, rules and procedures.
This manual does not absolve any person from the responsibility of taking all practicable steps to protect health, safety and welfare of themselves and others.

1.1 Manual Ownership

This manual is the property of NZTE Operations Limited. Responsibility for amendments and re-issue is the responsibility of NZTE Operations Limited.

1.2 Control and amendment

All amendments and re-issues to this manual shall be carried out by Aerodrome Management or appointed/approved person. Aerodrome Management shall also ensure that this manual reflects all applicable operations, and that all applicable stakeholders have access to the manual.

1.3 Abbreviations and definitions

CAA	Civil Aviation Authority New Zealand
CFI	Chief Flying Instructor NOTAM, Notice to Airmen
TKASWG	Te Kowhai Aerodrome Safety Working Group
Operator	Any person who is required to be on the Aerodrome

1.4 Distribution list

NZTE Aerodrome Safety Working Group
NZTE Operations Limited Management

2. General Information

Te Kowhai Aerodrome is a Non-Certificated Aerodrome, classified under Civil Aviation Rule Part 139. However, other Civil Aviation Rules and Advisory Circulars are also relevant to the safe operation of all aircraft at the Aerodrome and the mitigation of hazards affecting Aerodrome operations.

Te Kowhai Aerodrome is situated 11NM WNW of the Hamilton Airport at 172 Limmer Road, Te Kowhai.

Aerodrome charts and operational data are available at www.aip.net.nz
Charts are available at Aeronautical Information Shop https://shop.aeropath.aero

Information for transiting pilots has been made available on at
https://nzte.net.nz/airfield-information/

2.1 Refueling

BP Avgas is available on-site.

2.2 Parking

Aircraft parking is available to transient users.

2.3 Aerodrome fees

A full fee schedule is available on the Aerodrome Website.
https://nzte.net.nz/operation-fees-charges/
Visiting Aircraft on Private Operations: All aircraft types $10.00 (inclusive of GST).

2.4 Common Frequency Zone

Te Kowhai Aerodrome is located within the Blacksands CFZ on 123.75. NORDO operations require prior approval.

2.5 Runway inspections

The purpose of the runway inspection is to ensure that all runways and taxiways are clear of obstacles and fit for use.
A weekly inspection will be carried out by the Aerodrome Manager or a designated approved person.

2.6 NOTAM

If a NOTAM issue is required, please contact the Te Kowhai Aerodrome Manager.

2.7 Maintenance

All general maintenance of the Aerodrome excluding leased sites and fuelling areas is the responsibility of NZTE Operations Limited.

2.8 Routine Aerodrome Maintenance Plan

NZTE Operations Limited have a routine maintenance plan for the Te Kowhai Airfield, this includes:

- Runway mowing
- Runway spraying
- Runway fertiliser
- Runway marker board painting
- Weed control
- Spraying around hangars and taxiways
- Operational area fence inspection
- Inspection of signage
- Windsock inspection
- Swale drain weed control and clearing
- Maintenance of the Aerodrome runways and taxiways.

Any additional maintenance requirements shall be reported to the Aerodrome Manager by the TKASWG.

NOTAM shall be issued for WIP (work in progress) affecting aircraft operations.

2.9 Annual Aerodrome Inspection

An annual Aerodrome inspection shall be carried out by the Aerodrome Manager. A report shall be completed following the annual Aerodrome inspection, detailing any findings, improvements, issues or concerns.

2.10 Obstacle control

Aerodrome management are responsible for ensuring that no obstacles encroach on any runway vectors or approach paths. This includes, but is not limited to trees, buildings, vehicles, and machinery.

It is the responsibility of the Aerodrome Management to monitor obstacles and report to the TKASWG and the Council as required.

Tall trees on runway thresholds will be inspected annually to ensure that they do not interfere with runway approach paths. If it is found that trees are interfering with approach path, it is the responsibility of the Aerodrome management to action this appropriately and as soon as practicable.

2.11 Aerodrome security

2.11.1 Gates

There are gates located at all entry points of the Te Kowhai Aerodrome operational areas. Theses gates are to remain closed at all times.

Authorised persons wishing to access the operational area of the Aerodrome are permitted to open these gates, to allow access to the operational area but they must be closed immediately afterwards.

Do not allow access to any other person or vehicle. Failure to shut the gate behind you, or reckless/dangerous behaviour on the Aerodrome may result in a penalty.

2.11.2 Vehicles

Only essential vehicles for aviation related duties (e.g. commercial operators, deliveries and/or hangar owners) may transit the Aerodrome operational areas. Please ensure vehicle speeds are kept low. Aircraft have right of way.

2.11.3 People

Access to the operational areas is restricted to the holders of an aviation document, license or certificate. Any other personnel must be under their direct supervision while on the operational areas of the Aerodrome. All visitors must otherwise remain in the public areas behind the fences and children are supervised at all times.

3 . Safety Policy

3.1 Purpose

Safety is the first and foremost priority of all Aerodrome users.
All Aerodrome users take equal responsibility to take care of their own health and safety and that of those around them.

The Safety Policy is set out to achieve the following:

- Encourage all Aerodrome users to actively participate in Aerodrome safety
- To have as few as possible occurrences that could result in serious harm or death.
- Measure and monitor safety through on-going report analysis
- Minimise risk of harm to the public
- Identify and publish known risks.

3.2 Safety promotion

3.2.1 Just Culture

Just Culture is a culture in which operators and others are not punished for actions, omissions or decisions taken by them which are commensurate with their experience and training, but where gross negligence, willful violations and destructive acts are not tolerated.

3.2.2 Safety training and education

This manual and other safety and procedural documents are available at http://www.nzte.net.nz or on request from Aerodrome management.

3.2.3 Safety communication

An Aerodrome Management safety meeting shall be held once yearly, with any issues found/addressed reported back to the TKASWG.

3.2.4 Te Kowhai Aerodrome Safety Working Group

Aerodrome management will maintain a Safety Working Group. The TKASWG meets no less than annually and more often as required. Members will comprise of a cross section of aerodrome staff, operators and users. A member list records members and their skill sets. Minutes shall be taken for each meeting.

4 . Safety Management and Hazard/Risk Reporting

4.1 Purpose

The objective of a Safety Management and Reporting System is to identify health and safety hazards and risks, to prevent occurrences, incidents or accidents, and to manage those hazards and risks that may impact Te Kowhai Aerodrome Users.

It is the expectation of NZTE Operations Limited that all occurrences, incidents, accidents, concerns or suggested improvements are reported to the Aerodrome Management, using a suitable method. This information will be processed and stored electronically.

4.2 Health and safety responsibilities

4.2.1 Aerodrome Users responsibilities

- Comply with all NZCAA legislation, rules and procedures
- Report hazards and risks
- Follow instructions regarding hazards and risks
- Co-operate with the monitoring of Aerodrome risks
- Report accidents, incidents, occurrences, improvements and injuries.

It is the responsibility of all Aerodrome users to comply with all health and safety policies and procedures.

4.2.2 NZTE Operations Ltd responsibilities

It is NZTE Operations Ltd responsibility to ensure that health and safety related matters are promoted to all Aerodrome users.

4.3 Occurrence reporting

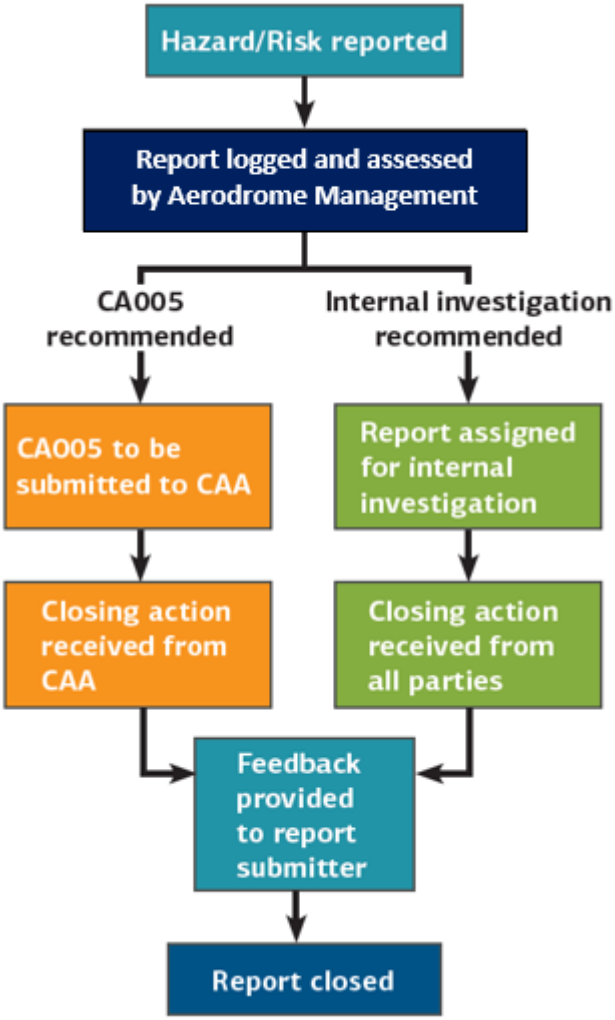
4.3.1. Reporting to the Aerodrome Manager

All reportable occurrences, incidents, accidents, improvements or identified threats, risks or hazards, are to be reported to the Aerodrome Management as soon as practicable on the Occurrence Report Form available on the Aerodrome website www.nzte.net.nz and emailed to safety@nzte.net.nz, or by liaising with the Aerodrome Manager to complete manually.

4.3.2 Reporting of accidents and incidents to the CAA

- See AC12-1 Notification of Accidents and Incidents available at https://aviation.govt.nz
- CAA Good Aviation Publications
- How to Deal with an Aircraft Accident Scene https://aviation.govt.nz/assets/publications/gaps/how-to-deal-with-an-accident-scene.pdf
- How to report occurrences https://aviation.govt.nz/assets/publications/gaps/how-to-report-occurrences.pdf

4.3.3 Reporting process



4.4 Occurrence investigation

The purpose of an occurrence investigation is to detail all facts related to the occurrence, accident or incident and best determine the root cause.
Under the Civil Aviation Act it is the ***pilot's responsibility*** to report any accidents or incidents involving an aircraft.

4.5 Investigation process

Occurrences reported may be investigated to establish root causes.
The purpose of investigation is to identify what caused the occurrence and determine what steps must be taken to prevent recurrence.
The investigation will include an interview with all persons involved, a review of all relevant data and the recording of the sequence of events, analysis of cause and effect, as well as corrective action if required. Identifying the causal factors and implementing preventative measures may follow.
If required, investigative data may be submitted to third parties.

4.6 Non-punitive reporting policy

The reporting of occurrences, incidents, accidents, hazards and improvements in line with the just culture policy contributes an essential source of data for the implementation of hazard and risk awareness, analysis and management.
Please report any risks, hazards, incidents, accidents and improvements via the method above. Personal details will be kept confidential in all reporting.

4.7 Hazard and risk identification

A hazard or risk is an activity, event, circumstance, situation, or occurrence that is an actual or potential cause or source of harm. Harm means injury, illness or both, and includes both mental or physical harm.
When identifying hazards or risks it is important to consider the number of times a person may be exposed to the hazard or risk, and the potential effect that hazard or risk may have on a person.

4.8 Notifiable incident involving aircraft

Incident means any occurrence, other than an accident, that is associated with the operation of an aircraft and affects or could affect the safety of operation.
In accordance with the CAA act 1990 the pilot-in-command of any aircraft that is involved in an accident or incident shall notify the accident to the Authority.

4.9 Other notifiable incidents

Other notifiable incidents include, but are not limited to:

- Spillage/leak of a substance
- Escape of gas or pressurised substance
- Implosion/explosion
- Building damage
- Electric shock
- Injury requiring medical attention
- Any occurrence that could result in harm.

4.10 Improvements

Aerodrome users can identify improvements to safety, infrastructure, procedures by submitting an occurrence report.

The Te Kowhai Aerodrome Management shall be informed of any notifiable incident/improvements as soon as practicable via the Occurrence Report Form available at www.nzte.net.nz

4.11 Risk identification

Risk assessment
Risk assessment is a decision step based on combined levels of severity and likelihood. Is the risk acceptable? If so, the overall risk is recorded and operations commence. If the level is unacceptable, risk controls and/or corrective actions may be needed in order to reduce the risk to an acceptable level.

Risk control
If one or more risks are unacceptable, risk controls and corrective actions must be developed and implemented. Most often, these entail either new processes or equipment, or changes to existing ones. Risk controls typically require monitoring to ensure that they are effective. The system is then evaluated with the proposed controls in place to see if the level of risk is now acceptable. Initial monitoring and a follow-up audit of each specific control are then performed, until it is determined that all identified risks for the proposed operation, change etc. have been either accepted or mitigated to acceptable levels.

Hazard identification
When hazards are identified and reported, they are then analysed for the injury and damage potentials. Each hazard is analysed in terms of likelihood of occurrence, and severity of resulting consequences.

Risk likelihood is the **likelihood** that a situation of potential danger might occur. Risk consequence is the possible **consequence** as a result of a hazard or risk. Once the Risk likelihood and risk consequence levels have been determined, this will result in a risk index for that particular hazard or risk. See table below.

After categorising the hazard or risk, controls must be put in place (if required), the controls that are available are:

ELIMINATE - eliminate the hazard or risk at the source. This may mean removing the hazard or risk.

MINIMISE - minimising the effects of a hazard or risk may only be considered if it is not possible to eliminate the hazard or risk. Minimising the effect of a hazard or risk may include signage, training or education, standard operating procedures, or protective equipment.

	Consequence				
Likelihood	**a. Insignificant**	**b. Minor**	**c. Moderate**	**4. Major**	**5. Catastrophic**
1. Rare	Low	Low	Low	Low	Medium
2. Unlikely	Low	Low	Low	Medium	Medium
3. Moderate	Low	Low	Medium	Medium	Medium
4. Likely	Low	Medium	Medium	Medium	High
5. Highly Likely	Low	Medium	Medium	High	High

Risk Rating		
Coding	**Level of Risk**	**Level of Action Requires**
Red	High risk	Immediate action required
Yellow	Moderate risk	Control measure establishment required
Green	Low risk	May require control measure or considered “acceptable”

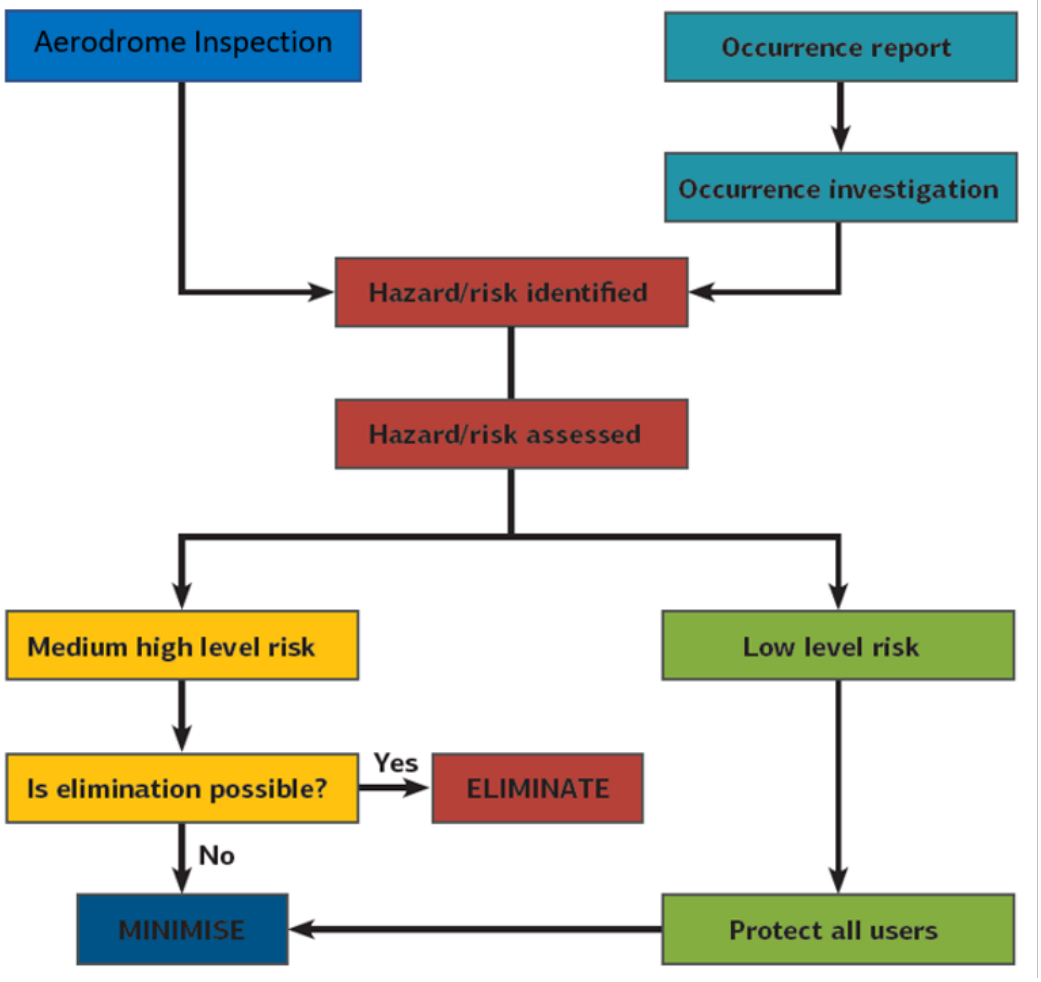
4.12 Hazard/Risk Register

The Hazard/Risk Register lists all identified hazards and risks at the Te Kowhai Aerodrome outlining the consequence, significance and control methods in place.

A copy of the Hazard/Risk Register is available as an appendix to this document.

The Hazard/Risk Register will be reviewed regularly by NZTE Operations Limited, to ensure that known hazards and risks are listed and assessed, and that appropriate control methods are put in place.

Hazard/Risk Identification and Control Flowchart



5. Safety Performance, Measurement and Monitoring

The TKASWG meet no less than annually to discuss items including, but not limited to:

- Occurrence reports
- Identified hazards/risks
- Suggested improvements
- Any other matters affecting the operation of the Aerodrome.

Any identifiable trends are discussed and action plans decided upon at these meetings. External parties may be invited to attend to discuss particular areas of interest, e.g. CAA.

6. Emergency Response Plan

6.1 Accident involving aircraft

- Immediately phone 111 to activate Fire, Ambulance and Police response. Indicate nature of emergency and location as accurately as possible
- Attend crash scene – approaching from up-wind. Take any available fire extinguisher(s) and first aid kit. Own safety paramount. If in a vehicle, park safely clear, up-wind with hazards lights on. If transceiver available use to alert local aircraft traffic of the emergency.
- If injured aircraft occupants in imminent danger – attempt removal from aircraft to safe up-wind position. If possible keep spine, neck and head straight. Otherwise comfort, stem blood loss, manage in situ until professional assistance arrives.
- Check to deactivate aircraft electrical master switch(s) and disconnect battery if possible (report these actions at debrief).
- Assist emergency services as required.
- Liaise with Aerodrome management in relation to aerodrome serviceability. Aerodrome management will need to liaise with emergency response services and investigations authority regarding aerodrome and airspace status and act in the interest of safety.
- Complete incident report.

Further information at https://aviation.govt.nz/assets/publications/gaps/how-to-deal-with-an-accident-scene.pdf

Additional emergency contact details can be found in Appendix 7.1

6.2 Fire

6.2.1 Aerodrome Facility Fire

It is the responsibility of each occupier at the Te Kowhai Aerodrome to have an individual site evacuation and/or fire emergency response plan.

6.2.2 General fire information

If you discover a fire:

- Call New Zealand Fire Service on 111 immediately.
- Activate any available red alarm fire box (if applicable).
  On the continuous sounding of a fire alarm, or sight of flames, vacate the building via the closest or most suitable exit. Assemble at the designated assembly point.
- Utilize aerodrome fire-fighting equipment to contain fire, if safe to do so.
- Notify Aerodrome management of the emergency.
- Assist emergency services as required.
- Complete incident report.

6.3 Fuel spill

- If the fuel spill involves the use of the refueling nozzle, use the emergency shut off valve located next to the fuel pump.
- If fuel spillage involves a large fuel tank, ensure tap(s) are closed. Contain spill and prevent further leakage using appropriate absorbent material found in the spill kit located at the BP fuel pump.
- Keep spill area clear of people.
- If aircraft are involved or in the vicinity of a fuel spill, if it is safe to do so, push the aircraft away from the spill area. DO NOT attempt to start the aircraft in the vicinity of a fuel spill.
- Use available spill kit to contain fuel spill, if safe to do so. Place all clean up material in rubbish bags and dispose of responsibly.
- Advise Te kowhai Aerodrome management of the fuel spill as soon as practicable. Refer to BP Emergency Response Manual.
- Complete incident report.

If at any time you feel that your safety would be compromised, do not attempt to clean up or contain the spill. Contact the Emergency Services.

6.4 Chemical spillage

- Safety - move away from the spill area. Consider your own safety and those around you.
- Raise the alarm – make others aware of the incident by loudly advising them.
- Isolate the area, close doors, turn off ignition sources.
- Assess the spill – is it minor (less than 5L) or major?

Minor spill respond to the spill by using the spill kit located at the BP Fuel pump including the appropriate PPE, to contain and clean up the spill.

- Place clean up material in the rubbish bags from the spill kit and contact the Local Authority for disposal advice.
- Decontaminate clothes, equipment, shower and wash.
- Complete incident report.

Major spill – Contact Emergency Services

- Complete incident report.

If at any time you feel that your safety would be compromised, do not attempt to clean up or contain the spill. Contact Emergency Services.

6.5 Threat /unlawful access to premises or aircraft

- Call 111 – Notify police immediately
- Notify Aerodrome management immediately
- Complete incident report

6.6 Sewage/water problems

- Contact the Te Kowhai Aerodrome Manager on 07 960 2112

7. Firearms Policy

NZTE operations may require the use of Firearms on the Aerodrome to manage birds, rodents or other pests that may cause a Hazzard to aircraft.

NZTE Operations permits the use of firearms to be used Safely and Legally in accordance with the appropriate legislation below. DOC or Fish and Game permits or approvals may be required.

The Aerodrome Manager or other suitable appointed person is responsible for compliance with the following Acts, Regulations and Rules but not limited to.

Legislation and References:

- Health & Safety at Work Act 2015
- Arms Act 1983
- Arms Regulations 1992
- Arms Code 2013
- Land Transport Act 1998

8. Aircraft Traffic Movement Data for CAA reporting

Aerodromes are required by CAA under rule “Part 139 Aerodromes - Certification, Operation and Use” to provide accurate Traffic Movement Data which they use for statistics, safety & compliance purposes.

NZTE Operations Limited engage the AIMM system to capture and report on this data.

9. Appendices

9.1 Contact Details
9.2 Risk/Hazard Register
9.3 Incident Register Form
9.4 CAA PDF – How to deal with an accident scene
9.5 CAA PDF – How to report occurances

9.1 Appendix 1

Contact details

NZTE Operations Limited – Ph: 07 960 2112

Aerodrome Manager – Pete Lourie – Ph: 027 666 6637 E: pete@nzte.net.nz

NZTE Safety Working Group – E: safety@nzte.net.nz

NZTE Operations Directors:

Dan Readman – Ph: 021 681 991 E: dan@nzte.net.nz
Paul Andrew – Ph: 021 341 261 E: paul@nzte.net.nz
Regan Brown – Ph: 027 455 3775 E regan@nzte.net.nz

NZ Fire Service - Ph: 111

Search and Rescue (SAR) – Ph: 050 847 2269

Civil Aviation Authority (NZ) – Ph: 050 822 2433 (0508 ACCIDENT)

Transport Accident Investigation Commission (TAIC) – Ph: 04 473 3112

NOTAM Office Christchurch – Ph: 03 358 1688

9.2 Appendix 2

Risk/Hazard Register

The following identified hazards and risks have been assessed using the following Risk Assessment Matrix:

	Consequence				
Likelihood	**a. Insignificant**	**b. Minor**	**c. Moderate**	**4. Major**	**5. Catastrophic**
1. Rare	Low	Low	Low	Low	Medium
2. Unlikely	Low	Low	Low	Medium	Medium
3. Moderate	Low	Low	Medium	Medium	Medium
4. Likely	Low	Medium	Medium	Medium	High
5. Highly Likely	Low	Medium	Medium	High	High

Risk Rating		
Coding	**Level of Risk**	**Level of Action Requires**
Red	High risk	Immediate action required
Yellow	Moderate risk	Control measure establishment required
Green	Low risk	May require control measure or considered “acceptable”

TE KOWHAI AIRFIELD

Hazard Register

Hazard/Risk	Context and Potential outcome	Inherent Risk Rating	Control Measure/s	Residual Risk Rating	Monitoring Frequency	Person Responsible
Multiple Aircrafts on runway or taxiways	Collision or near miss	MED	Prohibit NORDO Aircraft, unless approved by management	LOW		Users
Fuel Spills and Fuel Handling	Fuel spills are likely while completing refuelling operations	LOW	Follow SOP	LOW		
Bird Strike	The presence of birds can be problematic, could cause an accident or damage to an aircraft	LOW	wildlife management plan	LOW	weekly	
Weather Factors						
Trees	Aircraft Accident or near miss	MED	Obstruction Survey and Monitoring Education with students of hazards	LOW	5 Yearly	Aerodrome Management
Runway Surface	Contamination or deterioration can cause runway hazards.	LOW	Regular maintenance	LOW	As required	Manager
Vehicles/People on Runway and Taxi Ways	Vehicle and people crossing either runway or taxi ways, risk of collision with aircraft	LOW	Radio communications, NOTAM, Restrict access to operational areas	LOW	Constant	
Propellers and Rotors	Can cause damage to other aircraft and property. If in contact with people and animals likely to cause injury or death.	HIGH	Training and Education.	MED	Constant	
Open Drains	Damage to vehicles and aircraft	MED	Well marked and/or identified on the landing plate.	LOW	Annual	
Animals: Wildlife, dogs and livestock.	Birds, rabbits, hares etc. Rabbits are prone to digging burrows, which if not noticed on aircraft manoeuvring areas can lead to damage to aircraft. Dogs and livestock will occasionally find their way into operational areas.	LOW	Regular runway and operational area inspections.	LOW	Constant	
Change in Use of Aerodrome. Eg: Significant increase or decrease in activity.	If the nature of use of the aerodrome changes significantly (Eg: New operators or significant increase or decrease in activity) potentially procedures and SOPs will no longer be suitable. Ie: What has worked or been acceptable practise in the past may no longer be.	LOW	Measure changes in use and devise appropriate evaluation measures to mitigate the effects of any changes.	LOW	Quarterly	

Incident Register

Company: Te Kowhai Airfield

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ThinkSafe For Better Workplaces.

Date and time	People involved (injured person / witnesses?)	Details of incident (what, when, where, why, how?)	Actions taken?	Key lessons learned?	Signature

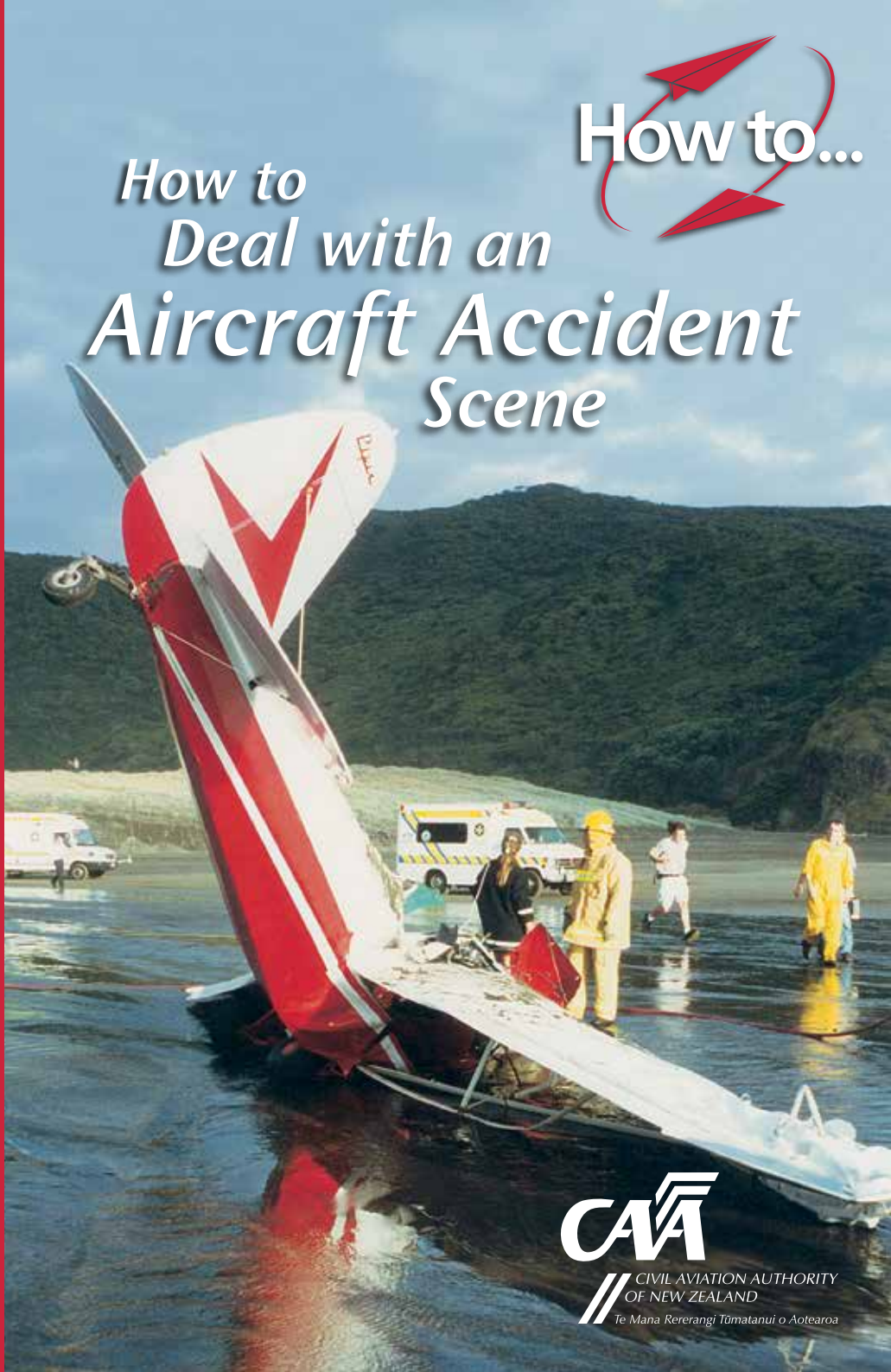
9.4 Appendix 4

CAA PDF – 'How to deal with an accident scene' – follows on after this page. This document can also be found online at:

https://aviation.govt.nz/assets/publications/gaps/how-to-deal-with-an-accident-scene.pdf

How to...

How to Deal with an Aircraft Accident Scene



CAA

CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Te Mana Rererangi Tūmatanui o Aotearoa

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This booklet has been prepared by the Safety Investigation Unit of the Civil Aviation Authority of New Zealand (CAA) to provide guidance to the police, emergency services personnel, and others in relation to aircraft accidents. It provides information on the actions to be taken should they witness, or be required to attend, an aircraft accident.

What is an Accident?

An accident is defined in the Civil Aviation Act 1990. Briefly, it is an occurrence involving the operation of an aircraft from the time of boarding to the time the engines stop and all persons have left the aircraft. It is an occurrence in which a person is fatally or seriously injured, or in which the aircraft sustains substantial damage, or where the aircraft is missing or inaccessible.

Investigation Responsibilities

The prime responsibility for accepting notification of, investigating, and reporting aviation accidents (and serious incidents) rests with the CAA. The CAA is required to notify the Transport Accident Investigation Commission (TAIC) of all accidents and serious incidents, whereupon TAIC will decide if it is appropriate for it to investigate.

Note that accidents involving military aircraft are normally investigated only by the RNZAF unless a civilian aircraft is also involved. Notification of military accidents should be made to the duty officer at the nearest RNZAF base. If in doubt, contact the CAA accident reporting number **0508 ACCIDENT** (0508 222 433) and the CAA will then, if necessary, pass the notification on to the RNZAF.

CAA Safety Investigation

CAA safety investigators review accidents for the sole purpose of improving aviation safety. The Safety Investigation Unit does not undertake investigation in order to apportion blame or liability.

The information gained from a safety investigation may result in safety recommendations, rule changes, Airworthiness Directives, changes to a company's operating procedures, or perhaps recommendations of an educational nature.

Notification of an Accident

Telephone **0508 ACCIDENT** (0508 222 433) anytime to report an accident.

This number will reach the duty Search and Rescue (SAR) coordinator who will advise the CAA Duty Investigator and TAIC. Once it has been decided which organisation will investigate, the person who originally reported the accident will normally be contacted by the investigator in charge.

For reporting safety concerns, or requesting safety advice, telephone the CAA on **0508 4 SAFETY** (0508 472 338) during working hours. This will reach the CAA Safety Investigation Unit.

The CAA is required to investigate aviation accidents. The extent of the investigation may vary significantly depending on the severity of the accident. The investigation may be conducted as a full field investigation with one or more investigators on site for as long as necessary to gather sufficient information, or as an office-based investigation if it is felt that field enquiries will not provide any additional information.

TAIC

TAIC investigates aviation accidents (it also investigates rail and marine accidents) that it believes have significant implications for transport safety. TAIC does this independently from the police and safety authorities.

The TAIC Act directs their resources towards the in-depth investigation of those accidents most likely to yield maximum public safety benefit. This gives TAIC some discretion in deciding which accidents it investigates.

In practice, this means that TAIC will normally investigate those accidents involving air transport operations. The police and other agencies, however, should continue to notify the CAA of all accidents so that the CAA can meet its statutory obligations.

Who is Required to Notify the CAA of an Accident?

The responsibility to notify the CAA of an accident rests principally with the pilot-in-command (PIC). This should be done as soon as is practicable after the accident.

In the event that the PIC is unable to notify the CAA, responsibility then rests with the operator of the aircraft.

In some circumstances, however, an operator may not become aware that their aircraft has been involved in an accident until quite some time after the event. Thus any person becoming aware of an accident is encouraged to notify the CAA as soon as possible.

Information to be Notified

The notification of any aircraft accident should contain as much of the following information as possible. Do not delay notification though, because of the lack of any of this information.

- Date and time of the accident.
- Nature of the accident.
- Aircraft type and registration. (Registration markings are normally three letters, sometimes prefixed with "ZK–".)
- Name of the operator or owner.
- Location of the accident, including how to get there.
- Name of the pilot in command.
- The type of operation (air transport, training, private, etc).
- Aircraft's last departure point and its destination.
- Description of the weather.
- Number of persons on board.
- Number of crew and/or passengers killed or seriously injured as a result of the accident.
- Number of persons killed or seriously injured as a result of the accident that were not crew or passengers.
- Details of the damage to the aircraft.
- Name of the person reporting the accident, and the best telephone number for contacting them in the days immediately following the notification.

Custody and Protection of Aircraft Wreckage

It is important that the aircraft, and any marks made by it at the scene of the accident, are not disturbed unnecessarily. This requirement should not, however, prevent or impede any of the following:

- The extrication of survivors and animals from the wreckage.
- The protection of the wreckage, or contents, including mail or cargo, from destruction by fire or other cause.
- The removal of the aircraft and its contents to a place of safety when the aircraft is in or near water (eg, below the high-tide mark on a beach).
- The removal of the wreckage to prevent obstruction to public access or to other aircraft using the area, if no practical alternative is available.
- The removal of goods or baggage under the supervision of a police officer. In the case of an aircraft that has come from outside New Zealand, the goods

or baggage shall not be removed from the vicinity of the aircraft – except with the consent of a customs officer.

In almost all accidents, no further unsupervised disturbance of the wreckage should be necessary after the occupants have been extricated.

The provisions of the Civil Aviation Rules, Part 12 *Accidents, Incidents, and Statistics* mean that any aircraft involved in an accident effectively comes under the jurisdiction of the investigating authority. This means that even the pilot or owner does not have the right to access the aircraft without being authorised by the investigator in charge. It is accepted, however, that when an aircraft owner's property is likely to receive further damage following an accident they, or their representative, may have access provided they are under the supervision of a police officer.

Even if no field investigation is to be carried out, a clearance is still required from the CAA for the wreckage to be moved off the site.

Assisting the Investigation

Generally, police, fire, or ambulance personnel will be at the scene of an aircraft accident soon after it occurs. The accident investigator(s) may not reach the scene until several hours later, and possibly not until the following day. There are a number of ways the investigation can be assisted during this waiting period.

Some of the precautions that should be taken are described as follows:

- If disturbance of the wreckage is unavoidable, an endeavour should be made to photograph, sketch, or otherwise note the state of the wreckage prior to the disturbance. After disturbance, no attempt should be made to restore the wreckage to its original state, except as requested by the investigator.
- A careful record should be made, as soon as possible, of the positions in the aircraft wreckage from which any occupants were assisted.

Continued on page 8...

'Witness marks', such as the ones left by rotor blades in this picture, can provide investigators with vital clues as to the accident cause. Investigators placed a strut in one of the holes to show the angle of the blades when they struck.

A police officer stands guard over the luggage content of an aircraft that crashed shortly after takeoff.

Protecting the evidence at an accident site from interested on-lookers is important – especially when it is very accessible to the public.

Wreckage Recovery and Salvage

When on-site investigation activity is complete, the investigator in charge may hand over the wreckage to the owner.

There will be occasions when the investigating authority requires some or all of the wreckage for off-site examination. On those occasions the investigator will work with the owner, possibly through the insurer, to arrange for recovery. The investigating authority will normally only cover costs that are directly associated with investigation activities.

...continued from page 6

- A photographic or sketch record should be made of any marks on the ground or on the wreckage, that might be obliterated or altered before the arrival of the investigator.
- The wreckage, and any of the aircraft's contents or papers, should be secured against loss or further damage.
- The position of any scattered wreckage located away from the main accident site should be noted, and measures taken to ensure that it is not disturbed.
- The names, addresses, telephone numbers, and intended movements of any witnesses should be noted. This same action should be taken in respect of any people who have taken photographs or video of the wreckage, or who have other evidence that might be relevant.

Vehicle tyre tracks can cause damage to witness marks, if an accident site is uncontrolled.

It is accepted that police resources do not stretch to providing a scene guard for more than the time necessary for emergency services to complete their on-site actions. Where the wreckage is accessible to the public, a private security guard may be engaged to prevent unauthorised access before the investigators arrive. The costs for this are borne by the investigating authority.

Hazardous Materials

There can sometimes be a variety of hazardous substances present at an aircraft accident scene. These can include:

- Toxic chemicals that could be inhaled, or affect the skin.
- Airborne synthetic products similar in nature to asbestos fibres.
- Potentially explosive devices such as oxygen bottles, high-pressure tyres, hydraulic accumulators, and emergency parachutes (see below).
- Pathogenic substances.

Because of this, only persons essential for immediate post-accident actions (ie, police, emergency service personnel, and CAA or TAIC staff) should enter the accident site – and only after taking appropriate precautions.

All investigators have equipment to provide protection against pathogenic substances that could be present.

Emergency Parachute Systems

Some aircraft are fitted with parachutes that the pilot can deploy in a severe emergency. In order to deploy and inflate the parachute rapidly they are propelled by small rocket motors, so they are often referred to as ballistic parachutes. These systems are more commonly found on microlight aircraft but some certified aircraft are also using them.

If an aircraft fitted with an emergency parachute system is involved in an accident, but the parachute is not deployed, the rocket motor can be a serious threat to emergency personnel.

Rescuers Beware

Beware of the potential of these devices. The rocket motors can accelerate to over 200 kph in the first tenth of a second after ignition. They don't fire for long, but could cause serious injury or even death.

Keep in mind that a badly damaged aircraft may have already put the activating housing of an emergency parachute into a stretched state and this may make it close to detonation.

Recognising an Emergency Parachute System

The firing handle (usually red) is mounted close to the pilot's seat. A cable will run from the handle to the parachute housing. The housing is usually external and obvious on microlight aircraft, but on larger aircraft they are often built-in behind a frangible panel.

The housing is usually a cylinder that can vary in size with the size of parachute, but is typically about 50 cm in length and 20 cm in diameter. The most common brand is Ballistic Recovery Systems (BRS) and their cylinders are white with the BRS branding showing prominently on them.

Attached to this will be a smaller cylinder, usually about 40 cm in length and 5 cm in diameter. This is the rocket motor and the cable from the firing handle will enter one end of it.

The rocket motor itself has two parts. The launch body, which will leave the launch tube when fired (and contains a propellant), and the igniter or trigger, which remains in the launch tube after detonation (this has shotgun primer and a thermalite charge). The open end, or the cap-covered end, of the launch tube is the exit point for the rocket – this is the dangerous end. No one should ever be in front of this end of the launch tube.

These parts could become separated during an accident sequence. The launch body (rocket) is a red anodised canister about the size of a large beer can. The igniter is smaller in length, aluminium coloured, and about 8 cm long with a nozzle aperture on it.

Making it Safe

This procedure should be carried out by trained rescue services personnel.

The firing mechanism requires a deliberate pull of 30 to 40 pounds to cock and fire the rocket. This equates to about 1.5 cm of movement on the cable at the trigger, but if the mechanism has suffered damage, it could be fired with much less movement.

Ordinary bolt cutters should **not** be used as they will tend to squeeze the cable housing out of the cutting jaws.

The cable should be cut with a specialised cable cutter tool, and as close to the rocket tube cable entry point as possible. When cutting the cable, care must be taken to avoid twisting the cutters.

Once the cable is cut, the unit can be considered safe to work around, but it is advisable to remove it to a safe location as soon as possible. Advice should then be sought from the police on disarming the rocket.

The instructions above apply to the BRS brand parachute system. Other brands are: Pioneer, Second Chantz, Advanced Ballistic Systems, Galaxy, or GQ Security. These systems are similar, but not identical.

Post-mortem Examinations

Post-mortem examinations are usually carried out on the bodies of all crew and passengers dying as a result of a civil aircraft accident.
The aim of such an examination is:

- to ascertain the cause of death.
- to identify the deceased.
- to obtain evidence either of pre-existing disease, or of the nature of the injury suffered, that may assist in identifying the cause of the accident.
- to obtain knowledge of mechanisms of injury, that may be applied towards the prevention of injury in future accidents.

Where possible, the pathologist responsible for an air accident post-mortem should have some knowledge of aviation-related injuries. There is at least one of these pathologists in each major centre.

If not, the local pathologist will generally know the location of the nearest aviation pathologist.

The Principal Medical Officer of the CAA (04 560 9400) or TAIC (04 473 3112) can supply contact details for an aviation pathologist if required.

Coordination with Police Inquiries

If the investigation of an aircraft accident has to be coordinated with police inquiries of any sort, such as in respect of some criminal offence, the investigator will provide assistance. In the event that the preliminary evidence indicates that the accident was the result of some criminal act, responsibility for the investigation will normally be handed over to the police. If necessary, the CAA investigator can appear as an expert witness at the inquest, but his or her primary responsibility under the Civil Aviation Act is to investigate the accident for prevention purposes – not to apportion blame or responsibility.

In general, evidence collected by an investigator as part of an air safety investigation is not taken in a form that is readily usable in court. For example, investigators do not normally take formal statements from witnesses.

Assistance to Coroners

In the event of fatal injuries occurring, the coroner may be invited (via the police) to visit the scene to discuss progress with the investigator early in the investigation.

Persons concerned with the preparation of material for an inquest should bear in mind that technical investigations have to be of sufficient depth to satisfy accident prevention measures. This often precludes the completion of an investigation, and hence the release of findings, until some considerable time after the accident.

The CAA will make findings available to interested parties, such as next of kin and the coroner, when the investigation has been completed. The CAA accident report may be published on the CAA web site.

TAIC will send the preliminary confidential report to interested parties for their comment, before completing and publishing the final report.

How to...

Dealing with the Media

The CAA and TAIC have authorised their safety investigators to answer media enquiries in factual terms at the accident scene during the early stages of an investigation. Subsequent requests for the release of information relevant to a CAA investigation must, however, be directed to the CAA Communications Manager on 04 560 9400.

The CAA and TAIC will not release to the public the names of the crew, the passengers or the operator. The police will release the names of deceased persons once the next of kin have been informed. The name of the aircraft owner is available in the New Zealand Aircraft Register published by the CAA (available on the CAA web site).

Victim Support

Being involved in, or a witness to, an aircraft accident can deeply affect you – the extent of your reaction to the events may surprise you.

Victim Support is a community-based organisation available to, amongst others, people affected by aircraft accidents. Trained volunteers are available 24 hours a day seven days a week to provide practical advice and emotional support as, and when, it is needed. Victim Support does not make decisions for you, but it will give you the choices and options you need to make good decisions for yourself – this may include a referral to other agencies for further assistance if necessary.

Victim Support is an independent organisation. Victim Support can be contacted by calling **0800 VICTIM** (0800 842 846) at any time of day. A trained Victim Support staff member will be available to provide you with professional advice and information over the telephone, or to visit you if required.

Victim Support
Manaaki Tangata

0800 VICTIM (0800 842 846)
www.victimsupport.org.nz

Summary

Accident investigators can often learn a great deal from the wreckage, ground markings, witnesses, videos, etc, during an aircraft accident investigation.

This knowledge can be used to help prevent the same thing from happening again. If those first to arrive at the accident scene unnecessarily disturb the wreckage, the deceased, or ground markings, the opportunity to learn from it may be lost.

It is therefore very important that the advisory information detailed in this booklet is followed by those involved. Doing so might just assist investigators with that crucial bit of information they need to determine the accident cause.

Accident Checklist

The following is a summary of action items and considerations that need to be taken into account should you be a witness to (ie, first on the scene), or be required to attend, an aircraft accident.

What to Do

- Exercise caution in regard to the potential hazards at an aircraft accident site. Do no more than is necessary to preserve life, before seeking advice from the investigating authority on any hazards that may be present.
- In particular, note the state of safety harnesses and positions of occupants as they are extricated.
- Within the limitations imposed by the actions necessary to preserve life, photograph, sketch or make notes of the wreckage disposition before disturbing it.
- Contact the CAA as soon as possible – phone **0508 ACCIDENT** (0508 222 433).
- Secure the accident site, including all scattered wreckage, as well as other evidence, such as marks made by the aircraft, ground scars, etc. (**Do not** attempt to move any scattered wreckage items.)
- Obtain the names, addresses, telephone numbers, and intended movements of witnesses. Note any witnesses who may have photographic or video evidence of the occurrence.

If fatalities occur

- Check with police before any action is taken to remove bodies.
- Check with the investigator in charge, if possible, to determine if there are any special requirements for in-situ pathological examination before the bodies are removed.

If bodies need to be moved before an investigator arrives

- Carefully record the posture and position of each body (preferably with photographs and/or sketches).
- Minimise any disturbance of the wreckage during removal of bodies.
- **Do not** attempt to restore disturbed wreckage to its original state.
- **Do not** release the wreckage, or any part of it, to anyone until it is confirmed that the investigating authority has relinquished custody of the wreckage.

Need more help?

The CAA's Safety Investigation Unit is always happy to discuss any queries you may have.

Safety Investigation Unit
Civil Aviation Authority
P O Box 3555
Wellington
Tel: 560 9400
Email: isi@caa.govt.nz

CIVIL AVIATION AUTHORITY
OF NEW ZEALAND
Te Mana Rererangi Tōmatanui o Aotearoa

P O Box 3555
Wellington
Tel: 04 560 9400
Email: info@caa.govt.nz

How to Deal with an Aircraft Accident Scene was reprinted in April 2016.
See our web site, www.caa.govt.nz, for details of more CAA safety publications.

New Zealand Government

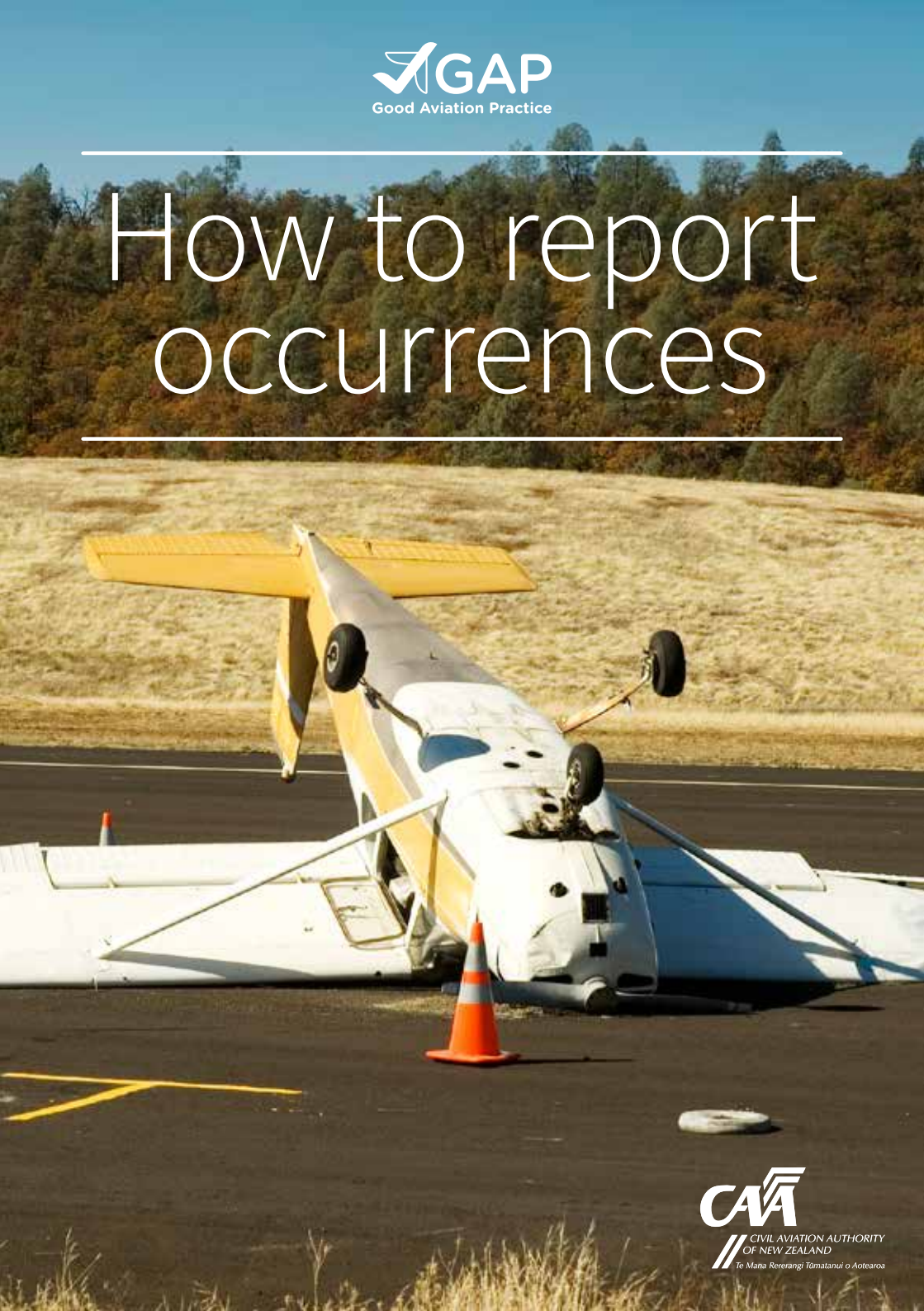
9.5 Appendix 5

CAA PDF – 'How to report occurances' – follows on after this page.
This document can also be found online at:

https://aviation.govt.nz/assets/publications/gaps/how-to-report-occurrences.pdf

GAP
Good Aviation Practice

How to report occurrences



CAA
CIVIL AVIATION AUTHORITY
OF NEW ZEALAND
Te Mana Rererangi Tūmatanui o Aotearoa

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Cover photo: iStock.com/JeffBanke

Every effort is made to ensure the information in this booklet is accurate and up-to-date at the time of publishing, but numerous changes can occur with time, especially in regard to airspace and legislation. Readers are reminded to obtain appropriate up-to-date information.

See the CAA website for Civil Aviation Rules, advisory circulars, airworthiness directives, forms, and more safety publications. Visit aviation.govt.nz.

For a list of CAA contacts visit: aviation.govt.nz, "Contact us".

Introduction

For as long as people have been taking to the skies, aviators have been studying aircraft accidents to find out what went wrong and prevent it happening again.

With a large and diverse range of aviation activities in New Zealand, it helps to have a central point for collection and analysis of occurrences. As a member state of the International Civil Aviation Organization, we also have responsibilities to the global aviation community.

Reporting occurrences starts the process of preventing accidents and incidents, benefiting not only people in aviation, but also the general public.

In the interest of public safety, some reporting is mandatory. But we can learn so much more from voluntary reports of occurrences, and the CAA encourages this.

The aim of this booklet is only to guide you to the information you need to know as an aviation participant. You are required to be familiar with the rules and this booklet is not a substitute for that.

We recommend you study Part 12, related advisory circulars, and any certification rules relevant to your operation. Participants with a pilot or parachutist certificate issued by a Part 149 organisation should be familiar with that organisation's operations manual.

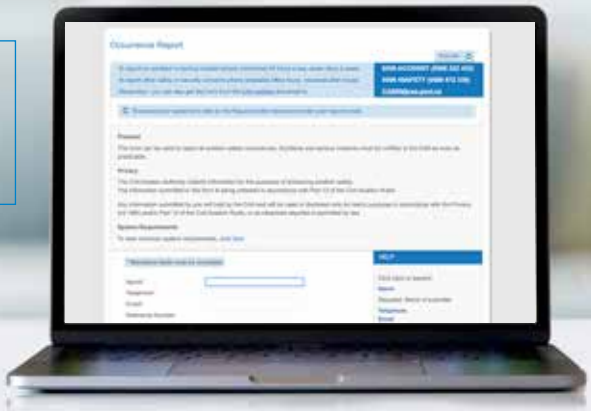
Report online

Remember that you must still notify an accident or serious incident as soon as practicable using:

0508 ACCIDENT
(0508 222 433)

It's easy to report occurrences – just go to **aviation.govt.nz/report**

You will receive an email repeating your entries so you can check they are correct. No additional paper copy is required.



What needs to be reported?

‘Occurrence’ is the umbrella term for accidents, incidents, and immediate hazards to the safety of an aircraft operation.

As a rule of thumb, if the occurrence is something that you don’t want to happen again, it should be reported.

Accident

Briefly, an accident is an occurrence that causes significant damage, or injuries, while the aircraft is in operation.

The definition of an accident, according to Part 1 of the Civil Aviation Rules is: “an occurrence that is associated with the operation of an aircraft and takes place between the time any person boards the aircraft with the intention of flight and such time as all such persons have disembarked and the engine or any propellers or rotors come to rest, being an occurrence in which – a person is fatally or seriously injured as a result of:

i. Being in the aircraft; or

ii. Direct contact with any part of the aircraft, including any part that has become detached from the aircraft; or

iii. Direct exposure to jet blast except when the injuries are self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to passengers and crew; or

a. The aircraft sustains damage or structural failure that:

   i. Adversely affects the structural strength, performance, or flight characteristics of the aircraft; and

   ii. Would normally require major repair or replacement of the affected component except engine failure or damage that is limited to the engine, its cowlings, or accessories, or damage limited to propellers, wing tips, rotors, antennas, tyres, brakes, fairings, small dents, or puncture holes in the aircraft skin; or

b. The aircraft is missing or is completely inaccessible."

Serious incident

A serious incident is one in which an accident nearly happened. Some say it is an accident where you got lucky.

Some examples:

- runway excursion that narrowly missed a person or property
- near collisions
- controlled flight into terrain only marginally avoided.

Immediate hazard to aircraft operations

A hazard to the safety of an aircraft could be something like a hole in the runway, a failure in taxiway lighting, or a breakdown in communication between air traffic control (ATC) and aircraft in the circuit.

Those types of hazards should be reported promptly, even if there was no incident.

Incident

According to the Civil Aviation Rules, Part 1, an incident is any occurrence, other than an accident, associated with the operation of an aircraft, that affects, or could affect, the safety of that operation.

Examples include:

- wind shear that results in a go-around
- a system or component not working as intended a laser strike
- a collision between an aircraft and one or more birds
- the misidentification of aircraft by a radar operator.

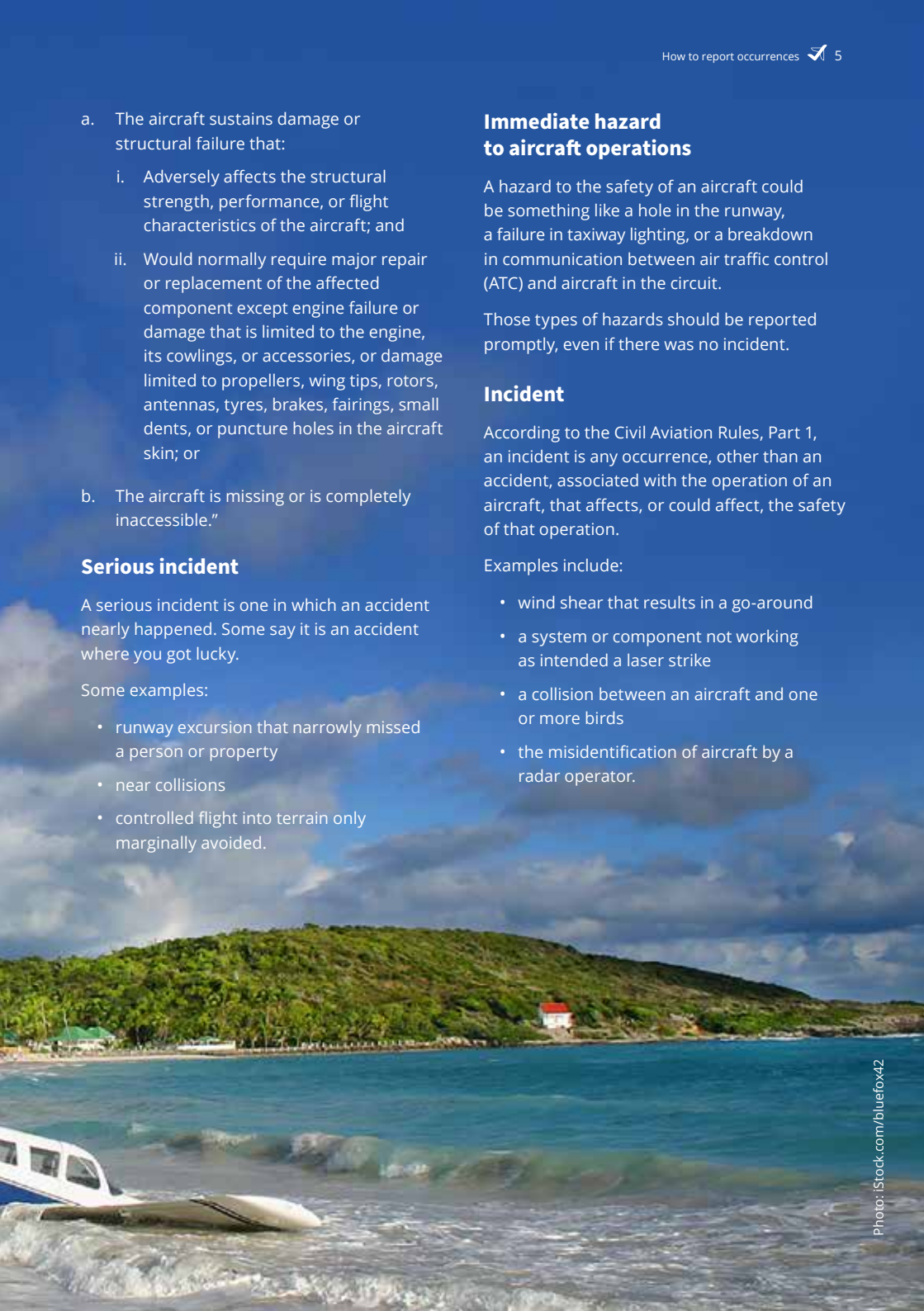


Photo: iStock.com/bluefox42

All other incidents

Other incidents involve aerodromes, aircraft defects, security, dangerous goods, and facility malfunctions. These all represent threats to the integrity of a safe aviation system.

They could include:

- significant defects or damage found as a result of a heavy landing or turbulence
- significant spillage of fuel on aerodrome aprons
- reporting of suspect unapproved parts.

Air cargo agents operating under Part 109 must report any cargo security incidents.

For further guidance on accidents, incidents and hazards, go to aviation.govt.nz, "Rules > Advisory Circulars > AC12-1 *Mandatory occurrence notification and information*".

What about UA (drones)?

Unmanned Aircraft (UA) are also referred to as remotely piloted aircraft systems (RPAS) or drones.

Essentially you report an occurrence involving a UA in the SAME way you would report an incident with any other aircraft type.

- So if you are an operator of a registered aircraft and you experience an occurrence involving a UA, you should report that in the normal way. The easiest method is the online reporting form – aviation.govt.nz/report. The only thing that changes is the 'other aircraft' is identified as a UA.
- Similarly for other certificate holders like aerodrome operators, report an occurrence involving a UA as you would for any other occurrence involving an aircraft.

- If you operate a UA under Part 102 and you experience an occurrence, you should report that to the CAA as defined in your exposition. Typically this would include occurrences such as destruction or damage to the UA, injuries to people, or significant operational problems.
- Recreational UA operators who come under Part 101, do NOT need to report occurrences, when ONLY their aircraft is involved. However, if you consider the occurrence significant to other aviation users (eg. a control system failure or battery fire), you can always report an aviation-related-concern – refer to Page 14 under the heading *Anyone can report an occurrence or safety concern*.

Part 149 activities

Anything that meets the definition of an accident must be reported to the CAA.

Whether sport and recreation participants have to report occurrences themselves will depend on the exposition requirements of the organisation they are operating under.

If you have a pilot or parachutist certificate issued by a Part 149 organisation, you need to be familiar with that organisation's operations manual.

Immediate hazards should be reported promptly, regardless of what Part you are operating under.

Other occurrences may also need to be reported to the organisation under whose authority you are operating.

The CAA strongly encourages participants to report all occurrences, and will never turn away a report.

Photo: iStock.com/osheaphotography

Certificated organisations

A certificated organisation associated with an accident or serious incident has to complete its own investigation and submit its report to the CAA within 90 days of the occurrence.

The emphasis is for industry to be responsible for conducting their own safety investigations. Doing so contributes to their safety management systems (SMS), and feeds into their risk management strategies.

The CAA may want to take part in the organisation's internal investigation or conduct its own. However, where that is not the case, Advisory Circular AC12-2 *Incident investigation* has guidelines that should help you file a report.

The most important part of the investigation report is to show the actions you are taking to reduce the probability of recurrence. After all, that is the point of incident investigation.

Safety investigation forms an important part of an organisation's SMS framework, as explained in AC100-1 *Safety management*.

As well as establishing the causes of accidents or incidents, most investigation exercises also uncover hazards and threats.

Not all companies have trained investigators, so CAA specialists may be consulted for advice or assistance. They may also review the findings of the internal investigation and work with the operator to ensure that any fixes will be effective.

> Near misses, close calls and 'free lessons' provide qualitative insights into how small defensive failures could combine to cause major accidents.
>
> Professor James Reason, 2008

Photo: iStock.com/Remus Kotsell

Benefits of reporting

The CAA gets good information about accidents. It should be obvious to everyone that an accident in which someone sustains major or fatal injuries has to be reported to the regulator.

However, some people do not see that reporting the smaller occurrences are worth the trouble. But it is the reporting of everyday difficulties, the type that can happen to anyone, which may well prevent the bigger tragedies.

A study of industrial accident data indicated there are as many as 360 small incidents and 10 serious incidents before a fatal accident occurs.

So it's precisely those seemingly less noteworthy occurrences that sometimes end up playing an enormous role in improving overall safety.

For example, birds flocking around the runway might force you to orbit before landing.

To you, that may not seem important enough to report to the CAA. But it's *exactly* the sort of information the CAA needs, so it can build a picture of flying conditions around that area.

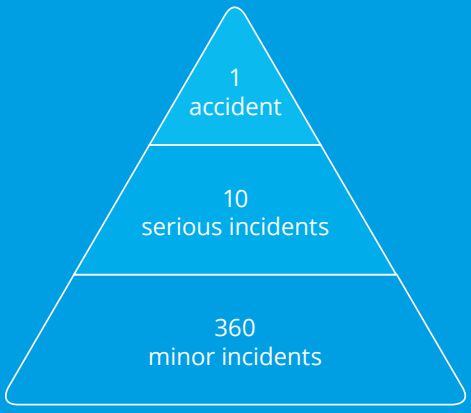
With that sort of intelligence, the CAA can identify the areas or issues giving pilots a headache, and decide on an appropriate intervention. This could be recommending a rule change or issuing an airworthiness directive. The CAA could inform the aviation community of the issue through its communication channels like *Vector* magazine, the website, and other publications.

The CAA doesn't know what is going to be significant 5, 10, 20 years down the track, and something you report today could be helpful even then.

Accident/incident pyramid

It is accepted in most major industries eg, nuclear, mining, manufacturing, that for each major accident (involving fatalities) there are as many as 360 incidents that, properly investigated, might have identified an underlying problem in time to prevent the accident.

The trick is to identify where we are in the triangle, and implement corrective or preventive actions before we have the accident.



New Zealand skies will be safer if everyone reports even small occurrences. That, alone, makes your life easier, but it will also further enhance the country's safe flying reputation, encourage tourism, and do its bit to make businesses relying on domestic and overseas visitors more profitable.

It also allows an aviation business to save on all the hidden and social costs associated with preventable incidents and accidents. These include loss of reputation, insurance excess, lost time and overtime, loss of morale among staff, loss of use of equipment, and cost of rental or lease of replacement equipment.

To paraphrase a saying in aviation – if you think reporting and investigating an occurrence is expensive, try having an accident.

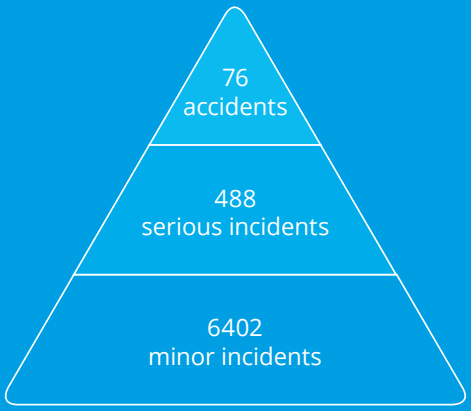
A safety investigation can have ongoing benefits for an organisation that is willing to learn and improve. The result may not only reduce future risk, but also offer gains to efficiency and operational performance.

The CAA, like regulators the world over, does not have safety officers on each flight or inside each maintenance hangar.

Every pilot, aircraft owner, operator, engineer, ground handling officer, flight attendant, air traffic controller, and aviation service supplier – in short everyone involved in the aviation community – needs to do their bit to contribute to the big picture.

When people don't report, they are letting down everyone else working in aviation, and of course, the passengers.

The risk you don't report is the risk you accept.



What is being reported

If the accident/incident pyramid on page 10 is correct, and we assume all accidents are reported, only two thirds of all serious incidents are being reported. Even worse, only one quarter of all minor incidents are being reported. Without these vital reports, it is harder to stop the accidents at the top of the pyramid.

Statistics averaged over a five year period. Source: CAA

How to report

Notifying the CAA about an accident or serious incident

The pilot-in-command must notify the CAA about an accident, serious incident, or immediate hazard to the safety of an aircraft operation, as soon as is practicable. That does not mean when it is convenient. It means using a cellphone immediately, or the first landline telephone you can get to. Call 0508 ACCIDENT (0508 222 433).

The freephone number connects you with the Rescue Coordination Centre 24 hours a day, seven days a week.

If the pilot has been killed or incapacitated, the aircraft operator must notify the CAA instead.

When reporting an immediate hazard to the safety of an aircraft operation, ATC will notify pilots immediately, but you should also report it to the CAA as soon as practicable.

Photo: iStock.com/NNehring

Supplying the details

The pilot (or aircraft operator) must then send the details of the accident or serious incident to the CAA within the next 10 days.

The easiest, quickest way to do that is to report online, aviation.govt.nz/report. An email will be sent to the email address you have provided that will repeat all your entries so you can check they are correct.

You could also email the CA005 form, found on the CAA website, to isi@caa.govt.nz.

You should include a statement from each flight crew member outlining what happened. You need fill in only the sections relevant to your occurrence.

There's a shorter version available for reporting defect incidents, CA005D, and for reporting bird incidents, CA005B.

Retain a copy for your own record.

There are also forms on the website tailored to RPAS operations – CA005RPAS, skydiving – CA005SKYDIVE, and helicopter and ag – CA005AG.

The ONLINE form caters to ALL of the different types of operation.

The different 005 forms can be found at aviation.govt.nz, "Safety > Safety reporting", under the heading *Reporting*.

Obligations under health and safety law

The CAA administers the Health and Safety at Work Act 2015 in respect of the aviation sector, for aircraft while in operation.

This includes work to prepare an aircraft for imminent flight; work on board an aircraft for the purpose of imminent flight or while in operation; and aircraft as workplaces while in operation, ie, while the aircraft is taxiing, taking off, flying or landing.

WorkSafe administers the Act in respect of the aviation sector in all other circumstances.

In most cases, an event that is notifiable under the Health and Safety at Work Act involving a commercial operator will also be a reportable occurrence under Part 12. For this reason, the CA005 form includes a HSWA section.

The person conducting a business or undertaking (PCBU) must notify the CAA of notifiable events as soon as possible by phoning 0508 4 SAFETY (0508 472 338), or by completing the Health and Safety section of CA005 *Occurrence Report* form and emailing it to isi@caa.govt.nz.

Need help?

The Advisory Circulars AC12-1 *Mandatory occurrence notification and information* and AC12-2 *Incident investigation* are available free from aviation.govt.nz, "Rules > Advisory Circulars", or at low cost from 0800 GET RULES (0800 438 785).

Anyone can report an occurrence or safety concern

Part 12 *Accidents, Incidents, and Statistics* details who is required to report occurrences under the Civil Aviation Rules, but the CAA welcomes reports from anyone who is aware of any accident, incident, or possible incident. To do that, use the contacts inside the back cover of this booklet.

Anyone can also report an aviation-related-concern using 0508 4 SAFETY (0508 472 338), or email isi@caa.govt.nz. A concern might be a low-flying aircraft or someone talking on a cell phone during flight, or it could be substandard maintenance on an aircraft or spray drift from helicopters.

Reading more

Some occurrences are investigated by the Transport Accident Investigation Commission (TAIC). To learn more about their role, see www.taic.org.nz.

To read more about your obligations to report an accident or serious incident, under Part 12, go to the CAA website, aviation.govt.nz, "Rules > Part 12".

Confidentiality

If you are embarrassed or worried about the consequences of reporting, you *can* report confidentially to the CAA. Simply write in the event 'Description' field that you request confidentiality.

When thinking about requesting confidentiality, remember that the CAA is already bound by the Privacy Act 1993 and the Official Information Act 1982. These Acts protect the disclosure of your personal information.

One of the first things the CAA does with an occurrence report is remove personal information like names and telephone numbers. Have a look at the *Accident Briefs* section of the CAA's *Vector* magazine for examples of de-identified descriptions.

You can submit a report anonymously, without any contact details, but this severely limits the scope of an investigation. The CAA would be unable to contact you for more information, reducing the chances of finding out what caused the occurrence. They also wouldn't be able to let you know what was done with your information.

It is important to understand that while a report may be confidential or anonymous, the CAA may still learn of the occurrence via other people or means. Confidentiality attaches only to the information you submit under Part 12 – not the event itself.

For more information, see *The collection and use of safety information* at aviation.govt.nz, "Safety > Safety reporting".

> "... incidents act towards accident prevention as inoculation works in preventing illness: a little bit of what could do you harm acts to strengthen the system's defences."
>
> Professor James Reason, 2008

What the CAA does with the information

The details from your report will be carefully read, categorised, and stored in the CAA's database.

With thousands of occurrences every year, most events reported to the CAA are not investigated as individual events, but are used as a valuable resource for analysis of safety trends. They also help decide which aspects of the civil aviation system might need to be changed or strengthened.

If the CAA decides that further examination of your occurrence is needed, a safety investigator will be assigned to it. They may then contact you to clarify something or get more information. The investigator will work with you to find out what happened and why, and will try to help you to determine what can be done to stop the same thing happening again. You will be notified when the investigation is complete.

If you believe your occurrence needs additional CAA attention, don't be afraid to tell us.

The CAA receives safety information from many different sources, including:

- accident and incident reports under Part 12
- public complaints and concerns
- information obtained by the CAA during audits/inspections and safety investigations.

Safety investigations are conducted to find out how an occurrence came to happen. Sometimes they look at the direct cause, and sometimes also at how the 'system' failed. The purpose of an investigation is not to apportion blame or responsibility.

There is a common misconception that reporting occurrences means you are more likely to be prosecuted. The opposite is true. While it may be a little uncomfortable telling the CAA what happened, or that you made a mistake, you are far less likely to be the subject of action or prosecution, if you are honest and open with the CAA.

The small number of prosecutions that the CAA does take each year typically involve cases where people don't report, or where we learn of the occurrence from the public or other participants.

Some people are also concerned they might get into trouble with their employers if they report an occurrence. Most aviation employers understand the legal obligation to report accidents and incidents to the CAA, and the benefits that brings.

The CAA expects that an organisation will operate a 'just culture' where employees feel comfortable in reporting errors in the knowledge that, within reason, they will not be blamed, ridiculed, or punished.

If you want to see how your report can contribute to the big picture, go to aviation.govt.nz, "Safety > Safety advice > Safety reports".

Photo: iStock.com/Sotiris_Filippou_Photographer

Reporting guide

Type of occurrence	I. Notification	II. Details	III. Investigation report
	As soon as practicable	**Accidents within 10 days** **Incidents within 14 days**	**Within 90 days**
Accident	Pilot-in-command, or certificate holder 0508 ACCIDENT (0508 222 433)	Pilot-in-command or certificate holder aviation.govt.nz/report – or CA005 form	Certificate holder or responsible person Page 3 of CA005 form – or a report acceptable to the Authority
Serious incident Immediate hazard to aircraft operations	Certificate holder, or person involved 0508 ACCIDENT (0508 222 433)	Certificate holder or person involved aviation.govt.nz/report – or CA005, CA005B, or CA005D forms	Certificate holder or responsible person Page 3 of CA005 form – or a report acceptable to the Authority Filling out the 'Cause' box on CA005D completes the investigation for defects
All other incidents		Certificate holder or person involved aviation.govt.nz/report – or CA005, CA005B, or CA005D forms	Certificate holder or person involved Page 3 of CA005 – or Page 2 of CA005D – or a report acceptable to the Authority
Health and safety notifiable event	The Person Conducting a Business or Undertaking (PCBU) CA005 form – or 0508 4 SAFETY (0508 472 338)	The PCBU As soon as possible after becoming aware that a notifiable event has occurred, and by the fastest possible means in the circumstances.	The PCBU If by telephone, the PCBU gives the details requested and, if required, provides a written report within 48 hours.

There are also forms on the website tailored to RPAS operations – CA005RPAS, skydiving – CA005SKYDIVE, and helicopter and ag – CA005AG.

The ONLINE form caters to ALL the different types of operation.

Need more help?

General enquiries can be made to **isi@caa.govt.nz** or **+64 4 560 9400**.

Reports, including CA005 forms, can be sent to **isi@caa.govt.nz** or call **0508 4 SAFETY (0508 472 338)** – voicemail operates outside office hours.

An investigation report acceptable to the Authority might be your own company incident form, or a letter containing the relevant details. Use the CA005 form for guidance on what details are relevant.

To report a Health and Safety at Work Act notifiable event:

0508 4 SAFETY (0508 472 338) – voicemail operates outside office hours. For more information, see the CAA website at **aviation.govt.nz/safety/health-and-safety**.

To notify the CAA about an accident or serious incident call the freephone number:

0508 ACCIDENT (0508 222 433) – staffed 24/7 by the Rescue Coordination Centre.

The easiest way to do your follow up report is online at:

aviation.govt.nz/report

You can also email the CA005 form to:

isi@caa.govt.nz; or post it to FreePost 146123, Civil Aviation Authority of New Zealand, PO Box 3555, Wellington 6140; or fax it to **04 560 9469**.

GAP
Good Aviation Practice

CIVIL AVIATION AUTHORITY
OF NEW ZEALAND
Te Mana Rererangi Tūmatanui o Aotearoa

PO Box 3555
Wellington 6140

Tel: +64 4 560 9400
Fax: +64 4 569 2024

Email: info@caa.govt.nz

New Zealand Government

See the CAA website for Civil Aviation Rules, advisory circulars, airworthiness directives, forms, and more safety publications.

To request publications such as GAPs and posters email: publications@caa.govt.nz.

aviation.govt.nz

How to report occurrences was revised in December 2019.