
Dealing with an accident scene



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

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 get appropriate up-to-date information.

Acknowledgement

The New Zealand aviation community is a very small, close-knit group. This booklet on accidents may be sensitive for many. It's important, however, for us to provide guidance to anyone who may encounter such a situation.

We acknowledge all those who have passed away from fatal accidents, as well as all who have lost loved ones.

He maimai aroha - A tribute to our loved ones

He kura tangihia, He maimai aroha

Kimihia rangahaua

Kei whea koutou ka ngaro nei!

Tēnā kua riro ki Paerau

*Ki te huihuinga o te kahurangi
ka oti atu koutou e!*

*Tangihia te whatumanawa,
Hotuhotu ake te manawa.*

*Nei rā te rau wharawhara o te aroha,
e pātukituki te ngākau a tangata*

Auē taukiri e.





CAA safety investigators elicit lessons from accidents to help other pilots fly more safely. This safety investigator is securing his gear after an examination of a mountain accident scene, while waiting for his turn to be transported from the site.

Photo: CAA/Al Moselen

Making the call

You must call the CAA as soon as possible.

If you're the **pilot-in-command** (PIC) of an aircraft that's been involved in an accident, it's your responsibility, providing you can, to call the CAA accident reporting number, 0508 ACCIDENT (0508 222 433). You must do that as soon as is practicable after the accident. That means after you've helped the injured and made the surrounding environment safe.

Your call will go through to the New Zealand Rescue Coordination Centre, and the number is staffed 24/7. The RCCNZ will notify the CAA, and emergency services. The CAA will then notify the Transport Accident Investigation Commission (TAIC).

Once it's been decided who will investigate, as the person who originally reported the accident you'll normally be contacted by the investigator-in-charge.

If the PIC is unable to make that call, the responsibility becomes that of the **aircraft operator**.

It may be, however, that the operator is unaware of the accident for some time after it's happened, so if you, as a **member of the public**, become aware of an accident, we ask you to notify the CAA on 0508 ACCIDENT (0508 222 433), as soon as possible.

Realistically though, probably the first number you'll call is 111. That's fine - the police will make sure other organisations that need to know will be called.

But it's a good idea to ring the 0508 ACCIDENT (0508 222 433) line as well, just to follow up your call to the police.

What information is helpful

When you call, try to give as much of the following information as you can (but don't spend time trying to find out and delay calling):

Date and time of the accident

What sort of accident it is
(eg, runway 'excursion' - the aircraft has run off the runway)

Type of aircraft and registration
(Registration markings are the letters on the side of the aircraft, usually ZK followed by three other letters, eg, ZK-ABC)

Name of the owner or operator

Where the accident is, including how to get there

Name of the pilot-in-command

Type of operation
(air transport, training, private, etc)

Aircraft's last departure point and its destination

Description of the weather

Number of people on board

Number of deceased or seriously injured crew and/or passengers

Number of people killed who were on the ground

Details of the damage to the aircraft

Your name, and the best phone number to contact you on

The hazardous accident site

Be careful when approaching the wreckage by vehicle, particularly if the approach is along the crash path, as survivors may have ejected, or been ejected, from the aircraft.

The first thing you need to think about is your own safety. Aviation accident sites can be full of hazards, so don't put yourself in unnecessary danger. If something happens to you, you can't help anyone else and emergency services will have to spend time treating you, as well as crash survivors.

Approach the site from upwind (with the wind at your back) if possible, and downhill, if possible, to avoid inhaling burning materials.

If there's an agricultural aircraft involved in the accident, there could be leaking toxic chemicals that you could inhale or that could affect your skin. There could be dangerous goods on board, such as fuel cylinders, or there could be swirling airborne synthetic products, similar to asbestos fibres (see 'Post-impact fire and carbon fibre').

There could be potentially explosive devices such as oxygen bottles, high-pressure tyres, hydraulic accumulators, and emergency parachutes (see 'The danger of undeployed 'ballistic' parachutes').

If no one is trapped or all occupants deceased, the wreckage doesn't need to be approached at all. Just wait for emergency services to arrive.

Post-impact fire and carbon fibre

Many aircraft are now being built from carbon fibre or similar products, and they can create a significant hazard if there's a post-impact fire. Burning carbon fibre can produce airborne synthetic particles, similar to asbestos, and the smoke created by any carbon fibre-based fire can be dangerous if inhaled.



The danger of undeployed 'ballistic' parachutes

Some aircraft are fitted with parachutes that the pilot can deploy in an emergency. For the parachute to deploy and inflate rapidly, it's propelled by small rocket motors, so they're often referred to as ballistic parachutes or BRS (Ballistic Recovery System).

These systems are more commonly found on microlight aircraft but some certified aircraft also use them.

If the aircraft is fitted with a BRS, there should be a sign similar to that shown top right, affixed to the fuselage in the vicinity where the BRS is located.

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 those first on the scene.

If the aircraft is badly damaged and the BRS has not been activated, keep everyone well clear of the aircraft - unless it's absolutely imperative to preserve life - until the BRS rocket has been made safe, or a disposal squad can be called in. The only people who should try to make this safe are those appropriately approved or licensed for this purpose.



A complete ballistic recovery system, showing the rocket (top), the canister holding the parachute, and the firing handle.

// The rocket motor can be a serious threat to those first on the scene. //





These marks identify the tracks of the wheels of an aircraft. They've been spray-painted to help investigators, should the tracks themselves become less visible. It's evidence like this that can help investigators find out how an accident happened.

The accident scene as a forensic site

An aviation accident scene is rich with forensic evidence as to how it happened, so it's really important that the aircraft, and any marks made by it at the site, are not disturbed.

But of course, that should not stop you:

- extricating survivors, including animals, from the wreckage
- extinguishing any fire
- moving the aircraft and its contents to safety if it's in or near water (eg, below the high-tide mark on a beach).

// It's very important to leave the site as intact as possible. //

Accident investigators can learn a great deal from the wreckage, ground markings, witness accounts, videos, and so on.

This knowledge can be used to help prevent the same thing from happening again.

If those first to arrive at the scene unnecessarily move wreckage around, or remove bodies, or disturb ground markings, that opportunity to learn may be lost.

It's also important that you secure the site in some way, eg, with tape around the scene. It's essential that the number of people in and around the wreckage is kept to a minimum.

This screwdriver was left exactly where it had been ejected onto the ground during the accident.

It was concluded by the investigation that it had actually been responsible for the accident - it had been loose in the cockpit but had eventually fallen into the aircraft's controls, jamming them.





This is how a CAA investigator turns up to a carbon fibre fire - note how protected they are, so you must be careful around such a blaze.

Photo: CAA

How you can help the investigation, before it starts

Generally, police, fire, or ambulance personnel will be at the scene of an aircraft accident soon after it occurs.

After the initial post-accident activity - moving survivors to safety and treating them, putting out any fires, and so on - there can be a lull while the investigator(s) travel to the site. They may not get there for several hours or even the next day.

If you're still at the site during this waiting period, there's a number of ways you can help the investigation, including the following:

- If disturbing the wreckage is unavoidable, try to photograph, sketch, or otherwise note the state of the wreckage before you move it around. Afterwards, don't try to restore the wreckage to its original state, unless you're asked to by the investigator when they arrive.
- If you can, make a careful record, as soon as possible, of the positions in the aircraft wreckage from where any occupants were helped out. Note the state of their safety harnesses.
- Any of the aircraft's contents or papers should be kept safe so they don't get lost or damaged.
- Note the position of any scattered wreckage found away from the main accident site and make sure it's left undisturbed.
- Note the names, addresses, phone numbers, and intended movements of any witnesses. Also note those of anyone who took photographs or video of the wreckage, or who has other evidence that might be relevant.

Who's likely to arrive

The difference between a TAIC investigation and a CAA investigation.

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, and TAIC will decide if it's appropriate for it to open an inquiry.

Sometimes, both CAA and TAIC investigators will be at the site – the CAA looking at specific health and safety aspects of the accident, and TAIC carrying out an investigation to identify if there are significant implications for transport safety.

Where there's been a fatality, the police will attend, control the accident scene, and investigate on behalf of the coroner. Officers will also investigate where a criminal offence is suspected.

TAIC investigates aviation accidents (it also investigates rail and marine accidents) that it believes have significant implications for transport safety. TAIC does this independently of the police, and safety authorities. The TAIC Act 1990 directs its 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.

Note that accidents involving military aircraft are normally investigated 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.

Investigators for the CAA's Investigation and Response safety team, however, review accidents for the sole purpose of improving aviation safety. The team doesn't undertake an investigation to lay blame or liability.

The information gained from a safety investigation could result in rule changes, airworthiness directives¹, changes to a company's operating procedures, or education of the wider aviation community.

¹ Airworthiness directives alert the aviation community to an urgent safety issue.

It's important to secure and protect the accident scene as much as possible, without disturbing the wreckage.





The investigation begins

Firstly, access – civil aviation rules say that any aircraft involved in an accident effectively comes under the jurisdiction of the investigating authority.

This means that even the pilot or owner do not have the right to access the aircraft without being authorised by the investigator-in-charge.

It is accepted, however, that when the aircraft is likely to be further damaged following an accident (such as a beach landing below the high-water mark) the pilot, operator, or their representative, may have access – provided a police officer supervises what they do.

Even if no investigation is to be carried out at the accident scene, the CAA still needs to approve the wreckage being removed from the site.

Do not release the wreckage, or any part of it, to anyone, until it's confirmed that the investigating authority (CAA, TAIC, police) has relinquished custody of it.

If a police officer arrives to supervise, goods and baggage can be removed from the aircraft.

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

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 recovery. The investigating authority will normally cover only those costs directly associated with investigation activities.



Dealing with the media

Members of the emergency services or the police have protocols for dealing with the media.

But if you're a member of the public, you'll have to decide for yourself how much you tell reporters. Remember though, the families of any deceased or injured may not yet have been contacted, and you talking to reporters before those families are contacted, could cause huge distress, if those details are then released to the public.

If you're a staff member of an aviation organisation, your company should have, as part of its emergency response plan, a media policy and a media release template.

In dealing with reporters who arrive at the scene, note that the CAA and TAIC have authorised their investigators at the accident site to answer media enquiries in factual terms, during the early stages of an investigation. So you can refer reporters to them.

Be aware that a reporter might contact you, pretending to be someone from TAIC or CAA and asking what you witnessed - it has happened in the past. Ask for their name and tell them you'll call them back at those organisations.

Generally, requests for the release of information relevant to the CAA investigation are directed to media@caa.govt.nz or 027 763 0000.

The CAA and TAIC will not release to the public, the names of the crew or the passengers.

The police will release the names of anyone who died in the accident, once their next-of-kin have been told.

Remember that the police are the agency responsible for notifying next-of-kin of any deaths. So you shouldn't contact any family members of the deceased to let them know in advance of the police making the call.

// **Talking to reporters before those families are contacted, could cause huge distress.** //

Connecting with iwi

Tangata whenua have a special relationship with the land, so it's important to let them know about the accident.

This is especially appropriate when they're the owners of the land on which the accident has happened.

If you're an aero club or operator, consider connecting with your local iwi / hapū in advance of any incident. This way you'll know who to contact, and how to contact them, should the worst happen. Having good relationships already established will help ease some pressure when dealing with an accident situation.

Victim Support - Manaaki Tāngata

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

Victim Support is a community-based organisation available to, amongst others, people affected by aircraft accidents. Trained staff and volunteers are available 24/7 to provide practical advice and emotional support.

Support workers don't make decisions for you, but they 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 help.

Call 0800 VICTIM (0800 842 846) any time. A trained staff member will be available to provide you with professional advice and information over the telephone, or to visit you if you need them to.

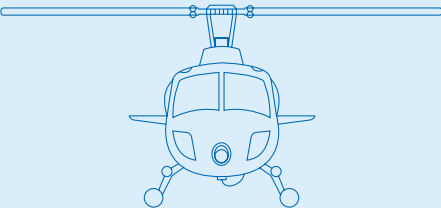
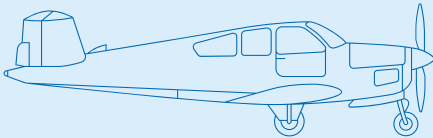
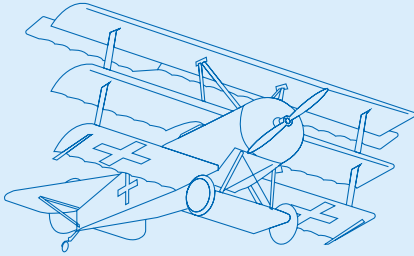


If you've been affected by an accident, the police may offer to contact Victim Support for you, or, they may have a Victim Support representative with them. The CAA can also engage with Victim Support on your behalf. You can discuss this with the Investigator in Charge or you can email victiminformation@caa.govt.nz.

Visit victimsupport.org.nz to find out more about what support is available, and to access various resources.

If you're interested...

An aviation 'accident' actually has a legal definition in the Civil Aviation Act 1990.



An event during flight

Basically it's an event occurring during the flight:

- from the time of boarding to the time the engines have stopped and everyone has left the aircraft
- in which a person is fatally or seriously injured
- in which the aircraft is substantially damaged
- or where the aircraft is missing or inaccessible.

Questions about an accident scene

If you have more questions about dealing with an accident scene, or how an investigation works, the Investigation and Response safety team would be happy to talk to you.

Phone them on 04 560 9400, or email investigations@caa.govt.nz

Safety concerns and advice

If you're not reporting that an accident has happened, but rather, you're just concerned about something else to do with safe flying or unsafe flying, or you're wanting safety advice, phone the CAA on 0508 SAFETY (0508 472 338) during working hours.



Good Aviation Practice



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See the CAA website for civil aviation rules, advisory circulars, airworthiness directives, forms, and more safety publications.

To order publications such as GAPs and posters, go to aviation.govt.nz/education.

aviation.govt.nz

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