WAIMAKARIRI
DISTRICT COUNCIL

Rangiora Airfield (NZRT) Safety Manual

Version 2, May 2021

Contents

Revision Status

Issue

Revision	Effective date	Actioned by	Revision	Effective date	Actioned by
Rev. 1	01 June 2021	Waimakariri District Council	Rev. 11		
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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 the Rangiora Airfield 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 Airfield.

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.

Rangiora Airfield is owned and operated by the Waimakariri District Council and 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 the Waimakariri District Council. Responsibility for amendments and re-issue is the responsibility of RAAG.

1.2 Control and amendment

All amendments and re-issues to this manual shall be carried out by the appointed Rangiora Safety Officer. The Safety Officer 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
CAC	Canterbury Aero Club
CFI	Chief Flying Instructor
NOTAM	Notice to Airmen
RAAG	Rangiora Airfield Advisory Group
Operator	Any person who is required to be on the Airfield

1.4 Distribution list

Safety Officer

Rangiora Airfield Advisory Group

Waimakariri District Council website

2. General Information

The Rangiora Airfield is a Non-Certificated Airfield, 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 Airfield and the mitigation of hazards affecting Airfield operations.

Rangiora Airfield is situated 3NM WNW of the Rangiora township on Merton Road.

Airfield charts and operational data are available at aip.net.nz **Charts are available at** Aeronautical Information Shop shop.aeropath.aero

Information for transiting pilots has been adapted by local operators and is available at waimakariri.govt.nz

2.1 Refueling

BP Avgas, BP Jet A1, and Z Energy Avgas are available on-site.

2.2 Parking

Aircraft parking is available to transient users.

2.3 Airfield fees

A full fee schedule is available on the Council's website. waimakariri.govt.nz/services/fees-and-charges/airfield-fees-and-charges

A landing fee of $10 is required by all casual users.

2.4 Mandatory Broadcast Zone

Rangiora Airfield is located within the Rangiora Mandatory Broadcast Zone.

2.5 Airfield inspections

The purpose of the Airfield 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 a designated person approved by the Greenspace Manager.

2.6 NOTAM

If a NOTAM issue is required, please contact the Rangiora Airfield Safety Officer.

2.7 Maintenance

All general maintenance of the Airfield excluding leased sites and fuelling areas is the responsibility of the Council.

2.8 Routine airfield maintenance plan

The Council have a routine maintenance plan for the Rangiora Airfield, this includes:

- Runway mowing
- Runway spraying
- Runway delineation spraying
- Runway fertiliser
- Runway numbering and windsock bases
- Runway marker board painting
- Broom and other pest weed control
- Spraying around hangars and bollards
- Carpark weed spraying
- Perimeter fence inspection
- Inspection of signage
- Windsock inspection
- Swale weed control and clearing
- Rolling of the airfield runways and taxiways.

Any additional maintenance requirements shall be reported to the Council by the RAAG.

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

2.9   Annual airfield inspection

An annual Airfield inspection shall be carried out by the Council's RAAG Safety Officer.

Any findings shall be reported to the RAAG and investigated as appropriate.

A report shall be published following the annual Airfield inspection, detailing any findings, improvements, issues or concerns.

2.10   Obstacle control

The Council 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 Rangiora Airfield Safety Officer to monitor obstacles and report to the RAAG 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 Council to action this appropriately as soon as practicable.

2.11   Airfield security

2.11.1 Automatic gate

There is an automatic gate located at the entry point of the Rangiora Airfield. The gate opens automatically at 5am and closes at 10pm. Any persons wishing to access the airfield outside of these hours can purchase an access tag at Aircraft Logistics Support located mid airfield.

2.11.2 Manual gates

Access onto the Airfield itself is via a number of manually opened and closed, locked gates. There are designated holders of the access keys for these gates listed in Appendix 2. Each keyholder keeps a log that must be completed by the key borrower with the date, details of the person borrowing the key, reason for access and if applicable, reason for driving on the Airfield, and the borrower's signature.

Please use the gate that is closest to your destination on the Airfield. If you open a gate to allow your vehicle onto the Airfield, please ensure that you shut the gate behind you. Do not allow access to any other person/vehicle. Failure to shut the gate behind you, or reckless/dangerous behaviour on the Airfield may result in penalty.

2.11.3 Vehicles

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

2.11.4 People

Rangiora Airfield Operators are to ensure all visitors and children are supervised on the Airfield.

3. Safety Policy

3.1 Purpose

Safety is the first and foremost priority of all Airfield users.

The Council provides safety oversight for the Airfield Advisory Group and the Safety Officer.

All Airfield 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 Airfield users to actively participate in Airfield 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, wilful 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 waimakariri.govt.nz

3.2.3 Safety communication

An operator safety meeting shall be held once yearly.

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 Rangiora Airfield Users.

It is the expectation of the Council that all occurrences, incidents, accidents, concerns or suggested improvements are reported to the Safety Officer, using a suitable method. This information will be processed and stored in a Council electronic database.

4.2 Health and safety responsibilities

4.2.1 Airfield 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 Airfield risks
- Report accidents, incidents, occurrences, improvements and injuries.

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

4.2.2 Council responsibilities
It is the Council's responsibility to ensure that health and safety related matters are promoted to all Airfield users.

4.3 Occurrence reporting

4.3.1 Reporting to the Waimakariri District Council

All reportable occurrences, incidents, accidents, improvements or identified threats, risks or hazards, are to be reported to the Safety Officer as soon as practicable on the Occurrence Report Form available on the Council's website and emailed to safety@rangioraairfield.wdc.nz, or by liaising with the Safety Officer to complete the required documentation.

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

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

The Rangiora Airfield Safety Officer shall be informed of any notifiable incident/improvements as soon as practicable via the Occurrence Report Form available at waimakariri.govt.nz

4.11   Hazard and 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.

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.

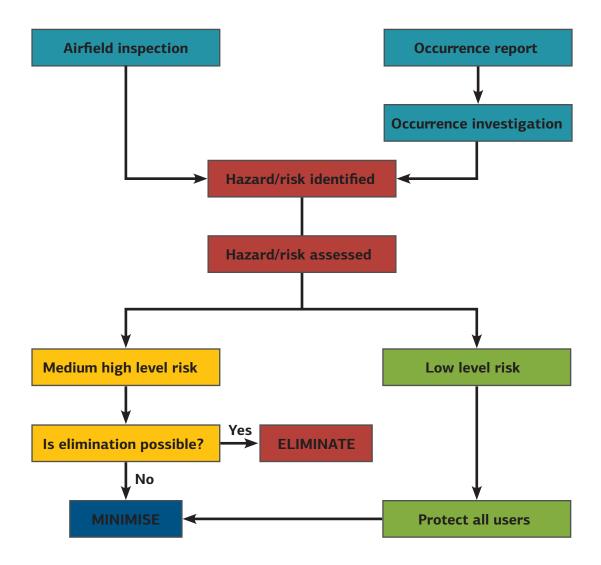| Likelihood	Consequence				
	a. Insignificant	b. Minor	c. Moderate	4. Major	5. Catastrophic
1. Rare	Low	Low	Low	Low	Medium
2. Unlikely	Low	Low	Low	Medium	Medium
3. Moderate	Low	Low	Medium	Medium	Medium
4. Likely	Low	Medium	Medium	Medium	High
5. Highly Likely	Low	Medium	Medium	High	High

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 Rangiora Airfield 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 RAAG, 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

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┌──────────────────────┐                    ┌──────────────────────┐
│  Airfield inspection │                    │   Occurrence report  │
└──────────┬───────────┘                    └──────────┬───────────┘
           │                                           │
           │                                ┌──────────▼───────────┐
           │                                │ Occurrence investigation │
           │                                └──────────┬───────────┘
           │          ┌──────────────────┐             │
           └─────────►│ Hazard/risk identified │◄───────┘
                      └──────────┬───────┘
                                 │
                      ┌──────────▼───────┐
                      │ Hazard/risk assessed │
                      └──────────┬───────┘
              ┌──────────────────┴──────────────────┐
   ┌──────────▼──────────┐              ┌───────────▼──────────┐
   │ Medium high level risk │           │    Low level risk    │
   └──────────┬──────────┘              └───────────┬──────────┘
   ┌──────────▼──────────┐   Yes  ┌──────────┐      │
   │ Is elimination possible? │───►│ ELIMINATE │     │
   └──────────┬──────────┘        └──────────┘      │
              │ No                                   │
   ┌──────────▼──────────┐              ┌───────────▼──────────┐
   │      MINIMISE       │◄─────────────│   Protect all users  │
   └─────────────────────┘              └──────────────────────┘
```

5. Safety Performance, Measurement and Monitoring

The RAAG committee meet on a regular basis to discuss items including, but not limited to:

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

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.

The RAAG committee will report to the Rangiora Advisory Group on a regular basis.

6. Emergency Response Plan

6.1   Fire

6.1.1   Building Fire

It is the responsibility of each occupier at the Rangiora Airfield to have an individual site evacuation and/or fire emergency response plan.
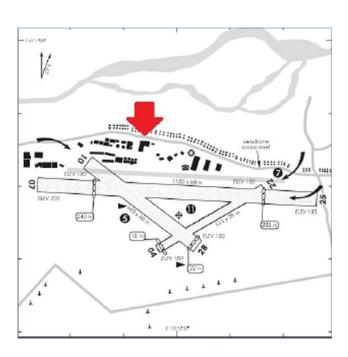
6.1.2   General fire information

If you discover a fire:

- **Phone the New Zealand Fire Service on 111**
- 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.

A tractor is available for use in an emergency located as indicated on the chart below. Follow the instructions for starting and use of fire equipment. The front-end loader is to be used in the event of an upturned aircraft to be up-righted if required.

6.2   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 Z Energy 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. Place all clean up material in rubbish bags and dispose of responsibly
- Advise Rangiora Safety Officer of the fuel spill as soon as practicable.

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.

6.3   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 Z Energy 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
- **Major spill** – Contact Emergency Services
- Complete an Occurrence Report Form and submit it to the Safety Officer.

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.

6.4   Accident involving aircraft

Contact Emergency Services.

If able to assist with the immediate rescue of persons or livestock, do so with care. Be mindful that an accident site is a hazardous area and only those personnel who have received appropriate training and are authorized to enter an accident site should be there.

Further information at

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.

6.5   Sewage/water problems

Contact Waimakariri District Council on 0800 965 468.

Contact details in Appendix 7.1.

7. Appendices

7.1   Contact details

7.2   List of gate key holders

7.3   Risk/Hazard Register

7.1 Appendix 1

Contact details

Waimakariri District Council

Rangiora Airfield – Operations Contact:
Greenspace Manager
Ph: 03 313 4432

Rangiora Airfield – Sewer and Water Contact:
Ph: 03 313 4432

NZ Fire Service
Ph: 111

Search and Rescue (SAR)
Ph: 0508 472 269

Civil Aviation Authority (NZ)
Ph: 0508 222 433 (0508 ACCIDENT)

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

7.2 Appendix 2

List of gate key holders

Canterbury Aero Club
Contact: Steve Noad
Ph: 03 310 7290 or 021 279 1655

Way to Go Helicopters
Contact: Rob Kittow
Ph: 03 310 6815

Rangiora Aircraft Engineering
Contact: Pat Scotter
Ph: 03 313 5540 or 027 416 3550

Canterbury Regional Aircraft Club
Contact: Ian Blyth
Ph: 021 899 163

Waimakariri District Council Rangiora Airfield Safety Officer
Contact: Kevin Dore
Ph: 021 766 659

BKD Maintenance
Contact: Bruce Duff
Ph: 027 224 2734

7.3 Appendix 3

Rangiora Airfield Safety Manual, Version 2 - May 2021 appears in footer

Risk/Hazard Register

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

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Rare	Low	Low	Low	Low	Medium
Unlikely	Low	Low	Low	Medium	Medium
Moderate	Low	Low	Medium	Medium	Medium
Likely	Low	Medium	Medium	Medium	High
Highly Likely	Low	Medium	Medium	High	High

To be completed:

Hazard/Risk	Potential Harm	Likelihood	Consequence	Risk Rating	Control measures	Monitoring frequency	Person Responsible
Aircraft or vehicle movements, aircraft engines, rotating propellers							
Ignition of fuel vapours while refuelling							
Stationery propellers							
Ice, mud, slippery surfaces							
Sand, dust from helicopters							
Birds and wildlife							
Varying runway conditions							
Vehicles on access road							
Trees							
Buildings obscuring radio calls							

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