

# Safety Management Plan

## NZ Paragliding Open 2020



**29<sup>th</sup> February – 7<sup>th</sup> March 2020 - Based in Rotorua and surrounding environment**

This document outlines the various safety strategies and frameworks in place that support a safe event, and the strategies and processes that will be enacted in the event of a safety related incident.

This document is available to every person involved in the competition, whether competing or otherwise and everyone involved is encouraged to read and it make a copy if appropriate.

## Contents

Event Overview .....	2
Participants .....	3
Primary Event Locations .....	3
Primary Contacts.....	3
Safety Strategy .....	3
Pilot Vetting .....	4
Pilot Information.....	4
Safety Personnel .....	4
Task Selection and Safety Related Competition Rules.....	5
Pilot Check In and Check Out system.....	5
Traffic Management .....	6
Communication and Pilot Tracking.....	6
Emergency Plan in the event of pilot injury.....	7
Emergency Plan in the event of a missing person .....	7
Risk Management and Mitigation.....	7

## Event Overview

The event is a cross country paragliding competition that forms the National Paragliding Championship.

Up to 90 paraglider pilots will launch their aircraft from high on a mountain and attempt to complete a flying course that can be as long as 200km. This is known as a 'task' and there will be 7 tasks, one on each day of the event.

## Participants

All participants have been vetted to ensure that they are members of the New Zealand Hang Gliding and Paragliding Association (NZHGPA). Acquiring NZHGPA membership requires the provision of a paragliding license issued either in New Zealand or overseas and this ensures that they have been trained to an international standard which includes instruction on safety management and aeronautical competency.

Pilot selection is based primarily on national and international competition ranking which indicates a high level of experience of proficiency. A small number of competitors have no specific experience in flying competitions but have been vetted in regards to their capabilities regarding safety and airmanship.

## Primary Event Locations

Head Quarters are at the Rotorua Thermal Holiday Park, 463 Old Taupo Road, Springfield, Rotorua 3015, New Zealand

The take off locations are:

- Top of Paeroa Range, [-38.373949, 176.263726](#)
- Top of Kaimais Range, [-37.820405, 175.906150](#)

Take off locations may be changed on a case by case basis depending on wind direction on the task day.

The main flying arenas are:

- The flat lands to the west of the Kaimais range and along the Kaimais range itself
- The Paeroa range and the land to the northwest of it (the Waikite Valley)
- The Reperoa Valley, to the east of the Paeroa Range

## Primary Contacts

- Johnny Hopper – Competition Director and Main Event Organiser, 021 056 2275, [johnnyhopper@gmail.com](mailto:johnnyhopper@gmail.com)
- Dave Washer – Depute Event Organiser, 027 599 2934
- To be assigned – Competition Safety Committee

## Safety Strategy

The aim of the competition is provide a fair, fun and rewarding platform that hosts the New Zealand National Paragliding Competition.

The first strategic pillar of the organisation is safety. It is the intention of the organisers to complete the event with a level of zero safety related incidents, meaning that any level of injury, other than entirely trivial, is deemed unacceptable.

Several processes and frameworks are in place to support this goal, as described below.

### Pilot Vetting

Pilots have been vetted for safety and capability. This is described above.

### Pilot Information

Safety related information is available to the pilots in the following forms.

- This Safety Management plan is available for download and has been emailed to all competitors with a request that they study it
- An emergency plan has also been provided to all competitors which guidance and instruction on what to do in the event of an emergency such as a paraglider crash, missing pilot or pilot injury.
- Mandatory safety briefings take place at the start of the event. Pilots are not able to partake unless they have attended this. This briefing covers all the safety aspects that are covered in this plan.
- Daily briefings take place at the competition HQ before proceeding to the flight area. This will cover any specific safety considerations related to the day (including weather conditions) and chosen flight locations.
- Task briefings will take place, before launch, at the chosen site location and will include any safety considerations such as local site hazards and weather conditions
- The flying safety committee will be providing radio based updates at a frequency of every 10 minutes or greater on the mandatory competition safety channel
- Pilots, particularly those visiting New Zealand, are reminded of the contact details for emergency services and reminded that medical treatment in the event of an accident is free in New Zealand thanks to ACC

### Safety Personnel

- A three person safety committee will be flying with the competitors on paragliders. The job of the safety committee is to monitor conditions, weather and otherwise and provide information on safety to all competitors. This committee also has the prerogative of stopping the days flying activities if there is sufficient safety concern (examples could be wind that may increase to unsafe levels or a perceived risk of thunderstorm activity). The committee consists of experienced paraglider pilots who are familiar with the terrain and climate of the flying arenas
- The Competition Director, Johnny Hopper, is also an experience paraglider pilot who is familiar with the terrain and climate of the flying arenas. The Competition Director also has the prerogative of stopping the days activities for the same reasons as described above.
- A ground based launch marshal (Col Horstjo) is placed in charge of the take off to ensure maximum safety. The launch marshal will be in attendance on the launch area until the final pilot has taken off. He has the ability to close, or suspend, the launch at any time for safety reasons. He is equipped with a first aid kit and fire extinguisher.

- A ground based safety officer (Andrew Smith) is trained in first aid and coast guard search and rescue procedures. He will follow the competition task line in a four wheel drive vehicle to be able to react, assist and inform both the competition organisers and emergency services, as required, in the event of a safety related incident. He is equipped with a first aid kit and fire extinguisher.
- All pilots are constantly briefed and reminded that they hold primary responsibility for the safety of themselves and others and thus also form part of the safety personnel framework.

### Task Selection and Safety Related Competition Rules

- A penalty and protest system is in place within the competition rules that can be activated in the event of any unsafe behaviour by competitors (for example, flying in cloud or aggressive piloting).
- Punitive measures for unsafe activities can include censure, warnings, points penalties and exclusion from the task or competition overall.
- A three person task committee is responsible for setting the daily flying task. The three person safety committee has the prerogative to overview the proposed task before it is presented to the pilots and to suggest alternatives, or enforce changes, if there are safety concerns.
- A system is in place to award competition points to pilots if they choose not to fly due to a safety related concern. This mitigates the pressure to fly that may otherwise occur.
- A system is in place to reward pilots (with competition points) that assist in the event of a safety related incident and, by doing so, jeopardise their own competition performance

### Pilot Check In and Check Out system

A mandatory system is in place for all pilots to ensure that pilots check-in each day (thus, registered as flying) and check-out once landed safely. This is enabled by SMS and WhatsApp. There is a central coordinator who maintains the list of all pilots flying and marked as safe. This person is primarily the ground based safety officer (Andrew Smith) but responsibility may be moved to another staff member at the direction of the main event organiser (Johnny Hopper).

The list enables the organisation to monitor the status of each competitor and to alert to any potential missing pilot situation so that the missing pilot process can be enabled (see attached emergency plan).

All competition safety staff stay on alert until all pilots are marked off as safe. Consumption of alcohol by competition safety staff is forbidden until all pilots are marked as safe each day.

## Traffic Management

A Convoy Marshall (Mark MacDonald) is assigned to enforce and monitor the safe behaviour of all vehicles during ascent of the mountains. All vehicles are mandated to be four wheel drive and carrying shovels and fire extinguishers is advised but not mandatory. Three vehicles, belonging to the Launch Marshall, Ground Safety Officer and Competition Director are equipped with first aid kits, fire extinguishers and shovels.

Mitigation is in place to prevent vehicles travelling both up the mountains and down the mountains at the same time. This includes a rule that prevents pilot from “re-flying” (i.e. driving back up the mountain to try to fly again after an early landing).

Only road worthy vehicles and trailers are permitted to be part of the competition convoy. All vehicles are requested to monitor the radio safety channel during the convoy process.

Safe convoy protocol is clearly briefed at the safety briefing.

Traffic down the mountains and between the flying sites is not monitored.

## Communication and Pilot Tracking

- Radio – two radio channels are identified and agreed with all pilots. One is a safety channel and it is mandatory for all pilots to monitor it while flying. It is used by the safety committee to provide regular updates on safety. Non safety related communication is not allowed
- SMS (text) and WhatsApp – these are used for the Check In and Check Out system. Not safety related communication on the WhatsApp group is not allowed. All pilots are added to the group before the first flying task
- Mobile Phone – these are used for all types of communication. It is known, and communicated to the pilots, that there are large areas of the flying arena with no, or limited, cell phone reception. The take off areas are known to have strong cell phone reception.
- Satellite trackers – these are mandatory and must be carried by each pilot. These allow an emergency SOS message to be broadcast in the event that no cell phone coverage is available. The accepted models are Delorme InReach and Spot. Pilots are obliged to enable “tracking mode” on these devices during all flights. This enables the organisation to track the pilots on a map via a website.
- Airtribune tracking – this is not mandatory but all pilots are encouraged to use this application which works when 3G cell phone cover is available. It enables the competition organisers, and other pilots, to track the location of all competitors during a task.
- Visual signal of emergency – the international paraglider distress protocol is that a paraglider left fully unfolded on the ground is a distress signal. All pilots are briefed of this with instruction to make a call on the radio safety frequency if this signal is observed.
- Contact Details – are pilots are obliged to provide cell phone and WhatsApp contact details to the organisation as part of the pilot registration process, along with the address of their local accommodation and contact details for a third party to be used in the event of an emergency.

### Emergency Plan in the event of pilot injury

A copy of the emergency plan, in the event of injury, is given to all pilots as part of their pilot pack and as included with this Safety Management Plan.

If an observed injury is deemed to be anything other than trivial then emergency services (ambulance) must be called (111).

In the event that a pilot is deemed to have crashed in an area where injuries cannot be assessed immediately, and that pilot is unable to communicate then Search and Rescue (LSAR) is to be contacted immediately via the Police (111).

### Emergency Plan in the event of a missing person

A copy of the emergency plan, in the event of a missing person, is given to all pilots as part of their pilot pack and as included with this Safety Management Plan.

The Check-In and Check-Out process is designed to alert the organisation to any pilot that has not reported themselves as safe after flying.

If, after 1900 NZT a pilot is still not reported as safe then the Competition Director and Ground Safety Officer will commence activities to locate the pilot. This includes trying all known methods of contact (Cell phone, WhatsApp and checking pilot accommodation and know associates).

If, by 1945 NZT, the pilot has not been located then Land Search and Rescue are notified via the Police (111).

Information to be provided to LSAR include:

- Name and cell phone contact details for the missing pilot
- Address of local accommodation
- Colour of paraglider
- Last known location based on satellite tracker and information from witnesses
- Details of the course line and pilot's likely position in relation to it

## Risk Management and Mitigation

This table defines the identified risks, potential outcomes and mitigation strategies.

Risk	Potential outcome	Mitigation
------	-------------------	------------

<b>Paraglider crash on take off</b>	<ul style="list-style-type: none"> <li>• Pilot injury ranging from minor to fatal</li> </ul>	<ul style="list-style-type: none"> <li>• Experienced launch director</li> <li>• Task safety briefing</li> <li>• Hazard identification</li> <li>• Personnel trained in first aid</li> <li>• Availability of first aid kit at take off</li> <li>• Cell phone coverage for calling emergency services</li> </ul>
<b>Paraglider crash on course line</b>	<ul style="list-style-type: none"> <li>• Pilot injury ranging from minor to fatal</li> </ul>	<ul style="list-style-type: none"> <li>• Task safety briefing</li> <li>• Hazard identification</li> <li>• Ground based responder trained in first aid with first aid kit and fire extinguisher</li> <li>• Information relayed from the air by radio</li> <li>• In the event of inadequate cell phone coverage, correspondence to emergency service by relayed radio call or satellite beacon</li> <li>• If the event is deemed serious then the task is stopped to allow all personnel to focus on mitigation of the event</li> </ul>
<b>Paraglider impact with power cables</b>	<ul style="list-style-type: none"> <li>• Falling and electrocution injuries, ranging from serious to fatal</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of this specific hazard at task briefing</li> <li>• Immediate contact with emergency services to disconnect power</li> <li>• Otherwise as above</li> </ul>
<b>Missing pilot</b>	<ul style="list-style-type: none"> <li>• Delayed response to potential injuries</li> <li>• Exposure</li> <li>• Exhaustion</li> <li>• Dehydration</li> </ul>	<ul style="list-style-type: none"> <li>• Pilot check back process</li> <li>• Contact details available to all safety personnel</li> <li>• Organised search party both on ground and via paraglider</li> <li>• Alert to emergency services (LSAR) if the situation is deemed serious or sunset (20:00 NZT) is approaching</li> </ul>
<b>Proximity with other aircraft</b>	<ul style="list-style-type: none"> <li>• Mid-air collision leading to crash</li> </ul>	<ul style="list-style-type: none"> <li>• Special airspace arranged with air traffic control</li> <li>• Notification to other airspace users in AIP supplement</li> <li>• Launch Marshall to suspend launch if congestion occurs</li> </ul>
<b>Paraglider landing in water</b>	<ul style="list-style-type: none"> <li>• Drowning</li> </ul>	<ul style="list-style-type: none"> <li>• Task course line to avoid all major areas of water</li> </ul>
<b>Injury from geothermic activity</b>	<ul style="list-style-type: none"> <li>• Burning, scalding injuries ranging from minor to fatal</li> <li>• Inhalation of fumes</li> </ul>	<ul style="list-style-type: none"> <li>• Specific hazard identification</li> <li>• Take course line to avoid all major areas of geothermic activity</li> <li>• Ground response as per paraglider crash</li> </ul>
<b>Traffic accident</b>	<ul style="list-style-type: none"> <li>• Injury ranging from minor to fatal</li> </ul>	<ul style="list-style-type: none"> <li>• Assigned convoy marshal to monitor convoy safety</li> </ul>



	<ul style="list-style-type: none"> <li>• Blockage of access for emergency response</li> </ul>	<ul style="list-style-type: none"> <li>• Tactics to reduce upward and downward vehicle traffic at the same time on the mountain roads</li> <li>• Ground based safety officer trained in first aid and equipped with first aid kit</li> </ul>
<b>Sun burn and sun stroke</b>	<ul style="list-style-type: none"> <li>• Blistering</li> <li>• Lack of coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Sun cream available at the take off, provided by the organisation</li> <li>• Pilot reminded to bring and use sun cream</li> <li>• Limited shade available at take-off, for the launch marshal primarily</li> </ul>
<b>Fire</b>	<ul style="list-style-type: none"> <li>• Forest fire</li> <li>• Burn injuries</li> <li>• Blockage of access for emergency response</li> </ul>	<ul style="list-style-type: none"> <li>• Fire extinguishers and shovels in three competition vehicles</li> <li>• Smoking ban at all competition locations other than the HQ or in enclosed vehicles</li> <li>• Electronic cigarettes are not deemed to be a fire hazard</li> </ul>