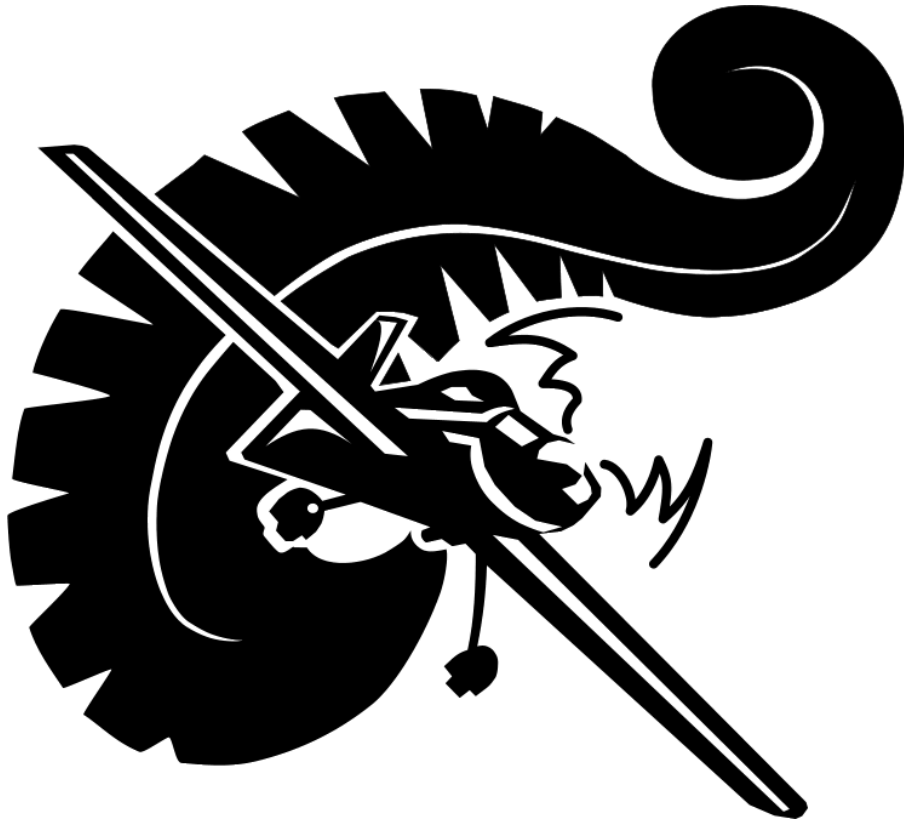


New Zealand Aerobatic Club Inc

# Procedures Manual



## 2024 National Aerobatic Championships

NOTHING IN THIS MANUAL ABSOLVES ANY INDIVIDUAL FROM THEIR  
RESPONSIBILITIES AS PROVIDED IN THE CIVIL AVIATION ACT AND CIVIL  
AVIATION RULES

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## Introduction

This document outlines the operational procedures used before and during the running of the NZ Aerobatic Club Nationals, to ensure a safe and expeditious flow of competition.

The New Zealand Aerobatic Club is an incorporated society committed to the safe undertaking of aerobatics for fun and competition.

The Nationals incorporate six categories of aerobatic competition: Primary, Recreational, Sports, Intermediate, Advanced, and Unlimited. NZ Aerobatic Club Rules are used as the basis for this competition and are available at [www.aerobatics.nz](http://www.aerobatics.nz). All Known sequences and Free Known figures are published on [www.aerobatics.nz](http://www.aerobatics.nz) and in OpenAero.

## Competition Dates

The competition is planned to take place from Wednesday 28<sup>th</sup> of February until Saturday 2<sup>nd</sup> of March 2024.

Event practice is anticipated from Tuesday 27<sup>th</sup> of February and weather delays may require an extension of competition flying till Sunday 3<sup>rd</sup> of March, both of which will be encompassed in the event SUPP and daily NOTAMS.

## Competition Event Approval

Any competition run under the auspices of the NZAC shall be sanctioned by the NZAC President (Appendix 1).

This competition is an Aviation Event, per CAA Rule 91.703, implementing procedures recommended in AC91-1.

NZ Warbirds, a Part 149 Organisation, has provided an Aviation Event Approval (Appendix 2)

## Risk Assessment

In accordance with AC91-1, as part of the planning for the Nationals, a Risk Assessment has been completed (Appendix 3) to identify, evaluate, and remove/mitigate hazards as far as practicable.

## Key Event Personnel and Responsibilities

Key event personnel and responsibilities follow. Additional secondary roles, and an expansion of all competition personnel responsibilities, may be found in the NZAC Rules.

### **Event Organiser – Grant Bennis (021 0629929)**

Responsible for coordinating the planning, site evaluation, community consultation, risk assessment, Event Approval, NZAC sanctioning, selection of a suitably experienced Contest Director and Chief Judge/s, local operator notification and generation of the event SUPP and daily NOTAM.

### **Airport Operator – David Hayes / Masterton Airport Operations Manager (021 818816)**

Provide approval for use of the airport, confirm local procedures, authorise event SUPP and daily NOTAM, provide contact information and liaison with other operators and neighbours.

### **Airport Health and Safety Officer – David Hayes (021 818816)**

Responsible for ensuring compliance with Masterton Aerodrome Health and Safety rules and procedures.

### **Contest Director (CD) —Morris Tull (021 02401094) / Alternates - Andy Love (021 818816) / Grant Bennis (021 0629929)**

Management of the aerobatic competition and on-the-day responsibility for event safety rests with the Contest Director.

### **Chief Judge/s (CJ) – Andy Love (021 818816) / Grant Bennis (021 0629929) / Alternate Steve Geard (021351645)**

After safety, the Chief Judge's primary concern should be the accurate and fair judging of the competition flights in a category. There may be more than one Chief Judge across the entire competition.

### **Data Entry Administrator – Selected at event**

The collation and entry of scores from the Judges score sheets into the scoring software in an accurate and timely manner by the Data Entry Administrator is vitally important to ensure accurate results are available to all competitors and key event personnel.

### **Spotter/s – Selected at event**

The Spotter's duties are to keep a lookout for any aircraft that may create a conflict with competition aircraft, particularly in the aerobatic box, and to keep the Chief Judge informed of any conflicts or threats. The Spotter shall be radio-equipped and

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communicate with non-competition aircraft to inform them of competition activities in the circuit area.

### **Videographer** – Selected at event

An accurate video record of each flight assists the judges and competitors with determining the validity of scoring decisions.

### **Starter/s** – Selected at event

The Starter is responsible for ensuring the expeditious flow of competition aircraft, safety of operation in the start area, and are the final check as to the safety of the aircraft and the pilot. The Starters shall refer to the Starter Check List (see Appendix 4) for all starts and shall always have direct communication with the Chief Judge. Co-ordination between the Chief Judge and Starter is essential, as is timely reminders to pilots of up-coming flights, to ensure the most efficient use of time.

### **Technical Inspector/s** – Brent Griffin (021 0741015) / David Wilkinson (021 468270) / Mo Tull (021 02401094)

The Technical Inspector shall have a background in aircraft engineering and will be responsible for carrying out an inspection of the competition aircraft prior to commencement of flying at the event.

### **Parking Monitor/s** – Selected at event

The Parking Monitor shall be responsible for ensuring competition aircraft are correctly parked in a safe or orderly manner throughout the event, to minimise risk to spectators and non-competing aircraft.

### **Critique Coach/es** – Selected as required

The Critique Coach is used and selected by a competitor to offer ground-based critiquing/coaching during In-Box /Casual practice.

### **Pilots** - Entrant list

In exercising the privileges of their licence, Pilots have ultimate responsibility for the safety of their flight and for compliance with CAA rules. Pilots holding an LLDA (Low Level Display Authorisation) are responsible to ensure they operate within the limits of their individual LLDA.

Pilots seen to be breaking CAA, NZAC rules, or LLDA limits may be disqualified from further and future competition and may also be subject to CAA enforcement actions.

All pilots participating at the competition sign a declaration, attached as an appendix, binding them to the rules of the NZAC, this Procedures Manual and CAA rules.

## Venue

The NZ Aerobatic Club Nationals are based at Masterton Aerodrome. The clubrooms and facilities of the Wairarapa Aero Club are used as the base of operations.

The airfield is not closed for the competition; however, for the duration of the event all circuits shall be to the north of the aerodrome and clear of the Aerobatic Box. A SUPP shall be raised, with an accompanying amended aerodrome chart, as per the Appendix. All competition pilots shall avoid flying through the aerobatic box, e.g. for circuit re-joins, unless the Aerobatic Box is vacant. Pilots operating in the Aerobatic Box should be particularly vigilant for itinerant and/or NORDO aircraft. The use of ground Spotters is mandatory for pilots using the Aerobatic Box from the commencement of the event.

Competition aircraft using the Aerobatic Box during the event shall use 128.95 for communications with ground personnel. Competition aircraft in the local area or the Masterton Aerodrome traffic pattern shall use 122.4. Standard non-attended radio procedures shall be used throughout.

The Aerobatic Box is located immediately south of the field, over farmland between the Waingawa River and Manaia Road.

There shall be no public events taking place at the private Drag Strip (located under the western corner of the Box) during the periods of Official Practice and Competition flying. The gate on the access driveway from Mania Road shall remain locked, with suitable signage installed warning of access restrictions during these periods.



Permission of landowners has been obtained for the placement of box markers, which shall be positioned to indicate the corners and centre of the Aerobatic Box.

The actual box location is described by the following link:

<http://serega.aero/boxCalc/acrobox.html?hdg=223&la=-40.981369954022476&lo=175.638743201044&zo=16#>

## Event Preparations

### Planning Phase

The Event Organiser shall:

- Review the operation of previous events and apply lessons learnt.
- Obtain approval from the airfield owner/operator
- Obtain written approval from the hosting organisation (Wairarapa Aero Club) for the use of facilities, confirming the dates, provision of Bartender, and the extent of provision of food and/or kitchen facility use. Discussions should include a review of any issues from previous events and confirmation that fire extinguishers are available and serviceable.
- Consult with any affected airfield operators
- Advise affected landowners over whose property the competitions are conducted of the upcoming competition and, where necessary, seek permission for access for box marker placement. Update their contact numbers and protocol for accessing their land.
- Seek and/or confirm availability of Key Event Personnel.
- Obtain an Aviation Event approval from the NZ Warbirds Association
- Liaise with Airport Manager to provide to the Civil Aviation Authority material for notification of the event and circuit direction change in the NZAIP by way of SUPP (Appendix 5). Latest by 22<sup>nd</sup> November 2023 for FEB 2024 SUPP
- Encourage sourcing accommodation early as Golden Shears competition is during the same week.
- Firm up the schedule for the week.

### Preparation Phase

Send Competition invitation and entry newsletters and a reminder every month in the lead-up. Competitors are invited through various mediums to compete – email newsletter, NZAC website Facebook, WhatsApp groups, Kiwi pilots Facebook group, Aeroclub and Warbirds newsletters.

Competition Entry is electronic by way of a Google Form on [www.aerobatics.nz](http://www.aerobatics.nz)

This form shall be the master reference of entrants and contain all relevant competitor entry information.



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Seek volunteer helpers from the local area - offer free lunches and beverages.

Identify volunteers from within the competitor ranks for admin or operational roles.

Prepare Warning Flyer ready to send out just before the event (Appendix 6).

Contact hangar owners to ascertain hangar availability for, at least, the fragile competition the aircraft - ideally the hangars close to the aeroclub.

Book a rental van for use to put box markers out, transport participants to accommodation and collect supplies as required.

The Contest Director shall confirm the membership status of competitors - only current financial members of the NZAC may compete, however non-members may also compete with an additional fee of \$35 confirming their membership. Volunteer helpers are not required to be members. Volunteers will be provided with free lunches.

Competitors are solely responsible to ensure their licence, BFR, medical and Aerobatic Bi-Annual Competency check is current. If pilots will be flying aerobatics below 1500' AGL, a current LLDA must be held. All competitors must show evidence of third-party liability insurance for a minimum of \$2 Million.

The only exception to licensing requirements is if the competing pilot has permission from the Contest Director to use a suitably qualified Safety Pilot, per NZAC rules.

The electronic entry form stipulates the necessary documentation to be provided. The Contest Director is required to visually confirm the currency of all documents prior to accepting an entrant to compete and this is recorded on the Competitor Information Form (Appendix 7). This is ordinarily done during electronic entry but may also be done at the event during Registration. The Pilot Information Form must be complete prior to any official practice or competition flying.

Competitors are reminded that the competition will use the NZ Aerobatic Club Rules and this Procedures Manual, available on the club website.

Competition Entry is electronic by way of a form on [www.aerobatics.nz](http://www.aerobatics.nz)

All competitors shall prepare to fly the 2024 NZAC Known sequence, found on the NZAC website and OpenAero/Library/NZAC/Known.

Competitors in the Recreational, Sports, Intermediate, Advanced and Unlimited categories shall submit their Free/Free Known sequence to the Contest Director (or suitable delegated person) prior to the event. Sequences must be created using OpenAero software to ensure they comply with NZ Aerobatic Club criteria. The Contest Director (or suitable delegated person) identifies any safety issues that must be corrected before the sequence will be accepted.

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Competitors in the Sportsman, Intermediate, Advanced and Unlimited categories should prepare figures for contributing to the “Free Unknown” sequence/s. The Free Unknown sequences are compiled by competitors at the event, using OpenAero and submitted to the Contest Director using the “Open Aero Send Link” for checking and approval against the flight criteria for each category.

The Contest Director will acknowledge acceptance of the competitor’s entry and Free sequence. Any changes required will be notified to the competitor, who will be given a short period to rectify and resubmit.

In the weeks immediately prior to the event, the Event Organiser will arrange for promotional and educational material to be provided to local newspapers and radio stations informing the public of the championships.

As the AGM is during the event, key Committee members are reminded to prepare the agenda and their reports.

### **Setup Phase**

In the days immediately prior to the event:

- The local flying community shall be made aware of the event by personal notification and/or electronic notification (email, Facebook etc) using the Warning Flyer (Appendix 4).
- Send Volunteer Roles and Responsibilities (Appendix 8) to all registered competitors and helpers.
- A repeating daily NOTAM, submitted by or on behalf of the Airport Manager, shall be requested from Airways, including the following:

CAUTION VEHICLES POSITIONED SOUTH OF GRASS 06/28 ASSOCIATED WITH THE NZ NATIONAL AEROBATIC CHAMPIONSHIPS – REF SUPP.

- Local Fire Service shall be advised of the Aerobatic Competition commencement by the Event Organiser or Contest Director, including the location & access to the Aerobatic Box, & contact names & numbers for key personnel.
- The Box markers shall be placed in the correct locations.
- Box Active / NOT Active and Hazard Warning signs secured for positioning near apron entrance gate during event operation.
- Fire extinguishers confirmed available, to be placed near the Starting/Shutdown area and on the Judge Line.
- A fence wire cutter shall be available for use on the on the Judge Line.

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- A suitable quantity of portable UHF and VHF radio transceivers shall be checked for operation and charge.
- Food and beverages confirmed for visitors, competitors and particularly the Judge Line personnel.
- Hangar accommodation to be confirmed and allocated.
- Confirm rental van available for collection Monday through Sunday.

## Ground Procedures

### Spectator and competitor safety

Per AC91-1, areas where spectators may congregate must be sufficiently clear of the display line (min 220m) to ensure their safety. The main designated spectator area is in the vicinity of the Wairarapa Aero Club, located approximately 800m from the display line. The closest point on the airfield that spectators may access - the access road behind the eastern hangars - is 500m from the display line.

To allow spectators to safely observe the parked competition aircraft, a parking area for competition aircraft shall be established sufficiently clear of the starting/taxi area and fuel pumps in front of the Aero Club car park, separated from the spectator area by a fence.



Spectators must be kept outside of the competition aircraft parking area unless by invitation AND under the direct supervision of a competitor, aircraft owner/operator, or competition official.

Anybody entering the operational area of the airport, beyond the Parking Line and on the Judge Line, MUST wear a hi-viz vest, unless arriving/departing as a pilot or passenger.

Hazard Warning Signs shall be erected at the earliest opportunity in suitable locations adjacent the competition aircraft parking area to warn all attendees and spectators of the associated hazards.

## **Aircraft Parking**

Extreme care shall be taken during the starting and ground operations of aerobatic aircraft, particularly tail-dragger aircraft with poor ground visibility. In this regard, the following flight-line procedures shall be followed at all times:

- All aircraft are to be pushed or pulled by hand (or towed) to and from the Aircraft Parking area to the Starting / Shutdown area.
- The assistance of another pilot or competition official should be sought, to supervise and provide a watch over the starting aircraft.
- Arriving aircraft must be shut down in the starting area and pushed or pulled by hand (or towed) into the parking area. There shall be no taxiing under power into the parking area.
- At all times, pilots should be cognisant of prop-blast when moving in proximity to parked aircraft, with special consideration to canopy security.

## **Judge Line**

The Judge Line shall be established clear of the runways as indicated by the blue line on the Box graphic. Vehicles transporting personnel shall access the Judge Line by the airport perimeter access roads, and not across active runways unless in an emergency, being vigilant of aircraft using the airport.

During competition, only approved personnel may access the Judge Line.

All personnel on the Judge Line must wear Hi-Viz vests.

## **Event Communications**

All personnel and competitors should have WhatsApp installed on their cellphones and keep their cellphone close at hand (except when flying) to receive communications during the event.

The CD and/or CJ will send group communications such as briefing times, changes of flight direction, weather information etc using WhatsApp. Competitors are not expected to reply or acknowledge receipt, but it will be expected that they have received any communications delivered in this manner and are thus encouraged to regularly check their phones.

### Noise

In order to minimise noise for the surrounding community, a voluntary curfew shall be observed from the commencement of the event. Aerobatic flight in the Aerobatic Box, or in the close vicinity of the airport shall be restricted to the hours of 8am to 7pm, unless weather conditions require an extension of flying hours to ensure the competition is completed. This can only be approved by the Event Organiser or Contest Director.

### Complaints

Any public complaints received during the event shall be directed to the Event Organiser or Contest Director, **and only answered by them**, in consultation with the Airport Operator. The nature of the competition, the safety rules in place, and the short-term nature of the event shall be explained to any complainants as required - complaints that relate to noise or nuisance shall be dealt with in a compassionate manner.

A written record of any complaints will be provided to the Airport Health and Safety Officer.

All complaints shall be discussed in the daily debrief and/or following day briefing.

Complaints that relate to perceived safety issues shall be discussed with the affected pilot. All pertinent information shall be recorded ASAP for possible occurrence reporting. The Event Organiser and Contest Director shall determine the need for a CAA Occurrence report and be responsible for submitting this to CAA if deemed necessary.

### Media

All requests for media interviews or comment during the event shall be directed to the Event Organiser or Contest Director in the first instance, who shall together consider requests and brief competition participants on a response.

Any media response following an emergency shall be solely handled by the Event Organiser, Contest Director or NZAC President, unless delegated.

## **Event Commencement**

### **Arrival**

Pilots shall park in the designated parking area, receive an aircraft Technical Inspection, and proceed to the Wairarapa Aero Club for Registration prior to carrying out any aerobatic flying from Masterton Airport during the period of the event.

### **Technical Inspection**

Prior to any competition aircraft flying aerobatic manoeuvres during the event, a technical inspection shall be conducted by a Technical Inspector. The completion of the Technical Inspection shall be recorded on the Competitor Information Form (Appendix 2) by entering the initials of the Technical Inspector – this may be relayed between the Technical Inspector and the person delegated by the CD to carry out Registration.

This check will include an inspection of the aircraft's paperwork showing a valid release to service, and confirmation from a thorough walk-around inspection that there are no obvious defects with the aircraft, and that no non-essential or cross-country equipment remains in the aircraft.

The Technical Inspector cannot check his/her own aircraft.

### **Registration**

At registration, the Contest Director (or delegated assistant) shall confirm all documentation is complete, this Procedures Manual has been read and understood, and will ensure the Competitor Declaration (Appendix 8) is signed, by filling out the Competitor Information Form (Appendix 7).

With all Registration items confirmed complete, the competitor will be given a coloured wristband to be worn for the duration of the event, confirming approval to fly during the event. A pilot disqualified or suspended from competing will have their wristband removed.

### **Box Status**

During periods of use of the Aerobatic Box, per the published SUPP and/or NOTAM, the Contest Director will notify the Box Status as follows:

- A prominent sign visible to pilots in the vicinity of the Starting area shall notify the Box Status throughout the duration of the competition.
- When the sign reads 'Box Active', the following Circuit/Hold/Entry/Exit procedures shall be used, a Spotter shall be mandatory, and radio procedures will be dependent on level of practice/competition.
- When the status is 'Box NOT Active' normal local aerodrome procedures apply, and the pilot is solely responsible for their actions.

## Weather Minima

Minimum prevailing flight visibility 5000m.

The maximum surface wind limits are as follows:

- Average surface wind speed - 25kts
- Box Crosswind components - 15 kts
- Box Tailwind in relation to the main/ x- axis 10kts

The Contest Director may relax the wind limitations stated above in the interests of completing the competition in the time available, in consultation with the Chief Judge.

Minimum cloud base for **unrestricted** competition is 4500'. The minimum cloud base for **any** competition flying is 2500' - an optional 'weather break' will be made available to **all** competitors in a category/sequence should the cloud base restrict operations in the Box and will be notified to all affected competitors by the CJ and/or CD.

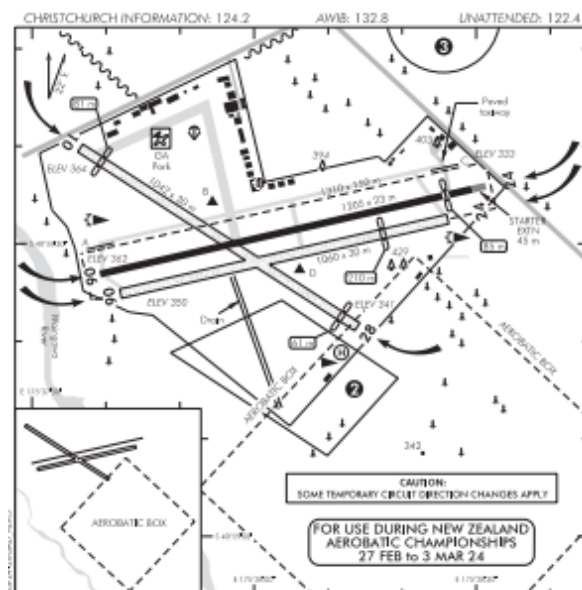
Standard VFR cloud separation minima shall apply:

- Above 3000' - 2km horizontally and 1000' vertically
- Below 3000' - clear of cloud and in sight of the surface.
- It is the PIC's responsibility to ensure VMC is maintained during the flight.

Competition flying shall not take place with drizzle, showers or rain observed or reported in the Box.

## Circuit Procedures

The Aerobatic Box is located within normal aerodrome circuit of several vectors at Masterton. To accommodate practice and the competition, from FEB 26 /1200L to MAR 03/1400L the circuit directions are changed to be on the northern side of the airfield (ref SUPP).



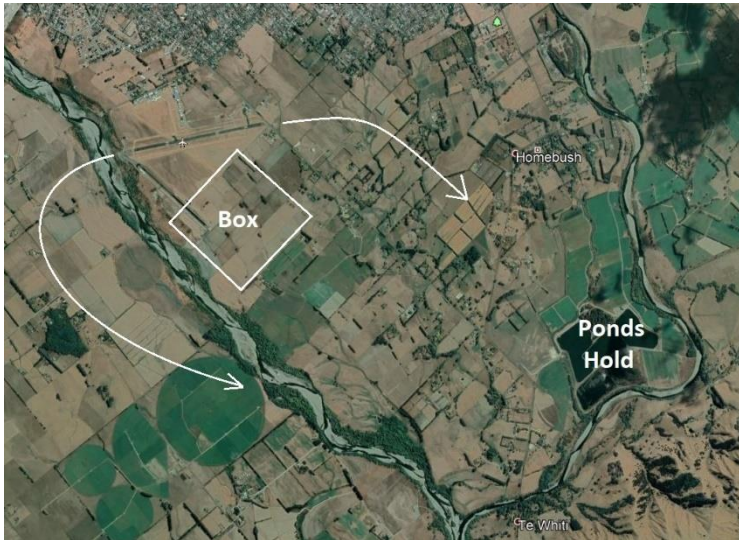


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Extreme vigilance is required by all pilots while entering, exiting, and operating in the Box, maintaining awareness of itinerant aircraft that may not be aware of the event taking place and/or changed circuit procedures. Utilizing a spotter is mandatory when using the Box, for protection against other aircraft infringing the box.

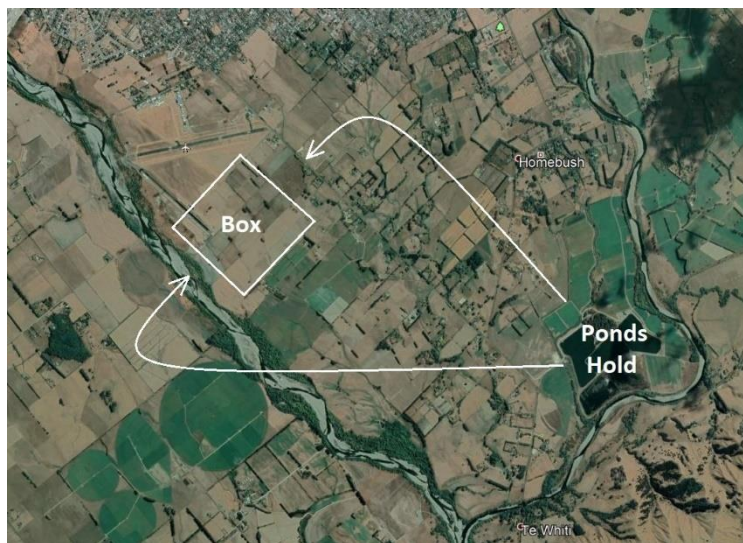
### Holding Area

Aircraft holding airborne awaiting access to the Box shall do so over the 'Ponds', climbing clear of the Box to hold at 4000' or above.



### Box Entry

Aircraft leaving the Holding Area shall proceed directly to the Aerobatic Box, remaining in or close to- the Box to carry out safety manoeuvres prior to commencing the aerobatic sequence. Only enter the Box when entirely sure that the Box is clear of the previous aircraft.



## Box Exit

Vacate the Box, descending and positioning as required to join the Masterton circuit clear of the Box.

Caution aircraft taking-off or vacating the circuit.



## Practice

The Contest Organiser shall ensure that the Event Approval and NOTAM/SUPP covers the period prior to the commencement of competition flying, to allow for In-Box practice - either Casual or Judged, as below.

For any practice prior or during the event, competitors are to be aware that their behaviour and airmanship will be associated with the NZAC and Masterton Aerodrome, and any shortcomings in these areas may be detrimental to the reputation of both organisations.

Practice during the event can be one of three types:

- Away from Box
- In-Box/ Casual
- Judged Practice

## Away from Box

Competitors may practice away from the Box, subject to the following:

- The flight must be conducted well clear of the Box, designated Holding Area and aerodrome traffic circuit.
- During the competition, the Starter is advised of intentions prior to the flight.
- Regular radio calls advising location, altitude and intentions are made on the local traffic frequency for Masterton (122.4).
- A competitor may practice Away from Box at the conclusion of a competition sequence, subject to notification to the Starter or Chief Judge. This, however, is not permitted after the publication of the Unknown sequences.

## In-Box/ Casual

Outside of Judged Practice or Competition flights, In-Box/Casual practice may take place in the Box, subject to the following:

- Aerobatic flight in the Box has been notified by SUPP and/or NOTAM.
- The Box is notified as 'Box Active' by the Contest Director
- A pilot cannot fly in the active Box until Registration has been completed, including signing of the Competitor Declaration, and the pilot has received a briefing on box procedures from the Event Organiser or Contest Director. The briefing may be in a group or one-on-one.
- At no time shall there be more than one aircraft in the Box.
- Competition pilots can use the Box for practice with or without a Critique Coach but must **always** have a Spotter.
- A Spotter with operable radios **must** be assigned and briefed. The Spotter shall monitor the local traffic frequency (122.4) and be able to contact the pilot either directly or through the Critique Coach (if used). In the event of potential conflict, the aircraft in the Box shall be advised directly or through the critique coach to cease aerobatics and maintain separation.
- A Critique Coach may be used, utilising a radio on the Box frequency (128.95) to offer coaching advice as required. The Critique Coach must remain close enough to the Spotter to be quickly and easily notified by the Spotter of potential conflicts.

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- The Spotter and Critique Coach **cannot** be the same person.
- If a Critique Coach is unavailable or not required, the pilot in the Box shall monitor the local traffic frequency (122.4) and listen for Spotter calls and other traffic.
- An Order of Flight list should be maintained in order to manage fair and reasonable use of limited available box-time.
- Pilots must manage their own entry and exit from the Box, but listen out for any potential conflict advice coming from the Spotter.

### **Judged Practice**

Judged Practice can only take place after the initial full Competition Briefing and will therefore operate with the Box Active, a full Judge-line, the use of the Starter, and full Box entry procedures.

The purpose of Judged Practice is for the Chief Judge to ensure standardisation of judging and for all participants in the event to become familiar with the competition procedures.

Competitors will fly their Known sequence as though it is a full competition flight, and Judges will score the sequence in the same manner.

Scores will be recorded on judging sheets, but only for the purposes of discussion between the Chief Judge and Judges - the scores will not be entered into the Scoring System, and the Chief Judge shall not distribute the scoring sheets until after the completion of the competition.

Due to time constraints, Judged Practice may be totally omitted.

## Competition Operations

Prior to the commencement of Competition flying, the Event Organiser shall initiate a briefing, welcome all pilots and competition personnel, and reassert the prime aim of safety of operations.

The Event Organiser shall then introduce the Contest Director, who is responsible for the overall management of the event. This commences with a mandatory Contest Director briefing for all pilots & competition personnel, which shall be undertaken at the start of each competition day.

The entire Daily Briefing must be captured on video, showing all attendees, and the file must be secure kept by the CD following the event.

Attendance at the daily briefing is mandatory. No brief - No fly. In extenuating circumstances & by prior arrangement an individual briefing will be provided but will depend on the availability of the Contest Director during the day.

### Daily Briefing

The briefing includes, but is not limited to:

- Roll call - pilots must answer the roll call in person. Attendance at the daily briefing is mandatory. No brief, no fly. In extenuating circumstances & by prior arrangement an individual briefing will be provided but will depend on the availability of the contest director during the day. A penalty of \$20 may incur.
- Introduction and thanks to any Masterton Aerodrome, CAA and/or NZ Warbirds officials in attendance.
- Introduction and thanks to CJ, Judges, Starters, Contest Jury & other contest officials, using the daily Flight Order (Appendix 8).
- Description of the Aerobatic Box, and Deadline.
- Weather forecast and winds aloft.
- Official wind direction. If the official wind direction subsequently needs to be changed, the Chief Judge will suspend flying and another briefing will be called.
- Parking area procedures and hi-viz vest requirements.
- Starting/Starter procedures (using Starter Checklist – Appendix 4)
- Setting altimeters to Zero feet (QFE) prior to each flight.
- Taxi, take-off (Opposing runways? Under the Box?)
- Noise abatement procedures and location of any noise sensitive areas.
- Traffic pattern for competitors.
- Holding procedures – HASELL checks.
- Radio procedures and frequencies. The competition uses two frequencies:
  - Masterton Traffic / Spotter/ Starter (122.4)
  - Aerobatic Box / Judges / Contest Director (128.95)

Using the discrete frequency (128.95) enables the Chief Judge to not only monitor safe entry & exit of the box, but also guarantees a link to the competition pilot in the

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event of an emergency or intrusion by a visiting or transiting aircraft. Any radio failure, (i.e., transmit or receive), prior to box entry requires an immediate return to landing.

- Recall signal, which shall be the phrase “Break Break Break” and may include information for the break and/or any traffic conflict.
- Low Limits / Disqualification Limits and consequences.
- Optional safety check manoeuvres – per the Rules.
- Scheduling flying of low altitude lines and warm-up figures.
- Aborts by competitors on the ground & in the air – Tech problems & holding area.
- Re-joining procedures. Don't hurry – remember your checks.
- Emergency alternate airports – Papawai, Dannevirke, Palmerston North.
- Official contest hours and curfews.
- Personnel permitted on the judging line.
- Order of flight - flight programmes and pilot draw.

### **Flight Order**

The order of competition flights shall be determined by the CD but should initially and ideally be drawn from a hat.

The order of flights may be altered by the CD if circumstances require, e.g. when two closely drawn pilots are to fly the same aircraft. There should be a minimum of two other flights between flights of the shared aircraft.

The order for Programme 5 (the 4 Minute Freestyle) shall be drawn from a hat.

The daily Flight Order sheet shall be published ASAP after the briefing, showing:

- Day and AM/PM
- Programme/Sequence
- Official wind direction and direction of into-wind flight
- Target Start Time and proposed tea / lunch breaks / other activities.
- Order of Flight
- Admin Roles and assignments

Copies of the Flight Order shall be displayed in the Wairarapa Aero Club building, held by the CD, CJ and Starter and be distributed to competitors via WhatsApp. Attendees are encouraged to take a phone-picture of the Flight Order.

Photos or files of the sequences of all the flights to be flown, ideally in the order of flight, should be distributed to the WhatsApp group for flight-following by interested group members.

Live scoring should be enabled and shared using suitable mediums, and to the Aeroclub bar TV.

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Results and event media should be made available on NZAC social media in a timely manner, for the benefit of the wider membership.

### Judge Line

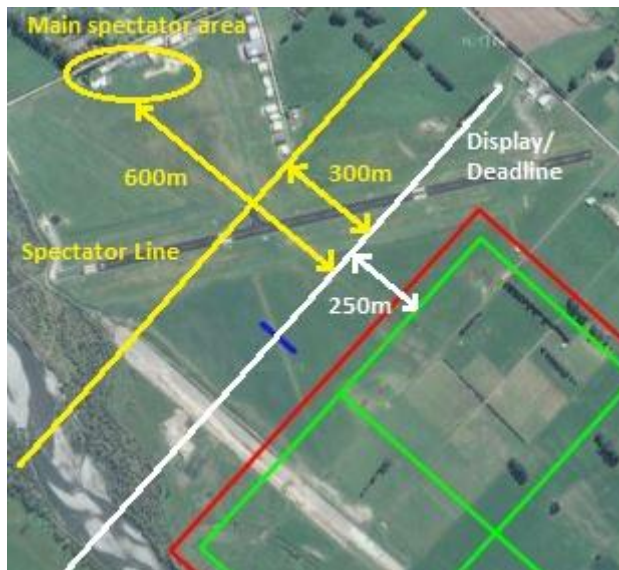
Only those personnel required for Judging (Judges, Scribes, Spotter, Data Entry Administrator, Videographer) shall be present on the Judge Line.

No visitors are allowed to the Judge Line during the flying periods of the competition without the Chief Judge's permission.

During competition flights Judge Line etiquette shall be maintained – there shall be no loud talking or other distractions that may inhibit the communication or concentration of the Judge Line personnel.

### Display Line and Deadline

The AC91-1 Display Line and designated competition Deadline (white line in graphic below) are coincident and positioned overhead the Judge Line location (intersection of white and blue lines), 250m from the marked Box boundary (green line). The Display Line/Deadline is 300m from the Spectator Line, being the closest point spectators may be expected to congregate at the end of the hangar access road, and 600m from the main spectator area in the vicinity of Wairarapa Aero Club.



An aircraft seen to be carrying out any part of an aerobatic manoeuvre that will infringe the Display/Deadline (i.e. behind the Judge Line) will be notified on the Box radio frequency "Break Break Break" and must immediately cease the manoeuvre and return to level flight.

Infringing the Deadline will result in a score of zero being attributed to that figure.

**Box Vertical Limits (AGL).**

Category	Upper Limit (AGL)	Lower Limit (AGL)	Disqualification Limit (AGL)
Primary	3500ft	1500ft	Higher of 1500ft or 1200ft with LLDA
Recreational	3500ft	1500ft	Higher of 1500ft or 1200ft with LLDA
Sportsman	3500ft	1500ft	Higher of 1500ft or 1200ft with LLDA
Intermediate	3500ft	660ft or LLDA limit	Higher of 500ft or LLDA limit
Advanced	3500ft	660ft or LLDA limit	Higher of 500ft or LLDA limit
Unlimited	3500ft	330ft or LLDA limit	Higher of 300ft or LLDA Limit

**Individual Low Limits**

Pilots are encouraged to fly above the Lower Limits and are responsible to ensure they never fly lower than their own individual, approved, lowest level AT ALL TIMES.

- The Lower Limits shall be the higher of the Category or an individual pilot's Aerobatic Rating (1500') or LLDA. E.g., a pilot flying in Advanced with an LLDA of 800' will fly to a Lower Limit of 800', whereas another pilot with an LLDA of 500' will be limited to 660'.
- The Disqualification Limit for a sequence flown in Primary/Recreational/Sports shall be the higher of 1500' or 1200' for pilots holding any LLDA. E.g., a pilot flying with an LLDA of 1000' will be disqualified below 1200', whereas another pilot without an LLDA will be disqualified below 1500'.
- The Disqualification Limit for a sequence flown in Intermediate/Advanced/Unlimited shall be the higher of the category limit or an individual pilot's LLDA. E.g., a pilot flying Advanced with an LLDA of 800' will be disqualified below 800', whereas another pilot with an LLDA of 300' will be disqualified below 500'.



## 2024 Nationals Procedures Manual v1

Each pilot's lowest flyable aerobatic limit shall be noted on Form A for every sequence flown and be announced by the CJ to other judges prior to the commencement of each flight.

Whilst each pilot is responsible to ensure they fly above their lower limit, the CJ must call "Break Break Break" should a pilot be observed flying below their level, disqualify them from completion of the sequence and report this to the CD for further action.

### Sequence Time Limits

Time limits for programmes 1-4 shall be in accordance with NZAC Rules – 6.8, except that the time shall start from when the CJ announces, "Commence when ready".

Time limits for Programme 5 (4-minute Free) shall be in accordance with 6.8.3.

### Communications

Competition pilots and officials are to use good radio etiquette when communicating, including appropriate use of language, knowing that the frequencies in use are public and able to be listened to by others.

The radio frequencies for use during the event are:

- Masterton Traffic frequency      122.4
- Aerobatic Box frequency      128.95
- Alternative Box frequency      128.65 (for congested comms use only)

VHF radios shall be used by the following competition personnel during Competition flying:

- Chief Judge (callsign 'Chief Judge'), who shall always be monitoring the Box frequency (128.95) so as to be able to contact the competitor in the Box quickly, as required.
- Spotter (callsign 'Masterton Spotter'), who shall always be monitoring the local aerodrome/traffic frequency (122.4) and use the callsign 'Masterton Spotter' to clearly identify to all Masterton area pilots the Spotter's location.

UHF radios shall be used by the following competition personnel during Competition flying:

- Contest Director (callsign 'Contest Director', who shall keep an overview of contest operations.
- Chief Judge (callsign 'Chief Judge'), for communications with the CD and Starter.
- Starter (callsign 'Starter'), for communication with the CJ and CD regarding start order and starting issues.

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**Aerobic Box Communications** shall be as per the following chart:

	Location	Freq.	Call	Response	Action
Pilot shall climb to the Ponds holding area and hold / Carry out HASSELL checks / NO aerobatics. On reaching the Ponds holding area...					
1	Ponds Hold	122.4	Pilot "Masterton Traffic, XYZ at the Ponds, Holding at (4000)"	None	Monitor frequency to hear previous pilot report "Clear of the Box"
2	Ponds Hold	122.4	Pilot "Masterton Traffic, XYZ at the Ponds at (4000), transiting to the Masterton Aerobic Box, changing to Box Frequency"	None	Transit to Aerobic Box
3	Box	128.95	Pilot "Judges, XYZ entering the Box"	Judges "XYZ, Roger, do not commence"	Pilot readback "XYZ Do Not Commence", Enter the box and carry out safety manoeuvres
Pilot positions aircraft to the Box and carries out the approved safety manoeuvres, then positions to a start position outside the Box and waits for Chief Judge's call to commence. When Chief Judge is ready for commencement...					
4	Box	128.95	Chief Judge "XYZ, Commence when ready"	Pilot "XYZ commencing"	Pilot commences sequence (wing-wag)
If, for any reason, the Chief Judge wishes to cease the flight...					
5	Box	128.95	Chief Judge "BREAK BREAK BREAK – (nature of break)"	Pilot "Copy break"	Pilot stops aerobic flight and receives information
If, for any reason, the Pilot wishes to break – wing-waggle if possible, and...					
6	Box	128.95	Pilot "XYZ Weather / Tech Break"	Chief Judge "Copy weather / Tech break"	Pilot advises/receives information
At completion of competition sequence, carry out a wing-waggle, and...					
7	Box	128.95	Pilot "XYZ Complete and vacating the Box"	Chief Judge "Roger"	Pilot changes to local frequency
Pilot enters local circuit area...					
8	Circuit	122.4	Pilot "Masterton Traffic, XYZ Clear of the Box, [report intentions] ...."	-	Pilots enters circuit with standard calls

**Note** - After take-off, a pilot may omit Item 1 and 2 and proceed directly to the Aerobic Box if it is clear the Aerobic Box is vacant.

### **Daily Completion and De-brief**

At the conclusion of every competition day, the Event Organiser or Contest Director shall change the Box Status notification to 'Box NOT Active'.

A daily debriefing will be carried out by the Contest Director with the Chief Judge and other officials as deemed necessary – attendance by the pilots is not required.

- The days flying will be reviewed, with a particular emphasis on safety issues and 'lessons learnt'.
- Any issues raised should be discussed and if applicable, the item added to the next day's daily pilot briefing.
- The plan for next day's flying, including a review of weather predictions, will be discussed.

### **Competition Wrap Up**

At the conclusion of the competitions, a team is sent to recover the markers and to ensure they are washed and dried as required.

Any borrowed equipment is returned.

Landowners are visited and thanked.

Sometime after the event, the Event Organiser shall convene a de-brief of the event with relevant event personnel and the airport operator, to determine the effectiveness of event procedures and future changes required.

Within 30 days of the end of the event, NZ Warbirds (as issuer of Event Approval) shall be provided with a written summary of the event, which shall include any issues or incidents encountered.

## Emergency Plan

This Emergency Plan will be used in the event of an incident or emergency at any time during the Nationals.

There are two principal incidents or emergencies that must be considered:

1. Preventative, where a pilot experiences a problem such as control lock or disorientation, or aircraft intrusion into the competition area; or
2. Post impact, after an incident or accident has occurred.

### Preventative

1. The person in radio contact with the pilot (Chief Judge, Critique Coach or Spotter) shall establish from the pilot the nature of the problem and assist with problem solving and suggesting options. This may be enough.
2. Technical or technique assistance may be sought and offered.
3. If required, emergency services on 111 shall be contacted by the CJ or CD.
4. If required, the Starter, Spotter or the closest person shall locate the fire extinguisher from the Start Area or Judge Line and prepare to proceed to the incident or emergency site in order to provide immediate assistance.
5. At the conclusion of a reportable incident the Contest Director, event Organiser or NZAC President will contact the Civil Aviation Authority on 0508 ACCIDENT (0508222433) and notify the Masterton Aerodrome Operator and/or Health and Safety Officer.

### Post-Impact Emergency

1. The Starter, Spotter or nearest person shall take the fire extinguisher and wire cutters from the Start Area or Judge Line and proceed to the incident or emergency site to provide immediate assistance.
2. Emergency services shall be immediately contacted on 111 by the CJ or CD.

Check access & advise the best vehicle access to the aircraft location.

3. The Contest Director, Event Organiser or Club President will contact the Civil Aviation Authority on 0508 ACCIDENT (0508222433) to report the incident/accident and notify the Masterton Aerodrome Operator and/or Health and Safety Officer without delay.

**Other considerations**

1. Any other competition aircraft airborne at the time of an emergency shall be contacted by the Spotter to advise nature of emergency, determine fuel state and offer return-to-land or diversion considerations.
2. No aircraft involved in an accident will be moved without the express consent of the Civil Aviation Authority unless to preserve life or protect the aircraft, contents, or wreckage from further damage. Move only so far as to ensure its safety and if possible, take photographs and notes of original positions and impact marks to assist any investigation and evidence collection.
3. Any incident or accident that occurs during the Nationals that relates to the event, including near misses or airspace infringements, will be reported to the Civil Aviation Authority, whether or not club member aircraft are involved. The Masterton Airport Operator and/or Health and Safety Officer shall also be notified.
4. Unless otherwise expressly deputised by the Event Organiser or NZAC President, only the Event Organiser, Contest Director or NZAC President is authorised to liaise with the emergency services, CAA or the media.

## Appendix 1

### Event Sanctioning

The President of the New Zealand Aerobatic Club hereby confirms that the

**2024 NZAC National Aerobatic Championships**

as described in the associated event Procedures Manual is sanctioned by the Committee of the New Zealand Aerobatic Club.

Signed  Date 10 January 2024

Name Morris Tull

President – New Zealand Aerobatic Club

## **Appendix 2**

### **Event Approval**

## Appendix 3

# Risk Assessment – 2024 Nationals

### CRITERIA USED FOR ASSESSMENT

Risk is defined by the following formula:

$\text{Risk} = \text{Severity of Hazard} \times \text{Likelihood of the occurrence}$
--

This formula is used in the Risk Assessment Matrix to determine the level of risk involved with each identifiable hazard. It is also the prescribed formula used in AC91-1.

The **Severity** of a hazard is assessed under the following criteria:

Trivial	Minor Injury	Serious Injury	Single Fatality	Multiple Fatality
1	2	3	4	5

The **Likelihood** of a hazard occurring will be assessed under the following criteria:

Improbable	Possible	Quite possible	Likely	Highly likely
1	2	3	4	5

There are five general considerations that are observed when identifying hazards for risk management. These are also stated in AC 91-1. These will be applied to the Risk Management Plan for NZAC Nationals. These considerations are as follows:

1. Identify the activities associated with the event that have hazards and where the hazards occur.
2. Identify those at risk and how they may be harmed.
3. Identify existing precautions.
4. Evaluate the risks. (This will involve a combination of the likelihood and severity of the identified risk).
5. Decide what further mitigation may be required.



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The values determined in the data will set a grade that corresponds to a level of risk, associated to each hazard that is identified. The hazard and its outcome will be compared with a set of judgment statements set out by CAA NZ in AC 91-1. (See chart below). This will ensure the level of risk identified is of an acceptable level approved by the Competition Director for compliance to the Civil Aviation Act

		CONSEQUENCE				
		Insignificant C1	Minor C2	Moderate C3	Major C4	Catastrophic C5
LIKELIHOOD	Almost Certain L5	Medium 5	High 10	Critical 15	Critical 20	Critical 25
	Likely L4	Low 4	Medium 8	High 12	Critical 16	Critical 20
	Possible L3	Low 3	Medium 6	Medium 9	High 12	Critical 15
	Unlikely L2	Low 2	Low 4	Medium 6	Medium 8	High 10
	Extremely Unlikely L1	Low 1	Low 2	Low 3	Low 4	Medium 5

	Consequence Severity Level				
	Insignificant	Minor	Moderate	Major	Catastrophic
Safety of Flight (Aircraft Operations)	Nil safety impact. Deviation managed by crew using standard procedures. Negligible impact upon objectives	Minimal safety impact. Managed by crew using standard procedures. Minor effects that are easily remedied with minor impact on objectives.	Partial loss of aircraft system. Potential to impact safe operation. Managed by crew using non-normal procedures. Objectives affected.	Complete failure of aircraft system. Deviation impacting continued safe operation, managed by aircrew using non-normal procedures.	Significant damage or total loss of aircraft.
Airworthiness (Engineering)	Deviation rectified using standard procedures.	Redundancy in place. Deviation requires minimal rectification.	Deviation requires rectification or extensive trouble-shooting to return to service.	Deviation requires consultation with Airworthiness Controller / Manufacturer.	Safe operations are in immediate jeopardy. Deviation has potential to directly cause aircraft accident.
Health and Safety	Insignificant slight pain and or discomfort. No first aid treatment required.	Recoverable / superficial injury requiring first aid. No medical treatment.	Injury / illness causing temporary disability requiring medical treatment.	Injury / illness causing permanent disability and / or requiring hospitalisation.	Fatality and / or permanent significant disability.
Legal / Compliance	Breach of single internal standard operating procedure and/or policy. No regulator involvement.	Minor breach of legislation regulation / rule. Regulator observation.	Breach of legislation, regulation / rule. Regulator issues, improvement notice or findings.	Major breach. Regulator issues improvement notice, findings, cease activity directive, potential fines.	Serious / prolonged litigation. Suspension of certification. Potential fines and / or prosecution.

Level	Likelihood Description	Probability
Almost Certain	Regular or often. Is expected to occur; inevitable.	More than 75%
Likely	Frequent or periodical. Not surprised if it happens.	25 - 75%
Possible	Occasional. Might occur in some circumstances.	2 - 25%
Unlikely	Infrequent. May occur, but only in exceptional circumstances.	0.1 - 2%
Extremely Unlikely	Remote. Theoretically plausible but not expected to occur.	Less than 0.1%

## Identified Risks for 2024 Nationals at Masterton Airport

Hazard	Severity	Likelihood	Rating	Mitigation	Mitigation Factor	Final Rating
Foreign objects jamming controls or causing distraction during aerobatics	4	3	12	A technical inspection is done immediately on aircraft arrival and before any practice aerobatics is done	Reduces likelihood to 1.	4 Low
Aerobating aircraft impacts with spectators.	5	2	10	Aerobatic area is at least the minimum distance from public areas as required by CAA AC91-1.	Reduces likelihood to 1.	5 Medium
Fire or spillage of fuel/oil near spectator area	3	2	6	Refueling at least 15m from public. Fire extinguishers available. Refueling conducted in accordance with CAA AC091-22.	Reduces Severity to 2.	4 Low
Risk to public from rotating props, moving aircraft	4	3	12	Public area well clear of aircraft parking. Parking monitors to ensure no public entry unless supervised.	Reduces likelihood to 1.	4 Low
Competition pilots not adhering to display area or minimum heights	5	2	10	Procedures Manual guidance. Daily brief. Pilots are current and practiced. Spotters and judges on field to ensure aerobatics remain inside the 'Box'.	Reduces likelihood to 1.	5 Medium
Itinerant aircraft infringe the circuit and aerobatic area while competition in progress	5	3	15	SUPP/Notam issued and any intruding aircraft warned by Spotter on local freq. that aerobatics are in progress. Judge has contact with display aircraft	Reduces likelihood to 1.	5 Medium

Hazard	Severity	Likelihood	Rating	Mitigation	Mitigation Factor	Final Rating
Aerobatic 'box' in normal circuit area creating possible collision hazard with itinerant aircraft	5	2	10	Spotters used. Local operators & nearby users advised of procedures. SUPP/Notam issued to raise awareness and to change circuit directions.	Reduces likelihood to 1.	5 Medium
Parachutists infringing aerobatic area and landing when props turning.	3	3	9	Liaison/direct communication with parachuting operator/s to ensure aerobatics in Box suspended and props stopped while parachutes are descending.	Reduces likelihood to 1.	3 Low
Member of Public enters the Aerobatic Box exclusion ground area.	1	3	2	Aerobatic Box is placed over private property with limited/restricted access.	Reduces likelihood to 2	2 Low
Gathering of people at events increases the risk of spreading Covid-19, or other infectious diseases.	4	2	8	People who are unwell should not attend. Hand sanitiser should be provided	Reduces likelihood to 1	4 Low

## Appendix 4

### Starter Checklist

This checklist is used to assist the Starter to safely and expeditiously start the competitors, and to maintain a good flow rate. It bears in mind the stress on competitors and includes 'the little but easily forgotten' items.

Conversation and intrusion by the Starter must be kept to a minimum, to affect the competitor's mental preparation as little as possible.

The Starter shall ensure each competitor is physically and mentally prepared 10 minutes before the estimated start time, in the correct or amended order of flight in consultation with the Chief Judge.

#### 10-15 minutes prior to start:

1. Is the competitor making preparations for flight?
2. Does the competitor have their wristband?
3. Is a Safety Pilot needed and ready?
4. Has the refuelling and pre-flight inspection been completed?

#### 5 minutes prior to start:

1. Safe place to start? Caution prop blast - no canopies open behind.
2. Competitor strapped in, ready for engine start?
3. Walk around the aircraft to check if there is anything obviously wrong with the aircraft? Tied down / control locks or pitot covers left on/ not refuelled / fuel caps left off/ oil door open/ flat battery / radio issues. If so, advise CJ and modify the flight order.
4. Is there anything about the competitor (stress, sickness), or the weather that warrants stopping the flight?

#### START – Ask these questions:

1. ***“Show me your wristband”*** – check pilot has completed registration.
2. ***“Are you ready, how are you feeling?”*** Is the pilot stressed, overheating, or thirsty? Offer shade or umbrella or wind through cockpit.
3. ***“How much fuel and oil have you got?”***
4. ***“Altimeter set to zero”*** (QFE)
5. ***“Are you strapped in correctly? No loose articles or phones?”***
6. ***“Confirm controls are full and free”***.
7. ***“Do you have your correct sequence card?”***
8. ***“Radio Frequencies?”*** Local traffic 122.4 / Box 128.95, confirm the box procedures.
9. ***“Confirm the official wind direction and into wind direction of flight”***. Correct them if they are wrong.
10. ***“The holding area is The Ponds, which runway do you intend to use?”***
11. ***“The aircraft ahead of you is ... Remember to lock your canopy and do your HASELL and BUMPF checks. We wish you well and a safe flight”***.

Wait and observe the start of the aircraft; it is the last chance to check for stress / unusual pilot behaviour / problems with the start or distractions. Note the start time for flow rate planning.

## Appendix 5

# SUPP (example)

20/24

NZZC

**Masterton AD (NZMS) – New Zealand Aerobatic Championships**  
**Effective: 27 FEB to 3 MAR 24**

Considerable aerobatic aircraft activity between 600 ft and 5000 ft AMSL can be expected in the local Masterton area, particularly in the competition Aerobatic Box immediately to the south-east of Masterton aerodrome, between the hours of 1200 and 1900 NZDT on 27 FEB, 0800 and 1900 NZDT from 28 FEB to 2 MAR 24 inclusive and between the hours of 0800 and 1400 NZDT on 3 MAR 24.

All circuit directions are changed so that for ALL runways the circuit is to the NORTH of each vector, effective from 0800 NZDT on 27 FEB to 1400 NZDT on 3 MAR 24 inclusive — see attached aerodrome detail.

All visiting pilots must contact the aerodrome operator at least a day prior to the planned flight.

All non-competition aircraft should remain well clear of the competition Aerobatic Box and join only from the north of the airport and directly into the circuit where able, and not from the overhead/nontraffic/southern side of the airport.

**NOTE:** Departures from RWY 10 and arrivals to RWY 28 should be avoided as this will conflict with the Aerobatic Box.

Circuit or proximate aircraft using aerodrome frequency 122.4 MHz may receive information from contest personnel advising activity taking place.

Pilots operating, visiting, proximate and/or NORDO aircraft at Masterton aerodrome during the promulgated period should contact the Contest Director for a briefing prior to arrival or departure.

Contest Director: Morris Tull 021 02401094 / Andy Love 021 2179170  
 Airport Manager: David Hayes 027 6060190  
 Safety Office: Karen Williams 027 944 0122



1. Circuit:  
 Sealed RWY 06 – Left hand    Grass RWY 10 and Grass RWY 06 – Left hand  
 24 – Right hand    Grass RWY 28 and Grass RWY 24 – Right hand
2. Model aircraft flying takes place in this area on the southeast sector of aerodrome. A red flashing beacon atop their clubrooms indicates when in operation.
3. Model aircraft flying takes place in this area up to 400 ft AGL.

## Appendix 6

### Warning Flyer (example)



# Masterton Airport



## CAUTION

### February 26<sup>th</sup> – March 3<sup>rd</sup>

#### 2024 National Aerobatic Championships

## REMAIN CLEAR OF THE SOUTHERN SIDE OF THE AIRPORT

Extensive aerobatic flying will be taking place immediately to the SOUTH of RWY 06/24 from 600' to 5000' AMSL - refer to SUPP/NOTAM

### LISTEN OUT ON 122.4 FOR AEROBATIC TRAFFIC UPDATES

If you need to join to land at Masterton, DO NOT join overhead or via the (temporary) southern 'non-traffic' side. |

DO join straight-in or downwind. (Transiting traffic remain well clear.)



Contact Contest Director, Mo Tull  
for more details: Ph 021 02401094



## Appendix 7

### Competitor Information Form

Filing in this form shall be commenced at time of Entry and completed at Registration.

The wristband shall only be issued when all items are complete.

#	Name	Category	Rego	Subs paid	Entry Paid	BFR/Aero Bi-annual	Medical	LLDA	Insurance	Tech Inspection	Wristband number

## Appendix 8

### Competitor Declaration Form

During Registration at the event, the competitor is required to acknowledge, by signature, the Competitor Declaration below:

#### Competitor Declaration

Event: 2024 Nationals

I, \_\_\_\_\_ (competitor):

1. Have read, fully understand and will abide by the competition Procedures Manual and the Rules of the New Zealand Aerobatic Club, accepting the decisions of the Contest Director and Chief Judge as final.
2. Will comply with all applicable Civil Aviation Rules and fly in a disciplined and safe manner, recognizing that any unnecessary endangerment may result in my expulsion from the competition and club, and may elicit CAA or Police enforcement action.
3. Confirm I am fit and able to fly, with all the required qualifications, and that my aircraft also meets all standards of airworthiness for its intended use.
4. Will not hold the organisers, officials, hosts or NZ Aerobatic Club liable for any damages caused by my conduct.

Signed:

Witnessed:

Date:

Date:



## Appendix 8

### Daily Flight Order sheet (example)

<b>2024 Nationals</b>		
<b>Flight Order – Thursday AM</b>	Official wind direction	<b>E</b>
Target Start Time: 10:00 NZDT	Direction of into-wind flight	<b>W</b>

Flight 1 - Known

<p><b>Unlimited</b></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> </ol> <p><b>Recreational</b></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> </ol> <p><b>Intermediate</b></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> </ol>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Judges:</td> <td style="width: 50%;">Scribes:</td> </tr> <tr> <td>(CJ)</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table> <p>Data Entry:</p> <p>Spotter:</p> <p>Starter:</p> <p>Parking:</p>	Judges:	Scribes:	(CJ)					
Judges:	Scribes:								
(CJ)									

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LUNCH BREAK - AGM

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## Appendix 9

# Volunteer Roles & Responsibilities

### Starter

Thank you for volunteering to assist with organizing, dispatching, and ensuring the safety of starting of the pilots prior to their competition flights - your time is really appreciated.

Please attend all pilot briefings so you know the official wind direction and any changes to the procedures throughout the day. If unsure, ask someone. As some competitors may have a downwind start, ensure you are clear which way the official wind direction is (note, it will be on flight order list) e.g., "The official wind is from the East so the into wind flight direction is to the East/town."

The philosophies and rules behind this process are many.

Our club ethos is to try hard to help the competitor have a successful, safe, and hence fun competition flight. They have put a lot of time, money, and effort to being here. We are not here to trip them up, so we want you to correct them if they are wrong with any aspect of their flight preparation.

The competitor's safety, your safety, the safety of the parked aircraft and safety of the others around including the public are your responsibility.

Obtaining event approval from NZ Warbirds is based on our procedures manual which specify the use of a starter and a starter checklist, which you must use.

It is easy for the pilot to get stressed by the pressure of a competition flight, so it is your job to make this process safer by preparing the pilots in sufficient time and calming them down, so they do not make mistakes. It is normal for humans to make some mistakes and a checklist is a proven way of trapping those mistakes. Use your judgement and the checklist to fix the errors. The pilots will thank you for it.

Ensure your own safety by wearing the hi-vis jacket and keep looking around for threats such as moving aircraft or propellers etc. Keep yourself hydrated, sun-protected, wear a hat, and if you are feeling tired or sunburned, ask for a break.

Look out for the safety of the aircraft, especially any open or unlocked canopies or doors, as these are expensive and will ground the aircraft from competition if damaged by being flipped open or slammed shut by prop blast. You are also protecting other aircraft, hangars, and people against the propeller blast from the aircraft you are starting and hence we must push the aircraft out to a safe starting area and ensure the direction they will turn after starting is safe for other aircraft. The same considerations apply when they taxi in - they

## 2024 Nationals Procedures Manual v1

should stop clear, keep their tails pointing away from other aircraft and be pushed back on to the parking line. Be firm on this. If required, find a parking assistant.

Be careful not to drop your radio, checklist, or other items on to the starting aircraft, thereby possibly damaging it.

Watch out for anyone wandering around or towards any starting aircraft and please keep control of the public where possible.

You will be using a UHF radio to coordinate with the Chief Judge so please be efficient, correct, and clear with your calls. Put the radio on charge at every break or opportunity. Your call sign is STARTER, the others are CHIEF JUDGE and CONTEST DIRECTOR. If you have any problems with your radio or need to communicate with discretion, use your mobile phone to call the CJ or CD.

Ideally every pilot should have a paper list of the day's start order. When you give the pilot the details of who they are following, please include as much as possible for example, "you are following Steve in the Yak, YKV, he is currently holding over the Ponds."

Again, we really appreciate your help by volunteering for this role.

### **Parking Monitor**

Thank you for volunteering to assist with the aircraft parking. You will have plenty of opportunity to watch the competition flights if you organize your tasks between flights.

The Parking Monitor is responsible for ensuring competition aircraft and other aircraft are correctly parked in a safe and orderly manner throughout the event, to minimise the risk to spectators and non-competing aircraft and providing visibility and photo opportunities to the public.

Please assist the Starter to move aircraft into the safest place for starting, and, on an aircraft's return, to stop them in a safe position and help push them to their parking spot.

Use your judgment to identify any threats to other aircraft or people and use your initiative to find solutions.

Canopy safety is a constant threat, so watch out for open canopies or unlocked canopies that may slam shut or blow open either due to the wind or propeller blast.

Some aircraft may have only one pilot and may only fly once or twice during the day so they can be parked near the fence for the public to view. Aircraft that have multiple pilots will be departing multiple times so they should be kept at an appropriate place on the flight line.

Assist the starter to ensure starting aircraft do not blast their prop wash over other aircraft, open canopies, or flight controls from the rear.

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Work with the aircraft's pilot to pull or push only from the recommended points on the plane, ensure the magnetos or ignition has been switched off before pulling any aircraft by the propeller.

We appreciate you volunteering to assist with this role. Please look after your own safety with sun block, a hat and keep yourself hydrated. Many thanks from the pilots.

### Spotters

Thank you for volunteering to be Spotter; this is an important role to be the eyes and ears for the competition pilots when they are focused on their competition aerobatic flying.

The Spotter's duties are to keep a lookout for any aircraft that may create a conflict with competition aircraft, particularly in the aerobatic Box, and to keep the Chief Judge informed of any conflicts or threats.

The Spotter will be on the airfield frequency (122.4) with an aviation band radio so you will need to be a pilot with a radio licence. Please use good aviation communication etiquette as you are representing our club when you make any calls.

You should be on the lookout for NORDO aircraft or aircraft that have not read the NOTAM and are blundering towards the aerobatic Box or joining the airfield unaware of our event. There are many eyes on the aerobatic Box already and so the Spotter's role is to be visually scanning the rest of the sky and horizon and listening for any radio calls rather than observing the competition flight in the Box. This is difficult as we have come to watch aerobatics, but remember what important and critical safety role you are performing.

Please use your judgement to determine if an itinerant aircraft is posing a real threat to the competition flight – if it is obviously going to remain well clear, keep monitoring but let the CJ and Judges get on with their jobs without distraction. However, if you perceive a developing situation, advise the Chief Judge immediately if you think a conflict will result so he/she can break the competition flight off.

the Spotter is not a licenced Air Traffic Controller therefore you cannot issue clearances; however, you can offer recommendations or advice (but not 'traffic information', defined as specific aircraft type, bearing and altitude information). The Spotter shall attempt to establish radio contact with any aircraft threat before they get close and offer recommendations or advice.

Some suggested advice examples are:

- ***“Aircraft inbound Masterton, aerobatic competition per the SUPP is in progress South of 06/24 - please remain clear of the Aerobatic Box”.***

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- ***“Aircraft joining Masterton, aerobatics in progress south of the airport, suggest you join left-hand circuit from the north for RWY 06 - wind from the east – but remain well clear of the Aerobatic Box”.***
- ***“Aircraft transiting Masterton, aerobatics in progress south of the airport up to 5000’ - suggest you transit well clear to the north of the field”.***

We appreciate you volunteering for this role, please look after your own safety with sun block, a hat and keep yourself hydrated. If you feel tired or have a flight yourself, please speak up and then we can replace you. You can take a break but it is essential to have continuous spotter coverage to meet the rules of the event.

Many thanks from the pilots.

### **Scribes**

Thank you for volunteering for a role on the judging line - you are in the best place to see the action and learn a lot.

We will try to start you on the lower categories to learn the craft of judging from hearing the judges doing their job.

We encourage standardisation of judging remarks, which you will note down on the score sheets. To assist you, we encourage a shorthand technique as follows, so that when the competitors are given their scoresheets, they can understand and learn from the comments of the judges. If you can't keep up with the comments, don't worry - drop them but ensure you capture the scores.

It is best to sit down wind of the judge you are scribing for, to hear them better, and please ask if you need them to speak louder.

You will have score sheets organised on a clipboard in order of flight - please check the pen works and there is a spare available. Be careful moving the paperwork on the clipboard to not lose any papers in the wind!

We appreciate you volunteering for this role. Please look after your own safety with sun block, a hat and keep yourself hydrated. If you feel tired or have a flight yourself, please speak up so we can replace you.

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Here is the suggested shorthand for remarks:

CL	Climbing (when should be level)
D-	Descending (when should be level)
+↑	Positive up or more on wheels attitude
-↑	Negative up or more on canopy attitude
+↓	Positive down
-↓	Negative down
EH	Exit high as in loop exited higher than when it started
EL	Exit low as in loop exited lower than when it started
DLW	Dragging left wing (add + or – for up or down)
DRW	Dragging right wing (add + or – for up or down)
-45	Shallow 45
+45	Steep 45
+R	Long line after roll
-R	Short line after roll
PT	Pinched top as in loop was egg shaped
PTL	Pinched to line (at the bottom of loop)
P1/4	Pinched 1 <sup>st</sup> quarter of radius (or whichever quarter e.g.P4/4)
F@3	Flat at 3 o'clock (or whatever o'clock the competitor is flat at)
VR	Varied rate
OR	Opened radius, as in "opened radius at 4 o'clock" or OR@4
CR	Closed radius, as in "closed radius at 2 o'clock" or "CR@2"
O	Ovalled
FO	Flew over as in a stall turn too fast
TQ	Torqued off heading
NP	No points obvious in hesitation roll
NH	No hesitation obvious in hesitation rolls
OVR	Over rotated
UR	Under rotated
AFT	After
LOW	Low as in below category allowable altitude
LOW LOW	Competitor appears to be flying very, very low.

Suggested shorthand for positioning comments;

L	Somewhat left of ideal position
R	Somewhat right of ideal position
N	Somewhat too near to the judge
F	Somewhat too far from the judge
LL	Considerably left of ideal position
RR	Considerably right of ideal position
NN	Considerably too near to the judge
FF	Considerably too far from the judge
BH	Behind the judges. Discussion will be had if figure was started behind the judges for scoring.

### **The Box Markers Team**

We appreciate your help putting out the corner and centre markers for the aerobic Box.

Ideally groups of three people and a vehicle for each team can put out the box markers.

Prior contact and permission from the landowners should have been done before the event, but please be polite, considerate, and thankful to any landowner you come across.

Ensure you have the bins with the box markers before heading out.

There should be a printed Box marker map with the coordinates for each group.

There should be a printed list of the landowners, address and contact phone numbers so permission and access can be efficiently located.

Noting the roads or homes you use to get to each box marker location with save time for the collection and future.

The app 'AKROBOX' or "Commander Compass" can be downloaded and used with a data-enabled and GPS-enabled a smart phone to locate the box positions.

Other Apps using Google maps, topographical charts and coordinates should be trialled and programmed before heading into the field.

The white vinyl covers used for the box markers should be securely fixed with as many rocks, tires and/or timber boards to keep them from blowing away in any wind.

On completion of the competition, the box markers should be collected, washed, and dried before storing in the plastic bins. If possible, leave a flag or markers or rocks to assist locating the position for next time.

Any damaged markers should be noted to the Contest Organiser for repair or replacement.

Thanks for your help.