



## **Aoraki Dragon Boat Association Incorporated**

**(in affiliation with NZDBA)**



# **Water Safety Protocol**

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## 1 Introduction and Scope

- 1.1** Dragon boating is an 'Assumed Risk Water Contact Sport' that may carry attendant risks. Participants should
- be aware of and accept these risks;
  - be responsible for their own actions and involvement; and
  - fully understand that they have a duty of care towards other participants in the sport.
- 1.2** Each Dragon Boat team is responsible for knowing and adhering to the local Dragon Boat Association regulations, especially those applicable to water safety.
- 1.3** There is the risk of personal injury from collision and the risk of drowning when dragon boat crews find themselves in the water. All risks are heightened in cold water. While contending with difficult weather conditions is part of the sport, safe enjoyment of the sport is the aim - personal safety must be paramount.
- 1.4** Each club/crew is responsible for assessing the risks in its particular environment and in establishing the appropriate safety procedures to minimize those risks. Nothing in this document in any way limits an individual's responsibility for assessing his or her personal skills and for the outcome of his or her decisions and actions.
- 1.5** In all cases of accident involving injury or property damage a representative of the club/crew, or event organizers shall notify the Local Dragon Boat Association in writing immediately.
- 1.6** Additional safety requirements specifically for festivals and sport races are set out in the Rules of Racing. Arrangements must be made to meet all Safety Requirements in order to obtain sanction to hold the festival/race.

## 2 Definitions

- Water venue: any body of water (including a river, lake or harbour) where dragon boating training, practice or racing is performed.
- Club/crew: comprises of a minimum of 15 financial Individual members. The Club/Team will have applied for membership to the Association in accordance the constitution and will have paid the annual membership fee.
- PFD: Personal flotation device, such as a life jacket or life vest.

Local Association: The local Dragon Boat Association or Festival management (such as Aoraki DBA or Auckland DBA)

### 3 Responsibility for Safety

**3.1** Each local Association shall appoint a "safety advisor" who shall ensure that an appropriate safety program is implemented in accordance with the guidance provided in this Guideline.

The safety advisor is responsible for managing (ie logging and minimising) any foreseeable hazards (as per section 7 "Hazards") and managing risks (as per section 8).

**3.2** The manager of each club/crew shall

- familiarise themselves with the safety measures described herein, and
- ensure the safety rules (as outlined in the "Safety Waiver") have been read and understood by each individual team member.

**3.3** Each member of a crew/team shall:

- ensure they act safely and without risk of injury to themselves or other dragon boaters
- ensure they use safety devices when required, and follow the appropriate procedures and instructions
- remain familiar with and actively participate in safe practices, hazard and accident reporting
- eliminate or minimise hazards that can be easily fixed.
- Notify the Association's "Safety Advisor" (see above) of any hazards that require more substantial management.

### 4 Local Safety Code

**4.1** Since conditions vary from location to location, each location used for water events or training shall display a Local Safety Code, covering such matters as the following.

- A plan of the local water showing the traffic circulation patterns, local rules of river/water use, hazards and safe landing sites in the event of an emergency
- Circumstances in which there must be a safety boat attending any dragon boaters
- Equipment that a safety boat is required to carry
- Equipment that a dragon boat must carry

either when accompanied by a safety boat or not (if the latter is permitted)

- Responsibilities of paddlers, sweeps, callers, and coaches. These can include checking the safe condition of equipment before taking it on the water, familiarity with the local weather use rules and procedures on the water such as remaining within a certain distance of the safety boat
- Procedures in the event of a crew member ending up in the water
- Weather conditions under which dragon boaters should not venture on the water such as high wind, poor visibility and ice conditions
- Cold water rules
- Competency requirements of safety boat operators, if applicable
- Guidelines relating to dragon boating before sunrise and prior to sunset
- Boat/Clubhouse rules
- Use of an out/in logbook

## 5 Operations

The following rules shall be observed by any Dragon boat team training or racing under the local Association's jurisdiction.

### **Before the event (practice or racing):**

- 5.1** Water events should be coordinated with those of other local water users to minimize clashes of interest and the possibility of additional water hazards arising.
- 5.2** Each person in the boat must
  - be able to swim from any point in the race or practice course to the shore (and ideally at least 50m) in light clothing,
  - be sufficiently at ease in the water not to panic and
  - be able to keep afloat.

If a person cannot meet this requirement for physical or other reasons, an approved PFD should be always be worn when on the water.

Any competitor under the age of 12 years old must wear an approved PFD when on the water.

Note Maritime NZ Advisory Circular 91 "Matching PFDs to the Activity" describes how NZS5823, allows the use a PFD which best suits the type of activity. So for a Dragon Boat, which could trap a paddler underneath in a capsize, a Type 403 buoyancy vest provides adequate flotation while allowing the

wearer to escape. Inflatable jackets are often are the most comfortable.

- 5.3** Sweep should wear a high visibility vest and/or belt whenever in the boat.
  - 5.4** Sweep and Caller should wear a PFD at all times when on the water (particularly in open or coastal waters), as should the coach and safety boat drivers and their passengers.
  - 5.5** Paddling before sunrise and after sunset is discouraged, particularly where there are other vessels using the waters at those times, and should not be practiced without bright navigational lights and an accompanying safety boat. Remember that an incident such as capsizing after sunset is difficult to deal with in darkening conditions.
  - 5.6** Coaches shall ensure that those in their charge are informed of safety procedures and abide by them. Coaches should be aware of the forecast weather and should evaluate the environmental conditions before deciding, in light of the crews' capabilities and limitations, whether it is safe for the crew to go out on the water.
  - 5.7** Clubs should provide adequate instruction in watermanship and paddling technique, plus adequate supervision by coaches and experienced paddlers to ensure that no person boating from the club/crew puts themself at risk when on the water. This applies particularly to participants under the age of 18. Inexperienced sweeps should only be allowed out in boats if accompanied by an experienced coach. All active members should learn and practice capsize and accident drills.
  - 5.8** Crew members should be actively encouraged to be trained in lifesaving and resuscitation procedures. In particular it is highly desirable that the Club Safety Advisor and all regular club coaches should be so trained.
  - 5.9** The local Association and the Clubs will treat the coaching of Sweep and their education in watermanship and good safety procedures as being as important as coaching the paddlers. Sweeps should receive a full education in safety procedures and boat handling.
- When loading the boat:**
- 5.10** Before loading the boat a responsible person shall be nominated, who shall give clear commands for a balanced and proper entering of the crew, and their behaviour while on board.
  - 5.11** A maximum of 22 persons are permitted in the boat. Training may not proceed with less than fourteen paddlers in the boat.

**5.12** Each crew member shall load onto the boat and sit down immediately (with 'paddles on the water') to help to balance the boat.

**5.13** Once the boat is loaded and stable, the crew shall take their paddles out of the water so that the sweep can verify the boat is balanced. Before leaving the loading area, paddlers may be swapped from left to right to keep the boat on an even keel.

**5.14** Before leaving the loading area each crew should 'number off' from the front of the boat.

Each member of the crew should be made aware they are responsible for the person they are paired with (across the boat) and that in the event of a capsize, their first responsibility is to ensure their partner is safe and well.

The 'Stroke Pair' (No.2 left and 3 right) in the boat will 'Buddy' with the caller, and the 'rear pair' (last two paddlers) buddy with the Sweep (22).

The shore coordinator should note the number in each crew. A logbook can be used to log crew members out and in, particularly when they are allowed to paddle unsupervised.

#### **Once the Dragon Boat is under way:**

**5.15** The sweep shall maintain a watch for all other craft in the water, including other Dragon Boats, canoes, kayaks or other recreational or powered vessels. They shall also maintain a watch for swimmers.

**5.16** Dragon Boats must give way to, and stay at least 200 metres from, all other moving sea vessels when in a harbour.

#### **In case of capsize or accident:**

**5.17** If one or more boats capsizes in a regatta, race or training (a) any trailing dragon boats that are on course for the area of the capsize should come to an immediate halt, and (b) the safety boat's first role is to sound a warning, and head off any boats that are on a collision course with the capsize.

**5.18** In case of accident, participants should stay with the boat rather than attempt to swim to 'safety', no matter how strong a swimmer they may be. The boat, unless seriously damaged, can be considered a life raft.

Do not scramble at the sides of the boat as this will keep it spinning, endangering others.

**5.19** Each crew member should immediately look after their 'buddy'. Crew members should **not** swim under an overturned boat **unless** their buddy is suspected of being inside **and** they have informed someone they are going under.

**5.20** The sweep shall call for the crew to “number off”, identifying any crew (or pair) unaccounted for. A “buddy” advises the sweep of injured/ distressed/ or missing paddlers by raising their hand

**5.21** Once all crew are accounted for (or identified as missing), the crew shall spread either side of boat. Once the crew is ready and settled, the sweep calls for the boat to be gently rolled (corrected upright with gunwale/gunnel up, and keel down) – this is to ensure no one is trapped underneath, and minimise tendency for boat to roll.

**5.22** Put any injured or weakened team members into the boat. This also allows the boat to be more easily towed back to shore.

**5.23** If the water is cold, crew should get as much of their body out of the water as possible by draping themselves over the upturned hull. Crew should also be instructed to “buddy-up”, two holding on to each other until rescued to provide mutual support and to help ensure that all are accounted for.

**5.24** All teams should undergo a capsize drill before competing in an event, but only if the drill can be performed in a controlled environment where the risk of injury is negligible. Refer to Appendix 2 for Risk Management techniques.

A capsize practice shall only be performed;

- in good weather conditions (warm air/water, no wind)
- in safe, placid and clean water. That is no other boating activities taking place, no currents, weirs etc.
- when a safe exit from both the boat and the water is possible, and a safe recovery of the boat is possible.
- when the boat is checked for risks. For example, no sharp edges, no ropes to tangle swimmers (but fit a tow rope).
- at least one rescue boat standing by and additional help is on hand, including a trained first aiders with experience of dealing with water sports.

The date and time of the drill will be allocated by the local Association, who will ensure the rescue craft operator is in attendance. Team members must comply with any directions given by the Water Training Supervisor and rescue craft operator during the course of the drill.

### **Operation of Support boats**

**5.25** Motorboat drivers must be competent to control the boat so that it does not become a danger to the

crew(s) or others, and must comply with Operator Competency certificate requirements.

**5.26**

One Rescue Boat should be provided for every three dragon boats Racing or Training to give a minimum of two (2) boats per event. Each boat should be capable of holding up to eight people and should be of a design that will enable people to gain access to the boat, from the water, unaided. One Rescue Boat (which may also act as an Umpire's boat) should follow each race down the course.

## 6 Emergency Communication

**6.1**

A list of vital telephone number should be displayed prominently in every water venue to include:

- Doctor/Ambulance/Police/Fire Department
- The nearest medical centre or doctor's rooms
- Local hospital casualty department
- Local river or harbour authority or police
- The emergency service that can provide the quickest on-water response

If there is no telephone readily available at the boat/clubhouse, clear directions to the nearest available telephone must also be displayed.

Emergency communication from the water should also be considered, whether by two-way radio or cellular phone.

## 7 Hazards

**7.1**

Hazards can include swift currents, spring run-offs, bridges, weirs, shoals, deadheads, rocky shores or steep walls or banks that make getting out of the water difficult or impossible in an emergency, and recreational and commercial traffic including float planes.

Attention should also be drawn to any variation in normal procedures that may be necessary due to the state of the tide or stream, high wind or other climatic conditions. It is intended that local codes of practice will emphasize that safety is paramount.

## 8 Risk Management

**8.1**

Before each Dragon Boat season, the local Association shall review the level of risks associated with each major activity undertaken. For example, they will review all the known risks (from the previous year's experience) relating to training sessions on the river, or for transporting boats long distance.

- 8.2** Each risk shall be quantified in terms of the likelihood of a bad outcome (ranging from “almost incredible” to “almost certain”), and then in terms of the consequence (from “insignificant” to “catastrophic”). The local Association’s Board shall define which combination of parameters is acceptable, and which risk must be ‘treated’ until they become acceptable. Refer to Appendix 2 for definitions, and acceptable levels.
- 8.3** An important risk management process that applies to all aspects of dragon boat operations is to ask “what if...” a certain situation arises – what might the consequences be and how can such consequences be prevented? If the consequences could be serious even if the likelihood of a situation arising is considered remote, the situation should be avoided or precautions taken to be able to mitigate the consequences.
- 8.4** A vital component of assessing the possible consequences of a situation or incident and of taking appropriate avoidance measures or precautions is the coldness of the water. Submersion in cold water is extremely dangerous, causing a swimmer to lose heat far more rapidly than exposure to cold air. Depending on the coldness of the water, loss of muscle function and mental confusion can occur within minutes. See the paragraphs below on Cold Weather and Water.

## **9 Safety Equipment and Safe Equipment**

- 9.1** Safety and first aid equipment shall be readily available at every venue, and will include:
- First aid kit (to be fully stocked and regularly checked)
  - Thermal blankets/exposure bags
  - Life rings/buoy and line
  - Personal Flotation Devices (PFD)
- 9.2** Regattas and Festivals should also be supplemented by contracting a First Aid supplier, such as St John Ambulance, or Red Cross.
- 9.3** Clubs/crews should ensure that all equipment used for dragon boating and coaching is safe and maintained in good order. Every dragon boat should have:
- Lights when paddling in reduced light
  - Bailing vessel
  - PFD of appropriate size for each individual in the boat
  - A sound signalling device
  - Throw Lines

- 9.4** In practice a coach boat is also frequently the safety boat. Any coach boat on the water can provide a measure of safety, but the term safety boat is used in this Guideline to indicate that the boat has designated “safety” duties, such as remaining within a certain distance of the boats it is accompanying, and must carry specific safety equipment, even if it is also acting as a coach boat.

Coach/safety boats should be equipped with safety equipment such as a medical kit, thermal blanket and hand pump.

Coach/safety boats should provide for easy entry from the water (e.g. step, ladder or handhold). Where motors are equipped with a kill switch, the switch must be attached to the operator.

Coach/safety boats and their engines should be properly maintained since failure, particularly at a critical time, could have serious consequences.

## 10 Boat Transportation and Storage

- 10.1** A dragon boat is typically 12.5m long, 1.2m wide, and weighs at least 250kg.
- For long distance trips, use only closed container or trailers specifically equipped to support a dragon boat.
  - The trailer or container must support the weight of the boat every 4m, preferably directly above the Bulkheads.
  - Remove the Head and Tail before transportation.
  - Remove all loose equipment in the boat during transportation.
  - Use at least two lateral fastening straps to secure the boat on the trailer.
  - Provide two additional diagonal fastenings on both sides to prevent the boat sliding during acceleration or braking.
  - Any parts of the boat which overhang the outer shape of the trailer shall be marked (flagged) in accordance with the traffic rules.
- 10.2**
- Support the boat(s) on shelves or racks suitable for the weight of the boat.
  - To avoid the boat sliding or falling, fasten down the boat to the shelves/racks.

## 11 Cold Weather/Water and Hypothermia

Preparation and prevention are essential in protecting against the effects of the cold-water environment.

- 11.1** All persons should wear protective clothing appropriate for the conditions and their activity, and as far as possible commensurate with the needs of the paddling motion and activity, with the objective being to keep the body dry and to insulate against heat loss.
- Long trousers are not permitted in the boats (as they restrict swimming) - shorts or wetsuits are most appropriate.
- 11.2** When the water temperature is at 10 degrees Celsius or below, or otherwise when the environmental conditions may warrant, special safety precautions, proposed by the club/crew safety officer, should be considered. Possibilities for additional safety precautions include:
- Allowing crew to go out on the water, where appropriate, only if attended by a safety craft.
  - Not allowing crew to go out on the water
- 11.3** Alcohol inhibits the body's ability to cope with the cold. No alcohol is to be consumed within the 12 hours before the use of a Dragon Boat.

## 12 Hot Weather and Hyperthermia

- 12.1** As with cold weather, preparation and prevention are important in protecting against the effects of heat.
- All persons should wear protective clothing appropriate for the conditions and their activity.
  - Use of sun block with high SPF.
  - Drink plenty of water before, during and after exposure to hot weather.
  - Address any symptoms of heat stress immediately.

## 13 Off-site boating (training camps)

- 13.1** If a club/crew conducts dragon boating activity at a location away from the club/crew premises the same safety issues set out in this Guideline need to be addressed afresh.
- 13.2** An adequate number of coaches should accompany the crew(s) to provide supervision and meet any safety needs.
- 13.3** Information should be obtained about local water conditions and hazards, traffic patterns, vital telephone numbers and local safety and rescue arrangements in the case of accident.
- If using the facilities of another club/crew this information should be readily available and should be studied. Local equipment, coach/safety boats,

safety and first aid equipment should also be assessed for its condition and adequacy.

- 13.4** If the location is remote from another club, this information should be obtained from local residents and from a visual inspection before crews take to the water. In addition, the club/crew should bring or obtain its own safety and first aid equipment to address its safety needs such as PFD's, medical supplies and safety boats.

Particular care must be taken about weather and water conditions when paddling on unfamiliar water.

- 13.5** It is prudent for all participants taking place outside their province to obtain travel medical insurance coverage.

## 14 Interpretation

- 14.1** Words importing masculine general shall import feminine gender.

- 14.2** "Rules" means the Constitution and Rules of the local Dragon Boat Association.

Meri Gibson  
President

Noel Anderton  
Secretary

Peter Mitchell  
Events Manager

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## App 1: Part 91 Maritime Rules

### 91.4 Personal flotation devices

- (1) No person in charge of a recreational craft may use it unless there are on board at the time of use, and in a readily accessible location, sufficient personal flotation devices of an appropriate size for each person on board.
- (2) Rule 91.4( 1) and (6) **shall not apply to** -
  - (a) any surfboard or similar unpowered craft; and
  - (b) any sailboarder or windsurfer, if a wetsuit is worn at all times; and
  - (c) a diver on a boat of 6 metres or less in length overall that is used for recreational diving within 5 miles of shore, if a full body dive suit is worn at all times; and
  - (d) a person training for or participating in a sporting event, if the training or the event is supervised in accordance with the safety system of a national sporting organisation approved by the Director;** and
  - (e) a member of a visiting foreign watersports team, if the person carries or wears a personal flotation device that is approved by the competent authority for use in that person's country of residence.
- (3) The Director may approve a national sporting organisation for the purposes of rule 91.4(2)(d) if that organisation has in place a safety system that the Director is satisfied provides an equivalent level of safety to the carriage or wearing of personal flotation devices.
- (4) Subject to rule 91.4(5), rule 91.4(1) shall not apply in respect of any sporting event, training activity or ceremonial event if a support vessel that is capable of providing adequate assistance in the event of an emergency remains in the immediate vicinity of the recreational craft and the recreational craft or support vessel or both carry personal flotation devices or buoyancy aids of an appropriate size for each person on board the recreational craft.

In this rule buoyancy aid means -

  - (a) a buoyancy aid as defined in NZ Standard 5823:1989 or NZ Standard 5823:2001; 1 or
  - (b) a buoyancy aid that the Director is satisfied substantially complies with the standard prescribed in paragraph (a) and that provides a minimum of 53 newtons of buoyancy.
- (5) Rule 91.4(1) and (6) shall not apply in respect of any sporting event, training activity, ceremonial event, or other organised recreational activity if the regional council with jurisdiction for the applicable region has granted an exemption in writing. A regional council may grant an exemption for a specified period if the regional council is satisfied that adequate safety precautions are made for rescuing any person participating in the event or activity.
- (6) Despite rule 91.4(4), no person in charge of a recreational craft may use that craft in circumstances where tides, river flows, visibility, rough seas, adverse weather, emergencies or other situations cause danger or a risk to the safety of persons on board, unless every person on board is wearing a properly secured personal flotation device of an appropriate size for that person.

1 NZS 5823:1989 and NZS 5823:2001 define a buoyancy aid as any device designed to assist a person to remain afloat in water until rescue is effected. Any type of buoyancy aid categorised in the Standard meets the requirements of this rule.

## App 2: Risk Management – probability, consequence and treatment

### Probability

For each identified hazard provide a qualitative or, if possible a quantitative assessment of the likelihood of occurrence, based on these criteria. Consider how often an “undesirable outcome” would occur per festival, regatta or training night.

Likelihood:	Almost incredible	Rare	Unlikely	Possible	Probable	Almost certain
Probability/ session (eg regatta or training night)	Less than once per 1000 sessions	Once per 1,000 to 10,000 sessions	Once per 100 – 1,000 sessions	Once per 10 - 100 sessions	Once per 1 to 10 sessions	More than once per session

### Consequence

Impact on	Cat 6	Cat 5	Cat 4	Cat 3	Cat 2	Cat 1
	Insignificant	Minor	Moderate	Significant	Major	Catastrophic
Customer	A small number of complaints from paddlers.	Several paddlers/ teams complain.	NZDBA is critical of local association.	Teams refuse to pay fees etc	Some teams set up a renegade organising body.	All paddlers defect to another organising body.
Financial Perf	Loss < \$50	\$50 – \$100	\$100 - \$500	\$500, - \$1,000	\$1,000, - \$10,000	>\$10,001
Health and Safety	A minor injury.	Some minor injuries.	Many minor injuries or a few serious injuries.	Some serious injuries.	A fatality or many serious injuries.	Multiple fatalities.
Legal	Minor legal issues, non-compliance and breaches of regulation.	Serious breach or a report with prosecution and/or a moderate fine a possibility.	Statutory breach punishable by a fine not exceeding \$1,000.	Statutory breach punishable by imprisonment or a fine in excess of \$1,000	Proceedings resulting in significant re-organisation and dismissals	Proceedings resulting in the abolition of the Board
Public Reputation	Brief adverse local media cover	Persistent adverse local media cover	Adverse local media cover where ADBA is associated with organisations in disrepute.	Adverse regional media coverage or short term adverse national media cover	Adverse international or sustained adverse National media cover	Sustained adverse international media cover concerning

### Acceptability

Once probability and consequence are assessed, the degree of risk acceptability can be determined using the acceptability table below.

Severity of Event → Probability of Event ↓	Cat 6	Cat 5	Cat 4	Cat 3	Cat 2	Cat 1
<b>Almost certain</b>	D	B	A	A	A	A
<b>Probable</b>	D	C	B	A	A	A
<b>Possible</b>	D	D	C	B	A	A
<b>Unlikely</b>	D	D	D	C	B	A
<b>Rare</b>	D	D	D	C	C	A
<b>Almost incredible</b>	D	D	D	D	C	B

Legend:

**A**: Unacceptable.

**B**: Undesirable but acceptable with explicit Board approval.

**C**: Acceptable with Board approval.

**D**: Acceptable