



# **International Water Ski & Wakeboard Federation**

## **OFFICIAL SAFETY MANUAL AND POLICY HANDBOOK**

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### 0.00 PREFACE

This Official Safety Manual (OSM) of the International Water Ski and Wakeboard Federation (IWWF) is written to address the safety requirements for the operation of tournaments sanctioned by IWWF. It is designed to cover both general and sport-specific procedures and policies. The general sections of this manual pertain to all sport divisions of IWWF. Where indicated, some procedures and policies pertain to specific sport divisions. The following sport division descriptions are used throughout the manual to identify the sports divisions.

#### **Water Ski Three Event/Tournament**

**Barefoot**

**Wakeboard**

**Racing**

**Disabled**

**Cable Wakeboard**

**Cable Ski**

**Show Ski**

All sections of this manual are general in nature and apply to all IWWF Ski Tournaments for all Sports Divisions, unless otherwise indicated.

**NOTE: See individual sport division rule books for specific safety rules and requirements applicable to sport division events. Additional sport division safety rules must be followed, including any amendments which supersede the information contained in this OSM. If sport division-specific language differs from or contradicts the general provisions of this manual, the sport division-specific language shall be followed for that particular sport division's tournaments.**

### USA NATIONAL SAFETY COUNCIL DEFINITIONS

**SAFETY** - "The control of recognized hazards to attain an acceptable level of risk."

**RISK** - "Measure of the probability and severity of adverse effects."

### 1.00 PURPOSE

Safety is everyone's responsibility. It is "Rule One". It is an attitude in which everyone assumes responsibility for their own equipment, safety and well being and looks out for the safety and well being of others as well. This manual identifies standards and procedures supporting the appropriate official tournament rule book. The Safety Director should rely on these and all available resources, as well as common sense and practical experience, in performing in the capacity of Safety Director. Safety Directors should be trained in First Aid/CPR.

### 2.00 INTRODUCTION

The OSM is designed to assist all tournament participants and the Safety Director in assuring that skiers, riders, and officials are protected from danger, risk and injury to the extent possible during a tournament. Both general and specific guidance is provided. Some specific details in this manual will by necessity vary to suit the peculiarities of each site and the demands of competition.

### 3.00 HOST TOURNAMENT RESPONSIBILITIES/PREPARATION

Safety preparations for a tournament should begin well before the tournament day arrives. At least two months before the tournament, the Tournament Committee shall appoint a Safety Director, who will appoint such assistants and/or other safety officials as necessary. Additionally the sponsor will appoint swimmers, safety boat drivers, and workers as needed.

The Safety Director shall participate with the organizers to ensure compliance with all basic safety requirements, including any applicable requirements set forth in any safety checklists that may be in effect and applicable to the event, such as the following:

- Locate safety equipment, forms, checklists, maps, first aid station, and phone numbers of law enforcement, emergency medical services, hospital, etc.
- Make sure that all required and recommended safety equipment, as listed on any safety equipment checklist, is on site
- Make sure that adequate medical personnel and transportation to medical facilities are on site or can be available within a reasonable period of time (5-10 minutes is generally recommended)
- Make sure there is an adequate safety boat or PWC (Personal Watercraft), available if/as needed (see section below regarding safety boat design, although there are many different and alternative designs which may be suitable)
- The procedure for shore swimmers, boat/swimmer combinations, and the use of safety boats/PWCs should be established in consultation with the Safety Director.
- Confirm that there is a means of communication available for Safety Director, Chief Judge, and Safety Crew.
- Notify local emergency and regulatory authorities of the event and its location, if appropriate for the specific event (e.g., special requirements reflecting the number of participants in an Show Ski event, etc.), including what will occur and what will be needed.

#### **4.00 SAFETY DIRECTOR'S RESPONSIBILITIES**

The Safety Director is responsible for enforcement of the applicable Tournament Rules as they relate to safety for the specific sports division involved in any activity. Any infractions of these rules must be communicated immediately to the Chief Judge so that appropriate action may be taken. The Safety Director shall be responsible for oversight of the safe condition of all equipment, facilities, and operation of the competition, and (in consultation with the Chief Judge) have the authority to stop competition whenever he/she feels an unsafe condition exists. The Safety Director should also be aware of weather conditions. The Safety Director, along with the Chief Judge, will be responsible to delay or call off the tournament if a potentially dangerous situation exists. The Chief Judge may overrule any contemplated action or decision of the Safety Director.

Prior to day one (the first day) of the tournament, the Safety Director should:

- a. See that Assistant Safety Directors or other safety personnel are appointed as needed.
- b. With the Chief Judge, monitor the host club's pre-tournament compliance with the requirements of this OSM and any sport division-specific safety rules.
- c. Identify tasks and needs involving tournament safety:
  1. Check the competition area to be sure it is free from potentially dangerous obstacles and/or hazards, if not, mark them.
  2. Make sure that the jump as well as sliders, kickers, buoys, markers, etc. meet IWWF specifications.
  3. Make sure that performance platforms, starting docks, refueling area meet IWSF specifications and can hold mass numbers of skiers, riders, and equipment where needed.
- d. Confirm all sport-division safety rules which will be applicable to the event.

Prior to the start of the competition the Safety Director should meet with the all of the Appointed Officials and go over the emergency procedures established in the event of an injury.

#### **4.01 Site Inspection:**

General - The Safety Director should survey the tournament site to check the following:

- a. Take-off and landing areas to see that they are free of rocks, glass, and/or other hazards.
- b. General hazards such as judges' towers and stairs, spectator bleachers, boat launching ramps, moorings, and re-fueling areas.
- c. All other hazardous objects not specific to the operation of the tournament, should be removed or rendered safe. If that is not possible these hazards should be marked in manner to distinguish them from ski course markers, and the skiers, riders, and officials warned of their existence.

## **Ramp inspection:**

The Safety director's site survey should include an inspection of the jump ramp, sliders, kickers, and/or other obstacles for damaged surfaces, aprons, exposed nails/bolts, and sharp edges. The jump ramp should be inspected after any accident occurs which may damage the surface, side curtains or structure of the ramp, to determine if any changes have occurred which might create a hazard to further jumping unless eliminated.

## **4.02 Safety Crew:**

**4.02.1** The Safety Director shall provide the safety crew the following:

- a. Review of:
  1. duties
  2. use of spine board
  3. use of flotation device
  4. cervical immobilization device (CID)
  5. safety boat operation/swimmer positioning
  6. instruction in rollover and basic water rescue techniques
- b. A review of emergency procedures in the event of an accident.
- c. Identification of location of all safety equipment and first aid facilities.
- d. Discussion of any possible problems that might arise and needs such as maps and phone locations, alternate personnel positioning.

The safety personnel, in cooperation with the Chief Judge, are responsible for the safe operation of the tournament.

## **5.00 EQUIPMENT**

On each day of a tournament the Safety Director and all safety personnel should be at the site at least one hour prior to the first event. They should verify procedures, division of duties, set up inspection stations, check for last-minute changes, check that safety radios are working and that all safety duty stations are covered.

### **5.01 Equipment Approval:**

#### **Skier responsibility:**

**Each skier or rider will be solely and personally responsible for the quality of safety of his/her equipment.**

All equipment of all participants may be inspected to insure that no obvious hazards are observed. If hazards are observed the skier or rider is responsible for all necessary repairs. This should be done each day of the tournament. In all cases the skier or rider shall initial the running order next to his/her name (or an appropriate document) to indicate that his or her equipment has been self inspected and they are satisfied with its condition, or it has been inspected by the safety director. At the request of the sponsoring club, and with the approval of the appointed judges a "formal" inspection of personal equipment may be conducted. If this option is used the equipment will be clearly marked and the dock starter will check for such markers before allowing a participant to ski. Such a marker however does not release the skier or rider from responsibility for the condition of his/her equipment.

**Tournament officials will not repair skier's equipment.**

#### **5.01.1 Skis:**

The ski or wakeboard should be smooth with no splinters, gouges, or sharp edges cracks or delaminations that render the ski unsafe which might cause injury. Fins should be firmly attached without protruding fasteners and must not be cracked, or broken, and should not protrude above the fin block without protective covering

#### **5.01.2 Bindings:**

Bindings (including sit ski cages and slings for disabled skiers) should be firmly attached to the skis. Torn bindings shall be called to the skier or rider's attention. In severe cases, where mechanical integrity may be

compromised, the equipment will not be allowed to be used. Quick release binders shall be in good working conditions.

#### **5.01.3 Screws:**

Screws are to be checked and no loose screws shall be permitted. Sharp heads, fittings, exposed bolts or nuts, including wing nuts, which might cause injury shall not be permitted.

#### **5.02 Safety Apparel:**

Additional safety apparel is strongly recommended by the IWSF:

- a. Jump pants, specially designed, which protect the skier from forceful injection of water during falls and seated landings.
- b. All known non-swimmers must wear an approved flotation device in all events.
- c. Personal Protective Equipment and flotation devices shall be of non-inflatable design, meeting the following specifications:
  1. They must be of a smooth, soft material not likely to cause injury in a fall.
  2. They must be fastened in such a manner that they are unlikely to be torn loose, so as to render them useless in a hard fall.
  3. They must float the skier or rider.
  4. They must be constructed so as to provide adequate protection from impact damage to the ribs and internal organs.
  5. Life belts shall not be considered adequate protection in this respect.

Approved PFD's (e.g., ISO, US Coast Guard, etc.) are strongly recommended. At the skier or rider's own personal risk, he/she may wear a non-approved device, such as a neoprene, nylon (or similar material) covered suit or vest specifically designed by a manufacturer for that purpose (if it does not violate the laws where the competition is being held). All flotation devices must be capable of floating the skier or rider. Trick skiers (Water Ski Three Event/Tournament) may elect not to wear a flotation device, at the skier's own personal risk.

**5.02.1 Protective Head Gear:** Protective head gear must be worn whenever required under the applicable sport division rules. Protective head gear is defined as an article of apparel whose manufacture and use is solely for the purpose of protecting the head from injury. It is recommended that such head gear be constructed of high impact material and have a three-point chin strap suspension, be non-bucketing, and be of good fit.

#### **5.03 Ropes and Handles:**

All ropes and handles must meet any applicable sport division rules and specifications, and must be free of signs of excessive wear. Areas of note are the splices, loops and knots.

##### **Three Event Specific:**

Ropes and handles should not contain any knots that were not specifically inserted by the manufacturer as part of the original rope and handle design.

##### **Wakeboard Specific:**

Ropes and handles may contain knots that were not specifically inserted by the manufacturer as part of the original rope and handle design.

### **6.00 SAFETY EQUIPMENT AND PERSONNEL**

#### **6.01 Safety Boats**

##### **6.01.1 Purpose:**

The purpose of the safety boat is to help injured skiers and riders, and to clear the course of dropped skis, boards, or floating debris with maximum safety and minimum interference with the event progress. At least one safety boat shall be used during all events unless the Chief Judge and the Safety Director agree that they are not necessary.

In the event safety boats are not used, safety swimmers will be positioned on the shore and wearing a personal flotation device at all times. Personal Water Craft (PWCs) may be used as an aid for shore swimmers.

Safety boats should not be used as pick-up boats for uninjured skiers or riders who are able to swim out of the course and to shore. It is imperative that the safety boat be ready for immediate use should an accident occur.

The safety boats are under the direction of the Safety Director in coordination with the Chief Judge.

#### **6.01.2 Design:**

A great variety of designs are suitable for safety boats. The following features are desirable:

- a. Capacity: Space for 5 people comfortably.
- b. Power: Sufficient power to allow adequate acceleration without the bow riding high in the air.
- c. Free Board: A low freeboard with an open foredeck.
- d. Length: About 5 meters (approx. 16').
- e. Stability: The safety boat should be stable enough so that the eight of a person on the side will not tip the boat.
- f. Where safety boats to be used the sponsor should supply one low-sided safety boat with adequate power for the use of the Safety Director and / or first aid personnel.
- g. The boat shall be equipped with a satisfactory backboard and adequate personal flotation devices.
- h. The safety boat will be at an easily accessible, designated position and will be manned by a competent operator at all times during competition.
- i. Smoking is not allowed at any time in any official tournament boat(s). (Tow boats or safety boats.)
- j. Only designated persons may occupy a safety boat.

#### **6.01.3 Positioning:**

Proper positioning of the safety boat is important, but may be dependent on the activity and sport division involved in the event.

In general, the safety boat should operate outside of any courses, across from the approximate center. The safety boat shall maneuver so that the bow is continuously pointed into the course to minimize back wash, always keeping well clear of the competition area and skier's path to avoid any condition that would be unfair or not safe. Skiers and riders should be asked to swim out of the course when possible to expedite pick-up and reduce wake. Safety boats, except when going to the aid of a fallen skier or rider, always travel parallel to the course and not across the course.

Safety boat personnel should be alert at all times. If a skier or rider falls, the safety boat should move in immediately to evaluate the individual and equipment if there is not an immediate hands-up sign of "OK". Any cast-off equipment (such as a dropped trick ski) should be picked up before the next pass.

The greatest risk of personal injury often occurs in water three event jump events. Positioning of the safety boat shall be such that it does not interfere with the skier's path, either over the ramp in a jump effort or a balk. While this is applicable to most sites, the disposition and designation of the safety boat will be determined by the wake dispersal peculiarities of each site, as well as the position of the ramp, relative to the shore. Positioning of the boat should be such that the driver has the skier in sight at all times and can anticipate a possible fall by observing the skier's attitude on and over the ramp. Should a fall appear inevitable, the safety boat should not wait for the hands-up "OK" signal, but move toward the skier. In the event of a hard fall, the safety swimmer should always get into the water. This is of particular importance in events where verbal assessment of the skier may be difficult due to handicap or language difference. If sufficient personnel are available, an additional swimmer in the safety boat is preferable.

#### **6.01.4 Towboats:**

All towboat safety equipment must be functional, including a working bilge blower and a fire extinguisher. All towboats should be equipped and operated in accordance with the manufacturer's recommendations. Any weights added to the boat should be done within the manufacturer's specifications, and in accordance with any applicable sport division rules.

## 6.02 PERSONNEL

### 6.02.1 Drivers:

Safety boat drivers' availability is the responsibility of the tournament sponsor. Sufficient drivers and relief drivers must be appointed and available to the Safety Director, to assure that fatigue does not reduce efficiency. Drivers appointed should have competition driving experience whenever possible and be thoroughly familiar with the site.

Rarely is there need for more than one safety boat to attend to an injured skier or rider. The intent is to supply assistance to the skier or rider with dispatch, but without risking a collision with the skier or rider or another boat. This applies to the towboat(s) and a secondary safety boat(s).

No Driver shall pick up a skier, rider, ski, rope or any other item from the water with the ignition on.

### 6.02.2 Swimmers:

Designated swimmers, boat or shore, need to have reviewed with the Safety director or assigned assistants the safety procedures outlined in this manual (and as instructed in any applicable safety directors training clinic). This review should be done before the event(s) to which the swimmers are assigned.

Each designated swimmer in the safety boat, towboat, or on shore must wear an approved (ISO, US Coast Guard, etc.) personal flotation device at all times and be prepared to enter the water. If available, swimmers with water rescue and basic first aid training are preferred. **It is strongly suggested that all swimmers and safety personnel be formally trained in First Aid/CPR and techniques to stabilize and backboard a contestant in the water.**

It is recommended that the safety swimmers be located in the following areas:

- a. In the tow boat if the room is available and the Chief Judge and Chief Safety Director agree.
- b. On Shore, only if the distance is not too great as to make it difficult for the swimmer to reach the Chief Safety Director.
- c. In an LOC supplied safety / rescue boat that can be positioned out of the way of the skier and towboats. This will also have to be decided by the Chief Judge and Chief Safety Director.

The swimmer should jump into the water to assist the fallen skier or rider. It is important that the swimmer jump (rather than dive) into the water so that the injured skier or rider can be kept in view at all times.

### 6.03 Equipment:

Each safety boat shall carry, or have quick access to, the following standard equipment:

- a. A suitable back (spine) board (6' x 18" maximum size, minimum four straps or equivalent).
- b. One immobilization device for the neck/head, preferably of the C.I.D. (cervical immobilization)
- c. Tools that can easily cut through towlines, straps, etc.
- d. A two-way radio, worn by the driver of a safety boat or one of the swimmers, that is in direct communication with the Safety Director.
- e. A basic first aid kit with triangular and adhesive bandages.
- f. An extra flotation device.
- g. Fire extinguisher.

Duplicate safety equipment is recommended for each safety boat used. A basic checklist should be provided and safety crews are to review it before the start of their event. Other equipment strongly recommended to be available: additional spine board, blankets, towels, gloves, splints for arms and legs, short and long, wood or air, an additional cervical collar, and pocket mask. These items should be used by qualified personnel only.

## 7.00 WATER RESCUE

A water skier or wakeboard rider may sustain any kind of injury in a fall. It is imperative that the unconscious skier or rider receive assistance with cautious urgency.

### **7.01 Signals:**

A fallen skier or rider must clearly signal that he/she has not been injured. If a signal is not given, the safety crew must assume that the skier or rider is injured and move in immediately.

The signal by which a fallen skier or rider indicates that there is no injury, is to wave both arms above the head with the hands clasped.

This signal indicates the skier or rider is OK and does not need assistance. If this signal is not given, then the safety boat or club pickup boat should assume the skier or rider is injured and move in to evaluate. Some skiers and riders may take a moment or so to assess themselves before giving the OK signal and the pick-up boat crew must make a judgment. In such cases the safety or pick-up boat crew may begin to idle towards the person. Utmost urgency is only demanded for unconscious skiers or riders and those unable to keep their airway clear and above water.

A dazed or confused skier or rider may thrash about in the water with the arms above the head in such a way that may be mistaken for an OK signal or an OK signal may be given out of sheer habit but the skier or rider may actually be injured. In either case the safety crew must decide. If there is not a purposeful and clear cut signal given, the safety boat must respond. This signal may not apply to jumpers wearing arm slings. The tournament or show shall be stopped while the safety crew is providing care to an injured skier or rider.

### **7.02 Medical Emergencies:**

In the event of an accident, the Safety Director and safety personnel must be prepared to be first responders. All Safety Directors should be trained in First Aid and CPR; however due to staffing and personnel problems at some tournaments not all swimmer will have had this formal training. Male and female first responders should be available. Their responsibilities are to:

- a. Help prevent further injury
- b. Activate the appropriate emergency system(s).
- c. Calm and stabilize the injured person until professional help arrives.

### **7.03 Procedures:**

The following procedures are procedural reminders. Every injury situation is unique and may require a different approach. Perform only what you have been trained to do. Beyond that, pursue professional assistance. Common sense should prevail.

#### **7.03.1 Removing the Fallen Skier or Rider From the Water:**

If the fallen skier or rider is unable to climb aboard the safety boat with little or no assistance, the event needs to be stopped and the victim needs to be floated to shore with appropriate care being given by the swimmer. Under no circumstances shall an injured skier or rider be hauled passively over the side of the boat. A swim platform is not intended for transportation of injured skiers or riders, however there may be a rare occasion in which this may be done.

#### **7.03.2 Helmet Removal:**

In the event of an injury, a helmet should not be removed other than by the skier or rider. In-line stabilization of the cervical spine can be obtained with a properly applied spine board and CID. There may be an occasion where a face piece may need to be removed to maintain a proper airway.

#### **7.03.2 Assessment of Injuries:**

When an injured skier or rider has been removed from the water, a decision must be made as to whether professional medical and/or emergency assistance is required. All injuries should be professionally assessed either at the site or at a local hospital. Serious injuries may not always be readily apparent. It is further recommended that each tournament have a doctor or other trained medical personnel in attendance who are experienced in the assessment and management of trauma in general and athletic injuries specifically, and who are familiar with the aspects of the type of competition.



## **7.04 Tournament Medical Facilities/Personnel**

### **7.04.1 On-site Medical Facilities:**

A medical facility should, when possible, be established at the tournament site. This unit should be prepared to deal with minor trauma (basic first aid) so that a competitor or official can be returned to tournament participation as soon as possible in appropriate circumstances. Ambulance personnel, Emergency Medical Technicians (EMTs) and paramedics are often willing to be present and serve in this capacity. These persons are trained to assess and stabilize major trauma before removing the injured person to a trauma center.

### **7.04.2 Hospital Liaison:**

Liaison with the local hospital/emergency facilities is the responsibility of the tournament sponsor. An emergency plan should be put in place by the organizing club.

### **7.04.3 Tournament Medical Officer:**

At some tournaments, the sponsor may be fortunate in securing the services of a physician to serve as medical officer. If the Safety Director is a physician, the Safety Director may serve in both capacities. If the medical officer is not the Safety Director, the medical officer will be responsible to the Safety Director. If a tournament is fortunate enough to have a local physician, direct communication is more easily established with a local hospital and injured persons will be treated more promptly.

### **7.04.4 Spectators:**

The Safety Director's responsibilities are to the contestants and officials. Separate arrangements should be provided for spectators by the tournament organizers. Spectator areas are however, under the jurisdiction of the Safety Director as is the risk management of the entire site. The Safety Director may assist an injured spectator commensurate with his/her training, and as a courtesy.

## **8.00 FORMS AND FOLLOW-UP**

### **8.01 Forms:**

The Safety Director should be familiar with and use any safety forms required as a part of the sanction or under applicable sport-division rules. Sample forms may be found at [usawaterski.org](http://usawaterski.org).

#### **8.01.1 Safety Director's Checklist:**

These forms are generally intended to assist the Safety Director in organizing the many tasks and responsibilities that are vital to running a safe tournament. A sample pre-tournament checklist form is attached.

#### **8.01.2 Safety Report:**

Safety Reports may be required at the conclusion of the event to provide a summary of the event's safety preparation and the occurrence of any safety issues during the tournament.

#### **8.01.3 Injury Report and Follow-up forms:**

It is advisable (and may be required as a part of the sanction or under applicable sport-division rules) to prepare a report for each injury attended to during the event. This information may be of vital importance in helping to determine future safety needs and precautions.

### **8.02 SAFETY RECORD:**

Water ski competition has had a remarkable safety record. To maintain this enviable record, attention to the details of this manual should be closely adhered to.

## Acknowledgements:

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Leon J. Larson CSS/WSO author

## SAMPLE TOURNAMENT ORGANIZER'S SAFETY CHECKLIST

- A. MEDICAL LIAISON WITH OFF-SITE MEDICAL FACILITIES:
1. There must be a phone or radio/telephone communication on-site for direct communication to an emergency facility or emergency services.
  2. Licensed or certified EMT or medical assistance available on-site or no more than 20 minutes travel away.
  3. Posted emergency route maps and phone numbers at several locations on the tournament site.
- B. SAFETY OF ON-SITE FACILITIES:
1. You will be required to maintain the facility in a safe and hazard free environment. This will include removing all trash from the water areas that could injure the competitors, officials, and spectators.
  2. You must clearly mark, cover and render safe any unmovable objects that will endanger the participants. These obstructions are to be marked and pointed out to everyone in the area by announcements and/or proper signage of the danger.
  3. You must maintain the docks and take off and landing areas in a safe manner to avoid injuries to the participants and swimmers.
  4. You will be required to prepare the jump ramp/kickers/sliders for competition with the following items checked and inspected:
    - i. Properly secured (lines & anchors)
    - ii. Surface area and aprons smooth with no protruding nails/screws.
    - iii. A good contrast of colors between the surface, side curtains and water.
    - iv. All algae and scum should be removed at the water line so that skiers/riders can differentiate between the jump/kicker/slider surface and the water.
  5. Towers: The towers/scaffolding provided for the Officials and Announcers for the tournament shall meet the following criteria:
    - i. Stable and securely anchored.
    - ii. Ladders secured at the top and no loose foot/hand holds.
    - iii. Floors, hand rails in place and in good repair.
  6. Refueling area:
    - i. Appropriate fire extinguisher in close proximity.
    - ii. NO SMOKING and FLAMMABLE signs posted and visible.
    - iii. Area cordoned off.
  7. Requirements for Safety Boat(s) and Crews and Swimmers:
    - i. One (1) approved PFD for each person and a spare.
    - ii. Two-way radio to Safety Director.
    - iii. Water rescue personnel in adequate numbers to cover all events (to be trained by the Safety Director.)
    - iv. Adequate safety boats where needed.
  8. Shore Safety Facilities:
    - i. Designated safety/first aid area.
    - ii. First Aid equipment.
      - a. Rigid spine board
      - b. Universal type C.I.D.
      - c. First Aid kit of adequate size