

World Barefoot Council Safety Manual

June 1, 2017

DEFINITIONS

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

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

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 Safety Manual identifies standards and procedures supporting the rulebook. 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. Changes to rules in the WBC rulebook that are used in this manual shall be considered automatic changes to this manual as well, unless otherwise indicated.

INTRODUCTION

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

TOURNAMENT HOST RESPONSIBILITIES/PREPARATION

Safety preparations for a tournament should begin well before the tournament day arrives. The sponsoring club of a sanctioned tournament is responsible for the following safety preparations:

1. Inspect the entire ski site checking the water depth is adequate, there are no submerged obstacles, boat crews and skiers can be loaded into the boat safely, the jump course is as straight as possible etc.
2. At least two months before the tournament, the Tournament Committee shall appoint a Safety Director, who shall appoint such assistants as necessary. Additionally, the sponsor shall appoint swimmers, safety boat drivers, and workers as needed.
3. A trained Safety Director for sanctioned tournaments, shall be selected by the organizers early enough to participate in the planning, and organization of the tournament to help eliminate foreseeable safety deficiencies, or other problems with tournament equipment or the site.
4. Locate safety equipment, forms, checklists, maps, first aid station, and phone numbers of law enforcement, emergency medical services, hospital, etc.
5. Ensure that all required safety equipment is available. i.e. radios, backboard, Personal Floatation Devices (PFDs) of various sizes, Cervical

Immobilization Device (CID), medical area, shade and chair for jump safety swimmer, etc.

6. Ensure that adequate medical personnel are on site or can be available within a reasonable period of time.
7. Ensure there is transportation to medical facilities present or can be available in a reasonable period of time.
8. Ensure there is adequate access for emergency vehicles to respond in and to leave.
9. Ensure this route remains clear during the course of the competition.
10. Ensure there is an adequate Safety Boat or PWC (Personal Watercraft), available if they will be needed.
11. Use of safety boats, PWCs, and shore swimmers should be established in consultation with the assigned Chief Safety Director well in advance of the tournament date.
12. Ensure that there is a means of communication available for Safety Director, Chief Judge, and Safety Crew.
13. Notify the following entities of the tournament date and site location and what will be needed:
 - a. Local hospital.
 - b. Local law enforcement.
 - c. Water regulatory authorities.
 - d. Local ambulance/fire department/rescue.

SAFETY DIRECTORS RESPONSIBILITIES

The Safety Director is responsible for enforcement of all IWWF, WBC and Federation rules as they relate to safety. Any deviations from 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 have the authority to stop competition whenever he feels an unsafe condition exists.

The Safety Director, along with the Chief Judge shall be responsible to delay or stop the tournament if a (potentially) dangerous situation exists. (The Chief Judge may overrule any contemplated action or decision of the Safety Director.)

Prior to the Start of the competition the Safety Director should meet with the Appointed Officials and review all emergency procedures and the rules that govern them

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

1. Familiarize themselves with the entire ski site, ensuring adequate water depth through all the courses, the safe condition for all skier and officials areas and that any submerged obstacles are adequately marked

2. Ensure that Assistant Safety Directors are appointed as needed.
3. Identify tasks and needs involving tournament safety.
4. Obtain the event running order of the entire tournament and make safety swimmer, safety drivers, ramp safety swimmer, etc. assignments as necessary.
5. Check the competition area is free from potentially dangerous obstacles and/or hazards, if not, mark them.
6. Ensure that the jump meets WBC specifications and the surface is safe.
7. Ensure that award platforms, starting jetties, towers, scaffolds, and refueling area are safe and meet any Federation specifications and can safely hold the required number of people and equipment.

The Safety Director should also remain aware of approaching weather conditions throughout the competition.

Site Inspection

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

1. Adequate water depth in all courses.
2. Take-off and landing areas to see that they are free of rocks, glass, and/or other hazards.
3. General hazards such as judges' towers and stairs, spectator bleachers, boat launching ramps, moorings, and re-fueling areas.
4. 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 and officials warned of their existence.
5. Inspect jump ramp.

WBC Jump Specifications:

The part that is submerged shall be painted a dark color or of a dark material.

The exposed part above the waterline shall be of a light color.

The jump ramp surface shall be the equivalent of 18 or 19-millimeter (3/4 inch) marine plywood in strength and stiffness, suitably braced and with smooth integral or glued safe surfacing. Suitable buoyancy properly disposed shall be used to ensure stability.

Centerline markings of a strongly contrasting color shall be placed on the front face of the ramp just at the waterline, to facilitate measuring to the inner and outer course buoys.

Ramp inspection:

The Safety director's site survey should include an inspection of the jump ramp for damaged surfaces, aprons, exposed nails/bolts, and sharp edges

Ensure that the safety swimmer will have a PFD, a chair and shade if necessary and the backboard will be stationed at the jump any time a skier is using the jump ramp.

At the discretion of the Chief Judge or Safety Director, a jump ramp inspection shall be done after any part of the skier's body other than the feet strikes the ramp to determine if any changes have occurred that might create a hazard to further jumping unless eliminated.

Safety Crew:

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

The Safety Director shall provide the safety crew a review of the following:

1. Duties.
2. Use of backboard.
3. Use of flotation device.
4. Cervical immobilization device (CID).
5. Safety boat operation/swimmer positioning.
6. Instruction in rollover and basic in-water rescue techniques.
7. Emergency procedures in the event of an accident.
8. Identification of location of all safety equipment and first aid facilities.
9. Discussion of any possible problems and needs that might arise such as maps, phone locations, and alternate personnel positioning.

EQUIPMENT

On each day of a tournament, the Safety Director and all necessary safety personnel should be at the site at least 1/2 hour prior to the first event. They should:

1. Verify procedures.
2. Division of duties.
3. Set up inspection stations.
4. Check for last-minute changes.
5. Check that safety radios are working and that all safety duty stations are covered.

Each skier shall 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 is responsible for all necessary repairs.

Floatation

A neoprene wetsuit or dry suit meeting the following requirements shall be worn by all skiers in all events:

1. Be smooth, soft, and free from attachments or material likely to cause injury in a Fall.

2. Be so constructed and fastened that it is unlikely to be torn loose or damaged so as to render it useless in a hard Fall.
3. Float the user.
4. Not be an inflatable device.
5. Be constructed so as to provide adequate protection from impact damage to the ribs and internal organs.

In case of doubt, the Safety Director shall have the final decision, ordering a practical test

Protective Head Gear: Use of protective head gear in the jumping event is mandatory, Protective head gear is defined as an article of apparel whose manufacture and use is solely for the purpose of protecting the head from severe impact injury.

Ropes and Handles: All ropes and handles must be free of signs of excessive wear. Areas of note are the splices, loops and knots.

The contestant may furnish his own line(s) and handle(s) for tricks, of any size, length and material. Detachable handles must be finished with a loop, through which the handle and all attachments can be passed, unless a clip or clips are fitted.

Metal clips shall never be used for the jump event.

SAFETY EQUIPMENT AND PERSONNEL

Safety Boats

The purpose of the safety boat is to help fallen injured skiers, and to clear the course of floating debris with maximum safety and minimum interference with the event progress. It is imperative that the safety boat is 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.

Safety boat may also be used to retrieve fallen skiers.

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

1. A suitable back (spine) board.
2. One immobilization device for the neck/head, preferably of the CID type attached to the spine board.
3. Tools that can easily cut through towlines, straps, etc.
4. A two-way radio, worn by the boat driver or one of the swimmers, that is in direct communication with the Safety Director.
5. A basic first aid kit with triangular and adhesive bandages.
6. An extra flotation device.
7. Fire extinguisher.

Other equipment strongly recommended to be available: additional spine board, blankets, towels, gloves, splints for arms and legs - short and long, wood or air tape- an additional cervical collar. Only qualified personnel should use these items.

Safety Personnel- There shall be a swimmer, who is familiar with all tournament events and practice and ideally fully trained in First Aid, Emergency Resuscitation and In-Water Rescue techniques

The swimmer shall wear a life jacket at all times and, in the event of a serious fall, shall jump into the water to assist the skier.

No injured skier shall be allowed to climb into a boat, but shall be floated ashore if necessary on backboard..

Under no circumstances shall an injured skier be lifted passively over the side of a boat. It is emphasized that, in international competition, language difficulties may interfere with communication; and for this reason, the swimmer **MUST GET INTO THE WATER** to assist the injured skier.

If a skier falls during the second pass and is unable or it is unsafe to swim in, the safety boat should move in immediately, wake free, to pick up the fallen skier.

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. The intent is to supply assistance to the skier with dispatch, but without risking a collision with the skier or another boat. This applies to the towboat(s) and a secondary safety boat(s).

No driver shall leave his seat with the ignition on.

Swimmers: Designated swimmers, boat or shore, need to have reviewed with the Safety Director or assigned assistants the safety procedures outlined in this manual. This review should be done before the event(s) to which the swimmers are assigned.

Each designated swimmer in the safety boat or on shore must wear a PFD at all times and be prepared to enter the water immediately. No telephones, radios, wallets, or other items should be in their pockets.

Ideally, a swimmer would hold a valid lifesaving card, be trained in water rescue techniques and basic first aid.

During the jump event it is **REQUIRED** that the safety swimmers wearing floatation be located on shore near the jump ramp with a spine board readily available.

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

Only swimmers wearing floatation are allowed in the water during a rescue.

IN WATER RESCUE

A water skier may sustain any kind of injury in a fall. It is imperative that the unconscious skier receives assistance with **cautious urgency**.

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

The signal, by which a fallen skier indicates that there is no injury, is to wave both arms above the head with the hands clasped. This signal indicates the skier is OK and does not need assistance. If this signal is not given, then the safety boat should assume the skier is injured and move in to evaluate. Some skiers may take a moment or so to assess themselves before giving the OK signal and the pick-up boat crew must make a judgment. **Utmost urgency is only demanded for unconscious skiers and those unable to keep their airway clear and above water.**

A dazed or confused skier 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 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.

If the injury to the skier requires the event to be stopped to properly give care, then the safety or safety crew must give the signal or radio the Chief Judge.. This signal to stop the event is done by crossing the arms over the head in a deliberate, still manner. The safety crew must then make a decision if they are able to properly handle the situation or if help is needed.

Medical Emergencies: In the event of an accident, the Safety Director and safety personnel must be prepared to be first responders. Safety Directors should have been trained in first aid and CPR, however due to staffing and personnel problems at some tournaments not all swimmers shall have had this formal training.

Their responsibilities are to:

- 1.Help prevent further injury.
- 2.Activate the appropriate emergency system(s).
- 3.Calm and stabilize the injured person until professional help arrives.

Procedures: The following 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.

The Unconscious Skier: The unconscious victim requires prompt assistance. First, the swimmer must turn the skier face up using the proper techniques of cervical immobilization and then check to see if the victim is breathing. If the victim is not breathing, then artificial ventilation must be initiated.

The airway must be kept clear, open and maintained while keeping the cervical spine in an in-line (neutral) position and keeping the victim's head above water. The victim should be placed as a unit onto a backboard while the airway and cervical spine stabilization is maintained. The victim should be secured to the board, and then a CID should be applied and secured. Personnel need to be properly trained to do these procedures.

Bleeding: Bleeding from most wounds can be stopped by firm, constant direct pressure applied to the wound. The flat of the hand holding a dressing may apply pressure. The pressure must be maintained until the bleeding has stopped. Remember, water tends to prolong bleeding by interfering with the formation of a solid clot. For the same reason, in the water lacerations seem more severe than they really are. Any bleeding should be arrested as soon as possible. Apply direct wound pressure and add more bandages as needed, but don't remove the bandages that are currently in place.

Suspected Fractures: If a fracture is suspected, the limb should be splinted in the water. A suitable set of splints and/or splinting materials are required as standard equipment in the safety boat and/or readily accessible on shore. The important thing to remember is that a suspected fracture is to be immobilized and not moved any more than possible so as not to aggravate the injury. A check for the pulse and feeling should be made distal (on the side away from the heart) to the injury. There are many splints and splinting materials available for use. When choosing the materials, keep in mind issues such as water resistance, versatility, and infection control problems. Some common splints can easily be applied. A pillow and sling or tape can be used for wrists, hands, feet, and ankles. A rolled towel may be placed in an inverted "U" over the top of the head and down to the shoulders to serve as a makeshift CID.

Removing the Fallen Skier From the Water: If the fallen skier 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 be hauled passively over the side of the boat. A swim platform is not intended for transportation of injured skiers; however there may be a rare occasion in which this may be done.

Helmet Removal: In the event of an injury, a helmet should not be removed other than by the skier. In-line stabilization of the cervical spine can be obtained with a properly applied backboard and CID. There may be an occasion where a face piece may need to be removed to maintain a proper airway. If the CID will not fit around the helmet wrap tape around the helmet and the spine board to immobilize the head.

Assessment of Injuries: When an injured skier 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. If an error is made, it is better to error on the side of caution.

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 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.

Hospital Liaison: Liaison with the local hospital/emergency facilities is the responsibility of the tournament sponsor.

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 shall 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.

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.

FORMS AND FOLLOW-UP

Safety Director's Checklist: This form is to assist the Safety Director in organizing the many tasks and responsibilities that are vital to running a safe tournament. The Safety Director's checklist must be completed and submitted with the tournament results.

WBC RULE 11

1101: SAFETY DIRECTOR

(A) Responsibility. The Safety Director shall be responsible for monitoring the safe condition of all equipment and facilities and the operation of the tournament, but this shall not prevent him from delegating specific responsibilities to assistants as approved by the Chief Judge.

(B) Proximity. The Safety Director shall remain near the competition area as much as possible.

(C) Authority. The Safety Director shall have the authority to take whatever action is necessary, including stopping the tournament, whenever he observes a condition he believes unsafe.

(D) Halt Tournament. During the competition, the Safety Director is permitted to request the Chief Judge to halt the tournament for a poll of the Event Judges in regard to a skier's actions or condition.

(E) Overruled by Chief Judge. The Chief Judge is authorized to overrule any contemplated action or decision of the Safety Director, but on his own responsibility.

1102: FLOTATION AND PROTECTION (A) Flotation. A neoprene wetsuit or dry suit meeting the following requirements shall be worn by all skiers in all events:

(1) Be smooth, soft, and free from attachments or material likely to cause injury in a Fall.

(2) Be so constructed and fastened that it's unlikely to be torn loose or damaged so as to render it useless in a hard Fall.

(3) Float the user.

(4) Not be an inflatable device.

(5) Be constructed so as to provide adequate protection from impact damage to the ribs and internal organs.

(B) Suitability. In case of doubt on the suitability of flotation, the Safety Director shall order a practical test in the water.

1103: HELMETS

(A) Specification. A skier in the Jump Event shall wear a helmet of a type designed to protect the head from severe impact injury.

(B) Skier Loses Helmet. If a skier loses his helmet during the start or before reaching the jump ramp, the towboat shall immediately stop, unless it's unsafe to do so. Should it be unsafe for the towboat to stop, the skier shall ski past the jump whenever possible, and this jump shall be scored as a Fall. This shall not be grounds for disqualification from the remainder of the round or event,

(C) Radio Communications. The use of helmets fitted with radio communication capabilities is prohibited in the Jump Event.

1104: SAFETY OFFICER

(A) Safety Officer. A Safety officer who is familiar with all tournament events and practice and ideally is fully trained in First Aid, Emergency Resuscitation and Water Rescue Techniques shall be on-site at all times.

(B) Floated to Shore. Any skier that is unable to climb into a towboat unassisted shall be floated ashore and lifted from the water on a suitable board or stretcher.

(C) Into Towboat. Under no circumstances shall an injured skier be lifted passively over the side of a towboat.

(D) Life Jacket. A life jacket shall be in the towboat at all times; in the event of a serious Fall by the skier, a swimmer wearing a life jacket shall enter the water to assist the skier.

(E) Safety Swimmer. During the jump event a swimmer trained in water rescue, wearing flotation, having a backboard/flotation stretcher shall be present at the jump area.

1105: DISQUALIFICATION

(A) Safety Compliance. Failure of a skier to wear a wetsuit, proper protection and flotation under a dry suit or helmet when required shall be cause of immediate disqualification from the event by the Safety Director

(B) Danger to Himself. No skier shall be allowed to compete or continue to compete if, in the opinion of the Chief Judge, Safety Director and a majority of the Event Judges, his competing would be a danger to himself or to other skiers in the tournament. Whenever practical the advice of a doctor shall be obtained