



# **Alpine Canada**

**2018 v.Nov2017**

**National Officials Program**

**LEVEL II**

**Alpine, Para Alpine, Ski Cross**

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## 1.0 Introduction & Course Objectives

This course is the second of three Officials courses and is designed for those who have already taken the Level I Officials Program, and have then obtained the necessary practical experience to qualify them to take the Level II course. It has been designed as a detailed introduction to the methodology of alpine ski racing (alpine, para-alpine and ski cross), the types of races, rules, and points systems as well as the roles and duties of the various officials. It is a fairly intensive course and does not cover in any detail the material presented in Level I.

The objectives of the course is to develop Officials capable of functioning at a carded level race and to provide a base of experience and knowledge to course participants to allow them to assume greater responsibilities at higher level races.

The Level II Officials course objectives, are to help the participants better understand the following:

1. The Components of a Race
2. The Roles and Duties of the Race Organizing Committee, the Race Committee and the Jury
3. Types of Courses and Course Setting
4. Communications and Timing
5. Gate Judging
6. The Racer
7. Coaches and Team Captains Meeting
8. Calculation and Production of Results
9. General Rules and Rules for Each Discipline
10. The ICR (International Ski Competition Rules) and know how to find appropriate information.
11. And pass the exam

Ski racing is an evolving sport and information in this manual is subject to change. We strongly recommend that you check online sources for the most up to date information. The following sites have links for online resources that are used for both National and International events. We also recommend checking Provincial Sport Organization (PSO) resources as well.

Alpine Canada: [www.alpinecanada.org](http://www.alpinecanada.org)

ACA Points: [www.acapoints.ca](http://www.acapoints.ca)

Federation Internationale de Ski (FIS): [www.fis-ski.com](http://www.fis-ski.com)

IPC Alpine Skiing - <https://www.paralympic.org/alpine-skiing>

## 2.0 National Officials Program

### 2.1 Level II Official

This course is designed as a detailed informative course to ski racing and the roles and duties of various Officials positions. It is a fairly intensive course that does not repeat the material covered in Level 1 and does require some prior knowledge and experience to ensure that the material covered is absorbed to the best advantage.

#### **Course Description:**

- Time Required: 9 hours including a 1 hour exam. May be done in one day or two evenings.
- Course Fee: Set by the PSO Official Chair – includes course manual, Officials pin
- Pre-requisites: Level I certification and practical experience in at least 3 different Official's positions from 2 different categories that covers a minimum of 8 days race experience.
- Exam: 1 hour – multiple choice, T/F, and short answers. Open book.

### 2.2 Level III Official

Pre-requisites for this course are Level II certification and practical experience **since obtaining Level 2** as follows:

- a) Chief of Race and one of the following positions:
  - Chief of Course
  - Chief of Timing and Calculation
  - Chief of Gate Judges
  - Chief of Administration (Race Administrator)
- b) Two assignments as voting/non-voting jury member (other than Chief of Race);
- c) An assignment different from the above at the FIS level excluding the positions with an asterisk on previous page.

The candidates have to attend a Level 3 course and pass the exam.

#### **Course Description:**

- Time required: 12 hours. Generally given on a weekend but can be given over 4 evenings.
- Course fee: set by PSO Officials Chair. Includes manual and course material, Officials pin
- Pre-requisites: It is only open to those who have the necessary pre-requisites as detailed above or are identified as being very close to having the necessary practical. Must be recommended by the PSO Officials Chair.
- Exam: 2 hour open book exam.

The Level III course is an interactive one in which there is emphasis on discussion and exchange of ideas, opinions, and experiences by the participants and the instructor(s).

The course is designed for Officials with considerable practical experience. It covers rules to particular disciplines as well as the work and duties of the Jury and Technical Delegate in detail. Also covered are the duties of senior Officials, course preparation, maintenance and setting, as well as calculations of points and penalties. Throughout the course, participants take part in many case studies taken from actual experiences and will be asked to make decisions on these as well as participating in Jury decisions.

## 2.3 Level IV Official

In order to become a Level 4 Official, it is necessary to be recommended to the National Officials Committee by the PSO Officials Chair. Level 4 Officials are the most experienced Officials, having showed a superior level of ability. Among the qualifications required of a Level 4 Official are: Level 3 Official with the minimum practical experience in each of the following since obtaining Level 3 certification:

- a) Satisfactory performance of the Chief of Race's duties at the FIS level.
- b) Assignment as voting or non-voting Jury member at a race minimum National or provincial level, or at a regional speed event.

Satisfactory performance at a U18 and/or FIS level:

1 event assignment as: Chief of Course or Chief of Gates

event assignments out of: Chief of Administration, Chief of Timing and Calculations or Race Chairman.

## 2.4 Officials Code of Conduct

Officials must demonstrate high standards of judgment and competency as they represent Alpine Canada Alpin and their PSO's at all times. The hallmarks of good Officials are promptness, firmness and justice, tempered by tact and consideration.

Officials must be impartial and must supervise and control an event in a manner that reflects the spirit and intent of the rules and regulations. They will provide a competition that will preserve the health and safety of all involved. They will do their utmost to guarantee that each competitor receives an equal and fair opportunity to win. They will promote sportsmanship and an atmosphere of enjoyment.

Officials must maintain high standards of moral and ethical conduct that includes self-controlled responsible behavior, consideration for others' physical and emotional well-being, courtesy and good manners.

Officials must abstain from the use of illegal drugs and from consumption of alcohol while in the performance of their duties as a representative of ACA and their PSO.

Officials must refrain from the use of profane, insulting, harassing or otherwise offensive language in the conduct of his/her duties.

Officials should both teach and learn with every assignment. Officials shall exhibit and promote respect, understanding and compassion towards hosts, competitors, coaches and volunteers no matter where they are on the learning curve.

Officials must not engage in "on" nor "off" the record criticism of race organizations, competitors, coaches and volunteers to the public including to other Alpine skiing organizations. In giving event feedback to race organization, competitors, coaches and volunteers, Officials must make suggestions that are constructive, founded and relevant to the improvement of ski racing.

### 2.4.1 Disciplinary Action Against Officials

If an Official appears to have exhibited behavior or conduct that is contrary to the Code and the parties concerned cannot resolve the matter at issue, the following procedure shall be followed for all nationally sanctioned events. Any complaints arising from a FIS sanctioned event will be dealt with through the procedure established by the FIS or IPC.

A complaint in writing describing the issue shall be submitted to the Officials Chair of the appropriate governing body:

<b>LEVEL</b>	<b>AUTHORITY</b>
FIS	FIS TD Commissioner for Canada
National K2 Championships	National Officials Chair
Provincial Championships	PTSO Officials Chair
PSO and Divisional Events	PTSO Officials Chair
Regional event	Regional or Zone Officials Chair

Lodging a complaint:

The respective Officials Chair shall review the submission and, if they feel the matter warrants it, they shall establish a Committee of three persons to consider whether action should be taken against the Official. The Chair may or may not be a member of the Committee. The members of the Committee should be drawn from persons experienced with ski racing.

Should the Officials Chair, after reviewing the submission, feel that further action is not warranted, they shall communicate their decision in writing to the parties concerned explaining why. A copy of this decision will also be sent to the Board (or an appropriate official) of the Governing Body.

Review by a Committee:

A duly constituted Committee will determine the manner in which it will pursue an investigation of all relevant details concerning the complaint. It may invite further submissions from the parties, written or other; it may invite the parties to appear before it and provide oral evidence; it may seek information from anyone in addition to the parties who it feels may shed light on the matter; it may pursue any other avenue that, in its opinion, would enable them to reach an informed decision. In all matters, the Official shall be fully informed of the nature of the complaint and the evidence discovered through the investigation and be given an opportunity to respond in whatever manner the Committee deems appropriate.

After having considered all of the relevant information, the Committee will decide whether or not the complaint is justified and communicate that in writing to the parties with reasons for the decision. A copy of this decision will also be sent to the Board (or an appropriate official) of the Governing Body.

Should the Committee determine that actions of the Official have violated the Code of Conduct, the Committee may impose whatever consequence they feel is appropriate including but not limited to: a sanction; direction for remedial training, reprimand, probation, revocation of participation privileges and/or loss of credentials.

Decisions of the appropriate Authority listed above are deemed final.

## 2.5 Officials Positions

The following list represents the minimum requirements. The PTSO official's chairpersons can establish higher requirements if desired.

For the purposes of certification, the various Officials positions are divided into the following categories.

Administration	Event Quality	Course	Timing	Jury
<ul style="list-style-type: none"> <li>▪ Race Organizing Committee Chair</li> <li>▪ Chief of Administration (Race Secretary)</li> </ul>		<ul style="list-style-type: none"> <li>▪ Chief of Race (jury member)</li> <li>▪ Chief of Course</li> <li>▪ Chief of Gate Judges</li> <li>▪ Gate Judge</li> <li>▪ Course Crew</li> </ul>	<ul style="list-style-type: none"> <li>▪ Chief of Timing and Calculations</li> <li>▪ Chief of Timing</li> <li>▪ Timer</li> <li>▪ Starter</li> </ul>	<ul style="list-style-type: none"> <li>▪ Technical Delegate</li> <li>▪ TD Candidate</li> <li>▪ Referee</li> <li>▪ Assistant Referee</li> </ul>
				<p style="text-align: center;"><u>Jury Advisors</u></p> <ul style="list-style-type: none"> <li>▪ Start Referee</li> <li>▪ Finish Referee</li> </ul>
<ul style="list-style-type: none"> <li>▪ <i>Secretary*</i></li> <li>▪ <i>Finance*</i></li> <li>▪ <i>Accommodation*</i></li> <li>▪ <i>Scoreboard*</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Chief of Event Quality*</i></li> <li>▪ <i>Chief of Ski Area Relations*</i></li> <li>▪ <i>Chief of Awards and Media Relations*</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Chief of Equipment*</i></li> <li>▪ <i>Chief Steward</i></li> <li>▪ <i>Stewart*</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Calculator*</i></li> <li>▪ <i>Recorder*</i></li> <li>▪ <i>Finish Controller*</i></li> <li>▪ <i>Assistant Starter*</i></li> </ul>	

Per the level descriptions below, experience in more than one category is necessary for completion of Level II, III and higher certification. **Shaded** positions do not qualify for Level III or Technical Delegate experience.

## 2.6 Requirements for Higher Certification

### 2.6.1 Level III

Pre-requisites for this level are Level II certification and practical experience since obtaining Level II: as follows:

- *Chief of Race at a U14/U16 or higher level race event and one of the following positions: Chief of Course, Chief of Timing and Calculation, Chief of Gate Judges, Chief of Administration*
- *2 assignments as a jury member or jury advisor (other than Chief of Race)*
- *1 different assignment from those listed above without an asterisk at a F.I.S. level race.*
- *Attend the Level III course and pass the exam.*

It is only open to those who have the necessary pre-requisites as detailed above or are identified as being very close to having the necessary practical. Participants must be recommended by the PSO Officials Chair.

This course is interactive with emphasis on discussion and exchange of ideas, opinions and experiences by the participants and the instructor. It is designed for Officials with considerable practical experience as it covers rules for particular disciplines, the work and duties of the Jury and of the Technical Delegate in detail.

Also covered are the duties of senior Officials, course preparation, maintenance, course setting and calculation of points and penalties. Throughout the course, participants take part in several case studies taken from actual experiences and will be asked to make decisions on these as well as participating in mock Juries

### 2.6.2 Level IV

In order to become a Level IV Official, it is necessary to be recommended to the National Officials Committee by the Provincial Officials Chair. Level IV Officials are the most experienced Officials who have demonstrated a superior level of ability. Among the qualifications required of a Level IV Official are: Level III Official with the minimum practical experience in each of the following, since obtaining Level III certification:

- *Satisfactory performance of the duties of Chief of Race at F.I.S. level.*
- *Assignment as Jury member or Jury advisor at a DH race at minimum 'J' level race.*
- *Satisfactorily perform:*
- *1 event assignment as: Chief of Course or Chief of Gate Judges.*
- *2 event assignments out of: Race Secretary, Chief of Timing and Calculation, Race Chairman*

The practical experience must be gained at U14/U16 level or higher competitions.

### 2.7 Officials Requirements to Maintain Certification

Certified Officials must be a member of ACA to maintain their certification.

Upon qualification, the initial period of certification and practical requirements to maintain certification for each Officials level is as follows:

Level 2	Three years	Work minimum 4 race days in a 3 year period and an Officials Update every 2 years.
Level 3	Two years	Work minimum 4 race days a year and an Officials Update every 2 years.
Level 4	Two years	Work 4 days a year as a TD or Chief level or to the satisfaction of the Officials Chair. Attend an Officials Update every 2 years.

## 3.0 Technical Delegate Program

The Technical Delegate (TD) is the person who has advisory control over pre-race and race operation and together with other members of the Jury, has complete control over the competitive operation of the race. He/she has the final decision in all matters of racer protection and the Jury has the authority to cancel, postpone or annul the race if necessary. In all cases, the TD is the representative of the governing body by whom he/she is appointed.

### 3.1 TD Levels and Criteria

A TD must have a broad working knowledge and experience as an Official and have demonstrated an ability to handle a variety of on-hill situations in a calm and knowledgeable manner. The requirements for certification at the various levels are:

- a) Regional Technical Delegate (only in Ontario)

- Level 2 Officials Certification.
- Recommended by the Divisional and PSO Officials Chair

b) PSO Technical Delegate – Technical (T)

- Level 3 Officials Certification.
- Recommended by the PSO Officials Chair for TD certification.

c) PSO Technical Delegate – Technical/Speed (T/S)

- Level 3 Officials Certification.
- Certified in both Technical and DH and SG events.

d) National Technical Delegate

- Level 4 Officials Certification preferred
- Licensed Divisional TD (T) &/or (T/S) or FIS TD
- Recommended by the PSO Officials Chair to the National Officials Committee
- Nominated National Technical Delegates will receive a Level 4 Certification.

The minimum criteria to be assigned as a Divisional/PSO or National Technical Delegate are the following:

- Regional technical race: Level 2
- PSO technical race and speed event: Level 3
- National race events: Level 4.

e) FIS Technical Delegate

- The first step in entering the FIS TD program is nomination by National Official, the PSO Officials Chair, the PSO President and a FIS Technical Delegate then a recommendation by the National Officials Committee to the FIS Commissioner of Canada. A National education review program is provided for FIS Technical Delegate applicants. If accepted the applicant follows the program outlined in ICR.

### 3.2 National Technical Delegate Candidate Program

#### **Selection of Candidates**

Required Background: Must hold appropriate Official certification with sufficient experience to be considered as a TD and must have indicated interest in entering TD program.

#### **Selection Process**

A current PSO, National Technical Delegate using the TD Candidate Nomination form must nominate candidates. This nomination form must then be seconded and the seconder must also be a TD. Either the nominator or the seconder may be from the proposed candidate's club but not both.

The nomination then must be accepted by the PSO Officials Chair and also by the candidate.

#### **Training and Evaluation of Candidates**

Candidates will be assigned to a training assignment. This is meant to be full training session with the TD and an evaluation form is completed following.

The next practical session is an evaluation session in which the candidate will be expected to become the TD for one full day of the race and must perform all the duties of the TD. The TD of

record will only step in if a situation arises which the candidate is unable to handle, if the race itself is jeopardized or if the safety situation is not resolved.

Following this practical, a full evaluation is completed on the candidate. Assuming that this is satisfactory then there is a TD exam. The candidate then receives his/her license as a Divisional (in Ontario) or PSO Technical Delegate

## 4.0 Race Organization

The group of people (Race Organizing Committee) that is put together for a ski race will depend on the particular needs of the events and the availability of people. In one form or another, all of the activities needed to stage an elite level FIS race take place at the lower level races also.

There are differences in some procedures, the number of people to carry out all of the tasks and the degree of sophistication necessary for any one level of competition, but fundamentals of safety, fairness and fun apply at all levels. For example, the area ski patrol handles first aid at a lower level race rather than a special team assembled just to cover that particular race at an elite level race; or the Chief of Course will probably also act as Chief of Equipment and Course Maintenance at a lower level race. It is necessary that all the tasks are undertaken and performed for every race event. Regardless, the goal is accomplished, the rules were followed and (most) everyone is tired but happy.

The following summarizes the objectives in the in the organization and execution of a ski race:

Courses	Are safe, legal, fair, consistent
Competitors	Are qualified, properly seeded, informed, guided,
Controlled Timing	Is accurate, consistent throughout the race
Results	Are accurate, prompt, available
Documentation	Is accurate, complete and timely
The Race	Is safe, fair, fun, appropriated scheduled, timely
Procedures	Are consistent and uniform

### 4.1 Abbreviations and Terminology

<b>ACA</b>	Alpine Canada Alpin	<b>HT</b>	Hand Time
<b>CA</b>	Chief of Admin (Race Secretary)	<b>ARF</b>	Assistant Referee
<b>CC</b>	Chief of Course	<b>RF</b>	Referee
<b>CR</b>	Chief of Race	<b>ROC</b>	Race Organizing Committee
<b>DH</b>	Downhill race	<b>SC</b>	Super Combined
<b>DNF</b>	Did Not Finish	<b>SL</b>	Slalom race
<b>DNS</b>	Did Not Start	<b>SG</b>	Super G race
<b>DSQ</b>	Disqualify	<b>CTC</b>	Chief of Timing and Calculations

<b>EET</b>	Equivalent Electric Time	<b>TD</b>	Technical Delegate
<b>FIS</b>	Fédération Internationale de Ski	<b>SR</b>	Start Referee
<b>GS</b>	Giant Slalom race	<b>FR</b>	Finish Referee
<b>KK</b>	Kinder Kombi	<b>PTSO</b>	Provincial Territorial Sport Organization
<b>NPS</b>	Not Permitted to Start		

<b>BIBO or BIBBO</b>	a method of determining second run start order usually involving inversion of the best 15 or 30 racers based on first run times e.g. the racer with the 30 <sup>th</sup> or 15 <sup>th</sup> best time would start first depending on the discipline and rules.
<b>Team Captains' Meeting</b>	combined meeting of coaches, jury members and race officials to conduct the draw, assign referees, confirm/amend the schedule and attend to other administrative matters pertaining to the race
<b>Course Freeze</b>	in Downhill and Super G races there is no movement from a specified time prior to the start of the race until the race is concluded; therefore, movement is frozen
<b>Course Inspection</b>	the process and period of time during which racers acquaint themselves with a race course
<b>Draw</b>	determines the order racers appear on the start list
<b>DNF</b>	Did Not Finish: term indicating a competitor who started a run did not complete his/her run
<b>DNS</b>	Did Not Start: term indicating an entered/drawn competitor did not start his/her run
<b>EET</b>	Equivalent Electric Time: an official time determined from the back up timing systems for a missing time from the primary timing system
<b>Fault or DSQ</b>	a competitor error (e.g. missed gate) that has been observed and recorded
<b>Finish Area</b>	a fenced area beyond the finish line that allows a racer to stop after completing the course
<b>Double Draw</b>	a method of determining starting orders within seedings by drawing from one lot of numbers to indicate a racer's relative rank, and drawing from a second lot of numbers to indicate the racer's start position
<b>Gate Judge Card</b>	a card the gate judge uses to record racer's fault
<b>Homologation</b>	usually involving FIS sanctioned events, it is the process and resulting certificate that certifies a race hill/course meets the standards necessary to be a venue for a specific discipline for ski races
<b>Jury Inspection</b>	inspection by the competition jury for the safety and technical aspects of a race course prior to opening of the course
<b>Jury Meeting</b>	a meeting of the Jury to determine a number of race related items of business; e.g. to hear protests.
<b>Penalty Points</b>	a numerical indicator that allows results at a race to be compared/equalized to those of all other races, based on the quality of the field and the level of competition
<b>Poster</b>	person who 'posts' the racer's time on the scoreboard
<b>Race Points</b>	a numerical indication of a racer's finishing position as function of the difference between the racer's time and that of the winner
<b>Race Secretariat</b>	both the people and the place that provided administrative support for a race. It can also be called the Race Office.
<b>Racer Down Protocol</b>	plan of action that deals with responding to an on-hill incident/accident involving the athlete on course
<b>Seed Board</b>	a display of all racers entered in the race in point order - lowest to highest - before the draw; run order after the draw

<b>Seed Points</b>	a numerical indication (usually lower means better) of a racers relative rank in a discipline, a.k.a. National points and FIS points
<b>Start Area</b>	a controlled area in the proximity of the starting gate
<b>Start List</b>	a document indicating starting order for racers, technical information about the race course, jury names, forerunner names, timing technology, course setter names, event name and location

## 4.2 Organizing Committee

A group of persons who make the necessary preparations and carry out the running of the competition. They are appointed by the organizer of the race and by the FIS (for FIS events). For national level events the organizer is usually a ski club who appoints the organizing committee. This committee is most visible at high level races.

### 4.2.1 The Jury

For all races, no matter the level, a Race Jury must be in place. The Jury is responsible for all decisions concerning the race, for all decisions concerning protests and for upholding all the rules relevant to the event. All members of the Jury become members of the Organizing Committee upon their appointment.

### 4.2.2. Race Committee Members

#### **Chief of Race**

- directs all preparation of the competition and supervises the activities in the technical area
- chairman of the Race Committee
- member of the Organizing Committee
- member of the Jury
- calls meetings of the Race Committee
- directs/controls work of all officials
- generally, acts as chairman of the Coaches Meeting after consultation with the TD

#### **Chief of Course**

The Chief of Course is a member of the Race Committee and the official in charge of preparing the course, supervising maintenance of the course, working with the course setters and supervising the cleanup immediately following the event. This requires someone with abilities in organization, leadership and ability to successfully direct others as well as being a proficient skier. While the Chief is not a member of the Jury, he will by necessity work very closely with the Jury and should participate in Jury inspections.

- supervises all course work
- responsible for the preparation of the courses in accordance with the directives and decisions of the Race Committee and the Jury.
- must be familiar with local snow conditions on the terrain concerned
- supervises course maintenance during the race
- supervises all post-race clean-up operations

#### **Chief of Gates**

- organizes and supervises the work of the Gate Judges and ensures that each has necessary supplies
- instructs the Gate Judges in their duties

- informs the Gate Judges of the “Racer Down Protocol”
- designates the gates each Gate Judge will supervise and places the Gate Judges in position
- collects the gate judges’ cards after each run and delivers to the Referee
- ensures the gates are numbered and marked within the required time

### **Chief of Timing**

Responsible for accuracy of timing, synchronizes watches with the starter as shortly before and after race as is possible, must publish unofficial times as quickly as possible (on scoreboard etc.). If electric timing fails, must communicate immediately with startreferee.

- responsible for coordination of all Officials at start and finish, including timing and calculations
- in slalom, he or a designated person will decide the interval between starts

### **Race Secretary**

- responsible for all secretarial work for the technical aspects of the competition
- responsible for processing of all entries
- responsible for the preparation of the draw
- responsible for the correct information being included in start lists, official results etc.
- responsible for the preparation of the meeting minutes from the race committee, Jury and Team Captain’s meeting
- must ensure that all forms for start, finish, timing, calculations and gate judging are prepared and ready for use and distributed to the Officials concerned in a timely manner
- responsible for receiving official protests and gives them to those concerned
- must facilitate the calculation of results by appropriate preparation and ensure that they are duplicated and published as quickly as possible after the completion of the race.

*Additional ROC roles that may or may not be in play at an event. \*\*\**

### **Chief of Event Quality**

- Ensures that the items detailed below are specifically assigned to a definite person. The non- technical race items are vital to the success of not only a specific race but also to the whole racing program.
- Directs a Chief of Ski Area Relations and a Chief of Awards and Media Relations.

### **Chief of Ski Area Relations**

- Calendaring of the race in conjunction with the ski area. i.e. discuss it with them in advance and don’t simply tell them it’s happening!
- Set-up logistics - when, how and by whom.
- Communication of local rules and race schedule. This is an item that is quite often left to the last minute and may come as a surprise to the ski area. They may not be able to agree to the schedule for instance and the ski personnel must know and agree to that and the local rules especially as to your rules re free skiing, lift privileges, line crashing etc.
- Monitoring of racer activities. A very common problem can be with some racer behavior in the lodge and on the ski area - poor behavior in the Lodge and disrespect to area employees such as lift attendants etc.

- Arrangements for lift tickets

### **Chief of Awards and Media Relations**

- Handles advance promotion of race with media
- Distributes ski area information
- Distributes interest stories to media
- Handles public relations at the race site
- Ensures results are distributed to media
- Arranges awards ceremony. Invites presenters.
- Arranges for photo coverage
- Is the contact with race sponsors and arranges for sponsor materials i.e banners

### *Further job descriptions within a ski race\*\*\**

Assistant Starter: calls competitors to start in correct order and checks their equipment (ensures they have appropriate helmets, etc.)

Assistant Timekeepers: at least two hand timers operate stop watches, one maintains complete records with registered times of all competitors.

Chief of Calculation: responsible for quick and accurate calculation of results. Supervises the immediate duplication of unofficial results and the publication of official results after expiration of the protest interval or after any protests have been dealt with.

Chief of Equipment: responsible for provision of all equipment and tools for preparation and maintenance of courses, for conduct of the race and communication of equipment when these duties have not specifically been assigned to another official.

Chief of Medical and Rescue Services: responsible for organizing adequate first aid and medical coverage be in telephone or radio communication with his assistants during official training periods and actual competition. Must arrange an appropriate facility to which injured competitors may be taken and treated. Race doctor must coordinate plans with team doctors before the start of official training. He must also coordinate plans with Chief of Race before the start of the official training. Should be a good skier, ready at the start and stay in contact with the Jury and members of the rescue service.

Chief Steward: is responsible for extensive safety precautions to ensure that spectators are kept off all parts of the course

Course Setter: must have appropriate experience; appointed by the Jury, or may be nominated at the team captains meeting; must conduct a pre-inspection of the race terrain supervised by the Jury, sets the race course respecting the existing safety measures, course preparation, terrain, snow cover and caliber of competitors and takes speed control into consideration, 603

Electric Time Operator: operates the electric timing equipment

Electric Time Recorder: records the times from the electric clock.

Finish Controller: supervision of the section between last gate and finish; supervision of the proper crossing of the finish line and records order of finishing of all racers who complete the course.

Forerunners: persons with skiing ability to ski the course in a racing manner and who meet all the regulations similar to the participating competitors. The forerunners set a racing line and give course information to the Jury

Gate Judge: responsible for supervision of one or more gates; must observe whether passage of competitor was correct through area of observation; must fulfill a number of other important functions all of which are described in the FIS ICR.

Poster: person who 'posts' the racer's time on the scoreboard.

Race Chairman: person who organizes the race personnel for a race; At lower level races the Race Chair is also the CR .

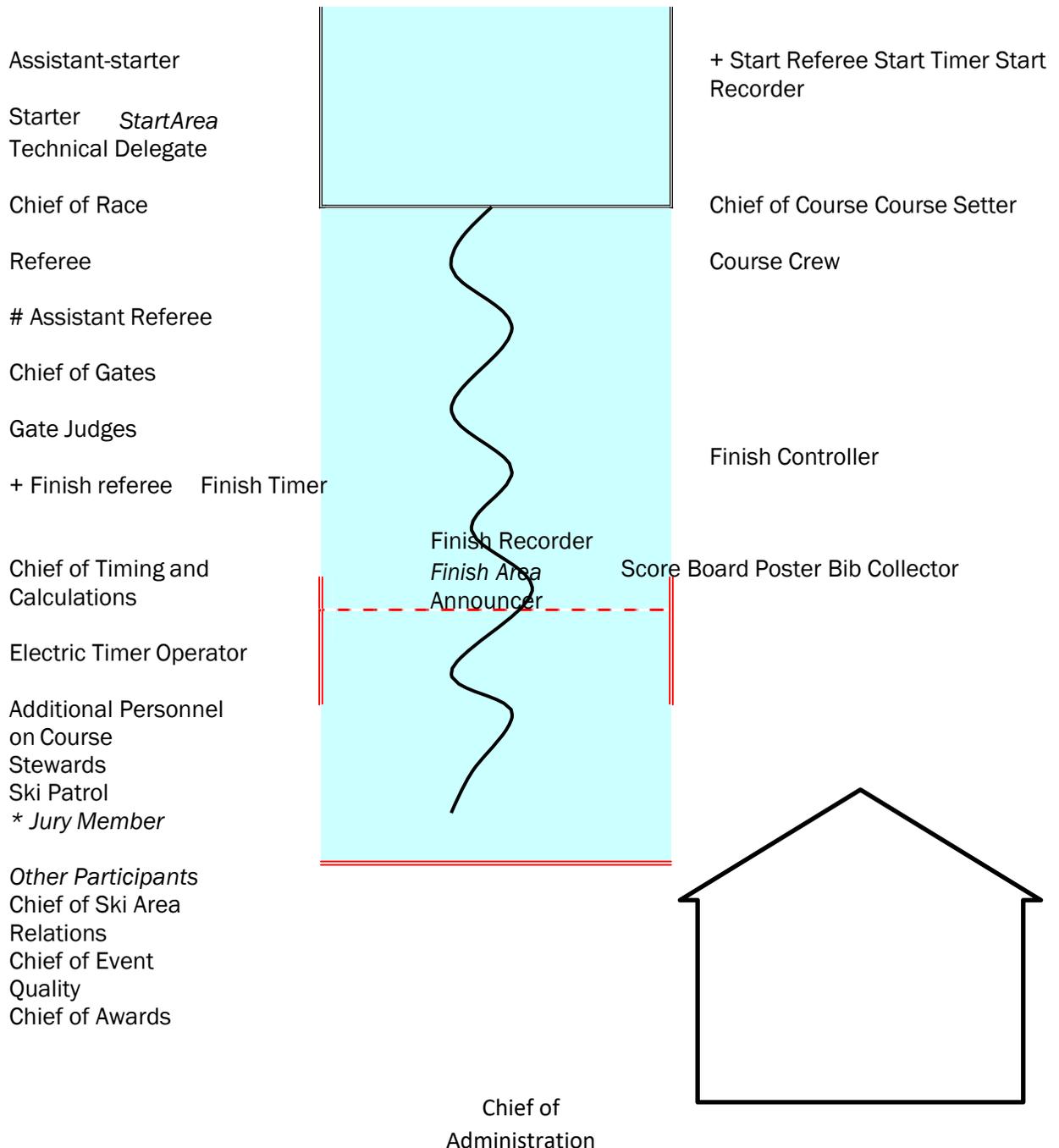
Race Committee: people concerned with all on hill activities and the technical operation of the race.

Runner: a person who runs/ski from one place to another to accomplish a given task; may be from the timing area to the posting board or from the timing area to the Secretariat.

Starter: must synchronize his watch with those of the assistant starter and by telephone or radio or other means with the chief timekeeper within ten minutes of the start; is responsible for the warning signal and the start command as well as for the accuracy of the intervals between these signals; assigns the supervision of the competitors to the assistant starter.

Start Recorder: is responsible for recording the actual start times of all competitors.

#### 4.2.2 Race Personnel On Hill Locations



### 4.3 Case Study 1

You are the Chief of Race for U16 Slalom in mid March. There are 40 women racers and 72 men. The lift opens for the Course Setters and Jury at 7:15am. The racers are allowed to load at 8:00am. The lift closes at 3:30pm. The desire is to have the 1<sup>st</sup> woman racer start at 10:00am sharp. Both women and men will run on the same course.

Please complete your proposed times below and be ready to defend your proposed schedule.

<b>1<sup>st</sup> RUN</b>		<b>2<sup>nd</sup> RUN</b>	
Course Set		Course Set	
Course Inspection by the Jury		Course Inspection by the Jury	
Racer Inspection		Racer Inspection	
Course Closed for Inspection		Course Closed for Inspection	
1 <sup>st</sup> Forerunner Women		1 <sup>st</sup> Forerunner Women	
1 <sup>st</sup> Racer Women		1 <sup>st</sup> Racer Women	
1 <sup>st</sup> Forerunner Men		1 <sup>st</sup> Forerunner Men	
1 <sup>st</sup> Racer Men		1 <sup>st</sup> Racer Men	
Course Closed		Course Closed Tear Down	

## 5.0 Race Administration

This area of operations is one of the keys to the success of a ski race. It is usually the first line of contact for competitors, captains, juries, race officials, organizations, volunteers, area operations, media, sponsors, etc. The Chief of Administration (Race Administer) oversees the activities of the race secretariat also known as the 'race office'. An experienced Race Secretariat will be prepared well in advance of the race in all areas demanding organization such as adequate supplies, equipment and forms needed for the event.

On race day, efficient systems must be in place to ensure the orderly flow of required paperwork such as start lists and results. The paperwork comprising the complete documentation for a race is considerable and must be accurate in its contents.

### 5.1 Race Notice

Race notices are generally completed electronically and provided online either through the club or PSO website. For FIS races, information can also be sought on the FIS website.

### 5.2 Team Captains' Meeting

A team captains' meeting also may be referred to a 'coaches meeting' is held prior to every race. This meeting, its location and conduct have a significant bearing upon the success of a race. The degree to which it is casual or formal can set the 'tone' for the entire race. It gives the visiting coaches and team representatives an impression of the organizer's attitude and expectations toward the race - not to mention the obvious factors of planning and organization or lack of the same. No matter how small or informal, a Coaches meeting is a valuable tool in a well-organized race.

The location of the meeting room must be accessible to the coaches. The time and place of the meeting must be well announced. The location must be private, isolated from public traffic, have

sufficient seating and offer enough room to move around.

In the meeting room itself there is an ideal protocol to follow. There should be a head table with chairs for presiding officials: Chief of Race, Technical Delegate, and Chief of Course. Be sure to invite other key personnel to the meeting such as Chief Gate Judge, Chief of Timing and Calculations and Chief of Ski Patrol.

Simple refreshments add a gracious and much appreciated touch as many of the people may not have had time to 'grab a bite' to eat before arriving

### 5.3 Race Office Checklist

#### PRE SEASON ITEMS – General Planning and Preparation

- \_\_\_\_\_ Ski Area management approval
- \_\_\_\_\_ Review Previous TD reports
- \_\_\_\_\_ National Points List – [www.acapoints.ca](http://www.acapoints.ca)
- \_\_\_\_\_ FIS Points List – [www.fis-ski.com](http://www.fis-ski.com)
- \_\_\_\_\_ Organizing Committee Meetings - take minutes
- \_\_\_\_\_ Publicity Concerning the Race
- \_\_\_\_\_ Lists of Officials qualified for various jobs

#### RACE INFORMATION NEEDED - 4-5 Weeks Ahead

- \_\_\_\_\_ Race Notice - Mailing and Email to PSO office &/or ACA
- \_\_\_\_\_ Registration - When, Location, Time?
- \_\_\_\_\_ Lift Tickets - Costs, Where to Purchase?
- \_\_\_\_\_ Parking, Lodging, Food, Waxing Facilities, etc.
- \_\_\_\_\_ Race Schedule
- \_\_\_\_\_ Ski Area Map with access information for training and racing
- \_\_\_\_\_ The Draw, Coaches and Jury Meetings
- \_\_\_\_\_ Special Regulations / Race Rules
- \_\_\_\_\_ Awards
- \_\_\_\_\_ Contact Race Officials
- \_\_\_\_\_ Assemble Supplies, Equipment
- \_\_\_\_\_ Prepare Your Signs
- \_\_\_\_\_ Race Results Software updated?
- \_\_\_\_\_ Technical Data for the Headers

#### CREDENTIALS - Who Gets What Access?

- \_\_\_\_\_ Race Officials
- \_\_\_\_\_ Coaches
- \_\_\_\_\_ Racers
- \_\_\_\_\_ Visiting Official

#### TEAM CAPTAINS' MEETINGS

- \_\_\_\_\_ Location
- \_\_\_\_\_ Minutes (can be taken on a computer)
- \_\_\_\_\_ Draw

\_\_\_\_\_ Start Lists

## DURING AND AFTER THE RACE

\_\_\_\_\_ Corrected Start lists

\_\_\_\_\_ Processing Protests

\_\_\_\_\_ Procedures for 2nd Run Start lists

\_\_\_\_\_ Race Results: Technical Data, Duplication,

\_\_\_\_\_ TD Reports and Meeting Minutes

Suggested list of supplies for the race office.

Current ICR, Precisions & required Rule Books		Homologation certificate (if applicable)
Current Points List ACA & FIS	Black & Red pens	Inspection certificate (if applicable)
Bulletin Board	Pencils	Hole punch
Blank entry cards	File folders	White paper
Copier & extra toner	Mailing labels	Calculators
Computer(s) & race software	Rubber Bands	Rulers
Surge protector & Printer	Staplers & staples	Paper Towels
Disc (s) or Memory stick (s)	Tacks & pins	Hammer & Nails
ACA or FIS forms	Clipboards	
GJ cards and on-hill supplies	Hi-liter pens (+ colors)	
GJ DVD	Pencil sharpener	
Race bibs – check all numbers	Poster board/signs	
Extra hi # bibs for Start Ref	Tape – scotch & duct	
Forerunner bibs for Start Ref	Masking Tape	
ID for Officials – bands or bibs	Paper clips	
Lift Tickets	Scissors	
Awards & trophies	Small Zip Lock bags	
Draw/Seed Board & cards	Plastic Trash bags	
Clipboards with plastic covers	Sponsor Logos	
Stop Watches & batteries	Transparencies	
Waterproof marking pens	Anti Static fluid	
Cash box & change	Receipts	

## 5.4 Starting Orders

### 5.4.1 1<sup>st</sup> Run Starting Order

*For FIS point races* – competitors are placed in order of their FIS points low to high.

*For National point races* – competitors are placed in order of the ACA points low to high.

*In both of the above cases* - A group of 15 forms the first group and these must be drawn for position. The remaining competitors start in order of their points. Competitors who have no points are drawn in a group at the end.

Some points to note:

If there is a tie in points for the 15th position in the first group, then the first group can be increased accordingly.

If in the first 15 competitors, the point difference between one and the following competitor is too great, the Jury may decide to reduce the number of competitors in the first group appropriately.

*In extraordinary conditions there is a rule for the starting order often called the "snowseed"*

This takes place in Downhill, Giant Slalom Super G and Kinder Kombi (not in Slalom) in the event of actual or anticipated heavy snowfall. Should the conditions not warrant it on the day of the race as decided by the Jury, then it is not used. It should always be drawn as a precaution but if drawn the use of the snow seed must be confirmed on race day prior to the racers starting course inspection.

The "snow seed" is a group consisting of at least 6 competitors chosen by lot from among the last 20% of the start list. They start after the forerunners and before #1 competitor and in reverse order of their start numbers.

For example, in a field of 90 competitors, 20% is 18 and thus the six will be drawn from among bib numbers 73-90. If #75, 90, 77, 81, 84, 73 are drawn, then the starting order will be: 90, 84, 81, 77, 75, 73. These racers are shown on the regular start list with an \* beside their name.

#### 5.4.2 2<sup>nd</sup> Race Start Order – Two, One Run Race Events

In a competition with only one run, the starting order for the second event that day will reverse the top 15 competitors from the start list of the 1<sup>st</sup> event. This means competitors will keep the same bib number but: #15 on the list will start 1<sup>st</sup>, #14 on the list will start 2<sup>nd</sup> and so on. The remainder of the field from 16<sup>th</sup> on, the competitors run according to the 1<sup>st</sup> event start list.

There can be some variation to this rule by each PSO e.g.: BC reverses the top 30 for the starting order of the second event – please check PSO rules to confirm start order other than that stated above.

#### 5.4.3 Starting Order For 2<sup>nd</sup> Run

In a competition with two runs, the starting order for the second run is determined by the result list of the first run except for the first 30 places. For the first 30 places the starting order is as follows:

- the 30<sup>th</sup> in the result list starts 1<sup>st</sup>
- the 29<sup>th</sup> in the result list starts 2<sup>nd</sup>
- the 28<sup>th</sup> in the result list starts 3<sup>rd</sup>
- the 1<sup>st</sup> in the result list starts 30<sup>th</sup>

The remainder of the field from 30<sup>th</sup> on then run according to the order of the result list of the first run. This is shown on the following table:

# 1<sup>ST</sup> RUN RESULTS and 2<sup>ND</sup> RUN START ORDER

Place	Bib No.	1st Run Time	2nd Run Start Order
1	6	54.32	30
2	10	54.56	29
3	4	54.94	28
4	1	55.29	27
5	8	55.33	26
6	3	55.48	25
7	2	55.49	24
8	12	55.51	23
9	18	55.67	22
10	7	55.73	21
11	16	55.75	20
12	5	55.80	19
25	13	57.85	6
26	14	57.89	5
27	9	58.08	4
28	11	58.23	3
29	15	59.18	2
30	17	59.34	1

From the 31<sup>st</sup> onward according to the result list of the first run. If more than one competitor is ranked 30<sup>th</sup>, the competitor with the lowest start number will start first.

e.g.

## ***2 Run Race Events***

**Put the finishers in order of  
first run results**

1  
2  
3  
4  
5  
6  
7  
etc  
to  
25  
26  
27  
28  
29  
30T - highest bib #  
30T - lowest bib #  
32  
33 etc.

**The second run start list  
then looks like this**

30T - lowest bib #  
30T - highest bib #  
29  
28  
27  
26  
25  
etc  
to  
7  
6  
5  
4  
3  
2  
1  
32  
33 etc.

#### 5.4.4 Start Order For 2<sup>nd</sup> Run At FIS Race

The Jury has the right to decide no later than one hour before the start of the first run whether the reversed order shall be reduced to the first fifteen placed competitors from the first run.

### 5.5 Case Study 2

#### 1. MOVE THE RACE

The TD is on his way into a meeting with the ROC and notices the weather is very mild, thinks about the 125 racers that are expected to start in the next few days, and wonders if the course will hold up. Inside the meeting room there are a bunch of long faces. The Club has not held a race in a long time and they had moved in all the fencing, timing gear, poles and other equipment. The teams are booked into nearby hotels and motels. About 20 minutes up the road, and a few hundred meters higher, was another ski area with no race on the schedule and a record of putting on good races, and all the necessary equipment.

What happens next?

#### 2. FORERUNNERS

HOW MANY K2 GS, Whitehorse

Conditions: Firm base, no new snow, Temp -18, High overcast, windy, Near perfect race conditions. The ROC provided 3 forerunners. The first reported the course in great condition. The second crashed 4 gates above the finish and didn't finish. The third crashed at gate 5 and did not continue.

There was a hold while everyone was wondering what happened to the third forerunner. He could not be located and it was assumed he took another route down. Timing was re-set and Racer # 1 started. The coach of Racer # 1 immediately filed a protest on the basis that not enough forerunners had completed the course. The Start Ref called a stop Start and the racer # 1 finished the course.

How did the jury rule on the protest and what sections of the ICR apply?

#### 3. FORERUNNERS – CHOICE

A Club was having trouble getting forerunners for a U16 Slalom. A skier who was in their program last year but not this year comes by and has the ability and a helmet.

Is she a good choice? What rules apply?

## 6.0 Race Jury

### 6.1 Composition of Jury

In control of a Ski Race and ruling on all questions on the interpretation or applicability of the rules is the Race Jury. The nature and function of the Race Jury are very different from those of the Race Committee and have developed in direct response to the needs of ski racing. All members of the Jury and extended Jury are committed to taking decisions that are in the best interests of athlete security, the objective of providing the best possible course conditions from first forerunner to last racer and ensuring the competition is conducted in compliance with the rules of racing. The composition of the Jury is as follows:

#### **Voting members of the Jury and appointment**

Technical Delegate:

Makes sure that the rules and directions of the governing body are adhered to; sees that the event runs faultlessly; advises the organizers within the scope of his duties; is the official representative of the governing body. TD's have the final call in case of safety.

- Appointed by the sanctioning association
- Represents the sanctioning association
- From outside the host organization
- Chairman of the Jury with the deciding vote in case of a tie.

Referee:

As the athletes' representative, draws the start numbers; inspects course immediately after it is set, alone or accompanied by members of the Jury; receives reports of start/finish referees about rules infractions; checks, signs and posts the Referee's minutes immediately after each run on the official notice board and the names of the competitors disqualified, sends report to FIS in special cases or in event of a difference of opinion among Jury members, works closely with TD.

- Appointed at coaches meeting by Technical Delegate
- From outside the host organization

Assistant Referee

- DH/SG: Appointed at coaches meeting by Technical Delegate
- Technical Events: Optional - Appointed at coaches meeting by Technical Delegate  
From outside the host organization

Chief of Race

The Chief of Race has very specific duties as part of the Race Committee. Within the Jury, his responsibilities are to represent the Race Committee and to co-ordinate and implement the Jury decisions as appropriate to the Race Committee

- Appointed by host organization

## Jury Advisors

### Start Referee

Makes sure regulations for the start and start organization are properly observed; stops racers when a "Start Stop" is called, determines late and false starts; determines violations against the rules for equipment; at end, reports to referee names who did not start, have made a false start or late start or other infringements has reserve bibs at the start.

- Must remain at the start from the beginning of the official inspection until the end of the training/event.
- Must be able to communicate immediately with the jury at all times
- Appointed by the host organization

### Finish Referee

Makes sure rules for organization of finish and the finish in-run and out-run are observed, supervises the finish controller, the timing and crowd control.

- Must remain at the finish from the beginning of the official inspection until the end of the training/event.
- Must be able to communicate immediately with the jury at all times
- Appointed by the host organization

## 6.2 General Responsibilities of the Jury

The Jury as a whole watches that the rules are adhered to throughout the race and that the safety of the competitors, officials and spectators is never compromised.

The Jury members have the following general responsibilities:

- Application and implementation of the rules
- Conduct the draw
- Course inspection
- Supervision of start and finish
- Have the right to: cancel, interrupt, or postpone a race, change intervals, shorten the course
- Rule on all provisional runs and protests
- See that FIS rules and modifications are upheld
- Approve the methods of timing and calculation

The FIS ICR can be reviewed for further details in relation to Jury responsibilities

## 6.3 Qualifications for Jury and Other Officials

### 6.3.1 Race Officials for NON-FIS DH, SG Events

Technical Delegate	-Minimum of PSO Technical Delegate with certification in DH/SG events.
Referee	- Minimum of CSCF Development Level (Trained) coach certification, and any of: a) Level II Officials certification, b) CSCF Rules and Regulations Module, c) PSO, National or FIS Technical Delegate with DH/SG certification.
Assistant Referee	- Same as for Referee except CSCF coach certification not mandatory.

Official certification.

Chief of Race	Level II Officials certification
Start Referee	Level II Officials certification
Finish Referee	Level II Officials certification

### 6.3.2 Race Officials for NON-FIS Technical Events

Technical Delegate	Minimum of Divisional Technical Delegate
Referee	Minimum of CSCF Entry Level (Trained) coach certification, and any of: a) Level II Officials certification, b) CSCF Rules and Regulations Module, c) PSO, National or FIS Technical Delegate with DH/SG certification.
Assistant Referee**	Same as for Referee except SCF coach certification not mandatory
Chief of Race certification	Level II Officials
Start Referee	Level II Officials certification
Finish Referee	Level II Officials certification

*\*\*Note: For Technical Events, the position of Assistant Referee is optional.*

### 6.3.3 Race Officials for FIS Races (All Disciplines)

Chief of Race	Level III Official
Start & Finish Referees,	Level II Official
Referee & Ass't Referee	Level II Official, Level III CSCF TBC.
Chief of Course	Level II Official
Chief of Gate Judges	Level II Official

### 6.3.4 Entry Level and Division League Events

All races including weekly races must have a minimum of one Level 2 Official and three Level I Officials.

The use of Technical Advisors (Level 2 & > Officials with practical race experience to assist the Entry Level Race Organizing Committee) is recommended if the EL ROC is not race experienced. The host Club executive are to assign an experienced club Official as the Technical Advisor to work with the ROC and assist with planning and completion of EL race event.

### 6.3.5 National Masters Races

For ACA sanctioned master's races jury certification and officials is the same as the PTSO guidelines for non-FIS technical events and DH/SG events. The TD will be appointed by the PTSO Officials Chairman and will be at least a PTSO TD. Participating competitors cannot be part of the Jury.

## 6.4 Racer Down Protocol

### Context:

Incidents occur at ski races. It is human nature that well-meaning but untrained individuals will attempt to assist athletes following an on-course incident and in doing so, put the athlete themselves and others at risk.

### Protocol:

Generally: Only qualified responders may assist a down athlete AFTER a **course hold** has fully engaged and the Jury Member on site directs that it is safe to approach the athlete.

The Racer Down Protocol is to be strictly adhered to. Persons not complying with this protocol may be subject to sanction by the jury.

1. The Jury member closest to the incident site will call a **“START STOP”**.
  - Before speaking, position the radio microphone 5 - 10 centimeters from the mouth, shield from wind, key the radio microphone button, take a breath, speak in a normal, modulated voice.
2. The Start Referee will confirm immediately on Jury channel “Start is stopped, holding racer number (#) in start, racer(s) number (#) on course”.
3. The person calling the **“START STOP”** will then call on Jury channel: “Racer down at .....(position e.g. gate number, course section name)”.

For GS and speed, “Yellow Flag # (1, 2 or 3)” will be called if necessary.

- It is important that the incident position and the Yellow flag number be clearly stated to avoid unnecessary Yellow Flagging of an athlete that is already **below** the incident site.
4. In the event that an athlete is Yellow Flagged, the Flag Official will confirm, **as soon as possible**, on Jury channel “Racer # Flagged and Stopped at .....(position)”.

### **5. No person is to move onto the course or approach the down athlete until the Jury Member on site confirms that the COURSE HOLD is fully engaged above the site.**

6. The Jury Member on site will direct the quick determination of the need for any medical response and, only as necessary, make a clear request to the Chief of Medical (with or without transport).
  - Not every down athlete requires medical. Not every down athlete needing medical requires transport. It is desirable for all down athletes to be assessed by a medical responder before leaving the race course.
7. **Only** a qualified **FIRST RESPONDER** (member of the Medical Team) will make contact with a down athlete. The **FIRST RESPONDER** may order transport if none has been requested yet.
  - **FIRST RESPONDER** chain-of-command is to be obeyed by all responders.
  - **FIRST RESPONDERS** are not required to relinquish their role to by-stander medical professionals.
  - **Non-trained, non-medical** responders at the incident site may remove “debris” from the race course and assess course repairs that may be necessary. Repair information is to be relayed to the Jury Member on site.

8. Non-medical responders may assist with the athlete response **only under the specific direction of the FIRST RESPONDER in charge of the incident site.**
  - Very few down athletes sustain life threatening injuries, particularly injuries that are imminently life ending.
  - Other than in life threatening circumstances, no person other than a qualified medical responder is to attempt to remove a down athlete's equipment, remove the athlete from nets or attempt to move the athlete in any way. For example, spring tension in bindings likely needs to be zeroed before a ski can be removed.
  - COACHES and BY-STANDER MEDICAL PROFESSIONALS shall not touch the athlete except under the direction of the FIRST RESPONDER.
9. RADIO SILENCE is required immediately following the "**START STOP**" call. **All** persons will clear all radio channels until advised by the Chief of Race / dispatch that normal radio communications may resume.
  - It is critical that the only radio traffic on the race communications system will be among the **Chief of Medical**, the **medical responders**, the **Chief of Race** and the **Jury Member** closest to the incident site. **No Exceptions.**
  - The Chief of Medical and the FIRST RESPONDER will communicate on the medical channel as necessary per established Ski Patrol radio protocol.
  - Once the medical response, if any, is well engaged, the Jury Member on site may communicate with the Chief of Race about course repair information, status, needs. As necessary, the Chief of Race will communicate with the Chief of Course to relay messages to/from the incident site.
10. Jury members will identify themselves to the Ski Patrol members at their assigned stations before the commencement of each training run or race run.
  - Ski Patrol members may rotate out of their position during day. It is necessary to ensure that the Ski Patrol on station knows at all times exactly who the Jury person is whom may be directing them onto the race track.
11. The Jury member closest to the incident site will be responsible for the orderly conduct of the response. Care should be taken to control the number and status of those persons attending at the site and apply a "need to be there" rule.
12. During the response, the Chief of Ski Patrol will reposition Ski Patrol personnel as necessary to ensure adequate coverage upon recommencement of the event.
13. The Jury Member closest to the site will advise the Jury when the site is clear and safe for the event to resume.
14. The Technical Delegate will commence a "Course Clearance" from the bottom up and then, as soon as it is safe to do so, will direct the Start Referee to re-start the event.
15. The Chief of Race will advise Dispatch / all radios when RADIO SILENCE has been lifted so that normal radio communications may resume.
16. Chief of Medical will advise Chief of Race by private means (cell phone, secure txt/bbm) about the destination and status of injured athlete and disposition of ski patrol members involved in the rescue as soon as this information is known.

### 6.5 Case Study 3

One of the duties of a Jury is to decide on protests.

Examples of Jury problems are:

A racer skis through gate 14 but the turning pole of gate 15 has been knocked down by the previous racer and is out of sight. The racer continues, outside of the dye spot where the missing pole belonged and passed through gate 16. The gate judge posts the racer as a DSQ that is protested.

*DSQ stands as racer did not correctly pass through the gates. There must be clear evidence that the racer attempted to correctly pass the gate.*

Same situation, but racer stopped, left course and requested re-run from the Finish Referee. This is granted does it stand?

*Yes. Racer was entitled to re-run and followed correct procedure.*

A racer making a hard turn on the second gate comes out of his binding. Quickly recovering his ski, he returns to the start gate and request another start. Is this a valid request?

*No. Racer is entirely responsible for proper functioning of his equipment. Same situation but it pops as soon as the racer leaves start gate.*

*Same decision.*

A racer knocks down a pole in the top gate of a flush. The pole falls into the flush obstructing the racer's passage through the remaining gates of the combination. He leaves the course and requests a re-run. Is this a valid request?

*Yes. The racer has the right to expect the course to be in good skiable condition. Poles are not expected to be dislodged when hit by a racer. This principle is referred to as 'Interference'. No. Racer created his own problem by striking the pole with enough force to dislodge it. He would have to have substantial evidence that the gate judge was negligent in replacing the pole properly.*

Bib #17 appeared 2 minutes late at the start claiming that the lift had broken down. He was allowed a provisional start. Does it stand?

*Not unless the Jury discovers that other racers were also late and for the same reason. Jury could check with management to see if lift had stopped. Racer has responsibility to ensure he gets to start on time.*

## Jury Case Study

### 1.

You are TD at a men's slalom. The field of 81 competitors finds a well set course with firm surface. In run # 1, racer #44 finishes 8<sup>th</sup>, racer #81 finished 43<sup>rd</sup>. In run #2, racer #44 finishes overall 10<sup>th</sup> in the race. When it comes time for racer #81 to race in the 43<sup>rd</sup> slot, bib #44 comes down the hill again, falls just before the finish, gets up and crosses the finish line.

The Chief of Timing thinks he's seeing double. He calls the start and asks if #44 had a re-run. The reply is "I assumed that was the case". Chief of Timing calls the Finish Referee - "Did #44 request a provisional re-run?" Answer, "No". The Chief of Timing's problem: 2 number 44's with finish times on the 2<sup>nd</sup> run.

The TD is notified along with the Jury. #44 it seems is "John Smith". #81 is "Bill Smith". It turns out they are brothers.

It further develops that #81 took off his bib during lunch and it is stolen. So after his brother, #44 runs the second run. #81 borrows his brother's bib for the 2<sup>nd</sup> run.

*What decisions does the Jury have to make regarding: Racer #81 Racer #44*

### 2.

A slalom racer in the 2<sup>nd</sup> run skied over a wedge in the course between two gates. It had been used to brace a pole in a gate, 8 gates above the one where it slid to rest. The wedges were white plastic. When it slid out of sight, the gate judge simply replaced it with another. The impact of the wedge threw the racer suddenly off balance but he made the next gate without incident and finished the race placing 7<sup>th</sup>. When he told his coach, the coach went to the Finish Referee and got his permission for a re-run. On the re-run, however, he made a time which placed him 12<sup>th</sup>.

What placing would you give him?

What if the rerun had placed him 34<sup>th</sup> giving credence to the fact that the wedge had indeed hindered his run?

Any other comments?

### 3.

After the second run of a men's slalom, there is a protest against disqualification for a hooked tip. The coach protested the DSQ claiming that the competitor should not be DSQ'd in that he crossed the plane defined by the verticals above points where the gate poles entered the snow with both feet and both ski tips. The coach argued that although the video clearly showed one tip passing outside of one gate, the video tape did not prove that the gate pole was vertical. Therefore, there was reasonable doubt involved and the racer should be favored.

What does the Jury decide?

Racer # 17 skied a course on which flex poles are used. Gates 60, 61, 62, and 63 caused a problem because the snow was quite shallow and turn poles were falling as each competitor raced through them. The Finish Referee left his post to assist the

Gate judge and course workers at those gates.

4.

Racer #17 skied through the section and the gate judge makes no note of a DSQ. The Finish Referee requested that #17 be posted as a DSQ for straddling gate 62. The racer and coach file a protest. Other racers, coaches, course crew nearby and the announcer at the scoreboard claim that the racer did not straddle the gate in question.

What will be the action of the Jury?

## 7.0 Re-Runs, Disqualifications, Protests, Interrupted Runs and Termination of a Race

The above mentioned items are run in conjunction with the FIS ICR. It must be noted that the ICR is updated annually and must be reviewed prior to the start of a season to ensure that as an official you are aware of any changes in the rules.

### 7.1 Re-Runs

A competitor who is obstructed while racing must stop immediately after the incident takes place and report this to the nearest gate judge. He may apply to any member of the jury for a re-run. This claim can also be made by the team captain of the obstructed competitor. The competitor should make his way to the finish along the side of the course.

In special situations (e.g. in case of missing gates, failure of the time keeping system or other technical failures), the jury may grant a re-run.

When a competitor is waved down by a yellow flag he must stop immediately. He has the right to a re-run, provided that the jury considers this possible from an organizational point of view. The Jury should ensure that the competitor's re-run takes place before the last competitor on the start list of the race, or training run in the case of DH.

In the case of fixed start intervals, the competitor must start at the fixed interval, after they have reported to the start referee, in accordance with the decision of the start referee.

With non-fixed intervals, the procedure is in accordance with the provisions of article 805.3 in the FIS ICR, "start signal". As soon as the starter has received the order for the next start he gives the competitor the warning "Attention,Go". The competitor must start within 10 seconds after this order.

### 7.2 Interruption of the Run or Training

If an interrupted run cannot be finished on the same day it is to be treated as a terminated run.

### 7.3 Termination of a Competition

The jury is the only people able to terminate a race, and under the following conditions:

- If the competitors are significantly affected by outside disturbing influences
- If conditions arise that interfere with the fairness of the race or if the proper conduct of the race may no longer be guaranteed

### *Reporting\*\*\**

*For all interrupted or terminated competitors, a full and detailed report is to be made by the TD to the FIS and the organizing NSO. The report must contain a well-founded recommendation, as to whether the terminated competition is to be taken into consideration for FIS points or not.*

#### 7.4 No Permitted to Start (NPS)

A competitor will not be permitted to start in any FIS competition who:

Wears obscene names and/or symbols on clothing and equipment or behaves in an unsportsmanlike manner in the start area.

Violates the FIS rules in regard to equipment and commercial markings.

Refuses to undertake a FIS required medical examination.

Trains on a course closed for competitors.

In training for Downhill has not participated in at least one timed training run.

Does not wear a crash helmet that conforms to the Competition Equipment Specifications, or does not have ski brakes on their skis.

Was eliminated from first run.

If a competitor has actually started in a competition and is later determined by the Jury to have been in violation of these rules the Jury must sanction the competitor.

#### 7.5 Disqualifications

A competitor will be disqualified if they:

- Participates in the race under false pretenses
- Jeopardizes the security of persons or property or causes actual injury or damage
- Does not pass through the gate correctly or does not start within the time limits defined

#### 7.6 Sanctions

The commission of an offence may subject a person to the following penalties:

- Reprimand
- Withdrawal of accreditation
- Denial of accreditation
- Monetary fine

All competitors may also be subject to the following additional penalties:

- Disqualification
- Impairment of their starting position
- Forfeiture of prizes and benefits in favor of the organizer
- Suspension from racing

## 7.7 Protests

A just must only accept a protest if it is based upon physical evidence

A jury is only permitted to re-evaluate its previous decision where new evidence exists that relates to the original jury decision

All jury decisions are final except those that may be protested.

Types of protests:

- Against the admittance of competitors or their competition equipment
- Against the course or its condition
- Against a competitor or official during the race
- Against disqualification
- Against timekeeping
- Against instructions of the jury

Place of submittal:

The various protests are to be submitted as follows:

Protests mentioned above are to be at the location designated on the official notice board or at a place announced at the team captains' meeting.

Deadlines for Submittal

- Against the admittance of competitors or their competition equipment
  - Before the draw
- Against the course or its condition
  - No later than 60 mins before the beginning of the race
- Against a competitor or official during the race
  - Within 15 mins after the last competitor has passed the finish.
- Against disqualification
  - Within 15 mins after the posting or announcement of the disqualification
- Against timekeeping
  - Within 15 minutes after the posting of the unofficial result list
- Against instructions of the jury
  - Immediately and no later than the deadlines for submittal of protest.

## 7.8 Case Study 4

- a) Jumper – At a K2 provincial Championship, the ROC was advised that racers had been seen jumping off the lift.

You are the CR. What would you do?      You are the TD. What would you do?

- b) Re-Run – Yellow Flag – A racer is on course, experiences some trouble but continues. A racer further down course crashes and there is a call for a yellow flag. At almost the same time, the racer goes out and slides down to stand by his coach. His coach sends him away to ask for a re-run, apparently saying to him "You've been yellow flagged". The racer gets a provisional re-run and does well enough to get a spot at the CDN Nationals.

Meanwhile, other coaches who witnessed the proceedings speak up and insist the racer went out because he was skiing badly and not because he was flagged. They said they heard the coach convince the racer he was flagged when the racer said he did not see it.

The Jury meets, reviews the details and watch a video of the event. The TD listens to the racers coach who says the racer was flagged and deserved a re-run. The TD phones the racer who is already in his hotel room to interview him. The racer claims he was flagged and that is why he sought a re-run. The Jury examines the video.

The yellow flag person heard the call for a flag. Just as the racer was about to pass the yellow flag zone. He ran out and waved his arms at the racer but in his haste, neglected to take the extra time to actually grab and wave it. When the racer was interviewed, he claimed he saw the yellow flag being waved and therefore stopped. Much discussion followed.

Does the provisional re-run stand and what ICR section applies?

c) Re-Run, When Is It Over?

At the end of the first run of a 2 run SL, the finish ref confirms that the last racer #85 has crossed the finish line. Gate Judges begin to collect their gear so they can take a lunch break before the second run. The public crossing is opened and course workers begin to pull the first few gates.

At this point, the Start Ref announces on the Jury channel that racer 63 wants a re-run. His coach says there was interference by a course worker which caused #63 to go out, and there is a witness to confirm this. Racer 63 did not report this to any officials but his coach insists that even though the racer didn't follow the rules, he should get a re-run.

What is the decision of the Jury? What sections of the ICR apply?

d) Racer Actions/Jury Actions – A racer was disqualified – made a clear gate fault at gate 7 of a SL 2nd run – having won the first run. Since the miss was a simple straddle and his momentum carried him through the next gate, he continued on through the rest of the course.

Consider 3 suppositions:

- A) He merely swung down the course without touching any poles
- B) He skied the course in racing fashion to show how he would have won except for the bad luck.
- C) He charged at every gate knocking poles right and left so it took 10 minutes to put the course back together.

Question 1: What action should the Jury take?

In similar cases the Jury sent a full report to the Disciplinary Commission (DC) and asked

them to take appropriate action.

Another Jury told the racer he would be suspended and requested the DC to set the duration. Another Jury told the racer that he was suspended from all races for the next 2 weeks.

Question 2: Are any, all or none of the above proper Jury decisions & why or why not?

- e) Provisional Re-Run – The Jury is meeting to consider a provisional re-run granted at the start. Bib

#7 was scheduled to start at 13:31. The 2<sup>nd</sup> run start time had been posted the previous day with the actual start time being posted at 12:45. The forerunners departed on time and Bib 7 was scheduled to be the 1<sup>st</sup> racer on course. Excitement was high in the start area with much advice and shouting going on as the racers and coaches prepared for an exciting run with the prospect of a good penalty and each racer hoping for selection to the team trials. With 10 seconds to start time,

#7 was still not in the start gate. He then approached the gate, moving and departed within the legal time limit. The Start Ref indicated a DSQ for false (moving) start with no pole plant. The event was witnessed by the Asst. Ref, the TD Candidate (TDC), and TD. The TDC asked for a re-run based on the confusion at the start and because he felt the racer was going across the start after the 3 second limit.

Action by the Jury? Comment on the action of the TD Candidate.

- f) Protest? - In a GS at gate #43, four gates from the finish several racers have knocked out the inside pole. The gate judge has done his best to replant it. But when #20 well placed after the 1<sup>st</sup> run, and in contention for a medal, was near gate 40 just below the last knoll, before the long steep pitch, the fallen pole had not been fully replaced. Realizing that he could not replace it in time, the gate judge held the pole in the correct position, ducked and removed himself as far as possible from the gate as his long arms would permit.

#20 came over the knoll into view of the finish area at a higher speed than any of the previous racers, in fact he appeared somewhat out of control. He almost fell and barely made it through gate

40. By then he had lost his line to the point of practically stopping as he correctly passed gate 41.

#20 skied out of the course and down to the finish area. There, #20's coach approached the TD who was standing next to the Finish Referee near the finish line and requested a re-run due to interference by the GJ at gate #41. His request was denied by 2 Jury members who had clear view of the whole incident and who stated that, in their opinion, #20 had lost it long before any problem at gate 40 and he would be posted as a DNF.

Before the completion of the second run, the President of the club visited the Race Secretary, deposited the protest fee and his protest against the action of the Jury members in blocking the rerun and requested a quick Jury meeting in time for a re-run, now what?

- g) Nor-Am Re-Run (1) - It's a women's Nor-Am SG. Racer 36 leaves the start, straddles the first gate and leaves the course. A course worker extracts her left ski which was stuck between the two poles of the tuning gate and straightens out the flag.

The Start Ref has held racer 37. The course is cleared and racer 37 is under way. A short time later the Start Ref observes a racer crying in the start hut. It's racer 36. She approaches The Start Ref and asks "It was only the first gate, can I please have a re-run?" The Start Ref asks if she has a coach nearby. No, he is lower on the course. The Start Ref does not permit a re-run. The racer asks if it would be different if he could get her coach to the start. This is a 4th year FIS racer.

What's wrong with this picture?

- h) Nor-Am Re-Run (2) It's a Nor-Am DH with 50 women and 96 men. Conditions are almost perfect. It is 1:48 pm and racer 96, the last racer of the day, is in the start gate. Racer 96 departs and immediately there is a 'stop-start'. Racer 96 is barely at the first gate but it's too late to stop him. He has to be flagged. Racer 96 requests a re-run.

What was the Jury decision, and what sections of the ICR will apply?

- i) Mars Junior Alpine Re-Run - Women's SG. Racer 27 launches from the start, loses a ski and falls in a heap. She asks for a re-run which is denied by the start ref. Racer 36 launches from the start with such force the pole in her left hand breaks through the start area, gets hung up in the mat, and spins her around and off the course. Her coach is standing by the start ref. Neither racer 37 nor her coach asked for a re-run.

What is wrong with this picture?

- j) First Response - During K1 slalom, a girl fell and was slow getting up. Suddenly, a parent/spectator skied over, picked up the girl and skied down the hill carrying her.

Q1: You are the TD and you witnessed this event. What would you do?

Q2: You are the CR and you witnessed this event.

What would you do and

What rules apply?

## 8.0 The Race Course

Course descriptions:

### *Downhill (DH)*

In this competition, the racer must demonstrate excellent skiing technique, agility, concentration, marked endurance and physical fitness as well as courage at high speed. The downhill course is the longest in alpine skiing competitions. The vertical drop varies from 500 m to 1100 m., the terrain is varied and the gates are set to control and to direct the racer instead of demanding turning techniques. There are no gate combinations and the gates are wide and open to the racing line. Thus, speed is significant and safety measures must be taken to ensure the racer is protected in case of a fall. Training runs are obligatory before the competition.

### *Giant Slalom (GS)*

This is a race event combining both slalom and downhill characteristics. The course is moderately long and preferably undulating and hilly with a vertical drop between 250 to 450 m. Turns are a variety of long, medium and short turns set considerably faster than Slalom but still not approaching the speed of Downhill. The gates are set further apart than in Slalom but are needed to control the speed as well as to demonstrate the turning skills of the racer. The gates in Giant Slalom are double-pole gates, as in the Downhill, however with smaller flags and alternating colors between blue and red.

### *Super-G (SG)*

Super G derives its name from Super Giant Slalom implying that the course is both longer and faster than the regular giant slalom. Speed in some straighter stretches of the course may equal those of Downhill speed. The gates are set so they require more turning technical skills than in the Downhill but less than in the Giant Slalom. The Super G is a hybrid between Downhill and Giant Slalom. Because the speeds reached are high, the course is often traced on a course used for Downhill; however with a lower start position because the necessary installations to ensure the racers safety are the same. Flags alternate red and blue in color.

### *Alpine Combined (AC)*

The Alpine Combined event is the result of a Downhill or Super G run and a single Slalom run held according to the technical regulations for Slalom and those for DH or SG. The Alpine Combined event consists of two runs. In FIS events the DH and Super G of the Alpine Combined must be held on specifically homologated for DH or SG courses respectively. The Slalom may be held on these courses. The finish results of the DH or SG are reversed for the SL start order. If possible both runs should be held on one day.

### *Kinder Kombi (KK)*

This non-FIS race event combining 2 different KK events Slalom, Stubbies and Giant Slalom characteristics or Super G and Giant Slalom characteristics is for the K1 program. The course should test the skier's ability to react and adapt to an ever changing rhythm and radius, but be designed to allow the competitors smooth transition between the various sections of gates. The course should flow from SL into GS using GS turns, SL flushes, round turns, or GS turns

increasing radius turns to SG turns, tucking sections where applicable. The entire slope and natural terrain should be utilized and skiing as often as possible across the fall line is recommended. It is not recommended to use vertical combinations for SL flushes.

## 8.2 Regulations and Rules for FIS and National Calendared Events

For a complete list of rules and regulations please review the appropriate documents, FIS ICR or National Competition Rules (NCR) for the current season. These documents can be found on the FIS site (ICR) and Alpine Canada website (NCR).

## 8.3 Course Preparation

An integral and obvious part of a race is course preparation! Perhaps not emphasized strongly enough is the real need for the use of the "Plan Ahead" principle. Although this is a necessary part of all aspects of the event(s) - from the conception of the plan to the storing of the equipment after the race - it is of monumental importance when it comes to the course preparation.

Although it is impossible to cover all aspects of all problems at all areas in all regions, an attempt has been made to cover the major aspects of course and snow preparation.

In the last ten years, monumental progress has been made in race course preparation. This progression has in turn resulted in snow surfaces that contribute to higher and more overall consistent racer speeds. Also, better equipment available to the racer as well as the actual materials used in the competition suits has contributed to the higher speeds now seen in competitions.

On a well-prepared course, with a gradient slightly exceeding 20 degrees, a sliding fall at a speed of more than 90-100 Km (kilometers per hour) has an average stopping distance of 80- 100 meters. If the fall results in a tumbling action the stopping distance will be reduced due to the increased friction of impacting the snow several times during the fall.

The FIS Course Committee requires at least 40 meters as a course width on a downhill course. In a sliding fall it can take 80-100 meters to stop giving a possible difference of 50-70 meters more needed for a racer to stop than a course may have available! This is why it is imperative that protection and / or diversion devices be in place for the racers protection. However, if protection decelerates the competitor too quickly (stops him too fast) as much damage to the competitor can occur as if no protection was used.

There main objective that must be met when using protection devices is to safely decelerate the racer. The force or energy must be absorbed and it must be a controlled deceleration. The amount of energy that a safety system must dissipate can be expressed as:

$$E \text{ (energy)} = \frac{1}{2} M \text{ (mass of the racer)} * V \text{ (velocity)} \text{ Squared}$$

This sounds complicated, but simply put it means that the speed of the racer is a significantly larger factor in the equation then the racers weight. As a rule of thumb the goal is to decelerate a racer traveling at 100 km/hr in NOT less than 5 meters. Engineered and properly installed nets will provide a deceleration zone with minimum rebound action. In nearly every case the net will also provide some diversion of direction. Willy bags absorb a tremendous amount of energy but will seldom provide diversion. It is the absorption of energy that must be achieved in the use of nets, fences, Willy bags, or any other type of device.

This absorption will not happen with nets that are too tight, with large air filled bags and/or rigid fences. All of these items will produce rebound almost equal to, but in the opposite direction of the racer's impact. If the first impact doesn't injure the racer, the rebound will! Always consult the manufacturer's instructions when installing B-Fence (these can be found on the ACA web site listed in chapter 1).

### 8.3.1 Preparing The Course

The selection of the race course is a function of the ski area and the Race Organizing Committee involved. The Trail is to be homologated for FIS races and/or meets the standard required for the level of the competition that is being planned.

In this day and age the ski area personnel usually do the physical preparation of the race course and the snow surface in consultation with the Chief of Race, TD and FIS officials. The ski area is usually the source of the snow cats, snow-making equipment and the snowmaking process, and in most cases the manpower to operate the equipment.

Regardless of the specifics of who does the job, it is necessary that the Chief of Race, Technical Delegate and Chief of Course work closely with the ski area personnel or the other appropriate persons depending on the area involved. All these officials must be able to offer guidance as required while *respecting the knowledge and skills that exist with the people involved with the preparations*. It is still the Technical Delegate's or appointed FIS official's responsibility to pass judgment as to the work done and the conditions of the race course.

The actual work may start as early as the opening of the ski area and continue throughout the skiing season. Normal trail maintenance obviously continues all winter. Sometimes there is only a minimal amount of finish work needed to prepare the course for the actual competition. This may include using the cat to build / shape the start ramp, if a permanent ramp is not available. Almost all preparation of courses today is done by machine. The snow cats with their various implements are by far the best and most efficient tools to properly prepare race courses. The ski race official should learn what the machines can and cannot do on the mountain.

Communication with the area operator / manager as well as the driver(s) of the machine(s) is vital in getting the job done properly and in a timely manner.

The most common and useful implement is the tiller. The tiller, by means of blades or chain flails, turning at a high rpm, can take the air out of soft snow and compact it resulting in a uniform snow surface. The same machine can break up frozen surfaces and leave a smooth consistent snow surface. When used with a spreader, the tiller can also be used to mix chemicals into the snow pack which is then allowed to "set up" or freeze soft, wet snow that is often present in the spring.

Care has to be taken in some snow conditions. A hard crust over otherwise powder or sugar snow can turn into an unusable mess if not tilled the night before so it can set up overnight. No amount of chemical can correct this problem. It would have to be removed down to a level where the snow was again usable for a race event. In some locations, chemicals are applied as soon as the season begins, being tilled in as the run is groomed, to provide a strong solid base for any early season event such as a Downhill or Super G. Depending on the location and natural texture of the snow, chemicals ranging from 0-0-30 (high altitude, dry snow) to 0-0-45/50 (medium altitude, snow with higher water content) is used.

The increasing number of snow making machines across the country gives us a common tool in course preparation and usually assures adequate cover on a trail with snow making equipment in place. In fact, early season races have taken place totally on man-made snow where the race course is the only place that has any snow for miles around!

### 8.3.2 Snow Preparation

In order to prepare cold, dry snow repeated tilling might be required. It is helpful to ski on this snow as much as possible prior to the competition. A final grooming just before the race will polish off the trail nicely.

Water can be used in extremely dry conditions. However, the amount of water that is required is so great that this is practical ONLY where snow making water lines exist. Using the existing water lines the snow can be “wetted” and then tilled. Or for FIS races, the use of the Steinbach Water Bar can be utilized. When using the bar, an experienced person should be retained to oversee the implementation. In extremely cold and dry conditions water mixed with urea can be used as snow cement for small areas. Mixing the chemical with water is more useful than when the chemical is used alone under these conditions. Medium temperatures with a mixture of man made and natural snow respond best to tilling. Mixing tilling and skiing is the ideal long term preparation. When possible, this method works best. If possible, tilling should be done during the warmest time of the day. This allows the snow to set-up during the cold night. Wet spring like snow, caused by warm temperatures, can be compacted with a tiller. If water is present on the surface, various fertilizers spread on the surface will create a hard surface.

There are several chemicals (one is ammonium carbonate) that will harden wet snow for several days if it is spread on the snow and then tilled in several inches. If fine particles of calcium chloride are spread on this surface it will even repel several inches of rain.

The use of caution should be of primary concern when it comes to using chemicals. Calcium chloride, rock salt and other chemicals are tough on the environment, on snow machines and above all else, **MAY NOT BE ALLOWED AT THE SKI AREA.** *Always consult the local area manager PRIOR TO USING ANY CHEMICALS!*

Using a high speed tiller with a slow speed cat gets the best results to mix two types of snow. However, hand work, using rakes and shovels may be necessary in some difficult conditions or small areas.

Icy crusty snow can be broken up and made into a uniform surface by tilling. In some cases this might have to be done on the morning of the event (after a freezing rain during the night) with course setting accomplished after tilling. Texture can be provided to help counter the effects of the freezing rain using rakes. Experience is the best teacher. Keep in mind that each ski area as well as each region has its own set of problems. As a result, they have often developed their own set of solutions. A wise official will always ask questions and consult with the “locals” about the snow conditions and the best methods for preparing the best racing surface under the available conditions.

### 8.4 Protection / Safety Installations

Speed events (Downhill and Super G) are usually the two events that come to mind first when protection measures are mentioned. With the velocity of the modern Giant Slalom course and now more often, the Slalom course as well, it is important to recognize that protection considerations for technical events are also necessary.

The first principle of protection is to keep the competitor from contacting something that is hard and firmly planted (an immovable object). Trees, snow machine, snow making hydrants, anchors, poles at finish lines, television platforms, and spectators are all objects that we wish to keep racers from meeting “up close and personal.”

The racer can be protected from fixed objects by using well-constructed nets or the object can be padded using Willy bags. Another alternative is to use a combination to both decelerate his progress and divert his path away from danger. Of great importance is the contribution of the course setter who leads the racers away from such obstacles.

#### 8.4.1 Fencing

If a primary objective is to decelerate the racer, then the use of a fence is the most practical method. A sturdy, well designed net will decelerate and stop the racer before impacting the obstacles. These nets are not barriers; they are decelerators. They are to decelerate and stop the falling racer.

The more common fencing material used today for serious spill zone protection is nylon netting. It comes in two meter high sections and is mounted on polycarbonate poles with specifically designed “hooks”. This is discussed later under the heading of ‘B’ systems

Double fencing is common where there is a need to provide for stopping power and the racer is expected to be traveling at (great) speed when impact begins. These systems must be installed at least two meters apart to prevent ‘ramping’. That is, if a racer hits the primary and pushes it over, you do not want it to provide a ramp over the secondary fence, which will launch the racer into the hinterlands.

Nets have been used successfully as primary fencing. Specifically, if the fence is away from the actual spill location, so the racer is on the snow when reaching the fence.

C- Fence is used for crowd control as a barrier to keep spectators outside of the race arena. The woven net is installed using polycarbonate poles hung with clips in areas away from the racers fall line where spectators are can watch the race.

##### 8.4.1.1 A-NET System

‘A’ nets are used in Downhill and Super G events to protect areas where it is impossible to use ‘B’ net type fences due to space. These nets are primarily a deflection system designed to push the racer back out onto the course where they will continue to decelerate. They form a barrier between the racer and objects such as trees, rocks, cliffs, etc. These nets are very expensive as well as time consuming to install. The nets must also be well-engineered so that injury does not occur when the net is impacted. The bulk of any net installation should be accomplished in the summer so that only the actual installation of the netting itself is to be done just prior to the competition.

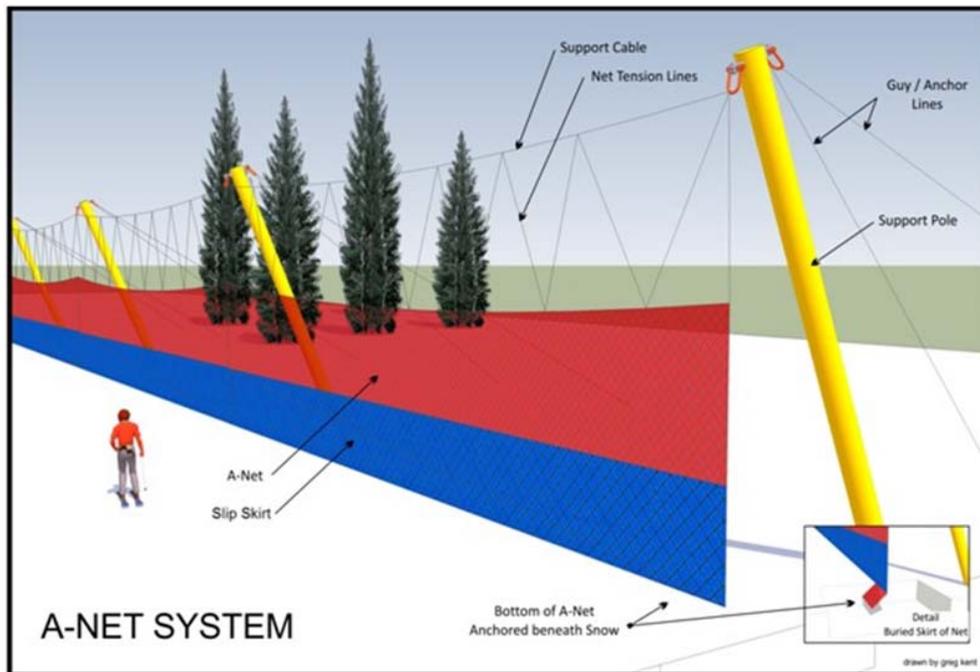
The design of the net system must take into consideration many factors. Some of these factors are: the expected angle of racer impact, sufficient space behind the net to allow for distortion on impact, the height of the net as well as the length of the net. It is more time-efficient to carefully scrutinize each possible design plan well before the on-hill construction process begins.

The most important feature of the net system is that the net itself is covered with material such as polyethylene or small mesh to provide a sliding surface and to prevent the competitor from any intrusion into the netting. This is known as ‘slip skirting’. It is very important to inspect this covering

daily during training and the competition. Any time the net is impacted, the net and the protective covering must be inspected again.

Officials that plan to work with Downhill or Super G events or in areas that have 'A' system nets should consult with an engineer or someone with extensive knowledge and experience before undertaking a new installation.

A-NET fencing slip skirt must be buried at the base to a depth of approximately one foot so the racers will not go under the fence.



#### 8.4.1.2 B-NET System

'B' System nets are specifically designed free standing fencing systems installed where 'A' system nets are not warranted but high speed spills are expected. These systems are designed to decelerate the racer in a short distance. These systems can be of one layer, two layers or three layers. Consideration can be given to using four layers.

Following are some GENERAL principles about B-Fence. The manufacturers installation recommendations MUST be followed. These can be found on the ACA web site at the address listed in chapter 1.

General Principles:

1. Always review the manufacturers specifications for the B-Fence System you are installing.
2. Energy =  $\frac{1}{2}$  Mass \* Velocity (Squared), this defines the problem you are dealing with. Speed is the BIG issue.
3. Don't decelerate a racer traveling at 100 km/hr in less than 5 meters. The resulting deceleration will cause injury even though they do not hit any solid objects. Greater distances must be used at speeds in excess of 100 km/hr. This means that the front layer of fence MUST be a minimum of 5 meters away from any solid object.

4. Check the specifics of your net system on how closely they may be stacked together. The traditional systems may ramp,
5. In general there should be a minimum of 40 meters of fence above the impact zone.
6. Don't mix different manufactures systems together. This means that unlike systems should not be attached to each other, and should not be stacked in front of each other.

#### General Description:

At present there are five main manufacturers of 'B' net systems. It is important that installers become familiar with the specific manufacturer's instructions in installing these systems. It is also important that different manufactured systems not be integrated into the same area. All manufacturers offer installation videos and manuals to assist in installing systems.

These systems incorporate hanging the nets on polycarbonate poles with specially designed hooks, or installing the systems on polycarbonate poles already attached to or in the nets. The poles are drilled into the snow to a depth of approximately 12-14 inches.

The "back" layer of netting is installed 2 to 4 meters from the hazard being protected. The second layer is 2 meters in front of this, and if necessary additional layers are 2 meters apart again.

The theory of this fencing is that a racer hitting the primary will be decelerated and stopped, or if the impact is sufficiently great, be encased in the primary net, half of the momentum (say) in the primary fence; and continuing into the secondary layer to be decelerated further and stopped. If necessary, the process will be repeated with the racer continuing into the third layer another half of the remaining in the second and the remainder in the third. The polycarbonate poles will shear, collapse or be pulled from the snow throughout the system(s) in dispersing the racers impact energy.

It is important to ensure the "B" systems are maintained daily to allow for the proper use when impacted. This could be things like removing any new snow or snow pushed up against the nets during the course of daily activity, replacing poles in the snow due to falling over and other similar duties.



#### 8.4.2 Obstacle Padding

##### 8.4.2.1 Willy Bags

Willy bags should not be used in place of B-Fence. The primary goal is to stop a racer travelling at 100 km/hr over a distance of 5 meters. A Willy bag should not be used to do this. A Willy bag may be used effectively to deflect a racer or used behind netting to absorb SOME of the energy.

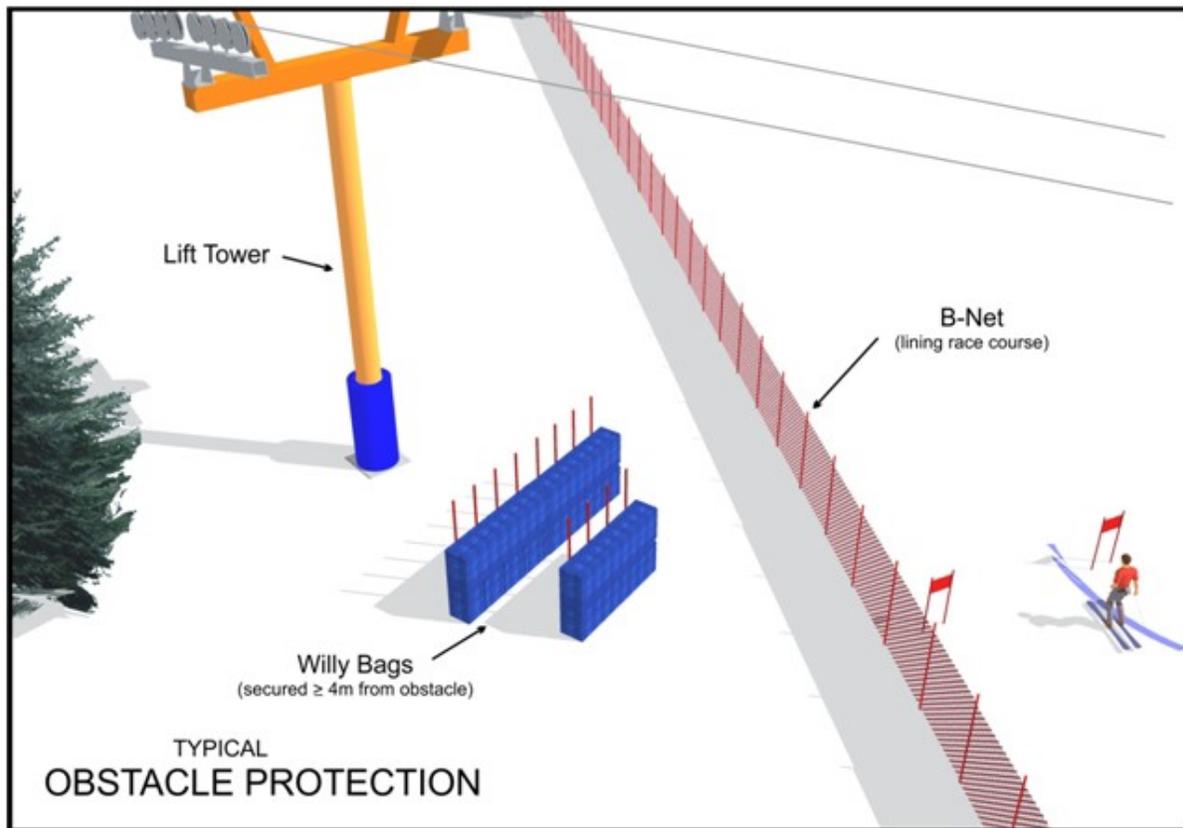
What are “Willy bags”? The first Willy bags were made of Rip Stop Nylon about 2-3 meters long and about 1.5 meters wide, a big sack with a heavy duty zipper on one end. As time went by, the design was refined in order to lower the cost by using Poly Vinyl cloth with nylon mesh reinforcement. In some areas the bags have been made of heavy nylon mesh that was then encased in a nylon bag.

The first bags were filled with polystyrene “peanuts” as this material is available throughout the United States and Canada. The bags should be filled comfortably, but not stuffed, with this material. The poly filling will withstand multiple impacts before it must be refilled. Newer bags are available with inflatable bladders, making their storage off season more compact than the regular bags.

*CAUTION - Ultra Violet Light at Work!*

Almost all materials used for Willy bags, nets and many of the fences are subject to weakening by ultra violet light (sunlight), Nylon materials, polyvinyl and other manmade materials will degrade after exposure to sunlight. The length of time for the deterioration process varies with the type. Weakening of these materials is not easy to see; therefore, these materials and equipment must be checked completely and very carefully each time

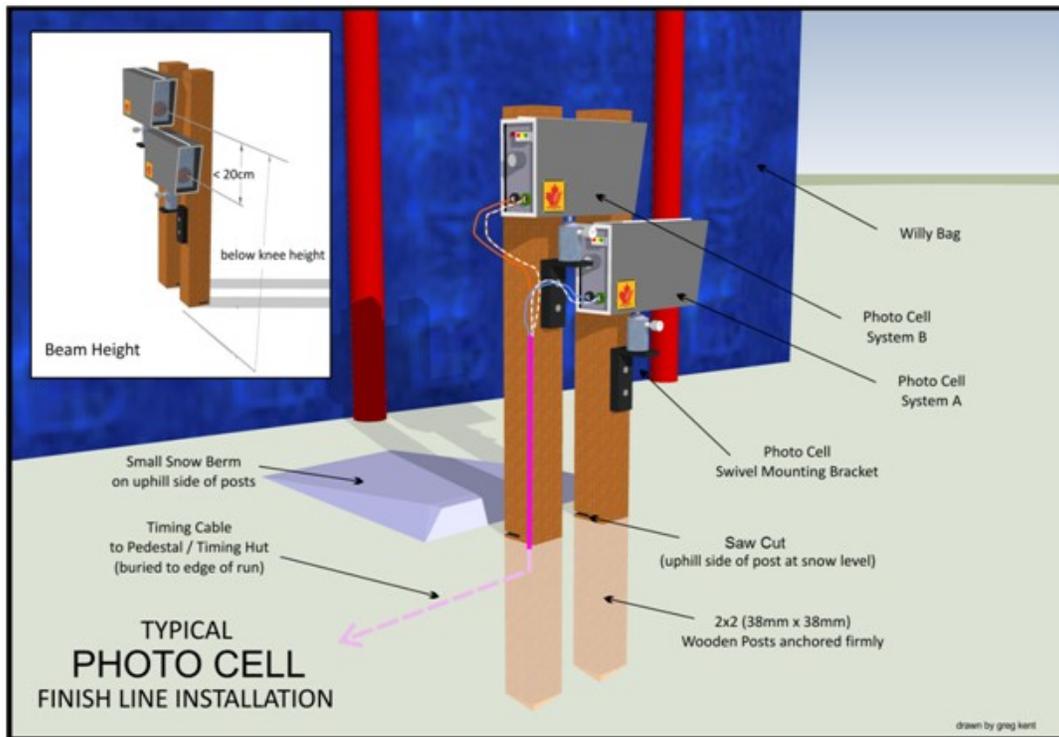
they are used for signs of this “sun checking”.



### *Other Obstacles\*\*\**

Racing introduces some man made obstacles you should deal with. Specifically, timing posts and interval timing locations should be addressed from a safety viewpoint.

The normal safety is to place the equipment sufficiently away from the line of the racer so the chance of impact is greatly reduced. In World Cup racing, the equipment is usually placed outside of all safety and crowd control fencing, and then a small hole in the fence is made so the beam may pass through unobstructed.



In addition to the above, the posts the beams are mounted on are:

1. cut to be no higher than necessary or pounded in to such a level
2. cut at the snow level almost all the way through on the up-hill side so if the skier does impact them the post will shatter.

Lift towers and other man made items such as TV towers or stands need to be protected as well. The preferred protection for these obstacles are A nets, B-Fences and Air fences (not covered here). You may run into a situation where tower nets are still being used. The installations should be installed with the same deceleration and deflection principles discussed above.

## 8.5 Start Area

### 8.5.1 Start Gate and Ramp

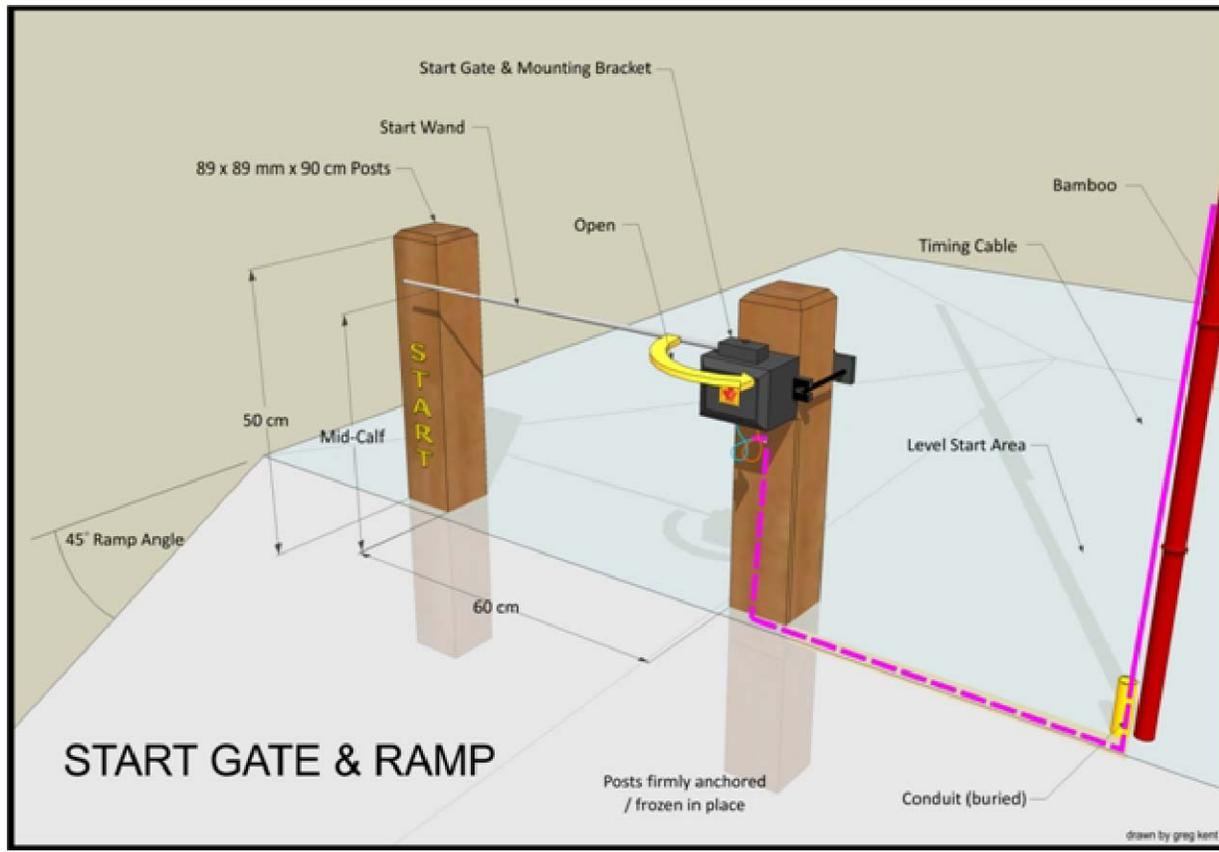
It is necessary to prepare the start area with the same care and attention as the course. When planning and/or preparing the start area several requirements must be kept in mind.

The racer should be able to stand in a relaxed position in the start. A ramp (from the start gate down to the course) should allow for rapid acceleration and clear direction to the first turn.

In addition, there must be enough space to allow the start officials to perform their duties. There should also be space allowed to accommodate waiting competitors, coaches and technicians that will be present in the start area. This area should be separated from the start area officials so that the surrounding noises and preparations of the racers do not interfere with their duties or in any

way compromise the validity of their procedures such as the start timing (hand back-up). The start area should be fenced (or at least roped off) in order to limit access to the immediate start area. This should be positioned in such a way that the area to be used by the competitors is also limited.

The start area can become more or less important depending on the level of the race as well as current relationships with the ski area management people. Unfortunately, it is not unusual for molehills to become mountains when these relationships are strained.



### *Course Workers Entrance/Exit*

Many race organizing groups ignore an important problem - how do course workers, coaches, gate judges and security personnel get onto the course without going through the start wand area. Further, how do they exit without going through the finish line?

A separate entrance for course workers, coaches and so forth should be established in the start area, but out of the line of action of the racers. Similarly, they should be able to leave the course at various points including near the finish without crossing the finish line. Exits along the course will require gate guards to keep the public from wandering onto the race course.

### 8.5.2 Finish Area

The primary requirement for this area is to provide an area large enough to allow the racer to stop without the necessity of performing amazing gymnastic feats or other dangerous maneuvers. The size will vary with the event. Downhill events require the largest area because of the highest speeds. Slalom events would likely require the smallest area as the emphasis in this event is primarily on technical ability. However, keep in mind that speeds are continuing to increase in ALL disciplines. What was sufficient in terms of a certain size several years ago is simply not acceptable today - or even tomorrow.

The terrain should be flat. However, it is even better still if it has a slight uphill slope. The entire area must be fenced. At times additional fencing is needed to protect the tired competitor.

These finish area fences are excellent places to advertise the sponsors, for example.

Finish areas are generally at the bottom of the mountain that usually has a higher recreational skier population. For this reason, care must be taken to protect both the racers and the recreational skiers from each other.

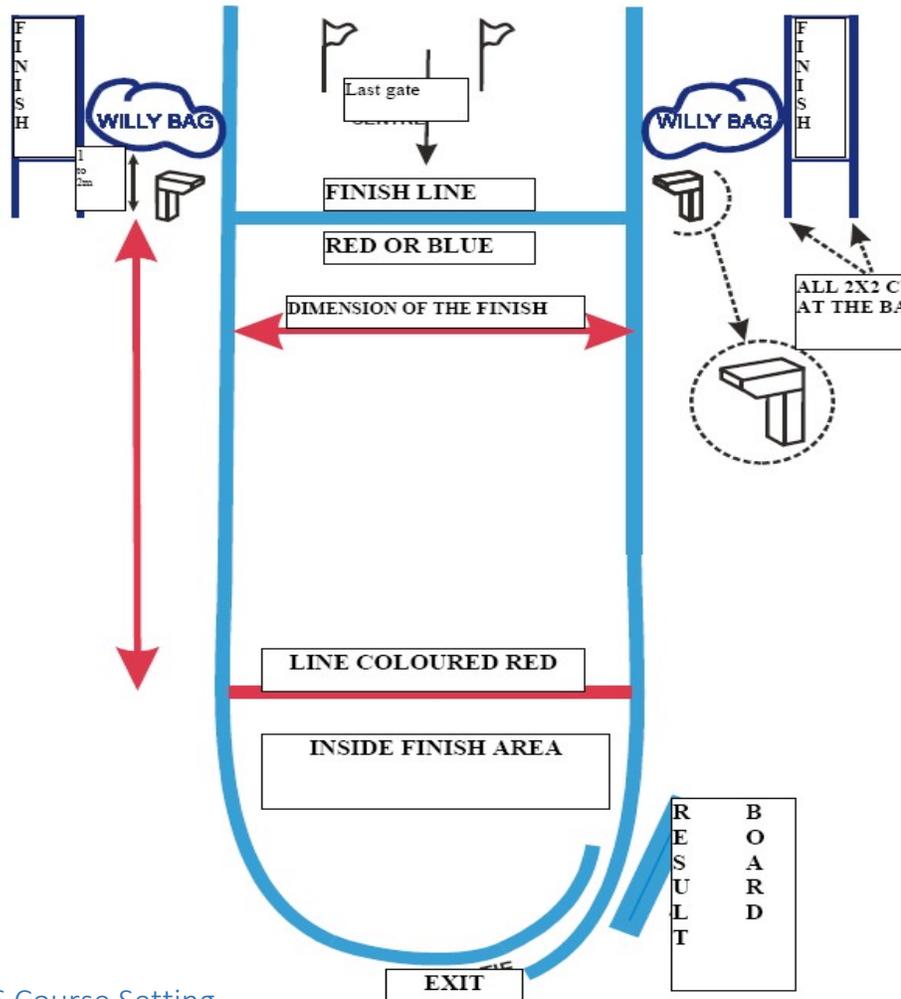
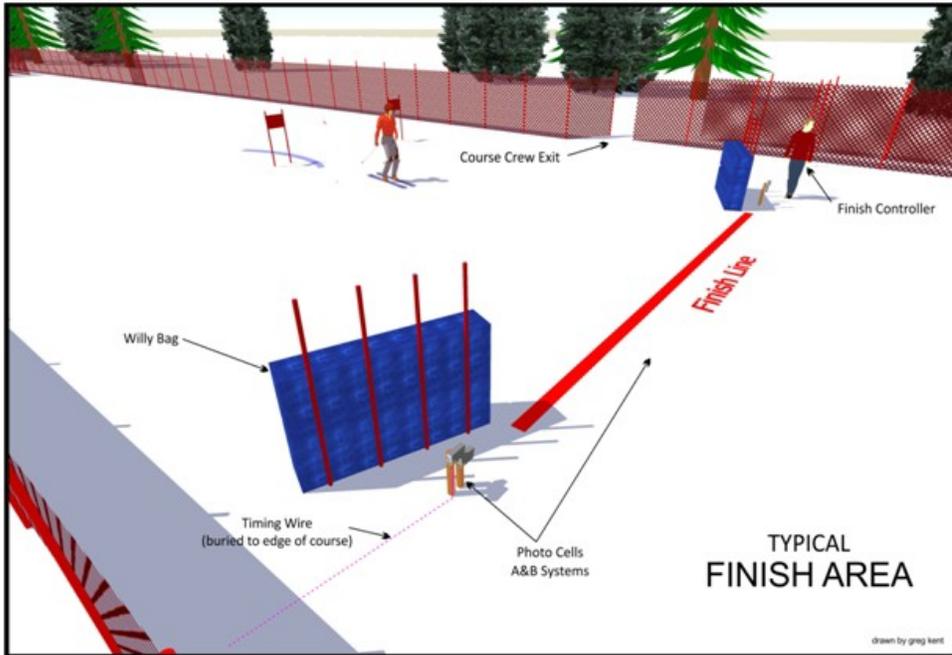
The finish area must be prepared just as carefully as the race course. Hard consistent snow provides an equal advantage to all racers and lessens the chances of injury due to inconsistent snow conditions. It is important to be especially careful when new snow falls as the finish tends to be overlooked during final preparations by course workers. It is easy to understand how excessive loose snow in the finish area could cause a rapidly finishing racer possible injury as he tries to stop.

Finish banners should announce the FINISH for the competitors as well as for the spectators. The posts used to hold the banner should be well away from the competition course and of course, should be well protected by Willy bags. One way to get the posts out of the way is to locate them 20-30 meters away from the track. Ropes or guy wires with break-away fittings should be used to hold the banner in case of high winds or if someone hits the rope/wire, such as a racer. The break-away fittings are buried beneath the snow so as to prevent unnecessary injuries.

At the finish line, the timing posts must be protected by fencing set at an angle to deflect a falling skier, plus possibly by Willy bags. This is in addition to placing them as far apart as possible as the terrain will allow. Most beams can transmit at least 25 meters.

Just as problems in the start area depend on the level of the race, problems in the finish area will also vary according to the level of the event. Attendance of the press, television and other media people will play an important part in the planning for space in the finish area as well as for the start as they'll be there, too! At a smaller event, the primary concern should be limited to the control of competitors, ski storage AND ABOVE ALL ELSE - SAFETY. These are different problems each of which can be solved by adequate planning ahead.

The marking of the finish area should be re-accomplished for every race. A dyed finish line helps both the competitor and the officials. A red line, even if television is not present, is important in that it teaches the competitor what to expect at perhaps his next higher level of competition. In all planning stages and execution of race plans it is important to keep in mind that we are at all times trying to train our competitors.



### 8.6 Course Setting

Under the current rules, coaches set courses. The course setter must set the race course respecting both the overall safety of the racer and the existing course preparation including the already installed protection systems. The course setter must take speed control into consideration. In most cases a local coach will set the first course. Visiting coaches appointed by the Jury sets the balances of the courses. Some areas hosting multiple events

at lower level races have found that if a coach would like to set a course, he/she must also serve as Referee for one of the other events. Each area has different problems although similar in nature and must solve their problems within the rules of the sport.

The organizers, under the direction of the Chief of Course, should be prepared to provide the Course Setter with all necessary assistance when it comes time to set the course. This includes, but is not limited to, sufficient poles in good repair, drills and of course the manpower to help should be available on the hill. The Chief of Course should also have on hand extra fences, Willy bags and gate poles available and ready to install as necessary after the course is set.

A Downhill course is usually set in the same manner every year. It is not uncommon for the course setter to inspect the course approximately 3-4 weeks in advance of setting to become familiar with the track. This does NOT mean that the direction gates are placed in the same position each time. The protection required is known and is often specified on the Homologation Certificate. These protection devices can AND SHOULD be constructed and installed well in advance of the beginning of training.

The Jury, led by the Technical Delegate, is responsible for the technical and protection aspects of the course. They must be sure that the course meets the requirements of the appropriate rules (and/or variations) for the specific competition. This includes all necessary protection measures being fully in place prior to the beginning of training, if required, or the competition.

*A course is closed from the time that the course setting begins. Nobody except the Jury or course setter is permitted to change gates, gate flags, marking, etc. or modify the course structure (jumps, bumps etc.) on a closed course.*

### 8.8 Course Inspection

One area that has probably caused some ill feelings and misunderstanding between race officials and competitors and coaches is the subject of course inspection. Fault for this surely can be found on both "sides".

The competitor inspection is held after Jury inspection and after the Jury has opened the course and is normally inspected from top to bottom of the course. The course must be in racing condition when inspection starts so competitors are not disturbed by workers on the course or similar.

The competitors are authorized to study the final setting of the course by either skiing down at the side of the course at low speed or side slipping through the gates (inspection). Skiing through gates or making practice turns parallel to those required by gates on the course is not allowed.

Competitors must carry their start numbers. Fenced, roped or blocked off sections of the course or gates must be respected. By the end of inspection time, competitors have to be outside the race course.

It is patently unfair and unsportsmanlike if one individual or team can gain a distinct advantage over others either by "bending" the rules ( or disregarding them en masse as has happened) and/or evading the officials whose interest in enforcing inspection procedures is a concern for fairness.

Inspection procedures are developed and enforced, not to inconvenience racers but to ensure them of a better, more equitable race. It is often the actions of a few inconsiderate individuals, including coaches, who force officials to adopt more stringent methods than may appear to be needed.

### 8.9 Training and Racing

In Downhill events and in some Super G competitions one or more days of training is required. It is prior to this 1st day of training that the course should be prepared as for the race that includes all equipment and safety measures in place.

During the training days the Jury must observe the track to be certain that conditions remain safe and allow reasonable training for all. The track itself can be maintained during the training by controlled side slipping or by other available means. After each run is completed more extensive work can be accomplished.

Training days are for everyone! This is when everyone gets to understand what he or she is supposed to do during the real thing. They become accustomed to their tools, location whatever. They also start to understand their responsibilities and those of others.

The actual competition day is the same as the training days. Unless there has been a drastic change in the weather, the Downhill track should be at its best. The course workers and other officials have more experience now as the training days have sharpened their skills and abilities.

The technical events and even Super G to the most part do not give officials the chance to "rehearse" as Downhill training does. This is the "real thing" - it is not a dress rehearsal! This is when the results of all prior planning, organizational skills and a myriad of other details come together. How well they come together will depend most of all on the pre-race activities and planning since the day the race was awarded to the area. The Race Organizers, the Chief of Course and all other officials have developed their own check lists to ensure that the event will proceed in a smooth manner. The necessary tools must be available for course repair. Workers must be available to properly use the tools. Extra poles, flags, drills, shovels, rakes and soon must be on hand to make sure a rapid repair can be made on the course during the race. It is necessary to repair the track during the event it must be done as quickly as possible.

There is still one more step and that is to get the mountain cleaned up and ready for the usual hordes of skiers. As quickly as possible, the flex poles are brought to the bottom. Fences are taken down, Willy bags are collected and the trail is open to the public once again.

This is the best time to inspect all of the equipment. Examine the Willy bags for evidence of "sun checking", tears or cuts. Bamboo should be sorted and the good ones bundled, probably twenty to a bundle, tied and stored out of the weather. Tired bamboo should be retired at this point.

Flex poles need to be examined for breaks, cracks, joint integrity, etc. Those poles needing repair can then be set aside and taken care of PRIOR TO THE NEXT EVENT. Broken poles can be discarded and new poles ordered. The inventory can then be stored in good order and ready for the next race on the schedule.

At the Coaches Meeting (or one of the last ones if multiple occur) the subject of Tear Down should be discussed, if the racers and coaches are expected to participate. Teams should be assigned areas of the course to take apart, or special tasks such as transporting fencing, equipment etc. is assigned. Be sure everyone knows where the equipment is to be

deposited, so it may then be transported further to long term storage containers or location(s). If the racers are not to participate, then the course workers, gate judges, security personnel and others involved with running the race must do this work and be suitably informed of this responsibility early in the process and again on the morning of the event itself.

### 8.10 Case Study 5

- a) Smile, You're On Video – It's the U14 Provincials, The top 20 racers are videoed by a visiting club. They notice that the second place athlete, from another club, straddled. The coach with the video asked the very experienced gate judge if she DSQ'd the racer. She said no. The coach showed her the video and she said, "I'm sorry I missed it". The coach made it clear there would be a protest if the racer was not DSQ'd. The coach of the second place athlete viewed the video, talked it over with his second place finisher. Showing great sportsmanship, the racer voluntarily withdrew, and was recorded as a DSQ.

Should video be used to intimidate officials? Would they have used the video to have their own athlete DSQ'd? Do all clubs have access to video equipment? What other questions, and possible answers, come to mind?

In a further show of great sportsmanship at this event, the 11th place girl reported to the referee that she straddled and was DSQ'd.

Discuss the use of video and list procedures, positives and any negatives

- b) Video Assisted Decision – The first place finisher in 'Stubbie" Slalom at a Provincial Championship was DSQ'd by an experienced Gate Judge. The DSQ was protested and the athlete's coach brought a video which he said was 'inconclusive' and therefore his athlete should not be DSQ'd. The Jury reviewed the video many times before succeeding in freezing the frame at just the right moment. There was the stubbie, clearly between the racers legs. The protest was denied.

Was it appropriate for the jury to consider the Video? What rule applies?

Would the decision have been different without the Video?

- c) Check The Colors – The CR radioed to the TD and Ref he had inspected the course as it was being reset for the afternoon race and everything looked good. Arriving at the start late and relying on the CR's expertise and evaluation the TD and Ref did not inspect the race course as the course crew had already started to fertilize the course.

A coach helping to spread the fertilizer radioed the TD that there was a problem about 2/3 down the course. Skiing to the course problem location, the TD and Ref saw two blue gates in a row, one at the end of a flush and the second blue gate following the flush.

Discussion followed whether to change the gates to the correct color or leave it as the warm sun was quickly deteriorating the snow conditions. It was noted, the rhythm of the course was so that the competitors would ski the rhythm of the course versus notice the incorrect gate color change.

What would you do?

- d) Improper Start – The Start Referee reported a DQ on a racer for improper start in the first run of slalom. The racer was described as having slipped one leg in front of the start wand without "Opening" the wand during the count, thus gaining a more advanced body position than normal. Otherwise, his start procedure was conventional. The Referee posted the DQ. The racer and his coach protested the DQ since the start gate as prepared allowed passage of one leg by the wand without opening it.

What action should be taken by Jury?

- e) Course Set – During the course inspection, The TD notes that the course setter has taken the skiers on a traverse, over a knoll towards the tree line at the edge of the course. The line then calls for a sharp turn back to centre. It is the TD's opinion, that this radical change will have a severe impact on the field. Although both the referee and assistant referee agree with this, they feel that it is the course setter's prerogative to set this way.

A. What does/can the TD do?

B. What does the Jury do?

- f) Finish Problems – The Finish ref noted that stakes in the snow holding the inflated Finish Gate in place were in the racers line and brought his concerns to the attention of the TD. he TD said it was fine. The Finish Ref indicated he was discharging his duties under protest. He also took pictures for possible future reference and for use at TD Updates.

What would you have done, as Finish

ref?

What would you have done as the

TD?

## 9.0 Gate Judges

### 9.1 Guidelines for Gate Judges

Gate Judges are the most important officials during a race and only through efficient gate judging can a race be successful.

Each Gate Judge will be supplied with a GJ card for each run, and a pencil.

The Chief Gate Judge will specify a time and location for all gate judges to meet for assignment of gates. It is important to be on time for this meeting. Boots on, supplies in hand and ready to ascend the lift.

Once a Gate Judge is in position, he/she should mark the card as follows:

- a. Gate Judge's name
- b. Gate(s) assigned
- c. Run - i.e. 1st or 2nd, Men or Women
- d. Make four sketches of the assigned gates on the GJ card
- e. A sketch illustrating the racer's path and violation will be required for all DSQ.

In situations where there is an outside pole, a gate has been correctly passed when both the competitor's feet and ski tips have passed the gate line ~ an imaginary line between the two inside poles of the gate. The racer may do this from any direction and in any manner. But as long as both feet and ski tips cross the line and are inside the poles it is a legal passage.

For single pole SL or GS a gate has been correctly passed when both feet and ski tips cross the imaginary line from turning pole to the turning pole immediately above.

For Downhill (DH), Super G (SG) and GS if the competitor stops (For example: if they fall or miss a gate) they are a DNF and must stop racing. For slalom (SL) when a competitor misses a gate and has to climb back up to the gate, the racer must climb up to the level of the gates and cross the imaginary line of the poles immediately above. In single pole SL, if the racer has not correctly passed the natural race line, then he has to climb back up and pass around the missed turning pole

If questions, PLEASE ASK A JURY MEMBER OR YOUR CHIEF OF GATE JUDGES.

It may be helpful to scribe a line in the snow across the fall line on the outside of the turning pole in order to check the tracks after the racer has passed by.

The decision handed down by the Gate Judge must be clear and unbiased. His conduct must be calm, watchful and prudent. In case of doubt, the Gate judge should hold to the principle "It is better that a fault goes unpunished than unfairly punished".

The Gate Judge should declare a fault only when he is clearly convinced that a fault has been committed. In the case of a protest, he must be able to explain clearly a definitive reason how the fault was committed.

The Gate Judge can consult the adjacent gate judge in order to confirm his notes. He can even demand via a member of the Jury that the race be briefly interrupted, so that he may check attacks on the course

A competitor, in the case of an error or a fall, is permitted to ask the Gate Judge if a fault has been committed, and the Gate Judge if asked must inform a competitor if he has committed a fault that would lead to disqualification.

The competitor himself is fully responsible for his action and in this respect he cannot hold the gate judge responsible.

The gate cards will be collected from the Gate Judges at pre-assigned gates at the conclusion of each run.

Every Gate Judge who has recorded a DSQ or who has been witness to an incident leading to a re-run MUST be available to the Jury if required. Check with your Chief Gate Judge.

If a competitor is hindered during his/her run, the competitor must immediately leave the race course and report this to the nearest Gate Judge. The Gate Judge must enter the circumstances of the incident on his check card and have this available for the Jury at the end of the 1st or 2nd run. The Gate Judge must request the competitor affected by the incident to report immediately to the Referee or another Jury member.

A racer cannot accept assistance in any form. Assistance must result in DNF or DSQ.

Other Duties : ONLY AFTER ALL OTHER DUTIES ARE FULFILLED. IT IS BEST TO HAVE COURSE WORKERS TAKE CARE OF THESE DUTIES. WE DO NOT RECOMMEND THAT GATE JUDGES PERFORM ANY OR ALL OF THESE DUTIES

- Replace gate poles vertically (a leaning pole can aid or hinder a competitor). Replace knocked out poles in their exact positions; location is marked by dye. Replace torn away flags, pennants or panels.
- Replace broken gate poles according to colour (blue or Red) the pieces of broken poles must be stored in a way that will not endanger racers or spectators.
- Maintain and repair the course in the section under control.
- Keep the course free of other racers, spectators, recreational skiers or any form of distraction and hazard.

## 9.2 Number of Gate Judges

The organizer is responsible for having a sufficient number of competent gate judges available who are able to fulfil their duties.

Recommended number of gates per judge:

SL – 3 gates

GS – 3 gates

SG – 1 gate

DH – 1 gate

The organizer must inform the jury of the number of gate judges available for the training and particularly for the race.

## 9.3 Case Study 6

### **Gate Judge Respect**

Chief of Gates at a FIS Slalom at Nakiska had signed up as a volunteer for this race but was not told until he arrived the morning of the race that he was Chief of Gates. The ROC had only 3 gate judges lined up. He was told that everything was ready, and that he could pull some more gate judges from the course workers.

Not enough volunteers, a solid 28 degrees below 0 all day plus strong winds, plus a last minute replacement of the Chief of Race as well.

When Chief of Gates arrived at the start there was a men's and a ladies' course set. The gates were not labeled. The Chief of Course informed Chief of Gates that they could not find gate labels. Chief of gates insisted that labels were required. In the meantime COG tried to

recruit some more gate judges. Several of the volunteers agreed reluctantly to be a gate judge, and several had no experience whatsoever.

The race was about to start and COG proceeded down the course with the gate judges (8 - 10 gates per gate judge)! No labels. The TD decided to start the race without labels for the ladies run. The labels eventually arrived for the men's run. They were put on in a hurry, and one or two gates were missed. When the gate judges switched to the other course it was most confusing.

The result of this mess was that gate judges wrote down the wrong gate numbers for several disqualifications. They also wrote down the wrong bib numbers in 2 cases because during the second run the starter did not start according to start list but according to when the racers arrived at the start (everything was late by that time).

Several of the disqualifications noted on the gate cards were protested. Because the gate judges disagreed on the gate numbers, and also disagreed on the bib numbers. The TD eventually decided that there would be no disqualifications for any of the protests because of these discrepancies. Chief of Gates felt that this was not a fair race. He called a meeting with the Jury

Please discuss what you would have done as a member of the Jury or as Chief of Gates.

### **Communication**

A racer narrowly missed the last gate in a flush, skiing partly over the knocked down pole, he made a hockey stop and yelled something at the Gate Judge. The Gate Judge yelled "what"?. The racer continued down the course. When his DSQ was announced on the loudspeaker, the racer's coach protested that the racer thought the gate judge said "Go".

- A. Should his time stand?
- B. Should he get re-run?
- C. Should he be DQ'd?
- D. Could he have skied off the course and obtained a rerun?

What if the gate judge had called "Go back"?

### **Gate Judge Error**

Following a U14/ U16 SL, the TD was working on race results in the race office when a distraught gate judge told the TD she has mistakenly DSQ'd a racer. The novice gate judge had written down all the competitors who DNF'd at gates above and below him. When he saw the SL results, the Gate Judge realized that on the morning Run he had written down an incorrect number, #63, a competitor that finished the race instead of racer #62 that DNF'd in his area of the arena. The gate Judge asked the TD what could be done to rectify this error.

Could anything be done?

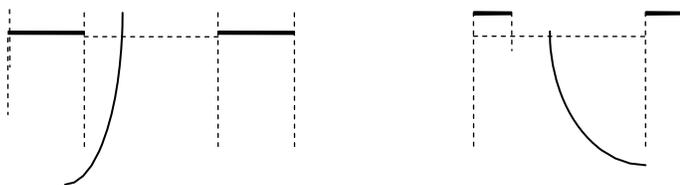
What actions would you have taken as TD?

What recommendations would you make persons teaching officials courses and doing pre-race training sessions on the hill?

### **9.4 Gate Judge Quiz**

Please answer true or false to the following questions:

1. The best position for working your gates is off your skis.
2. If in doubt, always rule in favor of the racer.
3. It is O.K. to tell a coach why you called a fault on one of his racers.
4. The outside pole is most important - replace it in position if a racer knocks out both poles.
5. You can interrupt (or call course hold) for a brief time if you need to check the tracks of a racer in question.
6. A racer missed a gate and finished the course, realized it and asked for a re-run. It will be allowed.
7. You as a Gate Judge could be called to a Jury Meeting?
8. The most important thing to take into consideration when packing gear for a day on the hill is weather change.
9. The minimum number of forerunners will be 3.
10. You should be in position about 15 minutes before the start.
11. Indicate the turning poles and dye spots in the following examples.



## 10.0 Timing

Events on the FIS calendar and ACA National Calendar must use the FIS timing rules outlined in the ICR for the appropriate season, National Competition Rules and current FIS timing booklet information.

National calendared races differ from FIS races in that homologated timing equipment and the use of 2 electronic timing systems in non-championship races are recommended but not required.

### 10.1 Rules for Timing

ACA National calendared races a minimum of one electronically isolated timing system operating in time-of-day is required. It is recommended the ROC use a second synchronized timing system for all races if they so choose. ROC's using one electronic timing system should consider synchronizing with their manual timing system.

For all FIS competitions, FIS World Cups, FIS Continental cups, provincial U14 & U16 championships, U16 Western & Eastern Championships, U16 Can-Am and National Master Championships; two synchronized electronically isolated timing systems operating in time-of-day (minimum precision 1000<sup>th</sup> of a second, 10000<sup>th</sup> is standard for most timers) must be used. One system is be designated system A (main system), the other system B (back up system) prior to the beginning of the race.

## 10.2 Calculated Net Manual Time – EET

System B or Hand times may be used in the official results after a correction has been calculated.

Effective fall 2017, the missing System A **time of day** element (start impulse or finish impulse) is calculated to the precision of the System A timer (1,000's or 10,000's of a second, as applicable) and manually inserted into the timing data (M flag).

- TOD Replacement produces better result, most of the time
- TOD replacement works with or without synchronization
- Math can be done either way, alternate minus primary or primary minus alternate
- For athletes missing both start and finish time, NET Time calculations (old method) produces exact same result as doing the math with a replaced TOD start and replaced TOD finish
- Replacement calculations should be done to the .001 precision
- **Look for and use electric system B whenever possible, no matter how you do the math, electric gives a much better result!**

### 611.3.2.1

- Calculation of the correction **time of day impluse**:
- Subtract the electronic time from the time taken by hand (or vice versa) for the all of the 10 competitor times preceding the missing time. If there are not 10 times before, complete the calculation with the remaining times after the missed time.
- The sum of the 10 time differences is divided by 10 and rounded up or down (0.044 -> 0.04, 0.045 -> 0.05) to give the correction which must be applied to the hand time of the competitor without an electronic time.

.001 primary and .01 replacement system (hand timing)				Calculate to
Bib	Sys A TOD Fin	HT Finish TOD	Sys A - HT	Sys A precision
27	08:19:18.019	08:19:17.88	0.139	
30	08:21:20.141	08:21:19.92	0.221	
31	08:27:20.215	08:27:20.14	0.075	
32	08:28:01.178	08:28:01.13	0.048	
33	08:28:40.759	08:28:40.58	0.179	
34	08:29:21.983	08:29:21.94	0.043	
35	08:30:03.018	08:30:02.86	0.158	
36	08:30:38.179	08:30:38.03	0.149	
38	08:31:20.619	08:31:20.52	0.099	
39	08:32:01.521	08:32:01.43	0.091	
Missing	40	08:32:43.89	1.202	
		<b>/10</b>	<b>0.120</b>	Add to HT to calc missing A finish pulse
	Replacement Finish		Primary Start	Resulting Net Time
	08:32:44.010	minus	08:31:24.489	<b>00:01:19.521 Calc'd A time</b>

Refer to the current ICR and the National Competition Rules for further timing details.

## 10.3 Starts, Countdowns and Finishes

### Start Time

The start times shall register the exact time of the day the competitor crosses the start line with his leg below the knee.

### Start Countdowns

DH, GS, SUPER G (ICR art. 613.4) SL (ICR art. 805.3)

Start Signal	10 seconds, 5-4-3-2-1	(10 seconds) Ready
- GO Start Interval	60 seconds	Irregular
Minimums	Min. of 40 sec. DH, Super G Min. of 30 sec. GS	
Valid if	Leaves within 5 seconds. 10 before or after the the the signal GO	Starts within seconds after signal GO
Sanctioned	Not ready to start on time	Is not at start within 1 min of being called.
Disqualified	Leaves more than 5 within 10 seconds, before or after signal start signal	Does not leave seconds of start

## Determination of Finish

The finish line must be crossed on both skis one ski of with both feet in case of a fall in the immediate finish area between the last gate and the finish line. In this case, the time is taken when any part of the competitor's body or equipment stops the timekeeping system.

## Finish Timing

With electric timing, the times are taken when a competitor crosses the finish line with and part of their body or equipment and so breaks the beam between the photocells.

In the case of a fall at the finish, the time can be taken without both of the competitor's feet having crossed the finish line.

For the registered time to become valid the competitor must immediately cross the finish line with or without skis.

For hand timing the time will be taken when any part of the competitor crosses the finish line.

### 10.4 Timing Technical Reports

Timing reports completed by the chief or timing are valuable audit documents requesting data on the timing equipment used and information that authenticates the accuracy of the timing procedure. The timing reports are specific to the level of race event.

### 10.5 Case Study 7

#### Hand Timing Synchronization

I was start referee at a National Para-Alpine Race. Ten minutes prior to the race start, the referee asks to have the synchronization of the watches checked. I complied by calling the finish referee and doing the same countdown that was used to synchronize the watches an hour earlier in the race office. The numbers were not even close. We had two watches and a spare at both the start and finish and two hand timers at the start and finish.

What would you do?

### 10.6 Timing Quiz

1. Convert the following times from seconds to minutes.

61.15 seconds =

180.61 seconds =

124.47 seconds =

2. Convert the following times from minutes to seconds

3:10.61 =

2:01.39 =

1:12.32 =

3. Add the following and convert to minutes and seconds.

59.06

74.49

41.18

69.19

69.94

32.31

4. Calculate the elapsed time.

Finish	11:01:48.01	Finish	11:02:46.05
Time Start	<u>11:01:01.69</u>	Time Start	<u>11:01:59.24</u>
Elapsed Time		Elapsed Time	

5. Round off the following numbers to the nearest 100th.

$$49.115 =$$

$$145.561 =$$

$$19.999 =$$

## 11.0 Points System

Competitors in alpine skiing are ranked according to their point standing in each of the five disciplines i.e DH, SG, GS, SL, AC. Points are calculated to an accuracy of the two decimal places with the top racer in the world having 0.00 points. The better the racer, the lower the points.

### 11.1 Definitions

**Race Points:** These points are determined by the specific formula in which the racer's time is compared to the winning time. The winner of a race always gets 000 points. Race points are used in the calculation of race penalty.

**Racer Points or Result:** A racer always gets a result from a race – that is his race points added to the race penalty.

**Seed Points:** Points are calculated using result or race points. Usually the average of the best two results in each discipline is used to calculate the points.

**Point Lists:** The points list shows listing of competitors giving their points in each discipline. Two point lists are used, the National and the FIS list. Each are valid for a specific time period and only the current list may be used for race entries.

**Race Penalty:** This is a calculated number used to equalize races held on different hills. It also allows for weighing the race results according to the caliber of the competitors finishing among the top ten finishers in that race and their performance relative to their seed points.

### 11.2 Race Points

Race points are a handicap system that compares a racer's time with the winner's time, based on a linear function. Because races are run within a well defined set of limits and rules, the winner's time and other times in a specific race can be related to other similar events.

Race points are calculated on the basis that the winner receives "zero": points and all others some greater value based on how much longer they took to complete the course compared to the winner.

The following formula is used :

$$P = [(T_x/T_o) - 1] \times F$$

P	=	race points
T <sub>x</sub>	=	racer's time in seconds
T <sub>o</sub>	=	winner's time in
F	=	seconds
		60/(CM - 1)

The CM value is arrived at by statistical analysis of worldwide results every two years.

Note:

Since F factors are calculated on worldwide statistics they change periodically. Current F factors may be found on the first page of the FIS points list. This list may be found on the Alpine Skiing/FIS Points section of the FIS web site at [fis-ski.com](http://fis-ski.com) Also note that the Kinder Kombi F factor is the average of the Slalom and GS F factor.

For use on pocket calculator the formula is restated as:

$$P = \frac{F \times T_x}{T_o} - F$$

All calculations must be done to at least 4 decimal places. Some Important Points to Note in this Calculation:

- All steps of the calculation must be done to at least 4 decimal places with no rounding off occurring until the calculation is complete.
- Rounding off to two decimal places is done as follows:

Ignore the 4<sup>th</sup> decimal place and use the value of the 3<sup>rd</sup> decimal to round the 2<sup>nd</sup> decimal place.

0 - 4 goes down i.e. stays the same, 5 - 9 goes up.

e.g. 105.5689 goes to 105.57      105.5649 goes to 105.56

As there are no sets of tables for manual back-up calculation, checking of the program and your calculations must be done on a regular basis. Note that a 'To' time of 100 seconds in slalom and a T<sub>x</sub> time of 108 seconds will give a points value of 48.00. The same times will give values of 70.40 in GS, 84.80 in Super G and 105.60 in DH. This will allow you to check your program.

You should also check that the winner's time gives a value of 0.00 points.

### 11.3 Race Penalty

Not all races are of equal quality and to simply give all winners the same point value would not differentiate between the various levels of races. Therefore, each race has a penalty calculated for it that is a direct measure of the caliber of the race. The lower the penalty, the better the caliber of the race.

### 11.3.1 National Race Penalty

The procedure for calculating a national penalty is as follows, using the national penalty calculation form.

List top 10 finishers

Add up list points for the best 5 list point finishers who started the race irrespective of where they finished or even if they finished

Add the results of the best 5 who finished and the best 5 who started

Deduct the race points of the best 5 list point holder

Divide the result by 10

*Some important points to note in the national race penalty calculation\*\*\**

The maximum penalty value for a national level race is 500. The “fill in” point (500) is to be used in case there are less than five racers with national points. This “fill in” is also to be used if the racers points are over 500.

There will be no “adder” used at national level races

If two or more competitors have the fifth best points, which should be taken into consideration for the penalty calculation, the competitor with the higher race points will be considered for the penalty calculation.

### 11.3.2 FIS Race Penalty

Calculation of the FIS race penalty is similar to the national race penalty however correction value and category adder is inclusive. Please refer to the FIS Point Rules for the appropriate season for the calculation of the FIS race penalty. The rule book can be found online under the following link

<http://www.fis-ski.com/inside-fis/document-library/alpine-skiing/index.html#deeplink=rules>

## 11.4 Calculation of Race Points

In order to determine how a racer did, you add the race points + penalty points for each racer to determine total points for the race.

For example;

	Time in Sec	Race Points	Penalty	Total Points
Winner	111.72	0.00	125.18	125.18
Comp A	116.26	23.16	125.18	148.34
Comp B	116.72	25.51	125.18	150.69

These calculations are done electronically by either the national or FIS point systems.

The value that appears for each competitor on either the national or FIS point lists is calculated by averaging the points results of the two best races in one season for each discipline.

For example;

If Comp A's two best results were in one discipline were the above result of 148.34 and 156.24 then the value for comp A in the points list would be:

$$(148.34 + 156.24) / 2 = 152.26$$

Should comp A then get a result in this season which is better than either of the two values used above, then the points will improve, if they don't they will maintain the above result.

## 12.0 Ski Cross

Ski Cross was created as the part of very early alpine ski competitions, which had the so-called 'mass starts'. The mass start was used, for example, in the one of the first races, the 'Inferno' in Mürren Switzerland, developed by a group of British skiers. Modern variations of the 'mass start' concept were first used in snowboarding and now in skiing since the late 1990's.

Freestyle Ski Cross is an event of the FIS Freestyle Ski Discipline, with Athletes using a combination of Freestyle and Alpine Skills competing head to head on a Snowboard Cross Course, all done with an attitude.

Typically, each race is now limited to either 4 or 6 starters with the top half of the field moving onto the next round. In ski cross, there are series of quarter-finals, semi-finals and then final rounds.

Not restricted by formal structures and formats, the ski cross event found a home in the FIS Freestyle discipline. The bulk of the competitors now come from the Alpine discipline and structures on the course have been modified from the Olympic Snowboard cross event.

The ski cross course is specially designed to test all of the skiers' skills, with different features including turns of different types and sizes, jumps of varying size, flat sections and traverses, along with rolls, banks and ridges which are constructed on a normal ski slope. Each Ski Cross course will be very different in layout. A Ski Cross course is very much influenced by the terrain and location it is built on, as well the design of the builder.

Physical endurance and strength is also a key factor, since the winning skier must ski between 4 and 5 runs of 60 seconds or more.

A Ski Cross athlete will always be challenged with change, racing each heat with different opponents, different lines, speeds and split second decisions that will never mirror the last run. Truly a test of multitasking at high speed.

The International Freestyle Skiing Rules (ICR) defines Ski Cross as:

After a timed qualification run, a group of competitors' compete against each other on a specially prepared Ski Cross course that includes different types of turns, jumps, waves and other freestyle terrain features.

Race Format

There are 4 phases in a Ski Cross race. These phases can be run in one or two days.

- 1: Inspection Phase
- 2: Training Phase
- 3: Qualification Phase
- 4: Finals/Heats or Knock Out Round

Each phase is an integral part of the competition format. This format is structured to provide safe training, structured qualifications and fair Finals seeding.

## 12.1 Ski Cross Officials

### **Level 2**

Ski cross Level 2 will cover a detailed understanding of event Flow and execution. An in-depth look at key Officials roles, responsibilities and expectations. Safety will be reviewed and updated from the Level 1 presentation with more technical explanations and descriptions. Study and discussion of the rules and rule book with a look at how the rules are applied by the officials using case studies as examples. Qualification timing and Explanation of finals Ladders and how they run. There will be an Introduction to course building and features.

#### Course Description

Time required: 3-4 hours classroom, 2 hrs practical on hill if conducted around a Camp or event  
Course Fee: TBD

Pre-requisites: Ski Cross Level 1 Officials course , Practical experience in 3 or more entry level or FIS level races , 3 different officials positions .Participation in Ski cross Training Camps may apply for Chief of Course, Start and section Chief positions

Exam: Open book exam and group case studies

#### Level 3 pre-requisites

Completion and Level 2 certification, Participate as an official at 4 FIS level events. Participating as a member of the Jury in 2 of those events (Referee or Chief of Competition). Participated in a different Chiefs (Leadership) role at each event.

### **Level 3**

Ski Cross Level 3 will involve study, discussion and interactive sharing of Case Studies and Rules as they apply to competition scenarios. Continued review of Safety and updates. Detailed look and the study of Key officials roles (the Jury) and the roles of the Technical Delegate. Course building theory and Maintenance. Race Administration, Timing and Tabulation.

#### Course Description

Time required: 6 hours classroom, 2 hrs practical on hill if conducted around a Camp or event Should be broken into 2 days

Course Fee: TBD

Pre-requisites: Completion and Level 2 certification, Participate as an official at 4 FIS level events. Participating as a member of the Jury in 2 of those events (Referee and Chief of Competition). Participated in a different Chiefs (Leadership) role at each event. Must have participated as Chief of Gate Judges.

Exam: Open book exam and group case studies

### **Level 4 / CSX Technical Delegate**

Candidates for the Ski Cross Level 4 / CSX Technical Delegates designation must be nominated by the PSO or National Officials committee including other NSO's. (Canadian Freestyle Ski association, Canada Snowboard)

The nominee for level 4 /CSX Technical Delegate will have completed all levels of Ski Cross officials training and participated in all officials positions at a national level

## 12.2 Roles and Responsibilities

### Major SX Officials

- TD
- Chief of Race (competition)
- Referee
- Chief of Course
- Chief of Start
- Chief of Finish
- Chief of Gate Judges
- Chief of Timing
- Course Builder
- Connection Coach/Course Setter

### Minor SX Officials

- Starter
- Assistant Starter
- Bib Coordinator
- Gate Judges
- Finish Judges
- Hand Timer
- Finish Timers / Timing Crew
- Medical Services/Patrol

Depending on the level of the SX event, all officials on the above mentioned list may not be required to be present.

## 12.3 Execution of Ski Cross

In the competition round, the starting order is typically dictated by the qualification times of the athletes. There is a chart for determining which athletes participate in which heat. There relative qualification times will dictate which color bid each competitor will get for the first-round elimination heats.

The start order and heat organization are dictated by the ICR as follows:

### 12.3.1 Number of Competitors Per Competition

Finals are based on either 32/64 or 16/32 ladies and men with 4 competitors per heat or either 48 or 24 ladies and men with 6 competitors per heat.

### 12.3.2 Qualification and Final Format

Ski Cross will be run according to a single knockout (KO) or group heat (RR round robin) format. Timed runs are used to qualify competitors for the Ski Cross Final.

No Qualification and Final Format In case of a "No Qualification Format" all competitors are filled into the Heat Bracket (4506) according to rule 4505.3.1, 4505.3.2, 4505.3.3

## Seeding for the Qualification

For World Cup, World Championships and Olympic Games the best 16 competitors present will be drawn according to their highest ranking on the WCSL, WC points list of FIS points list. If the competitors are tied the higher points in the second category will decide their position. If they are still tied their position will be decided by a draw.

The first group (8/16) will be randomly drawn, the remaining competitors will be ranked according to their higher ranking on the World Cup point lists of the FIS point list.

For other FIS competitions the best 16 competitors present will be drawn according to their highest ranking on the FIS point list. The remained competitors will be ranked according to their FIS point ranking.

The non-ranked competitors are assigned bibs based upon a random draw.

In extraordinary conditions, the jury may change the starting order for the qualification. A group of at least 6 competitors, nominated in advance, start before start number 1. These competitors are drawn from among the last 20% of the start list. They will start in reverse order of their start . This rule is not applied with the organizer provides at least 6 qualified forerunners.

### Start Lists

No changes, additions or substitutions shall be permitted to any Start order after the draw was made. This is when the race has officially started.

### 12.3.3 Qualification and Final Formats

Most races start with 1 timed qualification run but this phase of the race doesn't have to be used. Another qualification/seeding method could be using FIS points or National points. This method of seeding is typical when a Round Robin format is being used or no timing is available.

In the qualification, if two or more competitors have the same time, then the competitors that started later in the qualification will win the tie.

Wireless timing as per the ICR is permitted for SX qualification below world cup level.

The choice of which of the start gate stalls is to be used for qualification phase of the competition will be decided made by the jury. If multiple codex's are assigned the Jury has the right to run both qualifications in one day.

The top 2 competitors (4 per heat) or top 3 competitors (6 competitors per heat) advance from phase to phase as determined by their rank of finish in each heat.

## Round Robin

Ranking of the Round Robin Group Heats Competitors will be awarded points according to their ranking in each heat: four (4) points for first place, three (3) points for second place, two (2) points for third place and one (1) point for the fourth place. Those competitor(s) who did not start (DNS) in a heat will get zero (0) points

Round Robin Group Heat Intermediate Ranking After heat twenty (20), there will be an intermediate ranking from the 1st to 16th place according to the total points each competitor has scored during the group heat phase. If the competition cannot be completed, the intermediate ranking can be used as the final results.

DNS during the Round Robin Group Heats Phase: In case of Did Not Start (DNS) competitor(s) during the group heats, the competitor(s) will not advance to the next group heat, semifinals or finals.

Participation in the Semifinal If DNS competitor(s) cause a semifinal heat to have fewer than four (4) competitors in each heat, then the classification range of the Group Heats (9th – 16th) increases by the number of missing places in each heat to ensure four competitors per heat (e.g. if one heat in the semifinal only has three competitors, then the classification range of the Group Heats increases by one: 9th – 16th)

Semifinals The eight (8) top-scoring competitors from the KO or the RR format will qualify for the semifinals.

Participations in Semifinal Competitors placed 1st, 4th, 5th and 8th in the ranking will take part in Semifinal 1. Competitors placed 2nd, 3rd, 6th and 7th in the ranking will take part in Semifinal 2. See 4506.3.

Participations in Small and Big Final The first (1st) and second (2nd) ranked competitors in each Semifinal will qualify for the Big Final. The third (3rd) and fourth (4th) ranked competitors in each semifinal will qualify for the Small Final.

Final Ranking of all Competitors Ranking of the fifth (5th) to eighth (8th) in the final ranking will be according to the results of the Small Final. Ranking first (1st) to fourth (4th) in the final ranking will be according to the result of the Big Final. If the Small Final is not completed, losers of the semifinals are ranked first by their placing (3rd, 4th) then according to their qualification rank within their group. Ranking nine (9) to sixteen (16) in the final classification will be according to the result in the group heats. The remainder competitors will be ranked according to their qualification rank.

### 12.3.4 Determination of Rank

The top 2 competitors (4 per heat) or top 3 competitors (6 competitors per heat) advance from phase to phase as determined by their rank of finish in each heat

Ranking in each heat is determined by the first part of the body that crosses the finish line.

Whenever possible a finish line camera should be available.

Ties in Heats before the Final

## Tie Break Rules

Tie Break Rules in Group Heats In case of an unbreakable tie in a heat, all competitors will receive the same number of points.

Tie Break Rules after Group Heats In case of a tie between two (2) competitors, the competitor who had higher rank in their common heat will be ranked first. If they remain tied, the competitor with the better qualification rank will advance. In case of a tie between three (3) or more competitors, the tie will be broken based upon their qualification rank.

Tie Break Rules during Semifinals: The competitor who was first among the two tied competitors when they competed in the same heat will advance. If they remain tied, the competitor with the better qualification rank will advance. If still tied, the competitor with the best rank in the FIS points list will advance.

Tie Break Rules in the Finals: In case of an unbreakable tie in the Big Final or in the Small Final, they will remain tied.

Unbreakable Ties in the Heats For the KO format - in case of an unbreakable tie in the heats (between the 2nd, and 3rd or 2nd and 3rd or 4th placed competitors), the competitor with the lowest qualification rank will advance.

Unbreakable Ties in the Final. In case of an unbreakable tie in the small final or the big final, they will remain tied.

In the case where more than one competitor does not complete the course not cross the finish line, the rankings in that heat will be based upon the location where the competitor(s) have completed the course. The competitor that made it further down the course will receive the higher rank.

#### 12.3.5 Final Pairings

Pairings for the finals will be according to the following:

#### **Ranking for 8 heats / 4 per heat with 32 ladies' or men**

HEAT #	1 <sup>st</sup> Position	2 <sup>nd</sup> Position	3 <sup>rd</sup> Position	4 <sup>th</sup> Position
1	1	16	17	32
2	8	9	24	25
3	5	12	21	28
4	4	13	20	29
5	3	14	19	30
6	6	11	22	27
7	7	10	23	26
8	2	15	18	31

#### **Ranking or 4 heats / 4 per heat with 16 ladies' or men**

HEAT #	1 <sup>st</sup> Position	2 <sup>nd</sup> Position	3 <sup>rd</sup> Position	4 <sup>th</sup> Position
1	1	8	9	16
2	4	5	12	13
3	3	6	11	14
4	2	7	10	15

**Ranking for 8 heats / 4 per heat with 64 ladies' or men**

HEAT #	1 <sup>st</sup> Position	2 <sup>nd</sup> Position	3 <sup>rd</sup> Position	4 <sup>th</sup> Position
1	1	32	33	64
2	16	17	48	49
3	9	24	41	56
4	8	25	40	57
5	5	28	37	60
6	12	21	44	53
7	13	20	45	52
8	4	29	36	61
9	3	30	35	62
10	14	19	46	51
11	11	22	43	54
12	6	27	38	59
13	7	26	39	58
14	10	23	42	55
15	15	18	47	50
16	2	31	34	63

\*\*\* It should be noted that there are provisions within the ICR to have 6 athletes per heat however that happens very infrequently. If you are faced with an event with 6 athletes per heat please refer to the ICR for assistance!

Round Robin Group Heat Seeding Table Pairings for the Intermediate phase will be according to the following for the Group Heat Format:

Group	Heat	Bib Assignment per Group Heat			
		Red	Green	Blue	Yellow
1	1	1	2	3	4
	2	5	6	7	8
	3	9	10	11	12
	4	13	14	15	16
2	5	1	5	9	13
	6	2	6	10	14
	7	3	7	11	15
	8	4	8	12	16
3	9	1	6	11	16
	10	2	5	12	15
	11	3	8	9	14
	12	4	7	10	13
4	13	1	7	12	14
	14	2	8	11	13
	15	3	5	10	16
	16	4	6	9	15
5	17	1	8	10	15
	18	2	7	9	16
	19	3	6	12	13
	20	4	5	11	14

### 12.3.6 Bibs

Qualification bibs are numbered front and back for better visibility by the course judges. For the final the main 4 colors of the bibs will be red, green, blue and yellow. White and black will be used additionally if a 6 person format is used.

Assignment of the bibs in each heat is based upon the competitor's qualification ranking. The highest ranked competitor in the qualification is assigned their bib and can choose the lane first. The second ranked competitor is assigned green third blue and fourth yellow.

### 12.3.8 Ready for Start

It is the responsibility of the athlete to arrive at the start gate in time. A missed start is a DNS.

During the team captains' meeting before the final phase, a start interval will be announced by the jury.

Each starting position is identified by the lane of the start gate. Looking up to the course the start gate the positions are set from left to right. Position 1 is to the far left, position 4 to the far right.

### 12.3.7 Start Ramp and Start Device

The start gate is to be placed in the center of the course. The gates have to open simultaneously and it must be impossible for a competitor to open the gates themselves or block the opening of the gate by applying force to the gate.

The hinged gates are each 100cm wide and 40cm in height. There shall be 60cm between the outside edges of each gate section.

It should be possible to have the height of the handles at 95cm above the snow level and set parallel to the hinged gate. Different positions for the handles should be available for children and junior competitors.

The size of each handle shall be 10 cm long with a width between 3 cm to 4 cm. The width between the ends of each handle needs to be between 80 cm to 90 cm. The starting surface of the gate must be covered with a protection for the skis. The gate must have sufficient weight to operate properly.

The locking system should operate in such a way that the gates open outward, as least past 45 degrees, on operation of a single control mechanism.

It is permissible to use an electronic device to open the drop door. Every drop door needs to be locked into place and then released from the same electronic impulse. The random release time must be between 0.0 and 4.0 seconds. For the Start Command, on 'attention' the random sequence is begun by the Starter.

On the World Cup, World Ski Championships and Olympic Winter Games, the Electronic Release device is mandatory.

The electronic release device must also have a back-up power source available that can meet the demands of a minimum of 20 start sequences. If this back-up system fails it must be possible to operate the start gate through the use of a mechanical starting release system.

All start devices for FIS World Cup, World Championships, and Olympic Winter Games shall be approved by the FIS.

### 12.3.10 Start Commands

We are ready for the next heat, proceed to the start gate.

Enter the start gate (approx.30 secs before command)

Skiers ready

Attention – followed by the starter opening the start gate or in the event an electronic starter is used, the starter beginning the random start sequence which is random between 0 – 5 sec

### 12.3.11 Competitor Responsibilities

Provide adequate accident insurance

Must have a recognized binding system and ski stops in all competitions.

Responsible for a thorough knowledge of the Rules and Regulations; in addition to being familiar with the specific rules for Freestyle Skiing and with ICR.

Must attend each prize giving ceremony at which they are due to receive an award and must be properly wearing the correct bib. Also, winners must attend media functions. The prize giving ceremony time must be fixed in the official competitor information. However the competitor is not obliged to attend award ceremonies held on any day other than that on which the competition is completed.

As a condition of and in consideration of their entries therein, all competitors and their parents or guardians shall be deemed, by signing the Athletes' Declaration, to agree to assume all risks of injury to the competitors' person and property resulting from, caused by or connected with the conduct and management of the competition and to release any and all claims which they may have against the officials, the host National Ski Association and the clubs or Organizers holding the competition and against their officers and their entries shall only be accepted on this condition.

In all competitions, all competitors must wear helmets.

#### **Did Not Start (DNS)**

DNS is imposed for each competitor who when listed on the start list for a round or phase, does not start. When competitors receive a did not start (DNS), they will not be permitted to start (NPS) in the next phase.

If a competitor does not start in the qualification phase after the start list has been produced, the competitor shall receive no place in the competition.

DNS shall be imposed for a In competitor's Final run, if not starting in the Final, after performing the Qualification run. The competitor will receive the same place as a DNF in that phase.

Ski Cross if a competitor, who does not start in a phase other than his or her first phase they, shall receive DNS for that phase and be placed equal to the losers of that phase.

Ski Cross, if a competitor enters the course before the start command is completed pursuant to ICR Rule 3043.4.4.1 and Rule 4507.7 respectively. DNS shall be imposed.

A Ski Cross competitor who does not start (DNS) in any phase of the final, shall receive the last place in the ranking for that final phase. If two or more competitors DNS in a phase, they are ranked according to their qualification rank. A Ski Cross competitor who does not start in a subsequent phase shall receive the last rank of that phase.

### **Not Permitted to Start (NPS)**

A competitor will not be permitted to start (NPS) in any Ski competition who:

1. wears obscene names and/or symbols on clothing and equipment (art. 206.4) or behaves in an unsportsmanlike manner in the start area (art. 205.5, 223.1.1)
2. violates the FIS rules in regard to the FIS Specifications for Competition Equipment and Commercial Markings (art. 222 and 207).
3. refuses to undertake a FIS required medical examination (art. 221.2)
4. trains on a course closed for competitors
5. did not participate in a training session by taking at least one training run
6. does not wear a helmet that conforms to the Specifications for Competition Equipment or does not have ski brakes on their skis
7. was disqualified, (DSQ / DIC) did not start (DNS) or did not finish (DNF) in the first run or first phase.

### **Disqualifications (DSQ)**

DSQ can be imposed for not complying with the Competitors' Responsibilities or with Joint Regulations for all Ski Competitions, Competitors' Obligations and Rights (see 205). All decisions concerning DSQ will be the responsibility of the Jury. DSQ / DIC/DQB will appear on the Final result sheet but shall receive no numerical ranking. When a DSQ / DIC /DQB is imposed on a competitor in the Final Phase, then the competitor shall receive no rank in the competition. All competitors from the Qualifications will move up a rank in the results list. DSQ / DIC /DQB will be imposed:

1. if a competitor submits any false information or enters a competition under false pretenses.
2. for violating the rules for start procedure, with the exception of "force majeure" as outlined in ICR 3043.6.1.
3. for violating any rules on equipment according to sections 3037; 4008.2; 4206.1; 4306.1 and 4511 and the FIS Equipment Rules, Section E.
4. DQB (Disqualification for Behavior) for unsportsman-like behavior.
5. if not qualified according to 203 - Licences
6. if a competitor alters a course or jump or trains on a closed course or does not stop, when flagged in ski cross.
7. if a competitor accepts outside assistance of any form.
8. if a competitor does not wear a helmet in training or competition.
9. DIC (Disqualification for Intentional Contact) For intentional contact in Ski Cross (see 4508).

### **Re-Runs**

A Jury member can authorize a conditional re-run, on condition that the reasons for it are later confirmed. The competitor may start in the middle of the interval between two successive competitors, immediately after reporting to the Starter, except where 3057.11 applies. If the competitor has already been disqualified before the incident for which a rerun was granted, the re-run will not be valid. A competitor may appeal to a member of the Jury for a re-run

immediately after having been obstructed during his run; they must, however, leave the course as soon as possible.

The following are considered acceptable circumstances:

1. Obstruction by an official or a spectator.
2. Obstruction by an animal.
3. Obstruction by a competitor who has fallen and has not cleared the course on time.
4. Objects on the course, such as ski poles abandoned by a competitor in a fall.
5. First aid measures which obstructed the competitor.
6. Failure of course to be properly maintained.
7. Any other similar occurrences, outside the competitors' control, causing him to fall, slowing him down or lengthening his course, thus significantly influencing the result.
8. Complete failure of timing systems.

Did not Finish (DNF) A DNF classification in the qualification phase will receive and be listed with no rank on the result list. When competitors receive a did not finish (DNF) and are not ranked, they will not be permitted to start (NPS) in the next phase. All decisions concerning DNF will be the responsibility of the Jury. The competition officials may impose a ruling entitled "Did Not Finish" (DNF) for any infractions listed below. This list does not restrict the ruling of the officials for any infraction, which may occur and is not listed below. DNF may be imposed:

1. for skiing out of the course boundaries, which includes not crossing the gate line or the finish gate. In the Ski Cross qualification or the final if a competitor misses a gate (4501.2.5), he must no longer continue through further gates and must move off the course and is not allowed to go back.
2. In the Ski Cross qualification or the final if a competitor misses a gate (4501.2.5), he must no longer continue through further gates and must move off the course and is not allowed to go back.
3. Loss of Ski(s) A competitor who, having started, loses one or both skis, shall receive a ruling of Did Not Finish (DNF) for that run. The loss of other equipment, including ski pole or poles, shall not result in DNF provided that the competitor finishes.

#### 12.3.12 Contact

Intentional contact by pushing, pulling or holding another competitor's arm, leg or pole or other means, which causes another competitor to slow down, fall or exit the course is not allowed and is an automatic disqualification.

A competitor is not allowed to bring their arm, leg or ski pole in front of another competitor's body to avoid being passed. Blocking, by intentional movements of the body or leaving the natural skiing line is not allowed.

The "natural skiing line" is defined as the fastest way between the features and around the gate line. All contact infractions will be at the discretion of the gate judges and the Jury.

#### **Disqualification for intentional contact (DIC)**

Should a competitor be disqualified based upon an infraction of rule 4508.1 such competitor shall be "Disqualified for Intentional Contact" (DIC) and will not be ranked in the competition.

Re-runs shall not be granted solely as a result of a violation of Rule 4508.1 and all competitors in the heat, other than those that receive a DIC, shall be ranked as they finish. Re-runs will only be given pursuant to the applicable provisions of Rule 3057.

All violations of Rule 4508.1 which result in a DIC shall be announced in the finish area and communicated to the competitor that received the DIC or their Team Captain as soon as possible and in any event prior to the commencement of the next heat. The DIC will then be posted on the official notice board at the bottom and top of the course indicating the section of the course where the infraction occurred. All DIC decisions must be recorded and reported by the FIS Technical Delegate in their TD Report.

When a competitor receives a 2<sup>nd</sup> DIC in one competitive season, the Jury is required to refer the competitor to the Appeals Commission pursuant to Rule 224.13.

Should any competitor in a heat feel that a violation of Rule 4508.1 occurred in that heat and was not announced to be a DIC, they may request of the Finish Referee or any other member of the Jury that the heat be reviewed. Such request must be made prior to the start of the next heat.

## **Protests**

There shall be no protests of a decision that a competitor has violated rule 4508.1 of the ICR.

*\*\*\* Please note that the ICR is updated annually and must be reviewed prior to an officials undertaking for the season to ensure any rule changes are known.*

### 12.3.13 Final Ranking

#### **Four Person Format**

Competitors 1 to 4 are ranked according to their place of finish in the final heat. Competitors 5 to 8 are ranked according to their place of finish in the phase. All remaining competitors are ranked according to their ranking in each heat, the phase they go out in (e.g. quarter final) and their qualification times within that phase. (example: competitors ranked 9 to 16 in the quarter final would be ranked according to their ranking in the heat and then by their qualification times.)

In the case of a “No Qualification Race” the place/rank in the heat order shall be used to rank the competitor.

Athletes in the top 8/16 whose bib number has been randomly drawn will use their WCSL/WC/FIS rank for finals ranking.

#### **Six Person Format**

Competitors 1 to 6 are ranked according to their place of finish in the final heat. Competitors 7 to 12 are ranked according to their place of finish in the phase. All remaining competitors are ranked according to their ranking in each heat, the phase they go out in (e.g. quarter final) and their qualification times within that phase. (example: competitors ranked 13 to 24 in the quarter final would be ranked according to their ranking in the heat and then by their qualification times.)

In the case of a “No Qualification Race” the place/rank in the heat order shall be used to rank the competitor.

Competitor in the top 12/24 whose bib number has been randomly drawn will use their WCSL/WC/FIS rank for finals ranking.

### **Cancellation of Final**

If the competition is cancelled after a phase, all competitors ranked 1st, 2nd, 3rd and 4th in each completed phase will be ranked according the qualification times.

In the no qualification format the start list position will be used. Competitors in the top 8/16 whose bib number has been randomly drawn will use their WCSL/WC/FIS rank for finals ranking.

## 12.4 Equipment

For further definitions in relation to the equipment standards for ski cross, i.e. ski boots, skis, helmets etc. please view the FIS equipment rules for the applicable year.

### 12.4.1 Ski suits

Ski suits must be two piece (top and bottom). Alpine suits are not allowed in ski cross.

### **Protection Equipment**

Protection equipment including back protector or any other padding or body amour must be worn on the body and separate from the ski suit (outer wear). Protection and padding must not be built into the ski suit or attached to the ski suit by a zipper, Velcro or any other means.

Fastening devices such as elastic straps, zippers, nylon straps, buttons, snaps, velcro, one or 2 sided tape, or any other methods shall not be used to tighten the suit material closer to the body or prevent the natural fall of the clothing.

### **Suit Measurement**

The gap in the material must be a minimum of 80mm, measured everywhere around the circumference of each leg from the mid-thigh to the top of the ski boot and 60 mm everywhere around the elbow and the bicep.

The vertical distance between the ski boot sole and the bottom of the pant leg, must be a maximum of 170 mm.

A tolerance of two (2) mm (width of material) and 5 mm (pant length) (as noted on the measurement tool or actual 4mm of material) outside of the measurement regulations shall be allowed for one control. A warning shall be issued in this the case and announced. Each subsequent control must be within the specified regulations.

## 12.5 Special Procedures

### **Loss of Ski(s)**

A competitor who - having started and before a pre-determined location on the course - loses one or both skis, must stop and no longer continue. Then he/she must move off the course and shall receive a ruling of Did Not Finish (DNF) for that run.

## Continuation with one ski

A pre-determined location on the course which will be close to the finish of the track and take into account the unique characteristics of each individual event track on a case by case basis. The determination will be guided by the location and nature of the final feature or jump that leads into the finish area and whether it is considered possible to safely complete the course should a loss of equipment occur.

If a competitor loses one or both skis after the pre-determined location, they may still cross the finish line and complete the run. The pre-determined location shall be decided by the Jury prior to the Qualification or Seeding round and will be communicated to teams at the relevant Team Captains meeting.

### 12.6 Case Study 1

- a) A skier falls during training in section 8 before the finish stretch and appears to be injured.

What is the next course of action by the official's team?

- b) Two gate flags come off in your section during training. What should you do?
- c) Two gate flags come off in your section during training. What should you do?
- d) You are a section 4 gate judge. You hear "stop, start, section 3, skier down" over your radio. Who do you react to this call?
- e) During training 4 skiers approach a corner you are attending. Two of the skiers have contact and spin through the B-Net at the end of the corner causing 4 poles to come out. They both stand-up quickly and continue down the course uninjured. What did you see happen? Do you go over and fix the net? What is the radio protocol for this?

## 13.0 Para-Alpine

### 13.1 Introduction to Para-Alpine events

#### INTERNATIONAL FEDERATION

The International Paralympic Committee (IPC) is the international governing body for para-alpine skiing. Its headquarters are in Bonn, Germany. It is the parent body of para-alpine ski racing world wide of which Canada and the Canadian Paralympic Committee, are one of its members.

The IPC annually publishes the Alpine Skiing Rules and Regulations under which all sanctioned races are run, and administers the international para-alpine ski racing events including World Cup, World Championships and Paralympic events.

Para Alpine racing is an evolving sport thus checking with online sources for up to date rules regulations, and other current information is valuable. Please refer to the following:

Alpine Canada: [www.alpinecanada.org](http://www.alpinecanada.org)

IPC Alpine Racing [www.paralympic.org/alpineskiing](http://www.paralympic.org/alpineskiing)

IPCAS Point List [www.paralympic.org/alpineskiing/rankings](http://www.paralympic.org/alpineskiing/rankings)

IPCAS Rulebook [www.paralympic.org/alpine-skiing/rules-and-regulations/rules](http://www.paralympic.org/alpine-skiing/rules-and-regulations/rules)

IPCAS Start Manual [www.paralympic.org/alpine-skiing/rules-and-regulations/rules](http://www.paralympic.org/alpine-skiing/rules-and-regulations/rules)

IPCAS TD Manual [www.paralympic.org/alpine-skiing/rules-and-regulations/rules](http://www.paralympic.org/alpine-skiing/rules-and-regulations/rules)

The level 1 officials manual can be views for a detailed description of para-alpine skiing including descriptions of classifications.

A complete list of the classifications can also be found online at <http://www.paralympic.org/alpine-skiing/classification>

### 13.2 Race Organization

Descriptions of the roles and responsibilities of an IPCAS race organization are described in the 400 Articles of the IPCAS Rules and regulations. The ROC of an IPCAS race follows the FIS and National race organization with the exception of the following:

#### **IPCAS RACE DIRECTOR**

This individual is appointed by IPC Alpine Skiing, and is the authority representing IPC Alpine Skiing at all World Cup, WCH and Paralympic Games. The IPCAS RD, may represent the sport at lower level events, such as Continental Cup races, but this will be determined on a case-by case basis, with direction from IPC Alpine Skiing.

The IPCAS RD is the chairman of the Jury and conducts the Jury meetings. In the absence of an IPCAS RD, the FIS TD is the chair of the jury.

The full description of the role of the IPCAS RD can be found in art 400.2.1 of the IPCAS Rulebook.

## RACE ADMINISTRATOR

This individual runs the IPC Software, which is the official software that is used to calculate, produce and manage all entries, start lists and results. The software embeds the factor list automatically. Factors are the time adjustments applied to running times based on the athletes' respective classifications. Factors are produced annually by the IPC for each classification and each discipline.

The IPCAS Race Admin, works closely with Timing. Only factored times are to be displayed and published.

### 13.3 Race Administrator and Secretary

At an IPCAS race, it is recommended that there are two individuals assigned to the Race Office. The IPCAS Administrator will run the IPC software and will be working closely with timing. The other individual assigned to the Race office is the Race Secretary, and this roll is similar to that in a FIS or National Race. The Secretary works closely with the IPCAS Administrator and is responsible for minutes of the ROC meetings, Jury minutes, Protest minutes and Team Captains' minutes. They insure that all forms for start, finish, timing, calculations and gate-judging are prepared and handed over to the officials concerned. They will aid the IPCAS Administrator in the preparation of the draw and start list, and make sure that these are published as quickly as possible. Once the software has generated race results, these should be duplicated and published as quickly as possible.

### 13.4 Race Notice

The Race Notice for IPCAS races is quite different from that of FIS and National Races. The Invitations/Programme template for all IPCAS races can be found at [www.paralympic.org/alpine-skiing/downloads](http://www.paralympic.org/alpine-skiing/downloads). The Race Notice (refer to art 310 in the IPCAS Rulebook) must be approved and published by IPCAS and must include:

- Name, date and place of the competitions, as well as information on the competition site and the best way of reaching it.
- Technical data on the individual competitions and conditions for participation.
- Names of principal officials with contact details.
- Time and place for the first team captains meeting and the draw.
- Timetable for the beginning of the official training and the start times.
- Location of the official notice board.
- Time and place for the prize giving.
- Final day of entry and address for entries.

#### 13.4.1 Race Entry Fees

Race entry fees are listed under art 311.2 in the IPCAS Rule book. At an IPCAS race (FIS level equivalent), the fee is set at 15€. For races in Canada, the secretary can convert this fee to Canadian dollars at the current exchange rate.

#### 13.4.2 Race Entries

Athlete race registration must be done through the IPCAS on-line entry system at [www.paralympic.org/sdms/ebs/login.php](http://www.paralympic.org/sdms/ebs/login.php). IPCAS management will send these entries to the Race Administrator two days prior to the competition.

### 13.4.3 Team Captains' Meeting

As with FIS and National Races, the time and location of the first IPCAS TC meeting and the draw must be published in the race notice. All other invitations to the TC's must be announce at each meeting. At international races, two representatives of each participating nation may attend the TCM's.

#### **THE DRAW**

The IPCAS software computer generates the draw. Each TC must confirm their athlete's participation. Sign-in sheets are also generated by the IPCAS software.

#### **FIRST RUN START LIST**

The valid IPCAS points list must be used for the ranking of competitors. The Start Order by category will be always be visually impaired, standing and then sitting.

Within each category, a computer generated draw is performed. The maximum number of athletes in the first seed is 15. If there is a tie of IPCAS points in the 15<sup>th</sup> position, the first seed can be expanded. Only athletes with 100 IPCAS points or less will be drawn randomly in the start group. If there are more than 15 athletes with less than 100 IPCAS points only the TOP 15 will be in the first seed. The remaining athletes will be ordered according to their IPCAS points. Athletes without IPCAS points, will be placed by random order, after the point holders. The Jury has the ability to change the start order.

#### **SECOND RUN START LIST**

As with FIS and National races, the start order for the second run is determined by the results of the first run. In IPCAS racing, only the top 15 ranked athletes are in reverse order. If more than one competitor is ranked 15<sup>th</sup>, the competitor with the lowest bib number will start first.

### 13.5 IPCAS Jury

The following members of the Jury are responsible for technical matters within the closed competition areas:

- Technical Delegate: FIS
- IPCAS Race Director: PWG, WCH, WC
- Referee
- Chief of Race
- Assistant Referee: DH and SG
- Start Referee: PWG/WCH
- Finish Referee: PWG/WCH
- Video Controller: PWG/WCH

Their roles and responsibilities are similar to the FIS and National races. For specifics, please refer to art 402 Rules of the Jury, in the IPCAS Rulebook.

### 13.6 Specific Rules for IPC Alpine Skiing.

The IPCAS rules for Reruns and their validity, DSQ's, Protests, Interrupted Runs and Termination of a Race are very similar to that in the FIS and National races. The following are

some specific rules for IPCAS skiing. These rules can be found in Section 5 of the IPCAS Rulebook, art 1300.

- Standing skiers with one ski are not allowed to use the free limb in contact with the snow to regain balance
- Standing skiers with single or double/above or below elbow amputation, are not allowed to use the free limb in contact with the snow to regain balance.
- All Visually impaired athletes must use an IPCAS licensed guide with suitable vision.
- Guides must ski in front of the competitor. An exception can occur only between the last gate and the finish line, where the competitor can overtake the guide. Physical contact between the guide and competitor during the race will lead to a DSQ.
- Visually Impaired competitors and their guides will be permitted to start course inspection 10 minutes prior to other competitors.
- The distance between the guide and competitor must be less than 3 gates for SL, and 2 gates for GS, SG and DH. Failure to comply will lead to a DSQ. Guides are allowed to stop along the course, to remain in compliance with this rule.
- The guide must pass through all gates.
- The guide must wear a supplied competition bib, with a clearly visible "G" on the front. The colour needs to be orange or red. The back of the bib may be any colour which best accommodates the visually impaired athlete.

### 13.7 IPCAS Race Courses.

Course Prep and B Net installation follow the same rules as that of FIS and National Races. IPCAS races are to be held on FIS Homologated runs. Courses are set to match the terrain, as they are for alpine races. Big jumps and compressions must be avoided. The mechanics of sit skis, and affected lower limbs do not necessarily permit athletes to recover from a fully loaded position as one may expect, and therefore double bumps must be avoided.

The Course specification for IPCAS racing is similar to the Ladies specification for FIS and Youth races. Refer to art 1500 in the IPCAS Rule book for Vertical Drop, Directional Changes and Flag colour and size.

Sit skiers are heavy and carry a lot of momentum. A sliding sit skier will not necessarily follow the slope of the fall line. Do not try to stop a sliding sit skier! Let the safety netting do its job.

Public address systems, snow machines or other noise must be kept to a minimum at the start, finish and on the entire race course for all visually impaired competitors (rule 1304).

#### 13.7.1 Start Area.

Details of the IPCAS Start Area and build specifications can be found in the IPCAS Start Manual [www.paralympic.org/alpine-skiing/rules-and-regulations/rules](http://www.paralympic.org/alpine-skiing/rules-and-regulations/rules). Athletes must be able to slide into the start area from above, as sit skiers cannot hike. The start has to be 80 cm wide to accommodate sit skis, and the wand has to be adjustable from a height of 40cm for standing skiers to a height of 80 cm for sit skiers. The start ramp must also provide space on either side of the start posts for a visually impaired athlete's guide.

#### 13.8.1 Start Procedures.

ART 408.3 IPCAS Rulebook.

- All outside help is forbidden. The standing competitors must plant poles or outriggers in front of the start line. Pushing off or bracing from the start posts or other aides is forbidden.

- Standing competitors using poles or outriggers must put them in front of the start wand. The poles or outriggers must remain in a fixed still position on the snow before the racer starts.
- Standing competitors with a dominant arm, or an arm that is utilizing a pole, may only push off from the start utilizing the dominant arm, or the arm utilizing the pole. The competitor cannot use the secondary arm as an aid to support the start or use it to push off in any way.
- For sitting athletes, outriggers must be planted behind the start wand in a fixed still position. Only one push is allowed to exit the start ramp. (The sit skier cannot rock back and forth in order to gain momentum to start).
- For all athletes, the ski tip(s) must remain beyond the start wand during the entire start procedure.

### 13.8.2 Start Intervals and Signals

ART 413.1 IPCAS Rulebook.

The start can take place in each discipline at variable intervals as determined by the Jury. Athletes in the B1 class (totally blind – no sight and wearing blacked-out goggles), should have nearly completed the course prior to the next athlete starting. Start signal for fixed intervals in DH, SG and GS are the same as in FIS and National races. The Start signal for Slalom racing is also the same as FIS and National races. ART 803.3 IPCAS Rulebook.

## 13.9 IPCAS Race Points and Race Penalty

### 13.9.1 IPCAS Race Points

ART 1260.1 IPCAS Rulebook.

IPCAS race points are calculated according to the FIS Alpine formula.

$$P = [(T_x/T_o) - 1] * F \quad \text{WHERE BY}$$

- P = Race points of competitor x
- T<sub>x</sub> = Calculated time (real time multiplied by the classification factor) of competitor x in seconds
- T<sub>o</sub> = Calculated time (real time multiplied by the classification factor) of the overall gender winner in seconds.
- F = Discipline factor. These are different for IPCAS racing from FIS or National races. They are listed in ART 1582 in the IPCAS Rulebook.

### 13.9.2 IPCAS Penalty Calculation

ART 1260.2 IPCAS Rulebook.

The IPCAS race penalty calculation is calculated in accordance with the current FIS Rules, however the Maximum values used in the calculations differ from FIS and National Races. If there are less than five competitors with IPCAS points amongst the first ten of the result list, or there are not five competitors who started with IPCAS points, then those competitors without IPCAS, i.e. the remaining competitors will receive the following maximum value:

- Downhill 280
- Super G 280
- Slalom 240
- Giant Slalom 240
- Super Combined 280

If less than 3 competitors with IPCAS points are ranked within the five (from the 10 at finish), are taken into consideration, the competition is not considered for points. At least three competitors must have IPCAS points and at least five competitors have to be classified.

Category adders and Penalty MIN and MAX, for IPCAS racing also differ from FIS and National Races, and are listed in ART 1582

For the 2015/2016 IPCAS Season

Description	Race level	Category Adder	Minimum Penalty	Maximum Penalty
PWG, WCH, WC	0	0	0	0
EC, NORAM	1	2	5	200
COC (Asia Cup& SH Cup)	2	5	10	250
NC	3	10	20	300
IPCAS Race	4	15	25	300
Youth Race	5	NA	NA	NA

There is no correction value (z factor) used in the IPCAS race penalty calculation.

#### 13.9.3 IPCAS Points

Go to [www.paralympic.org/alpineskiing/rankings](http://www.paralympic.org/alpineskiing/rankings) for the IPCAS points listing. The IPCAS points publishing dates can be found at [www.paralympic.org/alpine-skiing/rules-and-regulations/rules](http://www.paralympic.org/alpine-skiing/rules-and-regulations/rules).

# APPENDIX

## i. Race Personnel Assignment Sheet

RACE:	LOCATION:
Chairman ROC:	Chief Gate Judge:
TD:	Referee:
COR:	Assistant Chief Gate Judge:
Assistant CR:	Gate Judges:
COC:	1:
Course Crew 1:	2:
Course Crew 2:	3:
Course Crew 3:	4:
Course Crew 4:	5:
Start Referee:	6:
Finish Referee:	7:
Chief of Administration (RA):	8:
Chief of Timing:	9:
Timing 1:	10:
Timing 2:	11:
Timing 3:	12:
Timing 4:	13:
Timing 5:	14:
Timing 6:	15:
Posting Board:	16:
Finish Controller:	17:
Finish Spotter:	18:
Announcer:	19:
Awards/Media:	20:
Medical Services:	Forerunner 1:
Ski Patrol:	Forerunner 2:
Chief of Volunteers:	Forerunner 3:
	Forerunner 4:

## ii. Check List for Race Organizers

### Early Fall

*Contact ski area management and obtain approval for the event.*  
*Check rules to see that terrain selected conforms to the rules for the event.*  
*If an FIS sanctioned event make sure homologation certificate is available and up-to-date*  
*Obtain approval for the event at the Divisional/Zone meeting for inclusion in the PSO calendar.*  
*Appoint a Race Chairman and Chief of Administration (Race Secretary).*  
*Establish and maintain regular contact with the ski area.*

### Four Weeks Prior to the Race or Earlier

*Make arrangements with ski area for course preparation, lift operation, ticketing, course equipment, and communications.*  
*Plan and acquire all needed equipment and spares and all supplies.*  
*Update race software.*  
*Appoint and confirm all major officials and that each are qualified for the level of race.*  
*Install and test all communications and timing wiring and equipment.*  
*Issue race notice.*  
*Order prizes*  
*Contact Technical Delegate appointed to your race re accommodation, arrival, plans etc.*  
*Check on course preparation and grooming.*

### Two Weeks Prior to the Race

*Check with all committee chairman and chiefs to ensure that they have enough personnel.*  
*Check with Chief of Equipment on progress of equipment.*  
*Inform TD of the progress of preparations and impending problems.*  
*Check safety provisions as applicable.*  
*Thoroughly test all timing and communications equipment on the hill.*  
*Check course preparations.*  
*Arrange for award podium and sound system for awards presentations.*

### One Week Before Race

*Re-check all arrangements; inspect course preparation personally.*  
*Bring equipment to ski area and race site if possible.*  
*Check with ski area.*  
*Contact all major Officials for progress report.*  
*Contact TD with status report.*  
*Insist that the course be packed, rolled, tilled etc. during the week before the race.*  
*Make arrangements for chemical course preparation if needed.*  
*Prepare for coaches meeting and draw.*  
*Arrange for preparation and installation of start and finish areas.*  
*Arrange for dignitary to present awards.*  
*Prepare race rules.*  
*Firm up schedule of events and confirm with officials and ski area.*

### The Day Prior to the Race

*Confirm with Chief of Administration that all is ready.*  
*Check communications and timing system again.*  
*Do final grooming and set first course.*  
*Do final preparation of start and finish areas.*  
*Do final preparations for coaches meeting and draw.*  
*Confirm lift operation with ski area according to schedule.*

## Evening Before Race

*Obtain weather report for that night & race day*  
*Coaches meeting, followed by draw.*  
*Jury meeting.*  
*Major Officials meeting.*  
*Make adjustments developing from these meetings.*  
*Publish race schedule, start lists, etc.*

## Race Day

*Arrive early!*  
*Final installation of timing and communications system two hours prior to race start.*  
*Jury inspection.*  
*Final course preparation as needed - dying, numbering, flagging.*  
*Gate Judge education if not already done by Chief of Gate Judges.*  
*All Officials in place and ready in plenty of time prior to the start.*  
*Fore-runners go prior to start and report to Jury.*  
*Start on time.*  
*Remember to keep all racers, coaches and officials informed of current events and any changes.*  
*Confirm quiet place for jury meeting.*  
*Make certain Chief of gate judges keeps gate judges informed for potential Jury meeting.*  
*Process results as quickly as possible.*  
*Distribute unofficial results as soon as they are available.*  
*Ensure quiet, secure area for results production.*  
*Ensure course clean-up is satisfactory.*

## Key Elements on Race Day

*Course maintenance is particularly vital and should start before trouble spots develop and should continue until the last racer has finished.*  
*Be certain to provide sufficient equipment on the course: Poles, flags, rakes, bars, shovels, tiger torches and drills.*  
*Provide independent communications for Jury and Chief Officials.*  
*Avoid interfering with timekeeping team and those working on results.*  
*Thank everyone - All volunteers, officials and area management.*

iii. Team Captains' Meeting Agenda (National Races)



**TEAM CAPTAINS' MEETING**

Date:

Time:

All competitor entries and race fees must be finalized prior to start of meeting.

WELCOME / INTRODUCTIONS

1. ATTENDANCE LIST - (EVERYONE PLEASE SIGN)
2. EVENT: Men SL\_ GS\_ SG\_\_DH\_\_KK\_ Women SL\_\_GS\_ SG\_ DH\_\_KK\_\_
3. ROLL CALL BY TEAMS
4. JURY - APPOINTMENT

TECHNICAL DELEGATE \_\_\_\_\_

CHIEF OF RACE \_\_\_\_\_

REFEREE (Day1)\_\_\_\_\_ (Day2) \_\_\_\_\_

ASST.REFEREE (Day 1)\_\_\_\_\_ (Day2) \_\_\_\_\_

START REFEREE (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

FINISH REFEREE (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

5. COURSE SETTERS - APPOINTMENT **Please Note: COURSE VERTICAL**\_\_\_\_\_

1ST RUN MEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

2ND RUN MEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

1ST RUN WOMEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

2ND RUN WOMEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

6. COURSE SETTER NOMINATOR/ ASSISTANT **Please Note: MIN/MAX # of gates-**\_\_\_\_\_

1ST RUN MEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

2ND RUN MEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

1ST RUN WOMEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

2ND RUN WOMEN (Day 1)\_\_\_\_\_ (Day 2) \_\_\_\_\_

7. FORERUNNERS: NUMBER\_\_\_\_\_ Level of Race ability\_\_\_\_\_

Names if available:

8. UPDATE OF ENTRIES / REVIEW OF COMPETITORS / USE OF SNOW SEED?

9. MEDICAL PLAN -

10. REPORT BY THE ORGANIZING COMMITTEE - Include request for information from coaches on competitors with medical concerns that could affect their care if injured.

11. COMMENTS BY THE TECHNICAL DELEGATE -

12. REPORT BY JURY MEMBERS

13. WEATHER FORECAST \_\_\_\_\_

14. AWARDS: LOCATION: \_\_\_\_\_ TIME: \_\_\_\_\_

15. PROTESTS IN WRITING \$ \_\_\_\_\_ WITHIN 15 MINUTES OF POSTING OF THE REPORT

16. OFFICIAL NOTICE BOARD LOCATION \_\_\_\_\_

17. SCHEDULE	MEN SCHEDULE	WOMEN SCHEDULE
RACE HEADQUARTERS OPENS	_____	_____
LIFTS OPEN	_____	_____
TRAINING COURSES	_____	_____
RACE COURSE NAME	_____	_____
COURSE SETTING	_____	_____
JURY MEETS FOR RADIOS	_____	_____
JURY BOARDS LIFT	_____	_____
JURY INSPECTION -	_____	_____
COURSE OPEN FOR INSPECTION	_____	_____
COURSE CLOSED	_____	_____
SNOW SEED (YES OR NO)	_____	_____
FORERUNNERS	_____	_____
1ST RUN / TRAINING RUN START	_____	_____
START INTERVAL	_____	_____
COURSE SETTING - 2ND RUN	_____	_____
JURY INSPECTION - 2ND RUN	_____	_____
COURSE OPEN FOR INSPECTION	_____	_____

2ND RUN FORERUNNERS \_\_\_\_\_

2ND RUN START \_\_\_\_\_

START INTERVAL \_\_\_\_\_

18. LIFT TICKETS/BIB: LOCATION-\_\_\_\_\_ TIME:\_\_\_\_\_

19. TRAINING AREAS: LOCATION-\_\_\_\_\_ TIMES:\_\_\_\_\_

20. TEAR DOWN OF COURSE-\_\_\_\_\_

21. EQUIPMENT STORAGE/LIFT LINES / FAST SKIING/ RACER ETIQUETTE-SAFETY

22. COMMENTS/QUESTIONS FROM COACHES

23. DRAW - COMPUTER OR DOUBLE DRAW

24. NEXT COACHES MEETING-\_\_\_\_\_

