ALPINE CANADA ALPIN

Alpine Officials Program

Alpine Level III Manual

2012/13

Version 1.1

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1. INTRODUCTION

This course is designed for those officials who have obtained Alpine Officials Level II and since then have gained specific practical experience as covered in the Alpine Canada Alpin – Alpine Officials Program. This is an interactive course in which the major emphasis will be discussion and exchange of ideas, opinions and experiences by the participants. An examination of the course outline will show the variety and depth of the material covered.

Throughout the course, you will be participating in many case studies taken from actual experiences. You will be asked to make decisions on these problems with reasons and generally within a time limit - just as it happens in a race. Juries will also be formed to make decisions.

The Manual that accompanies this course is reference material deemed to be useful to this course. As such, the pages are numbered and a listing provided so that individual items can be found. The material is arranged to follow the order of presentation of the course. An integral part of this course material is the Race Worker Training Manual published by Alpine Canada Alpin derived from material created for the Salt Lake City Olympic Organizing Committee.

The manual also includes the pre-course assignments. Prior to the course, participants are asked to complete 'homework', read the manual and some Case Studies and to have obtained specific items needed at the course. Successful participation in the course depends upon the advance preparation of each participant, as most time will be spent on discussion and not on lecturing.

The exam for this course can be given at a time other than the course weekend. This gives each participant the opportunity to enjoy the course without being concerned about writing an exam at the end of two full days. It also allows the material presented in the course to be reviewed and if later in the season, put theory into practice over the ski season.

1.1.   Being An Effective Official

This section represents the nuts and bolts of getting a good job done - the do's and don'ts of how to avoid the seemingly inevitable frustrations that come with the tasks.

1. Ski competitions are for the skier; officials are present to guarantee that the rights of each competitor as stated in the rules and regulations will be upheld in the competition. You are there to serve the best interests of all competitors.

2. Officials and officiating should be as unobtrusive and inconspicuous as possible. You should assume your responsibilities in a manner that will earn you the respect and support of competitors, coaches and spectators.

3. Officials should respect the desire of each competitor to be considered as something above an "also ran" participant. As officials, your personal views should not be voiced, and each individual effort from a competitor should be taken seriously.

4. You make any officiating duty a personal commitment as well as a commitment to your peers. This is easily reflected by your willingness to consult with others and by your effort to keep up to date with current rules and procedures.

5. Remember that you and everyone else officiating at a ski competition are volunteers! Everyone has probably adjusted other priorities in their lives to be there. Respect and support their efforts through a spirit of co-operation. The overall success of the competition is dependent upon the performance of each individual.

6. Accept an assignment to officiate only if you plan to honor the commitment. There are enough unpredictable built into our sport by Mother Nature that we do not need the added frustrations of "no shows".

7. Be on time for your assignment - that means you are there before you are needed.

8. Inform the appropriate major official if you are unable to attend or if you will be late. This must be done as early as possible; and if you are conscientious, you should aid in finding your own qualified replacement.

9. As officials, you must not be a coach to competitors. Encouragement may be given provided it is done equally for all. For Young competitors, it may be necessary to offer more guidance.

10. Never accept an assignment you are not qualified to handle. Poor performance through ignorance can be harmful to the skier and will reflect poorly on you and on the organizing club you represent.

11. Officials should respect the fact that last minute changes will always be a possibility. Remaining flexible and adaptive in your thinking will enable the competition to continue on to its successful conclusion.

2. PRE-COURSE INFORMATION & HOMEWORK

To: Level III Course Participants

CC: Course Conductors

Date: _____

Re: Level III Officials Course – _____

Thank you for participating in the level III course.

The course format includes: pre-course homework, the 2 day course, the Level III exam and a practical assignment.

The two day course format can vary depending on the time of year and the availability of snow. The course can be two classroom days or one day in the classroom with the second day on snow at a designated mountain. The practical assignment can also vary depending on each PSO's education program but may include an assignment as a Chief of Race or shadowing a PSO Technical Delegate.

The exam is written as determined by the course instructor or PSO Officials Chair. It can be written at a later date which will give the participants time to review the Level 3 material and not worry about an exam during class time or at the end of the classroom time.

Course material should include:

- Level III course manual which includes pre-course assignment and worksheets for
  - Role of the Official
  - Chief of Course
- Current ICR
- Current FIS Precisions
- Current PSO Information Book
- Race Worker Course Training Manual
- Case Studies

Please take the time to do the pre-course reading and work through the assignments including the Case Studies prior to the class room experience.

Plan on bringing to class - a high-liter pen and calculator.

Cost of the course is set by each PSO.

The success of the course depends on the interaction of the course participants and instructors. Be ready to participate and enjoy the two days.

2.1. Pre-Course Assignment

Please complete the following questions prior to the course. **Give appropriate ICR reference if possible.**

1. Which of the following conditions could possibly cause a FIS race to be disallowed for points?

   a) Improper calculation of race points   Yes [ ]   No [ ]

   b) Too great a vertical drop   Yes [ ]   No [ ]

   c) A slalom course with 30-35% direction changes of VD   Yes [ ]   No [ ]

   d) A 21 year competitor allowed to race   Yes [ ]   No [ ]

   e) Course technical data does not correspond with homologation certificate   Yes [ ]   No [ ]

   f) Start gate improperly mounted   Yes [ ]   No [ ]

   g) Race committee refused to have manual backup timing   Yes [ ]   No [ ]

2. You are Referee at a Regional FIS slalom race.

   The TD asks your opinion on several matters. Would you allow the following?

   a) No protection in front of the finish timing light?   Yes [ ]   No [ ]

   b) A racer appears at the start without a helmet?   Yes [ ]   No [ ]

   c) The first two gates are only 12 meters apart   Yes [ ]   No [ ]

   d) A racer comes to the start without ski brakes?   Yes [ ]   No [ ]

   e) Course setter wants to set with bamboo poles?   Yes [ ]   No [ ]

   f) A racer appears at the start wearing a suit that is missing a plumb?   Yes [ ]   No [ ]

3. It is 9.15am; the Slalom race starts at 10.00am. Twelve gate judges have turned up of whom five are experienced and six are new. One has been a gate judge at a GS once. There are 42 gates.

   You as Chief of Gate judges of this a slalom race must assign the Gate Judges.

   a) What are some of the key factors you will take into account when assigning the new and experienced GJ taking location and terrain into account?

   b) What crucial last minute instructions will you give them?

   c) What will you do during the race?

   d) What should the gate judges do after run # 1?

2.2.   Role of the Official

On a separate piece of paper:

1) Write down what you think the role of the official is.

_____

_____

_____

2) Support your reasons. Write down why you think these are specific roles of the officials.

_____

_____

_____

3) Looking at these roles, how could you become a better official?

_____

_____

_____

2.3.   Chief of Course

On a separate piece of paper:

1) Write down duties up to 2 days prior to the race.

_____

_____

_____

2) Duties day 2 and day 1 prior to the race.

_____

_____

_____

3) Duties day of race.

_____

_____

2.4.   Level 3 Case Studies

Please read the Case Studies prior to the course time.

Please reference the ICR where possible.

1. On a very cold day only 14 gate judges are available out of the 25 that had originally signed up, but the course contains 59 gates.

    a) What should the Jury do?

    b) Is there any change in the Jury's approach to handling protests against DSQ's?

    c) What might the TD include in his report?

2. A racer falls through the finish losing one ski. He then takes off his remaining ski and walks through the finish line, causing an extra finish record by the electric timing. He picks up the lost ski, then walks through the electric eye, again activating the timing and walks down the finish corral and out the gate.

    a) What should the Finish Referee do?

    b) What should the Jury decide if there is a protest?

3. In a Giant Slalom, three racers lose their bibs in the cafeteria between runs (probably a souvenir). One racer reports this to the Race Secretary and is given a bib number higher than the last # on the start list; another borrows a bib from a DNF racer and wears it for the second run; the third burrows a DNF's bib, but turns it inside out and writes his number on in pencil, small and barely legible. All three finish in the top 5 for combined times, but the coach of the 6th best finisher enters a protest against all three for alteration of the start number.

    a) What must the coach do for the Jury to entertain his protest?

    b) What should the Start Referee have done?

    c) How should the Jury rule on this?

4. At a Nor-Am race being shown on local television, the TD notes on coming to the finish between runs that the Finish Referee, a local entrepreneur, is wearing a large advertisement for Blatz Moravian Stout on his right arm and an advertisement for a local Super Burger restaurant on his left arm. Each covers the entire sleeve.

    a) What should the TD do?

    The TD in question requested the Finish Referee to remove both, which was done easily as the patches were attached with velcro. Later, when reviewing the video in regards to a protest from the second run, the TD noticed that the ads had been replaced.

    b) What should the Jury do?

    The Jury in question wrote down the facts of the case and sent a notarized copy by registered mail to, the Chairman of the Disciplinary Commission, requesting it take disciplinary action against the Finish Referee by barring him from accreditation at all FIS races for the remaining month of the season.

    c) What should the Commission do?

5. A service man skiing down with a specific task on the course was waved off the course by the steward who got in his way to stop him. The service man proceeded to punch the steward, who later had to be taken to the medical clinic to stop his nose bleed. Aside from the fact that this constituted an indictable assault, there were medical costs.

    a)   Can the TD or the Jury discipline the service man and if so, in what way?

b) What else can or should the TD do?

6. In the start for the first run of a slalom a racer's left pole broke through the start ramp, the basket caught under the wooden surface below the snow and the pole was pulled out of the racer's grip as he catapulted down the ramp through the first gate. Skiing with one pole he passed through the second gate and checked to a stop as he went through the third gate. He then called back to the Start Referee requesting a re-run and began climbing back.
   a)   What should the Start Referee do?
   b)   What should the Jury decide if there is a protest?

In the 2nd run a different racer, quite heavy of build, doing a violent Killy start had his right pole slip to the side and break under him as he heaved his body up. He came to an immediate stop and similarly, requested a re-run.
   c)   What should the Start Referee do?
   d)   What should the Jury decide if there is a protest?

7. A racer fell at the finish, slid under the beam, so the clock did not stop. Noticing this, he requests a re-run from the Finish Referee. His re-run time is 59.13, putting him in 8th place. Shortly thereafter, the Chief of Timing comes forth with a corrected hand time of 56.27 seconds for his 1st run, good enough for 2nd place
   a) Which time would the Jury determine to be Official?
   b) What could the Finish Referee have done to avoid this situation?
   c) Was there another way the Chief Timer could have handled this?

8. In a Giant Slalom a racer finds a gate missing near the bottom of the course He reacts to the missing gate but crosses the finish line. As he stops the announcer tells him to go to the start for a re-run. The re-run is taken and his time is better than his first run. In the meantime, a second racer passes the same place and the gate is down again. He continues across the finish line and is told by the announcer to take a re-run. He does, but his time is slower than the first run.
   a) At the Jury meeting, how would you rule for racer #1 and racer # 2? Why?
   b) What errors were made by the racers and by the Officials?

9. After the forerunners had gone and everything was apparently operating properly, Racer #1 was started but the start gate did not register a start. The racer had an excellent run, but only a hand time was available. The race was stopped and the timer trouble was fixed. A Jury meeting was called to decide what to do.
   a) Should the hand times be taken for all racers as there was a "total failure of the electronic timing?
   b) Should the hand timing be taken for that one racer and electronic time for all the rest?
   c) Should the race be started over with #1?

His coach wanted a re-run as he felt the racer could have done better. Two coaches of other team claimed that it would be the equivalent of giving him a training run on the course. What is your response?

10. At a National calendared race, Gate Judges are provided with a Gate Judge card for each event. In addition to watching for correct passage and replacing gates, the Gate Judge also has to perform simple course maintenance. A competitor is disqualified and no protest is filed. Later investigation however shows that the Gate Judge wrote down the "start number" instead of the "bib number".

a) What is the jury's duty?

b) How could this have been avoided?

11. In a Spring Series Ladies FIS GS, the first 3 competitors negotiated the course without incident. Racer #4 fell, knocking out a gate in the soft snow. The gate was replaced by a course maintenance worker. Five more competitors raced the course before the Referee, realized that the gate had been placed nearly one meter from the original dye mark, in a dye mark from the previous days race. The change substantially eased a very difficult turn. He at once radioed the TD on the Jury radio to hold the next racer.

   a)   What action should the Jury take to ensure fair competition and scoring of the competition?

   b)   What error has been made by the Chief of Course?

12. Because of a tight time schedule, some of the team leaders, whose teams have farther to go to get home for Christmas, would like to start the Ladies World Cup slalom at 8:30 am instead of 9:30am, as the organizers had proposed and stated on the tentative schedule distributed the first day of the DH training. The organizers are happy with the change since they are short of space for recreational skiers anyway. The TV network is not happy but can adapt. The Jury is evenly split. Other team leaders however are against the schedule change claiming sarcastically "Our racers don't race in the dark except under the Swedish night skiing rules".

   What do you, as a member of the Jury decide and give as your opinion?

13. As the racer came to the 5th gate above the finish, the turning pole, which had previously been knocked down several times, fell in the racers path. He started to try to jump it, but gave up, turned out around it and skied straight through the finish, thereby passing through the middle of the remaining red gates and totally ignoring the 2 remaining gates. He went out of the finish corral and talked to his coach for a bit and then got back on the lift. A little later he arrived at the start and requested the Start Referee for a re-run.

   a) What should the Start Referee do?

   b) If a provisional re-run were granted, what would you as a Jury decide, when there is a protest rose by another team leader that the re-run was improperly granted?

14. Following a DH training run and after the course has been closed, a Jury member observes a competitor and a coach studying and skiing sections of the DH course. The TD notifies the Jury and the coach that a meeting will be held to discuss the situation.

   What sanctions, if any, may be imposed against the competitor? Against the coach?

15. A competitor tells the Start Referee his bib has been lost. Extra bibs are available. The Start Referee tells the competitor to alter the bib to show the assigned bib number. The competitor has no way of altering the number on the bib so he does not start.

   What should the Start Referee have done?

16. It was 8:00 am. The temperature was -5 and the piste, which was groomed the previous afternoon when the temp was +5, had set up perfectly. Two GS courses were being set and the Chief of Course standing at the start asked a course worker to take a drill to another course worker securing crowd control fences.

   The course worker, drill in hand, set out down the steep icy pitch at the start. He fell immediately, dropping the drill and losing his skis. He managed to stop but his skis, the drill and the battery that had departed the drill hurled down the hill through the gates.

There was much shouting and blasts as workers further down the course and at the finish were told to watch out. One ski eventually hit the fence. Much to the surprise of the timing crew, course workers and others setting up the finish, the other ski, drill and battery all finished the GS course.

The extraordinary race was witnessed by the TD, the Jury and entire crew preparing the 9:45 men's start, and the Chief of Course was overheard commenting that 'Joe' had mentioned earlier that his skis didn't have ski brakes. Inspection of both the men's and women's courses by 120 athletes began about 30 minutes later. You are the TD and you witnessed and heard what was described above.

What actions, if any, would you and the Jury takes?

17. The Jury votes 2 to 1 that visibility is so poor that the race should be delayed. The dissenting vote is the TD who maintains that it is adequate and the race should proceed as scheduled.

What is the outcome? How would this vary with a DH, SG, GS, SL?

18. As a racer left the start gate, he popped a binding but continued and completed the course on one ski. Comment on the incident. What if he lost the gate 2 gates from the finish in a DH? In a GS?

What differences would there be between a National and FIS race?

19. The Finish Referee, Finish Controller and Chief Timer saw a racer miss a gate and ski through two poles of a GS gate; however the Gate Judge missed the fault. The TD refused to allow the Finish Referee to DSQ the racer as the Gate Judge marked clear passage.

What would you do as a member of the Jury? Give references.

20. At a Super G race, as the starter was starting the countdown, the Start Referee is called on the radio. He replies "Go ahead" and the racer immediately leaves the start gate although the count has only reached 4. What should the Start Referee do?

a) If the racer stops and requests a re-run

b) If the racer continues on course and completes his run.

What suggestions would you have for the Start Referee?

21. A competitor in the second run of slalom appears to have straddled gate #30, falls through #31, and slides to a stop beside gate #32. He struggles to his feet and shouts to the gate judge, "Am I OK?" The gate Judge responds "Back" while attempting to retrieve the poles of Gate #30, but the racer leaves the course and reports to the Finish Referee that the gate judge had been tardy in his response to his inquiry and demands a re-run. The re-run is granted by the Finish Referee and the racer has a good time.

Does the Jury allow the re-run to stand?

22. As finish referee you are approached by the coach of racer No. 12 with the request that the times of racers No. 12 and No. 28 are wrong. The start list gives the following order in the group around No. 12 and No. 28.

Start	BIB
26	30
27	29
28	32
29	12
30	28
31	27
32	15

After consulting with the Start Referee you learn #32 was absent from the start at his correct start time and was allowed to race at the end of the list.

When racer #32 was not there, the Starter asked for the next racer but he was not quite ready, so the Starter took #28 who was ready. #12 then took his turn and onto #27, 15 etc.

Determine what is wrong if anything and correct. What errors have been made by which officials?

23. The race has been stopped part way through the men's first run. One of the racers #39 has fallen and broken his collar-bone. Of the 18 Female racers who ran the course before the men, 12 were DSQ or DNF in the same area #39 fell. Racer #39 was 9th to run the course and four of the previous 8 wiped out.

The TD has stopped the race and called a Jury meeting. He has asked the Jury to consider the following options:

1. Continue the race, second run later this afternoon
2. Cancel the event altogether
3. Continue the race but cancel the second run
4. Modify the course and continue with a one run event.

The Jury now sends to the Coaches meeting only two options for their advice:

1. Cancel the race altogether
2. Modify the course and continue with a one run event.

As a coach, would you agree to any of these options? If so which one and why? What other option(s) would you propose to the Jury and why?

24. The Finish Referee has authorized a re-run for #28. The racer complained that the unofficial times posted showed an impossible time between his time and the half dozen racers before him with whom he is seeded equally. After asking the Chief of Timekeeping about the possibility of an error the Finish Referee decided to give him a re-run and sort it out later. Back-up was not available for this race.

Time for first run was 58 seconds which was 6 seconds off the pace and time for re-run was 53.07 which the racer felt was appropriate and also which he felt was what run #1 felt like it should have been.

What decision will the Jury make?

25. It is a beautiful sunny day at the ski area with large crowds taking advantage of the excellent conditions. Over the radio you as TD are advised that the Lift Corp. has reported 5 racers for various infractions of the lift rules. Over the Jury radio, it was decided to allow the racers to run provisionally and settle it afterwards.

At the Jury meeting, the various lift operators were interviewed and as a result all five racers were disqualified and instructed to write letters of apology to the Lift Corp.

After the protest period was over the results were calculated and the awards given out.

Then the coach of one of the racers came to the TD with another racer who stated that it had been racer #88 who had committed the infraction and not racer #58. The Jury members are all still available.

What will you as the Jury does now? The coach of racer #58 had not protested as he had been unable to find his racer.

26. The 2nd run of a GS has been set and inspected. The snow is thin in places so the TD opts to wait at the bottom to talk with the forerunners who all miss the same gate. The Chief of Timing has been instructed to hold the first racer until the TD has talked with the forerunners. A Coach tells the Starter to start the race and four racers are sent and all miss the same gate. The TD stops the race and sends everyone back to the start to race again while the tracks at the problem gate are slipped out. A coach complains that this gives an unfair advantage to the first four racers.

    a) What do you think should happen?   b) What would you as the TD have done?

27. You are the TD at a race which is notorious for sloppy race organization, poor course preparation and a shortage of Gate Judges. You are certainly not thrilled to be the TD and wonder how you got talked into taking the race assignment. Now, you have a major problem at the coaches meeting as the coaches you have asked to hold the position of Referee refuse to do so and there are no other coaches qualified with their Level II Officials. What will you do?

28. In December, in the second run of a SL, run at close intervals because of fading light, racer #4 missed the last gate and climbed back. As he proceeded to the finish, he was overtaken by racer #9 and the two finished simultaneously. The electric timer, however, printed twice, .05 sec apart. The electronic timing crew could not tell which time belonged to whom, or indeed, whether the second time was a trailing leg or hand or whatever. It didn't seem to make much difference, so they gave the faster time to racer #9. Racer #8 however, then turned in a time only 0.02 seconds behind #9 for the two runs. That meant that the win depended on which impulse was counted for #9. If it was earlier then he was the winner by 0.02 sec, but if the later, then he was second by 0.03 seconds. The coach of # 8 naturally protested.

    Your Jury hearings have established: a) neither the Finish Referee nor the Finish Controller could determine who crossed first, b) The hand timers had the same time for both.

   What times do you give for: #4   #8....#9?

3. OFFICIALS PROGRAM

The National Alpine Officials program is a structured, integrated program involving four levels of Officials and four levels of Technical Delegates. It covers all Officials from the novice Level I to the highly qualified and experienced Level IV Officials and National Technical Delegates. The program stresses the integration of practical with theory at all levels. It seeks to provide the means by which Officials can build a broader and more knowledgeable base of experience and maintain that level of experience. It is vital that Officials are able to provide race organization and officiating skills that will match the competitors' performance levels and program goals. Competitors have the right to expect that Officials have this level of expertise so that results reflect the athletes' ability and skill without being compromised by the incompetence of race Officials or "luck".

3.1. Objectives

The objectives of the Program are:

(a) To standardize the methods and techniques of organizing and officiating ski races.

(b) To ensure that ski competitions are fair, safe and consistent with prescribed standards.

(c) To ensure uniformity with respect to rule interpretations.

(d) To ensure that required numbers of qualified Officials are available at all races.

(e) To promote opportunities for volunteers to become a ski Official.

(f) To promote opportunities for Officials to progress from club Officials to International Officials.

(g) To establish criteria for Officials certification which reflect the current standards in racing.

(h) To offer recognition to Officials for their achievements.

(i) To offer support to Officials as they apply theory to practice. i.e. the inexperienced become experienced.

Following is a brief description of the different levels Officials and Technical Delegates:

Level I: Prepares new Officials for club, local, zone, regional or divisional races in various junior Race Official positions. Course is 3 hours, no exam.

Level II: Offers further education and training to Level I Officials with specified experience so that they may take on more demanding and responsible roles. Level II Officials are qualified for several Chief and Jury positions. Course is 8 hours with national exam. Minimum of 65% is required to pass.

Level III: Prepares Officials for all Chief positions and for minimum entry qualifications for the Technical Delegate (TD) program. Must be Level II Officials with specified experience. Course is two days with a national exam. 70% pass.

Level IV: This Level is for those Officials who have gained further experience at National or International level races and who have demonstrated superior abilities as an Official. The PSO Officials Chair must recommend them to the National Officials Committee. Licensed FIS TD's are recognized as Level 4 Officials

Level I Technical Delegate: Must be Level II Official, serve as TD Candidate at two races and be evaluated in both cases. Practical and written exam. Qualified to TD at Division Races.

Level II or III Technical Delegate: PSO Technical and *PSO Speed~* Must be Level III Official, serve as TD Candidate at two races, be evaluated and also serve at a speed event with evaluation. Practical and written exam. Qualified to TD at PSO Races and some National Level races.

National Technical Delegate: Obtained through experience and demonstrated superior ability. The PSO Officials Chair must recommend them to the National Officials Committee. The National TD if not already will automatically be a Level IV Official

For complete details of the program, see the Level I manual.

3.2. Officials Code of Conduct

Alpine Ski 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" or "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.

3.2.1 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.

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

LEVEL	AUTHORITY
FIS	FIS TD Commissioner for Canada
U16, U14 CanAm East, West	National Officials Chair
Provincial Championships	PSO Officials Chair
PSO and Divisional Events	PSO Officials Chair
Regional event	Regional or Zone Officials Chair

3.2.2 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.

3.2.3   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 is 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.

3.2.4   Appeal of a Decision

A decision taken by the Officials Chair as to whether a complaint should proceed or of a Review Committee as to whether a breach of the Code has occurred, may be appealed by either party as outlined below:

Decision taken by	Appealed to
National Officials Chair/Review Committee	National Officials Committee
PSO Officials Chair/Review Committee	National Officials Chair
PSO Officials Chair/Review Committee	National Officials Chair
Regional or Zone Officials Chair/Review Committee	PSO Officials Chair

The process for considering an appeal shall follow that of a complaint other than decisions by the National Officials Chair/Review Committee.

Where a decision of the National Officials Chair or of a Review Committee brought together by the National Officials Chair is subject to an appeal, that appeal will be considered by the entire National Officials Committee excluding the Chair and any members who were involved with the Review Committee, as the case may be. Decisions of the National Officials Committee are final and not subject to further review.

3.3.   Position Categories

For the purposes of race organization and Level II and higher certification, the various Officials positions are divided into the following categories.

Administration	Event Quality	Course	Timing	Jury
Race Organizing Committee Chair Chief of Administration		Chief of Race (also Jury Member) Chief of Course Chief of Gate Judges Gate Judge Coarse Crew	Chief of Timing and Calculations Chief of timing Timer Starter	Technical Delegate TD Candidate Referee Jury Advisors Finish Referee Start Referee
Secretariat Finance Accommodation Scoreboard	Chief of Event Quality Chief of Ski Area Relations Chief of Awards and Media Relations	Chief of Equipment Chief Steward Steward	Calculator Recorder Finish Controller Assistant Starter	

As indicated in the level descriptions below, experience in more than one category is necessary for Level III and higher certification. Shaded positions do not qualify for Level III or Technical Delegate qualification.

3.4.   Requirements for Higher Level Certification

3.4.1. Level II

The pre-requisites for Level II are:

- Level I certification or the equivalent
- Practical experience in carded races **since obtaining Level I** in at least three **different** positions taken from any two different categories of *Administration, Event Quality, Course, Timing or Jury,* covering at least 8 race days.

For example:

- 2 days as gate judge, 2 days as a recorder, 2 days as a starter and 2 days in any other of these same positions would cover the qualifications - i.e. 3 positions, gate judge, starter and recorder, taken from 2 different categories - Course and Timing and covering 8 days; or
- 4 days as a gate judge, 2 days as a timer and 2 days as course crew (3 positions, 2 categories, 8 days); or
- 4 days as assistant starter, 2 days as recorder, 1 day as gate judge, and 1 day as course crew (4 positions, 2 categories, 8 days).

    However, the following would **not** qualify:

- 4 days as a recorder and 4 days as a gate judge - only 2 different Officials positions
- 4 days as a gate judge, 2 days as course crew, 2 days as a steward -3 different positions but taken from the same category.

3.4.2. Level III:

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

- 1 assignment as a Chief of Race
- Any one of the following positions: Chief of Course, Chief of Timing and Calculation, Chief of Gate Judges, Chief of Administration
- 1 assignment as a member of the Jury or Jury Advisor (other than Chief of Race)
- 1 different assignment from those non shaded in the above list at a F.I.S. level race.
- Attend the Level III course and pass the exam.

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.

Level III certification is a pre-requisite for the Technical Delegate program although in a limited situation Level II certification is sufficient, ... this is discussed later. Also covered are the duties of senior Officials, course preparation, maintenance and setting and calculation of points and penalties. Throughout the course, participants take part in several case studies taken from actual experience and will be asked to make decisions on these as well as participating in mock juries.

3.4.3. 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 voting or non-voting Jury member at a DH race at minimum Division level.
- Satisfactorily perform 1 event assignment as: Chief of Course or Chief of Gate Judges, Chief of Administration, Chief of Timing and Calculation, Race Chairman
- The practical experience **must** be gained at a minimum PSO level.

*** Nominees of PSO's that do not host FIS level races can receive special consideration.

3.5.   Officials Recognition

The following table shows the method by which the various levels of Officials are recognized:

Level	Recognition & Identification
I	National Pin
II	National Pin
III	National Pin
IV	National Pin and Letter

3.6.   Requirements to Maintain Officials Certification

Upon qualification, the initial period of certification is as follows:

Level II -	Two years
Level III -	Two years
Level IV -	One year

Once obtaining a specific level of certification, there are practical and, in some cases, other requirements to maintain certification after the initial period of certification has expired i.e. if an Official does not meet the criteria, then the certification is not extended past the initial certification period.

Requirements:

Level I: Minimum   Activity as an Official

Level II: Minimum   2 event assignments (4 race days) in a 3 year period **and** Update*

Level III: Minimum   2 event assignments (4 race days) a year **and** Update.*

Level IV: Minimum   2 event assignments (4 race days) per year, at the TD or Chief level or to the satisfaction of the Official Chair. Attend Officials Update* clinic every other year.

*   Level II, III and IV Officials must update every two years. The methodology of the update is at the discretion of the Provincial Officials Chair.

Note: Officials who do not meet these criteria are removed from the Officials certification list.

3.7. Technical Delegate Program

The Technical Delegate is the person who has advisory control over pre-race and post-race operation and chairman of the Jury. Together with the other members of the Jury, they have complete control over the operation of the race during its competitive operation. He/she has the final decision in all matters of safety and has the authority to cancel, postpone or annul the race if necessary. In all cases the Technical Delegate is the representative of the governing body by whom he/she is appointed.

3.7.1. TD Levels.

Divisional Technical TD ~ only in Ontario

- Level II Official certification
- Successfully carry out two (2) event assignments as a Division TD Candidate, one in a SL and one in a GS.
- Be recommended by the TD Examiner for TD certification

PSO Technical TD

- Level III Official Certification
- Successfully carry out (2) event assignments as a PSO TD Candidate, one in a SL and one in a GS. Complete a written exam.
- Be recommended by the TD Examiner for TD Certification

PSO Speed TD

- Level III Official Certification
- Successfully carry out a Speed event (DH and/or SG) assignment
- Be recommended by the TD Examiner for Speed TD Certification

National TD

- Level IV Official Certification. National TD will receive a Level 4 certification if not already.
- Licensed Level II and/or III Technical Delegate with demonstrated superior knowledge and ability.
- Nomination by the Provincial Official Chair to the National Officials Committee. A National TD will have demonstrated over a period of at least three years, a sound understanding of the responsibilities of a TD and will be capable of being a TD at a variety of level of National races.

FIS Technical Delegate

- Nomination and seconded by a current National association member and/or Canadian FIS TD. At least one must be a licensed FIS TD, approval by the PSO Official Chairman and the PSO President/Chairman then recommended by the National Officials Committee to the FIS TD Commissioner for Canada
- Following acceptance by the FIS TD Commissioner, the candidate follows the program outlined in ICR 602.
- A licensed FIS TD will receive a Level IV Official certification.

3.7.2. Requirements to Maintain TD Certification

Due to the nature of the responsibilities of a TD, it is important that a TD remain an active Official, fulfill a TD appointment at least once every two years and be current with the latest rules and calculations. The following thus represents the **minimum** requirements for maintaining a TD license.

PSO TD

- Minimum of one TD assignment in a two-year period.
- Complete an update clinic or TD update every other year.

- Maintain Level III or Level IV Official certification as outlined in the Officials Certification program.

National TD

- Minimum of one TD assignment in a 2-year period.
- Maintain Level IV Official certification.

F.I.S. TD.

- As per ICR 602.

3.7.3. Technical Delegate Candidate Program

Selection of non-FIS Candidates

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

Selection Process

A current PSO 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 Division/Provincial 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 a short evaluation form is completed after this.

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 or Provincial Technical Delegate.

3.8. Administration of the Officials Program

3.8.1. Provincial Officials Chairs

All Provinces will appoint a PSO Officials Chair to co-ordinate and administer the Officials Program.

Within the capabilities of each province, the PSO Officials Chair should attend the FIS TD Update each year. He/she should also attend the annual meeting of the National Officials Committee or arrange for an alternative representative to that meeting. Smaller provinces, grouped together as "Canada District" will appoint a representative to attend the National meetings.

3.8.2. Scheduling of Officials Courses

An ideal schedule of courses per year will be prepared by each PSO annually and published for all clubs and members.

- Level I - each club
- Level II - as per required
- Level III - as per required
- Update - annually by PSO.

It is the goal and commitment of each PSO to provide courses as needed and based on the above schedule. Clubs wishing to arrange for Level I or II Officials courses should contact the PSO Officials Chair or their designate who will arrange for the instructor and all course materials.

3.8.3. Appointment of Technical Delegates

Technical Delegates are appointed as follows:

PSO / Local Races

TD's for races are appointed by the local or provincial Officials Committee. In making these appointments, consideration is given to the level of race, its location and the qualifications of the TD.

Provincial, Western and Eastern Championships

TD's for these races are appointed by the Provincial Officials Chair or designate.

National Championships

TD's for non-FIS National races such as the U16, 14 CanAm East and West are appointed by the National Officials Committee.

International and FIS Scheduled Races

TD's must hold a valid FIS TD license and for all FIS sanctioned events other than World Championships, Olympic Winter Games and World Cup events; are appointed by the FIS TD Commissioner for Canada or his designate. The FIS TD Commissioner has appointed western and eastern coordinators responsible for assigning TD's for Canada.

TD's for Nor-Am races are appointed in consultation with the USA FIS TD Commissioner or his/her representative.

3.8.4. Official Data Base and Tracking System

PSO Officials Committee keeps records of each Alpine Official. These records show the activity as an Official, i.e. what races he/she works and the positions held, what courses he/she has attended and his/her background on becoming an Official. The record sheet also keeps track of maintenance requirements, when an Official becomes eligible for advancing to the next level and when the present certification expires.

The main method of obtaining the required information is through the Race Officials Record, which is completed for all levels of races. The second source of information is the Officials Card that is issued to each Official and is his/her license to be an Official. This card is used to keep a record of experience and is returned to the Official's Chair on a regular basis. Using both these methods, a satisfactory record of experience for each Official is maintained.

All information from the records is transferred to the Officials Database that is updated annually. Prior to the updating, an archive copy of the Officials List is produced. During the updating, inactive Officials are removed and Officials eligible to advance to next level are identified. An analysis by Zone and by Club is also produced which tracks available number of Officials by qualifications.

Within the database, a separate tracking is maintained for those qualified as Technical Delegates. Records are kept for as to activity as an Official, all TD assignments and fulfilling of update requirements. This information is transferred to the TD database. The Officials Chair also has the responsibility of identifying those with the potential and interest to enter the TD Candidate program as outlined previously.

4. THE RULES OF SKI RACING

All competitions are run according to the FIS International Competition Regulations - or also known as the ICR, or Blue Book. This is a book of rules that have been approved by FIS Congresses. The rules are based on recommendations from committees and national federations as well as from motions made by Congress delegates. If necessary, the rules are interpreted between Congresses by the FIS Council.

In Canada, all Competitions are run under the rules as set forth in the current ICR. However, because the ICR is primarily written for FIS races where it must be implicitly followed, it is necessary that certain modifications be made to be appropriate to the specific levels of competition. The rules of the ICR may be modified by ACA or by PSO rules to reflect this. For example, the technical specifications required for FIS races are modified for National races according to the level of the race.

4.1.   How Rules Become Rules

Alpine ski racing is very different from many of our sports for several reasons:

1.   The dimensions of the 'gymnasium' (race hill), type of equipment (skis, clothing, slalom armor, etc.), duration if the events and the number of 'players' on the team constantly change and evolve.

2.   The sport itself is highly international and the rules reflect this in translations from various languages (primarily German and French).

The development of the rules was, and remains today, a very evolutionary process - reacting to problems and situations. In other words, the rules were not created - nor are they created today - just for the purpose of designing the sport of ski racing.

The rules have been and continue to be:

1.   Written in response to real life situations rather than determining in advance what the rules should be;

2.   Often influenced by serious commercial and political consider actions (note the rules allowing for TV coverage);

3.   Incomplete, with details for every circumstance constantly being refined and amended.

Judgment plays a key role in ski racing. It is necessary to consider the 'spirit of the rules', the fairness of and appropriateness of specific rules. One of the primary goals as ski race volunteers is to attempt to give each and every racer, one - and only one - fair and equal opportunity on the race course.

This sounds like a very idealistic viewpoint.   Does this work in actuality? At every competition there is a Competition Jury. It is a balanced decision - making body with responsibilities for the rules - in areas where rules do not exist - and for the success of the competition and sport beyond the rules keeping. Being a member of this Jury is an important role for coaches and team leaders on the Jury as referees and assistant referees (and as future TD's). However, there will be more specifics on this subject later.

4.2.   Sources of Rules

There are several publications where the current rules pertaining to Alpine ski racing can be found. It is important that the Referee, Assistant Referee, Chief of Race and especially the Technical Delegate be very familiar with the current copies of these sources:

1. The International Ski Competition Rules (ICR).

2. The 'Rules for the FIS Points which accompanies the fall edition of the FIS Points List.

3. The "Precision's" issued annually (cumulative) by the FIS.

4. The Memento for the Technical Delegate issued by the FIS

5. ACA Rules and PSO Rules

Rules were introduced to Alpine ski racing as it slowly evolved into a formal sport. These rules are necessary:

1. To prevent local or regional advantage;

2. To specify technical aspects in the definition of and execution of a race - often on matters that were once assumed to be 'understood' by knowledgeable officials;

3. To adapt to technical - developments in competitors equipment, clothing, and competition equipment for example, the change from restraining straps to ski brakes and the changes from bamboo poles to flex poles).

It doesn't take much reading of the ICR to see that some rules are quite specific while others lack in detail and then for some matters no rules exist, as yet. In many cases, there is simply that something is to be accomplished - not by who or how. This is one of the challenges of being a volunteer:

The skillful race official must know where to fine the rules, understand (interpret) them and then apply the rules in a consistent manner.

4.2.1.   Rules – The Most Common Problems

As in any other sport, rule violations (unfortunately) are a common problem. From a disciplinary point of view it is necessary to consider the competitors and the coaches.

On the subject of course inspection, violations are common with the racers' bibs and procedures for the inspection - whether or not they are followed and how closely.

As the race progresses, common problems that come to light include, but are not limited to, false start(s) on the part of the racer, failure (DH, SG or GS) to have a proper helmet or even the infamous problem of the lack of plumbs on the competitors' competition suits. This particular problem became well known at the 1988 Olympics in Calgary.

In addition, there can be problems concerning personnel needed to staff the competition. These problems can be found in person(s) volunteering or selected/appointed to serve as an official who:

- Does not know or understand the rules.
- Fails to ANTICIPATE potential difficulties.
- Is not available when needed or is tardy.
- Is over bearing in demeanor.
- Fails to follow instructions.
- Exhibits evidence of personal or local favoritism in decisions that need to be made.
- Is indecisive.

In the general and organizational areas common problems are:

- Lack of adequate preparation in Secretariat, mistakes and distractions.
- Seeding and Second Run Start Lists.
- Inadequacies in preparation of the Course/Track, including the Start and Finish areas.
- Inadequacies in maintenance of the Course/Track,

- Gate judging and documentation.
- Timing and calculations.
- Communications.
- Reporting the Race.
- Facilities for holding meetings.
- Lack of knowledge regarding duties and obligations, among coaches and competitors.
- Delays caused by failure to anticipate possible problems.
- Inconsistencies in any procedure.

4.3. Case Studies

There are two sets of Case Studies presented in this manual, in Chapters 1 and 5. Participants will be organized into 'juries' of three or four persons depending on the size of the class. Each jury will have a few minutes to consider their cases and come to decisions. Each jury will present its decisions together with reasoning and identification of appropriate and relevant rules from the ICR.

5. OFFICIALS CERTIFICATION & JURY ROLES AND RESPONSIBILITES

5.1. Composition of Jury

In control of an Alpine 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. The composition of the Jury is as follows:

VOTING MEMBERS OF THE JURY AND APPOINTMENT

Technical Delegate	-	Appointed from outside the host organization by the sanctioning association
	-	Represents the sanctioning association
	-	Chairs the Jury with deciding vote in the case of a tie.
Referee Asst Referee (required for SG, DH, optional for SL, GS)	-	Appointed by the Technical Delegate at the team captains' meeting.
	-	From outside the host organization
Chief of Race	-	Appointed by the host organization

JURY ADVISORS

Start Referee	-	Appointed by the host organization
Finish Referee	-	Appointed by the host organization

5.2. Qualifications for Jury Members and Other Officials

There is an established policy for qualifications of Jury members and is contained in various PSO Rules and given below.

5.2.1. Certification of Race Officials for Downhill and Super G Events

Technical Delegate	-	Technical Delegate with certification in DH/SG events.
Referee Asst Referee (required for SG, DH, optional for SL, GS)	-	A coach with a minimum of Level 2 coach certification & Level 2 Official or Divisional, National or FIS Technical Delegate with DH/SG certification.
	-	A coach with a minimum of Level II coach certification plus Level II Official Certification.
Chief of Race	-	Minimum of Level III
Start Referee	-	Level II Officials Certification
Finish Referee	-	Level II Officials Certification

5.2.2. Certification of Race Officials for Technical Events

Technical Delegate	-	Minimum of PSO Technical Delegate
Referee Asst Referee (optional for SL, GS)	-	A coach with a minimum of Level 2 coach certification & Level 2 Official or Divisional,
	-	A coach with a minimum of Level I or II coach certification.
Chief of Race	-	Minimum of Level II
Start Referee	-	Level II Officials Certification
Finish Referee	-	Level II Officials Certification

5.2.3. FIS Races

Technical Delegate	-	Minimum of PSO Technical Delegate
Referee Asst Referee (optional for SL, GS)	-	A coach with a minimum of Level 2 coach certification & Level 2 Official or Divisional,
	-	A coach with a minimum of Level I or II coach certification.
Chief of Race	-	Minimum of Level II
Start Referee, Finish Referee, Chief of Course and Chief of Gate Judges	-	Level II Officials Certification

5.2.4. Entry Level Non-national points Events

All races including weekly races held within clubs 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 executives 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.

5.2.5. Masters Series Races.

For <u>ACA sanctioned</u> Masters Races, Jury and certification of Officials is the same as PSO guidelines for Non-FIS Technical events and DH/SG events. The Technical Delegate will be appointed by the PSO Officials Chairman and will be at least a PSO TD. Participating competitors cannot be part of the Jury.

5.2.6. NCAA Races (University League)

Technical Delegate	-	Minimum of PSO Technical Delegate
Referee Asst Referee (optional for SL, GS)	-	A coach with a minimum of Level 2 coach certification & Level 2 Official or Divisional,
	-	A coach with a minimum of Level I or II coach certification.
Chief of Race	-	Minimum of Level II
Start Referee, Finish Referee, Chief of Course and Chief of Gate Judges, etc.	-	Minimum Level I Officials Certification

5.3. General Responsibilities of the Jury

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

Juries have the following general responsibilities:

1. Application and implementation of the rules and additionally the communication of all current information pertaining to a race at the Team Captains meeting.
2. Providing direction to the Referee in conducting the draw.
3. Course inspection - prior to start of training and race and during the race.
4. Supervision of start and finish.
5. Rights to: Cancel, interrupt or postpone a race, change start intervals; shorten the course.

6. Rules on all provisional runs and protests.

7. See FIS rules and modifications are upheld.

8. Approve the methods of timing and calculation.

5.4. Duties and Responsibilities of Jury Members

Sections 601 and 602 in the ICR cover the duties of the Jury and its individual members and are directed to your attention to supplement the brief descriptions given below.

5.4.1. Referee and Assistant Referee

The primary responsibilities of the Referee are:

(a) To conduct the draw.

(b) Inspect the course after it is set - alone or accompanied by other members of the Jury

(c) Change the course by taking out or adding gates.

(d) Receive the reports of the start and finish referees and Chief Gate Judge and post a list of competitors disqualified.

The Assistant Referee is expected to assist the Referee in all of the above duties. In addition, both the Referee and Assistant Referee are the representatives of the competitors on the Jury.

5.4.2. Start Referee

The primary responsibilities of the Start Referee are:

(a) Make sure the regulations for the start and start organization are properly observed.

(b) Determine late and false starts. Reports to the Referee the names of those competitors who did not start. Informs the Jury of all infringements against the rules such as false and late starts.

- The Start Referee should use the ACA Start/Finish Referee document to record competitors that start and those that do no start.

(c) Must ensure reserve bibs are at the start and determine violations against the rules for equipment.

(d) Ensures the start is closed or open for inspection.

(e) Must remain at the start from beginning of the official inspection time until the end of a training event.

Some Start Referee's secondary responsibilities are:

- Checking proper / improper action of start wand(s), be aware of failure of Start switch(s),

- Know deficiencies in start platform or ramp, check snow cover ~ too much or too little?, check support for placement of racer's poles, check tilt, particularly no down tilt which may produce false starts.

- Control traffic at the start ~ Service personnel, Coaches, Competitors, Spectators, including VIPs and press.

- Ensure adequate shelter for waiting racers.

- Know procedure for Stop Start and a "hold" in the race, especially if a serious accident occurs on the course.

- Consult with TD prior to race. Report to the Referee at end of run, and at end of race

Experienced Start Referees try to have "emergency supplies: handy such as: warm clothing, lunch, spare bibs, shovel, water, stapler, felt tip marker, extra paper or cardboard, rope adhesive tape, flagging or surveyor's tape and spare wand(s).

5.4.3. Finish Referee

The primary responsibilities of the Finish Referee are:

(a) Make sure that all rules for the organization of the finish and the in-run to the finish are observed.

(b) Must remain at the finish from the beginning of the official inspection time until the end of the training event.

(c) Reports to the referee the names of the competitors who did not finish and informs the Jury of rule infringements. Assist the Referee with posting of DNF and DSQ's.

- The Finish Referee should use the ACA Start/Finish Referee document to record competitors who completed the course as well as those that do not finish. See following page.

(d) Supervise the Finish Controller, the timing and crowd control in the finish area.

(e) Be able to communicate with the start at all times.

Some secondary Finish Referee activities include:

- Recognize improper alignment of the light beam and/or sensor for the timing equipment.

- Know possible problems in the Finish area: Inadequate packing, particularly in the stopping region. Inadequate fencing and padding at likely points of impact. Inadequate protection of timing equipment.

- Double as Finish Gate Judge and record order of finish. and control traffic in finish area such as: previous racers, coaches.

Start/Finish Referee Report - Available on the ACA Officials web in National Race Forms section.

Start~Finish Referee / *Juge au Départ~Arrivée*

[ ] DH   [ ] SL   [ ] GS   [ ] SG   [ ] SX   Date : _____

JJ – MM – AA

Women/*Femmes* [   ]   Run/*Manche* #1 [   ]   Start/*Départ* [   ]   Page

Men/*Hommes* [   ]   Run/*Manche* #2 [   ]   Finish/*Arrivée* [   ]   _____

BIB	Remarks/*Notes*	BIB	Remarks/*Notes*	BIB	Remarks/*Notes*

CODEX : F= _____ – M= _____   Recorded by/*Observe par.* _____

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5.4.4. 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.

5.4.5. Technical Delegate

The duties and responsibilities of the Technical Delegate are shown below and on the following page.

The Technical Delegate's most important job is Chair of the Jury. It is the Jury that takes all decisions relating to the event. As Chair of the Jury, the TD can convene meetings as necessary and should steer the discussion in an orderly and efficient manner. The TD has the casting vote on the Jury but should strive toward consensus in Jury decisions.

The role of TD can be different depending on the level of race and the experience of the race committee. The wide knowledge and experience of the TD may need to be applied to educate an inexperienced group, but that should not be the case for higher level events. The TD should always try to be a positive contributor to the race and be ready with advice and counsel.

As Chairman of the Jury, the Technical Delegate has several primary duties that include:

(a) Making sure that all rules and directions of the ACA or FIS are adhered to before, during and after the event.

(b) To see that the event runs as smoothly and safely as possible.

(c) To advise the organizers within the definition of his/her duties.

(d) To be the official representative of FIS or ACA & PSO.

Role of the Technical Delegate

Representative the Sanctioning Body 602.1.1	Chair of the Competition Jury 601.4.5	Member of the Race Organizing Committee 601.3

FIS or Alpine Canada Alpine, as applicable
 	
    Certification of race results (sole discretion, not a jury decision)
 	
    Enforcement of technical standards
	Leader, facilitator, advisor
	
	    Panel of equal votes except for breaking ties
	
	    Chief of Race Referee / Asst Referee, as applicable
		Chief of Race
		
		Referee(s)
		
		Start Referee
		
		Finish Referee
		
		Jury advisors / eyes of the jury, as appointed
		
		    Chief of the Course
		
		    Chief of Timing and Calculations
		
		    Chief of Administration
		
		    Chief of Gate Judges
		
		    Chief of Medical and Rescue
		
		    Chief of Equipment

5.5. THE TD and Local Options

Under his responsibility for upholding and interpreting the international &/or National competition rules, the Technical Delegate will be called upon to comment upon the proposed variations or local options and to rule on their compatibility with the appropriate regulations.

In considering a proposed option, the TD should weigh the option against the following guidelines:

- Does it maintain the spirit and intent of the actual rules?
- Is it fair to all?
- Does it avoid giving any undue advantage?
- Does it maintain the relative value of racing performance and FIS Points?
- Is it consistent with modern skiing standards?
- Can it be realistically carried out and or enforced?
- Is it readily understandable to the concerned public so that good public relations can be maintained?
- Is it advantageous or necessary (not merely convenient to the Organizers or a particular group)?

All things considered favourably, in summing up – are you willing to go on the record in your written report as having approved this decision from the rules?

5.6. TD Role and Responsibility in Course Inspection

RESPONSIBILITY	Primarily the TD is responsible for a fair and safe competition. All other responsibilities are in support of this charge
	
	The *course* has two components:
	The *track* is the area of competition start to finish
	Auxiliary areas make up the rest of the course:
	
	    • Competitor staging
	    • Equipment preparation
	    • Start area
	    • Finish area
	    • Spectator areas
	    • Coaches
	    • Public
	    • Possible section timing DH

ORGANIZATION	Pre Inspection
	
	    • Note topics from team captains meeting and draw that may relate to course
	    • Weather – snow conditions on track – blow down fences, etc…, chemical availability, visibility, course hazards – stumps – rocks etc.
	    • Confirm time and place for jury to meet
	    • Allow time for full jury including start and finish referee

OBSERVATION	If possible arrive early and observe the set. Don't participate unless something is clearly a potential problem.
	
	    • Safety – course hazards
	    • Rule violation i.e.: - line at start and finish - number of gates
	
	Allow time for personal observation/inspection prior to jury.

THE BIG PICTURE	Pre jury inspection
	A Number of non "track" specifics should be checked/observed to ensure efficient race organization.
	• Timing gear – in place – operational – back up • Safety gear – toboggan – ski patrol • Communications – on course – jury • Course access and control fencing etc. • Public visibility to avoid rec skiers on course • Location of temporary shelters • Start hut/tent • Timing shelter • Score board/results posting • Competitors gear, lunches, etc.
COURSE SPECIFIC	Two Roles of TD
	• Informal: Observation/comment • Formal: Jury inspection
SUPPORT & BACKUP Mental check list and note locations Relocate if necessary	Ensure the equipment required for the course maintenance is adequate and properly positioned – it is much easier to move things downhill than up.
	• Gates/Poles – Drill – Gate Key • Flags/Panels • Shovels • Rakes • Tiger Torch • Axe or saw • Chemicals • Boughs • Bunting or Fencing • Willy bags/fiberglass bales • Tools, duct tape, dye, etc… • Wedges/hammers • Personal pack – knife, tape, UNI driver, thermal blanket, work gloves, - lunch
COURSE INSPECTION Referees duty to inspect & if reset, inform setter. Collaborates with TD	Start early allow adequate time and attempt a full jury.
	Let the referee have a voice in meeting time etc. as he may be committed to his own team. Avoid cavalier attitude of let's rush and leave the referee on his own.
	Attempt to keep the jury together and competitors well behind.
	Same two areas to focus on
	• Fair competition • Safety

FAIR COMPETITION
As jury moves down course watch for:

- Course must comply with the technical requirements
- Number of gates – vertical drop
- Position and dimensional data of gates
- Start/finish sequence to set safe/fair line
- Use of terrain
- Visibility – extend panels – confusing backgrounds
- Markings – dye or ink
- Flat light – boughs
- Course markers – speed events
- Yellow Zones
- Conditions of the track
- Gate judges – in place and adequate number
- Judges access to poles etc.

SAFETY

Soft Snow & Hazards

- Rapid Gate – flexibility
- Course Access Controlled
- Spill zones including finish clean and packed with hazardous protection where necessary
- Soft snow removal or packed
- Track firm and smooth
- Track hazardous s/b checked a twig can become branch in soft snow conditions
- Take the time to correct – remove or reset before the competition
- Protection at photocells, section timing
- Large clean finish area – no soft tents, soft snow, hazards, tight fences, or scoreboard.

PROTOCOL
Role of TD – observe and be sensitive to:

- Rights of Referee: Can inspect alone and reset
- Role of Assistant Referee
- Role of Course Setter – Should always be consulted on reset, has sole responsibility for setting.
- Role of CH of Course – UDM is the TD who can always rule on the basis of safety.

5.7. Jury Leadership via Radio

Prepared by Ted Savage (CAN) #473 for the FIS TD Update - November 1993

<u>HOW TO BROADCAST YOUR INTENSIONS</u>

ROGER, ROGER........ GIVE ME A VECTOR VICTOR...

WHAT"S THAT CLEARANCE CLARENCE...

TD: START REFEREE DO YOU READ...

START REFEREE: SURE, I MADE IT THROUGH HIGH SCHOOL

In ski racing, the radio is your most important, and most fragile, human resource tool. We depend on the radio to communicate our thoughts and important safety related commands, and when something goes wrong with the radio network, your jury becomes temporarily powerless until the problem is fixed. You will in fact spend more time exercising leadership and management skills over the Jury radio than in person. The way you use a radio your own radio personality and your understanding of the limitations that typical radio technology represents, will define how clearly and convincingly you are understood.

Modern portable two-way radios offer the ski race jury the ultimate in flexibility. There are other low cost alternatives to radio, but they have severe limitations. Examples of this include: Drums (tough to hear in windy conditions, difficult to carry), Flashing lights, Mirrors, and strategically placed Fires (affected by topography, require a special code), Flag waving (requires line of sight and a knowledge of the different flag waving techniques), two Cans and a long piece of String (tough to use while skiing and deadly on chairlifts), Mail (still limited services at most ski areas above the second intermediate). Although I am sure you have come across organizing committees who still use some of these alternatives to radios, when they work, radios are a vast improvement and hard to live without once you try them.

Radios come in a variety of types, (UHF, VHF, FM, AM, Digital Private Line...) the list is endless. In my experience, like cars, there really are only two types: Those that work and those that don't. The details of how and why they work or they don't work I'll leave to those who seem to enjoy programming VCR's. My comments and suggestions are based on the simple premise that, like me turning it on and being able to communicate with specific individuals more than 20' away is all you really care about.

"Can you hear me? I can hear you..."

Having something worthwhile to say is also salient to the overall concept of having radios in the first place, content makes a difference. Once you have decides that the outside world can't live without your most recent thought, here are some simple things you can do to improve your chances that your radio will work and that you will be understood.

LEARN THE CONTROLS

Like TD's, all radios are not the same, and your ability to hear and be heard depend on your knowledge of the controls. Most important are the following:

On/Off – Volume knob: Obvious, but the volume knob only affects incoming sound and turning it up will not boost your outgoing transmission. There are a lot of radios that get classified as the "don't work" type because they never get turned on. Sad but true.

Squelch button:

Either a knob or a switch. The squelch control filters out the background "static" noise that would otherwise be heard when the channel is not being used. Most modern radios have an automatic squelch which can be bypassed by pressing a button to momentarily release the filtering action of the squelch setting when trying to listen to weak signals that keep cutting in and out. If the radio has a knob for squelch adjustment the setting should be just past the point where the radio becomes silent. Coaches in jury meetings are not available with this feature.

Push to Talk Button (PTT): Find it, and only use it when you want to transmit. Always remember that you must wait a split second before you begin to speak after "keying" the PTT transmit button. On certain radios that are linked to a repeater network, this kick-in delay may be a long full second, and you must wait before you speak or risk having the beginning of your transmission cut off. Be Brief. When you are on air, you are tying up the channel and using battery reserves.

Channel: Make sure you know what channel is being used and set the radio correctly. The local towing company is not interested in who is on course.

Speaker Mick: The most important factor in your outgoing transmission quality is the relative position of your mouth to the radio's built in microphone. Know where it is (not always the obvious choice) and speak directly into it at a distance of about 1 inch. Speak at a moderate pace, neither too slow nor too fast, avoid slurring your words and never shout – increasing your level will only cause distortion of your voice by the microphone. Note that higher, constant pitched voices transmit best. In very cold conditions speaking directly into the Speaker/Microphone at close range might cause the radio to ice up. In this case try to speak across the unit.

Antenna: Regardless of type or size, it will give you the best performance if placed in a vertical position. Never bend it and tape it so that it can poke you in the nose if you are wearing a chest pack. Doing this will drastically reduce radio performance, and is the reason why cars have their antennas on the roof rather than the doors.

Beware the "roaming channel": Check if there is a "roaming channel" button on the radio you're using. If so **make sure it's turned off.** If not you'll be "roaming" into other channels with your conversation, where it will cause frustration to others on that channel, maybe disrupt smooth race operation and can create a safety issue during a course control or medical help situation.

Battery: Solar powered radios are not common and have problems operating in the dark. Most radios have a battery that is attached to either the lower half or the back of the unit. The method of attachment varies but you can be assured that it was designed by the same person who designed those "easy open" airline peanut bags. A hatchet or small chain saw might help should you decide taking the battery off would be a good idea. This of course would be useful if the battery is dead and you want to replace it with an already re-charged unit. The key word here is re-charged. Radio batteries are general Nickel Cadmium in nature, meaning that they can be recharged thousands of times, thereby avoiding the expense of purchasing new batteries. The down side is that they fail rather abruptly when they reach the end of their charge. The discharge curve is very flat until it suddenly fails. This is why your radio might work well one instant, and not the next. A weak or dead battery is the typical reason why you end up talking into an overpriced electronic paperweight rather than a functioning radio. Precautions to avoid rapid discharge include keeping the volume knob turned down, limiting the duration of your transmissions, and keeping the battery as warm as possible. Cold kills batteries. In extreme conditions keep the radio inside your jacket, or use "Hot Shots" wrapped around or taped to the battery area of the radio. Battery contacts can be cleaned by using a pencil eraser to remove oils and residue from the connectors, a simple reason why some radios function intermittently.

INITIAL CONTACT PROCEDURES and TYPICAL MESSAGES

Proper radio technique simply translates into being understood. You will also spend less time "on the air" and subsequently leave the channel open for potentially more important messages. A typical routine contact might go like this:

TD: Finish Referee from TD, over

FR: TD, this is Finish Referee, go ahead

TD: Tom, I'm about six gates from the finish and see what looks to be course workers spreading spruce needles just above you, confirm please.

FR: Roger that is correct.

TD: Please tell them to stop. Advise them to wait for a jury decision on that. The sun is going to help us out on this one.

FR: Roger that, I'll tell them to stop. Please say time and location of the jury meeting.

TD: Stand by, Tom…..Jury will meet at 08:45 your location, over.

FR: Roger, thank you, Finish Ref out.

TD: Thanks, Tom, and stop calling me Roger. TD out.

Strict radio procedure is only a necessity when transmission conditions are difficult. In most cases when contact is established and you have developed a rapport with your Jury member, you can dispense with the "over's" and "do you read's". It is however prudent to end all contacts with "out" so that others on the channel know you are finished, and to use specific, pre-determined terminology to avoid misunderstanding.

SUGGESTED RADIO TERMINOLOGY

There is a big difference in the meaning of "GO" and "NO" but not much of a phonetic difference. You choice of words could be confusing and cause a problem. Here are a few suggestions in terminology that will help avoid misunderstanding.

WORD OR PHRASE	INSTEAD OF	MEANING
NEGATIVE	nope	NO
THAT IS CORRECT	yup	Yes, confirm
AFFIRMATIVE	As above	As above
ROGER	AS above	As above
ACKNOWLEDGE	Eh? (CAN)	Confirm you understand
SAY AGAIN	Hunh? (USA)	Repeat last message
GO AHEAD	Yeah what	Listening, proceed with message
CORRECTION	Oops….	I made a mistake-correct version
DO YOU READ	Are ya there?	Called you once or more, please reply
STAND-BY	Wait a sec will ya	Busy, please pause for a moment
HOLD	Oh God..stop…	Hold further racers at the Start
CLEAR TO SEND	Let 'em rip	Start or Restart the race
WILCO	Okey Dokey	Message understood, please comply
OUT		Message ended, no reply expected
OVER	Huh, Eh	Message completed, reply expected
CHECK	Got it	Understood
CONTACT	I see 'em	Visual contact at this position
CONFIRM	Is that right eh?	My version is…Is that correct?
VERIFY	Who says?	Check info with the source
READ BACK	Get it?	Repeat this message back to me
WORKS TWICE	…..	Send every phrase twice
	Ah, Ummmmm	I have nothing of value to say

EMERGENCY PROCEDURE – KEY WORDS

Getting a message wrong about what time the box lunches are expected to arrive at the start is one thing, being able to quickly and effectively stop a racer at the start or at a yellow zone is quite another.

As leader of the Jury, you should make it crystal clear what the exact phrases, words and procedures all Jury members should use will be if essential actions are required. The Jury as a whole should discuss what these key phrases are, and this will reflect personal and regional preferences.

In all cases, use what your Jury is comfortable with and practice the procedure before the training run or race is underway. Avoid "go", "no", "what", etc. and demand clarity of meaning and speech from your Jury. Above all else, make sure the Start Referee can handle a radio in a professional manner and if necessary instruct him/her in what you expect. Test your Start Referee early in the event, and make certain all members of the Jury can effectively communicate with the Start Referee.

Split second reactions to messages sent to the start are incredibly important. The Start Referee by virtue of his/her topographical position relative to other Jury members at the race is also the natural relay person and might play an important role in marginal radio conditions on a long DH course.

YOU ARE NOT ALONE

Jury deliberations over the radio can be picked up by anyone with a radio on the same channel, or a unit such as a frequency scanner. At a major event you can bet your bindings that your conversations are being monitored by others involved with the race. You might want to govern your on-air comments accordingly and realize that potentially controversial subjects should be discussed off the air whenever possible.

A RADIO IS NOT A TELEPHONE

It doesn't even look like one, but some Jury members just don't understand the difference. In essence, only one person can speak at a time, thus the idea of being brief and only talking when absolutely necessary.

DO

Be brief and to the point. When the race is on stay off the radio unless absolutely necessary. Listen before you begin your transmission and always wait a split-second before you speak after keying the push to talk button.

Engage brain before mouth. Think about how best to make yourself understood.

Turn down your radio before entering the start area.

Turn OFF your radio when entering the timing or results building/shack/tent/igloo/ditch.

Speak directly and clearly with an even tone into the Mic at a distance of 1 inch.

Acknowledge the receipt of all messages directed to you regardless of how trivial.

Keep the battery as warm as possible to improve performance.

DON'TS

Talk too much. Only speak when absolutely necessary. Safety information must take priority.

Use "OVER and OUT". You can either expecting a reply ("Over") or finished and clear the channel ("Out"), not both simultaneously. A dead give-away you're an amateur.

Swear. Good advice in general, but common sense on an open radio channel.

Loose the radio. If you do, get two other radios on the same channel, place them face to face and key one of the Push to Talk Buttons. This will produce a howling feedback on the open channel and might allow you to find that radio somewhere in the snow, or in the lodge.

Shout into the radio. Useless. Only distorts the resulting transmission.

Turn Up the volume max. Drains the battery and cause distortion. Has no effect on outgoing transmission quality.

Abuse the antenna. Break it and you have an effective range of 10 feet.

5.8.   Jury Case Studies

1. A racer in slalom misses the last gate before the finish. He falls and slides towards the finish. One leg crosses the finish line. He stands up and climbs back to the missed gate, passes through it and then descends through the finish. His time was taken when his first foot crossed the line during the fall. He asks the Finish Referee for a provisional re-run on the grounds that his time was improperly stopped as he had not technically finished the race. This is granted and his re-run time is slower than his original time.

   A. What will be the decision of the Jury as to which time will be taken? Explain the reasoning.

   B. If electric timing had been in place, would a re-run have been granted? Which time will be the racer's official time - the first breaking of the beam or the second? Why?

2. It is the second run of a men's Regional F.I. S. slalom. The sixth racer to start, in going through gate #10, hits the turning pole which comes out. The pole falls down the hill, slides and ends up between his legs, causing him to fall.

   A protest is lodged claiming improper planting of the pole by the gatekeeper after the previous racer. A conditional rerun is allowed.

   At the Jury meeting, the racer's coach makes the following points:

   A. The hill for slalom had not been well packed and prepared to the standard normally expected for slalom

   B. The course had been set close to the edge at this particular gate where the snow was quite soft. the same hole.

   C. The pole had been dislodged by the previous racer and had been reset by hand by the gate judge into the same hole.

   D.   The gate in question was set on a moderately steep slope.

   E. Self-redress poles were used to set the course. The Jury so far has not requested the use of wedges.

   F. Some poles were equipped with braking devices i.e. rubber stars. This pole in question did not have the braking device.

   The coach stated that had the pole been provided with a braking device as were other poles, then it would not have slid down the slope and interfered with the racer and that if some poles are equipped with braking devices then all poles should have them otherwise a racer is unfairly penalized if he dislodges a pole with no braking device. In this case, had the pole had the braking device the pole would not have slid down the slope and interfered with the racer. A racer should not, therefore, be penalized for luck.

3. It is the second run of a men's slalom. The results of this race will decide the selection of team to race in the USA Juvenile Championships.

   Of the 14 racers who have started the second run, 7 have DSQ at gate #53 and 3 have DNF.

   One racer #10, upon completing the course, immediately asked for a re-run claiming that gate #53, the final gate, had not been there during course inspection. Course inspection for the men had taken place during the girls' race and gate #53 was preempted by girl's gate #55.

   After racer #10 protested this, numerous racers came forward with the same complaint.

   The race is stopped and an emergency Jury meeting called.

   What decisions will be made by the Jury as to the protest and the continuance of the race with respect to gate 53?

What mistakes were made by the Jury?

4. It is the National Slalom Championships. The sun is shining. The course is very well prepared and very hard. The gates are all reflex gates which have been iced in. The course is flagged with all flags taped on with surgical tape.

   The forerunners start. The race starts. Four forerunners complete the course. No gates are dislodged but 3 or 4 flags are knocked off. The jury decided that to avoid delay and possibly interference, any flag which comes off should not be replaced.

   The first five racers complete the race. The times are fast. 3-4 more flags come off. They are picked up by the gate judge.

   Racer #6, last year's National Junior Slalom Champion starts.

   At gate #8, a flush, he passes a pole and when it snaps back, it launches a gate flag over his head and the flag lands in front of him. He steps on the flag and immediately steps off the course. He advises the gate judge he was interfered with, hikes backup to the start, presents himself to the start referee and demands a re-run.

   The start referee calls the TD with the facts. The TD calls the Jury members on the radio. Now What?

5. In the second run of slalom, an electronic time was missed for a competitor who was expected to be in the top 10. The start and finish referees confirmed there were manual departure and arrival times recorded for the racer, and the race continued.

   When the TD went to the race office to check the results, the race secretary mentioned that there was a slight problem. It seems the recorder and timer at the top, in the afternoon run only, had not recorded times to 100th of a second! They had only recorded the time of day in minutes and seconds.

   The race secretary had calculated the EET's using .00 from the missing 100th of a second.

   A) As the TD, what would you do?

   B) How could this have been prevented and whose responsibility was it?

6. PRE- RACE ADMINISTRATION

The majority of the following forms are for FIS race events. The most up-to-date forms are available on the FIS web site ~ www.fis-ski.com. Some National forms are available in the Level 2 course manual and current forms are available on the ACA web site ~ www,canski.org.

6.1. Race Forms

6.1.1. Race Notice:

The Race Notice for both FIS and National races in most cases is done electronically and available on the PSO web sites. The information is sent 4 – 6 weeks in advance of the event to the PSO office and ACA office (for National events) by the Chief of Administration.

RACE NOTICE

Enter info on BC ALPINE web site www.bcalpine.com
And send a copy to the Technical Delegate assigned to your race event.

Event Name	Location	Date of Event	Organizing Club

Sanction:

Schedule of Events - Date	Men Discipline	Women Discipline

Eligibility:

RACE ENTRY - Attention:

Address	Telephone	Fax	Email	Deadline	Fee

Bib & Teardown Deposit:

DRAW & TEAM CAPTAINS MEETING

Date	Time	Location

Rules & Regulations:

Lift Tickets:

On Hill Race Office:

RACE COMMITTEE

Title	Name	Telephone	Fax	Email
Chief of Race				
Chief of Admin				

Awards:

RECOMMENDED ACCOMMODATIONS

Name	Telephone	Fax

An example of the information required on a PSO race notice:

6.1.2. FIS Entry Form

The FIS Form is usually found and completed electronically on PSO web sites. This should be done by the authorized representative, usually the Team Captain, in accordance with the deadline and direction shown in the race notice

FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

FORMULAIRE D'INSCRIPTION / ENTRY FORM / ANMELDUNGSFORMULAR

Competition (Name/Place)/Manifestation (Nom/Lieu)/Veranstaltung (Name/Ort)	Date of race / Date de la course / Datum des Wettkampfs

Responsible for entry/Responsable de l'inscription/ Verantwortlich f. Meldung	Category Catégorie Kategorie
National Association/Fédération Nationale/Nationaler Verband	WC ☐ COC ☐ FIS ☐ CIT ☐ UNI ☐ MAS ☐ JUN ☐ CHI ☐

COMPETITORS / COUREURS / WETTKÄMPFER   L ☐ / M ☐

FIS Code	Surname, First Name Nom de famille, Prénom Familienname, Vorname	YB AN JG	DH	SL	GS	SG	SC/C	NTE	Arrival Arrivée Anreise	Departure Départ Abreise

Entry with FIS points / Inscription avec points FIS / Anmeldung mit FIS Punkten

Entry without FIS points / Inscription sans points FIS / Anmeldung ohne FIS Punkte

No entry / Pas de participation / Keine Teilnahme

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FORMULAIRE D'INSCRIPTION / ENTRY FORM / ANMELDUNGSFORMULAR

OFFICIALS / OFFICIELS / OFFIZIELLE

Surname, First Name Nom de famille, Prénom Familienname, Vorname	Arrival Arrivée Anreise	Departure Départ Abreise	
			Team Captain / Chef d'équipe / Mannschaftsführer
			Trainer / Entraîneur / Trainer
			Doctor / Médecin / Arzt
			Physiotherapist / Masseur / Masseur
			Technicians / Techniciens / Techniker
			Service personnel / Personnel de service / Servicepersonal

Place, Date / Lieu, Date / Ort, Datum	Signature Signature / Unterschrift (please print and sign)

6.1.3. The FIS Captains' Meeting Checklist

CHECKLIST
FOR
TEAM CAPTAINS MEETING

ICR ART.	AGENDA	CONTROL			NOTES
		1	2	3	
216/217	1. Welcome/Introduction/Roll Call/Attendance List/Agenda				FIS form
601.3.7	2. Approval of minutes of the last meeting				FIS form
601.3.1	3. Technical Part				
601.4	• Appointment of jury				601.4.9.1
603	• Appointment of course setters				WC and COC list
605	• Ratification of forerunners				
	• Classification WC and COC				FIS Office
217	• Updating of entries				Quota (WC/COC/FIS)
704	• 1st training list and others				621.7
621	• Drawing of lots				601.4.6/621.9
606.1	• Wearing of start numbers				
617.2.2	• Rules for protests (15')				640
	• Start list of 2nd run				621.10
	• Report of the day by the O.C.				
	• Report by the Technical Delegate				601.4.9/601.9.4
	• Report by the other members of the jury				
216/704/804	• Review of the intended programme (good or bad weather)				904/1004
	– Weather forecast				
	– Orientation of the courses in the area				
	– Inspection of the course				
	– Course preparation				601.4.6.1
	– Medical services				601.3.9
	– Training course				803.2
	• Proposal of team captains				
	• Final programme				
	– First run on lift				
	– Jury meeting at start or at finish				601.4.10
219/618	– Time and place of prizegiving				601.4.9.3
	• Distribution of radio equipment (Jury)				6014.8
	4. Administrative Part				
	• Accrediting of teams, officials, press, radio, TV, etc.				
	• Lodging, meals, refreshments				WC and COC regulations
	• Issuing and returning of start numbers				
	• Official statements/notice board				
	• Re-imbursements				
	• Mailbox at the race office				
	• Clothing check				
	• Parking/lift facilities				702.4
	• Opening hours of the race office				
	• Check on radio sets (PTT)				
	• Next meeting				
	5. Miscellaneous				

cs/24.07.04/tcmeete.doc

6.1.4. Program for a FIS Race

The program for technical events (SL, GS) is different than for speed events because of the programming for the second run.

Technical event program:

FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

PROGRAM FOR / PROGRAMME POUR / PROGRAMM FÜR   L ☐ / M ☐   ALPINE TECHNICAL

Date / Date / Datum	**Site** / Lieu / Ort	**Country** / Pays / Land **Event** (GS/SL/SC)
Name of event Nom de l'événement Name der Veranstaltung		**Category** / Catégorie / **Kategorie** COC ☐ FIS ☐
Place of jury inspection / lieu d'inspection du jury / Ort der Besichtigung Jury		**Time**
Radios / Radios / Funkgeräte		
Lift open / Ouverture des remontées mécaniques / Lift öffnet		
Warmup and training area / Piste d'échauffement et d'entraînement / Aufwärm- und Trainingspiste		

	Run / manche / Lauf	
	1st / 1 er / 1.	**2nd / 2me / 2.**
Course setter / Traceur / Kurssetzer		
Inspection (one) / Reconnaissance (une) / Besichtigung (eine)		
Entry for racers closed / Entrée fermée pour coureurs / Zutritt für Wettkämpfe geschlossen		
Entry for all closed / Entrée fermée pour tous / Zutritt für alle geschlossen		
Coaches on place / Entraîneurs en position / Trainer am Platz		
Forerunners **Number** / Nombre / Anzahl **Start time 1st forerunner** / Heure de départ no 1 / Startzeit Nr. 1		
Start time racer no. 1 / Heure de départ no 1 / Startzeit Nr. 1		
Start interval / Intervalle de départ / Startintervall		

Yellow zones/flags **Places**	**Back to start**
Zones jaunes/drapeaux **1st**	
Gelbe Zonen/Flaggen **2nd**	
Slip crews / Lisseurs / Rutschkommandos	continous
Intermediate times / Temps intermédiaires / Zwischenzeiten	

	Place	**Time**
Prize giving ceremony / Remise des prix / Siegerehrung		
Public draw / tirage au sort / Öffentliche Auslosung / Racers must appear		

	Run / manche / Lauf	
	1st / 1 er / 1.	**2nd / 2me / 2.**
Course setter next race / Traceur prochaine competition / Kurssetzer nächstes Rennen		
Next team captains meeting / Prochaine séance des chefs d'équipes / Nächste Mannschaftsführersitzung		

Miscellaneous / Divers / Verschiedenes

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Speed event program:

FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

PROGRAM FOR / PROGRAMME POUR / PROGRAMM FÜR   L ☐/ M ☐   **ALPINE SPEED**

Date / Date / Datum	**Site** / Lieu / Ort	**Country** / Pays / Land	**Event** (DH/SG)
Name of event Nom de l'événement Name der Veranstaltung		**Category** / Catégorie / **Kategorie** COC ☐ FIS ☐	
Place of jury inspection / lieu d'inspection du jury / Ort der Besichtigung Jury		Time	
Radios / Radios / Funkgeräte			
Lift open / Ouverture des remontées mécaniques / Lift öffnet			
Warmup and training area / Piste d'échauffement et d'entraînement / Aufwärm- und Trainingspiste			
Inspection (one) / Reconnaissance (une) / Besichtigung (eine)			
Entry for racers closed / Entrée fermée pour coureurs / Zutritt für Wettkämpfe geschlossen			
Entry for all closed / Entrée fermée pour tous / Zutritt für alle geschlossen			
Coaches on place / Entraîneurs en position / Trainer am Platz			

Forerunners Number / Nombre / Anzahl   **Reserve Number** / Nombre / Anzahl   **Start time** / Heure de depart / Startzeit

Start time racer no. 1 / Heure de départ no 1 / Startzeit Nr. 1

Start interval / Intervalle de départ / Startintervall

Yellow zones/flags Zones jaunes/drapeaux Gelbe Zonen/Flaggen	**Places** 1st 2nd 3rd 4th 5th	**Back to start**

Slip crews / Lisseurs / Rutschkommandos	continous
Intermediate times / Temps intermédiaires / Zwischenzeiten	& speed

	Place	**Time**
Prize giving ceremony / Remise des prix / Siegerehrung		
Public draw / tirage au sort / Öffentliche Auslosung / Racers must appear		
Course setter at start / Traceur au départ / Kurssetzer am Start		
Next team captains meeting / Prochaine séance des chefs d'équipes / Nächste Mannschaftsführersitzung		

Miscellaneous /Divers / Verschiedenes

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6.1.5. Team Captain's Meeting Minutes:

MINUTES / *PROCES-VERBAL* / PROTOKOLL

Team Captains' Meeting of / *Réunion des Chefs d'équipe du* Mannschaftsführersitzung vom						
JURY / *JURY* / JURY	**Name, Surname** / *Nom, Prénom* / Name, Vorname	**Nat**	**TECHN. DATA**/*DONNEES TECHN.*/TECHN. DATEN			
			Run / manche / Lauf	1st/1ère/1.	2nd/2ème/2.	
TD		CAN	**Name of course**/*Nom de la piste*/Name der Strecke			
Referee/*Arbitre*/ Schiedsrichter		CAN CAN	**Start**/*Départ*/Start			
Assistant Referee/*Arbitre adjoint*/SR-Assistent**)			**Finish**/*Arrivée*/Ziel			
Chief of Race/*Directeur de l'épreuve*/Rennleiter		CAN	**Vertical drop** /*Dénivelée* Höhendifferenz			
Start Referee/*Juge au départ*/Startrichter*)		CAN	**FIS Hom. No.**/*No. Hom. FIS*/FIS Hom. Nr.			
Finish Referee/*Juge à l'arrivée*/Zielrichter*)		CAN	**Length**/*Longueur* Länge**)		**Factor** / *Facteur* Faktor	

1st RUN/*1ère MANCHE*/1. LAUF		**Nat**	**2nd RUN**/*2ème MANCHE*/2. LAUF		**Nat**
Course Setter/*Traceur* Kurssetzer		CAN CAN	**Course Setter**/*Traceur* Kurssetzer		
Forerunners/*Ouvreurs*/Vorläufer			**Forerunners**/*Ouvreurs*/Vorläufer		
- A -			- A -		
- B –			- B –		
- C –			- C –		
- D -			- E -		
- F -			- G -		
- H -			- I -		
Number of gates/*Nombre de portes* Anzahl Tore	Direction Changes:		**Number of gates**/*Nombre de portes* Anzahl Tore	Direction Changes:	

Weather Forecast/*Prévisions du*	
Opening times of race office/*Heures d'ouverture bureau des courses*/Öffnungszeiten Wettkampfbüro	
Miscellaneous/*Divers*/Verschiedenes	
Timing/*Chronométrage*/Zeitmessung **Computer**	**Signature of Race Secretary**/*Signature du secrétaire de la course*/Unterschrift Rennsekretär

*) OWG/WSC, **) DH/SGpl/14.11.03/progmin.doc

6.2.   Starting Order: 1st, 2nd Run and "Snow Seed"

6.2.1. 1st Run Starting Order – the Draw

For FIS points – competitors are placed in order of their FIS points low to high.
For National points – competitors are placed in order of their National points low to high.
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:

a. If there is a tie in points for the 15th position in the first group, then the first group can be increased accordingly. (ICR ref 621.3)

b. 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. (ICR 621.3)

c. The Draw takes place the day before the race (ICR621.6) (… exceptions for lower level)

d. Redraw if race is delayed 1+ days (ICR 217.6)

Updated rules are moving toward increasing the size of the first group from 15 competitors to 30 competitors in some disciplines and age groups. It is necessary to check the most current FIS, ACA and PSO rules for the correct starting order.

<u>Snow Seed</u>   (ICR 621.10)

There is a rule for starting order in extraordinary conditions often called the "snow seed". This takes place in downhill, giant slalom or Super G (**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, however, as a precaution.

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.

6.2.2. 2nd Race Starting Order: Two - one run race events

In a National (non-FIS) 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 1st event. This means competitors will keep the same bib number but : #15 on the list will start #1, #14 on the list will start #2 and so on. The remainder of the field from 16th on, they run according to the 1st event start list.

6.2.3. Starting Order for 2nd Run (2 Run Race)

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 the starting order is as follows:

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

The remainder of the field from 31st on then runs according to the order of the result list of the first run. This is shown below.

1ST RUN RESULTS

Place	Bib No.	1st Run Time	2nd Run Start Number
1	6	55.32	30
2	10	55.56	29
3	4	55.94	28
4	1	56.29	27
5	8	56.33	26
6	3	56.48	25
7	2	56.49	24
8	12	56.51	23
9	18	56.67	22
10	7	56.73	21
11	16	56.75	20
etc.			
25	5	58.80	6
26	13	58.85	5
27	14	58.89	4
28	9	59.08	3
29	11	59.23	2
30	15	59.18	1
31	17	59.34	31

If there is a tie for 30th place in the results list, then the competitor with the lowest number will start first with the group to be reversed being increased according to the number tied.

What does this mean? Let's look at an example.

2 Run Race Events		An actual example is given below.			
Put the finishers in order of first run results	The second run start list then looks like this	Place	Bib No.	1st Run Time	1 Run Placing
1	30T - lowest bib #	1	6	55.32	31
2	30T - highest bib #	2	10	55.56	30
3	29	3	4	55.94	29
4	28	4	1	56.29	28
5	27	5	8	56.33	27
6	26	6	3	56.48	26
7	25	7	2	56.49	25
etc	etc.	etc.			etc.
to	to	to			to
25	7	25	7	56.73	7
26	6	26	16	56.75	6
27	5	27	5	56.80	5 Remember the keys are - put them
28	4	28	13	56.85	4 in order of the first run results
29	3	29	14	56.89	3 following the normal rules for
30T - highest bib #	2	30	11	57.08	2 breaking of ties i.e. high bib #
30T - lowest bib #	1	31	9	57.08	1 is listed before low bib #, then
32	32	32	15	57.18	32 reverse the appropriate number.
33 etc.	33 etc.	33	17	57.34	33

7. THE RACE COURSE

The "Race Worker Training Manual" is used as a training and educational guide for course and maintenance work. The manual is based on the needs for the 2002 Salt Lake Olympic Games and adapted to a Canadian version to assist volunteer and race organizers. The manual should be reviewed in section 7 as it contains valuable information for the learning needs of race Officials.

7.1. Race Course Technical Requirements

Refer to the most current ICR and Precisions. The following is from July 2012 ICR

Checklist for vertical drop (VD), number of gates (NG) and number of direction changes (DC)

EVENT			OWG/WSC	WC	COC	FIS	CHI	ENL
DH (Art. 700)	L	VD	450 – 800					1 Run: 400-500m 2 Runs: 300-400m
Downhill		Flag	0.75 x 0.50 //**colour for gate flags** (see art 701.3.2)					
	L M	VD	350 – 450 (2 Run Race)					
		NG	**as required**					
	M	VD	800 (750[1]) - 1100	550 - 1100	450 - 1100			1 Run: 400-500m 2 Runs: 300-400m
SL (Art. 800)	L	VD	140 - 220	120 - 200		100 - 160		80 – 120 3 Runs: 50 min
Slalom	L M	DC	**Number of direction changes**					
			30%-35% (+ / - 3)			32%-38%(+/-3)	30%-35% (+ / - 3)	
	M	VD	180 - 220	140 - 220		100 - 160		80 – 140 3 Runs: 50 min
GS (Art. 900)	L	VD	300 - 400	250 - 400		200 - 350[2]	200 - 250	
Giant Slalom	L M	DC	**Number of direction changes**					
			11% - 15%			13 % - 17%	11% - 15%	
		Flag	0,75 x 0,50 red & blue					
	M	VD	300 - 450	250 - 450		200 - 350[2]	200 - 250	
SG (Art. 1000)	L	VD	400 - 600	350 - 600		250 - 450	350 - 500	
Super G	L M	DC	**Number of direction changes**					
			6% min		7% min	8% - 12%	7% min	
		Flag	0,75 x 0,50 red & blue					
	M	VD	400 - 650		350 – 650	250 - 450	350 - 500	
P (Art. 1220) **Parallel**		VD	80 - 100			U14: 60-U16: 80		
	L M	NG	20 - 30			U14: 12 – 15 U16: 15 – 22		
		Flag	0.75 x 0.50 red track / blue track					

[1]   **In exceptional case** (see 701.1.1)
[2]   **see 901.1.4**

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Effective for the 2012 – 2013 season, additional age – based specifications also apply:

		U21	U18	U16	U14
SG	Max VD			450	
	Min VD	450m Men, 400m Ladies		250	
	DC	7% FIS, 6% WC/COC		8% - 12%	
GS	Max VD			350	
	Min VD	220 Men, 200 Ladies		200	
	DC	11% - 15%		13% - 17%	
	Distance			27m	
SL	Max VD			160	
	Min VD			100	
	DC	30% - 35%		32-38%	
	Distance			12m Delay gate max distance turning pole to turning pole: 15m	10m Delay gate max distance turning pole to turning pole: 15m
KK (608.12)	Max VD			200	
	Min VD			120	
	DC			10-12%	
	Distance (SL/GS)			ICR 608.12.3.3	
	Distance (GS/SG)			ICR 608.12.4.2	
Parallel	VD		100		
	DC		20-30		

Other Course characteristics and equipment

- There are safety and other requirements for GS and SG Gate panels. Please review these at ICR 690

- The required number of direction changes for each race discipline, race level, and age category is shown in the above chart. These values change often and the current ICR or ICR Precisions should be referenced for the correct value.

  - SL 801.2.4, GS 901.2.4, SG 1001.3.4

- The is a min/max Vertical Drop for each race discipline, race level, and age category is shown in the above chart. These values change often and the current ICR or ICR Precisions should be referenced for the correct value.

  - SL 801.1, GS 901.1, DH 701.1, SG 1001.1

7.2. Piste Preparation

A list of key points for the most important tasks, prepared by Kurt Hoch, Race Director Women's World Cup

1. Machine preparation
   - Basic principle: Higher roller pressure - faster blade speed; slower machine run, reversing for further compression (local preparation)
   - Daily machine preparation (Exception: stable crust, poor base, minimal air humidity, warm:

- Natural snow mixed with artificial snow
- Timing of machine preparation (optimal temperature, air humidity)
- For basic preparation, piste should be left open for tourists and prepared with machines on a daily basis
- Steep sections with cable winch (turning around behind the edge of the section, so the pressure of the machine will be greater)

2. Water
- In specific areas or the whole piste
- Safe method: boot pack, then water, finally packing with *skis on, no* sliding.
- Or: break up with machine, then water, pack with machine (effective at certain temperatures and air humidity i.e. does not work when base is very dry)

3. Dealing with new snow
- In specific areas or the whole piste
- Artificial snow in addition: mix it up, prepare several times with machine.
- Remove new snow with machines or by hand (shovel I) if the base is good

4. Preparation of special areas
- Start - Freeze/ice ramp when necessary, starting platform partially free of snow for ski pole placement
- Finish - Daily machine preparation get rid of large uneven areas, make sure there is snow on the outside of the finish area
- Individual gates during the competition
  Side slip (individually or in groups), with rakes (depending on the circumstances with the rough or smooth side) Pulling along the length of the rut, basic principle to begin wooing on the piste immediately and check it after each competitor
- Fall zones
  Prepare with machines if there is enough space to maneuver, otherwise make the area compact with snow and shovels so it will not break using
  Area in piste breaking through during the race
  Prevent waves/uneven terrain before and after the hole through working with rakes or shovels
  If the piste breaks through badly,
  - Depending on the temperature, use water and snow, have a short break or
  - Water - snow chemicals + snow - combination, short break when necessary

5. Use of chemicals

- Snow hardener with different methods- Sodium chloride, Sodium carbonate,   Sodium nitrate

- Big difference in actual effect. test beforehand on small area

6. Jumps

- Take off. incline(15-20), take off area flat as possible

- Landing: Firm preparation, long enough run out area before the next change of gradient.

7. Preparation of icy sections

- If "glass" or too icy, break up with rakes, if it is too hard to stand with crampons then salt can be used in certain temperatures

- Check base before considering use of machines for very thick ice. Ice machines can also remove thin ice areas.

8. **Slipping**
    - DH/SG: Groups of 3 to 4 persons sliding in relay, no slipping flat sections
    - SL/GS: 1-2 persons after every competitor

9. **Re-homologation periods**
    - A Piste is inspected and validated by an assigned inspector as appropriate for various race disciplines. This validation process is called Homologation and is intended for FIS level races and higher, although we attempt to stage Children's races on these same Pistes. This is especially true for Children's SG and DH. The validation has time limits and re-inspection is required at the end of this period.

    - For DH/SG period is 5 years, ICR 650.6.6.1

    - For SL/GS the period is 10 years, ICR 650.606.2

    - Also reference other Homologation information at ICR 650

7.3.   Preparation of the Piste

Preparing a hard, consistent race track is a task that can be made simpler with advance research and planning. It pays to contact coaches and officials who have used that track before, and the ski area professionals who manage the general snow conditions on the hill. You can discover past and expected problems and identify the resources and best methods available to solve them.

Usually, the best piste for a race track is one that is groomed regularly and skied by the general public every day. There is no substitute for the random edge pressure of many skiers. Man-made snow can also be of great advantage. Of course, these conditions are not always perfect. Weather, topography and the necessities of ski area management can introduce challenges.

In some cases minor extra machine work to widen the track (for safety installation, etc.) is necessary. In more extreme situations entire tracks or sections must be built from ungroom areas. Sometimes thin areas need to be rebuilt or snow assembled for a start ramp. It is best to tackle these tasks months or weeks before your event, and then keep on top of them. Make sure new snow is being properly incorporated regularly so that soft layers are minimized. Today's grooming machines work by pressing a spinning tiller on the snow to break up the top layer, heat it a little, and add some air. Finally it is formed by the rear skirt and left to set. When a small amount of new snow is present it can be effectively mixed with the old snow but a large amount of new, dry snow is very hard to compact. A member of the ROC and/or a local coach should inspect the track with a drill regularly so that groomers can be informed of any concerns and ROC can make proper preparation for any problems.

When the above steps are followed, you can concentrate on particular conditions expected on the event day. Is new snow expected? How much and when? Grooming decisions for the night before an event should be made in consultation with the TD and knowledgeable locals but one goal to keep in mind is not to destroy a viable surface if you are not sure you can create a new one in the time and conditions available. Relatively moist snow groomed at 2am on a clear cold night might be ready for course setting at 8am but might take much longer to set if warmer or cloudy conditions occur. Sometimes leaving a good surface alone and clearing off any snowfall in the morning by hand will give the best result.

7.4.   Course Maintenance and Repair

Most aspects are covered in detail in the Race Worker Training Manual except for the application of chemicals other than water to harden the snow surface, and the current practices regarding course marking and contrast mediums.

7.4.1. Chemicals

Usually associated with spring events or glacier training, the need to apply chemicals to harden snow that has a minimum liquid water content can occur at any time in some of our climates. The chemicals commonly used are simple salt (sodium chloride) or a high nitrogen fertilizer (46-0-0) which react with the water in the snow to freeze the top layer. Salt is usually cheaper but may not be preferred at your ski area for environmental reasons. Both are commonly available in small amounts or in bulk and are supplied in 20-25kg bags in a pilled (pelletized) form. Some nitrogen formulas have material handling issues which can be checked with the supplier.

If you expect to encounter warm, soft snow you will need to plan on applying a thin, even coat - perhaps more than once. Don't forget your start area, ramp and finish area! Amounts needed can vary from a 2-3 bags for a short SL course upwards. Local coaches with summer training experience can help with quantities. Potential chemical use will usually be discussed at the team captains' meeting and all decisions in this area will be taken by the jury. They will often want to know that a test area has been treated successfully.

It is possible to spread the chemicals directly from an open bag but it is far easier to transfer the material to a 5 gallon pail. The spreaders should have good chemical resistant gloves and goggles at a minimum. It is important to be prepared in advance as some items may not be easy to find at a ski hill.

Handfuls of chemical are broadcast as evenly as possible in a large arc. Helpers can come behind with refill bags and to help work the material into the snow. Immediately behind the application crew some slippers should make the surface as smooth as possible. In most conditions the snow will begin to harden quite quickly and lumps or ridges left can become rock hard. At this point it is crucial to leave the surface alone to set up (15-30 minutes) before testing it with forerunners.

7.4.2. Course Marking and Contrast

Often overcast conditions, light/shadow transitions, fog or simply the speed that the racer is traveling make it necessary have visual aids in addition to gates so that the track and any obstacles can be adequately perceived. In speed events the inside line above and below the turning gate is usually marked with a dye line or small conifer branches, if dye is not available. For GS and speed the jury will often call for the application of contrast media such as dye or fine conifer mulch beside or on the track to help the racer see.

In the past, large amounts of prepared conifer branches have been procured (old Christmas trees, logging debris). When that was not enough, or not done at all, the trees beside the track would be stripped instead. This is not a satisfactory from an environmental standpoint.

Many dye methods have been used from carpenter's chalk, water paints and even powder paints. The most up-to-date, easiest, most economical and environmentally benign method now used is food coloring dye mixed with water and common windshield antifreeze. Best applied with a 5 gallon backpack type hand pump pressure sprayer readily available at garden or building suppliers, a mixture of 500ml dye (use blue or green available in bulk from bakers suppliers), a standard 1 gallon jug of windshield antifreeze, and the balance of water. The mixture and apparatus must be kept in a warm location, preferably near the start, until used. An operator can quickly mark a course or apply contrast, but not both, in one pass. One or two apparatus might be adequate for a GS but four or more might be necessary to run a long DH. Recharges should be available in the warm area.

Operators ski down the track, pumping pressure into the tank with one hand and applying the dye with the other. A 6-12 inch bar of bright color is desired so the nozzle must be held quite close to the snow and speed must be controlled. This is a job for strong skiers who know the racing line. Course marking is done inside the line above and below the turning gates. Contrast is applied in several forms as necessary. It can be a line outside the race line or bars across the track. Don't forget the finish line and the red warning line.

A common problem with this or any other application is that the operator or another worker slips the material off before it can soak in so make sure the operators know where the tails of their skis are, and keep everyone else off.

There is an excellent manual on Course Marking available among the Officials materials on the ACA website

7.4.3. Safety Systems

Racer speeds and piste preparation have developed so that one can no longer assume that a racer leaving the course by any means other than finishing or quitting can safely come to a stop in a pile of snow. Many systems have been used to alleviate this situation and later abandoned as unsafe, from frozen hay bales to plastic C fencing.
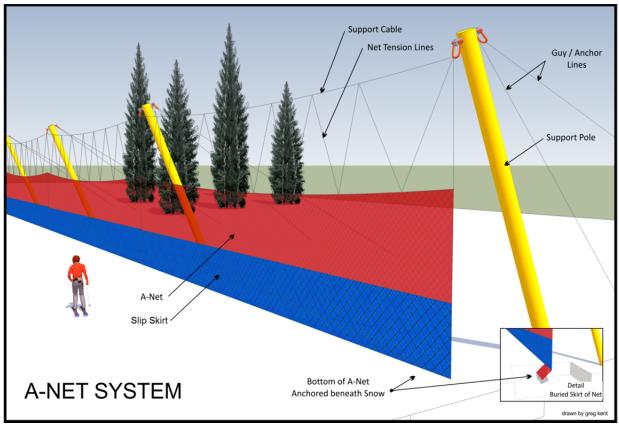
The current solutions are net-based and designed to absorb the racer's energy in a relatively controlled manner.

7.4.3.1. 'A' System Nets

'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 height and space. These nets form a barrier between the racer and objects such as trees, rocks, cliffs, etc.

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 installation is a very specialized skill and is best left to qualified technicians employed for the purpose. They are expensive as well as time consuming to install and therefore usually erected for high profile events like World Cups or NorAm. Once installed they usually remain in place for the remainder of the season thereby giving the opportunity to schedule lower level speed events on the same piste where they benefit from the additional safety provided. The nets must be well-engineered so that injury does not occur when the net is impacted. 'B' net systems are often installed in front of 'A' nets to reduce possible injury from net impact. 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.

A-NET SYSTEM

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.

> **'A' fencing slip skirt must be buried at the base to a depth of approximately one foot so the racer will not go under the fence.**

7.4.3.2.   'B' Systems

'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 can be of one layer, two layers or three layers. Consideration can be given to using four layers.
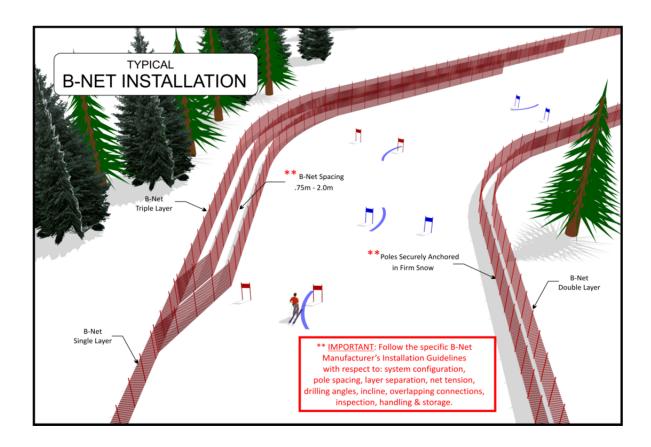
At present there are five main manufacturers of 'B' net systems. It is important that installers become familiar with the specific manufacturer's instructions in installing these systems. It is also important that different manufactured systems not be integrated into the same area. All manufacturers 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.

Layers of netting must be installed as per manufacturer's guideline. An example of one manufacturer's instructions ~ 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.
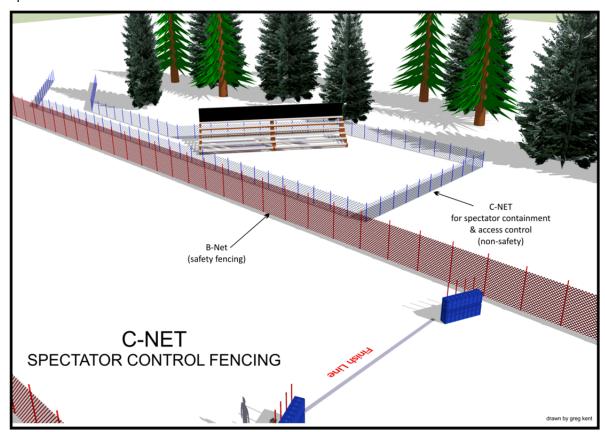
The theory of this fencing is that a racer hitting the primary will be decelerated and stopped, or if the impact is sufficiently great, be encased in the primary net, half of the momentum (say) in the primary fence; and continuing into the secondary layer to be decelerated further and stopped. If necessary, 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.

TYPICAL
B-NET INSTALLATION

B-Net
Triple Layer

** B-Net Spacing
.75m - 2.0m

** Poles Securely Anchored
in Firm Snow

B-Net
Double Layer

B-Net
Single Layer

** IMPORTANT: Follow the specific B-Net
Manufacturer's Installation Guidelines
with respect to: system configuration,
pole spacing, layer separation, net tension,
drilling angles, incline, overlapping connections,
inspection, handling & storage.

7.4.3.3. 'C' Fencing

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.

C-NET
for spectator containment
& access control
(non-safety)

B-Net
(safety fencing)

C-NET
SPECTATOR CONTROL FENCING

Finish Line

drawn by greg kent

7.4.3.4.   Padding of Obstacles
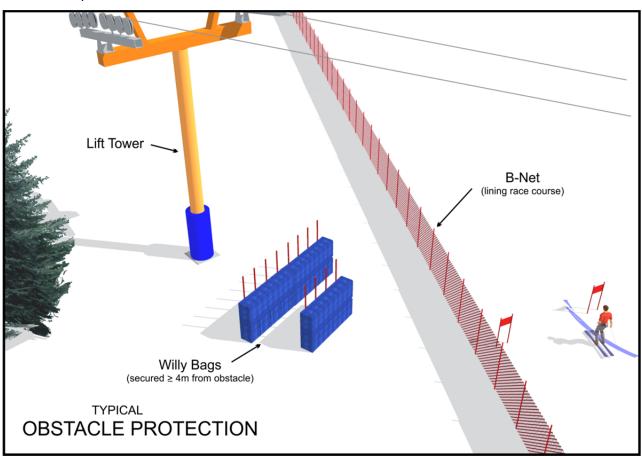
Willy Bags

The "Willy bag" is a most useful tool to provide protection on courses. They are moved about the mountain and can be adapted to unlimited uses.

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 re-enforcement. 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.

Willy bags can be attached to bamboo poles erected about four meters in front of TV lift towers, snow-making hydrants and prominent trees on both sides of the trail and also placed behind nets. At the finish area, place them in front of finish posts, timing buildings and interval timing lights. The list of things they can be attached to is endless. It has been found that the bags are most effective when they are tied into place.

Lift Tower

B-Net
(lining race course)

Willy Bags
(secured ≥ 4m from obstacle)

TYPICAL
OBSTACLE PROTECTION

7.4.3.5.   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.
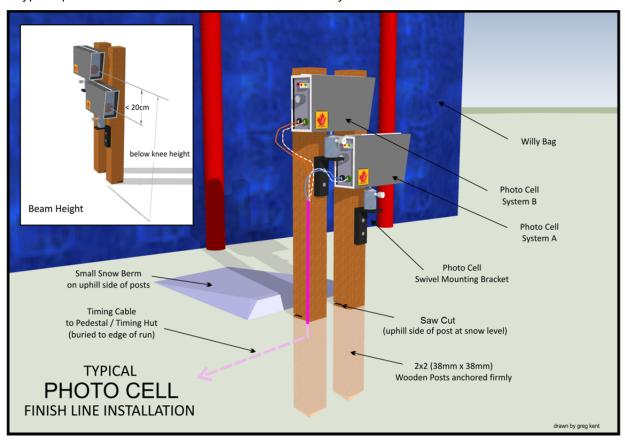
From a timing viewpoint, safety comes into play at any timing equipment installation (except the start where there generally are no hazards from a timing perspective). At intervals using beams, and at the finish, the beams must be set so that the skier cannot be injured in a fall by the equipment.

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, 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 uphill side so if the skier does impact them the post will shatter.

3. at the finish line, 'willy bags' are set in front of the photo cells at an angle to deflect a falling skier.

4. means of protecting the posts must be installed to the satisfaction of the Technical Delegate.

A typical photo cell installation at the Finish with safety considerations looks like this.

TYPICAL
PHOTO CELL
FINISH LINE INSTALLATION

There are minimum width distances for Finish Lines which vary by discipline as follows,

Slalom	10 meters
Giant Slalom	15 meters
Super G	15 meters
Downhill	15 meters

The photocells of the timing eyes at the Finish Line are capable of projecting 25 meters or more

7.5.   The Start Area

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.

A Start Corral should be constructed to accommodate waiting competitors, coaches and technicians that will be present in the start area. This area should separate 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.
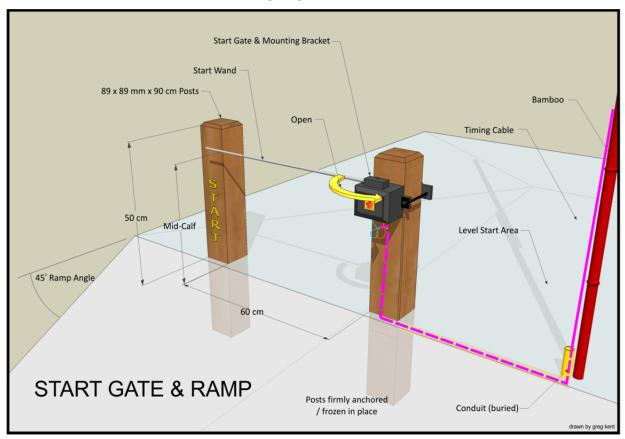
The racer should be able to stand in a relaxed position in the start. A ramp (from the start gate down to the course) should allow for rapid acceleration and clear direction to the first turn.

In addition, there must be enough space allowed in the immediate start area for the start officials to perform their duties. That area is closed to the start officials, one competitor and one coach/trainer (ICR 613.1). The start area can become more or less important depending on the level of the race.

Other issues to be considered at the Start are,

- Crash helmets required by all competitors and forerunners. The helmets may differ by discipline (ICR 707, 807, 907, 1007)
- Start number (bib) requirements (review ICR 628 – Penalties)
  - The Start Referee should have a supply of spare bibs to cover situations where bibs go missing
  - A spare bib for a competitor re-run is **not** required
- Delayed starts (ICR 613.6). Note Start Referee practices and discretions.
- False Starts (ICR 613.7) . Note Start Referee practices

A view of the Start is shown in the following diagram.

START GATE & RAMP

7.6. The 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 bermed as mentioned before, plus 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.
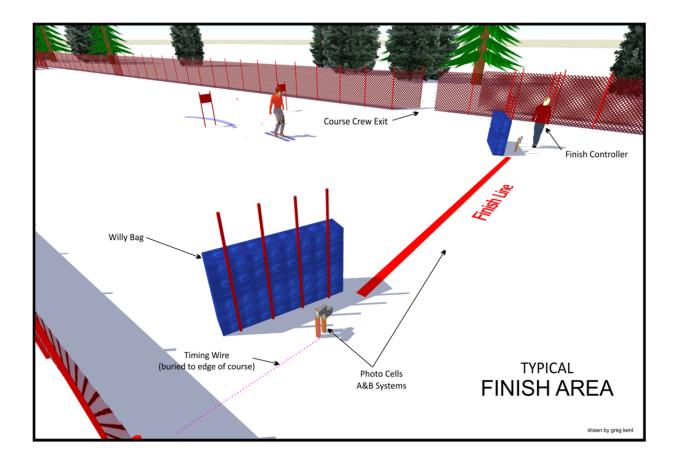
The marking of the finish area should be re-accomplished for every race. A dyed finish line helps both the competitor and the officials. A red line, even if television is not present, is important in that it teaches the competitor what to expect at perhaps his next higher level of competition. In all 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. Today's well-trained racer may be tomorrow's Olympic gold medal winner!

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.

A view of the Finish Area and Course Workers Exit is seen in the following diagram.

Course Crew Exit
Finish Controller
Finish Line
Willy Bag
Timing Wire
(buried to edge of course)
Photo Cells
A&B Systems
TYPICAL
FINISH AREA
drawn by greg kent

7.7. Course Setting

Under the current rules, coaches normally set the courses. 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. 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.

7.7.1 Course set timing

It is required the course setter be on site and the course be set with all protection measures in place within given time periods before inspection by the competitors. In general the periods are described by ICR 603.8.1 and ICR 603.7.4 (… "ready in time so competitors are not disturbed during their inspection"). The "ready by" requirement for Downhill events is specifically described by ICR 703.2.1

7.7.2 Other Course set detail

Some other important detail on gate construction and passage is as follows,

- Gate construction, terminology and passage, ICR 661 – Control of Passage (Explanation)
- .Slalom Gate set, ICR 801.2.1 to 801.2.4 and diagram
- Single Pole Slalom set and passage, ICR 804.3 and diagram

Please reference and review this

7.7.3 Obligation for competitor inspection

In general all race participants should pre-inspect the course they will run, competitors and forerunners. For Downhill events it is required that all competitors inspect and train on the course. ICR 703.2.3 and ICR 704.1

7.7.4 Method of competitor inspection

Historically, the method of inspection varied by race discipline. Now it is usual for the Jury to decide the method and communicate their instructions to competitors via the Team Captains. This may be done at the Team Captains meeting but may come later depending on the conditions seen by the Jury during their course inspection. For example,

- due to a light snowfall overnight they may request the competitors side slip out excess snow during their inspection
- they may request competitors move out of the race line while inspecting some areas due to thin patches
- not to inspect over jumps in a speed course but to leave the race line and go around them

In these cases the Jury will communicate instructions to the waiting competitors via radio through the Start Referee or some other official at Start.

7.8. Training

In Downhill events and in some Super G competitions one or more days of training are required. It is prior to this 1st day of training that the course should be prepared as for the race which 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 they are 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.

7.9. Race Day - The Real Thing!

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 for 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 so on 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.

7.10. Course 'freeze' during speed events

During the running of a DH or SG race the ROC maintains a situation where only racers or forerunners are moving on the course unless there is a course hold underway. The only exception to this is where a side-slipping team may move between several gates of the course well in advance or behind the racer. This situation is called a course freeze and is crucial to conducting a safe race. It is often difficult for the ROC/Jury to maintain the freeze but they must persist in the effort to ensure the safety of competitors, volunteers and coaches. The consequences of not doing so can be life threatening. The Jury should take pains to reinforce their expectations at the Team Captains meeting and during the race by appropriate radio channels if the practice is not followed.

If it is necessary for individuals to move while racers are on course they should be instructed to,

- move with the side-slip crew, only if an experienced skier and leaving the course at the same locations as the crew members

- move during a course hold, instructed to move to their destination quickly and their position monitored before restarting the race

Another dangerous practice seen in recent years is individuals moving on course while using a cellphone. Being distracted in this way while a racer may be approaching you at high speed is just as dangerous as driving a vehicle while using a cellphone.

Another practice seen on course which should be discouraged for safety reasons is transporting equipment or clothing down the track during side slipping or course holds.

7.11. Tear Down

Now 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. be 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. TIMING

Events on the FIS calendar and ACA National calendar must use the FIS timing rules ICR 611 and current FIS Timing Booklet.

Timing rules for 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.
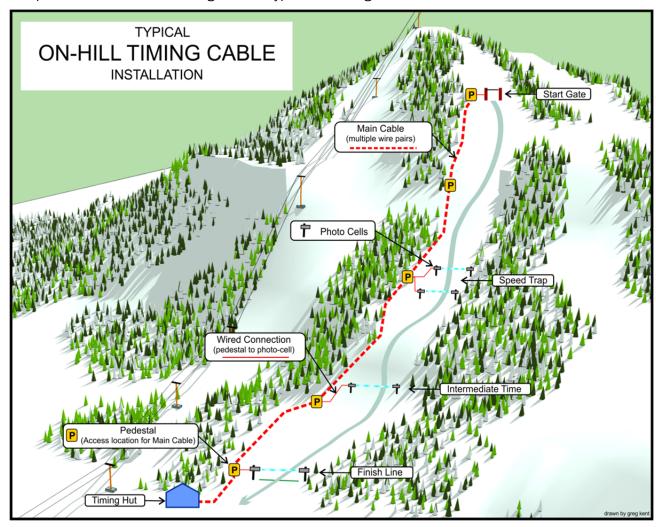
Timing is also covered in Level I and Level 2 Course Manuals.

8.1.   Rules for Timing

ICR 611 contains the specific rules of timing. Some ICR rules include:

611.1   It is highly recommended there be multiple communications between the start and the finish.

611.2.1 For all international competition, FIS WC, FIS COC, FIS competitions, two synchronized electronically isolated timing systems operating in time of day must be used.

Synchronization of the timing systems must occur within 60 minutes of the start of each run. Synchronization of all systems must be maintained throughout each run. Timers must not be re-synchronized during any run.

611.2.2 Manual (hand) timing, completely separate and independent of the electric timing, must be used for all competitions …

National item: National non-FIS races except for calendared provincial, western, eastern or national championship races require one electronically isolated timing system operating in time of day. Two synchronized electronically isolated timing systems for all national calendared races are highly recommended.

611.3.2 In the case of a failure of the main electronic timing system (system A), the results of the electronic back-up system (system B) will be valid as per art. 611.2.1. For the OWG, FIS WSC and FIS WC, a synchronized electronic timing system with printers, connected to the starting gate and to the photocells at the finish is obligatory. In case of a failure in the lines of the timing system between start and finish, this back-up system will allow the calculation of the times to 1/100ths of a second. In the case that calculated net times from either system A or system B are not available for a competitor, the calculated net manual time as per art. 611.3.2.1 will be considered valid. An example of the ACA Start/Finish Time recording form used to record manual times is on the following page.

611.3.2.1 Hand times may be used in the official results after a correction has been calculated. Note: the ICR is mute on whether a race run completely on hand times is acceptable and may be considered for official results.

611.3.3 The official timing strips from the printer will be given to the Technical Delegate for review.

611.3.5 Computer software calculating net times must use the precision of the time of the day as used in the timing device.

617.3.3 If two or more competitors have the same time then the racer with the higher start number must be listed first on the official list of results. Note, the awards process may differ in that, for example, if two competitors share the 2nd place time then 2 silver medals and no bronze are awarded, **but** the official results show a deemed 2nd and 3rd place according to this rule.

622   Time intervals between racer starts are defined for all disciplines with the exception of Slalom. For Slalom the start interval is "irregular", an interval managed between the Chief of Timing and the Starter (ICR 805.1)

8.1.1 Typical Hill wiring for a race

The Chief of Timing and his/her crew have usually prepared some time before the race in assembling their equipment and getting it to the hill. It's usual now that they have assembled and installed the equipment on a "pre-wired" piste. This means that the piste has permanent timing terminals called Pedestals at a number of strategic positions down the slope from Start to Finish. The crew runs cable lengths from these pedestals to connect equipment for the Start Gate, Finish Line and other photocells to provide intermediate times, speed traps and other valuable development information for the competitors and coaches. A diagram of a typical hill wiring is as follows.

TYPICAL
ON-HILL TIMING CABLE
INSTALLATION

Main Cable
(multiple wire pairs)

Start Gate

Photo Cells

Speed Trap

Wired Connection
(pedestal to photo-cell)

Intermediate Time

Pedestal
(Access location for Main Cable)

Finish Line

Timing Hut

drawn by greg kent

Start/Finish Time Recording Form

An example of the form on which hand times are recorded by the assigned official at the Start and Finish areas

Hand Timing / Temps manuels

[ ]DH   [ ]SL   [ ]GS   [ ]SG   [ ]SX   Date : _____
JJ – MM – AA

ALPINE CANADA ALPIN

Women/*Femmes* [   ]   Run/*Manche* #1 [   ]   Start/*Départ* [   ]   Page

Men/*Hommes* [   ]   Run/*Manche* #2 [   ]   Finish/*Arrivée* [   ]   _____

BIB	H	min	Sec	1/100	BIB	H	min	sec	1/100	BIB	H	min	sec	1/100

CODEX : F= _____ – M= _____   Recorded by/*Chronométré par.* _____
v.2011-10

The form is available on ACA Officials web site in National Race Forms section.
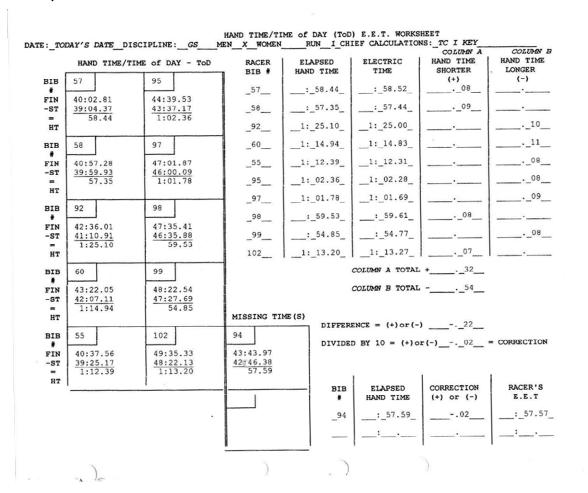
8.2.   Calculated Net Manual Time - EET

When a time is missed by the electric timing, the hand time documented on the Start/Finish Time Recording form is used for that competitor after a correction has been applied. This correction is calculated by calculating the difference between electric and hand times of the 5 competitors starting before the missed time and the 5 competitors starting after the missed time or if necessary the 10 nearest competitors. The sum of the remaining 10 time differences is divided by ten and rounded up or down to give the correction, which must be applied to the hand time of the competitor whose electric time was missed.

Luckily EET's are included in many race timing programs but if calculating without the computer a form has been developed which makes this calculation quite simple. This form is shown on the following page. Technical Delegates must do a manual EET to confirm the race timing program's calculation is correct.

Example of EET Worksheet


```
               HAND TIME/TIME of DAY (ToD) E.E.T. WORKSHEET
DATE:_TODAY'S DATE_DISCIPLINE:__GS___ MEN_X_WOMEN____RUN__I_CHIEF CALCULATIONS:_TC I KEY_____
                                                                      COLUMN A        COLUMN B
          HAND TIME/TIME of DAY - ToD    RACER    ELAPSED    ELECTRIC  HAND TIME      HAND TIME
                                         BIB #   HAND TIME     TIME     SHORTER        LONGER
                                                                         (+)            (-)
 BIB  57            95
  #                                       _57    __:_58.44_  __:_58.52_   ._08__      _____._____
 FIN  40:02.81     44:39.53
 -ST  39:04.37     43:37.17              _58__   __:_57.35_  __:_57.44_   ._09__      _____._____
  =     58.44       1:02.36
 HT                                       _92    _1:_25.10_  _1:_25.00_  _____.___   ____._10__

 BIB  58            97                    _60__   _1:_14.94_  _1:_14.83_  _____.___   ____._11__
  #
 FIN  40:57.28     47:01.87               _55__   _1:_12.39_  _1:_12.31_  _____.___   ____._08__
 -ST  39:59.93     46:00.09
  =     57.35       1:01.78               _95__   _1:_02.36_  _1:_02.28_  _____.___   ____._08__
 HT
                                          _97__   _1:_01.78_  _1:_01.69_  _____.___   ____._09__
 BIB  92            98
  #                                       _98__   __:_59.53_  __:_59.61_   ._08__      _____._____
 FIN  42:36.01     47:35.41
 -ST  41:10.91     46:35.88               _99__   __:_54.85_  __:_54.77_  _____.___   ____._08__
  =     1:25.10      59.53
 HT                                       102__   _1:_13.20_  _1:_13.27_   ._07__      _____._____

 BIB  60            99                           COLUMN A TOTAL +_____._32__
  #
 FIN  43:22.05     48:22.54                      COLUMN B TOTAL -_____._54__
 -ST  42:07.11     47:27.69
  =     1:14.94      54.85
 HT               MISSING TIME(S)        DIFFERENCE = (+)or(-) ____-._22__

 BIB  55            102        94        DIVIDED BY 10 = (+)or(-)__-._02__ = CORRECTION
  #
 FIN  40:37.56     49:35.33   43:43.97
 -ST  39:25.17     48:22.13   42:46.38
  =     1:12.39      1:13.20    57.59
 HT                                       BIB     ELAPSED     CORRECTION    RACER'S
                                           #     HAND TIME    (+) or (-)     E.E.T

                                          _94    __:_57.59_     -.02___    __:_57.57_

                                          ___    __:___.___   _____.____  __:___.___
```

From the numbers above, you see that the correction to be applied is +0.02 seconds. This may seem insignificant but looking at a list of actual race results below you see that 0.02 seconds translated to a big point difference and is not insignificant to a racer with low points!

Racer	Time	Points
1	1:56.68	0.00
2	1:56.84	1.66
3.	1:57.04	3.73
4	1:57.06	3.94
5	1:57.07	4.04

8.3.   National Timing Booklets and Technical Reports

Timing information including the FIS Timing Booklet, Timing Equipment Homologation Information and FIS Timing Report is available on the FIS web site – www.fis-ski.com.
National information including the National Timing Booklet and National Timing Report is available on – www.alpinecanada.org.

For timing information the Officials program uses the FIS Timing Booklet for FIS races and National Timing Booklet for non-FIS races. Both books focus on timing rules and information for the specific level of race. Each book provides step by step use of their specific level of Timing Technical Report (TTR). The timing reports provide data on the timing equipment used and information about the accuracy of the timing procedure for FIS sanctioned races and National sanctioned race events.

The following is an example of the National Timing Report. The Chief of Timing for selected National races must complete the report and the TD confirms the data is correct prior to the results being sent to: www.acapoints.ca

9. POINTS SYSTEM

9.1. Definitions

Points:

Points are calculated using results or racer points (see below). Usually the advantage of the best two results in each discipline is used to calculate the points. Also called Seed Points or List Points.

Points List:

A listing of competitors giving their points in each discipline. FIS list is valid for specific dates and only the current list may be used for the race entries.

Race Penalty

This is a calculated number used to equalize races. It 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.

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 0.00 points. There isn't an ICR rule that says so but the Race Points formula discussed next makes this obvious. Race points are used in the calculation of race penalty.

Racer's Points or Result

A racer always gets a result from a race, which are his race points added to the race penalty.

9.2. 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:

$$P = [(T_x / T_w) - 1] \times F \qquad P = (T_x \text{ times } F \text{ divided by } T_w) \text{ minus } F$$

P = race points

T_X = racer's time in seconds

T_W = winner's time in seconds

F = $60/(CM - 1)$

The CM value is arrived at by statistical analysis of worldwide results. For the various disciplines the value of F are shown below.

N.B. F values are updated every two years and available on each FIS list.

Some Important Points to Note in this Calculation:

1. All steps of the calculation must be done to at least 4 decimal places with no rounding off occurring until the calculation is complete.

2. Rounding off to two decimal places is done as follows:

   Ignore the 4th decimal place and use the value of the 3rd decimal to round the 2nd decimal place.
   0 - 4 goes down i.e. stays the same,   5 - 9 goes up.
   e.g. $105.5689 \rightarrow 105.57$ $105.5649 \rightarrow 105.56$

3. 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 'T$_o$' time of 100 seconds in slalom and a T$_x$ 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, 105,60 in DH and 99,20 in SC. This will allow you to check your program. You should also check that the winner's time gives a value of zero points.

Following are sets of sample values for the five disciplines to allow you to practice the calculation of points.

Racer	Time	Time in seconds	P – DH	P – SL	P – GS	P – SG	P – SC
1. AAA	1:58.99	118,99	0,00	0,00	0,00	0,00	0,00
2. BBB	1:59.74	119,74	8,64	3,91	5,61	6,62	6,74
3. CCC	2:03.52	123,52	52,16	23,60	33,88	39,97	40,74
4. DDD	2:04.01	124,01	57,80	26,16	37,55	44,30	45,14
5. EEE	2:04.29	124,29	61,02	27,62	39,64	46,77	47,66

9.3.   Calculation of FIS 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 which is a direct measure of the caliber of the race - the lower the penalty, the better the caliber of the race.

You will notice FIS races use different "maximum point values" compared to the National races. An example of FIS race penalty and points information required for FIS races is shown below. Some of the FIS penalty information can change with every Points List

Using FIS Points List information below ~ <u>Variables needed for FIS Calculation:</u>

ALPINE SKIING

2012/2013

1ère LISTE DES POINTS FIS - 1st FIS POINTS LIST - 1. FIS PUNKTELISTE

Valid from 01/07/2012 to 29/08/2012

Category/Catégorie/Kategorie	Race level	Minimum penalty	Maximum penalty
OWG WSC WC	0	0	0
COM	0	0	4
WJC ANC EC FEC NAC SAC UVS ECOM	1	6	999
NC	2	8	999
YOG FIS JUN NJC NJR CIT UNI CORP	3	9	999
ENL	4	40	999

MEN					GENERAL		LADIES					
ADDER				Z-Value	Men/Ladies		ADDER					Z-Value
Dis.	Level 1	Level 2	Level 3	Level 4		F Value	Max points	Dis.	Level 1	Level 2	Level 3	Level 4	
DH	0	2	3	13	0,00	1370	310	DH	0	2	3	13	0,00
SL	0	2	3	13	0,00	620	145	SL	0	2	3	13	0,00
GS	0	2	3	13	0,00	890	200	GS	0	2	3	13	0,00
SG	0	2	3	13	0,00	1050	250	SG	0	2	3	13	0,00
SC	0	2	3	13	0,00	1070	250	SC	0	2	3	13	0,00

FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

9.3.1. FIS Penalty Calculation Form

PENALTY CALCULATION
CALCUL DE LA PENALITE
PUNKTEZUSCHLAGSBERECHNUNG

Name of event / Nom de l'événement / Name der Veranstaltung							
Date / Date / Datum	Event / Epreuves / Bewerbe			Name of the TD / Nom du DT / Name des TDs			

The best 10 at finish / *10 meilleurs à l'arrivée!* / Die besten 10 im Ziel

Result / Résultat / Resultat	Number / Dossard / Nummer	Name / Nom / Name		Time / Temps / Zeit	FIS-Points / Points FIS / FIS-Punkte	Best 5 / 5 meilleurs / 5 besten	Race points / Pts de course / Rennpunkte

FIS Points of the best 5 started / *5 meilleurs points FIS ayant pris le dèpart*/ Die 5 besten gestartetenFIS-Punkte

TOTALS / *TOTALS* / SUMMEN

(B)   **FIS Points of best 5 started**
      Points FIS des 5 meilleurs ayant pris le départ
      Die 5 besten gestarteten FIS-Punkte

(A)   **FIS Points of best 5 to finish in top 10**
      Points FIS des 5 meilleurs dans les premiers 10
      Die 5 besten FIS-Punkte aus den ersten 10

(C)   **Race Points of corresponding competitors**
      Points compétition de ces concurrents
      Rennpunkte der entsprechenden Wettkämpfer

Calculated penalty / *Pénalité calculée* / Berechneter Zuschlag

A [____] + B [____] - C [____] = [____] : 10 =

Correction value / *Valeur de correction* / Korrekturwert (-z →+z Art. 4.4.7)

Category Adder / *Additif de catégorie* / Kategorie-Adder

Penalty applied / *Pénalité appliquée* / Angewandter Punktezuschlag

Signature TD / Signature du DT / Unterschrift des TDs	Nr/No/Nr

9.3.2. Penalty Calculation Procedure.

1. List top 10 finishers

2. Add up list points for the best 5 list point finishers from the top 10

3. Add up the list points for the best 5 list points who **started** the race irrespective of where they finished or even if they finished

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

5. Deduct the race points of the best 5 list points holders

6. Divide the result by 10

Use correction value and category Adder as allocated by FIS for level of race (WC, COC or FIS)

An Important Point to Note in FIS Race Penalty Calculation

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. (Reason: better penalty).

9.3.3. Completed Penalty Calculation

A recent example of a completed form

```
                        ALPINE CANADA ALPIN

                SUPER SERIE SPORTS EXPERTS PRÉSENTÉE PAR AUDI

   CLUB DE SKI SUTTON & BROMONT                        16 FÉVRIER 2012
   SKI BROMONT                                                     SQA
   --------------------------------------------------------------------
                 G I A N T   S L A L O M    M A S C U L I N
                     CALCUL DE PÉNALITÉ FIS

   LES 10 MEILLEURS A L'ARRIVÉE:

   RÉSULTAT   No    CODE    CONCURRENTS              POINTS     5     POINTS
   COURSE     BIB           NOM et PRÉNOM              FIS  MEILLEURS COURSE

        1     1    103690   GAGNON, Cedrik           29.79   29.79    0.00
        2     5    103857   ST-GERMAIN, Wiliam       28.09   28.09    8.60
        3    10    103855   RIVET, Philippe          33.80   33.80   14.33
        4    15    103751   TOUTANT, Simon-Claude    20.86   20.86   20.38
        5    32    104016   SHEINER, Julian          60.20
        6    19    104191   MAINS, Gabriel           51.51
        7     7    103895   MCCONVILLE, Charles      43.79   43.79   27.39
        8    30   6530450   DERRICK, Miles           59.35
        9    41    934676   MACOMBER, Ian            66.48
       10    13   6530140   MCLAUGHLIN, Prescott     46.80

   LES 5 MEILLEURS AU DÉPART:

        4    15    103751   TOUTANT, Simon-Claude    20.86
        2     5    103857   ST-GERMAIN, Wiliam       28.09
        1     1    103690   GAGNON, Cedrik           29.79
     DNF2     3    104023   STEINKE, Chris           30.64
        3    10    103855   RIVET, Philippe          33.80

   TOTAUX                                          --------
   (B)  POINTS FIS DES 5 MEILLEURS AU DÉPART        143.18  --------
   (A)  POINTS FIS DES 5 MEILLEURS DANS LES 10 PREMIERS      156.33  --------
   (C)  POINTS DE COURSES DES CONCURRENTS CORRESPONDANTS              70.70

   PÉNALITÉ CALCULÉE    156.33 + 143.18 -  70.70 : 10 =              22.881
                         (A)       (B)       (C)

   ARRONDI                                                           22.88
   ADDITIF DE CATÉGORIE                                               3.00
   VALEUR DE CORRECTION (Z)                                          +0.00

   PÉNALITÉ APPLIQUÉE:                                               25.88

                              J. LAMBERT        (CAN)#1018

   16-02-12 / SKI BROMONT        LISTE: FLM812      CAN321 .1018    GM9 / 1
   --------------------------------------------------------------------
   DONNÉES TRAITÉES PAR SPLIT SECOND SOFTWARE       CHRONOMÉTRAGE Tag Heuer CP540
   Une présentation Audi
```

9.4. Calculation of Result

To arrive at a final value for the race, we add Race Points + Penalty Points for each racer to determine Result Points for the race.

Let us look at an example to see how this works.

	Time in sec.	Race Points	Penalty	Total Points
Winner	111,72	0,00	125,18	125,18
Competitor A	116,26	23,16	125,18	148,34
Competitor B	116,72	25,51	125,18	150,69

The value that appears for each competitor on the National Points List is calculated by averaging the points results of the two best races in one season for each discipline. FIS has similar calculations for calculating the competitor's "result". Refer to the FIS "Rules of Alpine Points" on the FIS web site for the specific calculations.

Thus if Competitor A's two best results in one discipline were the above result of 148.34 and another result of 156.24, then the value for A in the points list would be

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

9.4.1. FIS RESULT PACKET

NOTE: DOCUMENTS SUBMITTED TO "A" (FIS BUREAU) AS THE "FIS RESULT PACKET" IS SINGLE-SIDED ON WHITE PAPER WITH NO STAPLES OR BINDING. SUBMIT ONLY DOCUMENTS THAT ARE MARKED WITH "X"

Distribution Of Results - FIS Event				A	B	C	D	E	F	G	H	I	J	K	L
1.	List Of Competitors By Points	Required	White						X	X					
2.	List Of Competitors By Nations	Required	White						X	X					
3.	Official Entry Form	Entry Only	White						X						
4.	Attendance List	Optional	White						X	X					
5.	Program For (Team Captains' Minutes)	Required	White	X	X				X	X	X	X		X	
6.	DH Training Start Lists And Times	Optional	White						X	X					
7.	Start List - First Run	Required	White	X	X				X	X	X	X		X	X
8.	Start List - Second Run	Required	White						X	X					
9.	Official Results - Original Signed By TD	Required	White	X	X	X	X		X	X	X	X		X	X
10.	Official Penalty Calculation - Signed By TD (Computer Generated)	Required	White	X	X	X	X		X	X	X	X		X	X
11.	Hand Calculated Penalty - Signed By TD (Use For All If Computer Copy Not Available)	Required	White							X					
12.	Report Of The Technical Delegate (One Per Start, Original Signature By TD)**	Required	White	X	X				X	X	X	X		X	
13.	Timing Technical Reports - Signed By TD/Chief TC*	Required	White	X	X				X	X	X	X		X	
14.	Additional Report Of The TD	As Needed	White	X	X			X	X	X	X	X		X	
15.	Report By The Referee - Signed By Referee	Required	White	X	X				X	X	X	X		X	
16.	Protest Forms	As Needed	White	X	X				X	X	X	X		X	
17.	Minutes Of Jury Decisions (Protest)**	As Needed	White	X	X				X	X	X	X		X	
18.	Minutes Of Jury Decisions (Without Protest)**	As Needed	White	X	X				X	X	X	X		X	
19.	TD Candidate Evaluation	As Needed	White	X	X					X		X		X	
20	List Of Race Officials (Transmittals) (One Per Start, FIS TD's Signature appreciated but not required)	Required	White		X				X	X				X	
21.	Accident Reports	As Needed	White	X	X				X	X	X	X		X	
22.	TD Expense Account	Required	White						X	X		X		X	

 * "One Per Start" Means One Copy Required <u>Per Race Per Gender</u>. Timing Report Requires One Copy <u>Per Run Per Gender</u>.

** Minutes Of Jury Decisions Are NOT To Be Copied For General Distribution. *(Both Require Record of Vote and Signatures of Jury Members*

A. FIS BUREAU   **B.** USSA   **C.** Divisional/Regional   **D.** Participating National   **E.** Sub-Committee   **F.** Organizing Committee
   Blochstrasse 2   Alpine Office   Alpine Offices   Federations   Alpine Courses (See Form)
   CH-3653   Park City, UT   **(CONTACT DIV./REG.**   & USSA Chairperson
   Oberhofen/Thunersee   **OFFICES FOR SPECIFI**   as listed in <u>COMP GUIDE</u>
   SWITZERLAND   **REQUIREMENTS)**

G. Technical Delegate   **H.** FOR NORAMS/CAN TD'S   **I.** USA FIS TD Chairman   **J.** DIV/REG OFFICIALS   **K.** CAN FIS TD Chair*
         Alpine Canada Alpin   **(CONTACT DIV./REG.**
         Calgary, Alberta   **AO CHAIR FOR SPECIFIC**
         REQUIREMENTS)

   L. ACA Points
   c/o Alpine Canada Alpin

*FOR CANADIAN TECHNICAL DELEGATES

The result package items <u>should be</u> in this order for each packet as it makes checking easier for the FIS Office.

NOTE: FIS forms are available on disk. Contact your National Office

FOR CURRENT RACE PACKAGE REQUIREMENTS REFER TO THE FIS WEB SITE AND FOR NATIONAL RACE PACKAGE DOCUMENTS REFER TO THE ACA OFFICIALS WEB SITE

9.4.2. PROOF READING CHECKLIST FOR CRITICAL ERRORS

Thorough proofreading of Official Results and other required reports is a basic responsibility of the Technical Delegate, Although reference to the following checklist will not cover all of a TD's tasks in this regard, it should help to catch or to avoid errors.

Technical Data: All technical data on all results headers and reports must he complete, accurate, consistent, and must meet the requirements.

Check:

Name/Date/Site/Discipline/Sex/Category of events	☐
Confirmation of Technical Data form, completed and signed by TD and Referee	☐
1st Run Results and Start Orders(s) headings	☐
Official Results headings	☐
Technical Delegate Report	☐
Legal numbers of gates for the vertical drop	☐
Measured "running" length of downhill and Super G noted on the Official Results, etc.	☐

Official Results:
Proofreading of Official Results can be simplified somewhat by first doing various "spot checks". If these turn up deficiencies, then more thorough proofreading, line-by-line, must be done. Discontinuities In data are easy to spot and can be keys to big problems needing attention and correction.

Check:

Correct totaling of times and correct calculation of FIS points for first ten finishers, plus random samples of later finishing racers	☐
Proper handling of equal placements (ties)	☐
Card numbers appear for all registered racers	☐
Number appearing on Start List = Number on official Results including all DNSs, DSQs and DNFs	☐

Penalty Calculations:
There are a number of errors that can appear in, or be discovered by proofreading, the penalty calculations. Transcription and typographical errors are easily made; refer to original data. Computer programs may not necessarily produce correct penalty calculations and are prone to rounding "errors" based on the assumptions, order of calculations and precision in the program.

Check:

Correct mathematics (addition, subtraction, division) and correct rounding (1-4 down, 5-9 up)	☐
Correct seeding and FIS points	☐
Minimum penalties (by category) noted & respected	☐
Penalty & applicable minimum appear on TD Report	☐
Manually check and "sign-off" on all computer calculated & printed penalty calculations	☐

Signatures:

Authentic signatures are required on several items. Most documents should bear at least the initials of the responsible or supervising official. Official Results and TD Report should be signed only after satisfactory proofreading. The TD is responsible.

Check:

Official Results and TD Report	☐
Confirmation of Technical Data form (TD & Referee)	☐
Various minutes and other reports (i.e. Referee's Reports, Protest, Jury Minutes)	☐

10. COMMON PROBLEMS WITH GATE JUDGING

1. Gate Judges not in position, in position too late to properly observe or in poor choice of location to properly observe the passage of competitors. The Gate Judges, or at least a sufficient number for adequate control, must be at their stations well before the start of the race.

2. Indecision! Usually the result of failing to anticipate the possible decisions a Gate Judge may need to make. Plan ahead! At difficult 'combinations' of gates, the Chief Gate Judge should take the time to point out the types of situations that might be encountered at this position.

3. Before the race starts, draw a diagram of your gates in each box provided on the card. If diagrams are missing or unclear, then your card may be useless to the Jury. One of your most important duties is a drawing of the fault committed - absolutely required. If you draw the diagram in advance, then all you have to complete is the actual track of the racers and the bib number.

4. When there is a delay in the collection of the scorecards a delay is usually then passed on to the Jury proceedings and the preparation of the 2nd run start list or the results. The Chief Gate Judge is responsible for the rapid and efficient retrieval of the gate judge cards.

5. Missing gate judge cards - in the event that a gate judge was overlooked by the person picking up cards after a run, the gate judge should make every attempt to deliver his card to the Jury as soon as possible, preferably the Referee in the finish area but at least to the Race Office.

6. Missing Gate Judge with Faults marked on his/her card: A Gate Judge is responsible for reporting to the finish to provide-needed information in regards to a recorded fault. The Chief Gate Judge should be present to present the Gate Judge to the Jury and to present the Gate Judge's qualifications to the Jury, if needed.

7. A Gate Judge's job is not finished when the last racer has crossed the finish line. The Gate Judge must be willing to serve as a witness, if needed, when a Protest is under consideration by the Jury. If, at the end of the Protest period (usually 15 minutes after posting the list of disqualification's), there is no protest to the Disqualification, the Gate Judge will be dismissed from duty by the TD.

8. Inadequately trained Gate Judges - 'last minute' recreating of anyone available. Difficult to work around the video can be of some help in this last minute training.

9. Inadequate clothing for extreme weather conditions this is another plan-ahead item. Gate Judges must be prepared for all kinds of weather.

10. When possible, reserve Gate Judges can be used to relieve persons needing to get warm or otherwise, more comfortable. However, a shortage of Gate Judges seems to be the most common problems.

11. Adequate number of Gate Judges? This is an eternal question. The only guidance provided by the ICR is in 669.1 and 669.2. Generally the ROC should strive for 1 gate judge to 3 gates in Slalom and decrease for the speed events. Often there are insufficient volunteers to allow this and compromises are made, for example

   - Start Referee covers gates 1 and 2

   - Chief Gatekeeper covers top gates following those assigned to Start Referee

   - Finish Referee covers last two gates

   The important point is for the Chief Gatekeeper to inform the Jury of the coverage and when the assigned Gate Keepers are in place.

An evaluation of the above will point out a common factor - lack of planning and training. All of these can be avoided or minimized by good planning and understanding of duties by the Chief of Gate Judges. The effort is well worthwhile due to the important functions of the gate judges.

Other issues in which Gate Keepers are often involved are as witness to "Grounds for Interference" (ICR 623.3), or determining whether a competitor received outside help in recovering from a fault in their vicinity (ICR 661.3). These ICR points should be studied and understood.

A point of reassurance for the Gate Keeper is that the competitor has an obligation to "make correct passage" around a gate in accordance with ICR 661.4, even if the gate is missing (ICR 661.4.1.3). If the racer and coach feel they have an argument for a re-run rather than DSQ in such circumstance it is their obligation to raise this with the Jury.

11.   RE-RUNS, SANCTIONS, DISQUALIFICATIONS AND PROTESTS

The following must be read in conjunction with the indicated sections of the ICR.

220 Service Personnel, Suppliers and Firms Representatives

223 Sanctions
225 Appeals Commission

620 & 621 Start Order

623 Re-runs
624 Interruption of the Race or Training
625 Termination of Competition
627 Not Permitted to Start
628 Penalties
629 Disqualifications

640 Protests

641 Types of Protests
642 Place of Submittal
643 Deadlines for Submittal
644 Forms of Protests
645 Authorizations
646 Settlement of Protests by the Jury
647 Right of Appeals

650 Rules about the Homologation of the Courses

There are key points for a Jury to consider in processing protests appropriately,
- Is it of a type within the ICR (ICR 641)
- Has it been submitted in the prescribed manner
- Is the submission within the required deadline (ICR 643)

Other important points of note are

- A protest of the Referee Report (a DSQ) must be made within 15 min of posting (ICR 643.4)
- Physical evidence must be presented to support a protest (ICR 640.1)
- The Jury can and should consider video evidence in resolving a protest (ICR 646.2)

Overall considerations of the Jury in resolving a protest and deciding an appropriate penalty for an infraction are
- Did the competitor gain some advantage from the issue being considered?
- Were other competitors placed in a disadvantage?
- Did the issue jeopardize the safety of others? racers or volunteers? (ICR 629.2)

11.1. Guiding Principals

1. Think   - Do not rush

2. Hearing   - Accused has the right

3. Facts   - You must have them

4. Consider   - Discuss all options

5. Decision   - Make it fit the crime

6. Written   - All Jury decisions

7. Deliver   - FIS, Federation (National/Local, as applicable), Person

Referee Report

FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

REPORT BY THE REFEREE / PROCES VERBAL DU JUGE ARBITRE / PROTOKOLL DES SCHIEDSRICHTERS

Place / Lieu / Ort		Country / Pays / Land		Codex	
Name of event Nom de l'événement Name der Veranstaltung				Date Date Datum	
Category		Gender		Event	

The following competitors have been disqualified according to ICR / Les coureurs suivants ont été disqualifiés selon le RIS / Die folgenden Wettkämpfer wurden im Sinne der IWO disqualifiziert

No. No. Nr.	Surname, First Name Nom de famille, Prénom Familienname, Vorname	NAT	GateNo. No.porte Tor Nr.	Gate judge Juge de porte Torrichter	Notes Notes Bemerkung

Did not start (No.)/Pas au départ (No.)/Nicht am Start (Nr.)

Did not finish (No.)/Pas à l'arrivée (No.)/Nicht im Ziel (Nr.)

Time published / Heure d'affichage / Anschlagzeit	Deadline / Délai /Ablauf	Date / Date / Datum	Signature Referee Signature du juge arbitre Unterschrift des Schiedsrichter

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Protest Form

FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

PROTESTS / RECLAMATIONS / PROTESTE

Place / Lieu / Ort		Country / Pays / Land		Codex	
Name of event Nom de l'événement Name der Veranstaltung				**Date** Date Datum	
Category		**Gender**		**Event**	

Reasons for protest / Motifs de la réclamation / Gründe des Protestes	ICR References / Références RIS Bezugsquellen IWO

Name of protester / Auteur de la réclamation / Verfasser des Protests

Function Fonction Funktion	**Surname, First Name** Nom de famille, Prénom Familienname, Vorname	**Team** Equipe Mannschaft	**Date and time of submission** Date et heure du dépôt Datum und Zeit der Zustellung	**Payment of deposit** Versement de la caution Einzahlung des Betrages

Protest and deposit received by / Réclamation et caution reçues par / Protest und Betrag hinterlegt bei

Function Fonction Funktion	**Surname, First Name** Nom de famille, Prénom Familienname, Vorname	**Signature** Signature Unterschrift (please print and sign)

Date / Date / Datum	**Signature of protester** Signature de l'auteur de la réclamation Unterschrift des Protestverfassers (please print and sign)

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FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKI VERBAND

MINUTES OF JURY DECISIONS (PROTESTS) / PROCES-VERBAL DES DECISIONS DU JURY (RECLAMATIONS) / PROTOKOLL DER JURYENTSCHEIDE (PROTESTE)

Place / Lieu / Ort		Country / Pays / Land		Codex	
Name of event Nom de l'événement Name der Veranstaltung				Date Date Datum	
Category		Gender		Event	

Jury members present / Membres du jury présents / Anwesende Mitglieder der Jury

Function Fonction Funktion	Surname, First Name Nom de famille, Prénom Familienname, Vorname	NAT	With voting right Avec droit de vote Mit Stimmrecht	Signatures Signatures Unterschriften (please print and sign)
Technical Delegate Délégué Technique Technischer Delegierter			yes ☐ no ☐	
Referee Arbitre / Schiedsrichter			yes ☐ no ☐	
Assistant Referee Jrbitre-assistant / SR-Assistent			yes ☐ no ☐	
Chief of Race Directeur d'épreuve / Rennleiter			yes ☐ no ☐	
Start Referee Juge au départ / Startrichter			yes ☐ no ☐	
Finish Referee Juge à l'arrivée / Zielrichter			yes ☐ no ☐	

Others present at the meeting / Autres personnes convoquées / Andere eingeladene Personen

Summary of reasons for protest /
Rappel succint du motif de la réclamation / Kurze Beschreibung des Protestgrundes

ICR References /
Références RIS
Bezugsquellen IWO

Decision / Décision / Entscheid

Time published / Heure d'affichage / Anschlagzeit	Date / Date / Datum	Signature of TD Signature de DT Unterschrift des TD (please print and sign)

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MINUTES OF JURY DECISIONS (WITHOUT PROTESTS)
PROCES-VERBAL DES DECISIONS DU JURY (SANS RECLAMATIONS)
PROTOKOLL DER JURYENTSCHEIDE (OHNE PROTESTE)

Competition / *Manifestation* / Veranstaltung		
		L ☐ M ☐

Discipline /*Discipline* / Disziplin	**Date** / *Date* / Datum

Jury members present/*Membres du jury présents*/ Anwesende Mitglieder der Jury	**Nat**		**Signatures**/*Signatures*/ Unterschriften
Technical Delegate *Délégué Technique* Technischer Delegierter		**With voting right** *Avec droit de vote* Mit Stimmrecht	
Referee *Arbitre* Schiedsrichter		**With voting right** *Avec droit de vote* Mit Stimmrecht	
Assistant Referee *Jrbitre-assistant* SR-Assistent		**With voting right+)** *Avec droit de vote+)* Mit Stimmrecht*+)	
Chief of Race *Directeur d'épreuve* Rennleiter		**With voting right** *Avec droit de vote* Mit Stimmrecht	
Start Referee *Juge au départ* Startrichter		**With voting right*)** *Avec droit de vote*)* Mit Stimmrecht*)	
Finish Referee *Juge à l'arrivée* Zielrichter		**With voting right*)** *Avec droit de vote*)* Mit Stimmrecht*)	

Others present at the meeting/*Autres personnes convoquées*/Andere eingeladene Personen

Name *Nom* Name	**Nat** *Nat* Nat	**Function** *Fonction* Funktion

Summary of decisions taken
Rappel succint du motif
Kurze Beschreibung

Time published *Heure d'affichage* Anschlagzeit	**Date** *Date* Datum	**The TD:** *Le DT:* Der TD:

+) DH/SG, *) OWG/WSC

cs/24.07.96/minjurot.doc

12. CHECK LIST FOR RACE ORGANIZERS

12.1. Simplified check list for Race Organizers.

1. *Early Fall*

☐   a)   Contact ski area management and obtain approval for the event.

☐   b)   Check rules to see that terrain selected conforms to the rules for the event.

☐   c)   Obtain approval for the event at the Zone meeting for inclusion in the Divisional calendar.

☐   d)   Appoint a Race Chairman and Race Secretary.

☐   e)   Establish and maintain regular contact with the ski area.

2. *Four Weeks Prior to the Race or Earlier*

☐   a)   Make arrangements with ski area re course preparation, lift operation, ticketing, course equipment and communications.

☐   b)   Plan and acquire all needed equipment and spares and all supplies.

☐   c)   Appoint and confirm all major officials, qualified for the level of race.

☐   d)   Install and **test** all communications and timing wiring.

☐   e)   Issue race notice.

☐   f)   Contact Technical Delegate appointed to your race re accommodation, arrival, plans etc.

☐   g)   Check on course preparation and grooming.

3. *Two Weeks Prior to the Race*

☐   a)   Check with all committee chairman and chiefs to ensure that they have enough personnel.

☐   b)   Check with Chief of Equipment on progress of equipment.

☐   c)   Order prizes.

☐   d)   Inform TD of the progress of preparations and impending problems.

☐   e)   Check safety provisions as applicable.

☐   f)   Thoroughly test all timing and communications equipment on the hill.

☐   g)   Check course preparations.

4. *One Week Before Race*

☐   a)   Re-check all arrangements; inspect trail preparation personally.

☐   b)   Bring equipment to ski area and race site if possible.

☐   c)   Check with ski area.

☐   d)   Contact all major officials for progress report and contact TD with status report.

☐   e)   Insist that the course be packed, rolled, graded etc. during the week before the race.

☐   f)   Make arrangements for chemical course preparation if needed later.

☐   g)   Prepare for seeding meeting and draw.

☐   h)   Arrange for preparation and installation of start and finish areas.

☐   i)   Arrange for dignitary to present awards.

☐   j)   Prepare race rules.

☐   k)   Firm up schedule of events and confirm with officials and ski area.

5. *The Day Prior to the Race*

- ☐ a) Confirm with Race Secretary that all is ready.
- ☐ b) Check communications and timing system again.
- ☐ c) Do final grooming and set first course(s).
- ☐ d) Do final preparation of start and finish areas.
- ☐ e) Do final preparations for coaches meeting and draw.
- ☐ f) Confirm lift operation with ski area according to schedule.

6. *Evening Before Race*

- ☐ a) Coaches meeting, followed by draw.
- ☐ b) Jury meeting.
- ☐ c) Major officials meeting.
- ☐ d) Make adjustments developing from these meetings.
- ☐ e) Publish race schedule, start lists, etc.

7. *Race Day*

- ☐ a) Arrive early!
- ☐ b) Final installation of timing and communications system two hours prior to race start.
- ☐ c) Jury inspection.
- ☐ d) Final course preparation as needed - dying, numbering, flagging.
- ☐ e) All officials in place and ready in plenty of time prior to the start.
- ☐ f) Fore-runners go prior to start and report to Jury.
- ☐ g) Start on time.
- ☐ h) Remember to keep all racers, coaches and officials informed of current events and any   changes.
- ☐ i) Confirm quiet place for jury meeting.
- ☐ j) Make certain Chief of gate judges keeps gate judges informed for potential Jury meeting.
- ☐ k) Process results as quickly as possible.
- ☐ l) Distribute unofficial results as soon as they are available.
- ☐ m) Ensure quiet, secure area for results production.
- ☐ n) Ensure course clean-up is satisfactory.

8. *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.

12.2. Check List for Chief of Administration

1. *ONE MONTH BEFORE*

☐ Make up and send race notice

☐ Alpine Division, Alpine Canada Alpin, PSO Officials Chair, TD

☐ Check Quotas and host zone quotas in Green Book

☐ Talk to TD(s) about need for accommodation, preview of race course

2. *Check Supplies*

☐ Waterproof paper for manual timing sheets

☐ Scoreboard sheets

☐ Gatekeeper cards

☐ Labels, markers, dye for marking gates

☐ White and colored Xerox paper

☐ Ink cartridges for fax machine, photocopier, printer

☐ Clipboard

☐ Draw board, draw cards, 2 sets of ping ping balls (15)

☐ File folders in appropriate colors

☐ Blank computers discs

☐ Manila envelopes

☐ Order most recent RACE RESULTS (e.g. dTris, etc.) program

3. *2 WEEKS BEFORE*

☐ Meeting with ROC

☐ Discuss preliminary agenda, schedule and race rules to present at coaches meeting. Follow FIS forms for agenda and schedule.

☐ Discuss ticket order with mountain (preliminary discussions will have already taken place as ticket price is needed on race notice). Arranging tickets for athletes and coaches with *all-area* passes is recommended.

☐ Upload FIS Points list from FIS and National Points from Alpine Canada Alpin web sites.

☐ Make sure you have received all FIS forms on disc. Go to www.fis-ski.com, alpine, publications. National forms are on ACA web site Officials section.

☐ Test run race software. Check that points upload options work.

☐ Locate homologation reports for FIS races.

☐ Confirm codex #'s for all races (Individual #'s for M & F each day).

☐ Organize bibs, banners, media coverage and awards. Find out who will be presenting awards.

☐ Locate draw board, get 2 sets of ping pong balls each numbered 1-15 for the top seed random draw. Make draw cards.

☐ Have all current FIS rule books on hand (ICR book IV for Alpine. FIS Timing. FIS Equipment. FIS Points.

4. *A FEW DAYS BEFORE THE RACE*

☐ Input entrants into your race software.

☐ Check daily codex #'s for M & W.

☐ Get TD #

☐ Confirm current F Factors and minimum/maximum point values.

5. *AFTER COACHES MEETING*

☐ Edit entries (add or pull racers as necessary)

☐ Double check that the actual number of racers is the same number in race program– good check after editing.

☐ Title races

☐ Make on-hill packages for start referee (including spare bibs), finish referee, TD, referee, Chief of Gates (Start lists with schedule, local rules, Referee's reports, protest forms).

6. *AFTER RACE*

☐ Make race files and FIS version

☐ Email race files daily to BC Alpine and Alpine Canada Alpin

☐ Email FIS files along with TD report to Switzerland

☐ Also as requested by FIS or National mail or courier a package

☐ Keep track of volunteers on the volunteer database document. Send to PSO as applicable

☐ Compile race results package as per the FIS Distribution list. Send/Mail ASAP

7. *HAZARDS in the SECRETARIAT*

LOCATION

☐ Public area where staff is easily distracted

☐ Area is too small and not dedicated to Secretariat

☐ Great distance from the race site without a good communication plan

☐ Area which is not adequately lighted

☐ Inadequate power supply for computing & duplicating requirements

FAILURE to read or to refer to guidelines provided by governing association or the assigned TD in regards to :

☐ Seed Board procedures

☐ Results headings (technical data)

☐ Competitor information on race documents:

☐ Correct Points List and race results transfer software

☐ CODEX

☐ Adder and correction value for FIS penalty

☐ Racer names must be spelled as on the Point list

☐ Recording votes and signatures of Jury

☐ Completion of all documents

☐ Having computer input operators or typists that are knowledgeable in preparing the proper race documentation;

☐ Having staff who can remain until the proper documentation is complete.