Ski Cross
Race day - race protocols
Content
SX Officials
Race Procedures
Key Rules
SX Officials

Major Officials
Minor Officials
Other Personnel
Ski Cross Officials

Major Officials:

- Technical Delegate
- Chief of Race (Competition)
- Referee
- Chief of Course
- Chief of Start
- Chief of Finish
- Chief of Gate Judges
- Chief of Timing
- Course Builder
- Connection Coach / Course Setter

JURY MEMBERS
Ski Cross
Major Officials

- **Technical Delegate**
  - Assigned by NSA or FIS
  - Responsible for applying rules of the governing organization, supervises work by competition officials, inspecting all medical protocols, inspecting Ski Cross Course safety procedures and installations
  - Chair of Race Jury

- **Chief of Race**
  - Assigned by Organizing Committee
  - Responsible for overall race operations, liaison with host resort, manages work of competition officials
  - Member of the Race Jury

- **Referee**
  - Assigned by FIS, NSA, TD or Club
  - Assists the Technical Delegate
  - Records reports from Chief of Gate Judges about any rule infractions or gate faults
  - Records results of heats provided by finish judges
  - Provides results information to data/timing service, signs official results and post results to notice board
  - Member of Race Jury
Ski Cross

Major Officials

- **Chief of Course**
  - Assigned by Organizing Committee
  - Responsible for maintaining the Ski Cross course, including the start area, race surfaces, terrain features, finish area, installing timing system, and managing work of course workers
  - Sets the race course (i.e. gate panels) in consultation with the Connection Coach

- **Chief of Start**
  - Responsible for managing the start area and start procedures, including directing work of starter and assistant starters

- **Chief of Finish**
  - Responsible for managing the finish area and directing the work of the finish judges

- **Chief of Gate Judges**
  - Responsible for directing the work of the gates judges and conveying necessary information to the Referee

- **Chief of Timing**
  - Responsible for directing the work of the hand timers and time keepers for electronic timing system.
  - Responsible for ensuring the electronic timing systems are operating correctly.
  - Responsible for communicating with the starter regarding operations of the timing system and course holds
# Ski Cross

## Major Officials

<table>
<thead>
<tr>
<th>Role</th>
<th>Assignment</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Builder</strong></td>
<td>Assigned by Organizing Committee</td>
<td>Responsible for designing layout of course and directing the construction of the Ski Cross course (person often drives the snow cat during construction)</td>
</tr>
<tr>
<td><strong>Connection Coach / Course Setter</strong></td>
<td>Assigned at TC Meeting</td>
<td>Responsible for setting gates on Ski Cross Course</td>
</tr>
</tbody>
</table>
Ski Cross Officials

- Minor Officials:
  - Starter
  - Assistant Starter
  - Bib Coordinator
  - Gate Judges
  - Bib Collector
  - Finish Judges
  - Hand Timers
  - Finish Line Timers
  - Medical Services Coordinator
Ski Cross

Minor Officials (selected)

- **Bib Coordinator**
  - Responsible for the preparation, assignment, distribution and collection of all bibs provided to the competitors & other officials
  - Keeps track of which athletes are assigned which colour bib during heats
  - Located in the Start Area

- **Gate Judges**
  - Minimum of 4 and Maximum of 8
  - Positioned along Ski Cross Course so all gates and features have a visual reference
  - Responsible for 1 or more gates
  - Must be familiar with the rules of Ski Cross
  - Observe whether the racers pass correctly through the gates in their area of observation or commits a rule infraction
  - Reports observations to the Chief of Gate Judges

- **Bib Collector**
  - Located at bottom of Ski Cross Course
  - Responsible for collecting coloured race bibs from racers at the end of each heat

- **Finish Judges**
  - 4 judges
  - Responsible for recording order racers cross finish line
Ski Cross Officials

Other Personnel:
- Side Slippers
- Hand Shapers
- Ski Patrol
- Results / Notice Board
- Start Gate Assistants
- Security / Course Marshals
# Summary

**SX Officials - World Cup**

<table>
<thead>
<tr>
<th>Start</th>
<th>Timing/Result</th>
<th>Finisharea</th>
<th>Course</th>
<th>Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief of Start</td>
<td>Timing Comp.</td>
<td>Chief o. Finisharea</td>
<td>Chief o. Gatejudges</td>
<td>Chief o. Slope</td>
</tr>
<tr>
<td>Start Operator</td>
<td>Tabulator</td>
<td>Bib Collector</td>
<td>Gatejudge 1</td>
<td>Sectorchief 2</td>
</tr>
<tr>
<td>Start Assistant</td>
<td>Assistant</td>
<td>Notice Board</td>
<td>Gatejudge 2</td>
<td>Sectorchief 3</td>
</tr>
<tr>
<td>Start Assistant</td>
<td>Hand Timing</td>
<td>List Distribution</td>
<td>Gatejudge 3</td>
<td>Sectorchief 4</td>
</tr>
<tr>
<td>Hand Timing</td>
<td>List Distribution</td>
<td>Chief o. FinishJudge</td>
<td>Gatejudge 4</td>
<td>Sectorchief 5</td>
</tr>
<tr>
<td>Notice Board</td>
<td>FinishJudge</td>
<td>Gatejudge 5</td>
<td>Sectorchief 6</td>
<td>Sideslipper 4</td>
</tr>
<tr>
<td>Bib Distribution</td>
<td>FinishJudge</td>
<td>Gatejudge 6</td>
<td>Sideslipper 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FinishJudge</td>
<td>Gatejudge 7</td>
<td>Sideslipper 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FinishJudge</td>
<td>Gatejudge 8</td>
<td>Sideslipper 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sideslipper 8</td>
<td></td>
</tr>
</tbody>
</table>

- nr. of radios
- to be filled with names
- total nr. of radios
ski cross race format
Ski Cross Race Format

- Start of the Day
- Inspection Phase
- Training Phase
- Time Trials/ Qualification Phase
- Training
- Finals Phase/ Heats (Knock Out Format)
start of the day
Start of the Day

- Officials meet in race office to review days schedule
- Officials meet at the bottom of lift
- Officials inspect the course
  - **WHO?** - Jury Members, Course Setter, Chief of Course, course workers
  - **WHY?** - Assess snow conditions, check timing systems, set course, check safety
Start of the Day

- Determine locations for gate keepers, course maintenance workers and coaches
- Conduct course maintenance
  - paint all features and skiers’ line of travel
  - smooth out start area & features
  - side slip course as required
  - check starting gate - make sure it works!
  - check timing system
Start of the Day

Make sure the course is safe for **EVERYONE** before inspection starts!
course inspection
Course Inspection

- Inspection is an integral and MANDATORY part of the race
- Entry to the course prior to inspection is controlled by the Technical Delegate
- All gate keepers, timers, course workers must be in place on the course at the start of inspection
Course Inspection

- All athletes **must** participate in course inspection and wear bibs & helmets
- Minimum of 15 minutes
- Slowly side slip alongside or through the course
- At the end of inspection a Jury member must clear the course of athletes from top to bottom
training
Training

BEFORE TRAINING BEGINS

- The course is closed to all skier traffic.
- Course is cleared from top to bottom via radio communication, starting with Starter ending with the Finish Judge.
- “Start - clear”, “Gate Judge 1 - clear”, “Gate Judge 2 - clear” ...
- NO MOVEMENT ALLOWED ON COURSE
Training

- Integral and MANDATORY part of the race
- Should be a minimum of 1 hour
- Ideal - 1 day prior to the Ski Cross Race (FIS)
- Athletes must wear bibs
- Clear communication between officials along the entire length of the course
- Jury placed along the length of course
  - Receive feedback from coaches & athletes
Training

- Officials (the Jury) may change course set as a result of training
- 1st training session, skiers will train in “sections”, including starts
- If an accident occurs, close course (communication between gate judges and officials) - **NO SKIING AT ALL!!**
Training

- If an accident occurs, skiers below the accident may continue to end of course.
- If multiple stops, officials may extend training phase of the event. (Jury decision)
- BEFORE TRAINING STARTS AGAIN, COURSE MUST CLEARED VIA RADIO FROM TOP TO BOTTOM
time trials
Time Trials

- 1 Timed Run
- Single Athlete on course at a time
- Set intervals between starts - 30 seconds; multiple skiers on course at the same time as approved by Chief of Timing. Not necessary pending field size.
- Every skiers starts from same gate position; close off other start gates
Time Trials

- Determines seeding for Finals (e.g. Knock Out format)
- 1 run Time Trial Qualification
- If 2 athletes tied with same time: FS ICR 4505.4.2
  The athlete that started later in the day is ranked higher
- Results posted on Notice Board in Start & Finish Areas
finals

“knock out” format
Finals

- Single “Knock Out” Format
- No timing system required
- Organized into 8, 16 or 32 athletes
  (or other approved by Jury and Chief of Timing)
- Heats run 4 skiers at a time
- Top 2 skiers from each heat advance
- Training before Finals for “Qualifiers” only
- If on separate day, Inspection and Training are required
# Finals - Heats

## Ranking for 8 heats/4 per heat (32) Men

<table>
<thead>
<tr>
<th>Heat #</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; position</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; position</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; position</th>
<th>4&lt;sup&gt;th&lt;/sup&gt; position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>16</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>9</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>11</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>13</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>14</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>12</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>10</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>15</td>
<td>23</td>
<td>31</td>
</tr>
</tbody>
</table>

## Ranking for 4 heats/4 per heat (16) Ladies

<table>
<thead>
<tr>
<th>Heat #</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; position</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; position</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; position</th>
<th>4&lt;sup&gt;th&lt;/sup&gt; position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>8</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>6</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>15</td>
</tr>
</tbody>
</table>
## Finals - Flow

### FIS Skicross

**Running Order 1/8 Men u. 1/4 Women Final**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13:30:00</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>13:32:30</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>13:35:00</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>13:37:30</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>13:40:00</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>13:42:30</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>13:45:00</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>13:47:30</td>
<td></td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>02:30:00</td>
<td>02:30:00</td>
<td></td>
</tr>
</tbody>
</table>

### Delay Time

<table>
<thead>
<tr>
<th>Heat</th>
<th>Start Time</th>
<th>Delay Time</th>
<th>Start Cadence</th>
<th>Delay Time</th>
<th>Start Cadence</th>
<th>Delay Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>2</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>3</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>4</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>5</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>6</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>7</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
<tr>
<td>8</td>
<td>00:00:00</td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
<td></td>
<td>01:00:00</td>
</tr>
</tbody>
</table>

### Con Final Women

<table>
<thead>
<tr>
<th>Heat</th>
<th>Final Women</th>
<th>Con Final Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>14:25:00</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>14:27:30</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>14:32:00</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>14:35:30</td>
<td></td>
</tr>
</tbody>
</table>

### Con Final Men

<table>
<thead>
<tr>
<th>Heat</th>
<th>Final Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>14:25:00</td>
</tr>
<tr>
<td>22</td>
<td>14:27:30</td>
</tr>
<tr>
<td>23</td>
<td>14:32:00</td>
</tr>
<tr>
<td>24</td>
<td>14:35:30</td>
</tr>
</tbody>
</table>

**Total Duration:** 1:56:22
FINALS
START PROCEDURES
**Finals - Start**

- Skiers seeded & assigned to heats according to time trial /Qualification Phase results.
- Bib Coordinator distributes Numbered bibs according to rank from Qualifiers.
- Start lane choice during each heat based only on the skier’s qualification results.
  - Fastest qualifier in the heat can chose his/her lane; 2\textsuperscript{nd} fastest qualifier chooses lanes next etc.
- Fastest Qualifiers \textit{in each heat} assigned specific Bib Colour (e.g. Red = fastest, Green= 2nd fastest, Blue = 3rd fastest, Yellow = 4th fastest).
- Bib Coordinator distributes coloured bibs in the Athlete Warm Up in the Start prior to the start of each heat.
Finals - Start

- Start Command (from Starter):
  - “We are ready for the next Heat, Proceed to the start gate”
  - “Enter the Start Gate” (30 seconds before start command)
  - “Skier’s Ready”, then “Attention!” follow by the Starter opening the gate. The starter should delay, at random, the opening of the Start Gate. (recommended between 1 and 4 seconds)
FINALS

ON-COURSE
Finals - On Course

- Gate Judges observe race and record missed gates and rule infractions.
  - Record by Bib Colour
  - Reports to Chief of Gate Judges immediately.
- Chief of Gate Judges reports infractions to the Referee immediately. All infractions must be confirmed before the start of the next heat.
- Chief of Gate Judges and Referee are located in the Finish Area
FINALS
FINISH LINE
Finals - Finish Line

- 3 Finish Judges place at Finish Line
  - Each Judge assigned 1st, 2nd or 3rd place
  - Record finish by Bib Colour
- Referee:
  - Records finish position by Bib Colour
  - Confirms finish with Finish Judges
  - Confirms on-course infractions with Chief of Gate Judge
  - Alters rankings based on report from Chief of Gate Judge
  - Reports results to Data Service and Announcer
Finals - Finish Line

- Confirm if any athletes missed gates or had a rule infraction
- Confirm results from Data Service
- Clear start for next Heat
- Start the next Heat
- Athletes who are eliminated drop bibs to Bib Collector in Finish Area (suggestion - have a large can available into which the athletes to drop bibs)
- Athletes who are eliminated have their suits measured.
- All athletes have suits measured following Big & Small Finals. FIS Equipment Rules Section E, 6.1
Finals - Finish Line

Moving to the next Round:

- Jury must:
  - Confirm if there are any Protests
  - Decide on Protests
- Confirm results from ALL HEATS before starting the next Round
Finish - Determining Results

- Skiers 1 - 4 ranked according to their finish in the final heat
- Skiers 5 - 8 ranked according to their finish in the consolation final heat
- All remaining skiers ranked:
  - According to round they go out, place in that heat and qualification time from Time Trials.

Reference: FS ICR 4510.1
Contributions by:

- Bruce Robinson, CFSA, Chief Operating Officer
- Joe Fitzgerald, Freestyle Coordinator / Race Director, FIS
- Heli Herdt, FIS Freestyle Ski Cross Working Group
- Dave Pym, CSA, Managing Director
- Erik Kalacis, Technical Delegate, SX/HP - 2011 Freestyle FIS World Championships
- Chris Moore, Chief of Competition, SX, 2010 Olympic Winter Games
- Jim Sidorchuk, Technical Delegate SB & FS, Ski Cross National Officials Chairman Alpine Canada Alpin
Copyright

Canadian Freestyle Ski Association
&
International Ski Federation