



RULES FOR THE FIS NORDIC JUNIOR WORLD SKI CHAMPIONSHIPS

AND

FIS U23 WORLD SKI CHAMPIONSHIPS CROSS-COUNTRY

EDITION 2018-2019

RULES FOR THE FIS NORDIC JUNIOR WORLD SKI CHAMPIONSHIPS AND FIS U23 WORLD SKI CHAMPIONSHIPS CROSS-COUNTRY 2018-2019

1. Year and date

- 1.1 The FIS Nordic Junior World Ski Championships (JWSC) and U23 World Ski Championships Cross-Country (U23 WSC CC) take place every year.
- 1.2 The competitions shall take place in the period between 15th January and 15th March. The exact date shall be confirmed by the FIS Council considering the international ski calendar.

2. Application for FIS Nordic Junior World Ski Championships and U23 WSC CC

- 2.1 A National Ski Association wishing to organise FIS Junior World Ski Championships and U23 WSC CC must send in a written application to the FIS, at the latest by 1st January two years before the events will take place. The application must include the name of the place where the FIS Nordic Junior World Ski Championships and U23 WSC CC shall be carried out.
- 2.2 Should the applying National Ski Association not intend to manage directly the technical competition organisation, the application must state which club (or clubs) at the intended competition site shall organise the events (in close collaboration with the National Ski Association applying).
- 2.3 Otherwise, article 5.2 of the FIS Rules for the Organisation of FIS World Ski Championships applies.

3. Appointment of Organiser

- 3.1 The FIS Council, after control of the requirements by inspectors, appoints a National Ski Association affiliated to the FIS, two years in advance, to organise the FIS Nordic Junior World Ski Championships and U23 WSC CC.
- 3.2 Even if the organising National Ski Association delegates the organisation of the events to one or several clubs, the National Ski Association concerned still has the main responsibility for the preparation, execution and the financial obligations of the FIS Junior World Ski Championships. For this purpose, the National Ski Association appoints an Organising Committee proven as organiser of previous international competitions.
- 3.3 The National Ski Association and the Organising Committee have to prepare thoroughly as organiser of previous international test competitions (COC Cross-Country, Ski Jumping and Nordic Combined) before the FIS Junior World Ski Championships and U23 WSC CC.

4. Finances

- 4.1 The Organising Committee shall plan and carry out the competitions at its own expense and financial risk under the responsibility of the National Ski Association concerned.

- 4.2 **The following fees and considerations must be paid to the FIS**
- Calendar Fee CHF 2000
 - From TV income and from sale of stationary or movable advertising sites within the competition area: 0 %

5. Daily Programme

5.1 The competitions shall be carried out in seven days (Monday-Sunday). In special circumstances the competition period can be changed by the FIS Council on proposal of the Technical Committees.

5.2 Competition programme
The following competitions will be carried out during the Championships:

5.2.1 FIS Junior World Ski Championships

Cross-Country: Ladies: 15 km Mass Start C/F*, Sprint F*), 5 km C*), relay 4x3.3 km C/F

Men: 30 km Mass Start C/F*, Sprint F*), 10 km C*), relay 4x5 km C/F

*) The technique changes every year. Sprint and Mass Start competitions will be held in the same technique.

Ski Jumping: Men: Individual competition, Team
Ladies: Individual competition, Team
Ladies/Men: Mixed Team (2+2)

Nordic Combined: Men: Individual Gundersen 10 km, Individual Gundersen 5 km, Team 4x5 km
Ladies: Individual Gundersen 5 km

5.2.2 U 23 World Ski Championships Cross-Country

Ladies: 15 km Mass Start C/F*, Sprint F*), 10 km C*)

Men: 30 km Mass Start C/F*, Sprint F*), 15 km C*)

*) The technique changes every year. Sprint and Mass Start competitions will be held in the same technique.

5.2.3 Daily programme

The daily programme will be decided in coordination between the Organising Committee and the FIS at latest six months prior to the competition.

6. Right to participate

6.1 All National Ski Associations affiliated to the FIS are entitled to participate.

6.2 To be eligible for participation in the FIS Nordic Junior World Ski Championships and U23 WSC CC the skier

- must be a citizen of the country entering him (article 203.5 ICR),
- have a valid FIS Code,
- fulfil any eligibility and qualification criteria laid down in these rules.

7. Number of competitors and officials

Every National Ski Association can send the following maximum number of competitors and officials:

7.1 Junior World Ski Championships

8 Cross-Country competitors	Men	4 allowed to start per event
8 Cross-Country competitors	Ladies	4 allowed to start per event
5 Ski Jumping competitors	Men	4 allowed to start per event
5 Ski Jumping competitors	Ladies	4 allowed to start per event
5 Nordic Combined competitors	Men	4 allowed to start per event*
5 Nordic Combined competitors	Ladies	4 allowed to start per event*

**Subject to approval by the Nordic Combined Committee during the FIS Autumn meeting in Zurich, September 2018*

In all, a national team may thus comprise maximum 36 competitors.

If participating in one discipline (e.g. Ladies or Men):	6 Officials
If participating in two disciplines:	12 Officials
If participating in three or four disciplines:	18 Officials
If participating in all disciplines:	20 Officials

7.2 U 23 World Ski Championships Cross-Country

8 Men Cross-Country	4 allowed to start per event
8 Ladies Cross-Country	4 allowed to start per event

8 Officials	if participating in both disciplines
4 Officials	if participating only in one discipline (Ladies or Men)

7.3 Quota System for Ski Jumping competitors Men

Athletes Quota:	80 (maximum quota)
NSA Quota:	up to 5 per NSA (as a maximum)
	4 allowed to start per event

Qualification System

Basic Quota:	Each participating NSA is allowed to enter up to two athletes in Ski Jumping men.
Host Nation:	The host nation is expected to enter (a) competitor(s) up to the maximum NSA quota of 5.
Allocation of Quotas:	The allocation of additional quotas per NSA is based on the COC Ranking List (CRL) composed of the results of the past and current seasons. The allocation will be made by assigning one quota place per competitor from the top of the standings downwards.

Once a NSA has achieved the maximum number of 5 quota places, the next eligible NSA on the CRL will be allocated a place until the total of 80 competitors is reached (including host nation). If the number of 80 cannot be reached with the CRL, the FIS CUP standings composed of the results of the last and current season will be taken into consideration.

Process and Timeline: The final quotas based on entries (see art. 10.3) and using the CRL resp. FIS Cup standings will be calculated and announced 2 weeks prior to the JWSC.

8. Age limits

The FIS competition year is 1st July – 30th June of the following year.

In order to compete in international competitions a competitor must have reached his 16th birthday before the end of the calendar year (1st January – 31st December) in question.

Nordic Junior World Ski Championships

Season	Age	Years of birth
2018/19	16-20	1999, 2000, 2001, 2002, 2003
2019/20	16-20	2000, 2001, 2002, 2003, 2004
2020/21	16-20	2001, 2002, 2003, 2004, 2005

U23 World Ski Championships Cross-Country

Season	Age	Years of birth
2018/19	21-23	1996, 1997, 1998
2019/20	21-23	1997, 1998, 1999
2020/21	21-23	1998, 1999, 2000

9. Anti-Doping and Medical Rules

- 9.1 Post-competition Doping Controls (In-Competition) are compulsory and must be carried out according to the FIS Anti-Doping Rules. These must be organised and paid for by the Organiser. With support of the Organiser, the FIS will arrange for out-of-competition athlete biological passport testing.
- 9.2 All necessary information is available in the FIS Anti-Doping Rules and from the FIS Anti-Doping Coordinator (antidoping@fisski.com).

10. Control by the FIS

- 10.1 The events shall be carried out according to the International Ski Competition Rules (ICR).
- 10.2 For the Cross-Country/Nordic Combined courses and the jumping hill a homologation certificate issued by the FIS is compulsory.

- 10.3 The Ski Jumping competitions shall be carried out on a normal hill, minimum HS 100.
- 10.4 On proposal by the FIS Committees concerned, the FIS Council appoints the following official representatives for the FIS Nordic Junior World Ski Championships and U23 WSC CC:
- **FIS Representatives**
 - One official representative of the FIS Council
 - One Medical Supervisor
 - **Cross-Country**
 - Technical Delegate
 - Assistant Technical Delegate
 - Jury Member
 - **Ski Jumping**
 - Technical Delegate
 - Assistant Technical Delegate
 - Five Jumping Judges (one of them is nominated by the Organising National Ski Association)
 - One Chief Distance Measurer
 - Two controllers for competition equipment (Ladies and Men)
 - **Nordic Combined**
 - Technical Delegate
 - Assistant Technical Delegate
 - One controller for competition equipment

11. Snow conditions

11.1 Snow Control

The Organising Committee must constantly inform the FIS on the snow conditions and preparations, especially during the last 3 weeks before the event.

A snow controller is nominated by the FIS Office and is responsible to send a report to the FIS Office (friedrich@fisski.com) 13 days before the event.

If the snow report is negative FIS will coordinate the work of an event preparation group that is comprised as described in article 2.2.

11.2 Event Preparation Group

In the case of difficult snow conditions 13 days before the event, an event preparation group will be appointed in order to make a decision on the possibility to hold the events as planned or to make any necessary changes.

The members of the event preparation group are:

- FIS COC SJ Coordinator
- FIS COC NC Coordinator
- FIS Cross-Country Coordinator
- 1 representative of the Organising Committee
- 1 representative of the National Ski Association

The event preparation group will make its decision at the latest 9 days before the event. In any case, the competition courses and the SJ hill must be ready at the latest 5 days before the event.

If necessary FIS can nominate an expert (FIS TD or FIS homologation inspector) to be sent to the site in order to inform the event preparation group on the snow conditions, the snow production / transportation progress and the course preparation.

All the travelling and accommodation costs will be paid by the OC. In addition the expert will receive a daily rate paid by the OC according to ICR 304.1.1.

11.3 **Cancelation**

If a FIS NJWSC & FIS U23 WSC CC have to be cancelled due to "force majeure", a replacement championship may be organised in another location. Such a decision must be approved in cooperation with the FIS.

In the event that the Organising Committee must cancel the Championships. Cancellation deadline is **10 days** prior to the first official training.

If the decision is taken later than 10 days before the first official training, the OC must pay the travel costs to the teams entered at the date of the decision and be in charge of cancellation fees of the accommodation.

12. Invitation and time limits for entry

The invitation to participate in the FIS Nordic Junior World Ski Championships and U23 WSC CC must be sent out by the National Ski Association concerned (or its Organising Committee) not later than 1st September of the preceding year.

The invitation must include the FIS "Rules for the Organisation of FIS Nordic Junior World Ski Championships and U23 WSC CC".

12.1 **FIS online registration system**

Entries (provisional team selection, final team entry) must be made by NSAs in the FIS online registration system. Entries made by email, fax or paper will not be accepted.

12.2 **Preliminary entry**

2 months (60 days) before the official opening ceremony each National Ski Association must send to the Organising Committee the preliminary entry with the number of competitors, coaches and service staff according to 6.1.

The official deadline will be published in the FIS JWSC & U23 WSC CC Invitation.

Important: Preliminary entries are mandatory for all the teams (see 11.3 for accommodation rules).

Late entry

After the deadline the FIS online registration remains open, however, the LOC is not obliged to arrange accommodation for the NSA, which makes the late entry.

12.3 **Entry by name**

All the participating NSAs must send their entries by names through the online registration system. The system will be opened for entry by name as soon as the preliminary entry has been done.

Entries by name will be used by the LOC to prepare accreditations and to prepare the final entry list.

Change of names will still be possible until the day before the first TCM (23:59 CET). After the deadline the system will be closed and any changes of the names are only possible after the approval from the respective Jury.

12.4 **Final entries**

The final entry for each competition has to be done in the race office until 2 hours before the respective Team Captains Meeting.

Only competitors from the final entry by name (see article 12.3) can be chosen. If a competitor is entered for the Junior World Ski Championships, he/she cannot compete in the U23 World Ski Championships.

Replacement of Competitors after the first TCM

In case of "force majeure" the Jury may permit a substitute to be entered in place of another athlete after the first team captains' meeting.

13. **Travel and accommodation**

13.1 **Transport Airport - Venue**

Costs for travel from the airport to the hotel and back for the participating teams, as well as costs for accommodation and meals are financed entirely by the respective National Ski Associations.

13.2 **Transport official Hotels - Stadium**

The Organising Committee has to provide free of charge to the teams a shuttle service between the official hotels and the stadiums. A suitable transport schedule should be fixed in cooperation between the teams and the OC.

Teams booking their own accommodation are responsible to arrange their own transportation. The OC does not have to provide a shuttle service for these teams.

13.3 **Accommodation**

Each National Ski Association has the right for accommodation arranged by the Organising Committee.

The Organising Committee must offer to the National Ski Associations for the officially entered competitors and team officials within the quota full board accommodation at a maximum price of CHF 100.-- per person and day.

There shall be a maximum of 2 persons per room with separate beds (bunk beds should not be used).

Allocation of single rooms per team must be made according to the following table:

1 to 4 competitors = 1 single

5 to 10 competitors = 2 single rooms

more than 11 competitors = 3 single rooms

Only upon mutual agreement a team can it be accommodated in 2 or more hotels.

For extra team officials and special guests, according to the quotas defined in art. 6.1, that are officially entered and whose accommodation has been reserved through the LOC, the maximum price for accommodation with half board shall not exceed the usual price at the venue during the respective period of the year.

13.3.1 Hotel requirements

- OC shall offer to all team member rooms at 3 Star hotels including full board and non-alcoholic beverages for at least 5 nights before the first competition until at least the morning after the last competition.
- The distance between the hotel and the competition site should not exceed a 30 min drive. All accommodation situated further than a 30 min drive needs to be approved by the FIS.
- There shall be a maximum of 2 persons per room with separate beds (bunk beds should not be used). If accommodation in apartments is used there shall be at least 1 bathroom and 2 toilets for 4 persons.
- Rooms or apartments shall be cleaned each day.
- Hotels have to be informed by the OC that flexibility is requested concerning the meal times.
- Free of charge internet connection in official hotels.

13.3.2 Registration and payment

National Ski Associations are required to follow the registration deadlines (see article 12) as published in the official invitation:

- the team size with number of rooms and special requests latest 2 months (60 days) before the first competition. The preliminary entry counts as a booking.
- the final size of the team at least 7 full days before the first competition
- if a NSA changes the figures (preliminary entry versus the final entry by name) after the deadline (see 12.2) with more than 10 %, the NSA's is obliged to pay the difference between the effective and announced persons (changes to numbers bigger than +/- 10%, no shows). This rule does not apply if the quota of athletes has changed.
- It is the responsibility of the NSAs and SRS to cancel rooms if they do not need them, for example if they make a change to their team entry.

13.4 Travel and Accommodation for FIS Officials

According to the ICR, the Organising Committee is responsible for the total travel to and living expenses at the site of competition (CHF 100,- per day including day of arrival and departure) for the following persons:

- One TD, one TD Assistant, one Jury member and the National Assistant TD (nominated by the host NSA) for Cross-Country
- One TD and one TD Assistant for Ski Jumping
- One TD and one TD Assistant for Nordic Combined
- One medical supervisor
- Three controllers for competition equipment

13.5 The Organising Committee is responsible for the travel expenses from the border or the airport of entry of the organising country and for the living expenses at the place of competition for:

- Five Jumping Judges (article 405.4.2 ICR)
- One Chief Distance Measurer (article 405.4.2 ICR)
- One official representative of the FIS Council

These officials receive a daily allowance of CHF 100.-- per day of travel to and from the event only.

13.6 **The Organising Committee is responsible for the provision of accommodation free of charge and close to the competition venue for:**

- JWSC & U23 WSC Coordinator (1 single room)
- Jumping COC Coordinator (1 single room)
- Nordic Combined COC Coordinator (1 single room)

14. Prizes

- 14.1 The winner, the second and the third in each event will receive the Championships medal of the FIS in gold, silver and bronze. The same applies to the three best teams.
- 14.2 All participants receive the FIS diploma.
- 14.3 The medals and FIS diplomas are provided and paid by FIS.
- 14.4 At the medal ceremony the first six competitors and three best teams of each event will receive a prize (souvenir), which will be provided by the LOC.
- 14.5 Winner's award ceremonies shall be held in a solemn atmosphere. Design and proceedings shall comply to a great extent with the versions described in the enclosure.
- 14.6 The Opening Ceremony shall also comply with the respective FIS regulations in the enclosure.

15. Television

- 15.1 Negotiations and decisions concerning possible TV transmissions of FIS Junior World Ski Championships and U23 WSC CC must comply with the rules and regulations of the FIS in regard to television (article 208 ICR).
- 15.2 The FIS Advertising Rules must be followed by Organising Committees respectively National Ski Associations in respective of the presence of sponsors and advertising.
- 15.3 FIS Corporate Identity must integrally be observed. All relating details are listed in the enclosure.

16. General Report

- 16.1 After the closing of the Championships and no later than 1st May of the respective competition year, the Organising National Ski Association shall present a report on the Championships together with complete lists of results. A copy must be sent to the FIS and one copy each to the FIS Technical Committee concerned and the participating National Ski Associations.
- 16.2 It is duty of the FIS Official Representative to the Championships, as well as of the FIS Technical Delegates to present to the FIS a written report on these competitions, not later than by 1st May of competition year.

17. Technical Regulations

- 17.1 Facilities for ski preparation at the competition site have to be put at the disposal of the teams. These rooms/containers have to be heated, well aired, with a window and equipped with electricity, lockable door. As a basic rule 2 m² should be calculated per participating athlete (JWSC and U 23 CC WSC). The separate preparation for the different disciplines has to be taken into account. Containers can be shared by smaller teams.
- 17.2 Each ski company has the right to 1 waxing container (15 m²) free of charge (1 cabin for Cross-Country, 1 cabin for Ski Jumping). If a company needs more capacity, additional cabin/s must be ordered. The price for an extra container (15 m²) is CHF 900 (independent of duration). The company has to order the cabins before 15th October through SRS.
- 17.3 A financial penalty (CHF 900 per cabin) will be charged to the company which has ordered a waxing cabin and did not show up.
- 17.4 For the FIS equipment and competition control one container (approx. 8-12 m²) has to be located at the bottom of the outrun of the Jumping Hill.
- 17.5 For all other matters the International Ski Competition Rules (ICR) are applicable.

Timing, video-measuring and electronic data service must conform to the FIS requirements. See the CC/NK WJC Timing/Data guideline
- 17.6 The Team Captains' rooms, as well as working places for the jury at the venues and at the hotels shall be equipped with free internet connection.
- 17.7 The following Annexes 1 – 2 are valid for JWSC and U23 WSC CC, Annex 3 only for JWSC

1. Opening of the FIS Nordic World Ski Championships

- Procession of all participating national delegations with flag bearer and name board.
- Procession of the officials from the Organising National Ski Association and Organising Committee with accompanying music.
- Presentation of the national flag of the Organising country and eventually that of the National Ski Association; the national flag will be carried by either representatives of the Organising Committee or the military.
- National anthem of the Organising country during the raising of the national flag.
- Presentation of the FIS flag; representatives from the previous or current FIS Junior World Ski Championships and U23 WSC CC Organisers bring the flag.
- FIS fanfare (long version) during the raising of the FIS flag
- Welcome speech by the official representative of the Organising country.
- Opening speech by the FIS President or one of the Vice Presidents of the FIS or other guest of honour.
- The FIS President (or his appointed national personality) declares the FIS Nordic Junior World Ski Championships open.
- FIS fanfare and solemn presentation of the official FIS Junior World Ski Championships and U23 WSC CC medal as a visually attractive element.

1.1 Social Programme

In connection with the official FIS opening programme, the Organising Committee has the possibility to present social programmes, which highlight the Junior World Ski Championships and U23 WSC CC with local and cultural themes of the Organising country.

2. Sports Event
2.1 Opening of Event

- Each FIS JWSC and U23 WSC CC event shall be opened by a short, solemn ceremony, the FIS fanfare and the official announcement of the FIS JWSC and U23 WSC CC and the competition being an integral part of it.

Further possible elements may be:

- Presentation of flags of participating Nations with children
- National anthem of the Organising country

2.2 Closing of Event

- Each FIS JWSC and U23 WSC CC event shall be closed by a winner's presentation.
- Winner's presentation is held for top 3 individuals and three best teams

- For this purpose an attractive winner's podium with corresponding infrastructure shall be set up (enough presentation space easily accessible directly from the finish area for competitors, photographers and TV and space for unilateral interviews beside to the podium).
- The FIS will appoint persons who shall hand over flowers.
- At the presentation of the competitors only the FIS fanfare and the anthem of JWSC and U23 WSC CC shall be intoned.
- Depending on the space available a solemn marching in of all persons involved is desirable.

3. Winner's Award Ceremonies

3.1 Technical Requirements

- An attractive big podium (minimum 5 x 10 m) with sufficient space for four competitors, terraced from the topmost part (1st place) down to 6th place. On the front-side of the podium, close to the place for the first ranking athlete the FIS logo shall feature in an attractive size. A table shall be provided for the FIS JWSC and U23 WSC CC medals, trophies and flowers.
- On the back-wall the FIS logo and the FIS JWSC and U23 WSC CC logo shall be placed in a dominant way.
- FIS flag and FIS JWSC and U23 WSC CC flag shall each be hoisted on a big flagpole near the podium.
- Depending on space available four flagpoles shall be provided to hoist the flags of the successful competitor's nations at the ceremony. These flagpoles shall be placed laterally of the podium within view of the competitors from the podium.
- In the ideal case the multilingual speaker will also stand on the podium during his announcements.
- Flags and anthems shall be controlled by an expert prior to the ceremony.
- A heated meeting room shall be provided for all persons involved (competitors, honorary guests, assistants).
- The OC shall arrange for transport to and from the ceremony of competitors.
- Honorary guests who will hand over the FIS JWSC and U23 WSC CC medals are exclusively appointed by the FIS, while the OC is responsible for persons who will hand over trophies and flowers. No presents of sponsors may be made to competitors at the official award ceremony.

3.2 Pre-Programme

The pre-programme can be individually put together by the organisers, it must however conform to the appropriate outlines.

During the pre-event all those involved in the award ceremony meet for an introduction and instructions nearby to the place of the award ceremony.

3.3 FIS Fanfare

3.4 Announcement of the Award Ceremony:

FIS Nordic Junior World Ski Championships/U23 JWSC, Year, Venue and Country.

Winner of the bronze medal - year -

First name, family name and nation (the third placed steps onto the podium)

Fourth place

First name, family name and nation (the fourth placed stands next to the third placed)

Fifth place

First name, family name and nation (the fifth placed stands next to the fourth placed)

Sixth place

First name, family name and nation (the sixth placed stands next to the fifth placed)

- Seen from the front-side the FIS representative goes to the left side of the podium to the winner and the accompanying persons from the OC come the right side carrying the FIS medals on a cushion.
- The FIS Junior World Ski Championship and U23 WSC CC medal is presented to the athlete

The same procedure takes place for the second and third placed.

Handshakes and congratulations from the FIS representatives for the fourth to sixth placed.

- Afterwards the representative of the Organising Committee/country hands over gifts of honour to the first to sixth placed.
- During presentation of FIS medals accompanying music shall contribute to the atmosphere.
- Announcement:
In honour of the successful competitors, the national flag is raised and the national hymn of the winner is played.
- Playing the national anthems of the winner.
- During the national anthem of the winner the three national flags shall be hoisted. In case of a tie for third place all four national flags of the three first competitors shall be hoisted.
- Photo/TV & film action for press, film, radio and television with the successful competitors on the podium.
- Meanwhile the personalities and representatives of the FIS and the OC are led away by the hostesses
- Competitors march away with appropriate music.

If there is more than one award ceremony taking place on one day, then the ceremony described above takes place after the photo activities.

If there is no additional award ceremony, then information is given concerning the next ski or Snowboard event or the social programme.

3.6 Post Event

The post event programme can be put together by the organisers themselves (e.g. fireworks, etc.).

4. Closing Ceremony

The closing ceremony normally takes place directly at the end of the final race with the award ceremony.

The following programme is carried out:

- FIS fanfare (long version)
- Procession of the flag bearers - followed by the name boards of the participating countries
- Procession of the competitors and the officials from the participating nations and the Organising country
- FIS-Fanfare (short version)
- Closing speech from the President of the Organising Committee or the representative of the country.
- Closing speech by the FIS President or one of the Vice Presidents
- Lowering the flag of the Organising country and the Organising National Ski Association
- Lowering the FIS flag (FIS emblem) by members of the Organising Committee
- Entry of the big FIS flag born by 6 to 8 representatives of the Organising Committee.
- In addition to this a representative of the Organising Committee or of the National Ski Association bears the small FIS flag (FIS logo) as a banner (on an approximately 3 m long flagpole).
- The FIS banner will be handed over to the FIS President who subsequently passes it on to a representative of the Organising Committee of the next FIS JWSC and U23 WSC CC or of its National Ski Association.
- The 6 - 8 bearers of the big FIS flag bring it to the front-side of the podium where they hand it over to the 6 - 8 flag-bearers of the next FIS JWSC and U23 WSC CC Organising Committee. The long version of the FIS fanfare is played during this hand-over.
- Both Organising Committees march away accompanied by music.
- The flag bearers march away
- Presentation possibility of the next FIS Junior World Ski Championships and U23 WSC CC venue
- Following the athlete's and official's marching out, a special closing event takes place.

5. Planning / Preparation

- Presentation of a draft of programme and constructional measures shall be made at the official, final FIS inspection.
- Two months prior to the JWSC and U23 WSC CC a detailed programme for the different ceremonies shall be presented to the FIS for approval.



1. Introduction

The FIS Corporate Identity is to be incorporated within all published material, according to the specifications.

This is valid for the official title, the World Championship event logo, the sports constructions, e.g. start house, finish banner, etc., during television promotions as well as all advertising, information and other materiel such as start and results lists accreditation etc. The outline and concept put together are to be agreed between the Organising Committee of the Junior World Ski Championships and U23 WSC CC and the FIS.

2. Explanation of the individual areas
2.1 Title of the Event

FIS Nordic Junior World Ski Championship

FIS U23 World Ski Championships Cross-Country

2.2 Official World Championship Logo in conjunction with the FIS Logo

Since it concerns the FIS Junior World Ski Championships and U23 WSC CC, a better coverage of the FIS and integration of the FIS logo should be achieved.

This is especially valid for the Event Junior World Ski Championships and U23 WSC CC logo.

In addition to the World Championship logo, it is of course possible to develop a "World Championship design" for use with different elements, e.g. As a background for the accreditation or as an idea for a poster or other merchandising activities.

3. Sports constructions

In conjunction with the "Corporate Design" of the sports constructions, e.g. start house and start numbers, etc. the FIS Logo as well as the official JWSC/U23 WSC CC logo should always be used; for example by the wearer of the start number or on the start house construction, the start installation for Ski Jumping etc. where the JWSC/U23 WSC CC logo and the FIS logo are to be built in.

This is valid for the following areas:

- Start installation/Start house
- Finish installation/Finish banner
- Board for the presentation of the winners
- Board for the prize giving
- Board for the unilateral interviews
- Functions building
- Sports constructions and stadium entrances
- Start numbers/shirts (FIS logo on user)

4. Organising venue

The above elements (FIS Junior World Ski Championships and U23 WSC CC logo; FIS logo) are also to be used to promote the FIS Nordic Junior World Ski Championships and U23 WSC CC with the signs in the resort, the journey to the region, at the JWSC/U23 WSC CC airport, official FIS hotel, etc.

5. Design of the television coverage

The design is to be agreed between the host broadcaster and the data partner on the one side and the Organising Committee and the FIS on the other side.

Both the official JWSC/U23 WSC CC logo as well as the official FIS logo are to be considered in the television opening credits, closing credits, results lists etc.

This is valid especially for the following television on screen injections:

- TV opening credits for all live coverage
- TV closing credits for all live coverage
- TV opening credits for all recorded coverage
- TV closing credits for all recorded coverage
- TV start list
- TV current standings
- TV results lists
- TV medal review
- TV introduction of the World Championship region
- TV identification

6. Advertising and information material

On all advertising and information material both the FIS Nordic Junior World Ski Championships/U23 WSC CC logo and FIS logo are to be attractively incorporated.

7. Printed advertising

In principle the FIS logo should be on the title side positioned upper right, or in a tighter form with the Junior World Championship logo.

The basic concept and the design concept are to be agreed between the Organising Committee and the FIS.

The following material should have the appropriate designs:

- Junior World Championship Bulletin
- Junior World Championship Programme
- Junior World Championship Media Guide
- Junior World Championship Guide

- Posters
- Stickers
- Pins
- Start, current standings, results lists
- Analysis Lists
- Accreditation
- Junior World Championship Trophies/ Junior World Championship documents of the OC
- Information boards
- Vehicle sign writing

One trophy will be awarded each at the Nordic and Alpine Junior World Ski Championships. National Ski Associations that take part in all three Nordic disciplines (Ski Jumping, Nordic Combined and Cross-Country) will be included in the calculation of the Marc Hodler Trophy

Calculation Principles

1. Calculation per Competition

Nations are awarded points according to the competitor's position in the individual races and team placing in the team events.

If more than two competitors in the individual competitions from one nation are placed in top 10, only the best two competitors from one nation are calculated for the nations scoring, all others are skipped and not replaced (e.g. GER 1st, 10 pts, POL 2nd/9 pts, GER 3rd/8 pts, SUI 4th/7pts, GER 5th/0 pts, CZE 6th/5 pts, GER 7th/0 pts, AUT 6th/3 pts etc.).

In case of a tie between two or more competitors, each nation receives the points for the placing. Example: two-way tie for 1st place, both nations get 10 points; the next competitor gets 8 points for the 3rd place.

2. Calculation per Discipline

Within each discipline (SJ, NC and CC) a ranking is established, which is calculated based on the outcome of the ranking established according to art. 3.a) (the top 10 nations get 10 - 1 points, the best nation gets 10 points, second best 9 points, etc.).

3. Overall Calculation

The "discipline points" are added together and the winning nation is the one with the highest total points from all three disciplines combined. The maximum number of points possible is 30 points: 10 for CC, 10 for SJ and 10 for NC).

If two or more nations score the same number of points in the final calculation, the nations are ranked based on the following criteria:

- a) the highest number of individual Junior World Ski Championships wins
- b) the best results (i.e. most 2nd places, most 3rd places, etc.)

Disc.	Gender	Event	Competition	Position	Points/ Nation	Position	Points/Nation
CC	Ladies	Indiv.	5 km	1 – 10	10 – 1		
	Ladies	Skiathlon	5+5 km	1 – 10	10 – 1		
	Ladies	Individual	Sprint	1 – 10	10 – 1		
	Ladies	Team	4x3.3 km	1 – 10	10 – 1		
	Men	Individual	10 km	1 – 10	10 – 1		
	Men	Skiathlon	10+10km	1 – 10	10 – 1		
	Men	Indiv.	Sprint	1 – 10	10 – 1		
	Men	Team	4x5 km	1 – 10	10 – 1		
						1 – 10	10 – 1
SJ	Ladies	Team	NH	1 – 10	10 – 1		
	Ladies	Individual	NH	1 – 10	10 – 1		
	Men	Team	NH	1 – 10	10 – 1		
	Men	Individual	NH	1 – 10	10 – 1		
	Mixed	Team	NH	1 – 10	10 – 1		
						1 – 10	10 – 1
NC	Men	Individual	NH/10 km	1 – 10	10 – 1		
	Men	Individual	NH/5 km	1 – 10	10 – 1		
	Men	Team	NH/4x5 km	1 – 10	10 – 1		
	Ladies	Individual	NH/5km	1 - 10	10 - 1		
						1 – 10	10 – 1

**Grand Total FIS Nordic Junior World Ski Championships
(CC, SJ, NC)**

**FÉDÉRATION INTERNATIONALE DE SKI
INTERNATIONAL SKI FEDERATION
INTERNATIONALER SKIVERBAND**

Junior World / U23 Championships
Cross-Country / Nordic Combined / Ski Jumping
Timing, Data and Result Guidelines

Version 3

March 2018

Document history

Version History	Description
Version 1 (13.07.2017)	Initial version
Version 2 (06.10.2017)	Remove passive transponders HD video camera with 100 fps update voice communication HD video control system minimal 100 fps
Version 3 (02.03.2018)	Add requirements for result processing in Ski Jumping

Sources drawings

Swiss Timing, ST Sportservice GmbH, Germany
ewoxx sports GmbH, Austria

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1. General

For all competitions listed in the FIS calendar, electronic timekeeping must be used. Electronic timing will always be supplemented by hand timing as a backup system and the results cross -checked between the two systems (ICR 316.1).

2. Electronic timing

The following electronic timing technologies can be used to identify the official finish times:

- Electronic timing system based on photo cells. The measuring point of the light or photo barrier must be at a height of 25 cm above the snow surface.
- Photo finish system. The measuring point will be the toe of the first boot meeting the finish line

2.1. Timing support systems

Transponders

Transponders (active systems) can be used as a supporting system to the official timing system to determine race times and ranking sequences at intermediate timing points, pre-timing points and finish (unofficial result).

The official result has always to be confirmed by using an official timing system.

Video finish camera

Determination of the finish order at the finish line.

Recommended are video camera systems with minimum 100 frames per second or higher and HD resolution.

3. Equipment Set-Up (see drawing)

3.1. Cable connection

Timing devices without direct cable connection to the main timing system has to be connected to a timing device at the start or finish. Radio connections are not allowed. Refer to set-up diagrams that describe in detail how this may be affected.

Attention: The cable dedicated to timing functions must be reserved for that purpose only and must be protected from any interference (e.g. speaker systems, snow gun data, etc.). No technical changes during the competition that may alter the transmission of trigger signals (length, capacitance, resistance, etc.) may be effected. The organizer must ensure that cable conduits and other cable runs do not interfere with timing cable functions. It is highly recommended that expert technical testing and verification of these timing cables be performed to assure timing cable integrity.

3.2. Start and Finish

Start gate (individual)	<p>Minimum of 2 electronically isolated contacts activated by 1 wand. Timing wires 1 & 2 must be connected to separate start gate contacts using separate connectors. The wand must be installed so that starting is impossible without it opening.</p>
Heat start gate (heat starts)	<p>Electronic or mechanical start gate by start lane with optical indication of a false start either on the gate or control interface.</p> <p>Mandatory for use at WJC.</p>
Start clock	<p>Must show time of day, countdown status and can have acoustic signal (5 seconds countdown). Must be synchronized with the other timing systems. Use of such a start clock is highly recommended for all individual start and must be used for pursuit and Gundersen competitions and is mandatory for use at WJC.</p> <p>Indicates the start gap 3 sec. before and after the start signal with green and red lights (WJC)</p> <p>For handicap starts a start clock must be used for each start lane showing time of day.</p> <p>Count down sound is not mandatory.</p>
Voice communication	<p>Timing impulse and voice communication functions can be separated on different wire pairs.</p> <p>If radios are used for voice communication, a dedicated channel must be used.</p> <p>For interval starts voice communication over cable is recommended.</p>
Timing cables	<p>Make sure that cables cannot be torn out at the start by a competitor, or by any other person next to the starting area.</p> <p>Optical Cables: If a converter is necessary between timing cables and optical cables, this converter must be approved by the FIS.</p>
Photo cells at the finish line	<p>Please refer to the attached section that explains photocell use.</p> <p>Wire must be used to connect photocells to the timer.</p> <p>Wireless is not allowed.</p>
Photo finish camera	<p>Installation on a stable tripod or fixed construction in alignment to the photo cell detection line. The organizer should provide a stable platform for tripod installation.</p> <p>The photo finish system should be used in time of day mode.</p> <p>The photo finish system power should be secured by an UPS for a minimum of 20 minutes.</p> <p>The photo finish system must work at ambient temperatures from -10° to +60°C.</p>

Video camera

Installation on a stable tripod or fixed construction in alignment to the photo cell detection line.
The video system power should be secured by an UPS for a minimum of 20 minutes.
The photo finish system must work at ambient temperatures from -10° to +60°C.

Start gun noise detector / electronic start gun / start signal system

System which either detects an acoustic start signal or trigger an electronic noise as start signal and gives an electronic start impulse to the timing system.
The start system must be installed in a way that every competitor at the start can hear the acoustic start signal loud and clear.
The start system must work at ambient temperatures from -20° to +60°C.

4. Timing

4.1. Overview by discipline

	<i>Individual</i>	<i>Sprint Qualification</i>	<i>Sprint Finals</i>	<i>Mass Start</i>	<i>Pursuit / NK Gundersen Start</i>	<i>Team Sprint</i>
Result time precision	1/10s	1/100s	1/100s	1/10s	1/10s	1/100s
Time recording precision (ToD)	1/10000s or higher					
Start system A+B	Start gate		Start signal based start system		Start clock	Start signal based start system
Backup start	Hand time					Hand time
Finish System A+B	Photo cell Photo finish		Photo finish Photo cell + Video finish			
Backup finish	Photo finish Photo cell + Video finish Transponder Hand time					
Connection to the start	Level 0: Cabled connections only Level 1-4: Cabled connections and connections without cable					

4.2. Determination of times

Individual and Sprint Qualification:

- Photo cell or photo finish camera time is used as official finish time
- In case of close finish line passing of 2 or more athletes, times are checked and (if necessary) corrected with the photo finish camera

Sprint Finals:

- Transponder passing times are considered as unofficial times, as they can guarantee a resolution of $\leq 1/100$ s only. Outputs to the live outputs (CIS, TV, SCB, Internet) are produced in $1/10$ s. After verification and correction with the photo finish system, it is extended to $1/100$ s ($1/1000$ s for Lucky Loser).
- In case of ties and in case of very little finish time difference of two or more athletes ($< 0,075$ s), the live output is "PHOTO FINISH" instead of the time.
- In order to determine the correct ranking and exact finish time ($1/1000$ s), photo finish must be used for all athletes. Unofficial transponder passing times are verified and corrected with the photo finish times and marked as official.

Mass Start, Pursuit, Gundersen and Team Sprint:

- Photo cell or photo finish camera time is used as official finish time.
- In case of ties and in case of very little finish time difference of two or more athletes ($< 0,075$ s), the live output is "PHOTO FINISH" instead of the time.
- Photo finish system is used in order to solve the tie.

5. Video control system

A video control system is video camera system which records picture by picture. It is recommended to use HD video cameras with at least 100 frames per seconds or higher. Video systems are not subjects to be homologated as timing device.

5.1. Start**Cross-Country Handicap Start:**

A video camera should be used to record the entire start such that a review by the Jury can be done.

To support the recording of the start procedure a start clock can be set up so that the video control system also records the display with the reference time.

Nordic Combined Gundersen Start:

The starting procedure must be recorded by a HD video camera which focused to the clearly marked starting line (see marking finish line, NC ICR art. 515.2.18).

To support the recording of the start procedure a start clock can be set up so that the video control system also records the display with the reference time.

5.2. **Finish**

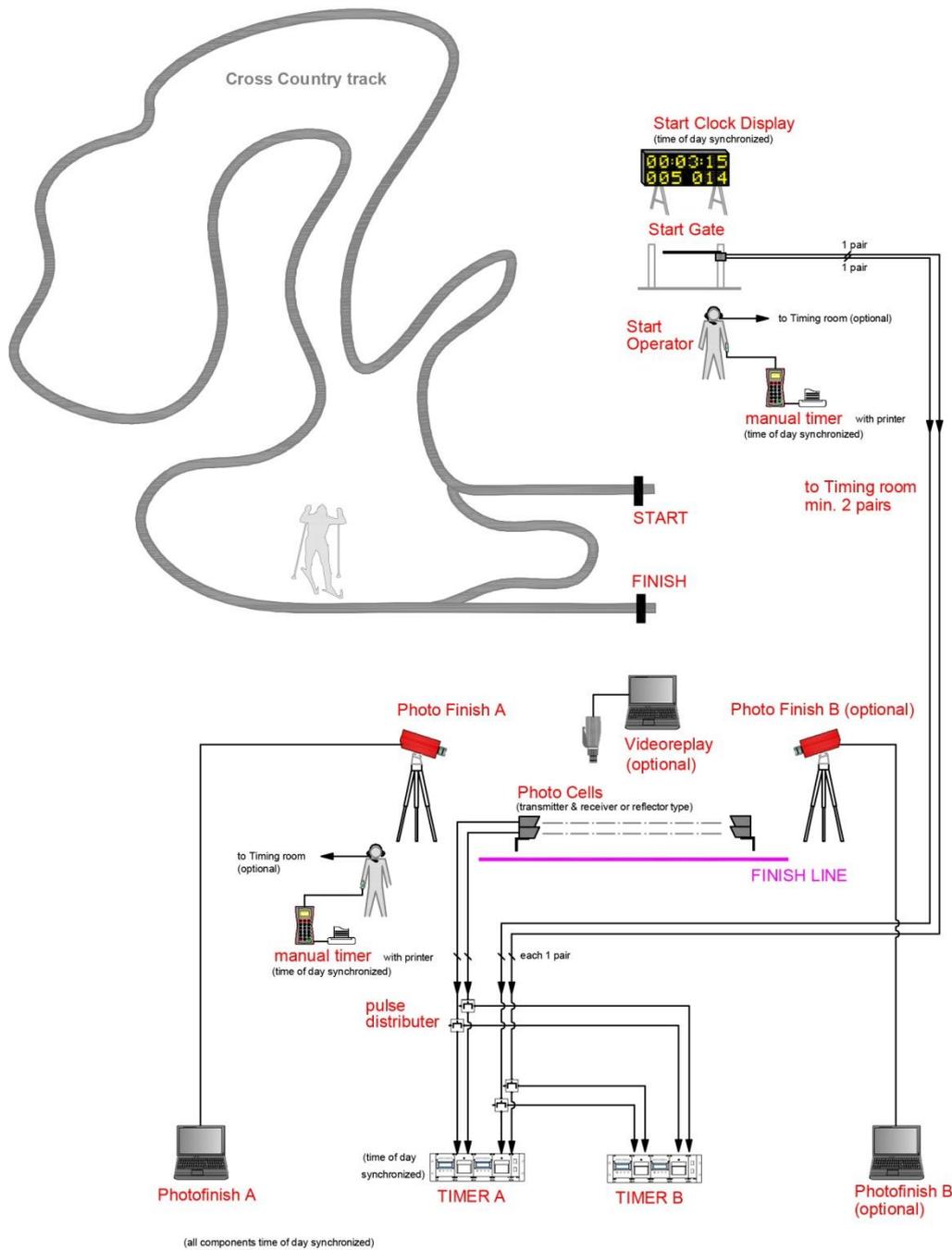
The video system can be used in order to determine the order and starting bibs at the finish line or to solve tie. For determination of the competitors, finish time a homologated timing device has to be used.

Nordic Combined

The finish is to be recorded by two video cameras. The first camera must be positioned on one the side of the finish line providing a picture of the finish and an additional camera positioned to identify the starting bibs.

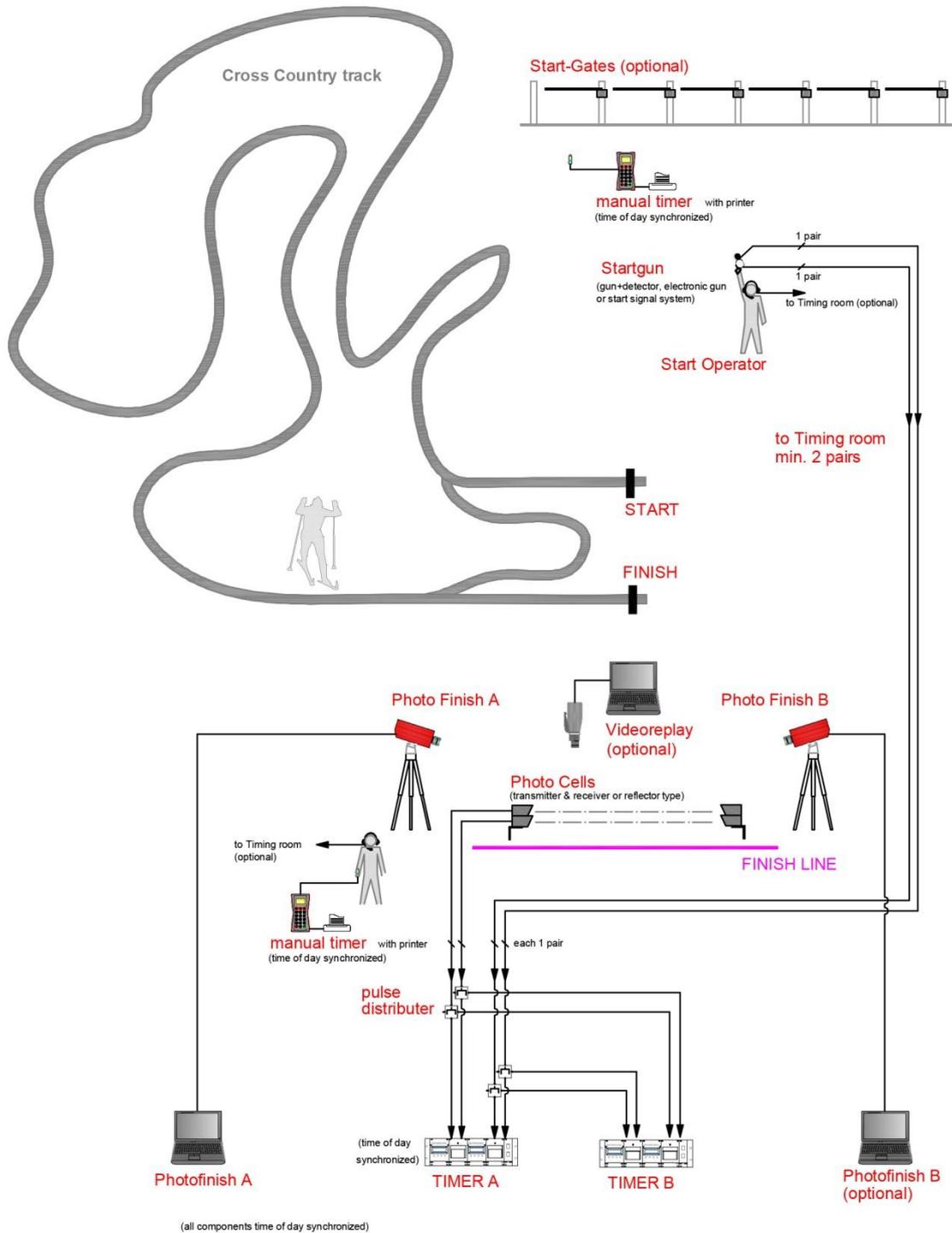
6. Set up drawings

6.1. Individual / Sprint Qualification Start



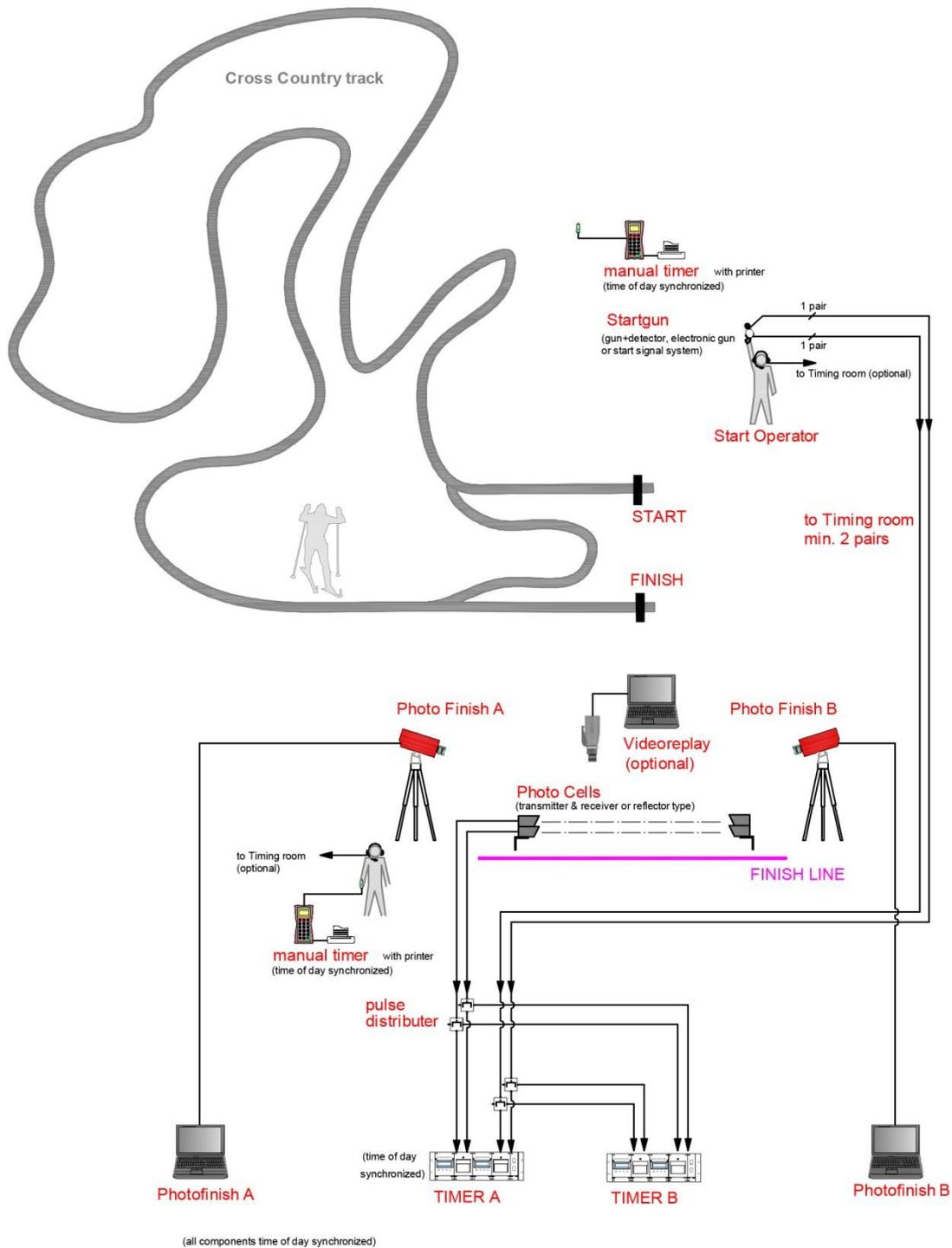
	Drawn by	Swiss Timing	Cross Country Skiing Timing System Level 0 Individuals & Sprint Qualif.
	Date	23.08.2016	
	Proved by	Swiss Timing	
	Modified by	V004	
	File name	CC_TSC_level0.dwg	
	CC-FIS-Lv0-1	Page 1/4	FEDERATION INTERNATIONALE DE SKI

6.2. Sprint Final



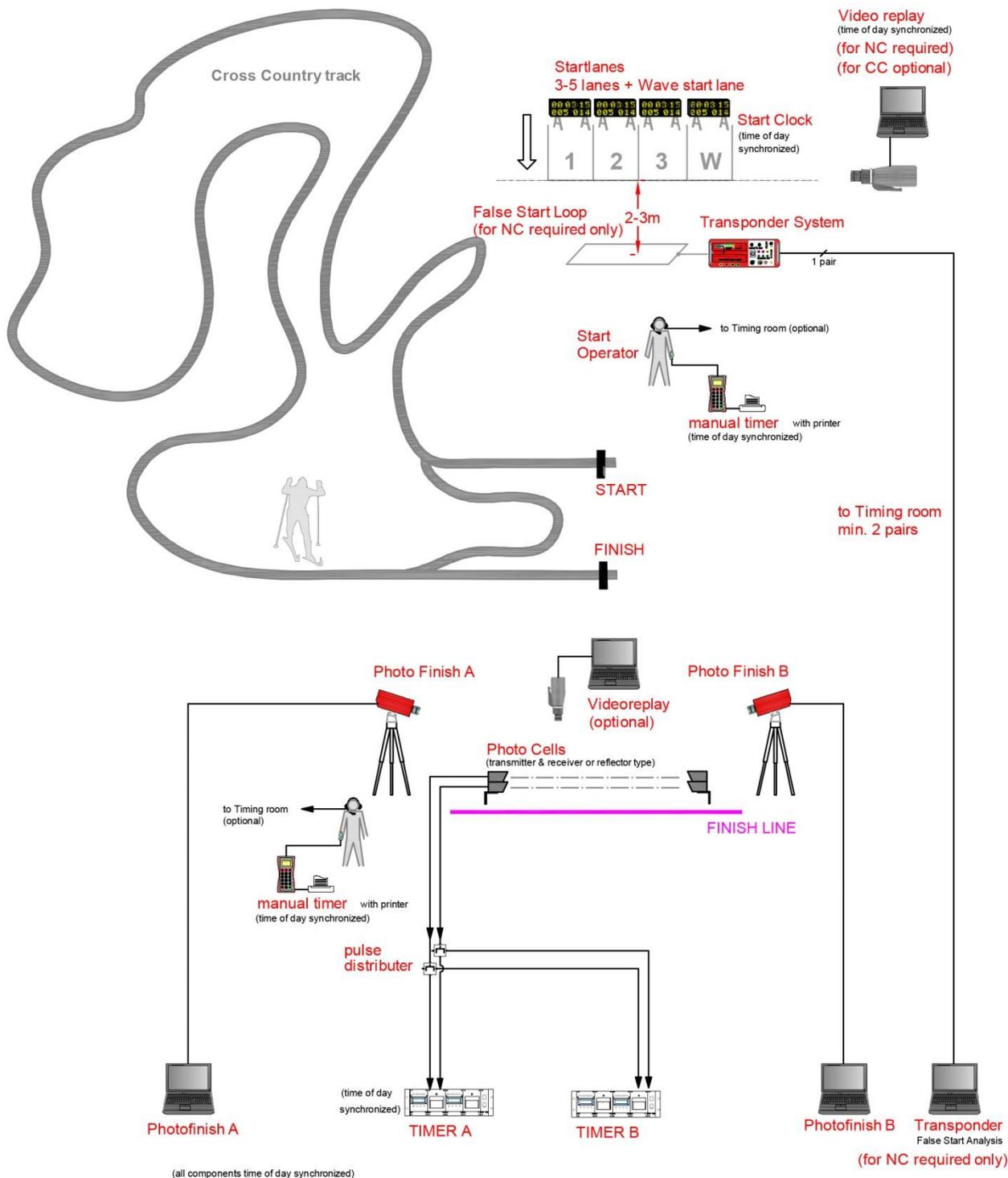
	Drawn by	Swiss Timing	Cross Country Skiing Timing System Level 0 Sprint Final's FEDERATION INTERNATIONALE DE SKI
	Date	23.08.2016	
	Proved by	Swiss Timing	
	Modified by	V004	
	File name	CC_TSC_level0.dwg	
CC-FIS-Lv0-2		Page 2/4	

6.3. Mass Starts



	Drawn by	Swiss Timing	Cross Country Skiing Timing System Level 0 Mass Start's
	Date	23.08.2016	
	Proved by	Swiss Timing	
	Modified by	V004	
	File name	CC_TSC_level0.dwg	
CC-FIS-Lv0-3	Page 3/4	FEDERATION INTERNATIONALE DE SKI	

6.4. Pursuit / Gundersen Start



	Drawn by	Swiss Timing	Cross Country Skiing Timing System Level 0 Pursuit FEDERATION INTERNATIONALE DE SKI
	Date	23.08.2016	
	Proved by	Swiss Timing	
	Modified by	V004	
	File name	CC_TSC_level0.dwg	
CC-FIS-Lv0-4	Page 4/4		

7. Basic technical requirements for the data service in Ski Jumping

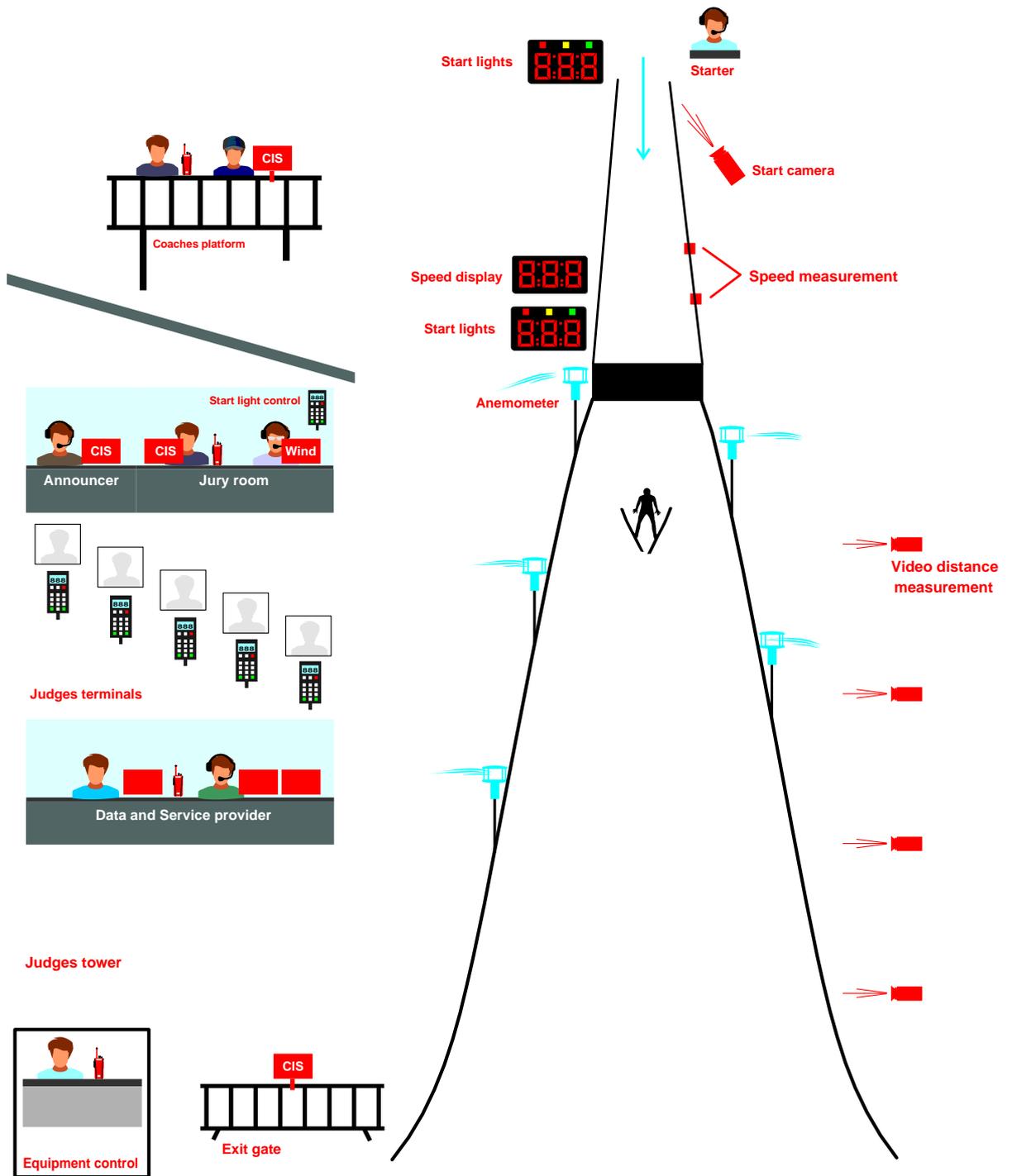
7.1. Required

- Results keypads for judges
- 3-phase start light system (1 display for athletes, 1 for coaches)
- In-run speed measurement with display for coaches
- FIS wind-/gate-compensation system with 5 anemometers
- FIS video distance measurement system
- Start camera at start gates for jury

7.2. Optional

- CIS screens for Announcer, Jury, Coaches and at the Exit-Gate
- Intercom-System with headsets for Jury, Data service, Starter and Announcer
- Radios for TD, TD-Assistant, Equipment Control and Data service

7.3. Drawing



	Drawn by	ewoxx / Mis	Ski Jumping Technical equipment Junior World Ski Championships FEDERATION INTERNATIONALE DE SKI
	Date	05.03.2018	
	Proved by	ewoxx	
	Version	V001	
	File name	JP-WJC.dwg	
JP-WJC			

8. Results

Results must be sent by email to FIS office for upload to the FIS database as XML file and PDF file. Please send the result files to results@fisski.com.

The subject of the email should contain the country code of the event venue and the race codex of the race from the FIS calendar for better identification.

Example subject: USA3712

8.1. XML

The latest description of the XML result file structure can be found on the FIS FTP server at for each FIS discipline: <ftp://ftp.fis-ski.com/Software/XML/>

File name of the XML file should contain the country code of the event venue and the race codex of the race from the FIS calendar for better identification.

Example XML file name: USA3712.xml

8.2. Printed results and PDF Cross-Country / Nordic Combined – Cross-country

Printed lists and PDF must contain following data:

Start list:

- the technical details of the course; length, skiing technique, HD, MC, TC and the composition of the Jury, race date, start time of the race
- start order of the competitor, starting number (BIB), competitor name, competitor nation, FIS points, birthdate or year of birth, individual start time (according the comp. format)

Result list:

- technical details of the course; length, HD, MC, TC, the weather, temperature data, and the composition of the Jury, race date, start and end time of the race
- final ranking of the competitors, competitor name, competitor nation, birthdate, their FIS Codes, starting number, times, intermediate times and competition points, skiing technique, the number of competitors, names and nation of the competitors who started but did not finish, did not start or was disqualified+ reason of disqualification, weather information, any sanctions to competitors

8.3. Printed results and PDF Ski Jumping / Nordic Combined – Ski Jumping

Start and results lists must be produced for all trainings, trial and competition rounds. Printed lists and PDF must contain following data:

Start list:

- the technical details of the jumping hill: hill size, K-point, meter value, gate factor, wind factor (tail, head), the judges and the composition of the Jury/Competition Management, competition date, start time of the competition
- start order of the competitor, starting number (BIB), competitor name, competitor nation, birthdate or year of birth

Result list:

- the technical details of the jumping hill: hill size, K-point, meter value, gate factor, wind factor (tail, head), the judges and the composition of the

Jury/Competition Management, competition date, start and end time of the competition

- final ranking of the competitors, starting number, competitor name, competitor nation, birthdate, speed, distance, distance points, judge points, gate and wind values and their compensation points, round and total points, names and nation of the competitors who started but did not finish, did not start or was disqualified + reason of disqualification, weather information.

8.4. PDF file submission

PDF files should be directly uploaded by the timing or data provider to the FIS website.

If not possible, PDF files must be sent to the FIS office, Nordic Assistant. They will upload the PDF files to the FIS website.

File name of the PDF file should contain the FIS season, FIS discipline of the event, the race codex of the race from the FIS calendar and the list type for identification.

List types:

SL – start list

RL – result list

Example PDF result file name: 2017CC3712RL.pdf

9. FIS Live results

FIS live results must be supported from timing and data service to share live competition data to teams and ski fans. Specification, registration requirements and test environment for FIS live results can be requested from FIS IT (it@fisski.com).

10. Scoreboard

FIS recommends to provide a scoreboard for competition venues to inform teams and spectators about the competition results.

11. Competition documents

Following documents for local usage and upload to the FIS website should be provided by the timing and data provider:

Document	Usage and format	Provision schedule
Entries by nation	Local print to race office / team captains meeting	Before TCM
Start list	Local print to race office send to FIS office (XML*, PDF)	after TCM after TCM within 1 hour
Result list	Local print to race office send to FIS office (XML, PDF)	Immediately after end of competition within 1 hour after end of competition
Brackets for Cross-Country Sprint Finals	Local print to race office	Immediately after end of each round

* not mandatory

12. Important ICR rules for timing and results in Cross-Country

218.1.1 Transmission of Results

For all international competitions, there must be direct communication between the Start and the Finish. In Olympic Winter Games the communications must be assured by fixed wiring.

315.2 Interval Start Procedure

315.2.1 Interval starts will normally use half -minute intervals and fifteen seconds for sprint qualifying round. The Jury may approve shorter or longer intervals.

315.2.2 The start command consists of a countdown starting 5 seconds before the start time ("5-4-3-2-1") and start signal ("GO!"). The command can be given verbally or by audible signals.

315.2.4 The competitor may start any time between three seconds before three seconds after the start signal. If he/she starts more than three seconds before the start signal, it is a false start. If he/she starts more than three seconds after the start signal, it is late start and the start list time will count.

315.2.6 With both electric and hand-timing, the competitor's actual start time must be noted in case the Jury decides his late start was due to force majeure.

315.3.2 The starting procedures for a Mass Start will begin two minutes before the start signal. At this time instruction about the start will be given to all competitors assembled in their start lanes. These instructions should end with the competitors being instructed to stand at their start positions and a "one minute to start warning" is given. Next there will be the command "30 seconds to start". When all competitors are motionless then the next sound will be the start command or signal.

315.4.3 The handicap start is carried out without an electronic start gate. A video camera should be used to record the entire start such that a review by the Jury can be done.

315.4.4 In order to guarantee an exact start, a large display clock must be used for each starting lane together with bib number and starting times for respective competitors for that lane. The start must be prepared so that two or more competitors may start side by side.

315.5.2 Electronic and/or mechanical start gates can be used if approved by the Jury.

315.5.3 Competitors are organized on the pre-start line where instructions are given and start lanes designated. The starter will give the command "take your start positions" and the competitors advance to the start line. When all competitors are at the start line, the starter will give the command "Set" and all the competitors must remain motionless until the starter gives the start signal.

315.7.2 For all competitions using a mass start or heat start procedure, any false start will result in a "restart" of the competition. The starter or the start gate must give a false start signal. There must be assistants placed an effective distance down the tracks where it is possible to turn the competitors back.

316 Timing

316.1 For all competitions listed in the FIS Calendar, electronic timekeeping must be used. Electronic timing will always be supplemented by hand-timing as a backup system and the results cross-checked between the two systems.

316.2 If the electronic timing temporarily fails hand times will be used by correcting the average time difference which develops between the electronic timing and the hand-timing. If the electronic timing fails frequently or completely during the competition, the hand times will be used for all the competitors. When hand times are used to calculate results, the actual start times must be used.

316.3 When using hand-timing, the time is taken when the competitor's first foot crosses the finish line.

316.4 Electronic Timing

316.4.1 The following electronic timing technologies can be used to identify the official finish times:

- Electronic timing system based on photo cells. The measuring point of the light or photo barrier must be at a height of 25 cm above the snow surface.
- Photo finish system. The measuring point will be the toe of the first boot meeting the finish line

316.4.2 Transponder Timekeeping

Transponders (active systems) can be used as a supporting system to the official timing system to determine race times and ranking sequences at intermediate timing points, pre-timing points and finish (unofficial result). The official result has always to be confirmed by using a electronic timing system in accordance to ICR 316.4.1.

316.5 In the case of competitors falling as they cross the finish line, the competitors will be assigned their finish time as per articles 316.3 or 316.4 if all the parts of their bodies are moved across the finish line without any outside assistance.

316.6 For the calculation of results all start and finish times will be recorded to at least 1/100 (0.01) precision. The calculated net time for each competitor is determined by subtracting the recorded start time from the recorded finish time. The final result for each skier will be determined to 1/10 (0.1) precision by truncating the calculated net time. For example, 38:24.38 becomes 38:24.3.

316.7 During the OWG, WSC, JWSC and WC, photo finish cameras must be used.

316.8 The finish referee is responsible for keeping a list of the order in which the competitors cross the finish line. He gives this list to the chief of timekeeping and data processing.

317 Results

317.1 Calculation of Results

317.1.1 The results are calculated by taking the difference between the finish and start times. In a stage event competition, the actual time, bonus seconds and time penalties from each stage are accumulated.

317.1.2 The ranking of athletes involved in a photo finish will be established according to the order they crossed the vertical plane of the finish line by the toe of the front foot.

- 317.2 Publication of Results**
- 317.2.2** The official result list must contain the final order of the competitors, their FIS Codes, starting number, times, intermediate times and competition points. Skiing technique, the number of competitors, names of the competitors who started but did not finish, any written sanctions to competitors, the technical details of the course; length, HD, MC, TC, the weather, temperature data, and the composition of the Jury.
- 317.2.3** In countries where the Latin alphabet is not used, information and results should also be given in Latin characters.
- 324.5 Timing and Results (Pursuit)**
- 324.5.1** The calculation of the final times in a pursuit competition will be done by combining the results (actual skiing time) in the previous race without the tenths of a second with the final results of the second race with the tenths of a second. For competitors that use the handicap start method the order of finish determines the final ranking.
- 325.4.1 Qualification (Sprint)**
- 325.4.1.1** Interval Start procedure must be used (see ICR Art. 315.2). Start intervals can be 10, 15, 20 or 30 seconds.
- 325.5 Timing and results (Sprint)**
- 325.5.1** For OWG, WSC, JWSC and WC sprint qualifying round and heats, start and finish times are recorded to 1/1000 precision and the final result is determined to 1/100 precision. For other FIS sprint competition, it is possible to use timing equipment that only has 1/100 precision but still the final results report the hundredths of a second.
- 326.5 Timing and results (Team Sprint)**
- 326.5.1** For OWG, WSC, JWSC and WC team sprint semi-finals and finals, start and finish times are recorded to 1/1000 precision and the final result is determined to 1/100 precision. For other FIS sprint competition, it is possible to use timing equipment that only has 1/100 precision but still the final results report the hundredths of a second.
- 327.5 Timing and Results (Relay)**
- 327.5.1** Intermediate times for the individual legs of the course are taken when the competitor crosses the line for the intermediate timing. This is also the starting time for the next competitor.
- 327.5.2** The total time of a relay team is the time which elapses between the start and team's final competitor crossing the finish line. The order in which the competitors finish the last relay leg determines the result list.
- 343.5** If transponders or GPS are used it is mandatory for the competitors to wear this equipment.
- 344.4** Wax testing and warming up on the ski competition course must always be done in the competition course direction. Anyone testing skis on the competition course must consider the safety of others on the course and the course preparation. Electronic timing devices used for testing skis will not be allowed on the course during the competition or official training.

13. Important ICR rules for timing and results in Nordic Combined (Cross-Country)

504.2.2 Finish Referee

The finish referee is responsible for keeping a list and a voice recorder (dictaphone) of the order in which the competitors cross the finish line. He gives this list and the tape to the chief of timekeeping.

513.2.6 Timekeeping Building

Timekeeping and calculation should be located in a building with a good view of the start and finish.

514.2 Measuring Devices for Cross-Country

For all competitions listed in the FIS Calendar, electronic timekeeping is mandatory. Electronic timing will always be supported by hand timing as a backup system and the results cross checked between the two systems.

514.2.1 Timekeeping – Start

The Gundersen start is carried out without an electronic start gate. In order to guarantee an exact start, a large display digital clock must be used. The clock is started by zero time when the first competitor starts. At the same time, the starters must start an additional stop watch for control. The starting procedure must be recorded by a HD video camera which focused to the clearly marked starting line (see marking finish line, art. 515.2.18). As a backup system for OWG, WSC and WC an additional transponder line has to be placed 1,5 m beyond the starting line. The reference time for the Jury to check the start procedure is 1 second, which means all earlier starts must be checked.

514.2.2 Intermediate Time

An intermediate timing point will be established according to the local circumstances and the respective length of the course. In principle, it should be 1 – 2 intermediate timing points per round.

514.2.3 Finish Timing

Times will be measured in full tenths of a second. Times to one hundredth of a second will not be used. When using hand timing, the time is taken when the competitor's first foot crosses the finish line. In case of electronic timing, the time is taken when the contact is broken. The measuring point of the light or photo barrier must be at a height of 25 cm above the snow surface. Additionally, the finish is to be recorded by video cameras. The first camera must be positioned on one the side of the finish line providing a picture of the finish and an additional camera positioned to identify the starting bibs.

- 514.2.4** At OWG, WSC and WC-NC special Photo-Finish cameras (Line-CCD) must be employed to record the correct order of finish. To attain a correct and swift result evaluation, it is imperative that every competitor wears an additional starting bib on the outside of his thigh where the camera position is. The height of the starting bib digits should not be less than 8 cm. The Line-CCD camera must be able to register finish line crossing with a 1/1000 s precision. The CCD camera must be synchronised with the main timing system 1/2 hour before competition starts. The display of the time behind the winner or display of the running time is sufficient. In the case of Photo-Finish decisions, the image of the Line-CCD camera must be presented on the system monitor to the Jury, additionally a colour print-out with time scale is required.
This system is subject to FIS homologation.
- 514.2.5 Photo Finish**
The use of technical measurements (Video camera, Line-CCD camera) shall be used in the following situations for the determination of the actual final ranking:
- if the finishing times are identical
 - a difference in the finish ranking list made by the finish referees
 - the difference between two or more athletes crossing the finish cannot be clearly witnessed.
- 514.3 Transponder Timekeeping**
Transponders (active systems) can be used as a supporting system to the official timing system to determine race times and ranking sequences at intermediate timing points, pre-timing points, and finish (unofficial result). The official result must be confirmed by using electronic timing systems in accordance with ICR 514.3.1.
For Gundersen competitions the order at the finish is the ranking criteria for the official result. The finish order must be confirmed in any case with the photo finish system. In case of usage of transponder the determined finish times can be used for the official result when the finish order is confirmed by photo finish system.
- 514.3.1 Electronic Timing**
The following electronic timing technologies can be used to identify the official finish times:
- Electronic timing system based on photo cells. The measuring point of the light or photo barrier must be at a height of 25 cm above the snow surface.
 - Photo finish system. The measuring point will be the toe of the first boot meeting the finish line.

515.2.7 **Start Area**

The start must be prepared according to the terrain, with the first 100–200 m prepared to a width at 6–9 m.

In order to guarantee an exact start, a large digital clock and a board with the starting numbers and starting times for each starting lane must be used. The clock is started by zero time when the first competitor starts. At the same time, the starters have to start an additional stop watch for control. An additional assistant is responsible to control the lane start boards by crossing off the names of the competitors after they have started.

542 **Team Gundersen Competition**

542.2 **Calculation**

The calculation is based on the appropriate meter and point value according the art. 527.2.3.2 and 527.4.1. For the final result list the ranking must be fixed, if necessary with technical help. In case of two or more athletes arriving at the finish line with the identical times a decision is made by the use of the photo finish video or by finish referee (art. 514.2.5). In case when no visual differences between competitors can be determined with the assistance of the technical equipment, the same rank will be given in the final result. For cup competitions, the same points will be awarded. The start differences for the Cross-Country race will be calculated from the actual total points scored by each team from the Jump event.

543 **Team-Sprint**

543.2 **Calculation**

The calculation is based on the appropriate meter and point value according to the art. 527.2.3.2 and 527.4.1.

For the final result list the ranking must be fixed, if necessary with technical help. In case of two or more athletes arriving at the finish line with the identical times a decision is made by the use of the photo finish video or by finish referee (art. 514.2.5). In case when no visual differences between competitors can be determined with the assistance of the technical equipment, the same rank will be given in the final result. For cup competitions, the same points will be awarded.

The calculation of the jumping result is the actual total points scored by both jumps for each team and will be used for the starting differences of the Cross-Country race.

14. Important ICR rules for data and results in Ski Jumping

415 Measuring Devices

415.1 Jumping Distances

Distance markings shall be put on both sides of the landing from the distance of 0.5 w down to 5 m below the point L (HS). Specific rules for Ski Flying hills are determined by the respective jury to correctly put the distance markings, take a measuring tape, and measure from the two extreme sides of the take-off edge down the landing slope to the point that is 50% of the K point (rounded up to a full m). At this measured point, put the appropriate distance marking on both left and right sides of the landing slope. Measure along the slope in 1 m intervals to mark the location of the other distance markings. For the measuring of the distances with a technical system (technical distance measuring), the approval of the Jumping Committee is required for its operational validity.

415.2 Inrun Speed

The devices for the measurement of in-run velocity v_0 shall be placed as follows:

- The measured distance is 8 m.
- The second photocell beam must be located 10 m before the edge of the takeoff.
- The photocell beam must be 0.2 m above the snow profile

For jumping hills listed on the FIS competition calendar HS 85 m and larger, inrun velocities must be measured during all training periods and throughout competition.

415.3 Wind Velocity and Direction

The wind measuring instruments must be placed alongside the landing slope at the height of the optimal flight trajectory. The measurement data for these devices must be available to competition officials in the judges' tower and shown in the most consolidated, readable form possible.

Measuring instruments must be placed in three locations on normal, large and Ski Flying hills (at the edge of the take-off as well as at approximately 50% and approximately 100% of the distance to the K-Point). In addition, at least 8 wind flags or wind socks must be placed along each side of the landing hill at the height of the flight trajectory. If the wind/gate application is used there are special rules relating to the fixation of wind measuring devices

415.4 Start Permission and Start Time Control

415.4.1 Three phase mode

Start permission and starting time control at OWG, WSC, WSFC, JWSC as well as WCJ-, GPJ- and COCJ-events will be determined by means of a three-coloured (red-yellow-green) stoplight and a digital clock which are connected and running automatically depending on the adjustable starting rhythm program.

During the red phase (start preparation) the clock runs backward from the adjusted time to zero seconds. The red phase is for the direction of the competition and can be stopped whenever needed. During the consecutive yellow phase the clock runs forward. The competitor is allowed to take the position on the starting bar with the begin of the yellow phase. According to the external conditions the Jury decide about the

minimal duration of the yellow phase (usually between 10 and 15 seconds). The duration of the yellow phase can be between 10 and 45 seconds. If the conditions do not allow to start the competitor, the yellow phase switches to red automatically. In this case the competitor must leave the starting bar and prepare for the new starting procedure. The yellow phase switches to the green phase after 10 seconds at the earliest. With the switching to green light, the starting time begins and will be finished after 10 seconds. Within these 10 seconds the competitor must start and leave the starting bar. The light automatically switches back to red and the starting procedure for the next jumper begins. The times for yellow and red phase must be clearly visible to the athletes on the separate display on the starting semaphore.

432.3 Technical Distance Measuring

432.3.1 Technical measuring devices that measure distances to an accuracy of 0.5 meter and tabulate the distance are permitted for the recording of the jumping distance and the calculation of distance points.

433 The Calculating and Announcing of Results

433.1 Style Points

Scoring starts with the scores of five Jumping Judges, and then the highest and lowest scores are eliminated. The three remaining scores are added. The sum of these scores is the total score for style points for a jump.

433.2 Distance Points

The points scored for the distances jumped are calculated on basis of the table point. The point for one m is based on a points table predicated on the K point of the hill.

K-Point Distance Meter Value

20 to 24.....	4.8 pts./m
25 to 29.....	4.4 pts./m
30 to 34.....	4.0 pts./m
35 to 39.....	3.6 pts./m
40 to 49.....	3.2 pts./m
50 to 59.....	2.8 pts./m
60 to 69.....	2.4 pts./m
70 to 79.....	2.2 pts./m
80 to 99.....	2.0 pts./m
100m and larger.....	1.8 pts./m
170m and larger.....	1.2 pts./m

The K point distance equals 60 distance points. After the m value of the hill has been determined, the distance difference of the measured lengths for jumps must be calculated. Distances shorter than the K point are calculated by multiplying the m value by the length difference and subtracting this number from 60; by contrast, distances longer than the K point are calculated by multiplying the m value by the length difference and adding this number to 60.

433.3 The Collective Point Score

This score is calculated by adding style and distance points together. If the total of the style and distance points results in a negative sum, the minimum score is at least zero (no negative points).

433.4 The Total Point Score

This score is calculated by adding together the collective point scores from the competitive jumping rounds. The jumper with the highest total point score is the winner. When two or more jumpers have identical scores, a tie is declared, and the jumpers are awarded the same place. The following position(s) shall be displaced (eliminated) in accordance with the number of tied places. In the final result list, tie placings shall be listed in reverse order of the jumper's start number (the higher start number at first).

433.5 The Announcement of the Results

An unofficial results list will be posted immediately after the competition. The chief of calculations and the competition secretary examine and compare the unofficial results list with the original recording lists. The competition secretary then presents the final list for approval to the Jury. If the Jury has not received any protests, the results list will be published as the official results after the protest time. The protest time is as a rule 15 minutes after the end of the competition. Team captains' meeting can decide on a shorter protest time. The results list shall include the following details:

- the name of the competition
- the date and place of the competition
- the name of the hill and reference to its K point and Hill Size (HS)
- the name and country of each Jumping Judge
- the name and country of each Jury member
- information on the weather (snow conditions, temperature, wind, etc.).
- the number of entered, started, and qualified competitors
- the place, start number, last and first name, country or club, distance jumped, inrun velocity, distance points, style points, collective points per round and at the end of the line total point score for each competitor.

Official results lists must be signed by the TD and the chief of competition. The official results list sent to the FIS must be written in Latin characters. Additional list of points deductions for flight, landing and out-run, see art. 431.1.