

BROADCASTER MANUAL 2021/22 MOGULS / AERIALS

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1. Introduction

As the international organisation responsible for the promotion and development of Freestyle Skiing, Freeskiing and Snowboarding, FIS is constantly looking to find new ways of increasing interest in all of the FIS disciplines.

The starting point in this endeavour is to ensure that the events are TV produced at the highest level and this Freestyle Skiing Manual offers specific guidelines for Host Broadcasters to ensure the delivery of consistent standards of television production throughout the calendar season.

The Freestyle Skiing Manual integrates the general FIS Broadcasters' Manual available at the following link:

https://assets.fis-ski.com/image/upload/v1539259548/fis-prod/Broadcasters_manual_-_general_part.pdf

During the course of the winter season, the most important series of international competitions are established in the FIS World Cup Calendar for the events of Freestyle Skiing, Freeski and Snowboard.

All the detailed information regarding the FIS Freestyle Ski World Cup and World Championships events are contained in the following document:

International Aerials and Moguls Freestyle Skiing Competition Rules (ICR):

https://assets.fis-ski.com/image/upload/v1565612687/fis-prod/assets/FS_FIS_Freestyle_ICR_MO-AE.pdf

2. Events

In Freestyle Skiing there are 3 distinct events – Moguls, Dual Moguls, Aerials (Mixed Team Aerials).

Table of Freestyle Skiing Events

Events	Freestyle Skiing
Moguls (MO)	X
Dual Moguls (DM)	X
Aerials (AE)	X
Mixed Team Aerials	X

The detailed overview of all the events and the relevant competition formats, phases and rounds can be found in the International Aerials and Moguls Freestyle Ski Competition Rules (ICR):

https://assets.fis-ski.com/image/upload/v1565612687/fis-prod/assets/FS_FIS_Freestyle_ICR_MO-AE.pdf

3. Start intervals and TV Ready procedure

The maximum interval time between runs varies according to the events. Typically 90 – 120 seconds are planned between the current competitors while the next competitor prepares for his/her run. This allows for replays of the last performance and the reaction from the competitor when they are given their results.

The start intervals shall be determined with the FIS Race Director during the initial site survey, particularly as this will affect the choice of camera positions. Other factors will influence this decision, such as the presence of sponsors and advertising as well as TV production values such as replays and highlights.

Direct communication is established between the FIS Race Director and the TV Director. The FIS Race Director will inform the HB about any delays, injury status of competitors and course holds for repairs and other incidents that may prevent the competition from moving forward according to the rundown sheet.

The FIS Race Director controls the pace and timing of the competition based upon the phase and intervals defined in the rundown sheet and the official FIS competition protocol.

Athletes will not leave the start gate until the race director provides his instruction of “proceed with the next skier” or “proceed with the next heat”.

There’s an assumption that all other facets of the competition are in a positive nature, such as the course is clear, the television is ready and the skier is prepared at the start. If there is a negative status in any one of these areas, this needs to be communicated on an internal channel with the FIS Race Director. The FIS Race Director will then hold the competition until a positive status is given.

In consideration of the television production, the HB is required to be following the competition sequence as defined in the rundown and the competition schedule. If there is a negative situation than the FIS Race Director needs to be informed and he will hold the competition.

Table of Start Interval Times for the Freestyle Skiing Events

Events	Qualification	Final
Moguls	75 to 120 seconds	90 to 120 seconds
Dual Moguls	75 to 120 seconds	90 to 120 seconds
Aerials	75 to 120 seconds	100 to 120 seconds
Mixed Team Aerials	75 to 120 seconds	100 to 120 seconds

4. Competition Breaks

Natural competition breaks are part of the running of the competition or are caused by internal or external circumstances beyond the control of the operation of the competition.

Turn-around Time

The turn-around time is, the total time it takes to start and complete a run and arrive back to the start area. This includes, the time of the run, the time it takes from the finish area to the ski lift, the lift time and the time it takes from the end of lift station to return to the start.

Also, there is the turn-around time on lift system within the final phase of the head to head competitions. The competitors cannot just arrive back to the start and then prepare to leave again. Sometimes they need to change equipment and get instructions from the coaches.

The natural breaks occur towards the end of the competition, and after the semi-final, when the last qualified competitors start directly in the next heat.

Weather Delays or Course Holds

Weather delays occur during the competition, due to snow fall, wind, fog/clouds or flat light. In these cases, the competition sequence will be stopped and will be then continued when the conditions permit.

Crashes and Injuries

Crashes and injuries do occur and sometimes it takes time to determine the nature of the injury and then prepare the predefined evacuation of the competitor from the course.

On some occasions, the course safety material needs to be fixed.

Course Maintenance and Repair

On-going maintenance of the course line, jumps or gates is needed at times, based upon the circumstances. Short delays can occur as a natural part of organizing the competition.

Jury Decisions

The competition jury, which controls the rules and operation of the competition, needs to make decisions about the running of the competition and the status of the results and the ranking of the competitors. Short breaks can be expected in the operation of the competition.

Judging in Progress

As judges are evaluating the runs and performances there could be some delays in obtaining the scores.

5. Specific elements of TV Coverage

5.1 Starting Area & Competitors Lounge

The start area is divided into several functional areas with access control limiting the number of people in the specific zones.

Interesting interactions, preparation of competition equipment and the warm-up procedures of the competitors can be seen in the pre-start area.

In the start area, there will be interaction with coaches and competitors, up to a certain point, then the placing of the skiers into the start gate by the start officials. This is followed by the start sequence.

As there is a screen at the start where coaches and competitors can gather around and view the runs of their fellow competitors and react to such images and runs.

5.2 On Course

The competitor(s) must be covered during the full performance from the start of the course to the finish.

At times the competitors cannot complete their run and they are required to stop and exit the course, where possible.

5.3 Finish Line and Finish Area

As the competitor(s) cross the finish line, there can be lot of emotional content both with the competitor(s) that have finished the run and also from the other competitors waiting to see if they have been beaten or have maintained their ranking.

5.4 Line Up

During the final phase, the top 3 ranked competitors or teams are lined up, with 3rd ranked competitor / team closest to the finish gate.

As the next skier enters the finish area they are lined up near the other competitors, and then they await the confirmation and ranking for the performance. During this time, the replay of the run is shown.

5.5 Reaction

6. TV PRODUCTION - Special requirements and procedures

6.1 International Feed & Knowledge of the Sport

Host Broadcaster (HB) is invited to develop suitable production ideas that best illustrate the competition dynamics, capture the athletes' experience and offer performance comparisons in a way that will inform and appeal to both fans and new audiences.

A key principle for the TV Directors is to remember they are providing multilateral feed coverage and this should be unbiased in order to satisfy the international viewing audience. Coverage should be impartial, with equal emphasis on all participants, including replays of their reactions. Live action should always be a priority, and quite often, the best approach is to 'keep

things simple'. At the same time, one of the most important assets of the designated TV Director and TV Producer will normally be considerable knowledge of the sport. This knowledge will significantly contribute to how the excitement of the competition can be captured, showing all the important parts of the venue and the development of the competition.

The HB Producer and Director are expected to study the form and performance of the athletes participating in the competition. Familiarity not only with the subject, but also with the season performance is imperative to fully understand and exploit the strengths and weaknesses of athletes in the coverage plan.

6.2 Production Plan

The preparation and delivery of the production plan must be regarded as the most demanding of challenges, but equally the HB must also provide support services to unilateral broadcasters, TV Compound logistics, cabling, broadcast management and technical assistance.

The HB will be responsible for the supply and installation of the necessary cables to interface with FIS' data and timing service partner and will assist with this task, providing that the distances are reasonable and within the confines of the TV compound. The site survey will seek a suitable and convenient position for the Data and Timing Partner's technical facilities.

HB is expected to design a suitable production plan in advance of each competition to fully prepare its broadcast installation. The schedule should consider the possibility of conducting a full technical and production rehearsal (with timing and a podium presentation) at least one day before the actual competition. The organization of the technical and production rehearsal will be carefully planned with the Organizing Committee.

Daily Schedule for HB in terms of tender vehicle arrival, park and power, cable installation, skidoo availability, camera platform build, installation of all timing points, full rig and technical rehearsal to be delivered not more than **4 weeks after the survey**. Example of the production plan "best practice":

Number of days before the Finals (Qualifications to be kept in consideration)	Description
– 5 Days	<ul style="list-style-type: none"> • Tender and support vehicles travel and park
– 4 Days	<ul style="list-style-type: none"> • Assemble all camera platforms as well as initial cabling
– 3 Days	<ul style="list-style-type: none"> • Cabling continues
– 2 Days	<ul style="list-style-type: none"> • HB Outside Broadcast vehicles arrive as well as any mobile production facilities • TV Compound park and power • Complete cabling, position and install cameras and microphones • Meeting with FIS Race Director to review safety and camera position.
– 1 Day	<ul style="list-style-type: none"> • Initial meeting and inspection of the finish area/TV position with OC, chief of press/media to discuss any details • SNG vehicles park and power with cabling to the HB production vehicle • Complete OB Van configuration and perform technical facilities check before the end of the day and according to local daylight conditions • Facilities and production rehearsal & mandatory production of the test race/Qualifications with results and graphics (required and agreed on a case by case basis) • TV coordination meeting to include current progress, all technical issues, running order debrief and program of unilateral activities (including FIS Representative, chief of course, stadium and ceremonies and the venue announcer)
Finals – Day 1	<ul style="list-style-type: none"> • Complete Competition 1

Event program needs to be always carefully checked in order to prepare the TV production plan. The Qualifications can be scheduled either 1 day or 2 days before the Finals.

6.3 Freestyle – Moguls, Dual Moguls, Aerials and Aerials Mixed Team Event TV Production for Judging Purposes

The Freestyle Moguls, Dual Moguls, Aerials and Aerials Mixed Team Event competitions can be judged directly (judges having a direct and standard visual of the field of play) or indirectly (remote room within the venue, video/remote judging) but in any case, a few cameras filming the race are required and mandatory (details to be agreed with the FIS Race Director). Therefore, an adequate set up with such cameras is required for trainings (test only), qualifications and finals. It is essential that the TV production connects to the FIS Race Director judges prior to the event in order to confirm the camera angles and make sure that the produced feed reflects the sport's/judge's needs. A certain number of runs need to be shown to the judges during the training phase in order for them to understand what is happening and set their ranges. A proper coverage of the entire performance of each athlete is mandatory. Every mistake and/or missed trick by TV production can incur in a re-run, as the judges will not be able to perform their duty.

6.4 Freestyle Skiing Monitors & Signals Requirements

For events' coordination, the following monitors of an adequate dimension and with an appropriate connection to the international world feed (with graphics) are required at the venues:

Event	Number of Monitors	Kind of Signal	Position
Aerials	3	World Feed (dirty with graphics)	2 Judges stand (Race Director and Head Judge)
			1 Coaches Area level 0 front side of judges stand
Moguls	3	World Feed (dirty with graphics)	1 at the start
			1 exit gate (FIS Race Director)
			1 in judges stand
Dual Moguls	3	World Feed (dirty with graphics)	1 at the start
			1 exit gate (FIS Race Director)
			1 in judges stand

<p>To be noted:</p> <ol style="list-style-type: none"> one monitor will have to be provided also to the event's announcer for each competition the above list DOES NOT include the FIS Data & Timing requirements

6.5 Additional Feeds

Some or additional feeds may go through dedicated replay machines and will be confirmed by the FIS Race Director during inspections. Technical needs will be forwarded to the HB once available.

Additional feeds should be foreseen for VIP area and Giant screens (if applicable).

6.6 Copy of the competition

A copy of the competition should be foreseen by the HB and be available for Teams, Judges and/or for Jury purposes. Right after the end of each Competition, a copy should be delivered to the Team Captain of the team hosting such a Competition. A copy for Judges/ Jury purposes should be provided upon request and delivered to the Head Judge.

6.7 Drones Usage Policy

Unmanned and anchorless aerial vehicles (UAV) such as Drones or Quadcopters etc. are strictly prohibited over the competition Course area during inspection, training or competition, unless approved by the Jury and the organizer in writing subject to any prohibitions imposed by local laws or the property owners. The competition Course area is defined by the Jury. Violations will be subject to sanctions by the Jury in accordance with ICR art.223.

7. Coverage Philosophy, TV cameras and running orders

7.1 Cameras Plan

Master camera plan (indicating how each camera will be used) of the competition venue including scaffold towers and platforms, together with microphone positions are to be delivered to the respective parties not more than **4 weeks after the inspection.**

7.2 Minimum Number of Cameras – Basic Set Up – Mandatory Requirement

Following the indications of the FIS World Cups Broadcast Manual, the following minimum camera requirements apply for the Freestyle Ski World Cup events (any additional enhancements are welcomed).

Moguls

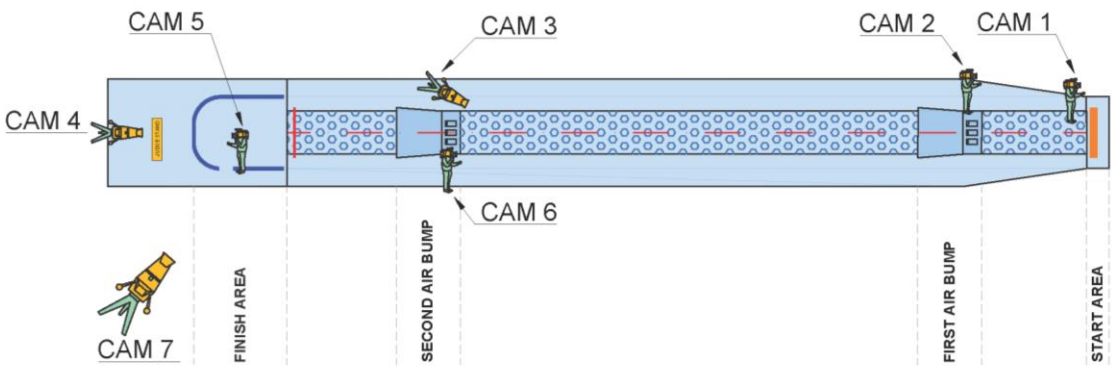
Minimum 7 cameras required

Cameras description:

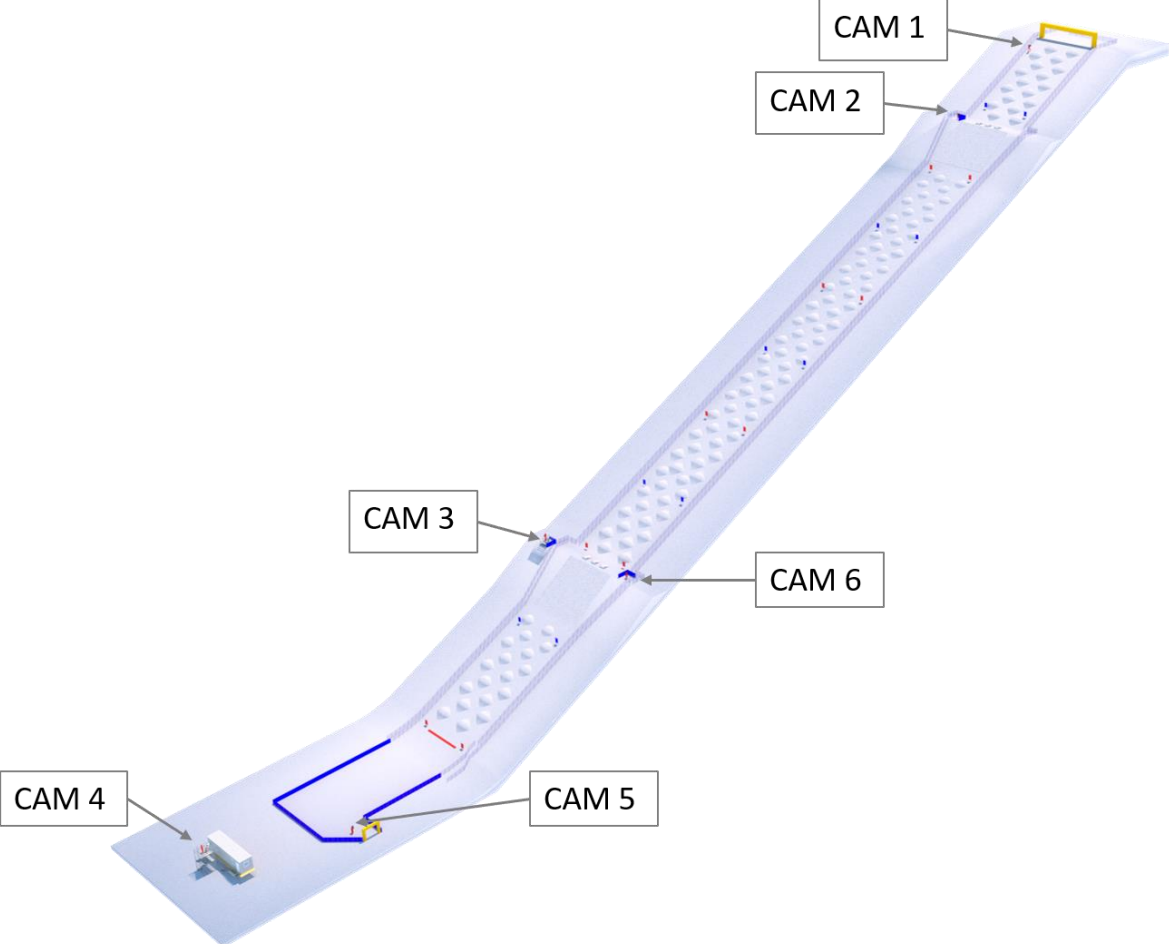
N°	Type	Lens	Mount	Location	Coverage
1	Hand-held	11 x 4.5	N/A	At start	Warming-up, athletes close-up, race start, Coaches reaction
2	Hand-held	22 x 7.6	N/A - Tripod	1 st jump	Start, 1 st jump
3	Hand-held	22 x 7.6	N/A - Tripod	2 nd jump	2 nd jump, approach, moguls
4	Hard	72 x 9.3	Tripod (Hard)	Judges stand - scaffolding in the finish area	Main coverage action
5	Hand-held	11 x 4.5	N/A	Finish area	Athletes arrival, athletes close-up, venue atmosphere
6	Hard	72 x 9.3	Tripod	2 nd jump	Super Slow Motion
7	Hard	Wide	Tripod	Beauty shot	Full venue view and beauty shots

Camera plan:

Top View

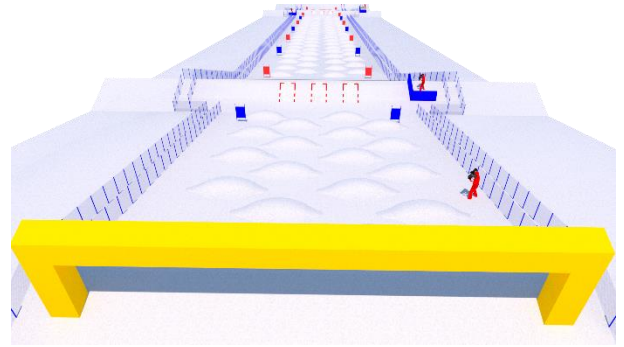
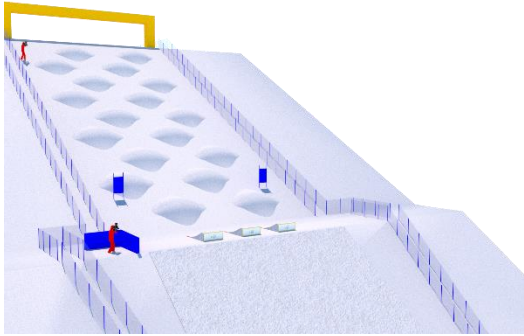


Isometric View

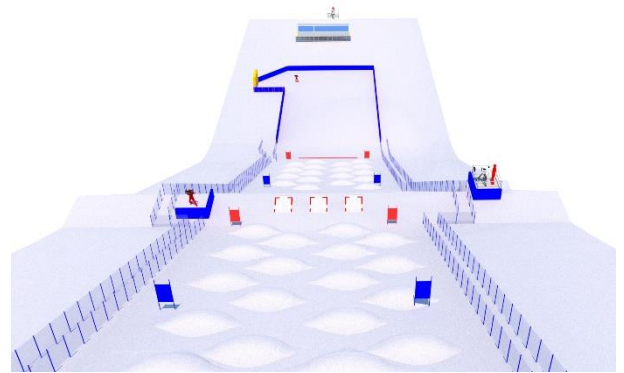
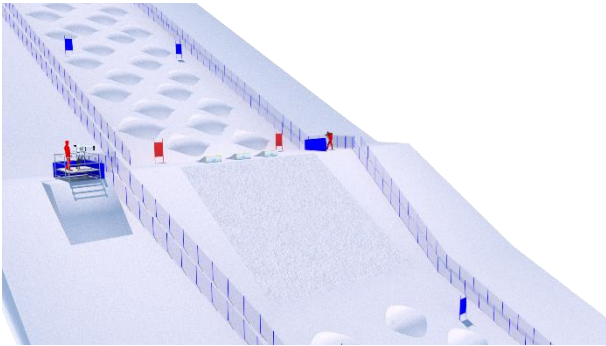


DETAILS VIEW

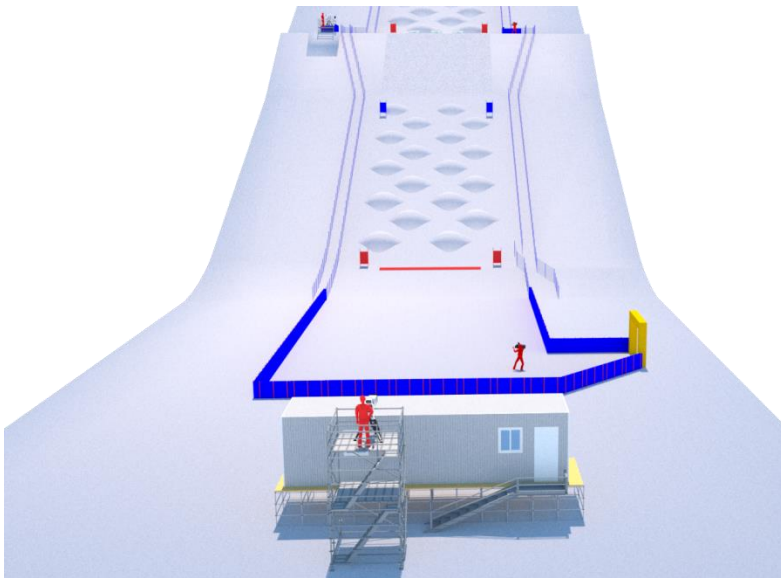
FIRST AIR BUMP



SECOND AIR BUMP



FINISH AREA



Dual Moguls

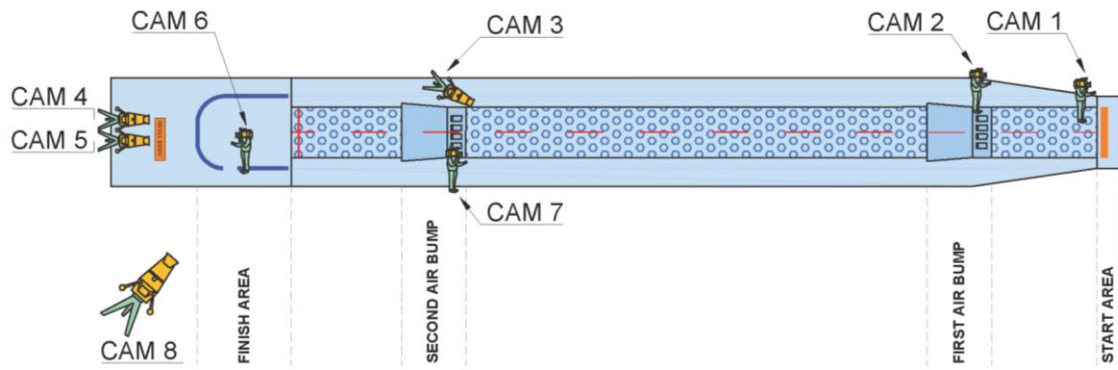
Minimum 8 cameras required

Cameras description:

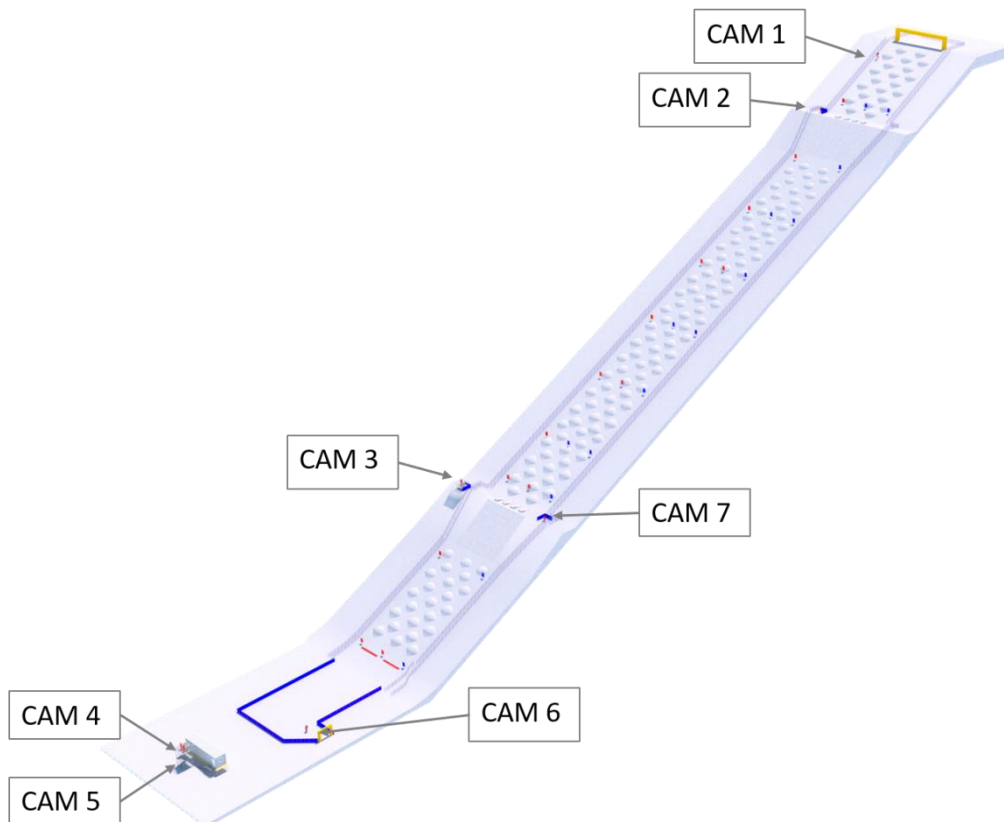
N°	Type	Lens	Mount	Location	Coverage
1	Hand-held	11 x 4.5	N/A	At start	Warming-up, athletes close-up, race start, Coaches reaction
2	Hand-held	22 x 7.6	N/A - Tripod	1 st jump	Start, 1 st jump
3	Hand-held	22 x 7.6	N/A - Tripod	2 nd jump	2 nd jump, approach, moguls
4	Hard	72 x 9.3	Tripod (Hard)	Judges stand - scaffolding in the finish area	Main coverage action
5	Hard	72 x 9.3	Tripod (Hard)	Judges stand - scaffolding in the finish area	Main coverage action
6	Hand-held	11 x 4.5	N/A	Finish area	Athletes arrival, athletes close-up, venue atmosphere
7	Hard	72 x 9.3	Tripod	2 nd jump	Super Slow Motion
8	Hard	Wide	Tripod	Beauty shot	Full venue view and beauty shots

Camera plan:

Top View

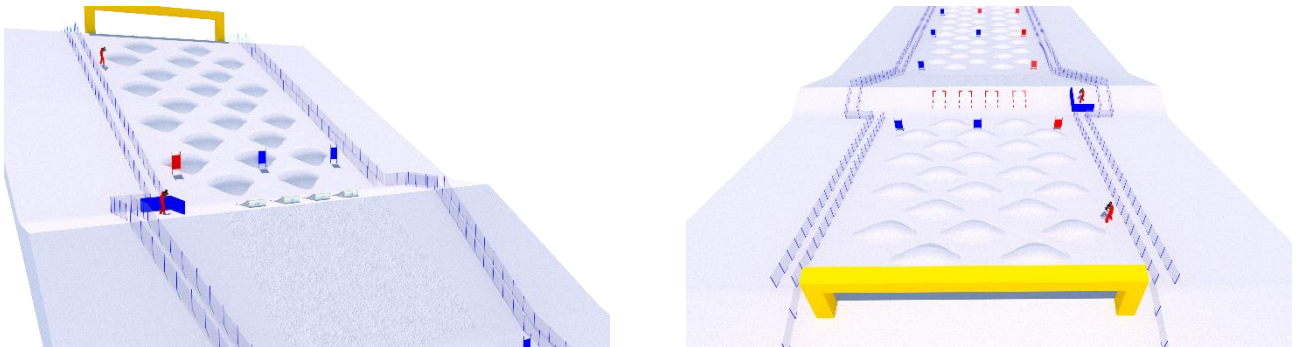


Isometric View

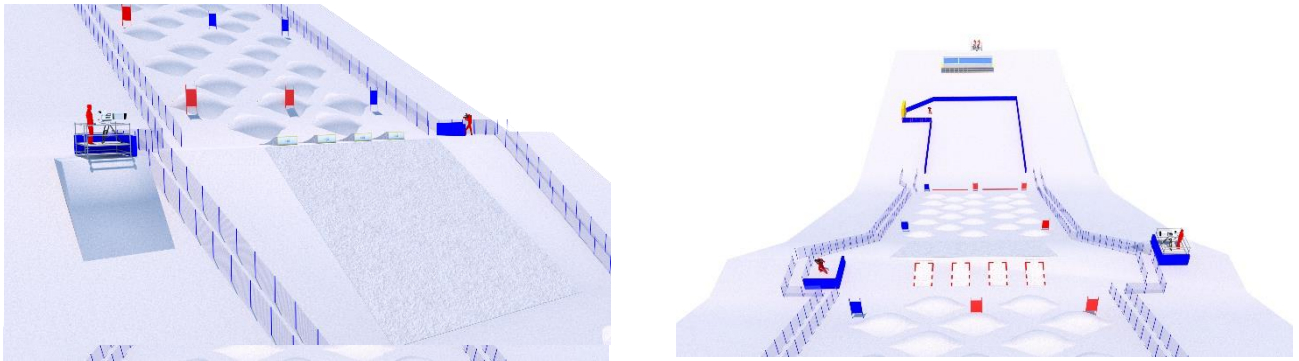


DETAILS VIEW

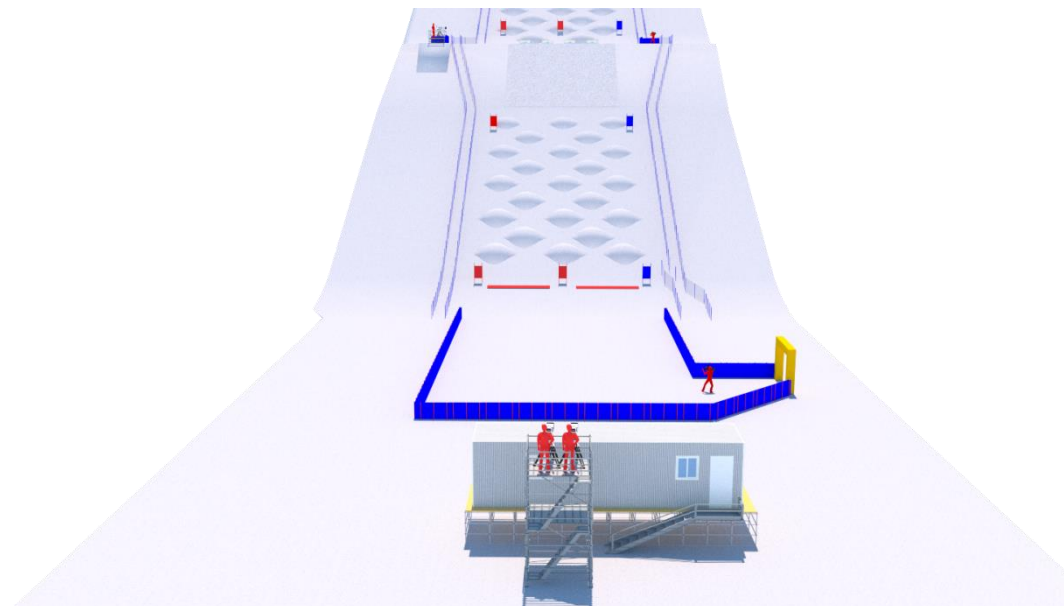
FIRST AIR BUMP



SECOND AIR BUMP



FINISH AREA



Aerials / Aerials Team Mixed

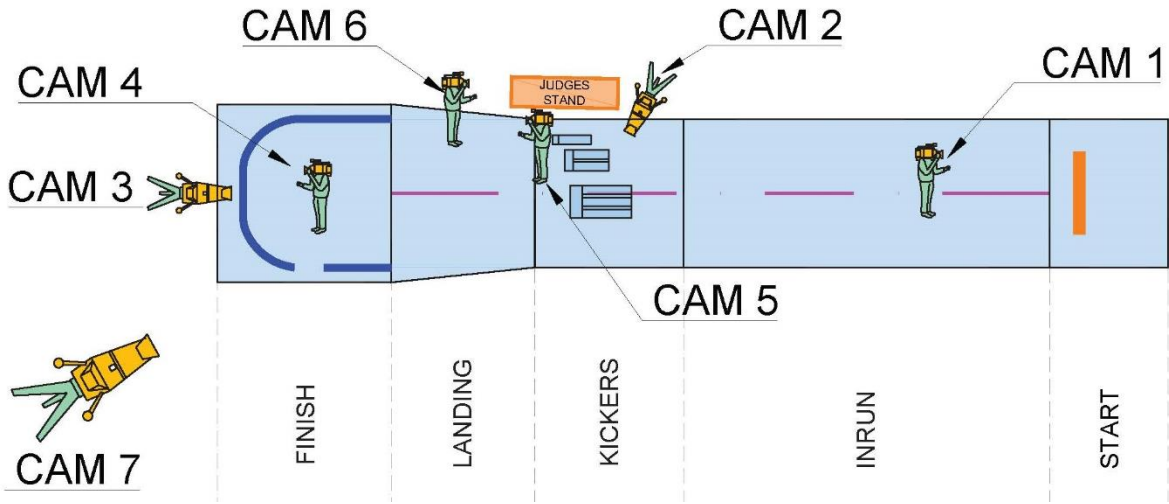
Minimum 7 cameras required

Cameras description:

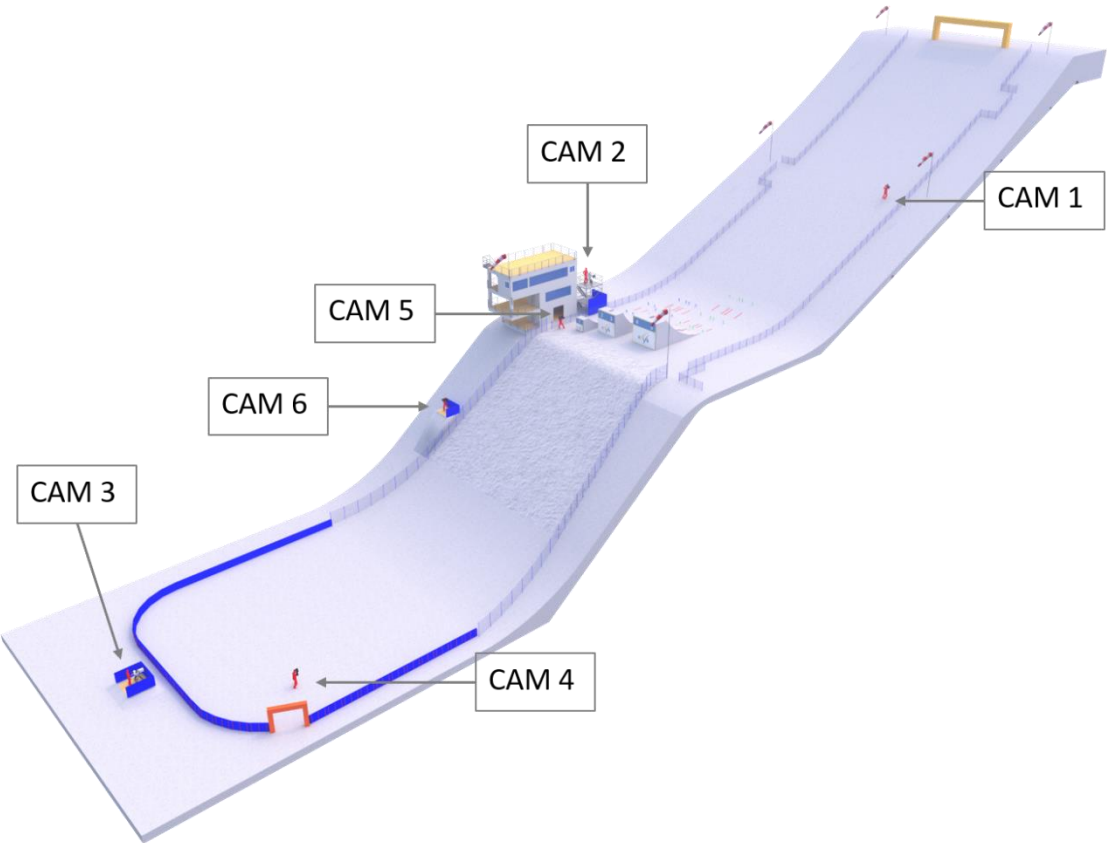
N°	Type	Lens	Mount	Location	Coverage
1	Hand-held	11 x 4.5	N/A	At start	Warming-up, athletes close-up, race start, Coaches reaction
2	Hand-held	22 x 7.6	Tripod	Judges house	Start, jump, action
3	Hard	72 x 9.3	Tripod	Scaffolding 2m finish area	Action, replays
4	Hand-held	11 x 4.5	N/A	Finish area	Athletes arrival, athletes close-up, venue atmosphere
5	Hand-held	22 x 7.6	N/A	Kicker	Jump, replays
6	Hand-held	22 x 7.6	N/A	Landing zone	Jump, replays
7	Hard	Wide	Tripod	Beauty shot	Full venue view and beauty shots

Camera plan:

Top View



Isometric View

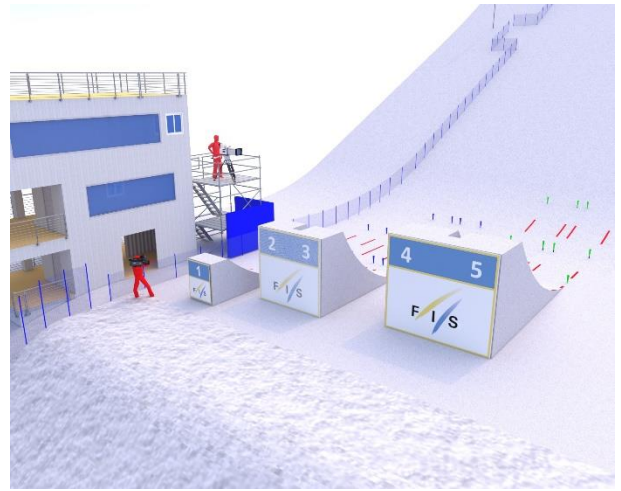


DETAILS VIEW

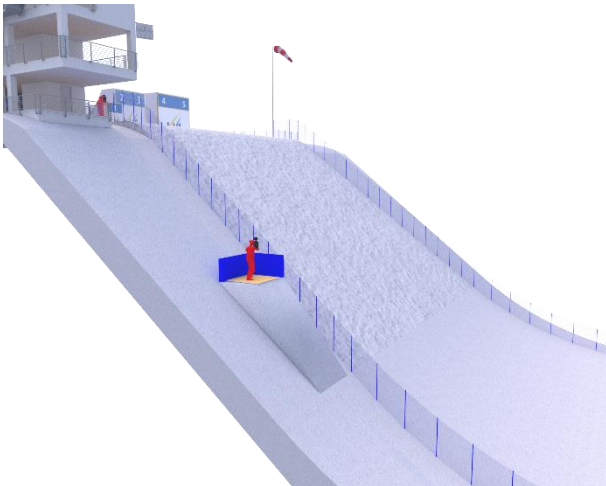
START AND INRUN



KICKERS



LANDING



FINISH AREA

