FIS FREESTYLE SKIING
JUDGING HANDBOOK

Edition October 2023

INTERNATIONAL
SKI AND SNOWBOARD
FEDERATION

INTERNATIONAL SKI AND SNOWBOARD FEDERATION

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Oberhofen, October 2023

‘We, the judges, promise to judge all competitions with complete impartiality; respecting and abiding by the rules and regulations. We promise to officiate at all competitions giving no favour based on nation, gender, competitor’s ranking, or previous performances in this or any other competition. We will judge each run solely on the merit of the observed performance without preconceptions or expectations.’

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6000 AERIALS

6001 Definition

Aerial competition shall consist of one, or multiple different acrobatic leaps from a prepared jump(s), stressing take-off, height and distance (referred to as "air"), proper style, execution and precision of movement (referred to as "form") and landing. Refer to ICR 4005.2.1 and 4027 concerning competition formats.

6002 Scoring

The competitor's acrobatic skiing will be judged on three basic components as follows:

6002.1 Air:

Consisting of 20% of the score. 0.0 - 2.0

6002.2 Form:

Consisting of 50% of the score. 0.0 - 5.0

6002.3 Landing:

Consisting of 30% of the score. 0.0 - 3.0

6003 Scoring Procedures

6003.1 5 Judge Format

Judges shall independently evaluate the competitor's performance based upon the Air and Form Criteria as stated in JH 6004.1, 6004.2 and the Landing Criteria in 6004.3. The high and low scores of each component will be discarded and the remaining three scores in each component will be added together.

6003.1.1 Total Score

The total Judges' Score is calculated by adding the three counting scores in each component. This total is then multiplied by the appropriate Degree of Difficulty (DD) factor to determine the total score for each jump. The total will be truncated to two decimal places.

In a two jump Phase, the competitor's final score for both jumps is determined by adding together the total scores from each jump.

Example:

Judges Scores						
Take Off & Air	~~1.6~~	1.7	~~1.9~~	1.7	1.8	5.2
Form	4.5	~~4.2~~	4.3	4.4	~~4.6~~	13.2
Landing	2.4	2.3	2.4	~~2.2~~	~~2.5~~	7.1

Total Score (Maximum 30 points x Degree of Difficulty)

Total Judges' Score:	=	25.5
Total Score:	=	25.5 x DD

6004 Judging Criteria

6004.1 Air (20% of the Score) Min. = 0.0 / Max. = 2.0

Air shall be evaluated based upon the take-off, height and distance of the competitor's jump. Take-off involves an evaluation of how the jump is initiated. Height and distance are a product of speed into the jump and the force of the take-off. Take-off, height and distance shall also be evaluated in relation to the length and steepness of the landing hill. The competitor should not land too short (knoll) or too long (beyond the transition area of the landing hill).

Air consists of 20% of the score (maximum 2 points per judge) and will be broken down into two parts:

10% Technical Take-Off

10% Height and Distance

6004.1.1 Technical Take-Off Min. = 0.0 / Max. = 1.0

Technical take-off refers to the manner in which the competitor initiates the jump by extending the body *at* the right moment while leaving the kicker.

Take-off is judged from the moment the competitor enters the transition, until the feet leave the kicker.

6004.1.1.1 Good Take-Off 0.7 - 1.0

Just before the competitor leaves the kicker the body may be fully extended or may have a slight bend in the waist (boots at the end of the kicker). The slight bend in the waist is acceptable as long as the athlete straightens out their body within the first quarter of the flip. The actual position in the jump (tuck, twist, spread, etc.) should not begin before the feet have left the kicker.

6004.1.1.2 Non-optimal Take-Off 0.4 - 0.6

There are different types of mistake:

The competitor does not pop at the right moment (too early or too late), the form starts too early (twisting on the kicker), i.e. the arms are behind the body; shoulders are pushed backward too much; bent in the knees.

Points are deducted according to the number and severity of these mistakes.

6004.1.1.3 Bad Take-Off 0.0 - 0.3

Take-off is completely missed, causing an uncontrolled jump in most cases.

6004.1.2 Height and Distance Min. = 0.0 / Max = 1.0

Height and distance are a product of speed into the jump and the force of the take-off. It shall be evaluated according to the trajectory through the air and the optimum landing point of the kicker (Refer to 6004.1.2.1).

6004.1.2.1 Good Height and Distance 0.7 - 1.0

The trajectory through the air begins at an angle that is continuing the curve of the kicker.

i.e.:	Small Jumps	- about 55°
	Medium Jump	- about 60°
	Large Jumps	- about 71°

The *optimum* landing point should be the range from 2 m to 4 m, including 1 or 2 m plus or minus adjustments away from the knoll.

6004.1.2.2 Non-optimal Height and Distance 0.4 - 0.6

The trajectory through the air is too high or too low. The landing is in the transition area from the knoll to the optimum landing point.

6004.1.2.3 Bad Height and Distance 0.0 - 0.3

The jump is landed on the knoll or on the outrun.

6004.2 Form (50% of the Score) Min. = 0.0 / Max. = 5.0

Form consists of 50% of the score (maximum 5 points per judge).

Form denotes the position of the body, skis, arms, hands, and/or poles while in the air. It is the manner in which the competitor executes each manoeuvre. Form shall be evaluated based upon competitor's precision of performance (i.e. Tightness of body, economy of motion), balance, mechanics, stability (or control) in the air, separation and the timing of the manoeuvre in relation to the apex of the jump. Form is judged from when the competitor's ski tips start to leave the jump until the competitor touches the snow.

All judges will deduct 0.5 from their score for a violation of the balk rule ICR 4022.1.8.

6004.2.1 Positions in the Form

6004.2.1.1 Planned manoeuvres

If the number of planned manoeuvres is not fulfilled (somersaults, twists, 360's, upright positions) resulting in too many or not enough manoeuvres, the competitor receives DNF. **➔Refer to ICR 4025**

Example:

Flight Plan:	Jump Performed:	
Tuck-Tuck	Tuck-Tuck-Tuck	DNF (**ICR 4025**)
Full-Double Full	Full-Full	DNF (**ICR 4025**)

6004.2.1.2 Breakdown of Form deductions

A judge breaks down the form points to the number of manoeuvres (somersaults, 360's, twists, upright positions), and takes off the percentage accordingly if the form in one, two, three, or more parts is missed completely or partially.

Example:

Flight Plan:	*Jump Performed:*	*Value*
Lay-Tuck	Lay-Tuck	max. 5.0
Lay-Tuck	Tuck-Tuck	max. 2.5
Lay-Tuck	Tuck-Lay	max. 0.0
Lay-Tuck	Lay-Lay	max. 2.5
Twister-Twister	Twister-Twister	max. 5.0
Twister-Twister	Twister-Spread	max. 2.5

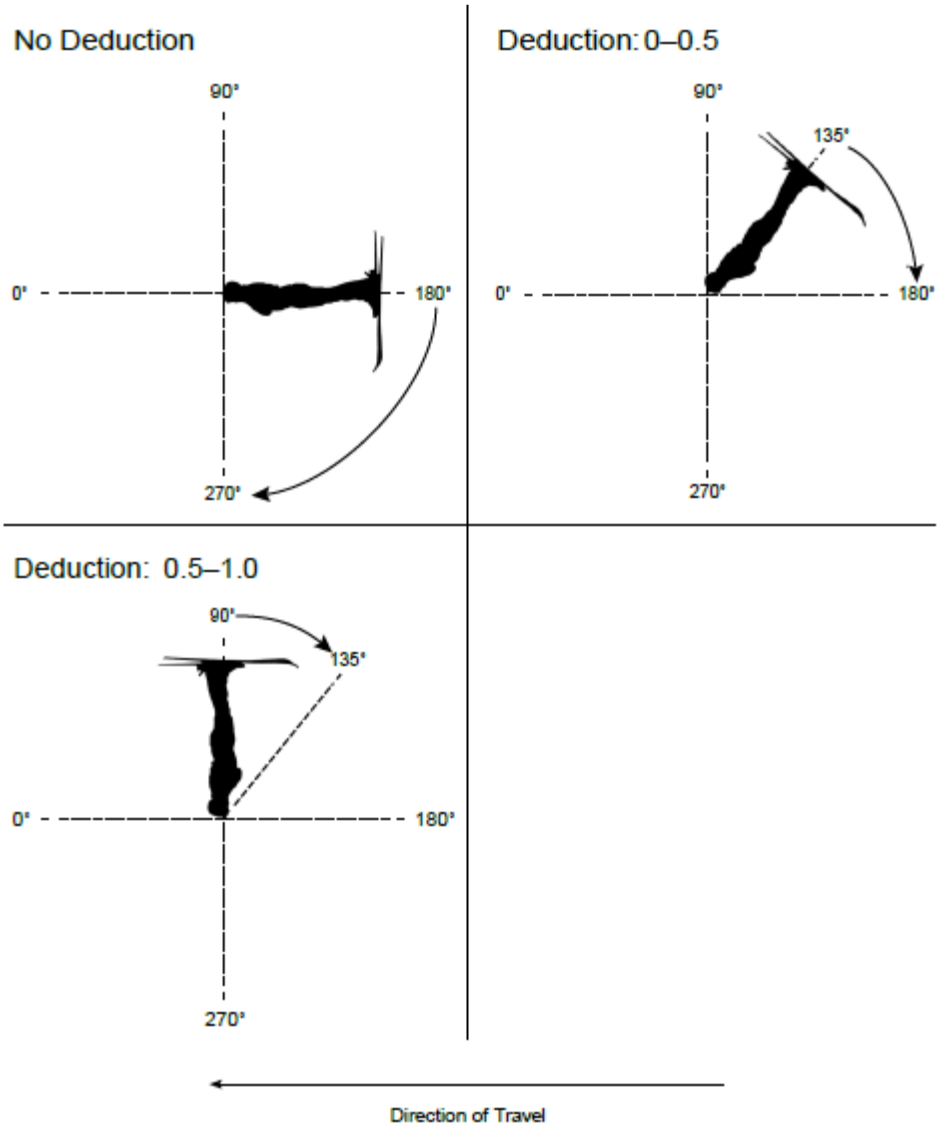
6004.2.2 Form score

Form is evaluated according to two criteria:

Timing and the quality of execution as modified by form breaks.

6004.2.2.1 Timing

6004.2.2.1.1 Early Twist/Tuck/Pike Start



No deduction for early initiation will be made provided that (a) the twist does not begin before the head and body are at the 9:00 position.

6004.2.2.1.2 Late conclusion of twists in Double somersaults (late finish)

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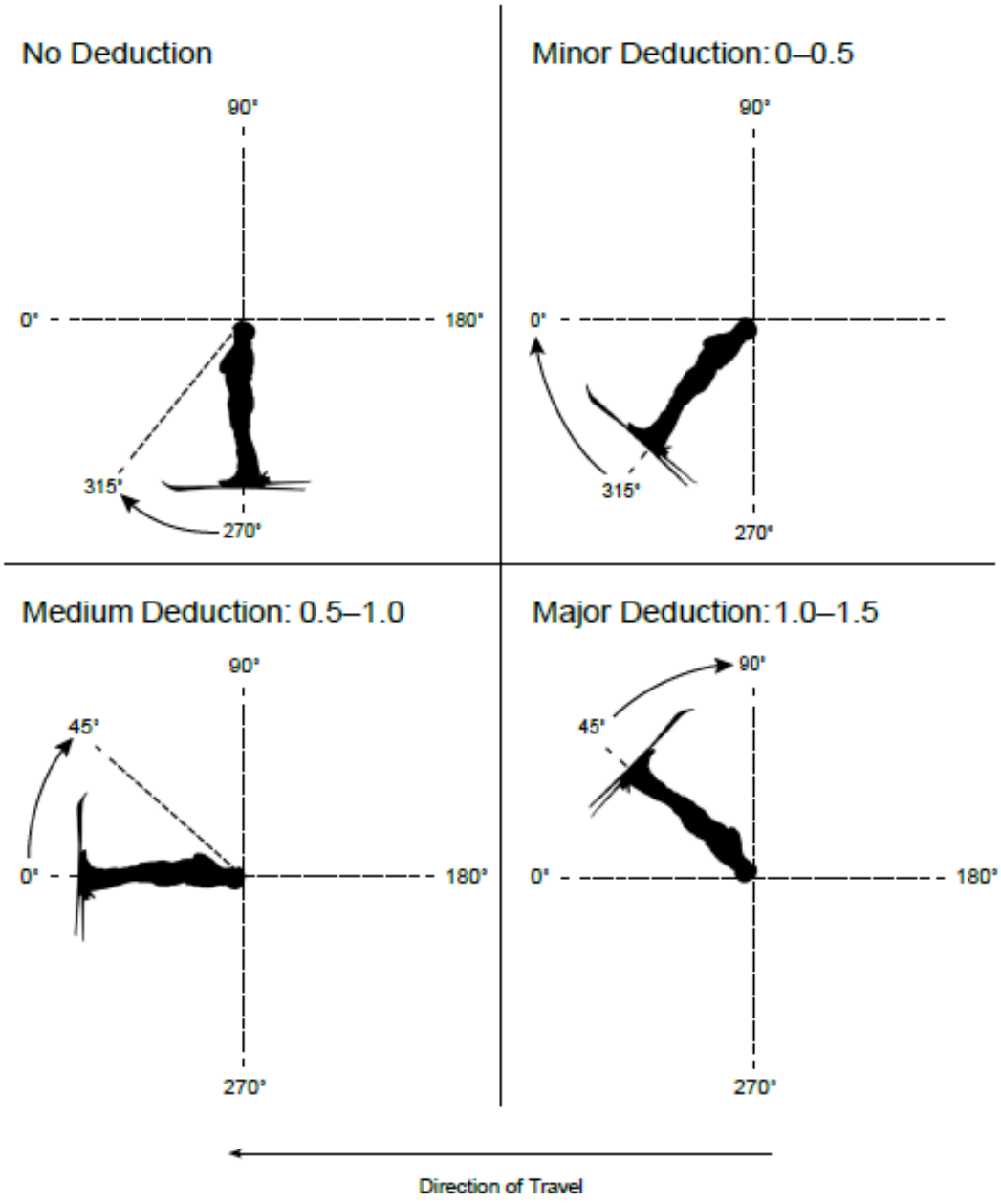
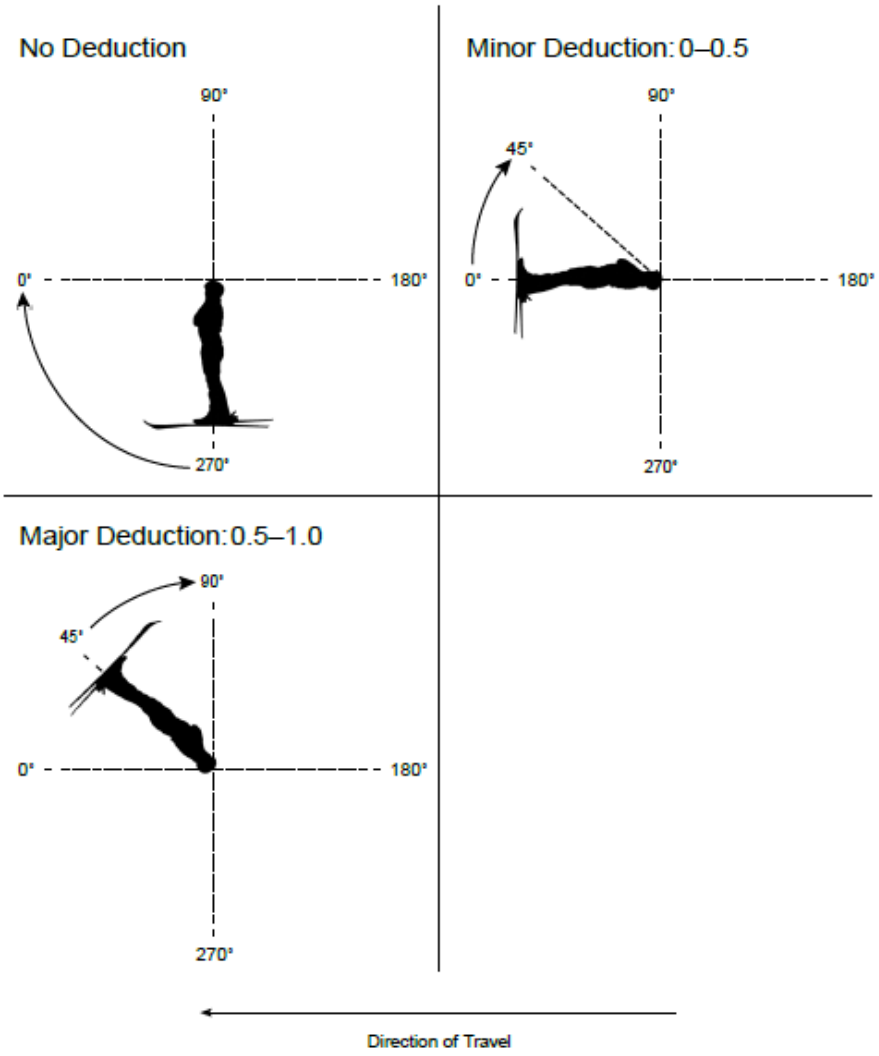


6004.2.2.1.3 Late conclusion of twists in Triple somersaults (Twist finish)



6004.2.2.2 Form Breaks

The following is a guide to use when assessing form breaks:

- Minor form breaks deduct up to 25% of possible form points
- Medium form breaks deduct up to 50% of possible form points
- Major form breaks deduct up to 100% of possible form points

As in take-off, the body should be extended, not only at take-off, but also prior to landing. The amount of deduction depends on whether the form is bad throughout the whole jump or only in parts of the manoeuvre.

For example, Jumps performed with a minor form break in **one** somersault:

	Single Twist	Double Twist	Triple Twist
Form	2.5 - 5.0	1.7 – 2.5	0.9 - 1.7/ 1.6
Deduction	1.2	0.6	0.4
Total	**3.8**	**4.4**	**4.6**

Jump	Form Break / per flip		
	minor	**medium**	**major**
single	0.1 - 1.2	1.3 - 2.5	2.6 - 5.0
double	0.1 - 0.6	0.7 - 1.2	1.3 - 2.5
triple	0.1 - 0.4	0.5 - 0.8	0.9 - 1.7

A guideline to differentiate between minor, medium and major form breaks is as follows:

All definitions of form are based on body positions. All positions have to be in the layout (straight body, no bending, 0°), or tuck or pike (90° bending at the knees, hip) position. The only exception is the puck position (only allowed for half-in and twisting front flips).

Anything with a variation of less than 45° off the required position should be considered minor. Anything with a variation of approximately 45° off the required position should be considered medium. Anything with a variation of clearly more than 45° off the required position should be considered major.

Form break deductions are cumulative. In instances of multiple errors within the same flip, judges should make a distinction between a primary form break and secondary form break. Once a primary form break is identified, it receives a value according to the DDS schematics. Each secondary from break adds a value of 0.1 to the overall value of the deduction.

For Minor and Medium form breaks, the value of deduction depends exclusively on the severity of the mistake (see DDS schematics).

For Major form breaks, the value of deduction depends both on the severity of the mistake (see DDS schematics) and the duration of the incorrect body position. The longer the mistake the higher the value of major deduction.

Take-off deductions are cumulative. Refer to the take off DDS schematics for full details of deductions. In instances of multiple errors at take-off, judges should make a distinction between a primary form break and a secondary form breaks. Once a primary form break is identified, it receives a value according to the DDS schematics for Take-off. Each secondary from break adds a value of 0.1.

Position of hands in a Tuck. There are only two acceptable positions of hands in a Tuck: a) hands reach and touch the shins below the knees, or b) hands reach below the thighs and touch the hamstrings. Any other hands position, for example, touching knees with hands from the top, should receive a deduction of 0.5.

6004.2.2.2.1 Separation

Separation means the competitor is able to clearly demonstrate the beginning and the end of each manoeuvre, i.e. the declared number of twists within each flip. If there are a different number of twists within each flip of the jump, the competitor should clearly demonstrate a change of twisting speed between each of the flips. The hands can help to identify when a twisting manoeuvre is completed but are not necessary to show separation.

Presence of separation, or lack thereof, should not have any significant impact on the criterion of timing. Any particular jump may have clear separation of manoeuvres without proper timing and vice versa: timing criteria can conceivably be satisfied without clear separation.

6004.2.2.2.2 Points to Assess Form Breaks

6004.2.2.2.3 General Body Position (as defined above)

Leg Position	Ski Position	Body Position
• Legs apart • Scissoring • Knee bend	• Skis splayed • Skis apart (tips or tails)	• Pucking • Spiral segmentation • Separation • Arch • Hollow

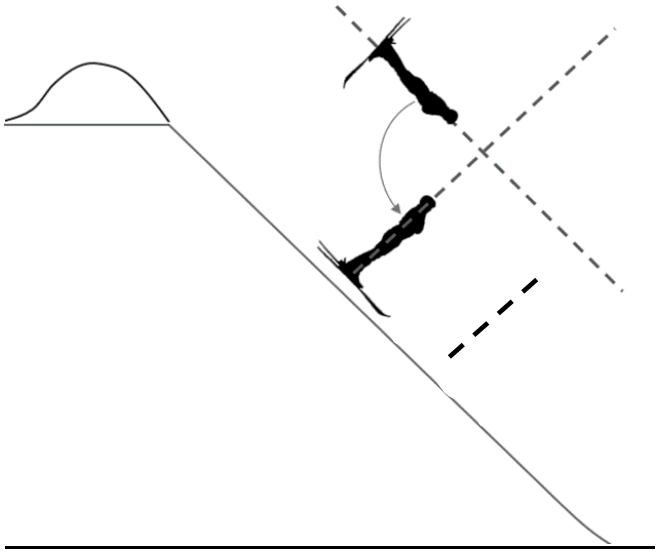
6004.2.2.2.4 Control in Air

Excessive motion to control speed can be pulling and stretching as defined below, and the relative over or under rotation of the flip. Excessive motion can also be exhibited in upright jumps mostly with the arms being used for balance, or to increase or decrease rotational speed and to prevent landing too far forward, backwards or not square to the fall line.

In the case of a Layout position, flipping speed can be increased by pulling the body inward and bending at the knees and waist and neck, or decreased by stretching the body and the arms parallel to the head, both of which could be form breaks.

NOTE:

In the last flip, once the torso reaches 45 degrees to the horizontal plane, a minor pike (bend at the waist) receives no deduction. During this “preparation for landing” the athlete may have a slight bend at the waist (but not the knees) and open the legs (to shoulder width) without being assessed form break deductions. If the bend at the waist is higher than minor (more than 45 degrees) judges should deduct 0.2. All other DDS values apply throughout the duration of the flip, i.e. until touchdown.



6004.3 Landing (30% of the Score) Min. = 0.0 / Max. = 3.0

A proper landing involves a balanced, stable and controlled body position throughout. The competitor should demonstrate precision and grace with minimal interruption upon contact with the landing surface. Absorption should be made primarily with the knees and lower body with only a slight bend at the waist. The evaluation of a landing starts immediately when the competitor touches the snow and continues until the competitor has exhibited sufficient skiing control up to the transition from the landing hill to the finish area.

Landing consists of 30% of the total score (maximum 3.0 points per judge).

Landing consists of two parts

1. Landing - body position in relation to the landing hill following preparation for landing, ski snow contact on impact as well as absorption of the body to come back to the neutral body position.

2. Exit from the landing following the snow contact, impact and absorption.

NOTE:

Preparation for landing is considered in Form.

6004.3.1 Landing Min. = 0.0 / Max. = 3.0

6004.3.1.1 Applicable Ranges for landing

3.0	Excellent landing
2.6 – 2.9	Good balance with little compression
2.1 – 2.5	No touch of hand(s), light imbalance or hard compression on landing or ski away
1.6 – 2.0	No body contact but hand(s) dragging; Hard compression and/or moderate imbalance
1.1 – 1.5	Light back slap or punch front with no body-snow contact, back to skis; severe turn to 45 degrees or more relative to the fall line; turn around on landing hill with no fall or touch; severe imbalance
0.6 – 1.0	Landing with immediate body contact; Hard back slap or punch front with snow contact back to skis; severe over or under rotation
0.1 – 0.5	Minimal weight on skis; Sliding on back or side no return to skies; Immediate crash
0.0	No weight on skis

NOTE:

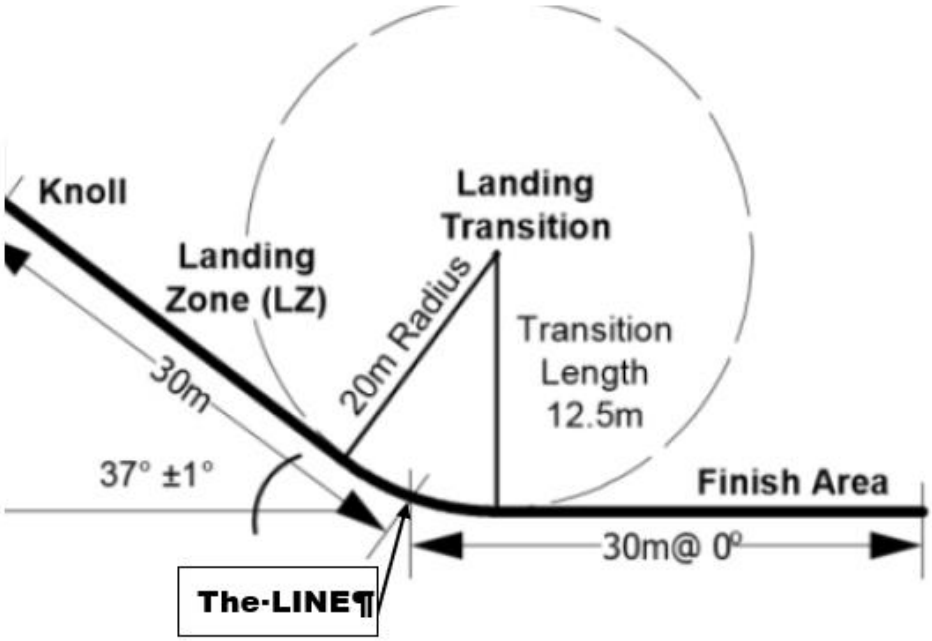
If an athlete has any hand contact, the maximum score is 2.0.

If an athlete has any body contact, the maximum score is 1.5.

An athlete that doesn't touch can receive a score lower than 2.0 for severe imbalance, skiing sideways, circling or backwards.

Landing will be judged from when the athlete makes contact with the snow and will end at the transition from the landing hill to the finish area. Middle of the curve is the LINE.

Bad landing does not necessarily mean a deduction in the form score. A Well executed jump will get an appropriate form score, mistakes on the landing will be reflected in the landing score only. Form deductions have to be based on specific mistakes in the execution of the maneuver.



6004.3.1.2 Applicable Ranges for Water Ramp landing

3.0	Excellent landing
2.6 - 2.9	The centre of mass at touchdown is projected through the centre of the boot, the athlete's body is slightly (10°) leaning forward and hip is bent 10° to 15°, hands are above or slightly below shoulders (it doesn't matter whether hands are in front or to the sides), the skis are 10° - 15° to the water.
2.1 - 2.5	The centre of mass at touchdown is projected through the toes or heels of the boots, the athlete's body is straight or leaning forward up to 45° (short), skis are 0° (flat) – 10° to the water.
1.6 - 2.0	Landing on skis, but the athlete's body is leaning forward (22° - 45 °), twisting is completed, hands are down, knee(s) bent, hips straight, skis are 22° (short) to the water.
1.1 - 1.5	Landing on skis, but the athlete's body is leaning forward or backward 22° to 45°, twisting is short by less than 45°, hands are down or stretching up, bent hips, skies are 45° - 90° to the water.
0.6 - 1.0	Minimum weight on skis (skis are entering the water at an angle of 45° - 90°), the athlete's body is leaning forward or backward 45° to 90°, hands are down or stretching up, bent hips, skis are 90° - 112° to the water.
0.1 - 0.5	Minimum weight on skis (skis are entering the water at an angle of 45° - 90°), the athlete's body is leaning forward or backward by about 90° - 135°, twisting is short by about 90°, hands are down or stretching up, bent hips, skis are 112° - 135° to the water.
0.0	Full fall (135°, over- or under-rotation) with no weight on skis.

NOTE:

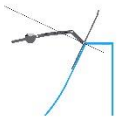
1. Skiers may bend hip about 10° - 15° / slight pike (in a hollow position) to protect their low back.
2. Skiers may use the front of the skis (skis to water = 10° - 15°) to absorb some of the impact.

* See appendix Water Ramp landing criteria drawing

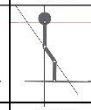
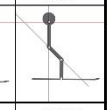
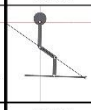
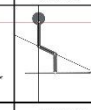
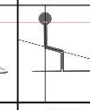
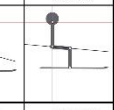
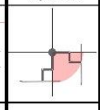
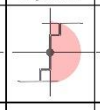
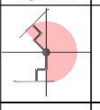
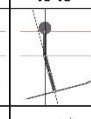
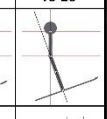
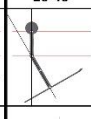
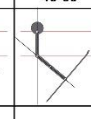
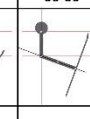
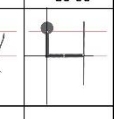
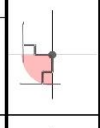
6004.3.2 Tie Breaking Aerials

➔**Refer to ICR 4013.4.2**

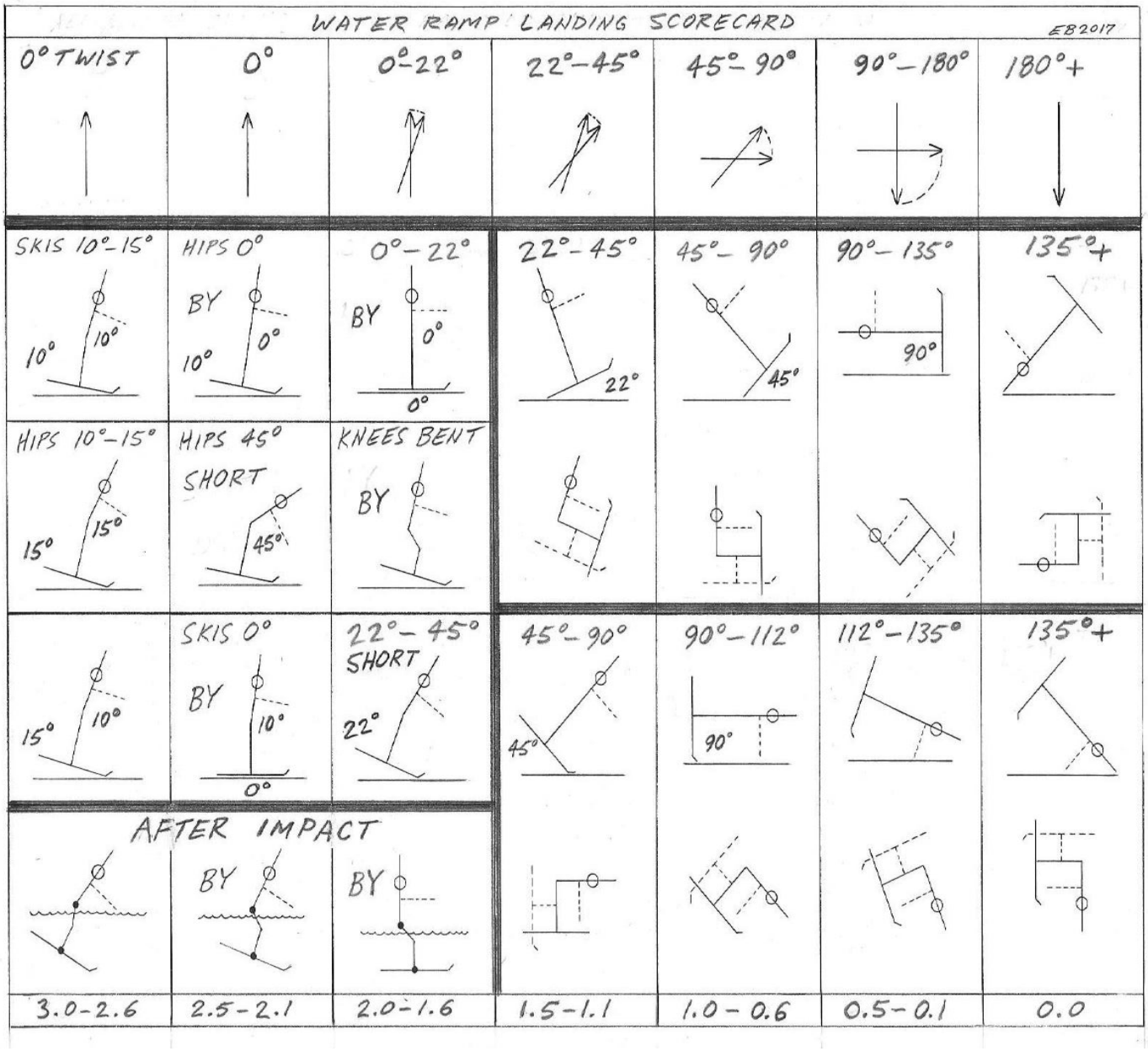
Detail Deduction Scale (DDS) Take off

	Good Take-Off				Non-optimal Take-Off			Bad Take-Off
	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3-.0.0
		20±5°	30±5°	40±5°	50±5°	60±5°	70±5°	
Body Leg								take off completely missed
Body Arch								
Body Pike								

Detail Deduction Scale (DDS) Form

		MINOR				MEDIUM				MAJOR				
point deduction TRIPLE		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9-1.0	1.1-1.2	1.3-1.4	1.5-1.7	
angle		0>20°	20-30°	30-40°	40-50°	50-60°	60-70°	70-80°	80-90°	1quarter	2quarter	3quarter	4quarter	rotation
body leg														I
layout> pike		0-5° 	5-10° 	10-15° 	15-20° 	20-40° 	40-60° 	60-80° 	80-90° 					II
layout> overarched														III
pike position		10°	15°	20°	25°	30°	35°	40°	45°	50°	60°	70°	80°	
tuck position														
ski		0-5°	5-10°	10-15°	15-20°	20-25°	25-30°	30-35°	35-45°					rotation
														I
foot		10 cm	10-20 cm	20-30 cm	30-40 cm	40-50 cm	50-60 cm	60-70 cm	70-80 cm					
														II
point deduction DOUBLE		0.1-0.3		0.4-0.6		0.7-0.9		1.0-1.2		1.3-1.5	1.6-1.8	1.9-2.1	2.2-2.5	

Water Ramp landing criteria drawing



6100 AERIALS SYNCHRO

The Aerials Synchro competition shall consist of synchronized jumps by pairs of competitors.

6102 Scoring

The competitors' acrobatic skiing will be judged with respect to two categories as follows:

6102.1 Synchro evaluation:

Constitutes **60 %** of the Total Score of the jump
(Judges # 5,6,7 – if 7 Judges Format, and Judges # 3,4,5 – if 5 Judges Format)

6102.2 Aerial evaluation (Normal scoring):

Constitutes **40 %** of the Total Score of the jump
(Judges # 1,2,3,4 – if 7 Judges Format, and Judges # 1,2 – if 5 Judges Format)

6103 Scoring Procedures

6103.1 7 Judge Format

Judges for synchro evaluation shall independently evaluate the two competitors' synchronicity as defined in JH 6104. Three scores in each component will be added together.
Judges for Aerial evaluation shall independently evaluate each competitor's performance based upon the Air and Form Criteria as defined in JH 6004.1, 6004.2 and the Landing Criteria in 6004.3. The high and low scores of Aerial evaluation Judges (J1,J2,J3,J4) will be discarded.

6103.1.1 Total Score:

The total Judges' Score is calculated by adding the four Aerial evaluation counting scores dividing them by 2 and then adding the three Synchro evaluation scores in each component, this total then being divided by five and multiplied by three. This Judges' total score is multiplied by the appropriate Degree of Difficulty (DD) factor to determine the total score for each jump. The total will be truncated to two decimal places.

$$Score = \frac{\frac{\sum(Aerial\ Eval\ scores)}{2} + \sum(Synchro\ scores)}{5} \times 3$$

Example:

Aerial Evaluation Athlete #1		Aerial Evaluation Athlete #2		Synchro Judges		
Judge 1	Judge 2	Judge 3	Judge 4	Judge 5	Judge 6	Judge 7
8.6	9.2	8.2	8.8	7.5	8.0	8.5

(8.6 + 9.2 "+ 8.2 + 8.8) – 2 + 7.5 + 8.0 + 8.5 = 41.4
(41.4 -/ 5) x 3 = 24.8

Total Score:
Total Judges' score: 24.8
Total Score: 24.8 x DD

* Example:
In the case where the performed jump was bFF with DD 3.150,
Total Score is 24.8 x 3.150 = 78.12

6103.2 5 Judge Format

Judges for synchro evaluation shall independently evaluate the two competitors' synchronicity as defined in JH 6104. Three scores in each component will be added together.
Judges for Aerial evaluation shall independently evaluate each competitor's performance based upon the Air and Form Criteria as defined in JH 6004.1, 6004.2 and the Landing Criteria in 6004.3.

6103.2.1 Total Score:
The total Judges' Score is calculated by adding the two Aerial evaluation scores and three Synchro evaluation scores in each component, divided by five and multiplied by three. This Judges' total score is multiplied by the appropriate Degree of Difficulty (DD) factor to determine the total score for each jump. The total will be truncated to two decimal places.

Total Score Athlete #1	Total Score Athlete #2	Synchro Judges		
Judge 1	Judge 2	Judge 3	Judge 4	Judge 5
8.0	5.2	6.5	6.0	6.5

8.0 + 5.2 + 6.5 + 6.0 + 6.5 = 32.2
32.2 / 5 x 3 = 19.3

Total Score:
Total Judges' score: 19.3
Total Score: 19.3 x DD
* Example:
In the case where the performed jump was bdFF with DD 3.525,
Total Score is 19.3 x 3.525 = 68.03

6104 Judging Criteria

6104.1 Synchronisation (60% of the Score) Min. = 0.0 / Max. 10.0

Synchronisation shall be evaluated in terms of five categories. In each category, the extent to which the two competitors' performances are synchronized shall be evaluated. Synchro evaluation consists of 60% of score (maximum 10.0 points per judge) and will be broken down into five parts:
20% Take-off
20% Rotation
20% Landing
20% Landing Zone
20% Exit

Within each category, the Judge shall evaluate the performance and award marks according to the following tariff:

Excellent	2.0
Good	1.5
Average	1.0
Poor	0.5
Very poor	0.0

6104.1.1 Take-off Min. = 0.0 / Max. 2.0

Technically synchronized Take-off refers to the manner in which the two competitors initiate the jump by extending the body at the same moment while leaving the kicker. Take-off is judged from the moment the competitors enter the transition, until the feet leave the kicker.

6104.1.1.1 Excellent 2.0
The extension of body, legs and arm position are perfectly synchronized between the two competitors at the moment of Take-off.

6104.1.1.2 Good 1.5
The difference between the two competitors' take-offs is less than 45 degrees.

6104.1.1.3 Average 1.0
The difference between the two competitors' take-offs is from 45 degree to 90 degrees.

6104.1.1.4 Poor 0.5
The difference between the two competitors' take-offs is from 90 degrees to 135 degrees.

6104.1.1.5 Very Poor 0.0
The difference between the two competitors' take-offs is more than 136 degrees.

6104.1.2 Rotation Min. = 0.0 / Max. 2.0
Technically synchronized Rotation refers to the extent to which the two competitors rotate and twist in time with each other.

6104.1.2.1 Excellent 2.0
The two competitors rotate and/or twist at exactly the same time in the air.

6104.1.2.2 Good 1.5
The difference between the two competitors is less than a quarter of 1st somersault in rotation or twist.

6104.1.2.3 Average 1.0
The difference between the two competitors is from quarter to half of 1st somersault in rotation or twist.

6104.1.2.4 Poor 0.5
The difference between the two competitors is from half to the end of 1st somersault in rotation or twist.

6104.1.2.5 Very Poor 0.0
The difference between the two competitors is more than one rotation or twist.

6104.1.3 Landing Min. = 0.0 / Max. 2.0
Technically synchronized Landing refers to the extent to which the two competitors land at the same time. This is assessed by measuring the vertical separation between the two competitors when the first one lands.

6104.1.3.1 Excellent 2.0
The two competitors land exactly at the same time: no measurable vertical separation.

6104.1.3.2 Good 1.5
The difference between the two competitors is less than 1m vertical separation.

6104.1.3.3 Average 1.0

The difference between the two competitors is from 1.1m to 2m vertical separation.

6104.1.3.4 Poor 0.5
The difference between the two competitors is from 2.1m to 3m vertical separation.

6104.1.3.5 Very Poor 0.0
The difference between the two competitors is more than 3.1m vertical separation.

6104.1.4 Landing Zone Min. = 0.0 / Max. 2.0
Technically synchronized Landing Zone refers to the extent to which the two competitors land at the same distance from the knoll and in a straight line below their respective kickers.

6104.1.4.1 Excellent 2.0
The two competitors land at the same distance or with less than 0.5m difference from the knoll and straight below the kickers.

6104.1.4.2 Good 1.5
The difference between the two competitors is from 0.5m to 1m.

6104.1.4.3 Average 1.0
The difference between the two competitors is from 1.1m to 2m.

6104.1.4.4 Poor 0.5
The difference between the two competitors is from 2.1m to 3m.

6104.1.4.5 Very Poor 0.0
The difference between the two competitors is more than 3.1m.

6104.1.5 Exit Min. = 0.0 / Max. 2.0
Technically synchronized Exit refers to the extent to which the two competitors' landings are matched in quality.

6104.1.5.1 Excellent 2.0
The two competitors' quality of landing is within the same category.
Example: Both competitors' landings are Excellent *or* both competitors' landings are Imbalanced (see 6004.3).

6104.1.5.2 Good 1.5
The two competitors' quality of landing is within two categories.
Example: One competitor's landing is Good while the other's is Imbalanced or Hard Compression.

6104.1.5.3 Average 1.0
The two competitors' quality of landing is within three categories.
Example: One competitor's landing is Good while the other's is Dragging hand(s).

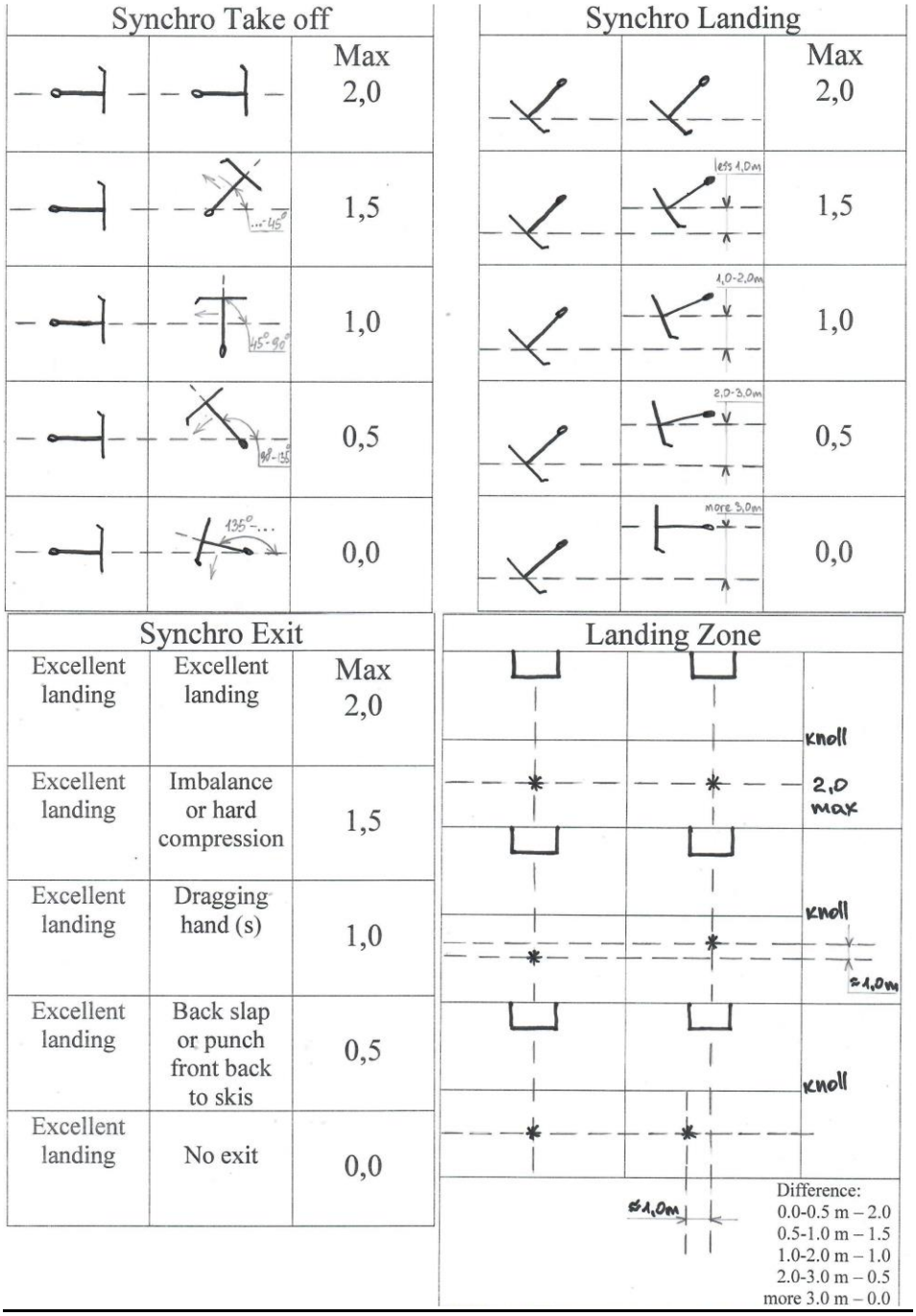
6104.1.5.4 Poor 0.5
The two competitors' quality of landing is within four categories.
Example: One competitor's landing is Good while the other's is Back slap or Punch from back to skis.

6104.1.5.5 Very Poor 0.0
The two competitors' quality of landing is within five categories.
Example: One competitor's landing is Good while the other's is No exit.

6104.2 Aerial evaluation (Normal scoring) (40% of the Score) Min. 0.0 / Max. 10.0

Judges for Aerial evaluation shall independently evaluate each competitor's performance based upon the judging criteria, Air and Form Criteria as stated in JH 6004.1, 6004.2 and the Landing Criteria in 6004.3.

Synchro Aerials criteria drawing



6200 MOGULS

6201 Definition

Mogul competition shall consist of one run of free skiing on a steep, heavily moguled course, stressing technical turns, aerial manoeuvres and speed.

Refer to ICR 4204.1 concerning Qualification and Finals.

6202 Scoring

6202.1 Turns:

Consisting of 60% of the score. ➔ max 60.0 points

6202.2 Air:

Consisting of 20% of the score. ➔ max. 20.0 points

6202.3 Speed:

Consisting of 20% of the score. ➔ max. 20.0 points

For the Speed formula, see ICR 4206.3

6203 Scoring Procedures

6203.1 7 Judge Format

The Judges will evaluate the competitor's performance using a split scoring system as follows:

6203.1.1 Turn Judges

Five Judges shall independently evaluate the competitor's performance based upon the criteria as stated in JH 6204.1 (Turns) and 6204.2 (Deductions). The high and low Turns scores and the high and low Deductions scores shall be discarded and the remaining six scores shall be added together to form the combined score for Turns including Deductions (note that Deductions scores are always negative).

6203.1.2 Air Judges

Two Judges shall independently evaluate the competitors aerial manoeuvre(s) based upon the criteria as stated in JH 6204.3. The scores will be averaged for a total air score and truncated to two decimal places.

Total Air Score = 10.0 (max) x 2 jumps = 20.0 (max) per run

6203.1.3 Time

The speed score shall be calculated according to JH 6204.4.

6203.1.4 Total Score

The average of the two air scores is added to the total of the counting turns/deductions scores to get the competitor's total Judges' score. The speed score shall be added to the total Judges' score to determine the competitor's complete Moguls score.

6203.2 5 Judge Format

The Judges will evaluate the competitor's performance using a split scoring system as follows:

6203.2.1 Turn Judges

Three Judges shall independently evaluate the competitor's performance based upon the criteria as stated in JH 6204.1 (Turns) and 6204.2 (Deductions). The three scores shall be added together.
Total Turns Score = 20.0 x 3 judges = max. 60.0 points

6203.2.2 Air Judges

Two Judges shall independently evaluate the competitor's aerial manoeuvre(s) based upon the criteria as stated in JH 6204.3. The scores will be averaged for a total air score and truncated to two decimal places.
Total Air Score = 10.0 (max) x 2 jumps = 20.0 (max).

6203.2.3 Time

The speed score shall be calculated according to JH 6204.4.

6203.2.4 Total Score

The average of the two air scores is added to the total of the three turn/deduction scores to get the competitor's total Judges' score. The speed score shall be added to the total Judges' score to determine the competitor's complete Mogul score.

6204 Judging Criteria

6204.1 Turns (60% of the Score) Min. = 0.1 / Max. = 20.0

Turns, in terms of judging criteria, refers to a technical evaluation of how well a competitor turns through the moguls. They refer to rhythmic changes in direction of travel to either side of the fall line, utilizing an aggressive, controlled technique. The competitor shall be judged from crossing the start line until crossing the finish line.

Technical considerations

Priorities to evaluate mogul skiing and to develop a 'Turn Base Score' are as follows:

- Carving (40%)
- Absorption/Extension (30%)
- Upper Body (30%)

*Fall line: Judging Fall line see JH 6204.2

Full control must be gained after every jump, resulting in controlled turns. It is important to register the direction of the landing. Air is scored until return to control; turns begin scoring when the initial landing direction has been changed, so the changeover between the scoring of airs and turns judges is when the skis change their initial direction into a turn.

6204.1.1 Fall Line

Skiing in the fall line is considered the shortest way from the Start to the Finish. To avoid deductions for fall line deviations, the competitor must stay in the selected fall line out of the start gate. Competitors will receive score deductions for fall line deviations as noted in JH 6204.2 including drifting in

Air manoeuvres. Landing on the center of the mogul is a deviation from the fall line.

6204.1.2 Carving

6204.1.2.1 General

A pure carved turn is one in which the tail of the ski follows precisely the track made by the ski tip. The upper ski is edged inward at the entrance to the turn, with the competitor's weight placed well forward on that ski. This manoeuvre flexes the ski into a curve whose radius is determined by the angulation of the ski, by its side cut and by the size of the bending moment acting on the ski. The other ski needs to move in the same fashion to produce a similar curve with the weight on its outer edge. Reverse camber of the ski (flex) can also be increased by flexion of the edged ski tip into the face of the mogul or rut.

As shown in the figure below, in a purely carved turn there is no skidding/lateral sliding, and the only snow resistance present is the very small gliding friction between ski base, edge and snow. As a result of this minimal level of friction between ski and snow, the speed reduction of the competitor is optimized and fully under the control of the competitor.

Turn radius should reflect the deflection required in relation to the gradient of the slope. Excessive deflection across the hill impacting the face of a mogul is a form break as it results in excessive braking and poor ski line. Turn shape and deflection should vary according to the spacing between the moguls.

6204.1.2.2 Body Position for Carved Turns

- A properly carved ski requires less effort to work, and gives higher levels of control and stability.
- The turn is initiated with pressure as the knees and ankles/feet roll the skis onto edge and extension begins.
- At the middle of the turn (when the ski is edged and the tip is pointing down the fall-line) the ski tips contact the face of the mogul.
- Absorption is used to maintain balance and control pressure in the skis and should match the shape and size of mogul to optimize snow to ski contact.
- Rotations in the upper legs are minimal, feet remain under the body (shoulders and hips) in both fore-and-aft and lateral planes, and knees remain flexed.
- Legs should be together.
- Breaks in balance and separations in position are inefficient turns.
- Angulation of the lower leg controls the radius of the turn. Timing of the initiation dictates how deep the feet go into the rut.
- Movements should be symmetrical and equal side to side, specifically:

  * Timing and placement of pole plants (double pole plant is a deduction)

  * Arm movements (little movement is preferred but if there is movement it should be equal)
- Shape of turns: do the turns adjust to the gradient of the slope and the size and disposition of the moguls
- Position of the feet in relation to the body (do the feet move further outside the body's midpoint on one turn)

6204.1.2.3 Illustrations / References

Illustration of a purely carved turn

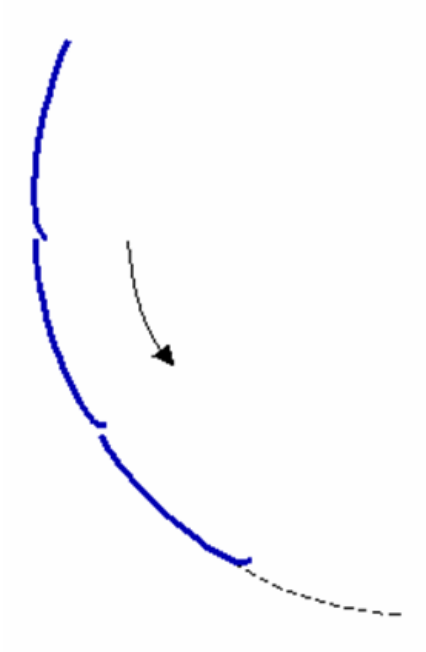
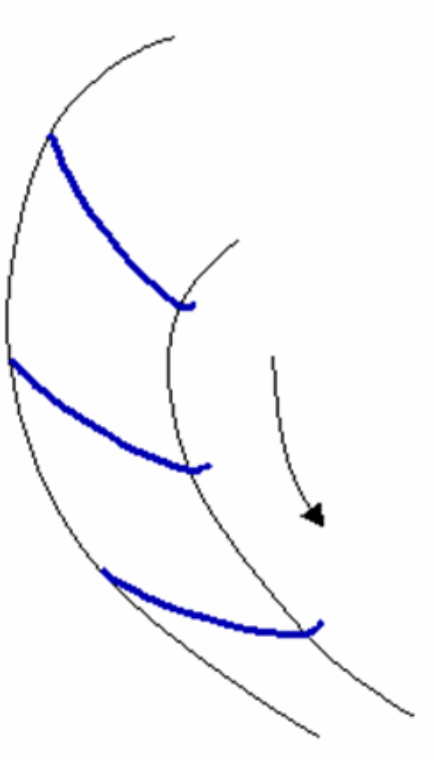


Illustration of a skidded turn by contrast; the figure below illustrates a turn that is executed while skidding or sliding laterally.



The path "swept" by the skis is the result of ploughing the base of the skis through the snow at the face of the mogul. This happens when the competitor turns the skis too sharply into the turn and the ski impacts the face of the mogul on the sidewall and base of the ski, as opposed to the tip of the ski on edge. A skidding ski pivots across the path of the turn.

However, in some cases, a degree of steering or skidding during initiation is unavoidable, but the key is to minimize snow resistance from skidding during the remainder of the turn. This is in order to maintain correct speed control and balance during an accurate carved turn.

6204.1.3 Absorption and Extension

The competitor should follow the shape of the mogul through absorption from the start until the top of the mogul. Extension starts right after the top of the mogul. Extension also follows the shape of the mogul. Pressure between skis and snow should remain the same during absorption and extension, absorbing as the competitor moves up and extending as the competitor moves down. Additionally, the competitor should aggressively utilize the moguls to assist initiation of turns, rather than waiting for the moguls.

6204.1.4 Upper Body

The head should remain still, facing downhill. The chest should also stay straight and natural. Hands stay in front of the body in a natural position. Pole plants should be light and wrist movement goes forward.

6204.1.5 Mogul ranges

Excellent	16.1 – 20.0
Good	12.1 – 16.0
Average	8.1 – 12.0
Below average	4.1– 8.0
Poor	0.1 – 4.0

6204.1.6 Mogul course

At a course with 11 control gates including start and finish gate (each control gate counts 1/10 of the course)

6204.2 Deductions of Turns Points

The “Deductions” category is used for all errors

6.0	Any complete stop
4.1 –5.9	Complete fall without stop or interruption/significant sliding down fall line or across hill to nearly a complete stop
2.9 – 4.0	Hard touchdown or front roll without stop or interruption/sliding significantly reducing downhill momentum
2.1 – 2.8	Medium touchdown without stop
0.1 – 2.0	Light touchdown without interruption, small stumbles, fall line deviations, speed check, double pole plant, shooting

Definitions

- Small stumbles,
- Fall line deviations — refer to JH 6204.2.1
- Speed check
- Significant sliding — Sections of course not skied. Skis are perpendicular to the fall line and are typically sliding with no carving action. (max 2.0 points per gate)
- Shooting — Sections of course not skied. Skis remain flat and track straight down the fall line. (max 2.0 points per gate)
- Light Touchdown: Momentary touch with one or both hands.
- Medium Touchdown: Touch with hips or arm(s).
- Hard Touchdown: Back or side slap, or front roll.
- Complete fall: Full body contact, no weight on skis.
- Complete Stop: A complete stop for any reason.

Notes

1. Competitors lose control and ride the tails of their skis with no turns for 2 full control gates. Competitors may get partial deductions for turning minimally within a section vs making no turns at all in a section (“shooting”)

   Deduction= 4.0 (2.0 x control gates for shooting)

2. Competitors lose their balance after a jump and do a back slap then immediately continue skiing with no fall line break.

   Deductions = 2.9 – 4.0

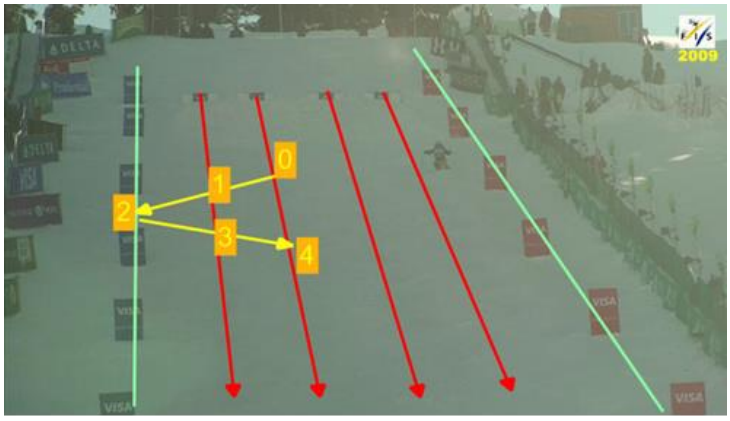
3. Competitors have a complete fall and slide two control gates then come to a full stop, and then continue skiing.

   Deductions = (4.1 to 5.9 range) + 4.0 (2.0 x control gates for not skiing) +6.0

6204.2.1 Other deductions

Deductions in turns points are for specific errors on the course.

Deductions will also be used for deviations from a fall line as noted below:



Fall line deviations (leaving the fall line) are based on the guidelines of a 1.6 deduction for any complete line deviation.

Other deductions may be taken for factors that caused the line deviation.

Fall line deviations may be more or less than a complete line change and will be scored accordingly. A competitor who returns to a fall line immediately after deviating will NOT receive a deduction for a second line deviation. If the line deviation is more than one line, the competitor may return to either line without further deduction. In the image above, the competitor starts at position 0 and deviates to position 2 and would receive a deduction of 3.2 (1.6 x 2). The athlete may immediately return to position 3 or 4 without further deduction.

Deductions = 1.2 + 3.2 + 4.0 = 8.4 ➔ 1.2 for stumble + (2 x 1.6 =) 3.2 (for each complete line deviation) + 4.0 (2.0 x2 control gates for not skiing)

6204.3 Air (20% of the Score) Min. = 0.0 / Max. = 10.0 (per jump)

The scoring of air is broken into two parts, Form and Difficulty. The manoeuvre will be evaluated for form out of 10.0 with a degree of difficulty multiplier, based on the manoeuvre(s) performed.

6204.3.1 Jump groups

Different jump groups in Moguls are listed below (with examples):

1. Flips (somersault) Inverted flips include all jump somersaults. Only single inverted flips are allowed.
2. Loop Include all loop jumps. Only single loops are allowed.
3. Straight Rotations (helicopters/360,720). Straight Rotations include all traditional single and multiple rotations (helicopters/360/720…). A straight rotation manoeuvre can also include up to three (3) position.
4. Off Axis (D-spin, Cork, Loop Full, Rodeo, Misty, Flat spin, Bio) Off Axis includes all traditional single and multiple off axis manoeuvres (360/720…)
5. Upright (Spread Eagle, Kosak, Zudnick, Daffy, Back Scratcher, Mule Kick, Iron Cross, Twister, etc.: Singles - Quints). Upright jumps include all jumps performed in the vertical axis without rotation. These include the traditional upright jumps (twister, spread, daffy etc.). A competitor can perform 1 (single) to 5 (Quint) upright manoeuvres. Any more than 5 will not be counted.

   * Grab, Two jumps that would otherwise be treated as from the same category shall be permissible if one and not the other includes a grab.

6204.3.2 Form

Priorities to judge form and position of the jumps in mogul skiing are set as follows:

First	Quality (Take off, Form, Landing)
	NOTE: Air in moguls will be judged until the competitor is in full control.
Second	Air (Height and Distance)
Third	Fluidity. (Speed check, etc.)
	Fluidity is the ability of the competitor to maintain the rhythm of turns prior to the jump, including the initiation for take-off.

When judging form for all jump groups (uprights, flips, off-axis, etc.) the primary factor for evaluation is the “Purposeful Motion” utilized by the competitor.

Purposeful motion means:

- Athleticism displayed
- Control
- Balance
- Continuity of Motion

All jumps, including traditional jumps (such as uprights and vertical axis rotations) and new jumps (such as off-axis rotations), will be evaluated using the Purposeful Motion criteria.

Maximum raw point allotment: 10.0 for form, with DD max. 10.0 / jump.

Note: Jumps must receive at least 0.1 form points to receive difficulty multiplier.

The height of the jumps should be related to the weight point of the body (not to the head, or top or body).

6204.3.2.1 Axis

Axis will be evaluated as an element of Quality – how the jump was executed and performed. In order to achieve a maximum point value, the manoeuvre must be performed within the defined axis range (see 6204.3.2.2.1, 6204.3.2.2.2 & 6204.3.2.2.3). If the manoeuvre being attempted is not within the defined axis range, the score shall be reduced proportionate to the variation from the defined axis range as an element of quality (see 6204.3.3 POINT GUIDELINE CATEGORY).

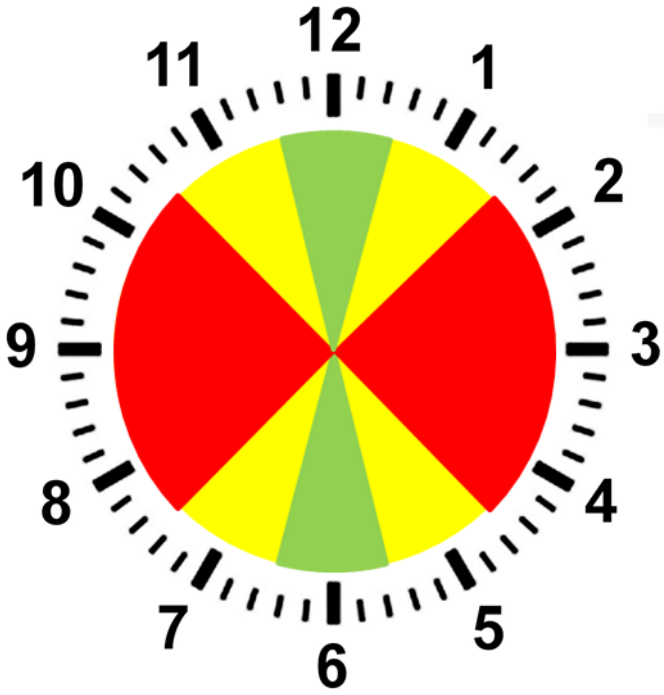
e.g. if all other components of the jump are excellent the Jump will be scored at the highest end of the defined axis range category.

6204.3.2.2 Determining Proper Axis

Axis should always be assessed with relation to the position of the upper body or torso at the apex of the jump.

The legs and feet are not a clear indicator of axis as the lower torso can be manipulated into a position not related to the axis of the manoeuvre simply by bending at the knee. In order to manipulate the direction of the upper body, the athlete must hinge at the waist, altering the axis of the manoeuvre in the process.

6204.3.2.2.1 Proper Axis for Upright and Non-Twisting Inverted Jumps



Score Guidelines

Green Zone

Jump may achieve maximum points – "excellent" category score.

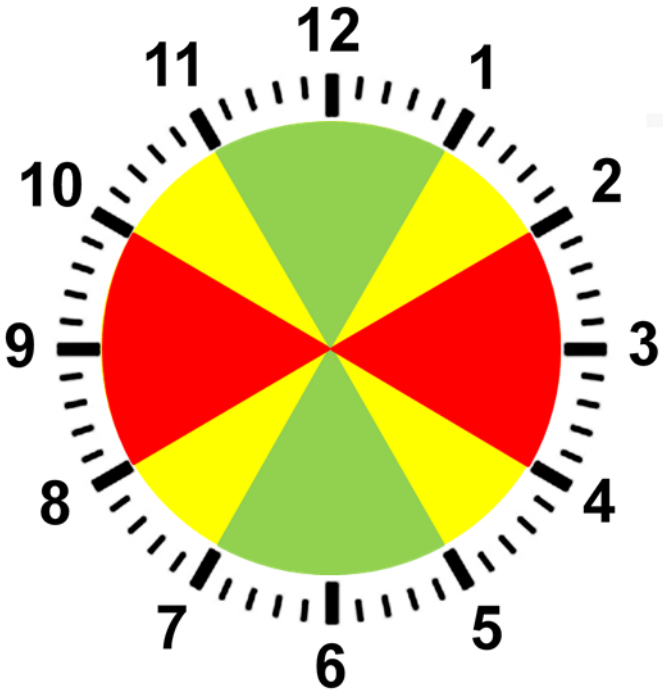
Yellow Zone

Jump may achieve a maximum of a "good" category score (8.0).

Red Zone

Jump should receive a maximum of a "poor" category score.

6204.3.2.2.2 Proper Axis for Inverted Twisting Jumps



Score Guidelines

Green Zone

Jump may achieve maximum points – "excellent" category score.

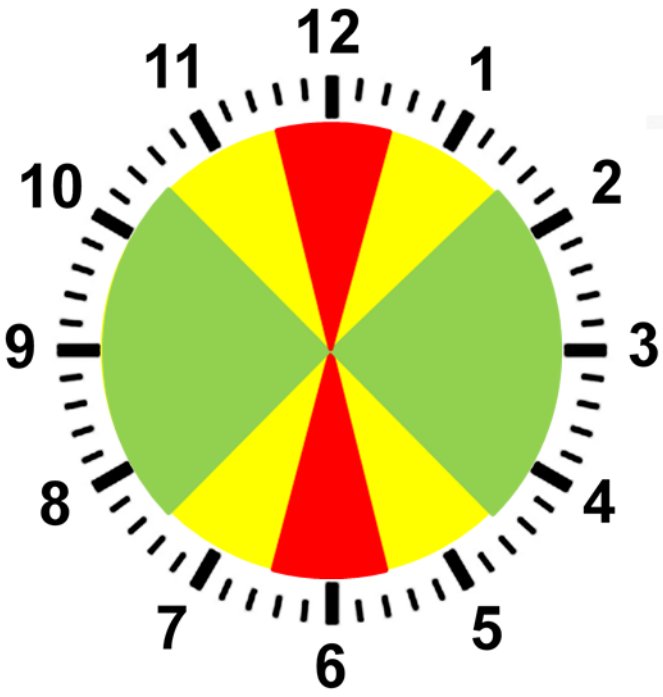
Yellow Zone

Jump may achieve a maximum of a "good" category score (8.0).

Red Zone

Jump should receive a maximum of a "poor" category score.

6204.3.2.2.3 Proper Axis for Off Axis Jumps



Score Guidelines

Green Zone

Jump may achieve maximum points – "excellent" category score.

Yellow Zone

Jump may achieve a maximum of a "good" category score (8.0).

Red Zone

Jump should receive a maximum of a "poor" category score.

6204.3.3 POINT GUIDELINE

Excellent Jump	8.1 – 10.0
Good Jump	6.1 – 8.0
Average Jump	4.1 – 6.0
Poor Jump	2.1 – 4.0
Very Poor Jump	0.1 – 2.0

6204.3.4 Full control

Full control must be gained after every jump, resulting in controlled turns. It is important to register the direction in the landing. Air is scored until return to control; turns evaluation continues when the initial landing direction has been changed, so the changeover between judges occurs when the skis make their initial change of direction into a turn. If there is no change of direction after landing, turn judges shall evaluate the competitors' performance landing until the end of the run.

6204.3.4.1 Falls after Jumps / Deep Landings

- The jump is judged up to a controlled landing.
- If the landing is very poor or completely missed the jump score is affected. The jump may only receive a maximum score of 5.0.
- Falls and touchdowns also affect the turn score.

6204.3.5 Difficulty

Jumps will be identified by a specific code. This code will identify the basic jump group and additional modifiers that make up the difficulty formula.

The difficulty of the upright manoeuvre will be established in accordance with the Difficulty table, using a 'Base DD', enhanced by the values established for the jump components.

6204.3.6 Jump Codes

Moguls jump codes are created by adding individual codes together to form a jump. Each letter code represents a value and these values are added together to calculate the Degree of Difficulty (DD).

- The table of jump codes and Degree of Difficulty values is maintained and published on the FIS web site.

6204.3.7 Jump Modifiers

Jump modifiers, including position, Layout or grab, can be added to permitted jump groups to vary the style of the jump and increase the DD of those jumps.

The following codes can be added to the listed jump groups defined in 6204.3.1.

Modifier	**Code**
• Position	p (flips, loops, straight rotations, off-axis)
• Grab	G (flips, loops, straight rotations, off-axis)
• Layout position	L (flips only)

Up to a maximum of three positins OR one grab OR a layout position can be added to the permitted jumps. (e.g. bp, bpp, bppp, bG, bL, lG, 7op, 7oG, etc…).

Note: Jump modifiers cannot be added to the uprights jump group.

6204.3.7.1 Positions

A “p” shall be assigned to any permitted jump group where obvious and purposeful actions to create a position, or multiple positions are observed. All jumps in the off-axis category will also be assigned a “p” and will be judged accordingly (e.g. 3op, 7op, 10op, 14op).

The position should be assessed in relation to its impact on the performance of the overall jump.
If a position involves crossing the skis, a 90 degree symmetrical cross of the skis clearly displayed to the judges will be assessed as the most ideal display of this position.

Specific Cases

To achieve an excellent score for bp, fp, lp and 3p the position must be purposeful and clearly displayed to the judges in the ideal position described above, with all other elements of the jump assessed in the excellent range. The quality of the performance of the position in these jumps will have a greater impact on the overall assessment of these jumps than other allowed jumps.
In 7op, 10op, 14op, a position is required in the execution of the jump. The position will be assessed in relation to the overall performance of the jump. To achieve in the excellent range a position is required. To achieve in the high excellent range the ideal position should be displayed and all other elements of the jumps should be assessed in the excellent range.

In 7op, 10op, 14op with NO position, no greater than the Average category, maximum score of 6.0.

6204.3.7.2 Grabs

A “**G**” shall be assigned to any permitted jump group where any attempt by the athlete to grab the ski is deemed to be made.
Grabs performed must be identifiable as a Grab and require the athlete to be holding the ski with their hand. A successfully executed grab will be one where the ski is held, presented clearly to the judges, and the judges can see the athletes hand holding the ski.
An attempted grab, a completely obscured grab that is not clearly presented to the judges, a grab of the boot or binding, or a completely missed grab will be coded as a grab, but scored no greater than the Average category, maximum score of 6.0. In scoring an attempted grab, the quality of the overall jump and quality of the grab attempt will be assessed in determining the final score.

Scoring Examples for Grabs:

Excellent Category:

To score in the Excellent Category, the grab must be held, clearly presented to the judges and the remainder of the skill should be performed in way that would be judged in the Excellent Category.

Maximum Good Category:

If a grab can be seen as a grab but is held for a short duration or has limited visibility the maximum score for the jump as a whole will be in the Good Category, assuming the jump as a whole, was high quality. (8.0 or less)

Maximum Average Category:

A grab that is not presented clearly to the judges and cannot be verified by the observation of the hand holding the ski, a grab of the boot or binding, or a near miss with purposeful motion will be assessed with a maximum score in the Average Category (6.0 or less)

Below Average Category or lower:

A grab attempt that is clearly missed, possibly with the hand a long way from the ski or a flailing hand, affecting significantly the overall impression of the jump, or a jump of overall lower quality with a missed grab, will be assessed with a maximum score in the Below Average Category (4.0 or less)

6204.3.8 Repeats

Every competitor must perform two different jumps in order for two jumps to count. If a jump is repeated, only the first scoring jump of the two will count.

Only identically performed jumps will be considered repeated jumps, with the exceptions noted below. "Two different jumps" are defined as:

Inverted Flips: Allow only one (1) jump in this category per run unless there is a different direction in initiation (front vs back), rotation added (straight over jump vs full twisting), or a grab is added.

	Can do	**Can't do**
First Jump	back full bL	back full
Second Jump	front tuck bG	back half

Loop: Allow only one (1) jump in this category unless a grab is added.

	Can do	**Can't do**
First Jump	loop pike	loop pike
Second Jump	loop with grab	loop with position

Off Axis: Allow the same jump if there is a different secondary axis of rotation by at least 360 degrees, or a grab is added.

	Can do	**Can't do**
First Jump	7op 7op	7op
Second Jump	3op 7oG	7op

Straight Rotations: If two (2) jumps are done from this category they must differ by 360 degrees or more, or grab is added.

	Can do	**Can't do**
First Jump	360 360	720 with Grab (Mute)
Second Jump	720 360 with grab	720 with Grab (Tail)

Upright : Must have a different number of moves (i.e. double spread, triple twister), or add a grab.

	Can do	**Can't do**
First Jump	TST	T DTS
Second Jump	TS	S TTT

6204.3.9 Exceptions and Notes:

1. When grabs are performed in jumps, all grabs are considered to be the same for purposes of the repeat rule. For example, a 360 mute grab is a repeat of a 360 tail grab. All Grabs are classified as the same manoeuvre : a 720 off axis with 2 grabs is a repeat of another 720 off axis with 2 different grabs.
2. When positions are performed in flips, loops, or vertical or off axis rotational manoeuvres, the location of the position within the jump does not change the jump
3. Two off-axis jumps are considered to be repeats unless there is a different secondary axis of rotations by at least 360 degrees.
4. Positions with grabs or any attempt to grab are considered to be grabs for the purpose of this rule.

6204.4 Speed (20% of the Score) Min. = 0.0 / Max. = 20.0

Speed is simply the amount of time taken to complete the run. Time shall be taken from the moment that the competitor leaves the starting gate until they cross the finish line. The points awarded for speed will be called time points and calculated.

➔**Refer to ICR 4206.3**

6204.5 Tie Breaking Moguls

➔**Refer to ICR 4207.3**

6300 DUAL MOGULS

6301 Definition

The Dual Mogul competition shall consist of elimination rounds where pairs of competitors compete against each other. The winner of each round advances to the next round until a final result is achieved. The competition will take place on a steep, heavily moguled course, stressing technical turns, aerial manoeuvres and speed.

6302 Pairings

➔**Refer to ICR 4312**

6303 Event Procedures

In Dual Mogul Format, each judge shall determine which competitor more fully exhibits the requirements set forth in Rule JH 6204, Judging Criteria for Moguls, and indicate such selection by the Dual Mogul system, corresponding to the course on which such competitor competed.

The winners of each round move on to the next round until the final placing is determined. See JH 6304 for additional event procedures.

6304 Judging Procedures

6304.1 Judging Criteria

The judging criteria used in the dual mogul elimination format shall be the same as set forth in Rule JH 6204.1 "Turns" and Rule JH 6204.3 "Air". “Speed” is a score based on the competitors’ time difference at the Finish line (see JH 6304.3.4 for classic DM and rule JH 6304.4.3 for Direct Comparison DM).

6304.2 Judging Formats

There are two judging formats, Classic Scoring JH 6304.3 and Direct Comparison Scoring JH 6304.4.

6304.2.1 5 Judges Format

A panel of five (5) judges shall administer scores based upon specific duties for each judge as follows:

	Classic	**Direct Comparison**
TURNS	2 Judges	3 Judges
AIR	1 Judge	2 Judges
SPEED	1 Judge	Data system
OVERALL PERFORMANCE	1 Judge	

Judge	J1	J2	J3	J4	J5	Data
Classic	Turns	Turns	Air	Speed	Overall	
Compare	Turns	Turns	Turns	Air	Air	Speed

Speed is a score based on the competitors' time difference at the Finish line (see JH 6304.3.4 for Classic DM and rule JH 6304.4.3 for Direct Comparison DM).

6304.2.2 7 Judges Format

A panel of seven (7) judges shall administer scores based upon specific duties for each judge as follows:

	Classic	**Direct Comparison**
TURNS	4 Judges	3 Judges
AIR	2 Judges	4 Judges
SPEED	1 Judge	Data system
	(Turns Tie Break)	

Judge	J1	J2	J3	J4	J5	J6	J7	Data
Classic	Turns	Turns	Turns	Turns	Air	Air	Speed*	
Compare	Turns	Turns	Turns	Air A	Air A	Air B	Air B	Speed

* Speed is a score based on the competitors' time difference at the Finish line (see 6304.3.4 for Classic DM and 6304.4.3 for Direct Comparison DM). The Turns score delivered by the Speed Judge shall be used only for the purpose of tie breaking within the provisions of Tie-Breaking 7 Judges Dual Mogul Format (ICR 4307.2.2.2).

6304.3 Classic Scoring

6304.3.1 Each judge will have a total of five possible votes to cast, with possible combinations of 5-0, 4-1, 3-2, 2-3, 1-4, or 0-5, for the red course vs. the blue course. This results in 35 or 25 possible votes to be cast as follows:

7 Judges		**5 Judges**	
Turns #1:	5 votes	Turns #1	5 votes
Turns #2:	5 votes	Turns #2	5 votes
Turns #3:	5 votes	Air	5 votes
Turns #4:	5 votes	Speed	5 votes
Air #1:	5 votes	Overall	3 votes Turns, 1 vote Air, 1 vote Speed
Air #2:	5 votes		
Speed:	5 votes		
Total:	**35 votes**		**25 votes**

6304.3.2 If both competitors finish and are tied on Speed, each competitor shall be awarded half of the Speed votes, resulting in a score of 2.5-2.5 (7 Judges) or 3-3 (5 Judges).

6304.3.3 The winner of each match will be the competitor who received a simple majority

The result will be written in the protocol and announced immediately.

6304.3.4 Time Differential for Speed (Classic DM)

After the time difference between the competitors has been calculated, votes will be awarded as follows:

- time difference less than or equal to 0.74 seconds: 3/2
- time difference between 0.75 and 1.49 seconds: 4/1
- time difference equal to or greater than 1.5 seconds: 5/0

6304.3.5 Tie Breaking - Classic Scoring

6304.3.5.1 Tie Breaking 5 Judge Format

No ties are possible in the 5 Judges Dual Mogul Format. If there is a tie in Speed, the 6 votes available for Speed are split evenly as per 6304.3.2, maintaining the total number of votes at 25. If there is a tie in Air (or neither competitor jumps), the 6 votes available for Air are not awarded, leaving the remaining number of votes at 19. If there is a tie for both speed and air, the total number of votes is still 19. In all cases, an odd number of votes means no tie is possible.

6304.3.5.2 Tie Breaking 7 Judge Format

➔Refer to ICR 4307.2.2.2

6304.4 Direct Comparison Scoring

Each competitor, on either the blue course or red course will get a final score from 0 to 100 points based upon each judge's determination of winning score, with Turns scores according to 6304.4.1, Air scores according to 6304.4.2 and the values provided by the speed points formula (6304.4.3).

The higher score wins.

Turns:	maximum 50 points
Air:	maximum 25 points
Speed:	maximum 25 points
Total:	maximum 100 points

6304.4.1 Turns (50% of the final score)

6304.4.1.1 3 Judges score Turns based upon either the 5 Judges or 7 Judges format.

Each Judge provides a score from 0 to 20 points to each competitor. Scores will be whole numbers and tenths. Judges follow the Moguls criteria and use the range for scoring.

Each Turns Judge must first determine a winner for each pairing. There can be no ties: the competitors' scores must be different.

6304.4.1.2 Turns Scoring Procedures

The scoring procedure for each judge in each round has 3 steps:

Step 1: Determine a winner on the blue or red course.

Step 2: Give a score to the winner using the Range (JH 6304.4.1.3)

Step 3: Give a lower score to the other competitor based on a difference of the points when comparing the two competitors.

The three (3) Turns scores are averaged and then multiplied by 2.5 to get the total score out of 50 points for each competitor.

6304.4.1.3 Turns Range & Deduction Values

6304.4.1.3.1 Range for Scoring Turns:

Excellent	16.1 – 20.0
Good	12.1 – 16.0
Average	8.1 – 12.0
Below average	4.1 – 8.0
Poor	0.1 – 4.0

6304.4.1.3.2 Deduction Indications:

Judges are not required to document and calculate on score card the various deductions that occur for each skier within a dual.

However, judges must take the various mistakes and deductions (as indicated in section 6204.2 & 6204.2.1) into consideration when determining a turn score for each competitor as indicated in step 2 & 3 of section 6304.4.1.2 listed above.

6304.4.2 Air (25% of the final score)

Air scoring follows the same criteria as single Moguls competition. Air judges give a score to each independent jump from 0 to 10 points and a Dual Moguls Degree of Difficulties Table is used. Maximum score for Air for each competitor is 2 times 12.5 (for jump 1 and jump 2), giving up to 25 points.

6304.4.2.1 Air Judges Scoring Procedures

Depending on the 5 or 7 Judges format, the first group of Air judges scores independently the Blue Top / First Air and the Red Bottom / Second Air. A second group of Air Judges scores Red Top / First Air and Blue Bottom / Second Air.

6304.4.2.2 Air Judges assignment: 5 Judges format

J4 scores: Blue Top Air & Red Bottom Air

J5 scores: Red Top Air & Blue Bottom Air

6304.4.2.3 Air Judges assignment: 7 Judges format

J4 & J5 score: Blue Top Air & Red Bottom Air

J6 & J7 score: Red Top Air & Blue Bottom Air

6304.4.2.4 Air Scoring System

The score system is the same as the single Moguls format. (JH 6204.3)
Each jump is given a score of up to 10 points. The Degree of Difficulty Table (DD) for Dual Moguls is used. The Dual Moguls DD Table is maintained and published on the FIS web site. In principle, the Single Moguls format DDs are used with a multiplication of 1.25 to get each Jump scored up to 12.50 points from 10.00 points.
Each Air Judge shall enter the score for Jump 1 and the score for Jump 2 (0 to 10 points) and the jump code.
In the case of 7 Judges format, the average score of each panel (J4-J5 and J6-J7) will provide the score for each jump (0 to 10 points) before using the jump code.

6304.4.3 Speed (25% of the final score)

The Speed score is calculated based upon the difference in time between the runs and then converted into points. After the time difference between the competitors has been determined, Speed points for each competitor will be awarded as follows:
Faster competitor gets: 25 speed points
The slower competitor gets: 24.50 speed points minus 0.025 points for every hundredth (1/100) of second time difference, with a minimum score of zero.
Formula for slower competitor's score = 24.50 – (time difference in 1/100ths of a second x 0.025), with all negative results converted to 0.00.

In case of a Speed tie, both competitors get 25 points.

6304.4.4 Tie Breaking – Direct Comparison Scoring
➔Refer to ICR 4309.2.3.2

6305 Special Procedures: Dual Moguls

6305.1.1 Number of Aerial Manoeuvres
All courses will be two jump courses for international competitions. The recommended number of aerial manoeuvres shall not restrict the competitor to the stated amount, but represents the number of aerial manoeuvres that will receive an evaluation.

6305.1.2 Jumps evaluation for Classic Scoring
Air Judges evaluate jumps based on the scoring criteria from single moguls (Quality, Air and Fluidity), as well as difficulty and variety. Competitors may repeat jumps but judges will consider variety in comparing the two competitors. Variety reflects a different number of manoeuvres and different types of manoeuvres. A competitor who repeats (identically) the same manoeuvre during a run will receive a deduction of two (2) votes per Air Judge; A competitor who performs two different manoeuvres from the same scoring Category will receive a deduction of one (1) vote per Air Judge. Scoring category as defined in 6204.3.8 – single moguls repeat rule.

6305.1.2.1 Degree of Difficulty evaluation for Classic Scoring

As part of the evaluation of jumps in Duals, Air Judges must take into account the Degree of Difficulty of the jumps performed.

Possible Examples for factoring Degree of Difficulty into jump scoring:

1) Both athletes perform similar difficulty skills at a similar execution: Judge allocates score 3-2 to the better performer.
2) Both athletes perform both jumps at a similar execution, but 1 athlete performs one jump of a higher degree of difficulty: Judge allocates score 3-2 to the higher DD performer.
3) Both athletes perform both jumps at a similar execution, but 1 athlete performs both jumps at a higher degree of difficulty: Judge allocates score 4-1 to the higher DD performer.
4) One athlete performs both jumps at a good execution but low difficulty, the other athlete performs both jumps at a high degree of difficulty but slightly lower execution: Judge allocates score 3-2 to the higher difficulty performer depending on the difference in quality of execution.

5) One athlete performs both jumps at excellent execution but low difficulty, the other athlete performs both jumps at very low-quality execution but very high difficulty: Judge allocates score 3-2 to athlete with excellent execution.

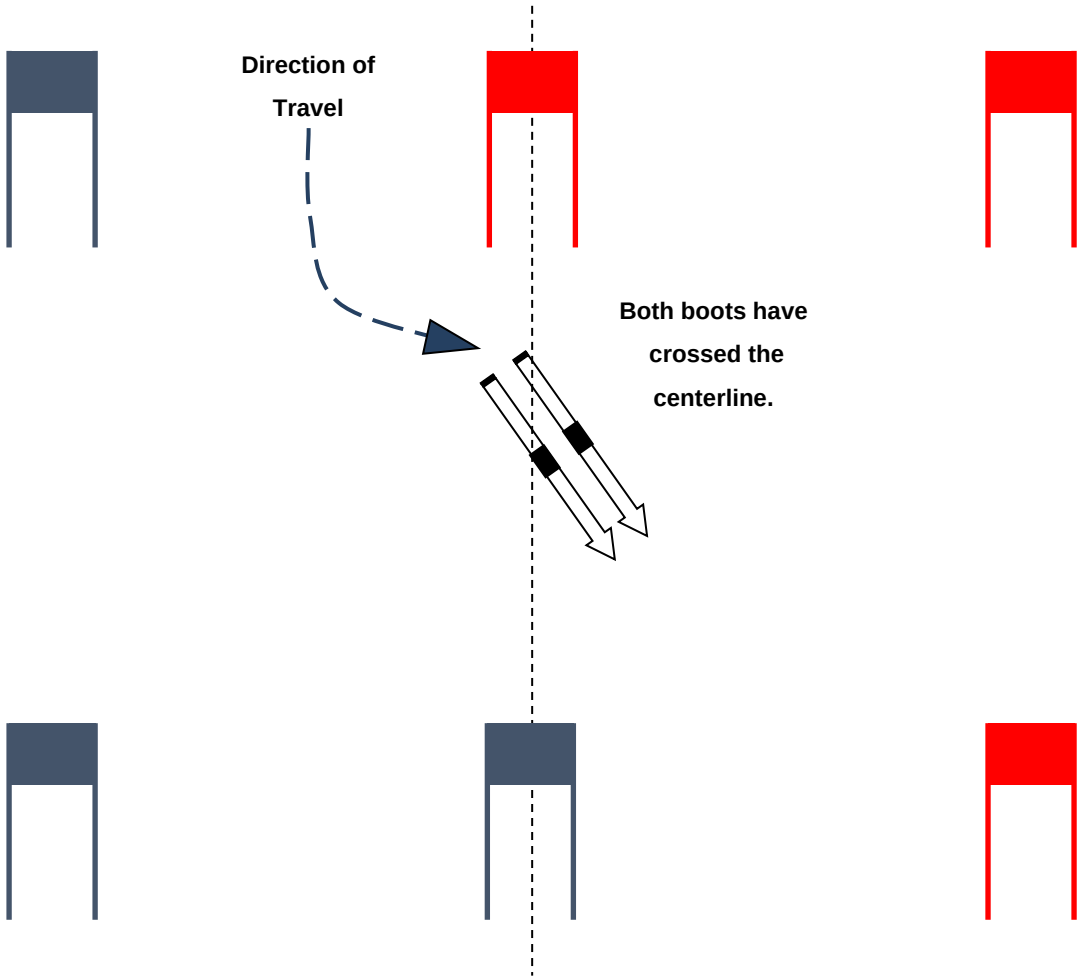
6305.1.3 Jump evaluation for Direct Comparison Scoring

If a jump is repeated, only the first scoring jump of two will count. (refer to 6204.3.8)

Crossing the centre line (DNF)

A competitor has crossed the centre of the dual mogul course when both feet have completely crossed over the centre line and into the opposing course

See diagram below:



Appendix A:

General Description of Jump Definitions

1. Basic Jump Definitions

Centre of Balance	Is located at the centre of mass, where the three axes intersect.
Balance Point	Is where the forces on the body are equal to the forces created by the dynamic body actions.
Body Segments	The body is divided into several sections; the upper body and lower body are two of the major segments.
Vertical Axis	Runs from the top of the body to the feet, through the balance point.
Horizontal Axis	Runs from side to side, through the balance point.
Lateral Axis	Runs from the front of the body to back of the body, through the balance point.
Tilted	One or more of the axes of rotation are less than 90 degrees to the direction of the rotation.
Off Axis	The rotation around the primary axis is tilted off of the axis.
Direction of Travel	The primary direction of travel is in the horizontal plane and through the balance point. There are lateral movements around the body segments during flexion and extension.
Plane	There are three planes which the body passes through during dynamic movement: the vertical plane, lateral plane and horizontal plane.
Flexion	decreasing the angle between the joint or body segments.
Extension	increasing the angle between the joint or body segments.
Rotation	increasing or decreasing the different angles between the body segments.
Degrees of Rotation	The number of rotations or part of rotations around an axis expressed in degree of rotation.
Primary Axis	the body actions to rotation on the first axis.
Secondary Axis	the body actions to rotation on an additional axis.
Grabs	With the body action of a flexion, a section or part of the ski is grabbed by the hand or hands.
Holds	With the body action of a flexion, a section or part of the ski or skis are grabbed by one or more hands and then held for a duration.

2. **Back Flip:** One complete rotation in the backwards direction around the horizontal axis.

Back Tuck: The take-off is initiated both upwards and backwards which starts A primary rotation on the horizontal axis. The upper and lower body then extends. There is a flexion at the waist between the upper body and lower body to the tuck position. The body rotates backwards a total of 360 Degrees, then the skiers extend and prepares for the landing.

Back Layout: The take-off is initiated both upwards and backwards which starts a primary rotation on the horizontal axis. The upper and the lower body extends. The body rotates backwards a total of 360 degrees, then the skier flexes and prepares for the landing.

Pike: A body action that starts from an extended position then there is a flexion at the waist, with legs being kept straight.

Free Position: Could also be called the 'puck' position which is in-between a layout and a tuck position, mainly seen in off axis rotations.

Half Twist: A 180° rotation of the body around its vertical axis in a "free" position, except in the half out movement the body must be laid out.

Twisting: Rotation around the primary and or the secondary axis. All twists (including multiple twists in one somersault) are performed in a layout position.

Back Full: The take-off is initiated both upwards and backwards which starts a primary rotation on the horizontal axis. An additional axis of rotation on the vertical axis is initiated with the rotation of the upper body. The upper and lower body then extends straight. There is a full extension at the waist between the upper body and lower body continues on both axes.
The body rotates backwards a total of 360 degrees on the primary axis and rotates 360 degrees on the secondary axis, then the skiers extends and prepares for the landing.

Double Full: The take-off is initiated both upwards and backwards which starts a primary rotation on the horizontal axis. An additional rotation on the vertical axis is initiated with the rotation of the upper body. The upper and lower body then extends straight. There is a full extension at the waist between the upper body and lower body continues on both axes.
The body rotates backwards a total of 360 degrees on the horizontal axis and 720 degrees on the vertical secondary axis, then the skiers extends and prepares for the landing.

3. **Front Flip:** One complete rotation in the forward direction around the horizontal axis.

Front Tuck: The takeoff is initiated both upwards and forwards which starts a primary rotation on the horizontal axis. The upper and lower body then flexes. There is a flexion at the waist between the upper body and lower body to the tuck position. The body rotates forwards a total of 360 degrees, then the skier extends and prepares for the landing.

4. **Side Flip:** One complete rotation, in the sideways direction around the lateral axis.

Loop: The takeoff is initiated both upwards and sideways which starts a primary rotation in the lateral axis. The upper and lower body then extends either straight on into the free position and rotates. The body rotates a total of 360 degrees, then the skier flexes and prepares for the landing.

Loop Full: The take-off is initiated both upwards and sideways which starts a primary rotation in the lateral axis. The upper then also starts to rotate on the secondary vertical axis, then extends into the free position. The body rotates a total of 360 degrees in the lateral axis and 360 degrees in the vertical axis. Then the skier flexes and prepares for the landing.

5. **360:** One complete rotation around the vertical axis with a straight body position.

360: The takeoff is initiated both upwards and vertically which starts a primary rotation in the vertical axis. The upper and lower body then fully extends straight and rotates. The body rotates a total of 360 degrees, then the skier flexes and prepares for the landing.

720: The takeoff is initiated both upwards and vertically which starts a primary rotation in the vertical axis. The upper and lower body then fully extends straight and rotates. The body rotates a total of 720 degrees then the skier flexes and prepares for the landing.

1080: The takeoff is initiated both upwards and vertically which starts a primary rotation in the vertical axis. The upper and lower body then extends and rotates. The body rotates a total of 1080 degrees the skier then flexes and prepares for the landing.

6. **3o:** The takeoff is initiated both upwards and tilted vertically which starts a primary rotation (off axis) in the vertical axis. The upper body leads and lower body then contracts and follows the rotate. The body rotates a total of 360 degrees, then the skier may extends and then flexes and prepares for the landing.

7o (general): The takeoff is initiated both vertically and upwards or vertically and downwards which starts a tilted primary rotation off of the vertical axis. The upper body rotates in the direction of travel and lower body follows. Then the body flexes into the free position and continues to rotate. The body rotates and rolls a total of 720 degrees. The skier then flexes and prepares for the landing.

Cork7: The takeoff is initiated both vertically, upwards and to the side which starts a tilted primary rotation off of the vertical axis. The upper body leads and lower body follows then flexes into the free position and continues to rotate. The body rotates and rolls a total of 720 degrees. The skier then flexes and prepares for the landing.

Misty 7: It starts with forward rotation on the horizontal/ diagonal axis (where the horizontal axis is primary axis and the vertical axis is secondary axis) there is a full twist and half completed. Look for the rotation so that the head goes down and under while the hips go over the horizon.

Rodeo 7: The takeoff is initiated both vertically, upwards and to the side which starts a tilted primary rotation off of the vertical axis to 180 degrees and moves into the free position (back is facing downhill). The upper body leads and lower body follows then continues to rotate 540 degrees. The skier then flexes and prepares for the landing.

7. Grabs:

GRABS ('**G**') shall be assigned to any grabs on ski(s).

Safety: The body in Puck Position, a hand come and holds the same side ski, just under the boot.

Liu Kan: It's a safety grab with the free leg straight. One hand holds the same side of the ski, just under the boot. At the same time the other leg is straight.

Japan: A hand goes from the back to take the opposite ski by its inside just behind the boot.

Mute: In a cross skis position, a hand takes the opposite ski near the front binding and pulls it up. At the same time the back of the skier is in an extended position.

Tail: In a cross skis position, a hand takes a ski behind the binding and pushes it to the external side.

Truck Driver: The body is in a Pike position with legs straight. Both hands pull the two ski tips with one tip in each hand. It's like the skier has a wheel in one's hands.

8. Upright Manoeuvres

Spread Eagle: After take-off the outstretched arms and legs are extended out to the sides away from the body. The legs should be spread to form a minimal angle of 90° when viewed from the front. The skis should be parallel to each other (tails and tips equally spread) and 90° to the body. The upper body should remain straight and upright without any noticeable forward bend at the waist.

Zudnik: A Nordic type jump in which the upper body is bent roughly 90° at the waist by bringing the upper body forward and down and the lower body forward and up. The toes rise up towards and in the vicinity of the competitor's chin. The skis should remain close together and parallel and the head remains upright.

Twister: The skis are twisted a minimum of 90° to the fall line. The skis should remain parallel to each other, together and 90° to the body. The hands and arms may move to counter the twisting of the skis.

Daffy: After take-off, one leg should be brought up and forward while the other leg is simultaneously brought backwards and up, resulting in a 180° split position in which the front ski is parallel to the back ski, skis pointing straight up and down.

Back Scratcher: The skis' tails are brought back and up to a minimum angle of 90° to the horizontal when viewed from the side, knees bent, hips forward and a slight backwards counter motion of the upper body (shoulders). Legs must be together and skis parallel.

Mule Kick: The Mule Kick is a Back Scratcher with a 45° twist of the hip to the side.

Iron Cross: This is a combination of the back scratcher and the tip cross. The skis are crossed in a 90° angle while pointing to the ground at a 90° angle. The manoeuvre is held with the upper body in the neutral position until the skis are extended to the landing hill.

Kosak: A Kosak is a combination of a Spread Eagle and a Zudnik. Arms can be held in different ways; in front, between the skis, at the side, or a competitor may grab the ski tips. Legs are simultaneously raised and spread in front and to the side of the body. Legs should approach the horizontal level and upper body is brought forward to counter inertial forces of legs being raised. Skis should achieve a vertical position and be symmetrical.

***Multiple Manoeuvres:**
Any combination of the above manoeuvres. These must exhibit the full requirements of each of the individual manoeuvres included in the combination.
For multiple uprights the body must pass through the standard upright position (legs straight and together, skis parallel) before performing the next manoeuvre.