

Climbing Escalade Canada

Continuous National Ranking (CNR)

FRAMEWORK FOR 2021-2024

OCTOBER 2021

Overview

The purpose of the Continuous National Ranking (CNR) is to provide a system for ranking athletes based on performances across multiple levels of relevant competitions. The CNR will remain consistent from season to season and is the base framework for athlete selections.

The CNR was created in an extensive collaboration/consultation with the following groups:

- Athlete Commission
- Provincial and Territorial Sport Organizations (PTSO) representatives
- High Performance Committee (HPC)
- Sport Partners (Own The Podium, Sport Canada)

CEC performed a detailed analysis of IFSC and Domestic Results over the 2016-2020 seasons. This historical data was used to understand and account for the factors that affect results at each level (strength of field, size of field and level of competition). The resulting CNR calculation includes these factors to be as objective and precise as possible.

The CNR includes results from relevant National and International Level competition series. It is calculated in real time throughout each calendar year. Results are converted to Ranking Points using the calculations detailed in section B. below.

A Continuous National Ranking will be calculated for each of the following disciplines:

- Lead
- Boulder
- Speed
- Combined (Lead/Boulder)

The CNR will be used for the following:

- Selection to HP Program
- Teams Selections for IFSC and Continental Events

Definitions

The following terms will be used throughout this document:

- Event Points: Refers to the points assigned to an athlete's result after performing the CNR Calculation outlined below.
- Event Type: Refers to the level or series of events:
 - Major Games - Olympic Games and Pan American Games
 - IFSC World - World Cups (WC), Senior World Championships (WCH) and Youth World Championships (YWC)
 - Continental - Pan Am Cups and North American Series (NACS) Events
 - Domestic - CEC Senior Nationals and HP Competitions

LEAD, BOULDER, SPEED

For Individual Disciplines, the CNR is the sum of an athletes' best 2 Event Points from the previous 24 months and considering the conditions outlined below:

A. EXPIRATION OF POINTS

Event points will be removed from the CNR on the 24-month anniversary of the event end date with the following exceptions:

- Domestic - event points will remain in the CNR beyond the expiration date until at least 2 eligible domestic events in that discipline have been held in the current 24-month period.
- IFSC and Continental - event points will remain in the CNR beyond the expiration date until at least 1 eligible event of the same type and discipline has been held in the current 24-month period.

B. EVENT LIMITS

A maximum of 1 NACS per discipline is eligible for CNR points.

Event Points Calculation

Event Points are calculated as follows:

Position Points X Strength of Field Factor (SToF) X Size of Field Factor (SZoF) = Event Points

C. POSITION POINTS

An athlete's result is converted to **Position Points** using the values in the Position Points Tables found at the end of this document.

C.1 Strength of Field (SToF) and Size of Field (SZoF) explained

- The purpose of these 2 calculations is to adjust the weight of the position points according to how difficult it is to achieve the result.
- Strength of Field Factor (SToF) considers the impact of how many highly ranked athletes are in the field.
- Size of Field Factor (SZoF) considers the impact of the total number of competitors in the field.
- When used together, SToF and SZoF ensure that the resulting EVENT POINTS are an accurate representation of the relative quality of a result.
- For events that have more highly ranked competitors in the field, the SToF adds weight to the position points. For events that have fewer highly ranked competitors in the field, SToF subtracts weight from the position points.
- For events that have more than the average number of athletes in the field, SZoF adds weight to the position points.
- For events that have fewer than the average number of athletes in the field, SZoF subtracts weight from the position points.

C.2 Size of Field Factor (SZoF)

The Size of Field Factor is determined by the variation in the size of an event field relative to the normalized average field size for the season. It is calculated as shown below:

$$\text{SZoF} = ((\text{event field minus normalized average field})/2)/80 + 1$$

The normalized average field size is updated annually based on the IFSC's prior year's data and shown in Table 1 below.

Positive vs Negative SZoF.

- Positive Size of Field Factor (greater than 1) will be applied to all positions.
- Negative Size of Field Factor (less than 1) will be applied to all positions **except** the following:
 - IFSC WC and WCH – semi-final positions (lead, boulder) and round of 16 (speed).
 - Continental Events – finals (lead, boulder) and top 8 (speed).

C.3 Points Cut-OFFs

Points are only available for a **Fixed Percentages of Final Positions in the Field** for each level of competition. These are outlined in Table 1 below. Field Size is taken from official results on the event website.

Table 1 - Normalized Average Field Size and of Points Cut-OFFs 2021-22

Event Type	Discipline(s)	Normalized Average Field Size	Field Points Cut-OFFs
IFSC Senior (WC and WCH)	Lead, Boulder	80	75% or top 20 – whichever is greater
	Speed	60	75% or top 16 – whichever is greater
Continental Senior (NACS and PA Cups)	Lead	30	60% or top 20 – whichever is greater
	Boulder	45	60% or top 20 – whichever is greater
	Speed	30	60% or top 8 – whichever is greater
Domestic Senior (Nationals and HP Comps)	Lead, Boulder	n/a	top 20
	Speed	n/a	top 16
IFSC Youth (YWC)	Lead, Boulder	n/a	semi-final
	Speed	n/a	top 16

C.4 Strength of Field Factor (SToF)

The relative Strength of the Field for an event is determined by the number of athletes in the field from the top portions of the relevant rankings (IFSC SToF Factor for IFSC WCH and WC considers athletes in the field from the IFSC Continuously Updating World Ranking (CUWR) Top 40. This number is converted to a SToF Factor as outlined in Table 2 below.

Table 2 – Strength of Field Factor (SToF)

Event Type	Condition	Thresholds	SToF Factor
IFSC Senior Events (World Championships and World Cups)	The Number of Athletes from IFSC CUWR Top 40 as of the day before the event.	35-40	= 1.1
		30-34	= 1.05
		25-29	= 1.0
		20-24	= 0,9
		15-19	= 0.8
		11-14	= 0.7
		0-10	= 0.6
Continental Senior Events (NACS and Pan Am Cups)	The Number of Athletes from PAC Continental Ranking as of the day before the event.	10 or more	= 1.1
		6-9	= 1.0
		0-5	= 0.9
Youth World Championships (Youth A and Junior Categories)	Number of athletes in field from IFSC CUWR Top 40 as of the day before the event.	3 or more	= 1.1
		1-2	= 1.0
		0	= 0.9
Youth World Championships (Youth B Categories)	Fixed SToF Factor	fixed	= 1.0
Domestic Senior HP Events (HP Competitions and CEC Nationals)	Number of athletes in field from Top 4 of CEC Continuous National Ranking as of the day before the event.	3 or more	= 1.1
		1-2	= 1.0
		0	= 0.9

* If Relevant Rankings are not available due to event interruptions or season cancellations, the SToF Factor shall be 1.0.

COMBINED

A. PURPOSE AND OBJECTIVES

A.1 Purpose

The primary purpose of the Combined CNR is to identify and rank athletes on the pathway to the Paris 2024 Olympic Games. Consequently, Combined Continuous Ranking will only be applied to athletes who qualify and are invited to the HP Competition in both Lead and Boulder.

A.2 Objectives:

- Rank athletes across both Lead and Boulder disciplines
- Avoid potential bias towards either discipline because of variance in available points (larger average fields)
- Provide a ranking that represents relative potential to perform in the Olympic Combined Format

B. CALCULATION

To achieve the objectives above the combined CNR calculation is as follows:

B.1 Discipline Combined CNR Points (for each of Lead and Boulder):

This the ratio of points an athlete earns to the cumulative total of CNR discipline points earned by all athletes in that discipline.

B.2 Combined CNR Total Points:

The sum of both Discipline Combined CNR points

Lead Combined CNR Points + Boulder Combined CNR Points = Combined CNR Total Points

Example Calculations can be found in Section 3.3. below.

Position Points Tables and Example CNR Calculations

Position Points Tables

Domestic Events					
HP Competitions			CEC Nationals		
result	Position Points		result	Position Points	
	L&B	S		L&B	S
1	35.0	35.0	1	33.0	33.0
2	34.0	34.0	2	31.7	31.7
3	32.4	32.4	3	29.8	29.8
4	30.5	30.5	4	27.4	27.4
5	28.2	28.2	5	24.7	24.7
6	25.7	25.7	6	21.7	21.7
7	23.0	14.0	7	18.7	11.0
8	20.2	14.0	8	15.7	11.0
9	17.5	6.0	9	12.9	5.0
10	13.5	6.0	10	10.3	5.0
11-20	6.0	6.0	11-20	5.0	5.0

Youth World Events			
IFSC Youth World Championships			
Result	Position Points		
	BOULDER	LEAD	SPEED
1	52.0	52.0	52.0
2	51.0	51.0	51.0
3	50.0	50.0	50.0
4-6	46.0	46.0	46.0
7-8	44.0	46.0	46.0
9-16	31.0	31.0	31.0
17 - end semis	18.0	18.0	18.0

Senior Continental Events													
PanAm Championships							Continental Cups						
Result	Position Points			Result	Position Points		Result	Position Points			Result	Position Points	
	BOULDER	LEAD	SPEED		BOULDER	LEAD		BOULDER	LEAD	SPEED		BOULDER	LEAD
1	60.0	60.0	60.0	27	12.4	12.4	1	50.0	50.0	50.0	27	11.2	11.2
2	58.0	58.0	58.0	28	11.7	11.7	2	48.0	48.0	48.0	28	10.2	10.2
3	56.0	56.0	56.0	29	11.0	11.0	3	46.0	46.0	46.0	29	9.2	9.2
4-6	47.0	47.0	47.0	30	10.4	10.4	4-6	43.0	43.0	43.0	30	8.3	8.3
7-8	45.0	47.0	47.0	31	9.7	9.7	7-8	41.0	43.0	43.0	31	7.5	7.5
9-16	32.0	32.0	32.0	32	9.1	9.1	9-16	30.0	30.0	30.0	32	6.7	6.7
17	20.0	20.0		33	8.5	8.5	17	22.0	22.0		33	6.0	6.0
18	20.0	20.0		34	7.9	7.9	18	22.0	22.0		34	5.3	5.3
19	20.0	20.0		35	7.4	7.4	19	22.0	22.0		35	4.7	4.7
20	20.0	20.0		36	6.8	6.8	20	22.0	22.0		36	4.1	4.1
21	16.8	20.0		37	6.3	6.3	21	18.6	22.0		37	3.6	3.6
22	16.1	20.0		38	5.9	5.9	22	17.2	22.0		38	3.2	3.2
23	15.3	20.0		39	5.4	5.4	23	15.9	22.0		39	2.8	2.8
24	14.6	20.0		40	5.0	5.0	24	14.7	22.0		40	2.4	2.4
25	13.9	20.0					25	13.5	22.0				
26	13.1	20.0					26	12.3	22.0				

Senior World Events															
IFSC World Championships				IFSC World Cup											
Result	Position Points			Result	Position Points			Result	Position Points			Result	Position Points		
	BOULDER	LEAD	SPEED		BOULDER	LEAD	SPEED		BOULDER	LEAD	SPEED		BOULDER	LEAD	SPEED
1	95.0	95.0	95.0	41	39.6			1	92.0	92.0	92.0	41	38.3		
2	92.0	92.0	92.0	42	38.1			2	90.0	90.0	90.0	42	36.9		
3	90.0	90.0	90.0	43	36.7			3	87.0	87.0	87.0	43	35.5		
4-6	85.0	85.0	85.0	44	35.3			4-6	83.0	83.0	83.0	44	34.2		
7-8	82.0	85.0	85.0	45	33.9			7-8	80.0	83.0	83.0	45	32.8		
9-16	78.0	78.0	78.0	46	32.5			9-16	75.0	75.0	75.0	46	31.5		
17	72.0	72.0	74.2	47	31.2			17	70.0	70.0	71.8	47	30.2		
18	72.0	72.0	73.0	48	29.7			18	70.0	70.0	70.7	48	28.7		
19	72.0	72.0	71.8	49	28.2			19	70.0	70.0	69.5	49	27.3		
20	72.0	72.0	70.5	50	26.8			20	70.0	70.0	68.3	50	26.0		
21	69.2	72.0	69.2	51	25.4			21	67.0	70.0	67.0	51	24.6		
22	67.9	72.0	67.9	52	24.1			22	65.7	70.0	65.7	52	23.4		
23	66.5	72.0	66.5	53	22.8			23	64.4	70.0	64.4	53	22.1		
24	65.1	72.0	65.1	54	21.6			24	63.1	70.0	63.1	54	20.9		
25	63.7	72.0	63.7	55	20.4			25	61.7	70.0	61.7	55	19.8		
26	62.3	72.0	62.3	56	19.3			26	60.3	70.0	60.3	56	18.7		
27	60.8			57	18.2			27	58.9			57	17.6		
28	59.3			58	17.1			28	57.4			58	16.6		
29	57.8			59	16.1			29	56.0			59	15.6		
30	56.3			60	15.1			30	54.5			60	14.7		
31	54.7			61	14.2			31	53.0			61	13.8		
32	53.2			62	13.3			32	51.5			62	12.9		
33	51.7			63	12.5			33	50.0			63	12.1		
34	50.1			64	11.7			34	48.6			64	11.3		
35	48.6			65	10.9			35	47.1			65	10.6		
36	47.1			66	10.2			36	45.6			66	9.9		
37	45.5			67	9.5			37	44.1			67	9.2		
38	44.0			68	8.9			38	42.6			68	8.6		
39	42.5			69	8.3			39	41.2			69	8.0		
40	41.0			70	7.7			40	39.7			70	7.5		
				71	6.0							71	5.0		

Major Games			
Olympics		PanAm Games	
Result	Position Points	Result	Position Points
1	100.0	1	70.0
2	95.0	2	45.0
3	92.0	3	40.0
4-8	70.0	4-8	30.0
participant	50.0	participant	25.0

Because of format change the Olympic position points for Paris will change. These changes will be published prior to 2023 IFSC season.

Example Individual Discipline CNR Calculations:

Example #1

Event: **IFSC World Cup (B)** Number of Athletes in Field from CUWR Top 40: **19 = SToF (0.8)**

Field Size: **76** **SZoF = 0.98**

Final Result: **32nd** Fixed Percentage of Final Positions: **75% = points awarded to positions 1-57**

Calculation: Position Points (51.5) x SToF (0.8) x SZoF (0.98) = Event Points (40.38)

Example #2

Event: **IFSC World Cup (L)** Number of Athletes in Field from CUWR Top 40: **22 = SToF (0.9)**

Field Size: **88** **SZoF = 1.05**

Final Result: **27th** Fixed Percentage of Final Positions: **75% = points awarded to positions 1-66**

Calculation: Position Points (58.9) x SToF (0.9) x SZoF (1.05) = Event Points (55.7)

Example #3

Event: **IFSC World Championships (B)**

Number of Athletes in Field from CUWR Top 40: **32 = SToF (1.05)**

Field Size: **68** **SZoF = 0.93**

Final Result: **57th** Fixed Percentage of Final Positions: **75% = points awarded to positions 1-51**

In this example, no points are assigned to this result because of the fixed percentage of final positions.

Example #4

Event: **IFSC World Cup (L)** Number of Athletes in Field from CUWR Top 40: **32 = SToF (1.05)**

Field Size: **50** **SZoF = 0.93**

Final Result: **19th** Fixed Percentage of Final Positions: **75% = points awarded to positions 1-38**

Calculation: Position Points (70) x SToF (1.05) = Event Points (73.5)

In this example, SZoF is not applied to the final result because it is within the semi-final.

Example #5

Event: **CEC Nationals (L)** Number of Athletes in Field from CNR Top 4: **3 = SToF (1.1)** Field Size: **42**

Final Position: **19** Fixed Percentage of Final Positions: **to position #20**

Position Points (2.0) x SToF of 1.1 = Event Points (2.2)

Example Combined Discipline CNR Calculations:

Example #1

Cumulative Boulder CNR Points (all athletes) = 876 Cumulative Lead CNR Points (all athletes) = 778

Athlete A Boulder CNR Points = 98.5 → **Athlete A Boulder Combined CNR Points = 0.11244**

Athlete A Lead CNR Points = 125 → **Athlete A Lead Combined CNR Points = 0.16068**

Athlete A Combined CNR Total (0.11244 + 0.16068) = 0.27312

Example #2

Cumulative Boulder CNR Points (all athletes) = 876 Cumulative Lead CNR Points (all athletes) = 778

Athlete B Boulder CNR Points = 135 → **Athlete B Boulder Combined CNR Points = 0.15411**

Athlete B Lead CNR Points = 61 → **Athlete B Lead Combined CNR Points = 0.07841**

Athlete B Combined CNR Total (0.15411 + 0.07841) = 0.23252