



IOF World Ranking Scheme

Marcel Schiess
Vincent Frey



Agenda

- Purpose of IOF Ranking Scheme
- History
- Allocation of World Ranking Events
- Criteria of World Ranking Events
- World Ranking Calculation

Goal of the session: to know the WR concept



IOF World Ranking 15.03.2007

Rank	Points	Athlete	Fed.	Rank	Points	Athlete	Fed.
1	5844	Thierry Gueorgiou	FRA	1	6088	Simone Niggli-Luder	SUI
2	5695	Daniel Hubmann	SUI	2	5842	Minna Kauppi	FIN
3	5619	Valentin Novikov	RUS	3	5785	Marianne Andersen	NOR
4	5603	Emil Wingstedt	SWE	4	5788	Heli Jukkola	FIN
5	5595	Jari Laksanen	FIN	5	5686	Emma Engstrand	SWE
6	5574	Jarkko Huovila	FIN	6	5633	Kajsa Nilsson	SWE
7	5554	David Andersson	SWE	7	5548	Tatyana Riabkina	RUS
8	5516	Matthias Marz	SUI	8	5517	Dana Brozková	CZE
9	5502	Holger Hott Johansen	NOR	9	5509	Vroni Kosang-Salmi	SUI
10	5496	Matthias Müller	SUI	10	5505	Harry Allston	AUS
11	5482	Jamie Stevenson	GBR	11	5440	Karoline Arzwing-Højsgaard	SWE
12	5479	Damien Renard	FRA	12	5421	Anne Margrethe Hausken	NOR
13	5456	Andrey Khramov	RUS	13	5409	Helena Jansson	SWE
14	5426	Fredrik Löwengren	SWE	14	5409	Karin Schmalefeld	GER
15	5421	Anders Nordberg	NOR	15	5377	Martina Fritschy	SUI
16	5399	Michal Simola	CZE	16	5371	Lena Eliasson	SWE
17	5381	Ole Kärner	EST	17	5352	Anna Konrings Olesen	DEN
18	5380	Jonas Fjilblad	SWE	18	5334	Sara Gemperle	SUI
19	5379	Francois Gonon	FRA	19	5314	Lea Müller	SUI
20	5374	Chris Terkelsen	DEN	20	5299	Birte Ridsdørvold	NOR
21	5373	David Schneider	SUI	21	5290	Anni-Maija Fincka	FIN
22	5370	Niclas Jonasson	SWE	22	5283	Jenny Johansson	SWE
23	5363	Tero Fähr	FIN	23	5250	Sandra Pauzalle	LTU
24	5344	Pasi Ikonen	FIN	24	5232	Paula Haapakoski	FIN
25	5339	Mats Haldin	FIN	25	5223	Celine Dodin	FRA



Purpose of IOF Ranking Scheme

- The world of sport expects it!
- To provide a valid way of comparing runners from very different federations on a common scale
- To aid seeding and selections at international events
 - Elite qualification at WRE, i.e. M21E or M21A
 - Eliminates any bias in national ranking vs. international guest
- Motivation for runners, also those outside of national teams
- Incentive for federations to put on high quality elite events
- 104 events in 2007 planned



History

- Council asked FOC to start the WR scheme early in 1997
- N3Sport appointed in Autumn 1997 as host of WR list
 - Calculations, publication on Internet
- 1998 was an experimental year
- 1999 the first official list appeared in January
- 2000 used in WC qualification and start list composition
- 2001 Ray Barnes (GBR) took over hosting of WR list
- 2001 World Games JPN used WR to determine how many runners per federation can participate
- 2002 used in WC qualification and start list composition
- 2003 used for WOC start list composition in sprint
- 2007 used for WCup start place allocation to nations



Allocation of World Ranking Events

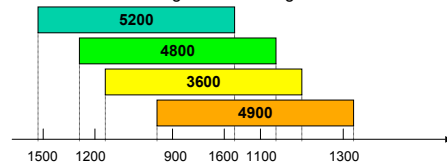
- Since 2002, all nations can put up to 3 WRE per year
 - In the past there was a system based on nations' strength
 - New allocation allows better world wide spread of ranked runners
- Regional Championships which rotate on an annual basis between two or more federations (e.g. Nordic Championships) can be WREs
 - Not affecting a federation's 3 ordinary WREs
- World Cup and WOC
 - All WCup A/B finals, sprint, middle and long distance count for ranking
 - All WOC qualification races and finals, sprint, middle and long distance count for ranking
 - Not affecting a federation's 3 ordinary WREs

Criteria of World Ranking Events

- Must be open events
 - Problems: national championships with limited participation rights
- Preferably long distance and middle events, sprint is accepted as well
- No mass start events, no chasing start (except WOC)
- Multi-day events: one or more dedicated day(s)
- Should be events which competitors are known to be taking seriously, i.e. not just for training purposes
- The federation of the organiser appoints a licensed IOF event advisor for W21E/M21E
 - May be the same person as the overall event controller or may be entirely separate person
 - May be a member of the same federation as that hosting the WRE but should not come from the same club that is organising the WRE

World Ranking Calculation

- The best four scores for each runner is added to give their overall total
- The calculation is running over a moving time window of 12 months



Points Formula

$$RP = \left\{ MP + SP \times \left(\frac{MT - RT}{ST} \right) \right\} \times IP$$

- $(MT-RT)/ST$ gives # of standard deviations of runner's time above or below mean time
- Multiplying by SP , standard deviation of ranked runner's points, converts this to points
- This point difference is added to MP , the average points for the runners in the race
- IP is usually 1.00, but equals 1.10 for WOC Finals, 1.05 for WOC Qualification races, World Games Finals and World Cup A Finals

Example

- Runner X becomes 4th with 88 min (RT);
- Average time for the ranked runners in the race is 100 min (MT), and the standard deviation is 10 min (ST)
- $(MT-RT)/ST = 12/10 = 1.2$ standard deviations above average
- The quality of the field is high, i.e. mean points $MP = 1100$ and standard deviation $SP = 100$
- Runner X gets more points than the average runner, this is given by $1.2 \times 100 = 120$
- Final points = $1100 + 120 = 1220$