

MEMO FOR OFFICIALS 2024

Speed Control Parameter Adjustment Chart (Feb 2023)

JUMP

ZERO OFF PARAMETER	WHO DETERMINES	WHEN	
TOURNAMENT MODE	Driver/Judge	Before event	TOURNAMENT MODE ONLY
BOAT SPEED	Skier	Before each pass	Set Speed in MPH/KPH
JUMP LETTER	Driver / Judge With input from skier	Before each jump Boat crew may adjust as necessary including for the first jump	Skier may adjust initial setting +/- 4 letters. Adjust as necessary. Use Jump Letter Chart as an alternative to select initial jump letter
FAST or RTB (Return to Baseline)	Skier	Before each skier based on type of 41-meter segment pull requested	Use screen to turn "RTB" either ON or OFF. With "RTB" ON setting the system will return to baseline speed
POWER FACTOR (PF)	Driver / Judge With input from skier	5.3/5.7 liter engine - start with 6 or 7 6.0/6.2 liter engine - start with 4 or 5 Boat crew may adjust as necessary	Range 0 to 15 - Raises or lowers the base speed. A lower number result in boat entering the course slower. At 3 or below there is no additional decrease in baseline (adjustments are then made to the ramp rate of the letter)
41 METER SEGMENT ADDER (Raises the boat speed in the 41 Meter segment - adds to the target speed)	Driver/Judge	Boat crew may adjust as necessary Start at 0	ADD - Range = 0 to 9 Start at 0 Adjust as needed for actual times. This number follows "Power Factor" Example - 6:0 (6 is the Power Factor and 0 is the "add")
COUNTER CUT TIME (Not typically adjusted)	Driver	Before event May be adjusted for strong head or tail wind to control speed during counter cut	Recommended: 180 Head Wind 190 Tail Wind 170 ¾ Cut 160
GPS MAPPING	Driver & Judge	Before event and as necessary if off more than 2.5 meters	Map course when pylon is aligned with the start of the timing buoys

SLALOM

ZERO OFF PARAMETER	WHO DETERMINES	WHEN	
TOURNAMENT MODE	Driver/Judge	Before event	TOURNAMENT MODE ONLY
BOAT SPEED	Skier	Before each pass	Speed in MPH/KPH
A1, A2, A3 B1, B2, B3 C1, C2, C3	Skier Default is B2 unless skier asks for other setting	Before each pass	A = Slowest engine response B = Moderate engine response C = Fastest engine response 1 = Softest feel behind the boat 2 = Moderate feel behind the boat 3 = Firmest feel behind the boat
"+" SETTING	Skier Default is OFF	Before each pass	With "+" ON - Engine will respond quicker.
GPS MAPPING	Driver & Judge	Before event and as necessary if off more than 2.5 meters	Map course when GPS Puck is aligned with the start of timing buoys

TRICKS

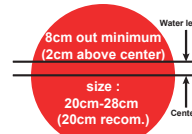
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Skiers	In Final
1-5	All
6-10	first 5
11-12	first 6
13-15	first 8
16-19	first 10
20 &+	first 12



Swiss Waterski & Wake
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Rule 8.07 Buoys



JUMP INFORMATION & TIMES 2024

Male	Max Speed	Ramp	Female	Max Speed	Ramp
U-10	42 kph	1.35m or 1.50m recom. 1.35	U-10	42 kph	1.35m or 1.50m recom. 1.35
U-12/85+	45 kph	1.35m(U12) or 1.50m	U12/70+/75+/80+/85+	45 kph	1.35m(U12) or 1.50m
U-14/75+/80+	48 kph	1.35m. or 1.50m	U-14	45 kph	1.35m. or 1.50m
U-17	51 kph	1.50m or 1.65m	U-17	51 kph	1.50m
U-21/Open	57 kph	1.50m - 1.65m - 1.80m	U-21-Open	54 kph	1.50m or 1.65m
35+	57 kph	1.50m or 1.65m	35+	51 kph	1.50m
45+	54 kph	1.50m	45+ / 55+	51 kph	1.50m
55+/65+/70+	51 kph	1.50m	65+	48 kph	1.50m

To Jump at 1.65 score at 1.50: 38m --- To Jump at 1.80 score at 1.65: 48m

The Chief Judge in agreement with the Organiser may allow the use of a lower ramp height for a specific division or divisions.

Speed	1st Segment (52m)		1st+2nd Segment (82m)		3rd Segment (41m)			
	fast	slow	fast	actual	slow	fast	actual	slow
57	3.25	3.37	5.11	5.18	5.25	2.36	2.40	2.46
54	3.43	3.56	5.39	5.47	5.55	2.54	2.59	2.66
51	3.63	3.78	5.70	5.79	5.88	2.68	2.73	2.81
48	3.86	3.98	6.05	6.15	6.25	2.84	2.89	2.98
45	4.11	4.25	6.45	6.56	6.68	3.01	3.08	3.17

For RC/RL events 3 seg times used when: (For distances below, 1st seg tolerance check is not required)

Open & U21 Men	speed 57	above 60 metres	U17 Men	speed 51	above 42 metres
Open & U21 Women	speed 54	above 38 metres	U17 Women	speed 51	above 30 metres

When speed is below the maximum for the division, the 3rd segment will not be used with the exception that it may not exceed the maximum time for the division.

Jump Timing Ride Chart (Three Segment Mode)

seg 1 (52m)	seg 1+2 (82m)	seg 3 (41m)	Action	Protected Score?
OK	OK	OK	None	n/a
-	S	-	Optional ride (protected score)	Yes
S	F	-	Mandatory ride if distance is best in skiers turn	No + no increase
OK/F	F	-	Mandatory ride if distance is best in skiers turn	No
F	OK	S/OK	Optional ride (protected score)	Yes
S	OK	OK/F	Mandatory ride if distance is best in skiers turn	No + no increase
S	OK	S	Optional ride (no protected score)	No
F	OK	F	Optional ride (no protected score)	No
OK	OK	F	Mandatory ride if distance is best in skiers turn	No
OK	OK	S	Optional ride (protected score)	Yes

RTB Mode (Return to Baseline)

Speed	1st+2nd Seg. (82m)			3rd Seg. (41m)			Seg 1+2	Seg 3	Action
	Fast	Actual	Slow	Fast	Actual	Slow			
57	5.11	5.18	5.25	2.36	2.59	2.66	OK	OK	None
54	5.39	5.47	5.55	2.54	2.73	2.81	OK	F	Mandatory ride if distance is best in skiers turn
51	5.70	5.79	5.88	2.68	2.89	2.98	OK	S	Optional ride (protected score)
48	6.05	6.15	6.25	2.84	3.08	3.17	S	OK	Optional ride (protected score)
45	6.45	6.56	6.68	3.01	3.28	3.39	S	F	Mandatory ride if best dist., otherwise optional with protected score
42	6.90	7.03	7.17	3.21	3.51	3.64	S	S	Optional ride (protected score)
39	7.42	7.57	7.73	3.43	3.78	3.94	F	OK	Mandatory ride
36	8.02	8.20	8.39	3.69	4.10	4.28	F	S	Mandatory ride
33	8.73	8.95	9.17	3.99	4.47	4.69	F	F	Mandatory ride
30	9.58	9.84	10.11	4.34	4.92	5.18			
27	10.62	10.93	11.27	4.76	5.47	5.79			



IWWF & EA WATERSKI MAX SPEED & AGE CHART RULES 2024


updated on 15.01.2024 by FD

WATERSKI	UNDER 10 *	UNDER 12 *	UNDER 14	UNDER 17	UNDER 21	OPEN	35 +	45 +	55 +	65 +	70+	75 +	80 +	85 +
For 2024, born in	... - 2014	2013 - 2012	2011 - 2010	2009 - 2007	2006 - 2003	2002 - 1989	1988 - 1979	1978 - 1969	1968 - 1959	1958 - 1954	1953 - 1949	1948 - 1944	1943 - 1939	1938 - ...
WOMEN Slalom max speed	49 km/h	52 km/h	52 km/h	55 km/h	55 km/h	55 km/h	55 km/h	52 km/h	52 km/h	49 km/h	49 km/h	46 km/h	46 km/h	46 km/h
MEN Slalom max speed	49 km/h	52 km/h	55 km/h	58 km/h	58 km/h	58 km/h	55 km/h	55 km/h	55 km/h	52 km/h	52 km/h	49 km/h	49 km/h	46 km/h
WOMEN Jump max	42 kmh 1.35/1.50	45 kmh 1.50	45 kmh 1.50	51 kmh 1.50	54 kmh 1.50/1.65	54 kmh 1.50/1.65	51 kmh 1.50	51 kmh 1.50	51 kmh 1.50	48 kmh 1.50	48 kmh 1.50	48 kmh 1.50	48 kmh 1.50	48 kmh 1.50
MEN Jump max	42 kmh 1.35/1.50	45 kmh 1.50	48 kmh 1.50	51 kmh 1.50/1.65	57/1.50 1.65/1.80	57/1.50 1.65/1.80	57 kmh 1.65/1.80	54 kmh 1.50	51 kmh 1.50	51 kmh 1.50	51 kmh 1.50	51 kmh 1.50	51 kmh 1.50	51 kmh 1.50

* NO E&A-IWSF CHAMP / BLUE 2017 / RED 2018 / GREEN 2020

proof of 38m @ 1.50 to jump @ 1.65
proof of 48m @ 1.65 to jump @ 1.80

 ALL BUOY SLALOM TIMING CHART 2024								
Shortening Speeds	75+W, 80+W, 85+W,85+M	U10G, U10B, 65+W, 70+W,75+M, 80+M	U12B, U12G, U14G, 45+W, 55+W, 65+M, 70+M		U14B, U17G, U21G, 35+M/W, 45+M, 55+M, Open Women		U17B, U21M, Open Men	
	46	49	52		55		58	
Speed kph	Score:	0-0.5	1-1.5	2-2.5	3-3.5	4-4.5	5-5.5	All Six
	Fm/To:	E-1	E-2	E-3	E-4	E-5	E-6	E-X
58	Fast	1.64	4.15	6.67	9.20	11.73	14.25	16.00
	Ideal	1.68	4.22	6.77	9.31	11.86	14.40	16.08
	Slow	1.71	4.28	6.84	9.41	11.97	14.53	16.16
55	Fast	1.73	4.37	7.03	9.69	12.35	15.02	16.86
	Ideal	1.77	4.45	7.13	9.82	12.50	15.19	16.95
	Slow	1.80	4.51	7.23	9.93	12.64	15.34	17.04
52	Fast	1.83	4.62	7.43	10.24	13.05	15.87	17.72
	Ideal	1.87	4.71	7.55	10.38	13.22	16.06	17.93
	Slow	1.91	4.78	7.65	10.52	13.39	16.25	18.13
49	Fast	1.94	4.90	7.87	10.85	13.83	16.81	18.78
	Ideal	1.98	5.00	8.01	11.02	14.03	17.04	19.03
	Slow	2.03	5.08	8.13	11.18	14.22	17.27	19.27
46	Fast	2.06	5.21	8.37	11.54	14.71	17.88	19.98
	Ideal	2.11	5.32	8.53	11.74	14.95	18.16	20.27
	Slow	2.16	5.42	8.68	11.93	15.18	18.42	20.56
43	Fast	2.20	5.56	8.94	12.33	15.71	19.10	21.34
	Ideal	2.26	5.69	9.13	12.56	15.99	19.42	21.68
	Slow	2.32	5.81	9.30	12.78	16.27	19.75	22.03
40	Fast	2.36	5.97	9.60	13.23	16.86	20.50	22.89
	Ideal	2.43	6.12	9.81	13.50	17.19	20.88	23.31
	Slow	2.50	6.26	10.02	13.78	17.53	21.27	23.74
37	Fast	2.54	6.44	10.35	14.27	18.19	22.11	24.70
	Ideal	2.63	6.62	10.61	14.59	18.58	22.57	25.20
	Slow	2.71	6.79	10.86	14.93	18.99	23.06	25.73
34	Fast	2.76	6.99	11.24	15.49	19.74	23.99	26.81
	Ideal	2.86	7.20	11.54	15.88	20.22	24.56	27.42
	Slow	2.95	7.41	11.85	16.29	20.73	25.16	28.68
31	Fast	3.02	7.65	12.29	16.93	21.58	26.24	29.31
	Ideal	3.14	7.90	12.66	17.42	22.18	26.94	30.08
	Slow	3.25	8.15	13.05	17.93	22.82	27.70	30.90
28	Fast	3.33	8.43	13.55	18.68	23.81	28.94	32.33
	Ideal	3.47	8.74	14.01	19.29	24.56	29.83	33.30
	Slow	3.61	9.07	14.51	19.94	25.37	30.80	34.37
25	Fast	3.71	9.40	15.11	20.83	26.54	32.26	36.04
	Ideal	3.89	9.79	15.70	21.60	27.50	33.41	37.30
	Slow	4.07	10.21	16.34	22.46	28.58	34.68	38.70

 BOAT PATH MONITORING - RULE : 8.15																								
BUOY DEVIATION																								
Negative (Away from Skier - Disadvantage)		Positive (Towards Skier - Advantage)																						
Greater than 25cm at Buoy	Less than 25cm at Buoy	Greater than 25cm at Buoy	Less than 25cm at Buoy																					
The skier is entitled to an optional re-ride. The skier can improve. The maximum score not out of tolerance to the positive is protected.	Continue	Accept the score that was achieved within tolerance. OR Take an optional re-ride. The skier may improve unless the deviation occurred at the last buoy the skier turned. In which case, the skier cannot improve over the score they would have earned had that buoy deviation been in tolerance. In either case, the original score is not protected. OR For a completed pass, "Continue at Risk"	Continue																					
For multiple buoys out of tolerance the FIRST out of tolerance is applied first.																								
"Continue at Risk" - If Skier continues and the next pass isn't completed, the score awarded will be the higher of: 1. the score on the original pass in tolerance. 2. The score on the "Continue at Risk" pass as though it was the original speed and rope length.																								
CUMULATIVE DEVIATION																								
Negative (Away from Skier - Disadvantage)		Positive (Towards Skier - Advantage)																						
The skier is entitled to an optional re-ride. The skier can improve. The maximum score not out of tolerance to the positive is protected.		The skier has the following options: Accept the score that was achieved within tolerance OR Take a re-ride. The skier may improve. However, for a score of less than 6, if the deviation occurred at the last buoy the skier scored, the skier cannot improve over that score. The original score is not protected. OR For a completed pass "Continue at Risk"																						
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>SCORE</th> <th></th> <th>Cum Deviation</th> </tr> </thead> <tbody> <tr> <td>0.25 - 1</td> <td>B1</td> <td></td> </tr> <tr> <td>1.25 - 2</td> <td>B2</td> <td>28 cm</td> </tr> <tr> <td>2.25 - 3</td> <td>B3</td> <td>35 cm</td> </tr> <tr> <td>3.25 - 4</td> <td>B4</td> <td>40 cm</td> </tr> <tr> <td>4.25 - 5</td> <td>B5</td> <td>45 cm</td> </tr> <tr> <td>5.25 - 6</td> <td>B6</td> <td>49 cm</td> </tr> </tbody> </table>		SCORE		Cum Deviation	0.25 - 1	B1		1.25 - 2	B2	28 cm	2.25 - 3	B3	35 cm	3.25 - 4	B4	40 cm	4.25 - 5	B5	45 cm	5.25 - 6	B6	49 cm		
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Mandatory Re-rides																								
There shall be no more than two mandatory re-rides for boat path deviation in a single pass. If during the second mandatory re-ride the boat deviation would require another mandatory re-ride, then the score awarded will be the highest score achieved in tolerance from the original pass or from either re-ride.																								