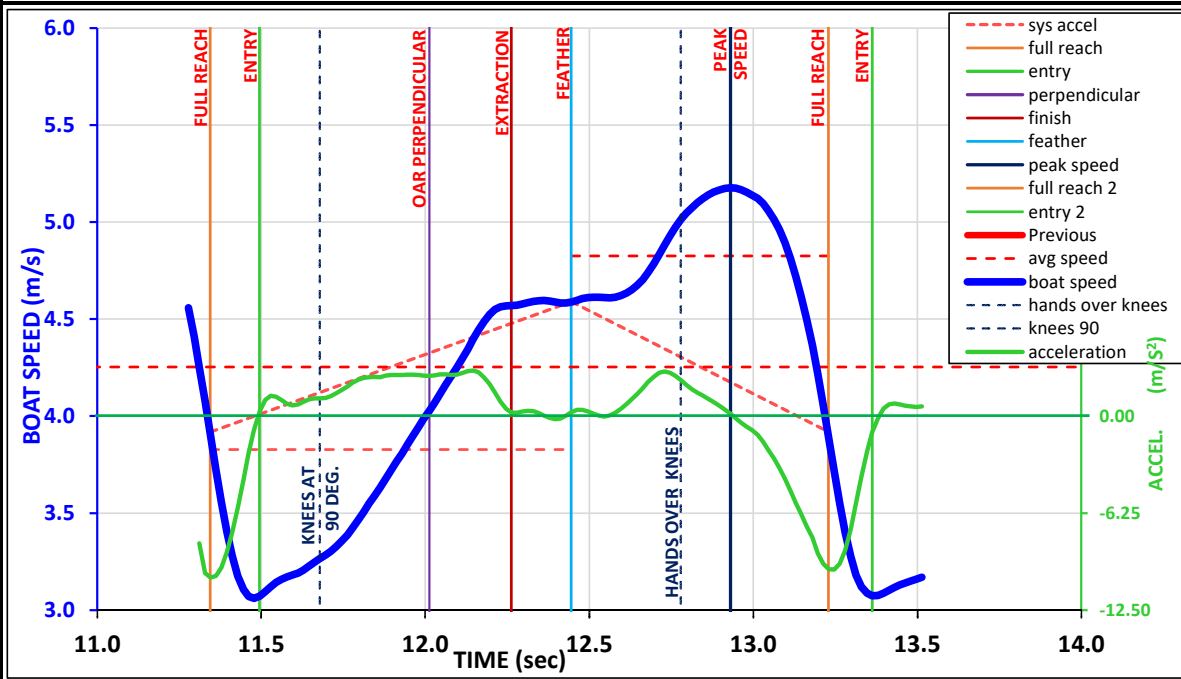


PURCERVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Name	Name	Video File	video file	Boat Length	7.78
Boat Class	W1x	Video Location	#####	Video Time & Date	
Race Category	W1x	Video Description	0	12:00 AM	1900-01-00

Race Time	finish	split	Curve Average	dist/stk	spd m/s	split	% GMS
0:00.00	n/a	n/a	7.95	7.95	4.253	1:57.56	91.23%
Race Percent GMS	#VALUE!	#VALUE!	Category Average	7.84	4.425	1:53.00	94.9%
GMS Time	7:09.00	1:47.25	Diff. (above/below)	0.11	-0.172	+4.56	-3.7%

ANALYSIS	time	boat speed	Weather:	bow cm	stern cm	Trim Change	0.0 °
full reach	11.34	3.90	Air Temp: 0	0	0	Catch	0.0 °
entry	11.49	3.07	Water:	0	0	Finish	0.0 °
perpndclr	12.01	4.03	*Drive Time (sec.)	0.95	time between entry (blade full bury) and feather		0.84
extraction	12.26	4.57	*Blade Slip (m)	+0.18	distance blade tip moves during drive measured		+0.04
feather	12.45	4.59	Eff. Stroke Length (m)	2.87	distance the oar moves the boat during the drive		2.66
peak speed	12.93	5.18	Stroke Position (>PI)	67.4%	stroke arc portion (entry to perp)/(entry to extra		67.6%
full rch 2	13.23	3.89	*Stroke Rate (spm)	32.1	strokes per minute		33.9
entry2	13.36	3.07	Stroke Ratio (R/DT)	0.97	time on recovery divided by time on drive time		1.11

sculler/crew average:	length:	0.00 (m)	power:	0 (watts)	weight:	0 (kg)
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RIGGING ANALYSIS	Span	0	Blade Type	0	#N/A
	Oar Length	286	estimated oar length to calc catch/finish angles	Catch Angle ±	65 ° 60.5%
	Inboard	0	Finish Angle ±	43 ° 39.5%	
			Total Arc ±	108 ° 537 cm	

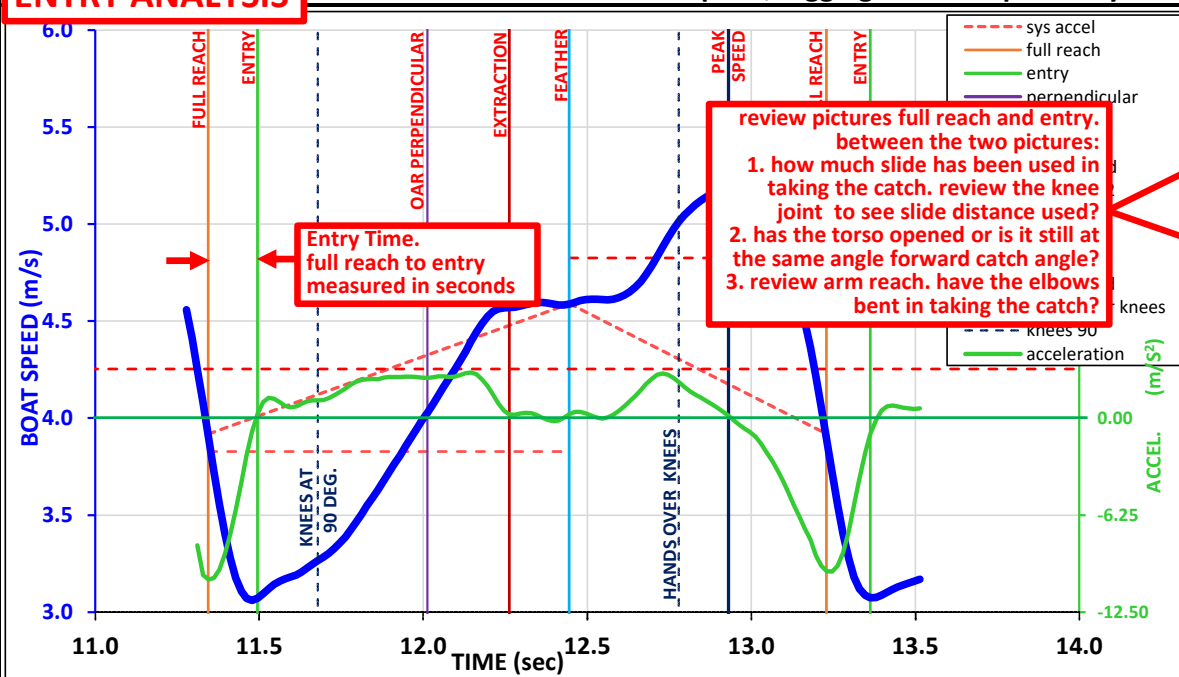
TECHNIQUE ANALYSIS

Distance per Stroke		7.95	Ref: W1x	WC '17-'19,'22,'23 (59)
CATCH	1 Entry Time (full reach to entry)	0.14	time between full reach position and entry (blade full bury)	0.14
	Entry Time % of Stk Cycle	7.6%	Entry Time as percentage of entire stroke cycle time	8.0%
BLADE BURD	2 Drive Hump. (t* accel.)	-0.024	drive hump is acceleration loss after catch multiplied by time.	-0.037
	Drive Accel. (entry to extract)	1.95	boat acceleration between blade full bury and blade extraction.	2.16
	Drive Accl. Eff. (entry to extract)	89.9%	percentage of area curve compared to straight line accel.	86.0%
	Perp to Extract Accel. (m/s²)	2.17	boat acceleration between blade perpendicular and blade extraction.	2.37
Drive Speed % of Avg. Speed		90.0%	drive average speed as percent of total stroke average speed	89.1%
System Speed Change (m/s)		0.69	boat speed change - full reach to feather	0.61
RELEASE	3 Release Time (extract to feather)	0.18	time blade extraction to feather	0.15
	Release Time % of Stk Cycle	9.9%	time blade extraction to feather as percentage of stroke cycle	8.6%
	Release Speed Change (m/s)	+0.02	speed change - extraction to feather	+0.03
RECOVERY	4 Recovery Accel. (feather to peak)	1.21	acceleration feather to peak speed	1.37
	Rec. Accel Eff. (feather to peak)	83.5%	percentage of area under the curve compared to straight line accel.	82.3%
	Recovery Peak Speed (% of Rec)	61.7%	percentage of recovery (feather~fullreach2) to peak speed	65.8%
	Recovery Speed % of Avg. Spd.	113.4%	recovery average speed as percent of total stroke average speed	113.4%
5 Deceleration (peak to entry2)		-4.86	deceleration between peak speed to entry2	-4.87
6 Deceleration Time (sec.)		0.47	time boat is in negative acceleration following peak speed.	0.45
Deceleration Time % of Stk Cycle		25.0%	Deceleration Time as percentage of entire stroke cycle time	25.3%

ENTRY ANALYSIS

PURCERVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Name	Name	Video File	video file	Boat Length	7.78
Boat Class	W1x	Video Location	#####	Video Time & Date	
Race Category	W1x	Video Description	0	12:00 AM	1900-01-00

Race Time	finish	split	Curve Average	dist/stk	spd m/s	split	% GMS
0:00.00	0:00.00	n/a	7.95	7.95	4.253	1:57.56	91.23%
Race Percent GMS	#VALUE!	#VALUE!	Category Average	7.84	4.425	1:53.00	94.9%
GMS Time	7:09.00	1:47.25	Diff. (above/below)	0.11	-0.172	+4.56	-3.7%

ANALYSIS	time	boat speed	Weather:	bow cm	stern cm	Trim Change	0.0 °
full reach	11.34	3.90	Air Temp: 0	0	0	Catch	0.0 °
entry	11.49	3.07	Water:	0	0	Finish	0.0 °
perpndclr	12.01	4.03	*Drive Time (sec.)	0.95			0.84
extraction	12.26	4.57	*Blade Slip (m)	+0.18			+0.04
feather	12.45	4.59	Eff. Stroke Lngth (m)	2.87			2.66
peak speed	12.93	5.18	Stroke Position (>PI)	67.4%			67.6%
full rch 2	13.23	3.89	*Stroke Rate (spm)	32.1			33.9
entry2	13.36	3.07	Stroke Ratio (R/P)	0.97			1.11

sculler/crew average:	length:	0.00 (m)	This is your Entry Time. (in seconds). full reach to blade full bury.
RIGGING ANALYSIS	Span	0	4. how does it compare to the standard?
	Oar Length	286	- remember the standard is the average and many of the crews have a lower entry time.
	Inboard	0	- reducing the entry time is always an opportunity for boat speed improvement.

TECHNIQUE ANALYSIS		Distance per Stroke	7.95	Ref: W1x	WC '17-'19,'22,'23 (59)
CATCH	1 Entry Time (full reach to entry)	0.14	compare this time with the standard.	0.14	8.0%
	Entry Time % of Stk Cycle	7.6%	this is the percentage of the stroke cycle		
BLADEBURD	2 Drive Hump. (t* accel.)	-0.024		-0.037	
	Drive Accel. (entry to extract)	1.95		2.16	
	Drive Accl. Eff. (entry to extract)	89.9%		86.0%	
	Perp to Extract Accel. (m/s²)	2.17		2.37	
Drive Speed % of Avg. Speed		90.0%		89.1%	
System Speed Change (m/s)		0.69		0.61	
RELEASE	3 Release Time (extract to feather)	0.18		0.15	
	Release Time % of Stk Cycle	9.9%		8.6%	
	Release Speed Change (m/s)	+0.02		+0.03	
RECOVERY	4 Recovery Accel. (feather to peak)	1.21		1.37	
	Rec. Accel Eff. (feather to peak)	83.5%		82.3%	
	7 Recovery Peak Speed (% of Rec)	61.7%		65.8%	
	Recovery Speed % of Avg. Spd.	113.4%		113.4%	
8 Deceleration (peak to entry2)		-4.86		-4.87	
9 Deceleration Time (sec.)		0.47		0.45	
Deceleration Time % of Stk Cycle		25.0%		25.3%	

0.14 seconds is the average for 59 crews in this boat class at the World Champs

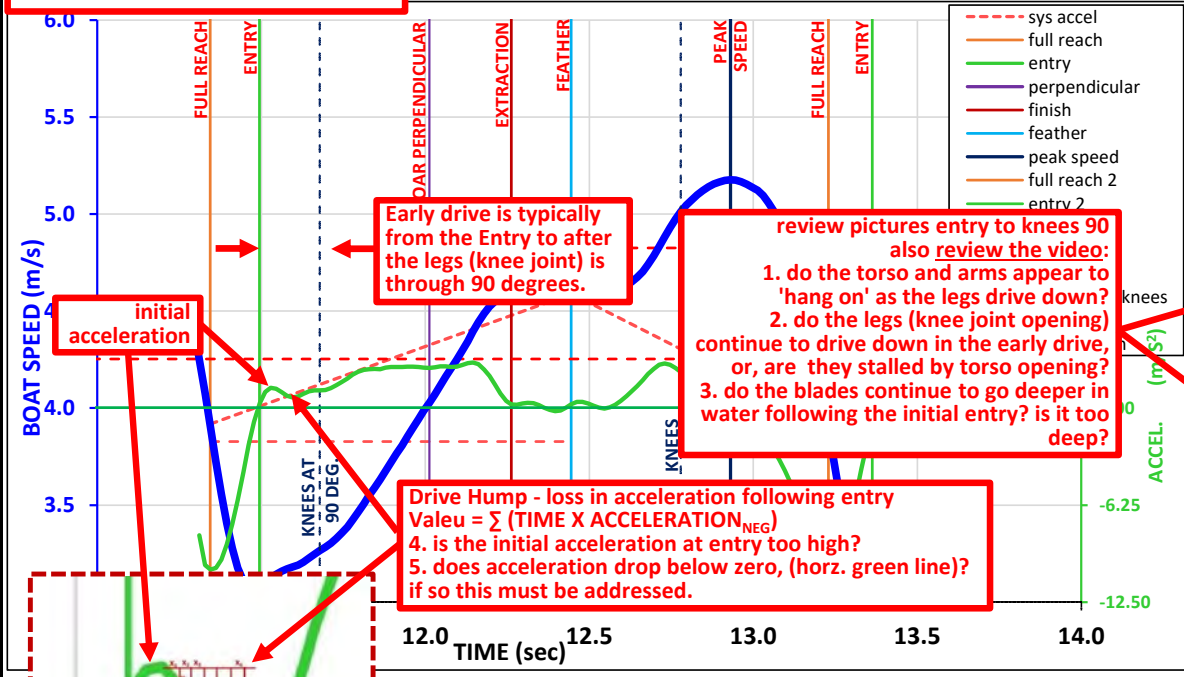
This is the Entry Time as a percentage of the full stroke cycle. - it highlights the stroke cycle time used. 5. how does it compare to the standard? - your Entry Time and Percentage of Stroke Cycle should be lower than standard.

How much time you spend on improving this part of the stroke depends on how far you are from the standard. If your time is slower than the standard this is big opportunity for improving boat speed.

EARLY DRIVE ANALYSIS

PURCERVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Video File video file Boat Length 7.78
 Video Location ##### Video Time & Date
 0 Video Description 0 12:00 AM 1900-01-00

split	n/a	dist/stk	7.95	spd m/s	4.253	split	1:57.56	% GMS	91.23%
Curve Average		Category Average	7.84		4.425		1:53.00		94.9%
Diff. (above/below)			0.11		-0.172		+4.56		-3.7%

GMS Time	7:09.00	1:47.25
full reach	11.34	3.90
entry	11.49	3.07
perpndclr	12.01	4.03
extraction	12.26	4.57
feather	12.45	4.59
peak speed	12.93	5.18
full rch 2	13.23	3.89
entry2	13.36	3.07

Weather:		bow cm	0	stern cm	0	Trim Change	0.0 °
Air Temp:	0	trim	0	Catch	0.0 °		
Water:		trim	0	Finish	0.0 °		
*Drive Time (sec.)	0.95						0.84
*Blade Slip (m)	+0.18						+0.04
Eff. Stroke Lngth (m)	2.87						2.66
Stroke Position (>PI)	67.4%						67.6%
*Stroke Rate (spm)	32.1						33.9
Stroke Ratio (R/P)	0.97						1.11

sculler/crew average:	length:	0.00 (m)
RIGGING ANALYSIS	Span	0
	Oar Length	286
	Inboard	0

This is your Drive Hump factor value.
 6. how does Drive Hump factor value it compare to the standard?
 - this is a negative value as it represents a loss in acceleration.
 - lower (more negative) numbers will require a very close look at the video.

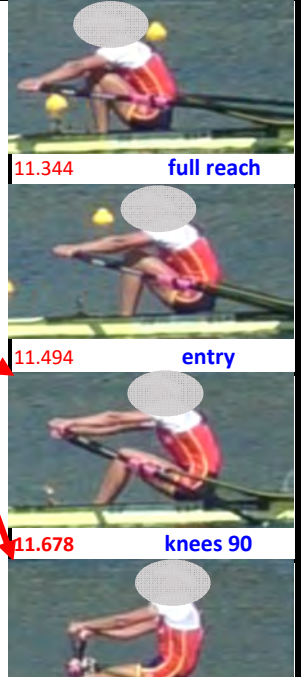
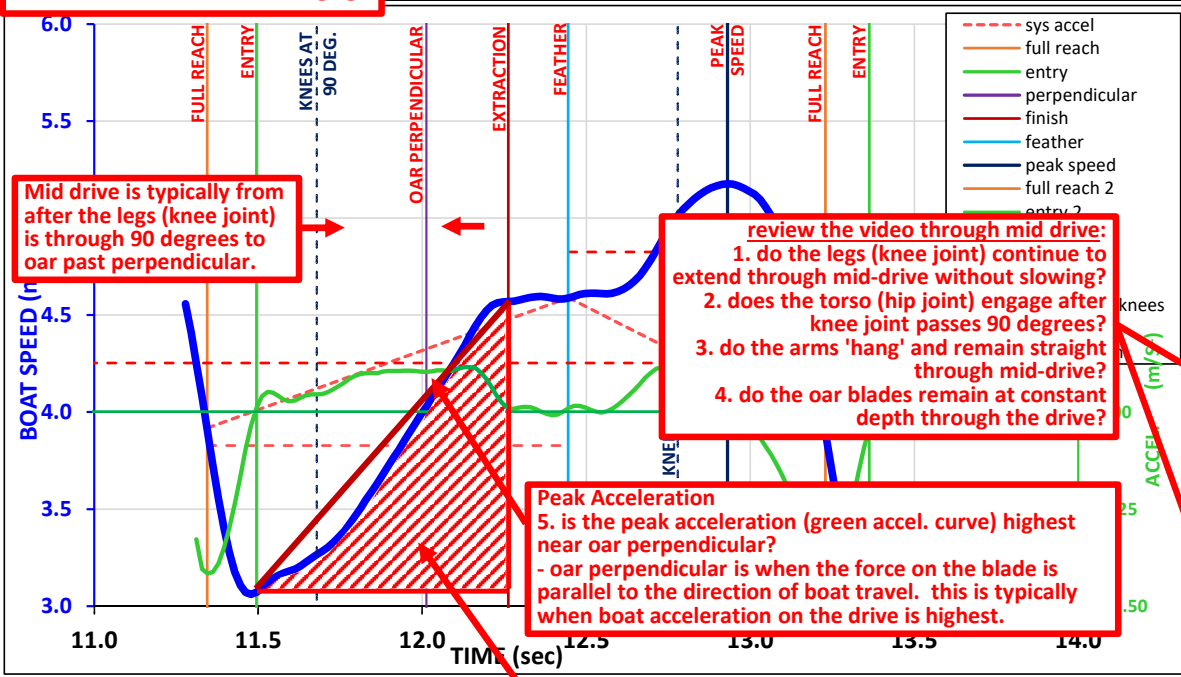
TECHNIQUE ANALYSIS		Distance per Stroke	7.95	Ref:	W1x	WC '17-'19,'22,'23 (59)
CATCH	1 Entry Time (full reach to entry)	0.14	compare this time with the standard.			0.14
	Entry Time % of Stk Cycle	7.6%	this is the percentage of the stroke cycle			8.0%
BLADEBURD	2 Drive Hump. (t*accel.)	-0.024				-0.037
	Drive Accl. (entry to extract)	1.95				2.16
	Drive Accl. Eff. (entry to extract)	89.9%				86.0%
	Perp to Extract Accl. (m/s ²)	2.17				2.37
Drive Speed % of Avg. Speed		90.0%				89.1%
System Speed Change (m/s)		0.69				0.61
RELEASE	3 Release Time (extract to feather)	0.18				0.15
	Release Time % of Stk Cycle	9.9%				8.6%
	Release Speed Change (m/s)	+0.02				+0.03
RECOVERY	4 Recovery Accl. (feather to peak)	1.21				1.37
	Rec. Accl Eff. (feather to peak)	83.5%				82.3%
	5 Recovery Peak Speed (% of Rec)	61.7%				65.8%
	Recovery Speed % of Avg. Spd.	113.4%				113.4%
6 Deceleration (peak to entry2)		-4.86				-4.87
7 Deceleration Time (sec.)		0.47				0.45
Deceleration Time % of Stk Cycle		25.0%				25.3%

The term Drive Hump was identified by Dr. Valery Kleshnev and discussed in his book, *The Biomechanics of Rowing* (2017)

MID-DRIVE ANALYSIS

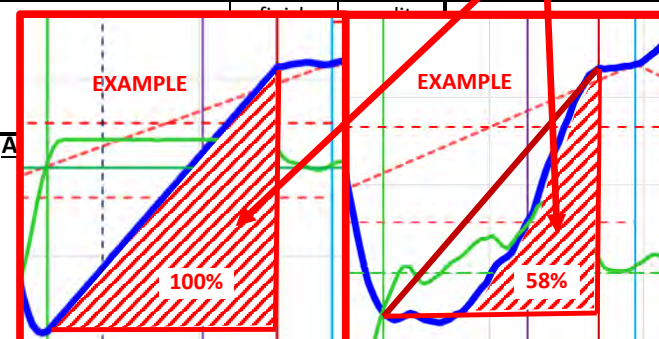
PURCERVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Name	Name	Boat Length	7.78
Boat Class	W1x	Video Time & Date	12:00 AM 1900-01-00
Race Category	W1x	Video Description	0

Drive Acceleration Efficiency
- below graphics show 100% and 58% efficiencies as examples.



dist/stk	spd m/s	split	% GMS
7.95	4.253	1:57.56	91.23%
7.84	4.425	1:53.00	94.9%
0.11	-0.172	+4.56	-3.7%

bow cm	stern cm	Trim Change	0.0 °
0	0	Catch	0.0 °
0	0	Finish	0.0 °

full rch 2	13.23	3.89	*Stroke Rate (spm)	32.1
entry2	13.36	3.07	Stroke Ratio (R/P)	0.87

Drive Acceleration Efficiency (entry to extraction)
7. how does it compare to the standard value?
- this value relates to the boat movement during the drive.

Drive Acceleration (entry to extraction)
6. how does it compare to the standard value?
- this value should be considered with Drive Time and Boat Speed Increase.
- this value does not account for the mass of the athlete(s) that have been transferred from catch to finish (stern to bow).

TECHNIQUE ANALYSIS		Distance per Stroke	7.95	Ref:	W1x	WC '17-'19,'22,'23 (59)	
CATCH	1 Entry Time (full reach to entry)	0.14				0.14	
	Entry Time % of Stk Cycle	7.6%				8.0%	
	BLADEBURD	2 Drive Hump. (t ² accel.)	-0.024				-0.037
		Drive Accel. (entry to extract)	1.95	boat acceleration between blade full bury and blade extraction.			2.16
	Drive Accl. Eff. (entry to extract)	89.9%	percentage of area curve compared to straight line accel.			86.0%	
	Perp to Extract Accel. (m/s ²)	2.17	discussed in late drive phase			2.37	
	Drive Speed % of Avg. Speed	90.0%	drive average speed as percent of total stroke average speed			89.1%	
	System Speed Change (m/s)	0.69	boat speed change - full reach to feather			0.61	
RELEASE	3 Release Time (extract to feather)	0.18				0.15	
	Release Time % of Stk Cycle	9.9%				8.6%	
	Release Speed Change (m/s)	+0.02				+0.03	
RECOVERY	4 Recovery Accel. (feather to peak)	1.21				1.37	
	Rec. Accel Eff. (feather to peak)	83.5%				82.3%	
	5 Recovery Peak Speed (% of Rec)	61.7%				65.8%	
	Recovery Speed % of Avg. Spd.	113.4%				113.4%	
	6 Deceleration (peak to entry2)	-4.86				-4.87	
	7 Deceleration Time (sec.)	0.47				0.45	
	8 Deceleration Time % of Stk Cycle	25.0%				25.3%	

values are the average for 59 crews in this boat class at the World Champs

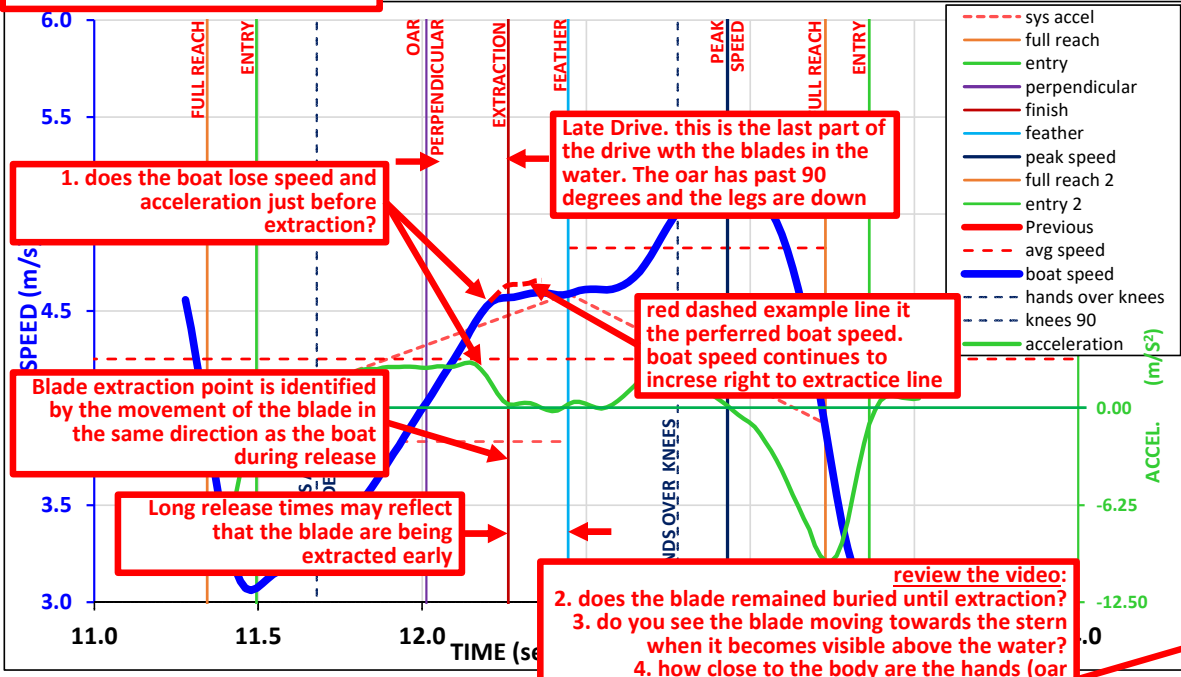
Drive Speed as a Percentage of Average Speed and System Speed Change
are still being researched



LATE DRIVE ANALYSIS

PURCERVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Name Name
 Boat Class W1x Video
 Race Category W1x 0 Video D

Race Time	0:00.00	split	n/a	Curve Average	7.95	4.253	1:57.56	91.23%
Race Percent GMS	#VALUE!	#VALUE!		Category Average	7.84	4.425	1:53.00	94.9%
GMS Time	7:09.00		1:47.25	Diff. (above/below)	0.11	-0.172	+4.56	-3.7%

ANALYSIS	time	boat speed	Weather:	bow cm	stern cm	Trim Change	0.0 °
full reach	11.34	3.90	Air Temp: 0	0	0	Catch	0.0 °
entry	11.49	3.07	Water:	0	0	Finish	0.0 °
perpndclr	12.01	4.03	*Drive Time (sec.)	0.95			0.84
extraction	12.26	4.57	*Blade Slip (m)	+0.18			+0.04
feather	12.45	4.59	Eff. Stroke Lngth (m)	2.87			2.66
peak speed	12.93	5.18	Stroke Position (>PI)	67.4%			67.6%
full rch 2	13.23	3.89	*Stroke Rate (spm)	32.1			33.9
entry2	13.36	3.07	Stroke Ratio (R/DT)	0.97			1.11

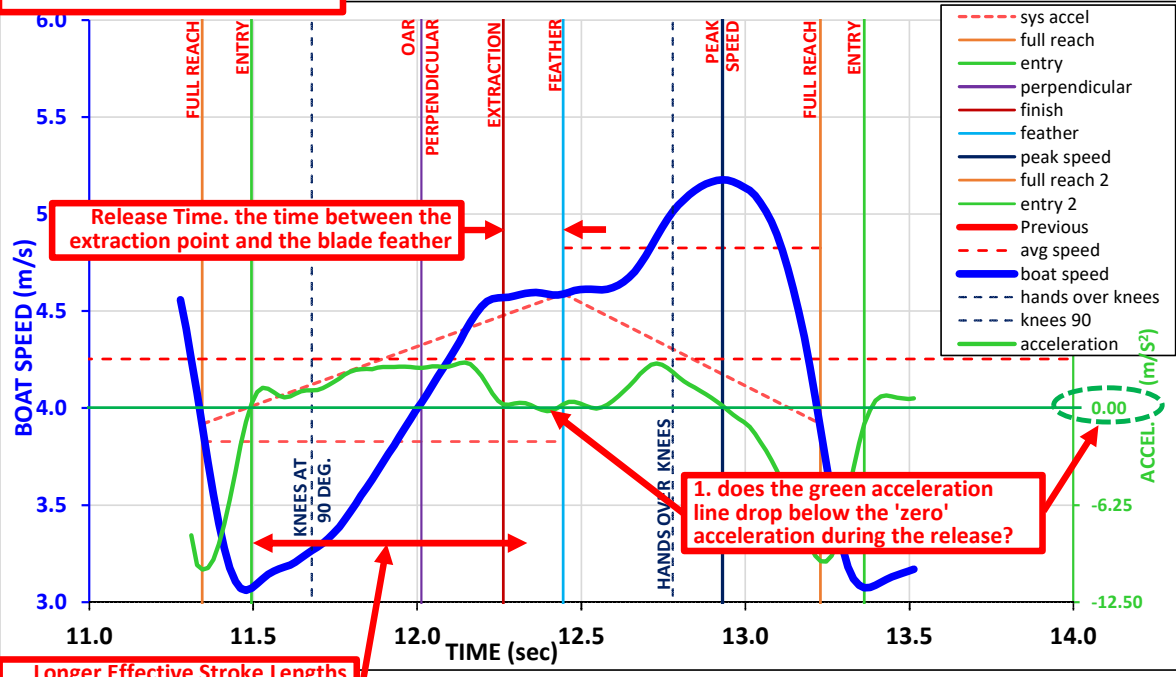
sculler/crew average:	length:	0.00 (m)	This is your Late Drive Acceleration. boat acceleration measured between oar perpendicular and extraction 5. how does this value compare to the standard? - lower acceleration values may identify lower boat acceleration in late drive as shown by downturns on the curves.
RIGGING ANALYSIS	Span	0	#N/A
	Oar Length	286	60.5%
	Inboard	0	39.5%
			537 cm

TECHNIQUE ANALYSIS

Distance per Stroke		7.95	Ref: W1x	WC '17-'19, '22, '23 (59)
CATCH	1 Entry Time (full reach to entry)	0.14		0.14
	Entry Time % of Stk Cycle	7.6%		8.0%
BLADE BURD	2 Drive Hump. (t* accel.)	-0.024		-0.037
	Drive Accel. (entry to extract)	1.95		2.16
	Drive Accl. Eff. (entry to extract)	89.9%		86.0%
	Perp to Extract Accel. (m/s ²)	2.17	acceleration in Late Drive. compare this to standard.	2.37
Drive Speed % of Avg. Speed		90.0%		89.1%
System Speed Change (m/s)		0.69		0.61
RELEASE	3 Release Time (extract to feather)	0.18	this is the time between blade extraction and blade feather	0.15
	Release Time % of Stk Cycle	9.9%		8.6%
	Release Speed Change (m/s)	+0.02		+0.03
RECOVERY	4 Recovery Accl. (feather to peak)	1.21		1.37
	Rec. Accl Eff. (feather to peak)	83.5%		82.3%
	6 Recovery Peak Speed (% of Rec)	61.7%		65.8%
	Recovery Speed % of Avg. Spd.	113.4%		113.4%
7 Deceleration (peak to entry2)		-4.86	The ability to accelerste the boat as long as possible in the Late Drive extends the effective stoke length which is a performance factor.	-4.87
Deceleration Time (sec.)		0.47		0.45
Deceleration Time % of Stk Cycle		25.0%		25.3%

RELEASE ANALYSIS

PURCERVERANCE - Boat Speed, Rigging & Technique Analysis



Longer Effective Stroke Lengths result in lower Release Times. - keeping the blade in the water with a longer stroke leaves limited time for the release

Video File video file Boat Length 7.78
 Video Location ##### Video Time & Date 12:00 AM 1900-01-00
 Video Description 0

Race Time	finish	split	Curve Average
0:00.00	n/a	n/a	
Race Percent GMS	#VALUE!	#VALUE!	Category Average
GMS Time	7:09.00	1:47.25	Diff. (above/below)

ANALYSIS	time	boat speed	Weather:
full reach	11.34	3.90	Air Temp: 0
entry	11.49	3.07	Water:
perpndclr	12.01	4.03	*Drive Time (sec.) 0.95
extraction	12.26	4.57	*Blade Slip (m) +0.18
feather	12.45	4.59	Eff. Stroke Lngth (m) 2.87
peak speed	12.93	5.18	Stroke Position (>PI) 67.4%
full rch 2	13.23	3.89	*Stroke Rate (spm) 32.1
entry2	13.36	3.07	Stroke Ratio (R/DT) 0.97

review the video:
 2. do the blades release from the water clean and without splash?
 3. does the torso continue to move (swing) toward the bow during the release?
 4. how close are the hands (oar handles) to the body at the extraction point?

sculler/crew average:	length:	0.00 (m)
RIGGING ANALYSIS	Span	0
	Oar Length	286
	Inboard	0

This is your Release Time.
 5. how does this value compare to the standard?
 - this technique factor appears to be a performance factor.
 - this time relates to the effective stroke length as longer strokes reduce the time available to release the blade.

Notes:		Total Arc ± 108 °	537 cm
TECHNIQUE ANALYSIS		Distance per stroke 7.95	Ref: W1x WC '17-'19,'22,'23 (59)
CATCH	1 Entry Time (full reach to entry)	0.14	0.14
	Entry Time % of Stk Cycle	7.6%	8.0%
DRAG/BLADE	2 Drive Hump. (t* accel.)	-0.024	-0.037
	entry to extract)	1.95	2.16
	entry to extract)	89.9%	86.0%
	accel. (m/s ²)	2.17	2.37
RELEASE	Avg. Speed	90.0%	89.1%
	change (m/s)	0.69	0.61
RECOVERY	3 Release Time (extract to feather)	0.18	0.15
	Release Time % of Stk Cycle	9.9%	8.6%
	Release Speed Change (m/s)	+0.02	+0.03
RECOVERY	4 Recovery Accel. (feather to peak)	1.21	1.37
	Rec. Accel Eff. (feather to peak)	83.5%	82.3%
	5 Recovery Peak Speed (% of Rec)	61.7%	65.8%
	Recovery Speed % of Avg. Spd	113.4%	113.4%
		-4.87	13.363
		0.45	
		25.3%	

The Release Time as a Percentage of Stroke Cycle.
 6. how does this percentage relate to standard?

0.15 value is the average for 59 crews in this boat class at the World Champs - these values are not goals but are minimum standards

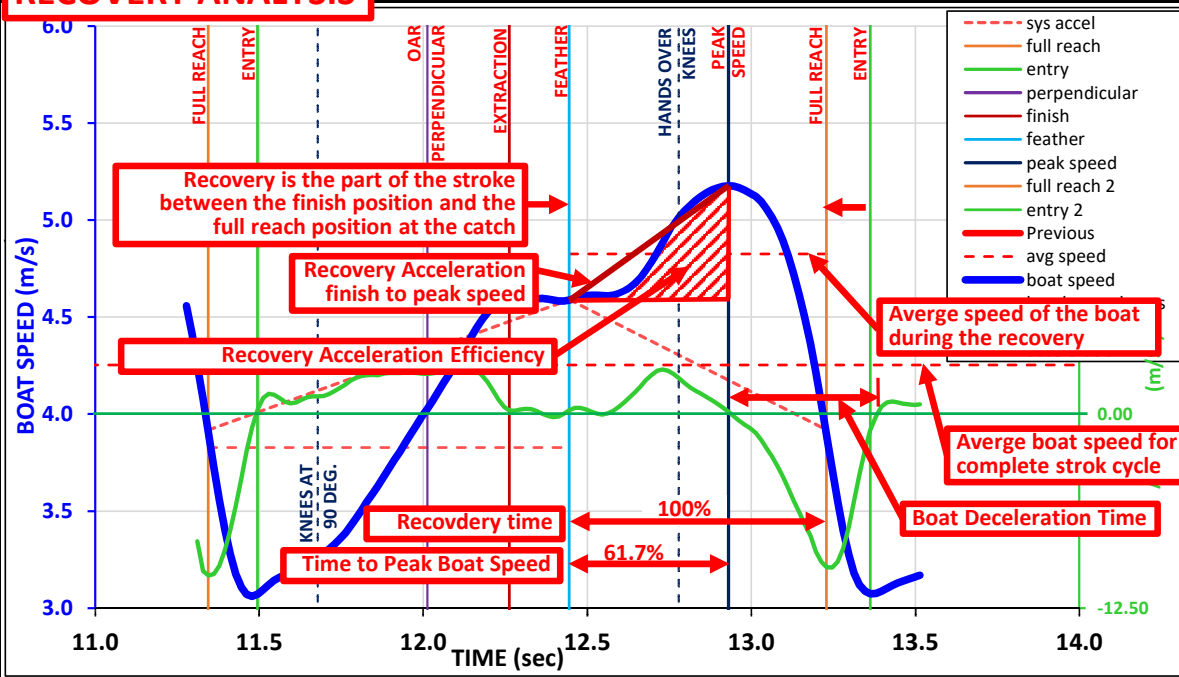
Boat Speed Change.
 7. does the boat decrease speed during the release?
 - this may reflect dragging water or continuing to move body toward bow during the release.

The ability to accelerate the boat during the release results from simultaneously transitioning force from the oarlocks at the extraction point to connecting (pulling) on the footstops.

RECOVERY ANALYSIS

PURCVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Name	Name	Video File	video file	Boat Length	7.78
Boat Class	W1x	Video Location	#####	Video Time & Date	
Race Category	W1x	Video Description	0	12:00 AM	1900-01-00

Race Time	finish	split	Curve Average	dist/stk	spd m/s	split	% GMS
0:00.00	0:00.00	n/a	7.95	7.95	4.253	1:57.56	91.23%
Race Percent GMS	#VALUE!	#VALUE!	Category Average	7.84	4.425	1:53.00	94.9%
GMS Time	7:09.00	1:47.25	Diff. (above/below)	0.11	-0.172	+4.56	-3.7%

ANALYSIS	time	boat speed	Weather:	bow cm	stern cm	Trim Change	0.0 °
full reach	11.34	3.90	Air Temp: 0	0	0	Catch	0.0 °
entry	11.49	3.07	Water:				0.0 °
perpndclr	12.01	4.03	*Drive Time (sec.)				0.84
extraction	12.26	4.57	*Blade Slip (m)				+0.04
feather	12.45	4.59	Eff. Stroke Lngth (m)				2.66
peak speed	12.93	5.18	Stroke Position (>PI)				67.6%
full rch 2	13.23	3.89	*Stroke Rate (spm)				33.9
entry2	13.36	3.07	Stroke Ratio (R/D/T)				1.11

1. do arms, torso and legs move simultaneously from the finish position? (see Accel. Effic.)
2. review the picture of the athlete when the boat is at peak speed? (see related factor value)
3. review the recovery bladework, hands moving horizontally with blades above water.
4. on the approach to the catch do the athlete's hands rise to bring the blade down to the water's surface?

sculler/crew average:	length:	0.00 (m)	power:	0 (watts)	weight:	0 (kg)
RIGGING ANALYSIS	Span	0	Blade Type	0	#N/A	
	Oar Length	286	Catch Angle ±	65 °	60.5%	
	Inboard	0	Finish Angle ±	42 °	39.5%	

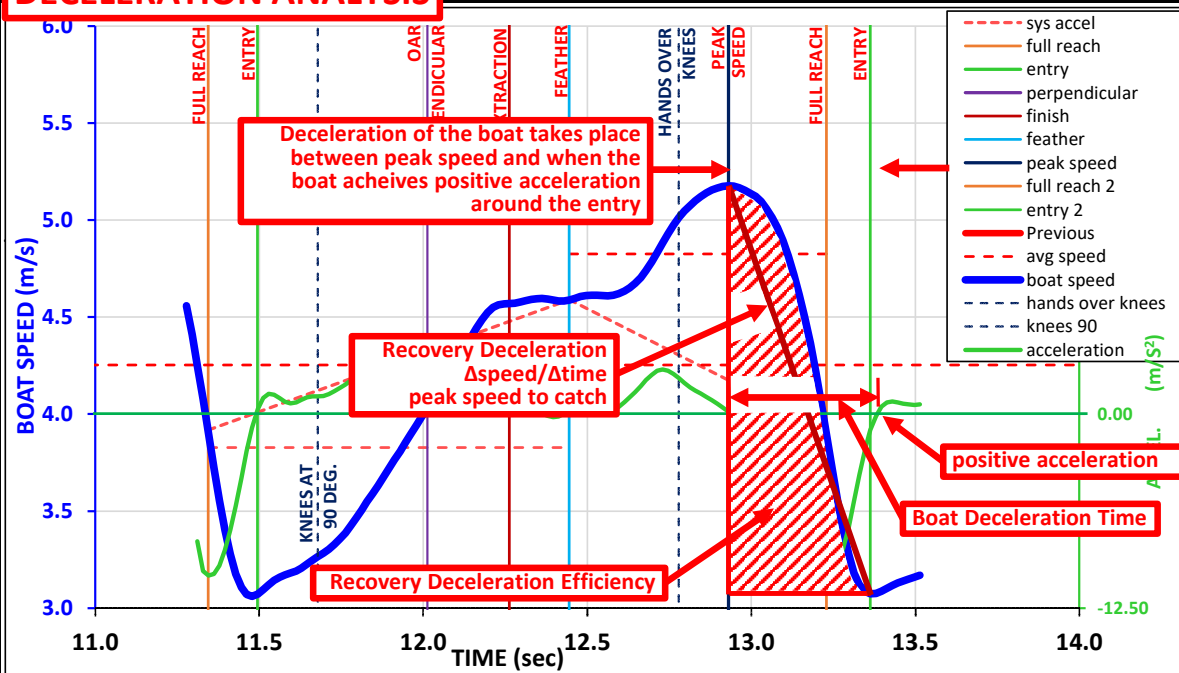
Notes:

TECHNIQUE ANALYSIS	Distance per Stroke	7.95	Ref:	W1x	WC '17-'19, '22, '23 (9)
CATCH	1 Entry Time (full reach to entry)	0.14			0.14
	Entry Time % of Stk Cycle	7.6%			8.0%
	2 Drive Hump. (t*accel.)	-0.024			-0.031
	Release Acceleration Efficiency				2.16
	6. how does this percentage relate to standard?				86.0%
	- lower percentages may reflect limited acceleration at the beginning of the recovery caused by lack of connection pulling on footstops.				2.37
RELEASE	Release Time (extract to feather)	0.18			89.1%
	Release Time % of Stk Cycle	9.9%			0.61
	Release Speed Change (m/s)	+0.02			0.15
	7. how does the factor value compare to the average?				8.6%
	- this may be a performance factor related to the athletes ability to extend boat acceleration during the recovery.				+0.03
RECOVERY	Recovery Accel. (feather to peak)	1.21	beginning of recovery to peak speed (Δspeed/Δtime)		1.37
	Rec. Accel Eff. (feather to peak)	83.5%	is the area under speed curve as percent of constant acceleration		82.3%
	Recovery Peak Speed (% of Rec)	61.7%	percentage of recovery (feather~fullreach2) to peak speed		65.8%
	Recovery Speed % of Avg. Spd.	113.4%	boat's average recovery speed as a percent of full stroke average speed		113.4%
	8 Deceleration (peak to entry2)	-4.86			-4.87
	9 Deceleration Time (sec.)	0.47			0.45
	Recovery Average Speed as Percent of Boat Average		- this value may reveal effective recovery movement and should be considered with stroke ratio.		25.3%
	Deceleration Time % of Stk Cycle	25.0%			

DECELERATION ANALYSIS

PURCERVERANCE - Boat Speed, Rigging & Technique Analysis

v. 2024-02-12



Name	Name	Video File	video file	Boat Length	7.78
Boat Class	W1x	Video Location	#####	Video Time & Date	
Race Category	W1x	Video Description	0	12:00 AM	1900-01-00

Race Time	finish	split	Curve Average	dist/stk	spd m/s	split	% GMS
0:00.00	0:00.00	n/a	7.95	7.95	4.253	1:57.56	91.23%
Race Percent GMS	#VALUE!	#VALUE!	Category Average	7.84	4.425	1:53.00	94.9%
GMS Time	7:09.00	1:47.25	Diff. (above/below)	0.11	-0.172	+4.56	-3.7%

ANALYSIS	time	boat speed	Weather:	bow cm	stern cm	Trim Change	0.0 °
full reach	11.34	3.90	Air Temp: 0	0	0	Catch	0.0 °
entry	11.49	3.07	Water:				0.0 °
perpndclr	12.01	4.03	*Drive Time (sec)				0.84
extraction	12.26	4.57	*Blade Slip (m)				+0.04
feather	12.45	4.59	Eff. Stroke Lngth (m)				2.66
peak speed	12.93	5.18	Stroke Position (>P)				67.6%
full rch 2	13.23	3.89	*Stroke Rate (spm)				33.9
entry2	13.36	3.07	Stroke Ratio (R/D)				1.11

review the video:

1. review the picture of the athlete when the boat is at peak speed. Can boat acceleration be continued longer on the recovery? (see related factor value)
2. does the blade preparation for the catch and the oar handle pathway on the approach support a quick catch?
 - minimizing deceleration relates to both extending acceleration as long as possible on the recovery and achieving a quick positive acceleration at the catch.

sculler/crew average:	length:	0.00 (m)	power:	0 (watts)	weight:	0 (kg)
RIGGING ANALYSIS	Span	0	Blade Type	0	#N/A	
	Oar Length	286	Catch Angle ±	65 °	60.8%	
	Inboard	0	Finish Angle ±	43 °	39.3%	
			Total Arc ±	108 °	53.1%	

TECHNIQUE ANALYSIS		Distance per Stroke	7.95	Ref:	W1x	WC '17-'19,'22,'23,'24
CATCH	1 Entry Time (full reach to entry)	0.14				0.14
	Entry Time % of Stk Cycle	7.6%				8.0%
D	2 Drive Hump. (t*accel.)	-0.024				-0.061
	Recovery Deceleration					2.16
RELEASE	3 System Speed Change (m/s)	0.69				86.0%
	4 Release Time (extract to feather)	0.18				2.37
	5 Release Time % of Stk Cycle	9.9%				89.1%
RECOVERY	6 Release Speed Change (m/s)	+0.02				0.61
	7 Recovery Accel. (feather to peak)	1.21				0.15
	8 Rec. Accel Eff. (feather to peak)	83.5%				8.6%
	9 Recovery Peak Speed (% of rec)	61.7%				+0.03
	10 Recovery Speed % of Avg. Spd	113.4%				1.37
	11 Deceleration (peak to entry2)	-4.86				82.3%
	12 Deceleration Time (sec.)	0.47				65.8%
	13 Deceleration Time % of Stk Cycle	25.0%				113.4%

values is the average for 59 crews in this boat class at the World Champs - these values are not goals but are minimum standards

3. how does this percentage relate to standard? - steeper deceleration rates may link to shorter deceleration times.

4. how does the factor value compare to the average? - this may be a performance factor related to the athletes ability to extend boat acceleration during the recovery and accelerate the boat quickly at the catch.

5. how does this value compare with standard? - this value highlights the deceleration time for athlete understanding