

Rudder Club Handicap System

The Rudder Club Handicap System (RCHS) is a time on time system based on the US Portsmouth Time on Time System. A correction is applied to a boat's DPN based on 80% of the difference between a boat's rating and the rating that boat would have needed to tie the boat with the shortest elapsed time in a Mug Race. These individual race corrections are averaged become the RCHS handicap used for a subsequent race. The Portsmouth formula $ETX100X1/RCHS$ is used to calculate corrected time.

The formulas used are as follows:

CT=Corrected Time

ET_b =A boat's elapsed time.

ET_w =The winner's elapsed time

DPN=A boat's Portsmouth Rating

DPN_w =The winner's DPN

DPN_{tt} =The DPN required for a boat to tie the winner

RCHS= The handicap for a boat based on preceding races. It is its present DPN plus 80% of the difference between its DPN and DPN_{tt} .

$$DPN_{tt} = ET * DPN_s * 1 / ET_w$$

$$RCHS = DPN + ((DPN_{tt} - DPN) * .8)$$

Attached is a Master List of finishers since 2012. Where I had good Mid Course information I included that as well. Including the mid-course gives us more data points as well as a greater variety of weather conditions. Columns B through H represent the RCHS ratings (computed on separate spreadsheets) for the years indicated. Column "I" is the simple average of these ratings. The second and third attachments are test runs where I used the Column "I" RCHS handicaps and the elapsed times from the 2013 race and the 2016 race to see how the RCHS corrected times worked out. I was happy with the results. I think the system is a "go."

Master List	2012	2013	2014 MC	2015	2015 MC	2016	2016 MC	AVG RCHS
Albury			0.0					
Antley	97.8	0.0	136.0	103.7	115.1			113.2
Athey				98.0	108.9			103.4
Baker	80.6		67.9	71.9	71.9	67.7	65.2	70.9
Baldacchino		93.6						93.6
Barber		170.4		124.8	166.8			154.0
Barraclough		132.0	0.0					132.0
Barre						82.8	79.0	80.9
Birdwell		130.5						130.5
Bixby		161.7						161.7
Blalock			95.7	89.0	93.9			92.9
Blevins				0.0	0.0			
Bobek	88.2							88.2
Boland				89.6	94.1	87.5	84.2	88.9
BOSQUE			108.8	103.8	112.3			108.3
Boudreaux	89.1			99.9	112.2			100.4
Brew C						77.2	72.5	74.8
Brew K	83.9	98.9		82.7	77.7	79.2	72.1	82.4
Brew R	71.1	0.0	64.7	66.4	64.5	56.0	56.0	63.1
Brew S			0.0	84.9	86.6			85.7
Brockman	95.3	0.0	0.0					95.3
Brown	96.1							96.1
Bullock							0.0	
Burnham	93.7			102.3	115.7			103.9
Bush		112.2	0.0					112.2
Carlson	78.7	0.0		67.6	65.9			70.7
Carmichael	100.2							100.2
Caron	87.5	84.7	91.2	88.9	86.4			87.7
Carter	102.3	110.7						106.5
Clee				96.2	102.4			99.3
Clinton		0.0	92.7					92.7
Coggin		0.0						
Cole			68.5	65.8	66.4	66.8	63.3	66.2
Colegrove	85.1							85.1
Condit							122.8	122.8
Cordes	78.5		62.0	0.0	0.0			70.2
cornell	104.5	0.0		0.0	0.0			104.5
Cosentino				82.4	90.9			86.7
Crafton		159.6						159.6
Creighton							119.4	119.4
Currie				124.5	167.4			145.9
Daniel	77.8							77.8
d'Arcy		158.6						158.6
Davis	96.6	111.7	91.9	89.7	94.4	81.7	75.3	91.6
Dean	97.7							97.7
Dede			123.4					123.4

Dees	142.8							142.8
Demontmorency						0.0		
Dennis	149.2							149.2
DePalma	91.4							91.4
derousie	0.0							
Derr	86.4							86.4
Dinkins			0.0					
Dix			145.1					145.1
Dolan	97.7							97.7
Dowdy				116.4	140.6		121.8	126.3
Drew	79.0		77.6	79.9	74.0	73.4	69.2	75.5
Dunn	74.0		63.9	71.7	70.5	67.4	64.8	68.7
Eaton	91.8							91.8
edelman				111.8	138.2			125.0
Edens	79.2	101.4	62.3			71.1	65.2	75.8
Edwards	91.8							91.8
Ellis	89.1	126.5		96.1	102.9	88.4	83.9	97.8
Engel				0.0	159.9			159.9
Erdos	85.3	117.0						101.2
Federico		122.3						122.3
Fine			0.0					
Fleming		142.2	144.7					143.5
Forrest	99.3	132.1	119.5	106.4	121.9	95.6	95.8	110.1
Fraser	85.3							85.3
Frazier	88.4	152.3	0.0	119.7	155.1		0.0	128.9
Freeman	99.8	158.8						129.3
Futch				86.5	89.1			87.8
Gallagher		0.0	174.2					174.2
Gaudet	86.1					91.6	88.0	88.6
geissler						79.4	72.5	75.9
Geyer	93.2	137.2	115.0	104.3	113.7	92.0	89.5	106.4
Ghiotto		79.6						79.6
Gill							0.0	
GILLAND	97.9							97.9
Gillikin				93.8	100.6		0.0	97.2
Glidden	102.5	0.0						102.5
Graham		158.4	116.6	103.4	111.2	93.2	91.6	112.4
Gray	93.7							93.7
GREEN		117.1		78.8	71.0		0.0	89.0
Gregory	98.3							98.3
Gresham						87.7	83.4	85.6
Haddock	96.2							96.2
hale		0.0						
Haley		0.0	0.0					
Halusky				114.8	135.5		0.0	125.2
Hanley	96.0	159.3	0.0					127.6
Hanna			0.0					

Harper		0.0	87.4	85.3	80.7			84.5
Harrington				114.5	146.0	0.0	97.0	119.2
Hartman				118.0	156.1		0.0	137.1
Hatchett							113.2	113.2
Hayden			111.4	102.9	112.3			108.9
Heinz							0.0	
Helmick		114.7		79.6	79.4			91.2
Hennig	97.8							97.8
Henshaw				120.6	148.5		117.1	128.7
Hodgins	102.4	148.9	0.0	0.0	0.0			125.6
Hoffman	81.6	86.4	0.0					84.0
holland							0.0	
Hopton			106.1					106.1
Horenstein		125.8						125.8
Howell	102.5							102.5
Hurley			87.3	95.8	101.6	0.0	98.9	95.9
Ingram	71.8	62.3	63.4	66.2	67.7	65.7	62.6	65.7
James				110.8	120.7			115.8
Johnson						0.0	98.2	98.2
Jones		137.5	103.2	0.0	0.0	0.0	98.6	113.1
Kautsky						86.9	81.5	84.2
Keeble			121.2					121.2
Keeley III				85.5	91.1	90.7	87.0	88.6
Keeley, III	85.1	113.2						99.1
Keene	97.0	0.0						97.0
Keller	94.3	157.1	0.0	0.0	0.0			125.7
Kellner	99.5							99.5
Kight	90.3	117.7	102.3	96.5	104.0			102.2
Kormanyos				110.5	131.0		0.0	120.8
Kuftic			87.4					87.4
Ladd	87.8							87.8
Lagasse	91.6	117.2	117.3					108.7
laibl	77.3	83.5	84.8					81.9
Lamport						94.2	91.8	93.0
Lantaigne	96.4							96.4
Lee	82.3							82.3
Linton			103.1					103.1
Loesel	80.5						0.0	80.5
Lynch	76.7							76.7
Mac Kenzie		139.7						139.7
Macdonald		72.6		73.2	72.7			72.9
MacKenzie	86.8			105.6	119.0			103.8
Maedel	86.9	104.3	92.1	77.3	75.1	76.8	69.0	83.0
Maher	87.5		144.2					115.8
Manis	98.0			119.2	156.4		0.0	124.5
Mannoia			0.0					
MARK			0.0					

Martin				0.0	0.0			
Masar		0.0		0.0	0.0			
Matos			117.3					117.3
Mayer	95.1							95.1
MAYO	76.1							76.1
McCorkle	81.9	74.6	69.4					75.3
MCDONALD	75.5							75.5
McGee	91.2	0.0	0.0	0.0	0.0			91.2
McKnight							0.0	
McLarty							0.0	
McLean	78.4					73.8	67.9	73.4
MCNALLY			0.0					
Meyer		0.0						
Michael		115.7	118.7	84.5	94.3			103.3
Miles	99.9		119.1					109.5
Miller	91.1	0.0	0.0					91.1
MITCHELL	82.9	113.9						98.4
Mondell	82.7							82.7
Morgan	94.6	143.0						118.8
Moring	91.9					89.6	85.9	89.1
Morris						79.1	72.4	75.8
Moss	62.9							62.9
Mrachek							122.5	122.5
Mundell		91.7						91.7
Myles Loesel		89.0						89.0
Mysicka			0.0	83.2	88.0	91.1	86.1	87.1
Newlyn	74.0	69.5	0.0					71.7
nordin				118.7	150.6		0.0	134.6
North	99.3	0.0	122.5	111.1	122.2	0.0	96.8	110.4
NORTHUP			0.0					
Norwood	75.4	100.1	94.5	83.4	91.2	74.6	68.0	83.9
Nye	102.1	170.0		0.0	188.9			153.7
O'Cain		143.3						143.3
Olden		0.0	0.0	127.4	168.0		0.0	147.7
Osidach			0.0					
Padgett		159.9		114.0	140.0			138.0
Palmer	92.9	137.4	126.2	107.3	121.7			117.1
Palumbo							117.8	117.8
Parr		128.4						128.4
Penn			184.9					184.9
Pettengill	93.3							93.3
Phillips		0.0						
Poole			0.0					
Porter	82.5	0.0		107.4	123.6		114.1	106.9
price	87.5	0.0						87.5
Purdy	87.3	0.0	0.0	94.8	110.8			97.6
Rayburn	78.2	114.2	75.8	74.0	74.9	77.7	70.3	80.7

Raye		146.8						146.8
Raymond		0.0						
Reasonover	94.7	0.0	146.6	106.6	127.3		102.7	115.6
Rehkopf		0.0		0.0	0.0			
rice			0.0	0.0	0.0			
Roberts	60.3	55.6	55.6	55.6	55.6	55.6	55.6	56.3
Runnfeldt	83.5	0.0		89.4	92.6			88.5
Salen		173.4						173.4
Salzberg							0.0	
Savoldy							117.8	117.8
Scoffin	83.8	81.3						82.6
Scott		136.0						136.0
Scruggs	93.7		114.8					104.2
Seib		113.1						113.1
Shaw				109.2	120.2			114.7
Shealy	87.5							87.5
Sims	99.9	124.0	115.1	0.0	0.0	96.5	93.3	105.8
Sirum		162.9						162.9
Smith		155.9	133.8	95.0	109.7		0.0	123.6
Snow				134.8	193.8			164.3
solc		150.0						150.0
Spierre	94.9	149.5	169.8	0.0	166.5		115.4	139.2
St. Amour			96.5					96.5
Stage		0.0						
Stagg	94.5		0.0					94.5
Stamper				90.7	92.1	82.1	79.0	86.0
Stephens		149.0						149.0
Stolp			0.0					
Styne							0.0	
Sullivan	94.5	124.6	143.0	107.7	123.2	0.0	100.1	115.5
Sunderland		71.0						71.0
Sundie				0.0	0.0			
Sylvester		138.8	116.0					127.4
Taylor				98.9	126.8			112.9
Tew	83.5	108.8	105.1	87.6	92.3	87.6	85.0	92.8
THACKER		110.1	0.0	0.0	0.0			110.1
Thomas	97.6							97.6
Thompson	94.5	126.5		103.3	116.2		0.0	110.1
Tierney								
TILLEMA						77.1	73.9	75.5
Toth	87.5							87.5
Tripp				0.0	0.0			
Tuller	100.0							100.0
Twitchell			141.4					141.4
van tassel			83.5	82.0	84.4			83.3
Verkaik		137.5	85.3	76.9	73.3			93.2
Walker							0.0	

Wallace	74.4			0.0	0.0	81.0	65.4	73.6
Warren		119.2	102.9	95.7	102.4	87.9	84.3	98.7
Waters		114.9		91.3	97.8	85.6	80.8	94.1
Wechman	97.5							97.5
welch			120.4					120.4
WESTON			0.0					
Wetmore						0.0	69.8	69.8
Wiggins		124.0						124.0
Wilkins		82.5						82.5
Williams		123.9						123.9
WILSON				119.7	142.3			131.0
Winterberg	98.1	0.0						98.1
WIRSING							0.0	
Woehrle	91.7	104.1	0.0	0.0	116.1			104.0
Wright		96.2		79.1	76.7	76.4	70.3	79.7
Yaracs	103.8							103.8
Zimmer							0.0	
Zimmerman	98.3	139.8	129.9	109.9			107.1	117.0
Count	106.0	112.0	91.0	97.0	96.0	45.0	81.0	212.0

Test 2013

Last	ET	RCHS	CT
Baldacchini	5:14:55	93.62079	5:36:22
Barber	9:58:00	153.9855	6:28:21
Barraclough	7:54:35	131.9569	5:59:39
Birdwell	7:36:17	130.5051	5:49:38
Bixby	9:33:00	161.7393	5:54:16
Brew K	5:37:25	82.41398	6:49:25
Bush	6:29:35	112.1685	5:47:19
Caron	4:37:58	87.71709	5:16:53
Carter	6:11:30	106.5071	5:48:48
Crafton	9:21:22	159.5912	5:51:45
d'Arcy	9:21:59	158.5845	5:54:22
Davis	6:18:50	91.6147	6:53:30
Dees	8:30:18	142.7654	5:57:26
Dennis	8:43:44	149.2035	5:51:01
Edens	5:55:13	75.83807	7:48:23
Ellis	7:14:39	97.81751	7:24:21
Erdos	6:40:22	101.156	6:35:47
Federico	6:57:43	122.3413	5:41:26
Fleming	8:06:30	143.4787	5:39:04
Forrest	7:31:37	110.0908	6:50:13
Frazier	8:52:21	128.9139	6:52:57
Freeman	9:19:27	129.2922	7:12:42
Geyer	7:56:59	106.4108	7:28:15
Ghiotto	4:23:40	79.56693	5:31:23
Graham	9:21:59	112.3907	8:20:02
GREEN	6:50:42	88.96665	7:41:38
Hanley	9:25:24	127.6363	7:22:59
Helmick	6:40:38	91.24279	7:19:05
Hodgins	8:37:03	125.6266	6:51:35
Hoffman	4:47:44	83.99925	5:42:33
Horenstein	7:15:02	125.7788	5:45:52
Ingram	3:17:17	65.67465	5:00:24
Jones	8:12:50	113.1169	7:15:41
Keeley, III	6:26:47	99.14854	6:30:06
Keller	9:16:59	125.6631	7:23:14
Kight	6:42:08	102.1764	6:33:34
Lagasse	6:39:13	108.6974	6:07:16
laibl	4:42:09	81.85546	5:44:42
Mac Kenzie	8:05:09	139.7412	5:47:11
Macdonald	4:00:38	72.85437	5:30:18
Maedel	6:08:48	83.04811	7:24:05
McCorkle	4:06:47	75.29024	5:27:47
Michael	6:39:14	103.2982	6:26:29
mittchell	6:34:16	98.38728	6:40:44
Morgan	8:24:20	118.7739	7:04:37

Mundell	5:11:07	91.71254	5:39:14
Myles Loes	4:58:03	89.02692	5:34:47
Newlyn	3:47:50	71.72385	5:17:39
Norwood	5:44:38	83.88798	6:50:50
Nye	10:00:07	153.6584	6:30:33
O'Cain	8:15:33	143.3308	5:45:44
Padgett	9:22:14	137.9741	6:47:30
Palmer	7:55:38	117.1098	6:46:09
Parr	7:29:52	128.3582	5:50:29
Rayburn	6:43:17	80.71608	8:19:38
Raye	8:29:49	146.7558	5:47:23
Roberts	2:57:56	56.27362	5:16:12
Salen	10:11:00	173.3786	5:52:24
Scoffin	4:21:20	82.58214	5:16:27
Scott	7:46:09	135.9814	5:42:48
Seib	6:18:48	113.1129	5:34:53
Sims	7:00:12	105.7746	6:37:16
Sirum	9:27:44	162.9307	5:48:27
Smith	9:13:30	123.5938	7:27:50
solc	8:43:04	150.0169	5:48:40
Spierre	8:47:02	139.2217	6:18:33
Stephens	8:50:50	148.9784	5:56:19
Sullivan	7:04:46	115.5235	6:07:41
Sunderlanc	3:55:23	70.96142	5:31:42
Sylvester	8:06:08	127.4318	6:21:29
Tew	6:17:03	92.84462	6:46:07
THACKER	6:23:15	110.0853	5:48:08
Thompson	7:16:54	110.1283	6:36:43
Verkaik	8:12:50	93.2422	8:48:33
Warren	6:50:16	98.73724	6:55:31
Waters	6:30:44	94.05429	6:55:26
Wiggins	7:02:51	123.9947	5:41:01
Wilkins	4:31:27	82.52261	5:28:56
Williams	7:14:35	123.8577	5:50:52
Woehrle	5:42:56	103.9535	5:29:53
Wright	5:23:05	79.71799	6:45:17
Zimmerma	8:03:38	116.9903	6:53:24

Test 2016

Last	ET 2016	AVG RCHS	CT
Graham	11:12:56	112.39069	9:58:45
Forrest	11:20:50	110.09075	10:18:26
Geyer	11:02:06	106.41076	10:22:13
Davis	9:39:26	91.614701	10:32:28
Warren	10:30:29	98.73724	10:38:33
Ellis	10:29:56	97.817514	10:43:59
Norwood	9:02:27	83.887981	10:46:38
Waters	10:11:18	94.054294	10:49:57
Brew R	6:40:12	61.535612	10:50:21
Sims	11:29:08	105.77458	10:51:31
Wright	9:06:22	79.717986	11:25:22
Baker	8:06:12	70.891223	11:25:50
Stamper	9:52:26	86.002482	11:28:51
Edens	8:43:06	75.838067	11:29:46
Maedel	9:35:49	83.048111	11:33:21
Roberts	6:37:29	56.273619	11:46:20
Tew	10:59:21	92.844618	11:50:10
Dunn	8:09:47	68.713135	11:52:48
drew	8:59:29	75.508586	11:54:28
Rayburn	9:39:07	80.716082	11:57:28
Moring	10:40:41	89.125874	11:58:51
Lamport	11:09:56	93.006058	12:00:19
Ingram	7:55:49	65.674651	12:04:30
TILLEMA	9:07:33	75.508227	12:05:09
Barre	9:48:17	80.862223	12:07:31
Keeley III	10:48:09	88.55702	12:11:54
Cole	8:05:07	66.152575	12:13:20
Brew K	9:40:12	82.413977	11:44:00
McLean	9:04:07	73.401033	12:21:18
boland	10:59:31	88.851522	12:22:16
Gresham	10:35:49	85.564886	12:23:05
Brew C	9:21:55	74.815303	12:31:04
Gaudet	11:05:54	88.558282	12:31:56
geissler	9:39:22	75.933625	12:42:59
Kautsky	10:43:51	84.226623	12:44:26
Morris	9:39:30	75.750491	12:45:01
Mysicka	11:20:46	87.120523	13:01:24
wallace	10:15:59	73.594424	13:57:00