

### Notes Regarding Speed Percentile Calculations

Speed percentiles are being calculated to ensure each class stays competitive and that an objective process is used to advance riders to the next class.

The actual calculation starts with the fastest rider for each race being assigned 100%, and all other riders as a lower speed compared to the winner. The actual calculations are done as Laps Per Hour so we don't have to count on an accurate course length to determine real speed in mph. Only races scored with MotoTally can be used.

In some cases, individual rider percentiles by race may be eliminated if that race is determined to be an outlier - ie. the rider had issues beyond their normal performance. For example, if a B rider typically has a percentile score of 85-88%, but one race has them at 52%, that isn't representative of their typical performance. The 52% would be removed, and their average recalculated. This is not done subjectively, it is automated through the use of averages and standard deviations.

For 2021, one race was completely eliminated from the analysis. Selma(1) was a mud race, and caused nearly everyone's average to drop considerably. Speed calcs are an attempt to keep the class competitive by analyzing typical rider speed, which would not have been represented at Selma.

Also, the current rules are still primarily based on advancement using year end points. This analysis shows what we plan to do in the future for advancements.

**Classes by Speed Percentile**

Speed is calculated as % of speed of the fastest rider in each race.

	A	B	C
95-100%	AA		
90-95%	A		
85-90%	VA	B	
80-85%	SA	VB	C
75-80%	SSA	SB	VC
70-75%		SSB	

Masters, Women: Valid range is 0-100%

			Average Speed vs Winner	
First	Last	Class	Winner	Status
Lucas	Hol	AA	99.4	In Range
Chad	Toth	AA	97.7	In Range
Benjamin	Ward	AA	97.5	In Range
Tobin	Miller	AA	96.9	In Range
Garrett	Krauth	AA	96.8	In Range
Tyler	Fleck	AA	96.5	In Range
Clint	Flack	AA	95.4	In Range
Jamie	Driskell	AA	95.2	In Range
Seth	Blackburn	AA	94.4	Below Range
Christopher	Mckelvey	AA	94.1	Below Range
Tristan	Melgoza	AA	94.1	Below Range
Garrett	Hoveling	AA	93.7	Below Range
Matt	Mcdonald	AA	93.3	Below Range
Jason	Protiva	AA	92.8	Below Range
Kirk	Foster	AA	90.9	Below Range
Jesse	Bergman	AA	90.0	Below Range
Barry	Sulzberger	AA	89.7	Below Range
Dawson	Driskell	AA	89.0	Below Range
Tucker	Miller	AA	85.6	Below Range
Ryan	Fleck	AA	81.1	Below Range
Logan	Jackson	A	93.8	In Range
Drew	Denotter	A	93.4	In Range
Dan	Myers	A	91.3	In Range
Alex	Spillman	A	91.1	In Range
Max	Neubaum	A	90.9	In Range
Casey	Iles	A	90.5	In Range
Colin	Miigerl	A	88.5	Below Range
Marshall	Mcfarland	A	87.5	Below Range
Paul	Kelley	A	87.0	Below Range
Jason	Davis	A	83.5	Below Range
Andrew	Dizona	A	82.4	Below Range
Corbin	Fratzke	A	80.3	Below Range
Erik	Salmon	A	70.3	Below Range
Nathan	Nikkel	Veteran A	92.1	Above Range
Brad	Krauth	Veteran A	91.8	Above Range
Kenneith	Mckean	Veteran A	90.7	Above Range
James	Razor	Veteran A	89.7	In Range
Mitch	Sheets	Veteran A	89.3	In Range
Mark	Davis	Veteran A	88.5	In Range
Joe	Windle	Veteran A	87.4	In Range
David	Malone	Veteran A	87.1	In Range
Ben	Lorenz	Veteran A	87.0	In Range
Adam	Wyant	Veteran A	86.6	In Range

Tyler	Richardson	Veteran A	84.7	Below Range
Josh	Spurlock	Veteran A	78.1	Below Range
Kevin	Hansen	Senior A	88.1	Above Range
Nicholas	Nenow	Senior A	85.2	Above Range
Eric	Sieh	Senior A	85.1	Above Range
Mark	Burghardt	Senior A	82.8	In Range
Brian	Dizona	Senior A	81.4	In Range
Chris	Hansen	Senior A	81.0	In Range
Ben	Miller	Senior A	80.8	In Range
Brandon	Combs	Senior A	80.4	In Range
Jon	Johnson	Senior A	80.0	Below Range
Walker	Luedtke	Senior A	74.8	Below Range
Marlo	Hay	Senior A	72.0	Below Range
Jerry	Warner	Super Senior A	83.2	Above Range
Scott	Fleck	Super Senior A	83.0	Above Range
Jerry	Melick	Super Senior A	81.9	Above Range
Chuck	Neavin	Super Senior A	76.6	In Range
Lance	Mckean	Super Senior A	73.2	Below Range
Eric	Burghardt	Super Senior A	72.9	Below Range
Marcus	White	Super Senior A	65.4	Below Range
David	Bergantzel	Super Senior A	56.6	Below Range
Elijah	Berryman	B	92.5	Above Range
Trenton	Hol	B	91.6	Above Range
Briar	Greene	B	90.3	Above Range
Ashton	Allen	B	89.1	In Range
Jacob	Berens	B	85.8	In Range
Gavin	Moore	B	83.4	Below Range
Raymond	Morehouse	B	83.2	Below Range
Deagan	Driskell	B	83.1	Below Range
Diesel	Driskell	B	82.9	Below Range
Braden	Spillman	B	81.8	Below Range
Cody	Berens	B	81.4	Below Range
Tucker	Wyant	B	78.1	Below Range
Colton	Thomas	B	70.6	Below Range
Henry	Kelley	B	55.8	Below Range
Izaak	Bergantzel	B	52.8	Below Range
Clinton	Taylor	Veteran B	87.5	Above Range
Ryan	Rasmussen	Veteran B	87.4	Above Range
Kory	Spees	Veteran B	83.7	In Range
Brett	Huizer	Veteran B	82.2	In Range
John	Houston	Veteran B	82.1	In Range
Justin	Boggs	Veteran B	81.7	In Range
Blake	Larsh	Veteran B	81.3	In Range
Nathan	Thompson	Veteran B	80.6	In Range
Jordan	Vaughan	Veteran B	79.6	Below Range
Adam	Machacek	Veteran B	78.4	Below Range
Brandon	Mckean	Veteran B	78.0	Below Range

Kyle	Yeo	Veteran B	76.8	Below Range
Rusty	Andresen	Veteran B	76.7	Below Range
Jacob	Anderson	Veteran B	75.7	Below Range
Jennifer	Sheppard	Veteran B	75.1	Below Range
Bob	Edwards	Veteran B	72.6	Below Range
Shannon	Hensley	Veteran B	72.2	Below Range
John	Knepper	Veteran B	71.7	Below Range
Dillon	Devine	Veteran B	68.4	Below Range
Ryan	Kappelman	Veteran B	68.0	Below Range
John	Schlumberge	Veteran B	58.4	Below Range
Ryan	Ronk	Senior B	82.7	Above Range
Tim	Vanloo	Senior B	81.8	Above Range
Shawn	Drake	Senior B	81.0	Above Range
Elijah	Forney	Senior B	79.7	In Range
Earl	Schaffer	Senior B	78.6	In Range
Ryan	Scott	Senior B	78.2	In Range
Travis	Hansaker	Senior B	78.0	In Range
Brandon	Yager	Senior B	77.8	In Range
Andy	Lemrick	Senior B	77.4	In Range
Nick	Burnham	Senior B	77.1	In Range
Kelly	Herridge	Senior B	75.5	In Range
Andrew	Allen	Senior B	75.4	In Range
James	Houchin	Senior B	69.0	Below Range
Deric	Hanke	Senior B	65.7	Below Range
Greg	Neuwoehner	Super Senior B	78.7	Above Range
Tim	Johnson	Super Senior B	76.2	Above Range
Cory	Rea	Super Senior B	76.2	Above Range
Brian	Arrowood	Super Senior B	75.0	In Range
Kurt	Phelps	Super Senior B	73.7	In Range
Troy	Sheehy	Super Senior B	70.2	In Range
Tom	Million	Super Senior B	68.3	Below Range
Steve	Hovey	Super Senior B	68.0	Below Range
Craig	Dostal	Super Senior B	66.3	Below Range
Jeff	Kelly	Super Senior B	64.4	Below Range

First	Last	Class	Avg	Avg Speed	Status
			Speed in C Class	in All Classes	
Tom	Farris	Masters	95.7	85.0	In Range
Martin	Algya	Masters	88.5	78.7	In Range
Dale	Smith	Masters	87.0	77.3	In Range
Robert	Schnathorst	Masters	86.7	77.1	In Range
Dean	Windle	Masters	86.3	76.7	In Range
Bill	Madden	Masters	82.5	73.3	In Range
Brent	Coulter	Masters	78.8	70.1	In Range
Tim	Sears	Masters	78.1	69.4	In Range
Greg	Rethwish	Masters	74.6	66.3	In Range
Tom	Heger	Masters	69.4	61.7	In Range
Dick	Dudley	Masters	60.6	53.9	In Range
Tucker	Vitzthum	C	99.1	88.1	Above Range
Drew	Allen	C	98.2	87.3	Above Range
Oliver	Potter	C	97.7	86.9	Above Range
Hunter	Beck	C	96.5	85.8	Above Range
Mason	Miigerl	C	96.3	85.6	Above Range
Preston	Houfek	C	95.0	84.5	In Range
Kirk	Worcester	C	94.8	84.3	In Range
Gerson	Doblado	C	94.5	84.0	In Range
Brayden	Baker	C	92.2	82.0	In Range
Mickolas	Jorgensen	C	92.0	81.8	In Range
Jake	Fields	C	91.8	81.6	In Range
Caleb	Hol	C	91.2	81.1	In Range
Steven	Vanloo	C	91.1	81.0	In Range
Trent	Hartman	C	90.9	80.8	In Range
Owen	Monson	C	89.8	79.8	Below Range
Calvin	Garton	C	89.8	79.8	Below Range
Alex	Outhouse	C	89.7	79.7	Below Range
Devin	Thomas	C	89.6	79.7	Below Range
Chase	Rust	C	89.2	79.3	Below Range
Louden	Adkins	C	89.1	79.2	Below Range
Charles	Wilterdink	C	88.9	79.0	Below Range
Kina	Miller	C	88.7	78.9	Below Range
Tyler	Combs	C	88.7	78.8	Below Range
Michael	Beller	C	87.7	78.0	Below Range
Caleb	Jackson	C	87.6	77.8	Below Range
Cael	Johnson	C	87.4	77.7	Below Range
Jordan	Vontersch	C	86.1	76.5	Below Range
Dillon	Harlow	C	85.7	76.1	Below Range
Oscar	Potter	C	85.5	76.0	Below Range
Brady	Smith	C	85.4	75.9	Below Range
Caleb	Dake	C	85.0	75.5	Below Range
Riley	Rohe	C	84.9	75.4	Below Range

Cody	Reeves	C	84.7	75.3	Below Range
Jake	Kindley	C	84.3	74.9	Below Range
Kalvin	Hill	C	83.8	74.5	Below Range
Cory	Loyd	C	82.9	73.7	Below Range
Brady	Wallace	C	82.6	73.4	Below Range
Dallas	Wicks	C	82.5	73.3	Below Range
Matthew	Mason	C	82.4	73.2	Below Range
Tyler	Anderson	C	82.3	73.2	Below Range
Levi	Combs	C	81.7	72.6	Below Range
Paul	Gasparovich	C	81.6	72.5	Below Range
Logan	Betts	C	81.2	72.2	Below Range
Nickolas	Hay	C	80.1	71.2	Below Range
Brady	Jimenez	C	80.1	71.2	Below Range
Jarod	Anderson	C	79.3	70.5	Below Range
Robert	Hotz	C	79.3	70.5	Below Range
Austin	Frank	C	77.7	69.1	Below Range
Riley	Schnell	C	77.7	69.0	Below Range
Brandon	Pennington	C	77.4	68.8	Below Range
Alex	Conley	C	76.5	68.0	Below Range
Bret	Dahme	C	75.8	67.4	Below Range
Flauio	Velasquez	C	75.6	67.2	Below Range
Noah	Richardson	C	75.4	67.0	Below Range
Nathan	Frank	C	75.1	66.8	Below Range
Tate	Schaefer	C	75.0	66.7	Below Range
Dylan	Mccoy	C	74.8	66.5	Below Range
Johnny	Finley	C	74.8	66.5	Below Range
Ryan	Fogt	C	74.7	66.4	Below Range
Tyler	Schurbon	C	74.2	66.0	Below Range
Karter	Jorgensen	C	74.1	65.8	Below Range
Tyler	Prokop	C	73.5	65.3	Below Range
Dustin	Salm	C	72.6	64.5	Below Range
Austin	James	C	72.5	64.5	Below Range
Brody	Litts	C	71.9	63.9	Below Range
Eric	Mcfarland	C	71.5	63.6	Below Range
Adam	Kerr	C	71.2	63.3	Below Range
Tyler	Loyd	C	69.0	61.3	Below Range
Andrew	Kerr	C	68.5	60.9	Below Range
Nick	Beebe	C	68.0	60.5	Below Range
James	Dorrian	C	67.7	60.2	Below Range
Jett	Jacobson	C	66.1	58.8	Below Range
Declan	Obrien	C	64.5	57.3	Below Range
Alex	Donnelly	C	63.6	56.5	Below Range
Terry	Thompson	C	56.0	49.8	Below Range
Caleb	Houtz	C	53.2	47.3	Below Range
Nick	Clement	C	49.7	44.2	Below Range
Ryan	Hegdahl	C	33.7	30.0	Below Range
Ryan	Goodman	Veteran C	91.3	81.2	Above Range

Colin	Lodl	Veteran C	90.0	80.0	Above Range
Angelo	Rossi	Veteran C	89.5	79.6	In Range
Beau	Christiansen	Veteran C	88.3	78.5	In Range
Wade	Byers	Veteran C	87.8	78.0	In Range
Daryl	Jones	Veteran C	83.9	74.6	Below Range
Kerry	Dake	Veteran C	83.6	74.3	Below Range
Kyle	Brondum	Veteran C	83.5	74.2	Below Range
Chad	Stewart	Veteran C	82.7	73.5	Below Range
Andrew	Zellweger	Veteran C	81.7	72.6	Below Range
Nick	Destout	Veteran C	80.8	71.8	Below Range
Jerod	Howe	Veteran C	80.5	71.5	Below Range
Robert	Morse Jr	Veteran C	79.3	70.5	Below Range
Spencer	Zellweger	Veteran C	78.4	69.7	Below Range
Josh	Potter	Veteran C	76.3	67.8	Below Range
Caleb	Martin	Veteran C	76.0	67.6	Below Range
Anthony	Allen	Veteran C	74.4	66.2	Below Range
Jared	Scott	Veteran C	74.2	66.0	Below Range
Eric	Svenby	Veteran C	74.0	65.8	Below Range
Bradley	Teager	Veteran C	73.9	65.7	Below Range
Michael	Houfek	Veteran C	73.8	65.6	Below Range
Larry	Holmes	Veteran C	72.7	64.6	Below Range
Joseph	Brown	Veteran C	72.5	64.5	Below Range
Jordan	Ackland	Veteran C	72.4	64.4	Below Range
Eric	Muhle	Veteran C	71.7	63.7	Below Range
Brian	Crozier	Veteran C	71.3	63.4	Below Range
Timothy	Lerch	Veteran C	71.1	63.2	Below Range
Seth	Petersen	Veteran C	70.6	62.8	Below Range
Kevin	Davis	Veteran C	70.0	62.2	Below Range
Andrew	Dunn	Veteran C	69.5	61.8	Below Range
Asher	Gifford	Veteran C	69.2	61.5	Below Range
Ethan	Gerst	Veteran C	68.9	61.3	Below Range
Jacob	Thornton	Veteran C	68.3	60.7	Below Range
Mike	Wiruth	Veteran C	68.2	60.6	Below Range
Matt	Buckingham	Veteran C	67.9	60.4	Below Range
Bill	Schaeffer	Veteran C	67.3	59.8	Below Range
Matthew	Ekeler	Veteran C	66.2	58.9	Below Range
Joe	Mclain	Veteran C	65.0	57.8	Below Range
Bob	Richter	Veteran C	64.1	57.0	Below Range
Pat	Specht	Veteran C	64.1	57.0	Below Range
Marty	Jorgensen	Veteran C	63.8	56.7	Below Range
Scott	Robinson	Veteran C	63.6	56.5	Below Range
Jordan	Pascale	Veteran C	62.7	55.7	Below Range
Omar	Ahmad	Veteran C	58.4	51.9	Below Range
Randall	Rice	Veteran C	42.9	38.1	Below Range
Abigael	Czarnecki	Womens	80.1	71.2	In Range
Andrea	Geier	Womens	79.7	70.9	In Range
Amber	Caudle	Womens	78.4	69.7	In Range

Maryssa	Ronk	Womens	63.9	56.8	In Range
Abigale	Bergantzel	Womens	63.8	56.7	In Range
Bailey	Whittenbaugh	Womens	60.3	53.6	In Range
Kathleen	Thompson	Womens	56.0	49.8	In Range
Sarah	Parsons	Womens	51.6	45.9	In Range
Linda	Ronk	Womens	30.6	27.2	In Range