# Rockies 2017 - Week #24

Jim Reed (jdreed@q.com)
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Figure 1: Honus Wagner autographed picture.

I don't make speeches. I just let my bat speak for me in the summertime. — Honus Wagner

Table 1: NL West Standings

Tm	W	L	W-L%	GB
Los Angeles Dodgers	96	53	.644	_
Arizona Diamondbacks	87	63	.580	9.5
Colorado Rockies	82	68	.547	14.5
San Diego Padres	66	83	.443	30.0
San Francisco Giants	58	93	.384	39.0

Table 2: Current Rockies Results as of 2017-09-18

Wins	Losses	Win.Pct	Runs	Runs.Ag	Predicted Season	Wins
82	68	54.667	769	710		87



#### Week #24

FanGraphs rates the Rockies chances of getting a wild card berth at **88.9 percent**. Their nearest competitor for the WC spot is the Brewers which are rated as having an 8.2 percent chance of gaining the WC berth. The National League Wild Card PLayoff will take place on Wednesday, October 4 and will certainly be played in Phoenix. The winner of the Wild Card Playoff will play a best of five series against the LA Dodgers. Those games will be held October 6, 7, 9, 10, and 12.

The Rockies won four of the last seven games. Twelve games remaining in the rest of the season. Could be a Rocktober to remember. Keep thinking positive thooughts.

#### • Featured Article

- None this week. Returning later.
- Colorado Rockies Dashboard
  - Rockies Win/Loss Graphs for 2017 and 2007
  - Playoff Odds as Presented by FanGraphs.
  - Top Twelve Rockies Players as Measured by WAR
  - National and American League Standings
  - Game-by-Game Results
  - Pythagorean Theorem prediction of the number of wins.
  - Batting Statistics (for non-pitchers)
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- Topics for Future Articles
- Glossary
  - Batting Statistics
  - Pitching Statistics
  - Fielding Statistics

Most of the source data for this article can be found at URL http://baseball-reference.com.

Let me know what other special interest statistics you might like to see. Remember to refer to the Glossaries at the end of the document if unfamiliar with one or more of the statistic abbreviations in the tables.

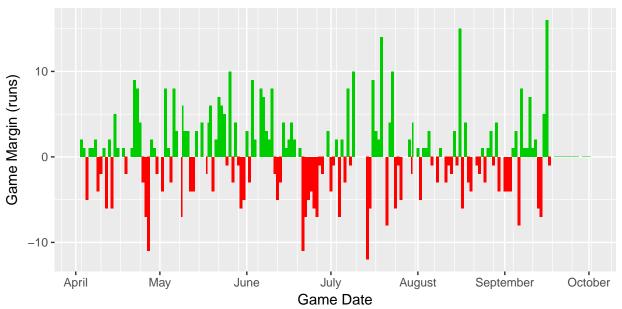
#### Colorado Rockies Dashboard

#### Win Loss Margin

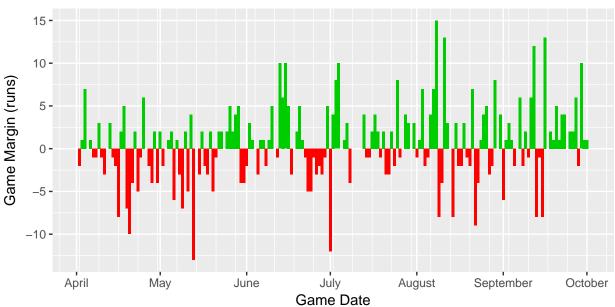
One of the many ways to visualize a teams performance is to show wins and losses as the margin of the win (positive) or loss (negative). In the graphs below, we show the current season performance. For emphasis, wins are displayed in green (above the zero) and losses in red (below).

Following the current season's graph, I have included the Win/Loss margin chart for our benchmark season of 2007 when the Rockies won the National League pennant.

#### Rockies 2017 Win/Loss Margin



## Rockies 2007 Win/Loss Margin



#### Playoff Odds as Presented by FanGraphs

#### American League Projected Standings / Odds

Abbreviations used in the following tables:

- W Wins
- L Losses
- W% Win Percentage
- GB Games Back
- EXPW Expected Wins
- EXPL Expected Losses
- rosW% Rest of season wining percentage
- DIV Percent chance of winning division
- $\bullet~$  WC Percent chance of winning a wildcard spot
- POFF Percent chance winning the division or wildcard spot
- DOFF Percent chance of making the division series
- NL/AL DS Percent chance of winning the divisional and making it to the championship series
- NL/AL CS Percent chance of winning the championship series and making it to the world series
- WS Percent chance of winning the World Series

Table 3: AL East

Team	W	L	W%	GB	EXPW	EXPL	${\rm rosW\%}$	DIV	WC	POFF	DOFF	ALDS	ALCS	WS
Red Sox	85	64	0.570	0.0	92.4	69.6	0.571	89.3	10.7	100.0	95.9	43.9	22.8	12.9
Yankees	82	67	0.550	3.0	89.3	72.7	0.560	10.7	89.2	99.8	61.4	25.8	10.6	5.4
Rays	73	77	0.487	12.5	79.1	82.9	0.510	0.0	0.7	0.7	0.2	0.1	0.0	0.0
Orioles	73	77	0.487	12.5	78.6	83.4	0.463	0.0	0.3	0.3	0.1	0.1	0.0	0.0
Blue Jays	70	80	0.467	15.5	75.4	86.6	0.449	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 4: AL Central

Team	W	L	W%	GB	EXPW	EXPL	rosW%	DIV	WC	POFF	DOFF	ALDS	ALCS	WS
Indians	93	57	0.620	0.0	100.5	61.5	0.627	100	0.0	100.0	100.0	60.2	30.8	17.9
Twins	78	71	0.523	14.5	84.2	77.8	0.480	0	69.2	69.2	28.8	8.3	2.2	0.6
Royals	73	76	0.490	19.5	79.8	82.2	0.524	0	1.5	1.5	0.6	0.1	0.0	0.0
Tigers	62	87	0.416	30.5	67.9	94.1	0.452	0	0.0	0.0	0.0	0.0	0.0	0.0
White Sox	60	89	0.403	32.5	64.1	97.9	0.318	0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5: AL West

Team	W	L	W%	GB	EXPW	EXPL	${\rm rosW}\%$	DIV	WC	POFF	DOFF	ALDS	ALCS	WS
Astros	91	58	0.611	0.0	98.9	63.1	0.610	100	0.0	100.0	100.0	56.8	31.9	19.3
Angels	76	73	0.510	15.0	82.7	79.3	0.514	0	25.6	25.6	11.5	4.1	1.5	0.7
Mariners	74	76	0.493	17.5	79.9	82.1	0.488	0	2.2	2.2	1.1	0.3	0.1	0.0
Rangers	73	76	0.490	18.0	79.0	83.0	0.463	0	0.6	0.6	0.3	0.1	0.0	0.0
Athletics	66	83	0.443	25.0	72.5	89.5	0.504	0	0.0	0.0	0.0	0.0	0.0	0.0

## National League Projected Standings / Odds

Table 6: NL East

Team	W	L	W%	GB	EXPW	EXPL	rosW%	DIV	WC	POFF	DOFF	NLDS	NLCS	WS
Nationals	90	59	0.604	0.0	97.8	64.2	0.600	100	0	100	100	43.4	20.2	7.5
Marlins	69	80	0.463	21.0	75.6	86.4	0.505	0	0	0	0	0.0	0.0	0.0
Braves	67	81	0.453	22.5	73.9	88.1	0.490	0	0	0	0	0.0	0.0	0.0
Mets	65	84	0.436	25.0	70.7	91.3	0.436	0	0	0	0	0.0	0.0	0.0
Phillies	58	91	0.389	32.0	63.5	98.5	0.427	0	0	0	0	0.0	0.0	0.0

Table 7: NL Central

Team	W	L	W%	GB	EXPW	EXPL	${\rm rosW\%}$	DIV	WC	POFF	DOFF	NLDS	NLCS	WS
Cubs	83	66	0.557	0.0	90.6	71.4	0.583	96.2	1.3	97.5	97.0	55.5	30.4	14.2
Brewers	79	70	0.530	4.0	85.0	77.0	0.465	2.9	8.2	11.1	6.6	1.9	0.5	0.1
Cardinals	77	72	0.517	6.0	83.9	78.1	0.530	0.9	3.6	4.5	2.7	1.1	0.5	0.2
Pirates	68	82	0.453	15.5	73.5	88.5	0.455	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reds	66	84	0.440	17.5	70.8	91.2	0.398	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 8: NL West

Team	W	L	W%	GB	EXPW	EXPL	${\rm rosW}\%$	DIV	WC	POFF	DOFF	NLDS	NLCS	V
Dodgers	96	53	0.644	0.0	104.2	57.8	0.630	100	0.0	100.0	100.0	63.7	35.0	16
Diamondbacks	87	63	0.580	9.5	93.7	68.3	0.560	0	100.0	100.0	53.3	20.6	8.6	2
Rockies	82	68	0.547	14.5	88.1	73.9	0.511	0	86.9	86.9	40.4	13.7	4.7	1
Padres	66	83	0.443	30.0	71.1	90.9	0.394	0	0.0	0.0	0.0	0.0	0.0	(
Giants	58	93	0.384	39.0	63.3	98.7	0.478	0	0.0	0.0	0.0	0.0	0.0	(

### Top Twelve Rockies Players as Measured by WAR

Following is a table of the top twelve Colorado Rockies players as measured by the most recent WAR assessment for pitchers and position players. Week after week Nolan Arenado is at the top of this list. You may be surprised by some of the others on the list.

Table 9: Rockies Top 12 Players (WAR)

Rank	Name	Age	WAR	Salary.M
1	Nolan Arenado	26	6.7	11.750
2	Charlie Blackmon	30	5.6	7.300
3	Kyle Freeland	24	3.6	0.535
4	DJ LeMahieu	28	3.1	4.800
5	German Marquez	22	3.0	0.535
6	Chris Rusin	30	2.8	0.535
7	Jon Gray	25	2.6	0.535
8	Tyler Chatwood	27	2.3	4.400
9	Trevor Story	24	2.3	0.535
10	Antonio Senzatela	22	2.1	0.535
11	Greg Holland	31	1.5	6.000
12	Jake McGee	30	1.3	5.900

### National League Standings

Table 10: NL East Standings

Tm	W	L	W-L $%$	GB
Washington Nationals	90	59	.604	_
Miami Marlins	69	80	.463	21.0
Atlanta Braves	67	81	.453	22.5
New York Mets	65	84	.436	25.0
Philadelphia Phillies	58	91	.389	32.0

Table 11: NL Central Standings

Tm	W	L	W-L%	GB
Chicago Cubs	83	66	.557	_
Milwaukee Brewers	79	70	.530	4.0
St. Louis Cardinals	77	72	.517	6.0
Pittsburgh Pirates	68	82	.453	15.5
Cincinnati Reds	66	84	.440	17.5

Table 12: NL West Standings

Tm	W	L	W-L $%$	GB
Los Angeles Dodgers	96	53	.644	_
Arizona Diamondbacks	87	63	.580	9.5
Colorado Rockies	82	68	.547	14.5
San Diego Padres	66	83	.443	30.0
San Francisco Giants	58	93	.384	39.0

### American League Standings

Table 13: AL East Standings

Tm	W	L	W-L%	GB
Boston Red Sox	85	64	.570	_
New York Yankees	82	67	.550	3.0
Baltimore Orioles	73	77	.487	12.5
Tampa Bay Rays	73	77	.487	12.5
Toronto Blue Jays	70	80	.467	15.5

Table 14: AL Central Standings

Tm	W	L	W-L $%$	GB
Cleveland Indians	93	57	.620	_
Minnesota Twins	78	71	.523	14.5
Kansas City Royals	73	76	.490	19.5
Detroit Tigers	62	87	.416	30.5
Chicago White Sox	60	89	.403	32.5

Table 15: AL West Standings

Tm	W	L	W-L%	GB
Houston Astros	91	58	.611	_
Los Angeles Angels	76	73	.510	15.0
Seattle Mariners	74	76	.493	17.5
Texas Rangers	73	76	.490	18.0
Oakland Athletics	66	83	.443	25.0

### Rockies Game-by-Game Schedule/Results

Gm#	Day	Date	H/A	Opp	W/L	R	RA	Win	Loss	Save	D/N	Streak
1	Mon	Apr 3	A	MIL	W	7	5	Estevez	Marinez	Holland	D	+
2	Tue	Apr 4	A	MIL	W	6	5	Anderson	Davies	Holland	N	++
3	Wed	Apr 5	A	MIL	${ m L}$	1	6	Peralta	Chatwood	Feliz	N	-
4	Thu	Apr 6	A	MIL	W	2	1	Dunn	Feliz	Holland	D	+
5	Fri	Apr 7	H	LAD	W	2	1	Freeland	Ryu	McGee	D	++
6	Sat	Apr 8	H	LAD	W	4	2	Dunn	Kershaw	Holland	N	+++
7	$\operatorname{Sun}$	Apr 9	H	LAD	${ m L}$	6	10	Maeda	Anderson		D	-
8	Mon	Apr 10	H	SDP	${ m L}$	3	5	Diaz	Chatwood		N	_
9	Tue	Apr 11	Η	SDP	W	3	2	Senzatela	Diaz	Holland	N	+
10	Wed	Apr 12	H	SDP	${ m L}$	0	6	Lee	Freeland		D	-
11	Thu	Apr 13	A	SFG	W	3	1	Rusin	Bumgarner	Holland	N	+
12	$\operatorname{Fri}$	Apr 14	A	SFG	${ m L}$	2	8	Cueto	Anderson		N	-
13	Sat	Apr 15	A	SFG	W	5	0	Chatwood	Moore		D	+
14	Sun	Apr 16	A	SFG	W	4	3	Senzatela	Samardzija –	Holland	D	++
15	Tue	Apr 18	A	LAD	W	4	3	Rusin	Ryu	Holland	N	+++
16	Wed	Apr 19	A	LAD	L	2	4	Kershaw	Anderson	Jansen	N	-
17	Fri	Apr 21	H	SFG	W	6	5	Chatwood	Cueto	Holland	N	+
18	Sat	Apr 22	H	SFG	W	12	3	Senzatela	Moore		N	++
19	Sun	Apr 23	H	SFG	W	8	0	Freeland	Samardzija		D	+++
20	Mon	Apr 24	Н	WSN	W	8	4	Estevez	Romero		N	++++
21	Tue	Apr 25	H	WSN	L	12	15	Romero	Marquez		N	-
22	Wed	Apr 26	Н	WSN	L	4	11	Roark	Chatwood		N	_
23	Thu	Apr 27	Н	WSN	L	5	16	Gonzalez	Senzatela	TT	D	
24	Fri	Apr 28	A	ARI	W	3	1	Freeland	Ray	Holland	N	+
25	Sat	Apr 29	A	ARI	W	7	6	Estevez	Rodney	Holland	N	++
26	Sun	Apr 30	A	ARI	L-wo	0	2	Delgado	Lyles		D	-
27	Tue	May 2	A	SDP	L	2	6	Cahill	Chatwood		N	_
28	Wed	May 3	A	SDP	W	11	3	Senzatela	Weaver	TT 11 1	N	+
29	Thu	May 4	A	SDP	W	3	2	Qualls	Hand	Holland	D	++
30	Fri	May 5	Н	ARI	L	3	6	Greinke	Marquez	Rodney	N	-
31	Sat	May 6	Н	ARI	W	9	1	Anderson	Corbin	Rusin	N	+
32	Sun	May 7	Н	ARI	W	5	2	Chatwood	Walker	Holland	D	++
33	Tue	May 9 (1)	Н	CHC	W	10	4	Senzatela	Arrieta		D N	+++
34	Tue	May 9 (2)	Н	CHC	L	1	8	Lackey	Freeland	TT-11. 1	N	-
35 26	Wed	May 10	Н	CHC	W	3	0 7	Marquez	Hendricks	Holland Holland	D N	+
36 27	Thu	May 11	Н	LAD	W	10		Hoffman	Ryu Chatwood	nonand	N N	++
37	Fri	May 12	H H	LAD LAD	$egin{array}{c} egin{array}{c} \egin{array}{c} \egin{array}{c} \egin{array}{c} \egin{array}$	2	6	Kershaw Wood	Anderson		N N	_
38 39	Sat Sun	May 13 May 14	н Н	$_{ m LAD}$	$^{ m L}$	0 9	4	wood Senzatela	Anderson Urias	Holland	D D	
39 40		•	А	MIN	W	9 7	$\frac{6}{3}$	Freeland		Holland		+
	Tue	May 16 May 18 (1)		MIN	W	7 5			Hughes Santana	Holland	N	++
41 $42$	Thu	May 18 (1) May 18 (2)	A ^	MIN	vv L	0	$\frac{1}{2}$	Marquez Berrios	Santana Chatwood	Holland Kintzler	D N	+++
$\frac{42}{43}$	Thu Fri	. ,	A ^	CIN	$^{ m L}$	12	6	Anderson	Cnatwood Bonilla	KIIItzler	N N	-
$\frac{43}{44}$	Sat	May 19	A A	CIN	vv L	8	12	Wojciechowski	Dunn		N D	+
$\frac{44}{45}$	Sun	May 20 May 21	A A	CIN	$^{\mathrm{L}}$	6	12 4	Freeland	Dunn Arroyo	Holland	D D	+
$\frac{45}{46}$	Mon	May 21 May 22	A A	PHI	W	8	1	Hoffman	Arroyo Eickhoff	Honand	N	++
$\frac{40}{47}$	Tue	May 23	A A	PHI	W	8	$\frac{1}{2}$	Marquez	Effin		N	+++
48	Wed	May 24	A A	PHI	W	o 7	$\frac{2}{2}$	Chatwood	Hellickson		N	
48	wea Thu	May 25	A A	PHI	vv L-wo	1	$\frac{2}{2}$	Gomez	Oberg		D	++++
50	Fri	May 26	Н	STL	W W	10	0	Senzatela	Martinez		N	+
90	LII	1v1ay 20	11	SIL	vv	ΤÜ	U	benzatela	mai fillez		1 N	+

Gm#	Day	Date	H/A	Opp	W/L	R	RA	Win	Loss	Save	$\mathrm{D/N}$	Streak
51	Sat	May 27	Н	STL	L	0	3	Wainwright	Freeland	Oh	N	-
52	$\operatorname{Sun}$	May 28	Η	STL	W	8	4	Marquez	Lynn		D	+
53	Mon	May 29	Η	SEA	L	5	6	Gaviglio	Chatwood	Diaz	D	-
54	Tue	May 30	Η	SEA	L	4	10	Miranda	Anderson		N	_
55	Wed	May 31	A	SEA	L	0	5	Paxton	Senzatela		N	
56	Thu	Jun 1	A	SEA	W	6	3	Freeland	Gallardo	Holland	D	+
57	Fri	Jun 2	A	SDP	L	5	8	Richard	Marquez	Maurer	N	-
58	Sat	Jun 3	A	SDP	W	10	1	Chatwood	Chacin		D	+
59	$\operatorname{Sun}$	Jun 4	A	SDP	W	3	1	Hoffman	Cosart	Holland	D	++
60	Tue	Jun 6	Η	CLE	W	11	3	Senzatela	Clevinger		N	+++
61	Wed	Jun 7	Η	CLE	W	8	1	Freeland	Bauer		D	++++
62	Thu	Jun 8	A	CHC	W	4	1	Chatwood	Lester	Holland	N	++++
63	Fri	Jun 9	A	CHC	W	5	3	Rusin	Frankoff	Holland	D	++++
64	Sat	Jun 10	A	CHC	W	9	1	Hoffman	Butler		D	++++
65	$\operatorname{Sun}$	Jun 11	A	CHC	L	5	7	Edwards	Lyles	Davis	D	-
66	Mon	Jun 12	A	PIT	L	2	7	Taillon	Freeland		N	_
67	Tue	Jun 13	A	PIT	L	2	5	Cole	Ottavino		N	_
68	Wed	Jun 14	A	PIT	W	5	1	Marquez	Kuhl		N	+
69	Thu	$\mathrm{Jun}\ 15$	H	SFG	W-wo	10	9	Holland	Strickland		N	++
70	Fri	Jun 16	H	SFG	W	10	8	Senzatela	Samardzija	Holland	N	+++
71	Sat	Jun 17	H	SFG	W	5	1	Freeland	Cain		D	++++
72	Sun	Jun 18	H	SFG	W-wo	7	5	Estevez	Melancon		D	++++
73	Tue	$\mathrm{Jun}\ 20$	H	ARI	W	4	3	Ottavino	Greinke	Holland	N	++++
74	Wed	Jun 21	H	ARI	L	5	16	Walker	Hoffman		N	-
75	Thu	$\mathrm{Jun}\ 22$	Н	ARI	L	3	10	Godley	Senzatela		D	_
76	Fri	$\mathrm{Jun}\ 23$	A	LAD	L	1	6	Wood	Freeland		N	
77	Sat	$\mathrm{Jun}\ 24$	A	LAD	L	0	4	Kershaw	Chatwood		N	
78	$\operatorname{Sun}$	$\mathrm{Jun}\ 25$	A	LAD	L	6	12	Baez	Ottavino	Jansen	D	
79	Mon	$\mathrm{Jun}\ 26$	A	SFG	L	2	9	Samardzija	Marquez		N	
80	Tue	$\mathrm{Jun}\ 27$	A	SFG	L-wo	3	4	Gearrin	Qualls		N	<del></del>
81	Wed	$\mathrm{Jun}\ 28$	A	SFG	L	3	5	Blach	Freeland	Strickland	D	
82	Fri	Jun 30	A	ARI	W	6	3	Gray	Ray	Holland	N	+
83	Sat	Jul 1	A	ARI	L	2	6	Greinke	Chatwood	Rodney	N	-
84	Sun	Jul 2	A	ARI	L-wo	3	4	Rodney	Ottavino		D	_
85	Mon	Jul 3	Η	CIN	W	5	3	Hoffman	Castillo	Holland	N	+
86	Tue	Jul 4	Η	CIN	${ m L}$	1	8	Bailey	Freeland		N	-
87	Wed	Jul 5	Η	CIN	W	5	3	Gray	Feldman	Holland	N	+
88	Thu	Jul 6	Η	CIN	L	3	6	Romano	Chatwood		D	-
89	Fri	Jul 7	H	CHW	W	12	4	Marquez	Holland		N	+
90	Sat	Jul 8	Η	$_{\mathrm{CHW}}$	L	4	5	Kahnle	Holland	Robertson	N	-
91	Sun	Jul 9	Η	CHW	W	10	0	Freeland	Rodon		D	+
92	Fri	Jul 14	A	NYM	L	2	14	deGrom	Gray		N	-
93	Sat	Jul 15	A	NYM	L	3	9	Lugo	Chatwood		N	_
94	Sun	Jul 16	A	NYM	W	13	4	Hoffman	Matz		D	+
95	Mon	Jul 17	Η	SDP	W	9	6	Marquez	Perdomo	Holland	N	++
96	Tue	Jul 18	Η	SDP	W	9	7	Senzatela	Lamet	Holland	N	+++
97	Wed	Jul 19	H	SDP	W	18	4	Gray	Richard		D	++++
98	Fri	Jul 21	Η	PIT	${ m L}$	5	13	Williams	Hoffman		N	-
99	Sat	Jul 22	Η	PIT	W	7	3	Marquez	Kuhl	Holland	N	+
100	$\operatorname{Sun}$	Jul 23	Η	PIT	W	13	3	Freeland	Nova		D	++
101	Mon	Jul 24	A	STL	L	2	8	Leake	Senzatela		N	-
102	Tue	$\mathrm{Jul}\ 25$	A	STL	L-wo	2	3	Rosenthal	McGee		N	_

	Day	Date	H/A	Opp	W/L	R	RA	Win	Loss	Save	D/N	Streak
103	Wed	Jul 26		STL	$\overline{}^{\prime}$	5	10	Martinez	Hoffman		N	
103	Sat	Jul 29	A	WSN	W	$\frac{3}{4}$	2	Marquez	Roark	Holland	N	+
105	Sun	Jul 30 (1)	A	WSN	W	10	6	Freeland	Fedde	Holland	D	++
106	Sun	Jul 30 (2)	A	WSN	L	1	3	Jackson	Gray	Doolittle	N	_
107	Tue	Aug 1	Н	NYM	W-wo	5	4	Dunn	Robles	Dooming	N	+
108	Wed	Aug 2	H	NYM	L	5	10	Bradford	Chatwood		N	_
109	Thu	Aug 3	Н	NYM	W-wo	5	4	Holland	Robles		D	+
110	Fri	Aug 4	Н	PHI	W	4	3	Dunn	Garcia	Holland	N	++
111	Sat	Aug 5	Н	PHI	W	8	5	Gray	Pivetta		N	+++
112	$\operatorname{Sun}$	Aug 6	Н	PHI	L	2	3	Ramos	Holland	Neris	D	-
113	Tue	Aug 8	A	CLE	L-wo	1	4	Kluber	Holland		N	_
114	Wed	Aug 9	A	CLE	W	3	2	Estevez	McAllister	Chatwood	D	+
115	Fri	Aug 11	A	MIA	L	3	6	Tazawa	McGee	Ziegler	N	_
116	Sat	Aug 12	A	MIA	L	3	4	Nicolino	Hoffman	Ziegler	N	_
117	$\operatorname{Sun}$	Aug 13	A	MIA	L	3	5	Guerra	Marquez	Despaigne	D	_
118	Mon	Aug 14	$\mathbf{H}$	ATL	W	3	0	Dunn	Brothers	Holland	N	+
119	Tue	Aug 15	$\mathbf{H}$	ATL	L	3	4	Freeman	Neshek	Vizcaino	N	-
120	Wed	Aug 16	$\mathbf{H}$	ATL	W	17	2	Gray	Foltynewicz		N	+
121	Thu	Aug 17	$\mathbf{H}$	ATL	L	4	10	Sims	Hoffman		D	-
122	Fri	Aug 18	$\mathbf{H}$	MIL	W	8	4	Marquez	Garza		N	+
123	Sat	Aug 19	$\mathbf{H}$	MIL	L	3	6	Swarzak	Holland	Knebel	N	-
124	$\operatorname{Sun}$	Aug 20	$\mathbf{H}$	MIL	L	4	8	Anderson	Freeland	Knebel	D	_
125	Tue	Aug 22	A	KCR	L	2	3	Duffy	$\operatorname{Gray}$	Alexander	N	_
126	Wed	Aug 23	A	KCR	L-wo	4	6	Maurer	Holland		N	—-
127	Thu	Aug 24	A	KCR	W	3	2	Ottavino	Minor	Holland	D	+
128	Fri	Aug 25	A	ATL	L	2	5	Teheran	Bettis	Vizcaino	N	-
129	Sat	Aug 26	A	ATL	W	7	6	Neshek	Vizcaino	McGee	N	+
130	$\operatorname{Sun}$	Aug 27	A	ATL	W	3	0	Gray	Foltynewicz	McGee	D	++
131	Mon	Aug 28	Η	DET	L	3	4	Zimmermann	Senzatela	Greene	N	-
132	Tue	Aug 29	Η	DET	W	7	3	Neshek	Fulmer		N	+
133	Wed	Aug 30	Η	DET	$\mathbf{L}$	2	6	Verlander	Bettis		D	-
134	Fri	Sep 1	Η	ARI	$\mathbf{L}$	5	9	Walker	Freeland		N	_
135	Sat	Sep 2	Η	ARI	$\mathbf{L}$	2	6	Corbin	Gray		N	—
136	$\operatorname{Sun}$	Sep 3	Η	ARI	L	1	5	Godley	Marquez	Sherfy	D	
137	Mon	Sep 4	Η	SFG	W-wo	4	3	Holland	Okert		D	+
138	Tue	Sep $5$	Η	SFG	W	9	6	Rusin	Blach	Holland	N	++
139	Wed	Sep 6	Η	SFG	L	3	11	Cueto	Freeland		N	-
140	Thu	Sep 7	A	LAD	W	9	1	Gray	Kershaw		N	+
141	Fri	Sep 8	A	LAD	W	5	4	Rusin	Darvish	Holland	N	++
142	Sat	Sep 9	A	LAD	W	6	5	Bettis	Wood	Holland	N	+++
143	Sun	Sep 10	A	LAD	W	8	1	Chatwood	Hill		D	++++
144	Mon	Sep 11	A	ARI	W	5	4	Anderson	Barrett	Holland	N	++++
145	Tue	Sep 12	A	ARI	W	4	2	Gray	Hernandez	Rusin	N	++++
146	Wed	Sep 13	A	ARI	L	2	8	Corbin	Marquez		N	-
147	Thu	Sep 14	A	ARI	L	0	7	Godley	Bettis		D	_
148	Fri	Sep 15	Н	SDP	W	6	1	Chatwood	Richard		N	+
149	Sat	Sep 16	Н	SDP	W	16	0	Anderson	Lyles		N	++
150	Sun	Sep 17	Н	SDP	L	3	4	Yates	Holland	Hand	D	-

The Rockies current record is 82 Wins and 68 Losses. So far, the Rockies have scored 769 runs and have had 710 runs scored against them.

#### Pythagorean Win-Loss Theorem

$$predicted W\% = \frac{R^k}{R^k + RA^k}$$

Using the commonly used values of k, the Rockies predicted wins for the 2017 are shown in the table below. Remember this statistic will vary widely over the course of the season.

Table 17: Predicted Wins for Entire 2017 Season

Wins (k=1.81)	Wins (k=1.83)	Wins (k=2.00)
87	87	87

### Batting Statistics (non-pitchers)

Table 18: Rockies Batting Statistics (1 of 2).

Rk	Pos	Name	Age	G	AB	R	Н	2B	3B	HR	RBI	SB	CS	BB
1	С	Wolters*	25	77	223	30	53	8	1	0	15	0	1	31
2	1B	Reynolds	33	138	489	78	129	21	1	29	93	2	1	65
3	2B	LeMahieu	28	143	564	93	178	28	4	8	64	6	5	56
4	SS	Story	24	133	459	59	108	30	2	21	72	6	0	46
5	3B	Arenado	26	147	567	93	175	42	7	34	125	3	2	56
6	$_{ m LF}$	Parra*	30	106	361	56	118	23	1	10	68	2	5	19
7	$\operatorname{CF}$	Blackmon*	30	147	600	131	199	33	14	35	93	13	8	58
8	RF	Gonzalez*	31	127	442	65	113	29	0	13	54	3	0	51
9	UT	Desmond	31	83	299	39	81	11	1	5	34	12	4	18
10	$_{ m IF}$	Valaika	24	103	171	27	43	10	0	12	38	0	0	7
11	UT	Amarista*	28	90	160	20	38	10	0	3	19	1	0	7
12	OF	Tapia*	23	62	147	25	42	10	2	2	13	5	2	8
13	$\mathbf{C}$	Lucroy	31	35	111	13	31	5	2	1	10	0	0	18
14	$\mathbf{C}$	Hanigan	36	30	97	9	25	2	0	2	12	0	0	8
15	$\mathbf{C}$	Garneau	29	22	68	5	14	7	0	1	6	0	0	4
16	OF	Cardullo	29	15	28	2	4	0	0	0	3	0	0	3
17	$\mathbf{C}$	Murphy	26	12	24	1	1	1	0	0	1	0	0	2
18	OF	Tauchman*	26	22	19	1	4	0	0	0	1	0	1	5
19	$\operatorname{IF}$	McMahon*	22	13	15	1	2	1	0	0	1	0	0	5
20	IF	${\rm Adames} \#$	25	12	13	1	0	0	0	0	0	0	0	1

Table 19: Rockies Batting Statistics (2 of 2).

Rk	Pos	Name	Age	SO	BA	OBP	SLG	OPS	OPS+	ТВ	GDP	HBP	SH	SF	IBB
1	С	Wolters*	25	55	.238	.336	.283	.618	56	63	9	2	2	0	9
2	1B	Reynolds	33	166	.264	.349	.489	.838	104	239	11	1	0	3	0
3	2B	LeMahieu	28	80	.316	.380	.422	.802	99	238	22	6	3	5	1
4	SS	Story	24	176	.235	.307	.447	.754	83	205	10	2	0	1	4
5	3B	Arenado	26	101	.309	.372	.587	.959	132	333	20	4	1	5	7
6	$_{ m LF}$	Parra*	30	60	.327	.359	.479	.838	105	173	11	4	0	9	0
7	$\operatorname{CF}$	Blackmon*	30	127	.332	.397	.608	1.005	143	365	4	9	3	3	7
8	RF	Gonzalez*	31	110	.256	.331	.410	.741	82	181	7	2	0	6	3
9	UT	Desmond	31	79	.271	.317	.365	.681	68	109	12	4	2	4	1
10	$\operatorname{IF}$	Valaika	24	50	.251	.279	.520	.800	91	89	1	0	5	1	0
11	UT	Amarista*	28	36	.238	.269	.356	.626	53	57	3	0	1	0	0
12	OF	Tapia*	23	34	.286	.331	.422	.753	85	62	1	2	1	0	1
13	$\mathbf{C}$	Lucroy	31	15	.279	.393	.387	.780	95	43	4	4	0	2	4
14	$\mathbf{C}$	Hanigan	36	25	.258	.318	.340	.658	63	33	4	1	1	1	$^2$
15	$\mathbf{C}$	Garneau	29	24	.206	.260	.353	.613	50	24	1	1	1	0	0
16	OF	Cardullo	29	7	.143	.250	.143	.393	2	4	0	1	0	0	0
17	$\mathbf{C}$	Murphy	26	9	.042	.115	.083	.199	-49	2	0	0	0	0	1
18	OF	Tauchman*	26	6	.211	.375	.211	.586	52	4	0	0	0	0	0
19	$\operatorname{IF}$	McMahon*	22	2	.133	.350	.200	.550	42	3	1	0	0	0	0
20	IF	${\rm Adames} \#$	25	6	.000	.071	.000	.071	-80	0	0	0	0	0	0

- \* - bats left-handed, # - bats both, else - bats right, ? - unknown; OPS\_lg for OPS+ does not include pitchers.

### **Pitching Statistics**

Table 20: Rockies pitching statistics (1 of 2).

Rk	Pos	Name	Age	W	L	W-L%	ERA	G	GS	GF	CG	SHO	SV	IP	Н	R
1	SP	Freeland*	24	11	10	.524	3.98	29	27	0	0	0	0	151.2	159	74
2	SP	Marquez	22	10	7	.588	4.41	26	26	0	0	0	0	145.0	155	74
3	SP	Chatwood	27	8	12	.400	4.57	30	23	3	1	1	1	136.0	124	71
4	SP	Senzatela	22	10	5	.667	4.69	31	20	3	0	0	0	128.2	122	69
5	$_{ m SP}$	$\operatorname{Gray}$	25	8	4	.667	3.75	18	18	0	0	0	0	98.1	102	43
6	SP	Hoffman	24	6	5	.545	5.40	20	16	2	0	0	0	96.2	99	59
7	$\operatorname{CL}$	Holland	31	3	6	.333	3.62	58	0	55	0	0	40	54.2	38	23
8	RP	McGee*	30	0	2	.000	3.79	58	0	13	0	0	3	54.2	47	23
9	RP	Oberg	27	0	1	.000	4.83	60	0	11	0	0	0	54.0	65	32
10	RP	Ottavino	31	2	3	.400	5.40	59	0	9	0	0	0	50.0	48	30
11	RP	Dunn*	32	5	1	.833	4.66	63	0	8	0	0	0	48.1	41	25
12		Rusin*	30	5	0	1.000	2.40	55	0	6	0	0	2	82.1	68	27
13		Anderson*	27	5	5	.500	5.28	15	13	1	0	0	0	73.1	78	45
14		Lyles	26	0	2	.000	6.94	33	0	12	0	0	0	46.2	61	37
15		Bettis	28	1	3	.250	6.23	7	7	0	0	0	0	34.2	41	25
16		Estevez	24	5	0	1.000	6.51	28	0	8	0	0	0	27.2	38	21
17		Neshek	36	2	1	.667	2.95	24	0	1	0	0	0	18.1	18	8
18		Qualls	38	1	1	.500	5.40	19	0	9	0	0	0	16.2	17	11
19		Rosscup*	29	0	0		5.40	8	0	2	0	0	0	6.2	8	4
20		Diaz	26	0	0		9.00	4	0	3	0	0	0	5.0	12	6
21		Carle	25	0	0		6.75	3	0	3	0	0	0	4.0	6	3

Table 21: Rockies pitching statistics (2 of 2).

Rk	Pos	Name	ER	HR	ВВ	IBB	SO	HBP	BK	WP	BF	ERA+	FIP	WHIP
1	SP	Freeland*	67	17	62	4	106	8	2	1	664	126	4.60	1.457
2	SP	Marquez	71	21	44	3	137	7	0	5	630	114	4.21	1.372
3	$_{ m SP}$	Chatwood	69	19	73	2	111	2	2	11	578	110	5.00	1.449
4	$_{ m SP}$	Senzatela	67	18	46	1	97	4	2	1	539	107	4.63	1.306
5	$_{ m SP}$	$\operatorname{Gray}$	41	9	29	0	99	2	1	3	414	134	3.28	1.332
6	$\operatorname{SP}$	Hoffman	58	15	35	1	79	4	0	2	420	93	4.75	1.386
7	$\operatorname{CL}$	Holland	22	7	26	1	64	1	0	7	225	139	3.96	1.171
8	RP	McGee*	23	4	16	0	56	1	0	5	221	133	2.99	1.152
9	RP	Oberg	29	3	20	2	53	2	0	3	245	104	3.14	1.574
10	RP	Ottavino	30	8	36	2	59	4	0	7	231	93	5.28	1.680
11	RP	Dunn*	25	8	27	0	55	0	0	2	211	108	4.71	1.407
12		Rusin*	22	9	19	1	70	2	0	4	324	209	3.64	1.057
13		$Anderson^*$	43	15	25	0	70	2	2	5	315	95	5.01	1.405
14		Lyles	36	11	12	1	33	4	0	2	211	73	5.84	1.564
15		Bettis	24	8	8	0	23	1	0	2	152	81	5.61	1.413
16		Estevez	20	3	10	2	25	1	1	1	130	78	3.95	1.735
17		Neshek	6	1	1	0	18	0	0	0	74	173	2.07	1.036
18		Qualls	10	3	5	0	11	0	0	0	72	94	5.08	1.320
19		Rosscup*	4	2	0	0	9	0	0	0	28	97	4.36	1.200
20		Diaz	5	0	5	0	2	1	0	0	30	59	5.96	3.400
21		Carle	3	1	0	0	4	0	0	1	19	80	4.41	1.500

\* - throws left-handed

### National League Team Standard Batting

Table 22: NL Team Batting statistics (1 of 2).

Tm	$\#\mathrm{Bat}$	${\bf BatAge}$	R/G	G	PA	AB	R	Н	2B	3B	$_{ m HR}$	RBI	SB	CS	BB	SO
COL	41	28.3	5.13	150	5743	5131	769	1396	277	35	178	741	53	29	473	1308
WSN	49	29.2	5.13	149	5715	5110	764	1367	287	27	200	742	96	26	495	1203
CHC	47	27.1	5.11	149	5779	5057	762	1296	256	27	209	725	57	27	571	1290
ARI	45	28.3	4.92	150	5749	5118	738	1301	294	35	198	704	92	28	519	1365
LAD	51	27.9	4.74	149	5705	4988	707	1245	286	18	202	669	73	27	596	1290
CIN	46	27.1	4.73	150	5761	5077	709	1289	231	36	207	674	116	34	532	1209
STL	48	28.1	4.71	149	5720	5032	702	1301	263	26	179	672	73	29	539	1249
NYM	52	29.0	4.64	149	5671	5070	691	1272	271	26	212	669	50	20	481	1184
ATL	49	28.8	4.61	148	5700	5122	682	1355	269	24	152	656	67	30	433	1089
MIL	50	27.3	4.60	149	5642	5032	685	1256	247	22	210	651	117	38	497	1454
MIA	43	28.4	4.59	149	5714	5132	684	1344	239	27	175	655	82	28	436	1185
LgAvg	46	28.0	4.59	149	5698	5078	686	1291	260	28	181	656	76	29	491	1249
PHI	51	26.7	4.23	149	5656	5118	630	1287	269	34	161	599	55	24	442	1297
PIT	47	28.3	4.06	150	5698	5065	609	1233	231	31	143	578	62	34	485	1117
SFG	49	29.5	3.94	151	5729	5183	595	1280	267	25	120	569	70	32	437	1122
SDP	49	26.2	3.77	149	5487	4930	562	1146	206	29	174	536	80	29	429	1379

Table 23: NL Team Batting statistics (2 of 2).

$\overline{\mathrm{Tm}}$	#Bat	BatAge	R/G	BA	OBP	SLG	OPS	OPS+	ТВ	GDP	HBP	SH	SF	IBB	LOB
$\overline{\mathrm{COL}}$	41	28.3	5.13	0	0.336	0.444	0.780	91	2277	124	43	55	40	40	1000
WSN	49	29.2	5.13	0	0.333	0.444 $0.452$	0.780 $0.784$	101	2308	109	26	40	44	52	1005
				_							-	_		-	
CHC	47	27.1	5.11	0	0.339	0.442	0.781	101	2233	120	78	42	29	48	1063
ARI	45	28.3	4.92	0	0.327	0.441	0.769	91	2259	94	51	35	25	42	1032
LAD	51	27.9	4.74	0	0.335	0.436	0.770	102	2173	107	59	28	33	39	1059
CIN	46	27.1	4.73	0	0.330	0.436	0.766	99	2213	106	67	48	37	37	1054
STL	48	28.1	4.71	0	0.335	0.428	0.763	99	2153	127	61	45	43	33	1032
NYM	52	29.0	4.64	0	0.320	0.440	0.760	99	2231	108	54	30	36	30	997
ATL	49	28.8	4.61	0	0.328	0.415	0.743	95	2128	126	62	53	29	53	1030
MIL	50	27.3	4.60	0	0.322	0.433	0.755	95	2177	101	50	41	22	31	994
MIA	43	28.4	4.59	0	0.325	0.421	0.746	100	2162	111	62	46	36	44	1027
LgAvg	46	28.0	4.59	0	0.325	0.424	0.748	94	2151	112	55	40	34	38	1021
PHI	51	26.7	4.23	0	0.315	0.412	0.726	92	2107	117	44	20	32	24	998
PIT	47	28.3	4.06	0	0.318	0.386	0.704	84	1955	110	82	39	26	37	1061
SFG	49	29.5	3.94	0	0.307	0.378	0.685	82	1957	123	34	28	47	36	1016
SDP	49	26.2	3.77	0	0.299	0.392	0.691	84	1932	93	49	49	30	18	951

## **Current Injuries**

	Name	Updated	Type	Details
1	Jairo Diaz	September 10 2017	Undisclosed	Diaz is on the 60-day disabled list with an unknown injury ending
				his season.

Table 24: Current Injuries

### **Topics for Future Articles**

Here are a few suggestions, but I would prefer to hear from you, dear reader, on what interests you.

- Player Value There is much more to cover here. Perhaps we can rank some of the past greats based on their modern day WAR rating?
- What is the OPS+ statistic and how is it calculated.
- Survey MLB ticket prices.
- Are WAR ratings a good indicator of past season's playoff and World Series teams?
- A suggestion from a work colleague that we investigate what budding talent we have in the Rockies farm system. I will look into this and see what I can find.

Let me know what you would like to see in future articles. Send me an email at jdreed@q.com.

Yours truly,

Jim Reed

## Appendix

## Glossary

#### **Batting Statistics**

Statistic Abbreviation	Definition
$\overline{G}$	number of games (participated)
PA	plate appearances
AB	at bats
R	runs scored by player or team
RA	runs allowed
H	hits
2B	doubles
3B	triples
HR	home runs
RBI	runs batted in
BA	batting average
OBP	on-base percentage
SLG	slugging percentage
OPS	on-base percentage plus slugging percentage
OPS+	This statistic normalizes a player's OPS. It adjusts for small variables that might affect OPS scores (e.g., park effects).

### Pitching Statistics

Pitching Statistic	Definition
$\overline{Rk}$	Rank This is a count of the rows from top to bottom.
	It is recalculated following the sorting of a column.
Pos	Position
Name	Player Name
Age	Player's age at midnight of June 30th of that year
W	Wins
L	Losses
W- $L%$	Win-Loss Percentage W $/$ (W + L) For players, leaders need one decision for every ten team games. For managers, minimum to qualify for leading is 320 games.
ERA	9 * ER / IP
G	Games Played or Pitched
GS	Games Started
GF	Games Finished
CG	Complete Game
SHO	Shutouts No runs allowed and a complete game.
SV	Saves
IP	Innings Pitched
H	Hits/Hits Allowed
R	Runs Scored/Allowed
ER	Earned Runs Allowed
HR	Home Runs Hit/Allowed
BB	Bases on Balls/Walks
IBB	Intentional Bases on Balls First tracked in 1955.
SO	Strikeouts
HBP	Times Hit by a Pitch.
BK	Balks
WP	Wild Pitches
BF	Batters Faced
ERA+	ERA+ 100*[lgERA/ERA] Adjusted to the player's
11(11)	ballpark(s).
FIP	Fielding Independent Pitching
WHIP	(BB + H)/IP For recent years, leaders need 1 IP per
VV 1111	team game played
Н9	9 x H / IP For recent years, leaders need 1 IP per team
119	
HDO	game played
HR9	9 x HR / IP For recent years, leaders need 1 IP per
DDO	team game played
BB9	9 x BB / IP For recent years, leaders need 1 IP per
COA	team game played
SO9	9 x SO / IP For recent years, leaders need 1 IP per
CO /III	team game played
SO/W	SO/W or SO/BB For recent years, pitching leaders
	need 1 IP per team game played.

### Fielding Statistics

Fielding Statistic	Definition
Name	Player Name Bold can mean player is active for this team or player has appeared in MLB * means LHP or LHB, \# means switch hitter, + can mean HOFer.
Age	Player's age at midnight of June 30th of that year
G	Games Played or Pitched
GS	- Games Started
CG	- Complete Game
Inn	- Innings Played in Field
Ch	- Defensive Chances Putouts + Assists + Errors
PO	- Putouts
A	- Assists
E DP	- Errors Committed
	- Double Plays Turned Fielding Percentage (Putouts   Assists) / (Putouts
Fld%	- Fielding Percentage (Putouts + Assists) / (Putouts + Assists + Errors)
Rtot	- Total Zone Total Fielding Runs Above Avg The
	number of runs above or below average the player was
	worth based on the number of plays made. This
	number combines the Rtz, Rdp,Rof, Rcatch numbers into a total defensive contribution. See the glossary
	section for a more complete explanation. Provided by
	BaseballProjection.com
Rtot/yr	- Total Zone Total Fielding Runs Above Avg per 1,200
10000/ 91	Inn The number of runs above or below average the
	fielder was worth per 1,200 Innings (approx 135 games).
	This number combines the Rtz, Rdp, Rof, Rcatch
	numbers into a total defensive contribution. See the
	glossary section for a more complete explanation.
	Provided by BaseballProjection.com
Rdrs	– BIS Defensive Runs Saved Above Avg The number of
	runs above or below average the player was worth
	based on the number of plays made. This number
	combines the Rpm, Rbdp, Rbof, Rbcatch numbers into
	a total defensive contribution. Provided by Baseball
	Info Solutions
Rdrs/yr	– BIS Defensive Runs Saved Above Avg per 1,200 Inn
	The number of runs above or below average the fielder
	was worth per 1,200 Innings (approx 135 games). This
	number combines the Rpm, Rbdp, Rbof, Rbcatch
	numbers into a total defensive contribution. For
	pitchers, this is set to 200 Innings. Provided by
D.E. /0	Baseball Info Solutions
RF/9	- Range Factor per 9 Inn 9 * (Putouts + Assists) /
DE/C	Innings Played
RF/G	- Range Factor per Game (Putouts + Assists) / Games
DR	Played Paggod Balls
PB WP	<ul><li>Passed Balls</li><li>Wild Pitches</li></ul>
SB	- Wild Pitches - Stolen Bases
CS	- Stolen Bases - Caught Stealing
OD.	- Caught Steamig

Fielding Statistic	Definition
$\overline{CS\%}$	- Caught Stealing Percentage CS / (SB + CS)
lgCS%	<ul> <li>League Caught Stealing Percentage League Expected</li> <li>CS / Players SB + Players CS</li> </ul>
PO	<ul> <li>Pickoffs Runner picked off a base. May include cases they were safe on an error. Also includes Pickoff Caught Stealing plays.</li> </ul>
Pos	Summary – Positions Played The positions either followed by the games played at that position or in order of games or innings played. For a single season, * indicates they played at least 2/3rds of the team games there Positions after / indicate less than ten games played at those positions. For career, a + sign means more than 300 games at that position and a - sign means less than 30 games.

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