Rockies 2017 - Week #16

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Figure 1: Kyle Freeland breezes through the Pirates, Mark Reynolds homers twice in Rockies' blowout win at Coors Field. July 23, 2017, Denver Post

"Facts are stubborn things, but statistics are pliable." – Mark Twain

Table 1: NL West Standings

Tm	W	L	W-L%	GB
Los Angeles Dodgers	68	31	.687	–
Colorado Rockies	58	42	.580	10.5
Arizona Diamondbacks	56	42	.571	11.5
San Diego Padres	43	55	.439	24.5
San Francisco Giants	38	62	.380	30.5

Table 2: Current Rockies Results as of 2017-07-24

Wins	Losses	Win.Pct	Runs	Runs.Ag	Predicted Season Wins
58	42	58	540	482	90

Week #16

It has been a better week for the Rockies, winning six of seven. Three of the wins were by margins of nine or more runs.

We will continue our theme of WAR ratings and explore the Rockies contribution to the MLB 2017 All-Star game in terms of the attendees WAR values.

No fancy graphics just some special summaries of the data in table form. I hope you find it informative.

Here is a synopsis of what is included in this week's newsletter.

- **Featured Article**
  - MLB 2017 All-Star Game; How did Rockies Stack Up?
- Colorado Rockies Dashboard
  - Rockies Win/Loss Graphs for 2017 and 2007
  - National and American League Standings
  - Game-by-Game Results
  - **Pythagorean Theorem** prediction of the number of wins.
  - Batting Statistics (for non-pitchers)
  - Pitching Statistics
  - National League Team Standard Batting **New**
  - Current Injuries **Updated**
- 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.

Featured Article

MLB 2017 All-Star Game; How did Rockies Stack Up?

Following is a table of all of the players invited to the All-Star game this year. Several teams were represented by more than one player as you will see in subsequent tables.

Table 3: Player WAR Ratings

League	Team	Status	Pos	Player	WAR
AL	Baltimore Orioles	Reserve	2B	Jonathan Schoop	2.66
AL	Boston Red Sox	Starter	*OF	Mookie Betts	5.14
AL	Boston Red Sox	Pitcher	SP	Chris Sale	4.66
AL	Boston Red Sox	Pitcher	RP	Craig Kimbrel	2.29
AL	Chicago White Sox	Reserve	OF	Avisail Garcia	2.90
AL	Cleveland Indians	Starter	3B	Jose Ramirez	3.31
AL	Cleveland Indians	Reserve	SS	Francisco Lindor	1.88
AL	Cleveland Indians	Reserve	OF	Michael Brantley	1.61
AL	Cleveland Indians	Pitcher	*SP	Corey Kluber	4.22
AL	Cleveland Indians	Pitcher	RP	Andrew Miller	2.40
AL	Detroit Tigers	Pitcher	*SP	Michael Fulmer	2.66
AL	Houston Astros	Starter	2B	Jose Altuve	5.54
AL	Houston Astros	Starter	SS	Carlos Correa	4.86
AL	Houston Astros	Starter	OF	George Springer	4.36
AL	Houston Astros	Pitcher	SP	Lance McCullers	1.28
AL	Houston Astros	Pitcher	*SP	Dallas Keuchel	3.26
AL	Kansas City Royals	Starter	C	Salvador Perez	1.90
AL	Kansas City Royals	Reserve	3B	Mike Moustakas	1.35
AL	Kansas City Royals	Pitcher	SP	Jason Vargas	3.60
AL	Minnesota Twins	Reserve	3B	Miguel Sano	2.18
AL	Minnesota Twins	Pitcher	SP	Ervin Santana	3.39
AL	New York Yankees	Starter	OF	Aaron Judge	5.34
AL	New York Yankees	Reserve	C	Gary Sanchez	1.54
AL	New York Yankees	Reserve	2B	Starlin Castro	1.51
AL	New York Yankees	Pitcher	SP	Luis Severino	3.74
AL	New York Yankees	Pitcher	RP	Dellin Betances	1.02
AL	Oakland Athletics	Reserve	1B	Yonder Alonso	1.40
AL	Seattle Mariners	Reserve	DH	Nelson Cruz	1.95
AL	Tampa Bay Rays	Starter	DH	Corey Dickerson	2.96
AL	Texas Rangers	Pitcher	SP	Yu Darvish	3.62
AL	Toronto Blue Jays	Starter	1B	Justin Smoak	3.07
NL	Arizona Diamondbacks	Reserve	1B	Paul Goldschmidt	4.16
NL	Arizona Diamondbacks	Reserve	3B	Jake Lamb	2.10
NL	Arizona Diamondbacks	Pitcher	SP	Zack Greinke	3.64
NL	Arizona Diamondbacks	Pitcher	SP	Robbie Ray	3.53
NL	Atlanta Braves	Reserve	OF	Ender Inciarte	2.14
NL	Chicago Cubs	Pitcher	RP	Wade Davis	0.96
NL	Cincinnati Reds	Starter	SS	Zack Cozart	3.53
NL	Cincinnati Reds	Reserve	1B	Joey Votto	3.96
NL	Colorado Rockies	Starter	3B	Nolan Arenado	4.57
NL	Colorado Rockies	Starter	OF	Charlie Blackmon	3.10
NL	Colorado Rockies	Reserve	2B	DJ LeMahieu	1.66
NL	Colorado Rockies	Pitcher	RP	Greg Holland	2.21

League	Team	Status	Pos	Player	WAR
NL	Los Angeles Dodgers	Reserve	1B/OF	Cody Bellinger	2.67
NL	Los Angeles Dodgers	Reserve	3B	Justin Turner	4.15
NL	Los Angeles Dodgers	Reserve	SS	Corey Seager	3.54
NL	Los Angeles Dodgers	Pitcher	*SP	Clayton Kershaw	4.47
NL	Los Angeles Dodgers	Pitcher	RP	Kenley Jansen	1.64
NL	Miami Marlins	Starter	OF	Marcell Ozuna	3.72
NL	Miami Marlins	Reserve	OF	Giancarlo Stanton	2.94
NL	Milwaukee Brewers	Pitcher	RP	Corey Knebel	2.24
NL	New York Mets	Reserve	OF	Michael Conforto	2.98
NL	Philadelphia Phillies	Pitcher	RP	Pat Neshek	2.08
NL	Pittsburgh Pirates	Reserve	2B	Josh Harrison	2.45
NL	San Diego Padres	Pitcher	RP	Brad Hand	1.92
NL	San Francisco Giants	Starter	C	Buster Posey	3.22
NL	St. Louis Cardinals	Reserve	C	Yadier Molina	0.78
NL	St. Louis Cardinals	Pitcher	SP	Carlos Martinez	2.52
NL	Washington Nationals	Starter	1B	Ryan Zimmerman	2.01
NL	Washington Nationals	Starter	2B	Daniel Murphy	1.90
NL	Washington Nationals	Starter	OF	Bryce Harper	4.56
NL	Washington Nationals	Pitcher	SP	Max Scherzer	5.12
NL	Washington Nationals	Pitcher	SP	Stephen Strasburg	3.07

MLB All-Star Game: WAR Contribution by League

Table 4: Total WAR by League

League	Lg.WAR
AL	91.60
NL	93.54

MLB 2017 All-Star Game: WAR Contribution by Starters

Of the four Rockies All-Star players, two, Nolan Arenado and Charlie Blackmon, were starters. The total of their WAR ratings placed the Rockies as third highest in the 2017 All-Star game. Only the Houston Astros and the Washington Nationals ranked above them.

Table 5: Team Total WAR for Starters Only

League	Team	Players	Total.WAR
AL	Houston Astros	3	14.76
NL	Washington Nationals	3	8.47
NL	Colorado Rockies	2	7.67
AL	New York Yankees	1	5.34
AL	Boston Red Sox	1	5.14
NL	Miami Marlins	1	3.72
NL	Cincinnati Reds	1	3.53
AL	Cleveland Indians	1	3.31
NL	San Francisco Giants	1	3.22
AL	Toronto Blue Jays	1	3.07
AL	Tampa Bay Rays	1	2.96
AL	Kansas City Royals	1	1.90

MLB 2017 All-Star Game: WAR Contribution by Team

The table that follows is a summary of the total WAR value of the players that attended.
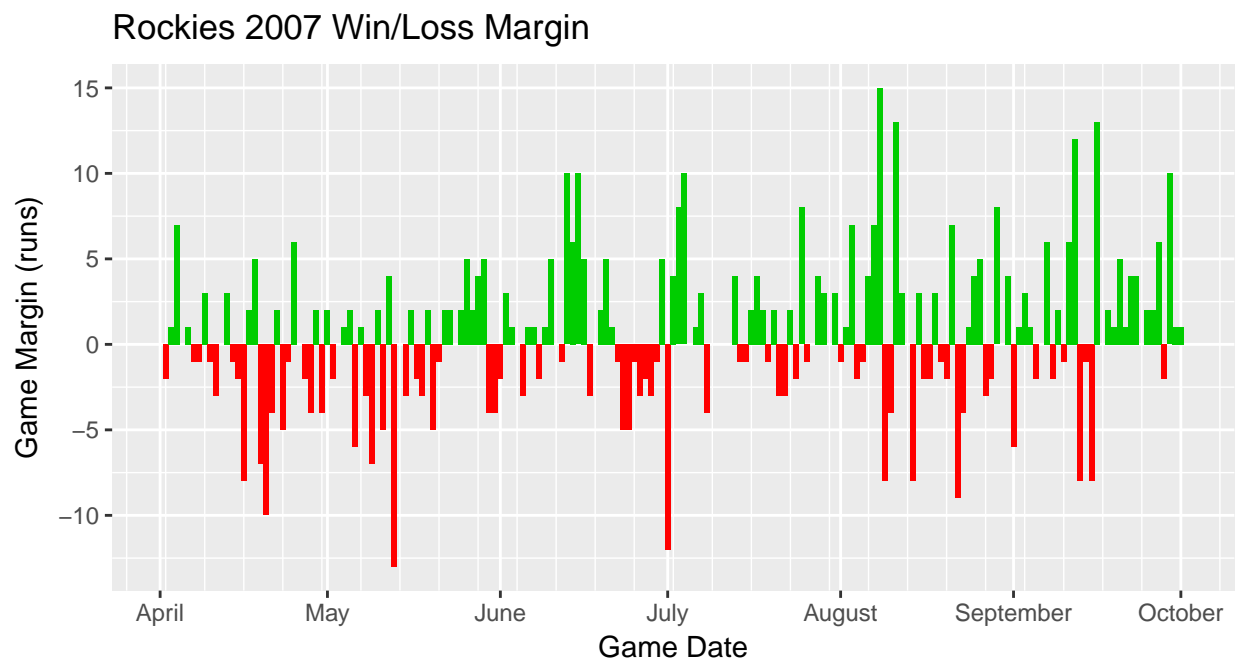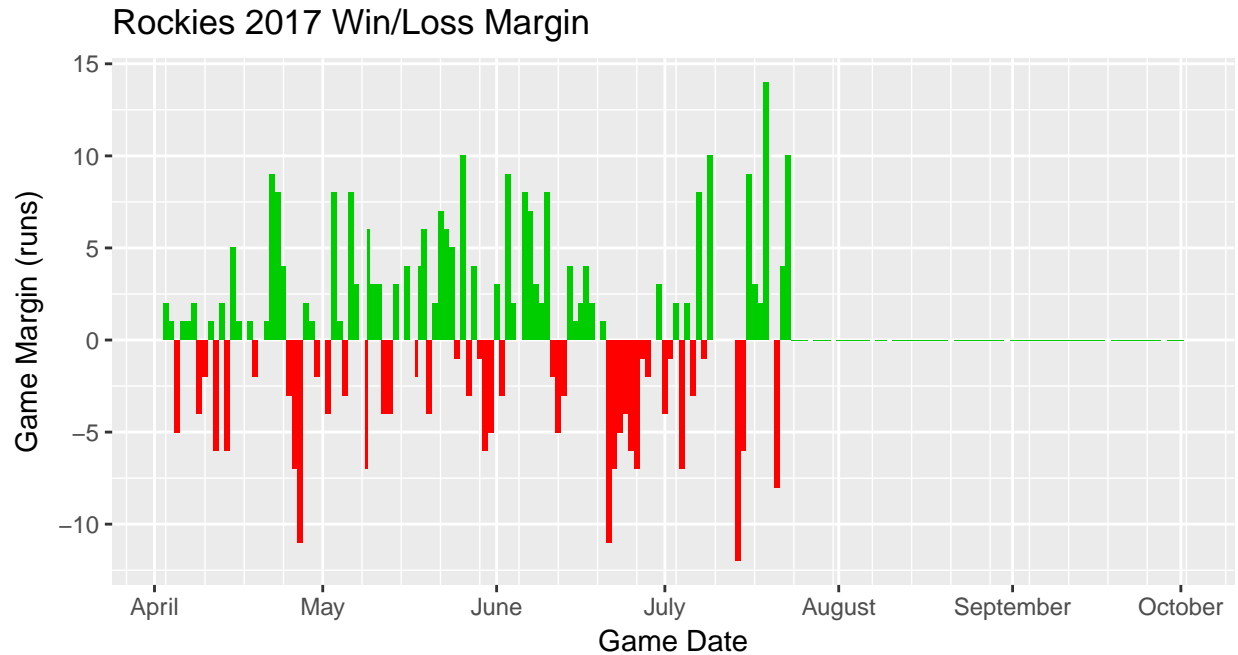
Table 6: Team Total WAR for all All-Star Players

Rank	League	Team	Players	WAR
1	AL	Houston Astros	5	19.30
2	NL	Washington Nationals	5	16.66
3	NL	Los Angeles Dodgers	5	16.47
4	NL	Arizona Diamondbacks	4	13.43
5	AL	Cleveland Indians	5	13.42
6	AL	New York Yankees	5	13.15
7	AL	Boston Red Sox	3	12.09
8	NL	Colorado Rockies	4	11.54
9	NL	Cincinnati Reds	2	7.49
10	AL	Kansas City Royals	3	6.85
11	NL	Miami Marlins	2	6.66
12	AL	Minnesota Twins	2	5.57
13	AL	Texas Rangers	1	3.62
14	NL	St. Louis Cardinals	2	3.30
15	NL	San Francisco Giants	1	3.22
16	AL	Toronto Blue Jays	1	3.07
17	NL	New York Mets	1	2.98
18	AL	Tampa Bay Rays	1	2.96
19	AL	Chicago White Sox	1	2.90
20	AL	Baltimore Orioles	1	2.66
21	AL	Detroit Tigers	1	2.66
22	NL	Pittsburgh Pirates	1	2.45
23	NL	Milwaukee Brewers	1	2.24
24	NL	Atlanta Braves	1	2.14
25	NL	Philadelphia Phillies	1	2.08
26	AL	Seattle Mariners	1	1.95
27	NL	San Diego Padres	1	1.92
28	AL	Oakland Athletics	1	1.40
29	NL	Chicago Cubs	1	0.96

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

National League Standings

Table 7: NL East Standings

Tm	W	L	W-L%	GB
Washington Nationals	59	38	.608	–
Atlanta Braves	47	50	.485	12.0
New York Mets	45	51	.469	13.5
Miami Marlins	44	52	.458	14.5
Philadelphia Phillies	34	62	.354	24.5

Table 8: NL Central Standings

Tm	W	L	W-L%	GB
Chicago Cubs	51	46	.526	–
Milwaukee Brewers	53	48	.525	–
Pittsburgh Pirates	49	50	.495	3.0
St. Louis Cardinals	47	51	.480	4.5
Cincinnati Reds	41	57	.418	10.5

Table 9: NL West Standings

Tm	W	L	W-L%	GB
Los Angeles Dodgers	68	31	.687	–
Colorado Rockies	58	42	.580	10.5
Arizona Diamondbacks	56	42	.571	11.5
San Diego Padres	43	55	.439	24.5
San Francisco Giants	38	62	.380	30.5

American League Standings

Table 10: AL East Standings

Tm	W	L	W-L%	GB
Boston Red Sox	55	45	.550	–
New York Yankees	51	46	.526	2.5
Tampa Bay Rays	51	48	.515	3.5
Baltimore Orioles	47	51	.480	7.0
Toronto Blue Jays	44	54	.449	10.0

Table 11: AL Central Standings

Tm	W	L	W-L%	GB
Cleveland Indians	51	45	.531	–
Kansas City Royals	50	47	.515	1.5
Minnesota Twins	49	48	.505	2.5
Detroit Tigers	45	52	.464	6.5
Chicago White Sox	38	57	.400	12.5

Table 12: AL West Standings

Tm	W	L	W-L%	GB
Houston Astros	65	33	.663	–
Los Angeles Angels of Anaheim	49	51	.490	17.0
Seattle Mariners	49	51	.490	17.0
Texas Rangers	48	50	.490	17.0
Oakland Athletics	44	54	.449	21.0

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	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	Sun	Apr 9	H	LAD	L	6	10	Maeda	Anderson		D	-
8	Mon	Apr 10	H	SDP	L	3	5	Diaz	Chatwood		N	–
9	Tue	Apr 11	H	SDP	W	3	2	Senzatela	Diaz	Holland	N	+
10	Wed	Apr 12	H	SDP	L	0	6	Lee	Freeland		D	-
11	Thu	Apr 13	A	SFG	W	3	1	Rusin	Bumgarner	Holland	N	+
12	Fri	Apr 14	A	SFG	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	H	WSN	W	8	4	Estevez	Romero		N	++++
21	Tue	Apr 25	H	WSN	L	12	15	Romero	Marquez		N	-
22	Wed	Apr 26	H	WSN	L	4	11	Roark	Chatwood		N	–
23	Thu	Apr 27	H	WSN	L	5	16	Gonzalez	Senzatela		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		N	+
29	Thu	May 4	A	SDP	W	3	2	Qualls	Hand	Holland	D	++
30	Fri	May 5	H	ARI	L	3	6	Greinke	Marquez	Rodney	N	-
31	Sat	May 6	H	ARI	W	9	1	Anderson	Corbin	Rusin	N	+
32	Sun	May 7	H	ARI	W	5	2	Chatwood	Walker	Holland	D	++
33	Tue	May 9 (1)	H	CHC	W	10	4	Senzatela	Arrieta		D	+++
34	Tue	May 9 (2)	H	CHC	L	1	8	Lackey	Freeland		N	-
35	Wed	May 10	H	CHC	W	3	0	Marquez	Hendricks	Holland	D	+
36	Thu	May 11	H	LAD	W	10	7	Hoffman	Ryu	Holland	N	++
37	Fri	May 12	H	LAD	L	2	6	Kershaw	Chatwood		N	-
38	Sat	May 13	H	LAD	L	0	4	Wood	Anderson		N	–
39	Sun	May 14	H	LAD	W	9	6	Senzatela	Urias	Holland	D	+
40	Tue	May 16	A	MIN	W	7	3	Freeland	Hughes	Holland	N	++
41	Thu	May 18 (1)	A	MIN	W	5	1	Marquez	Santana	Holland	D	+++
42	Thu	May 18 (2)	A	MIN	L	0	2	Berrios	Chatwood	Kintzler	N	-
43	Fri	May 19	A	CIN	W	12	6	Anderson	Bonilla		N	+
44	Sat	May 20	A	CIN	L	8	12	Wojciechowski	Dunn		D	-
45	Sun	May 21	A	CIN	W	6	4	Freeland	Arroyo	Holland	D	+
46	Mon	May 22	A	PHI	W	8	1	Hoffman	Eickhoff		N	++
47	Tue	May 23	A	PHI	W	8	2	Marquez	Eflin		N	+++
48	Wed	May 24	A	PHI	W	7	2	Chatwood	Hellickson		N	++++
49	Thu	May 25	A	PHI	L-wo	1	2	Gomez	Oberg		D	-
50	Fri	May 26	H	STL	W	10	0	Senzatela	Martinez		N	+

Gm#	Day	Date	H/A	Opp	W/L	R	RA	Win	Loss	Save	D/N	Streak
51	Sat	May 27	H	STL	L	0	3	Wainwright	Freeland	Oh	N	-
52	Sun	May 28	H	STL	W	8	4	Marquez	Lynn		D	+
53	Mon	May 29	H	SEA	L	5	6	Gaviglio	Chatwood	Diaz	D	-
54	Tue	May 30	H	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	Sun	Jun 4	A	SDP	W	3	1	Hoffman	Cosart	Holland	D	++
60	Tue	Jun 6	H	CLE	W	11	3	Senzatela	Clevinger		N	+++
61	Wed	Jun 7	H	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	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	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	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	Jun 22	H	ARI	L	3	10	Godley	Senzatela		D	–
76	Fri	Jun 23	A	LAD	L	1	6	Wood	Freeland		N	——
77	Sat	Jun 24	A	LAD	L	0	4	Kershaw	Chatwood		N	——-
78	Sun	Jun 25	A	LAD	L	6	12	Baez	Ottavino	Jansen	D	———
79	Mon	Jun 26	A	SFG	L	2	9	Samardzija	Marquez		N	———
80	Tue	Jun 27	A	SFG	L-wo	3	4	Gearrin	Qualls		N	———-
81	Wed	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	H	CIN	W	5	3	Hoffman	Castillo	Holland	N	+
86	Tue	Jul 4	H	CIN	L	1	8	Bailey	Freeland		N	-
87	Wed	Jul 5	H	CIN	W	5	3	Gray	Feldman	Holland	N	+
88	Thu	Jul 6	H	CIN	L	3	6	Romano	Chatwood		D	-
89	Fri	Jul 7	H	CHW	W	12	4	Marquez	Holland		N	+
90	Sat	Jul 8	H	CHW	L	4	5	Kahnle	Holland	Robertson	N	-
91	Sun	Jul 9	H	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	H	SDP	W	9	6	Marquez	Perdomo	Holland	N	++
96	Tue	Jul 18	H	SDP	W	9	7	Senzatela	Lamet	Holland	N	+++
97	Wed	Jul 19	H	SDP	W	18	4	Gray	Richard		D	++++
98	Fri	Jul 21	H	PIT	L	5	13	Williams	Hoffman		N	-
99	Sat	Jul 22	H	PIT	W	7	3	Marquez	Kuhl	Holland	N	+
100	Sun	Jul 23	H	PIT	W	13	3	Freeland	Nova		D	++

The Rockies current record is 58 Wins and 42 Losses. So far, the Rockies have scored 540 runs and have had 482 runs scored against them.

Pythagorean Win-Loss Theorem

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

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 14: Predicted Wins for Entire 2017 Season

Wins (k=1.81)	Wins (k=1.83)	Wins (k=2.00)
89	89	90

Batting Statistics (non-pitchers)

Table 15: Rockies Batting Statistics (1 of 2).

Rk	Pos	Name	Age	G	AB	R	H	2B	3B	HR	RBI	SB	CS	BB
1	C	Wolters*	25	64	193	29	50	8	1	0	14	0	1	26
2	1B	Reynolds	33	93	339	60	97	13	1	22	70	1	1	48
3	2B	LeMahieu	28	95	373	59	116	17	1	4	45	5	4	33
4	SS	Story	24	84	287	41	68	14	1	13	46	3	0	32
5	3B	Arenado	26	97	388	67	122	31	5	22	86	2	1	28
6	LF	Desmond	31	64	241	33	69	8	1	5	32	10	4	14
7	CF	Blackmon*	30	98	405	87	133	20	13	24	69	8	6	32
8	RF	Gonzalez*	31	81	287	40	65	16	0	6	26	1	0	32
9	LF	Parra*	30	59	187	35	67	10	0	8	40	0	4	8
10	IF	Valaika	24	65	117	20	30	9	0	8	26	0	0	5
11	UT	Amarista*	28	60	120	16	31	9	0	2	18	1	0	4
12	OF	Tapia*	23	40	102	20	32	7	2	2	9	3	2	7
13	C	Hanigan	36	21	70	8	18	1	0	2	11	0	0	6
14	C	Garneau	29	22	68	5	14	7	0	1	6	0	0	4
15	OF	Cardullo	29	15	28	2	4	0	0	0	3	0	0	3
16	C	Murphy	26	8	20	1	1	1	0	0	1	0	0	2
17	IF	Adames#	25	12	13	1	0	0	0	0	0	0	0	1
18	OF	Tauchman*	26	7	9	0	2	0	0	0	1	0	0	3

Table 16: Rockies Batting Statistics (2 of 2).

Rk	Pos	Name	Age	SO	BA	OBP	SLG	OPS	OPS+	TB	GDP	HBP	SH	SF	IBB
1	C	Wolters*	25	44	.259	.353	.311	.664	66	60	9	2	2	0	8
2	1B	Reynolds	33	111	.286	.375	.525	.900	118	178	10	1	0	1	0
3	2B	LeMahieu	28	51	.311	.370	.394	.764	88	147	12	4	2	4	0
4	SS	Story	24	110	.237	.316	.429	.744	80	123	5	1	0	0	1
5	3B	Arenado	26	70	.314	.361	.590	.951	127	229	14	3	1	5	4
6	LF	Desmond	31	64	.286	.330	.390	.720	76	94	8	3	2	3	1
7	CF	Blackmon*	30	88	.328	.382	.620	1.002	140	251	2	5	3	3	2
8	RF	Gonzalez*	31	71	.226	.302	.345	.647	59	99	2	1	0	4	3
9	LF	Parra*	30	30	.358	.381	.540	.921	123	101	4	2	0	5	0
10	IF	Valaika	24	30	.256	.285	.538	.823	95	63	0	0	2	1	0
11	UT	Amarista*	28	27	.258	.282	.383	.666	61	46	2	0	1	0	0
12	OF	Tapia*	23	22	.314	.369	.480	.850	107	49	0	2	1	0	1
13	C	Hanigan	36	18	.257	.312	.357	.669	64	25	3	0	1	1	1
14	C	Garneau	29	24	.206	.260	.353	.613	49	24	1	1	1	0	0
15	OF	Cardullo	29	7	.143	.250	.143	.393	1	4	0	1	0	0	0
16	C	Murphy	26	7	.050	.136	.100	.236	-40	2	0	0	0	0	1
17	IF	Adames#	25	6	.000	.071	.000	.071	-80	0	0	0	0	0	0
18	OF	Tauchman*	26	1	.222	.417	.222	.639	65	2	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 17: Rockies pitching statistics (1 of 2).

Rk	Pos	Name	Age	W	L	W-L%	ERA	G	GS	GF	CG	SHO	SV	IP	H	R
1	SP	Freeland*	24	10	7	.588	3.64	20	19	0	0	0	0	116.1	115	50
2	SP	Chatwood	27	6	11	.353	4.74	19	19	0	1	1	0	106.1	94	58
3	SP	Senzatela	22	10	3	.769	4.67	19	16	1	0	0	0	98.1	90	53
4	SP	Marquez	22	8	4	.667	4.20	16	16	0	0	0	0	90.0	92	43
5	SP	Hoffman	24	6	2	.750	5.10	12	11	1	0	0	0	65.1	65	37
6	SP	Anderson*	27	3	5	.375	6.11	13	12	1	0	0	0	63.1	75	45
7	CL	Holland	31	1	1	.500	1.72	38	0	37	0	0	31	36.2	21	7
8	RP	McGee*	30	0	0		3.18	42	0	8	0	0	1	39.2	31	14
9	RP	Oberg	27	0	1	.000	5.72	45	0	7	0	0	0	39.1	49	27
10	RP	Ottavino	31	1	3	.250	5.66	40	0	2	0	0	0	35.0	33	22
11	RP	Dunn*	32	2	1	.667	4.68	42	0	6	0	0	0	32.2	31	17
12		Rusin*	30	3	0	1.000	2.68	35	0	5	0	0	1	50.1	41	19
13		Lyles	26	0	2	.000	6.85	32	0	12	0	0	0	44.2	56	35
14		Gray	25	3	1	.750	6.19	7	7	0	0	0	0	32.0	42	23
15		Estevez	24	4	0	1.000	8.10	18	0	6	0	0	0	16.2	25	16
16		Qualls	38	1	1	.500	5.40	19	0	9	0	0	0	16.2	17	11
17		Diaz	26	0	0		6.75	3	0	2	0	0	0	4.0	9	4
18		Rosscup*	29	0	0		3.00	2	0	1	0	0	0	3.0	4	1
19		Carle	25	0	0		0.00	1	0	1	0	0	0	1.0	0	0

Table 18: Rockies pitching statistics (2 of 2).

Rk	Pos	Name	ER	HR	BB	IBB	SO	HBP	BK	WP	BF	ERA+	FIP	WHIP
1	SP	Freeland*	47	13	44	2	72	8	1	0	500	139	4.70	1.367
2	SP	Chatwood	56	15	60	2	87	2	2	5	452	107	5.10	1.448
3	SP	Senzatela	51	16	33	1	70	4	2	1	408	108	4.97	1.251
4	SP	Marquez	42	10	30	2	85	6	0	3	389	120	3.90	1.356
5	SP	Hoffman	37	7	21	1	55	4	0	0	281	99	4.01	1.316
6	SP	Anderson*	43	15	23	0	63	2	2	3	281	83	5.42	1.547
7	CL	Holland	7	2	18	1	49	0	0	5	144	296	2.66	1.064
8	RP	McGee*	14	4	12	0	47	0	0	5	159	160	3.00	1.084
9	RP	Oberg	25	3	18	2	37	2	0	3	183	89	3.78	1.703
10	RP	Ottavino	22	7	25	1	42	3	0	7	161	90	5.75	1.657
11	RP	Dunn*	17	7	18	0	42	0	0	2	144	109	5.02	1.500
12		Rusin*	15	4	13	1	38	1	0	2	201	189	3.51	1.073
13		Lyles	34	11	10	0	31	4	0	1	198	74	5.90	1.478
14		Gray	22	3	14	0	32	0	0	2	149	82	3.68	1.750
15		Estevez	15	1	6	1	18	1	1	1	82	63	3.03	1.860
16		Qualls	10	3	5	0	11	0	0	0	72	95	5.07	1.320
17		Diaz	3	0	2	0	2	1	0	0	22	80	4.40	2.750
18		Rosscup*	1	1	0	0	4	0	0	0	13	185	4.82	1.333
19		Carle	0	0	0	0	1	0	0	1	4		1.15	0.000

* - throws left-handed

National League Team Standard Batting

Table 19: NL Team Batting statistics (1 of 2).

Tm	#Bat	BatAge	R/G	G	PA	AB	R	H	2B	3B	HR	RBI	SB	CS	BB	SO
WSN	42	29.2	5.57	97	3819	3408	540	946	199	17	144	526	68	20	346	766
COL	37	28.2	5.40	100	3826	3444	540	952	176	25	121	519	34	23	290	874
LAD	38	27.9	5.11	99	3808	3322	506	856	197	13	143	474	47	17	410	863
ARI	37	28.1	5.02	98	3773	3376	492	868	197	27	124	469	70	20	335	892
MIL	41	27.2	4.82	101	3849	3445	487	875	181	15	148	466	84	26	329	983
NYM	41	29.7	4.80	96	3690	3293	461	827	177	17	145	446	23	8	319	727
CHC	39	26.9	4.69	97	3723	3274	455	801	169	18	136	432	32	16	359	807
ATL	39	29.3	4.68	97	3731	3366	454	880	181	10	101	437	43	15	272	737
LgAvg	39	28.1	4.65	98	3755	3354	456	856	175	18	121	437	51	20	318	813
CIN	40	27.3	4.64	98	3778	3368	455	866	164	28	135	437	82	22	315	793
MIA	39	28.4	4.57	96	3670	3323	439	884	157	12	113	419	52	16	258	751
STL	40	28.4	4.52	98	3755	3322	443	844	177	12	117	422	50	22	341	802
PIT	40	28.2	4.25	99	3809	3365	421	832	161	24	95	395	46	26	343	708
PHI	37	27.2	4.01	96	3623	3270	385	806	173	19	99	368	35	19	290	824
SFG	45	29.6	3.91	100	3838	3468	391	844	174	18	79	376	47	20	287	744
SDP	41	26.2	3.79	98	3627	3261	371	765	136	20	118	362	52	23	283	929

Table 20: NL Team Batting statistics (2 of 2).

Tm	#Bat	BatAge	R/G	BA	OBP	SLG	OPS	OPS+	TB	GDP	HBP	SH	SF	IBB	LOB
WSN	42	29.2	5.57	0	0.344	0.473	0.817	109	1611	69	14	23	28	36	692
COL	37	28.2	5.40	0	0.335	0.447	0.782	90	1541	75	26	39	27	22	638
LAD	38	27.9	5.11	0	0.343	0.454	0.797	108	1508	78	34	18	23	23	705
ARI	37	28.1	5.02	0	0.328	0.442	0.769	93	1491	57	27	20	15	30	673
MIL	41	27.2	4.82	0	0.324	0.444	0.769	97	1530	66	37	24	14	19	667
NYM	41	29.7	4.80	0	0.321	0.447	0.769	99	1473	71	33	21	24	21	648
CHC	39	26.9	4.69	0	0.327	0.432	0.759	97	1414	85	50	25	14	31	670
ATL	39	29.3	4.68	0	0.323	0.411	0.734	91	1384	89	44	31	18	40	650
LgAvg	39	28.1	4.65	0	0.324	0.427	0.751	94	1431	74	35	25	22	24	668
CIN	40	27.3	4.64	0	0.327	0.443	0.769	97	1491	68	44	27	24	19	692
MIA	39	28.4	4.57	0	0.325	0.423	0.747	98	1404	79	41	25	22	29	655
STL	40	28.4	4.52	0	0.327	0.420	0.747	94	1396	80	35	27	30	23	663
PIT	40	28.2	4.25	0	0.325	0.394	0.720	89	1326	77	56	26	18	26	722
PHI	37	27.2	4.01	0	0.310	0.402	0.712	87	1314	80	23	16	24	18	627
SFG	45	29.6	3.91	0	0.303	0.372	0.675	78	1291	75	26	20	37	16	684
SDP	41	26.2	3.79	0	0.300	0.397	0.697	83	1295	58	30	34	19	12	633

Current Injuries

	Name	Updated	Type	Details
1	Tyler Anderson	July 21 2017	Knee	Anderson has been designated for the 10-day disabled list as he will have arthroscopic left knee surgery and is expected to be sidelined until the beginning of August.
2	Chad Bettis	July 21 2017	Illness	Bettis is on the 60-day disabled list while recovering from testicular cancer but is expected to make his season debut sometime during the early part of August.
3	Tyler Chatwood	July 16 2017	Calf	Chatwood has been placed on the 10-day disabled list with a right calf strain and there is no timetable for return.
4	Gerardo Parra	July 23 2017	Calf	Parra sat out the previous game due to a right calf contusion and it is unclear as to if he will play against the Cardinals on Monday.

Table 21: 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
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
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 ballpark(s).
FIP	Fielding Independent Pitching
WHIP	(BB + H)/IP For recent years, leaders need 1 IP per team game played
H9	9 x H / IP For recent years, leaders need 1 IP per team game played
HR9	9 x HR / IP For recent years, leaders need 1 IP per team game played
BB9	9 x BB / IP For recent years, leaders need 1 IP per team game played
SO9	9 x SO / IP For recent years, leaders need 1 IP per 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	– Errors Committed
DP	– Double Plays Turned
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 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 Baseball Info Solutions
RF/9	– Range Factor per 9 Inn 9 * (Putouts + Assists) / Innings Played
RF/G	– Range Factor per Game (Putouts + Assists) / Games Played
PB	– Passed Balls
WP	– Wild Pitches
SB	– Stolen Bases
CS	– Caught Stealing

Fielding Statistic	Definition
CS%	– Caught Stealing Percentage CS / (SB + CS)
lgCS%	– League Caught Stealing Percentage League Expected CS / Players SB + Players CS
PO	– Pickoffs Runner picked off a base. May include cases they were safe on an error. Also includes Pickoff Caught Stealing plays.
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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