

# Rockies 2017 - Week #13

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Figure 1: Ian Desmond and Trevor Story in June, 2017.

“Congratulations. I knew the record would stand until it was broken.” – Yogi Berra

Table 1: NL West Standings

Tm	W	L	W-L%	GB
Los Angeles Dodgers	55	29	.655	–
Arizona Diamondbacks	52	31	.627	2.5
Colorado Rockies	48	36	.571	7.0
San Diego Padres	34	48	.415	20.0
San Francisco Giants	33	51	.393	22.0

Table 2: Current Rockies Results as of 2017-07-03

Wins	Losses	Win.Pct	Runs	Runs.Ag	Predicted Season Wins
48	36	57.143	421	390	87



## Week #13

Comparing the Rockies Win/Loss record of 2007 to this year's Win/Loss, there are definitely some similarities. The most recent of which is a definite losing streak in late June. We are about to see if another chestnut, that the Rockies always have their best month in July, comes to fruition. Currently the Rockies are in third place, seven games back from the Dodgers.

As fans, I am sure we all agree, that putting this recent losing streak behind us as soon as possible would be the best thing for the overall moral for the team and fans.

The Rockies went down to the Diamondback on Sunday (July 2), four to three. Close but no Tiparillo.

The Rockies return for a home stand on Monday, July 3 against the Cincinnati Reds.

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

- **Featured Article**
  - Team Combined WAR Statistic - Where do the Rockies Stand?
  - FANGRAPHS Leaderboard Team Combined WAR Bar Chart
- Colorado Rockies Dashboards
  - 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

### Team Combined WAR Statistic - Where do the Rockies Stand?

This week we focus on the FANGRAPHS Team Combined WAR rankings. Each **team's** cumulative WAR value is calculated by summing up the WAR value for each position, including starting and replacement pitchers.

Table 3: FANGRAPHS Leaderboard Team Combined WAR Rankings

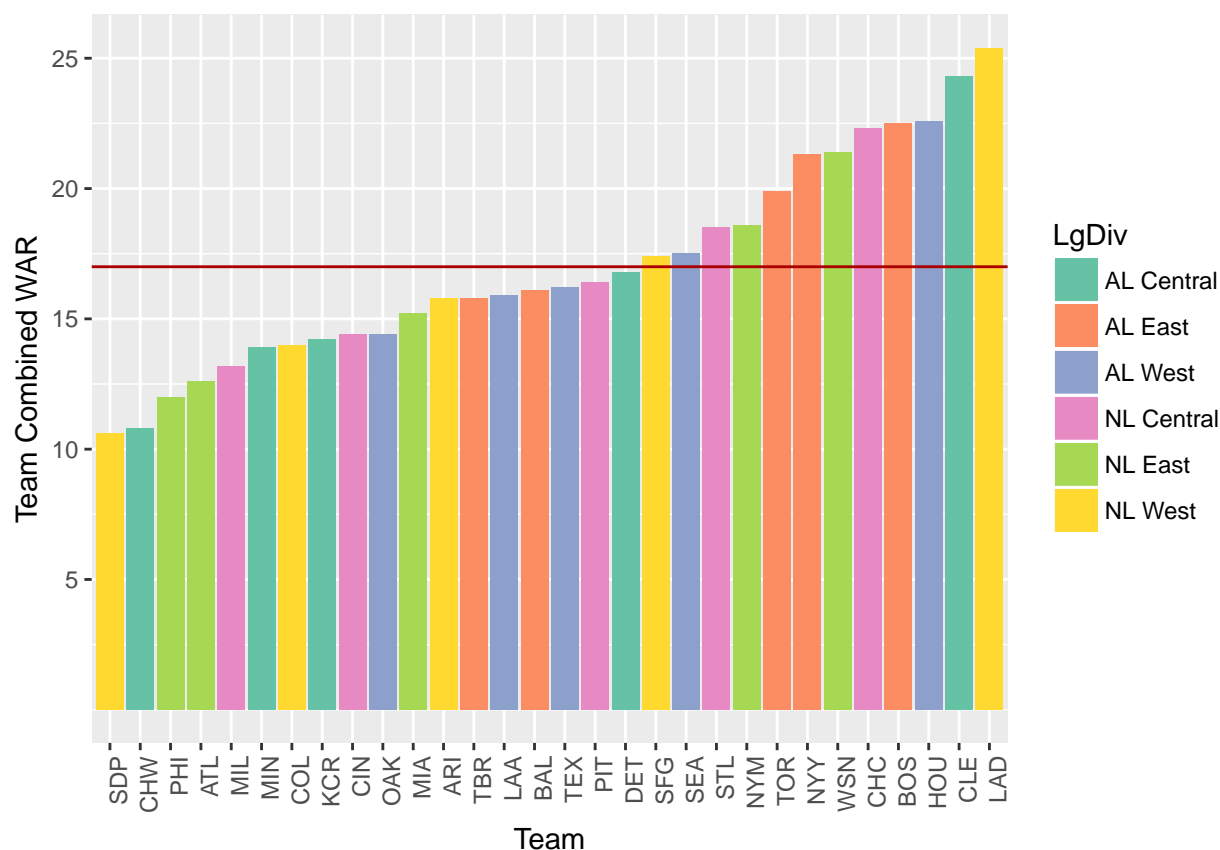
Rk	Team	C	1B	2B	SS	3B	LF	CF	RF	DH	SP	RP	Bat	Pit	WAR
1	Dodgers	1.8	0.5	1.1	2.4	2.2	0.9	1.4	1.5	0.4	10.1	3.1	12.2	13.2	25.4
2	Indians	1.0	1.3	1.3	2.4	2.0	1.1	0.9	0.9	1.3	8.9	3.1	12.3	11.9	24.3
3	Astros	1.5	0.7	2.3	2.7	1.3	0.4	2.0	1.4	0.3	7.5	2.7	12.5	10.2	22.6
4	Red Sox	0.9	0.5	1.3	1.7	-0.1	0.8	1.9	2.7	0.6	9.8	2.3	10.4	12.1	22.5
5	Cubs	1.4	2.4	1.0	1.6	2.5	0.7	0.6	1.0	0.5	7.6	3.0	11.7	10.6	22.3
6	Nationals	0.6	0.6	1.5	1.9	2.2	0.1	0.5	2.8	0.2	9.4	1.6	10.4	11.0	21.4
7	Yankees	1.8	0.1	0.9	1.4	1.0	1.2	1.1	2.0	0.6	8.0	3.2	10.1	11.2	21.3
8	Blue Jays	1.4	0.9	0.0	1.3	2.9	0.6	1.2	1.3	0.6	7.7	2.1	10.2	9.8	19.9
9	Mets	0.9	1.1	0.9	0.4	0.7	1.7	1.3	0.9	0.5	8.3	2.1	8.3	10.4	18.6
10	Cardinals	1.3	1.3	0.9	1.0	1.3	0.5	1.1	0.8	0.3	7.6	2.3	8.6	9.9	18.5
11	Mariners	1.1	0.2	1.7	1.1	1.8	0.4	1.5	0.9	1.2	5.4	2.1	9.9	7.5	17.5
12	Giants	2.3	1.5	1.2	1.4	0.7	0.1	0.7	0.8	0.1	7.0	1.6	8.8	8.6	17.4
13	Tigers	1.5	1.5	1.5	0.8	0.7	1.3	0.1	1.1	0.4	6.9	1.0	9.0	7.9	16.8
14	Pirates	0.9	0.6	0.7	0.7	0.9	0.5	1.8	1.1	0.3	7.1	1.7	7.6	8.9	16.4
15	Rangers	1.7	0.4	0.8	1.1	2.0	0.4	1.1	0.9	0.4	5.8	1.5	8.9	7.3	16.2
16	Orioles	1.0	1.1	1.2	0.0	2.6	0.7	0.9	0.7	0.6	4.9	2.3	8.9	7.2	16.1
17	Angels	1.0	0.3	0.1	1.7	0.8	0.3	3.2	1.2	0.1	5.3	1.9	8.7	7.2	15.9
18	Diamondbacks	0.2	2.3	0.4	0.5	1.2	-0.2	1.3	0.6	0.1	7.9	1.6	6.4	9.5	15.8
19	Rays	1.0	0.7	0.7	0.4	1.6	0.6	0.9	1.0	0.4	7.1	1.4	7.3	8.5	15.8
20	Marlins	1.3	0.6	0.8	0.0	1.0	1.3	1.9	1.9	0.1	4.7	1.6	8.9	6.3	15.2
21	Reds	1.0	2.4	0.3	1.4	1.1	0.7	0.8	0.6	0.1	4.3	1.5	8.6	5.8	14.4
22	Athletics	1.0	0.9	0.7	0.8	0.8	1.0	0.1	0.6	0.3	6.3	1.7	6.3	8.0	14.4
23	Royals	1.5	0.9	0.5	0.2	1.5	0.9	1.8	0.0	0.0	5.3	1.6	7.2	6.9	14.2
24	Rockies	0.3	0.3	0.7	0.7	2.1	0.3	1.1	0.4	-0.1	6.0	2.1	5.9	8.2	14.0
25	Twins	1.0	0.7	1.6	0.8	1.4	0.4	1.1	0.9	0.4	4.6	1.1	8.2	5.7	13.9
26	Brewers	0.9	0.8	0.3	0.5	1.0	0.7	0.5	0.5	0.2	5.7	2.0	5.5	7.7	13.2
27	Braves	0.8	0.7	0.5	0.7	2.1	0.2	1.4	0.1	0.0	4.9	1.4	6.3	6.3	12.6
28	Phillies	0.6	0.4	0.8	0.5	0.8	-0.3	1.1	0.3	0.2	6.0	1.6	4.5	7.5	12.0
29	White Sox	0.5	1.1	0.4	0.4	1.3	0.3	0.3	0.5	-0.6	4.9	1.7	4.2	6.6	10.8
30	Padres	0.6	1.0	0.9	-0.1	0.5	0.0	0.5	-0.1	0.1	5.2	1.9	3.5	7.1	10.6
31	Free Agents	1.0	-0.9	-0.5	-0.5	0.8	-0.8	0.0	-0.6	0.0	5.2	-0.2	-1.5	4.9	3.5

## FANGRAPHS Leaderboard Team Combined WAR Bar Chart

The graph below shows the relative **Team Combined WAR** statistic for all MLB teams. If one observes the table above, each position, (C, 1B, 2B, 3B, ...) is evaluated as to its particular contribution to the team. Pitchers, both starters (SP) and relief pitchers (RP) are evaluated as squads. the Pitching WAR value is the sum of SP and RP. a WAR value is assigned to the total team's batting performance (Bat). All of these WAR values are summed up to determine each team's combined WAR value. Theoretically, the combined WAR value indicates each teams relative ability to score runs and prevent its opponents from doing the same.

The average team combined WAR value is **17.2** (denoted in the graph below by the horizontal red line). The Dodgers (LAD) have the highest team combined WAR of **25.8**. The lowest team combined WAR value for the San Diego Padres (SDP) is **10.7**.

The Colorado Rockies have a less than average team combined WAR value of **14.3**.



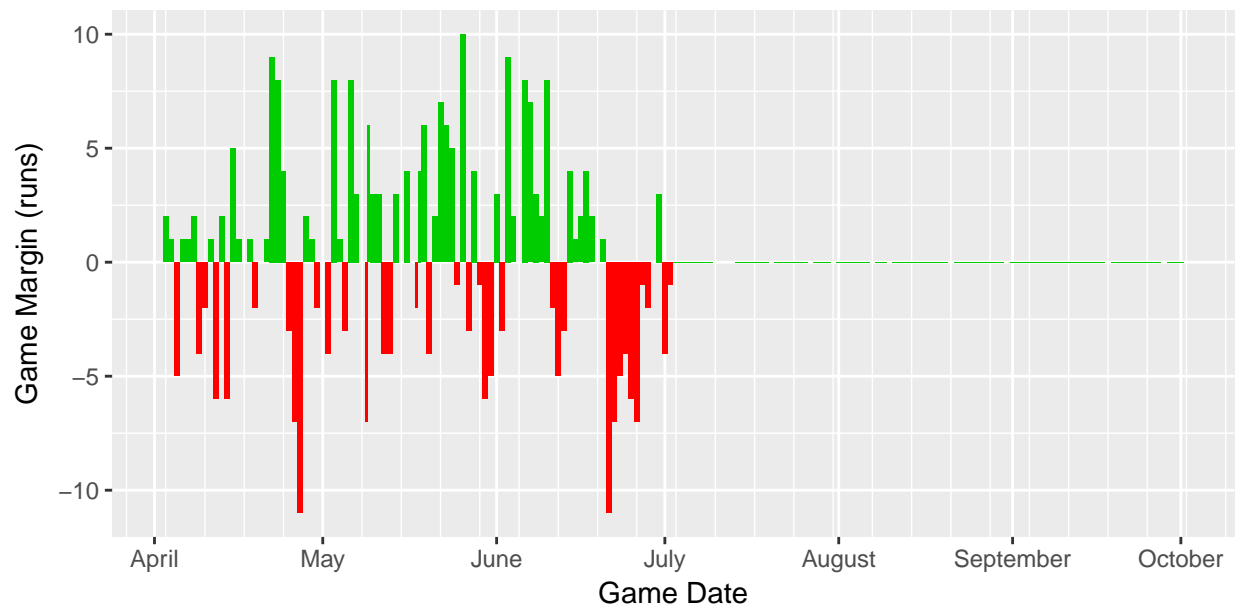
# Rockies Dashboard

## Win Loss Margin

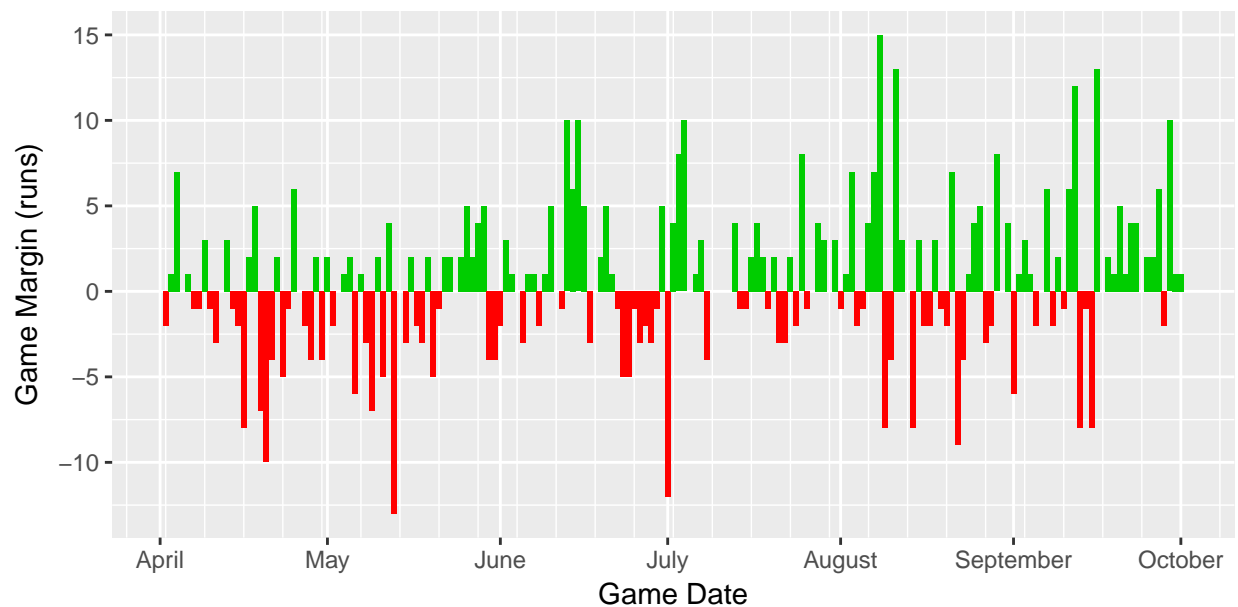
One of the many ways to visualize a teams performance is to show wins and losses as the margin of the win (positive) or loss (negative). In the graphs below, we show the current season performance. For emphasis, wins are displayed in green (above the zero) and losses in red (below the zero).

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 4: NL East Standings

Tm	W	L	W-L%	GB
Washington Nationals	48	34	.585	–
Atlanta Braves	40	41	.494	7.5
New York Mets	38	43	.469	9.5
Miami Marlins	36	44	.450	11.0
Philadelphia Phillies	27	53	.338	20.0

Table 5: NL Central Standings

Tm	W	L	W-L%	GB
Milwaukee Brewers	44	40	.524	–
Chicago Cubs	41	41	.500	2.0
St. Louis Cardinals	39	42	.481	3.5
Pittsburgh Pirates	37	45	.451	6.0
Cincinnati Reds	35	46	.432	7.5

Table 6: NL West Standings

Tm	W	L	W-L%	GB
Los Angeles Dodgers	55	29	.655	–
Arizona Diamondbacks	52	31	.627	2.5
Colorado Rockies	48	36	.571	7.0
San Diego Padres	34	48	.415	20.0
San Francisco Giants	33	51	.393	22.0

## American League Standings

Table 7: AL East Standings

Tm	W	L	W-L%	GB
Boston Red Sox	47	35	.573	–
New York Yankees	43	37	.538	3.0
Tampa Bay Rays	43	41	.512	5.0
Baltimore Orioles	40	41	.494	6.5
Toronto Blue Jays	37	44	.457	9.5

Table 8: AL Central Standings

Tm	W	L	W-L%	GB
Cleveland Indians	44	37	.543	–
Kansas City Royals	41	40	.506	3.0
Minnesota Twins	41	40	.506	3.0
Chicago White Sox	36	45	.444	8.0
Detroit Tigers	36	45	.444	8.0

Table 9: AL West Standings

Tm	W	L	W-L%	GB
Houston Astros	56	27	.675	–
Los Angeles Angels of Anaheim	43	43	.500	14.5
Seattle Mariners	41	42	.494	15.0
Texas Rangers	40	42	.488	15.5
Oakland Athletics	35	47	.427	20.5

## 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	Gerrin	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	-

The Rockies current record is 48 Wins and 36 Losses. So far, the Rockies have scored 421 runs and have had 390 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 11: 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 12: 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	53	157	27	46	6	1	0	13	0	1	23
2	1B	Reynolds	33	78	283	45	81	11	0	19	61	1	1	39
3	2B	LeMahieu	28	81	323	43	98	14	1	3	38	4	4	26
4	SS	Story	24	69	235	32	53	10	0	11	32	3	0	27
5	3B	Arenado	26	83	329	52	98	27	5	15	62	2	1	25
6	LF	Desmond	31	57	219	31	62	6	1	5	26	10	4	10
7	CF	Blackmon*	30	82	339	65	106	17	10	17	58	5	5	26
8	RF	Gonzalez*	31	68	244	36	54	13	0	6	20	1	0	29
9	LF	Parra*	30	49	148	23	47	6	0	6	28	0	4	6
10	UT	Amarista*	28	46	97	12	26	7	0	2	16	0	0	3
11	UT	Valaika	24	53	93	15	21	8	0	5	14	0	0	4
12	OF	Tapia*	23	30	75	16	21	3	1	1	6	3	2	5
13	C	Garneau	29	22	68	5	14	7	0	1	6	0	0	4
14	C	Hanigan	36	15	50	4	13	0	0	2	9	0	0	3
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	5	8	0	2	0	0	0	1	0	0	2

Table 13: 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	33	.293	.390	.344	.734	84	54	7	2	1	0	7
2	1B	Reynolds	33	90	.286	.373	.527	.900	119	149	8	1	0	1	0
3	2B	LeMahieu	28	47	.303	.361	.381	.742	84	123	9	3	2	0	0
4	SS	Story	24	90	.226	.308	.409	.716	75	96	4	1	0	0	1
5	3B	Arenado	26	60	.298	.349	.547	.896	116	180	12	3	1	4	3
6	LF	Desmond	31	60	.283	.321	.388	.709	74	85	7	3	2	2	1
7	CF	Blackmon*	30	74	.313	.366	.572	.938	126	194	1	4	3	3	2
8	RF	Gonzalez*	31	58	.221	.300	.348	.648	60	85	2	0	0	4	3
9	LF	Parra*	30	27	.318	.348	.480	.828	101	71	4	2	0	2	0
10	UT	Amarista*	28	20	.268	.290	.402	.692	68	39	2	0	1	0	0
11	UT	Valaika	24	26	.226	.255	.473	.728	74	44	0	0	2	1	0
12	OF	Tapia*	23	16	.280	.333	.387	.720	77	29	0	1	0	0	0
13	C	Garneau	29	24	.206	.260	.353	.613	49	24	1	1	1	0	0
14	C	Hanigan	36	12	.260	.302	.380	.682	67	19	2	0	1	0	0
15	OF	Cardullo	29	7	.143	.250	.143	.393	2	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	0	.250	.400	.250	.650	67	2	0	0	0	0	0

- \* - bats left-handed, # - bats both, else - bats right, ? - unknown; OPS<sub>lg</sub> for OPS+ does not include pitchers.

## Pitching Statistics

Table 14: 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	Chatwood	27	6	9	.400	4.41	17	17	0	1	1	0	100.0	85	51
2	SP	Freeland*	24	8	6	.571	3.84	16	16	0	0	0	0	93.2	100	43
3	SP	Senzatela	22	9	3	.750	4.58	17	15	0	0	0	0	92.1	85	48
4	SP	Marquez	22	5	4	.556	4.41	13	13	0	0	0	0	69.1	72	35
5	SP	Anderson*	27	3	5	.375	6.11	13	12	1	0	0	0	63.1	75	45
6	SP	Hoffman	24	4	1	.800	4.04	8	7	1	0	0	0	42.1	38	19
7	CL	Holland	31	1	0	1.000	1.48	32	0	31	0	0	26	30.1	16	5
8	RP	Oberg	27	0	1	.000	4.67	38	0	6	0	0	0	34.2	38	20
9	RP	McGee*	30	0	0		2.91	35	0	8	0	0	1	34.0	26	11
10	RP	Ottavino	31	1	3	.250	5.28	33	0	0	0	0	0	29.0	24	17
11	RP	Dunn*	32	2	1	.667	5.81	35	0	3	0	0	0	26.1	29	17
12		Rusin*	30	3	0	1.000	2.40	31	0	5	0	0	1	45.0	32	13
13		Lyles	26	0	2	.000	6.88	26	0	11	0	0	0	35.1	44	28
14		Gray	25	1	0	1.000	3.93	4	4	0	0	0	0	18.1	18	8
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		Carle	25	0	0		0.00	1	0	1	0	0	0	1.0	0	0
18		Diaz	26	0	0		18.00	1	0	1	0	0	0	1.0	4	3

Table 15: Rockies pitching statistics (2 of 2).

Rk	Pos	Name	ER	HR	BB	IBB	SO	HBP	BK	WP	BF	ERA+	FIP	WHIP
1	SP	Chatwood	49	14	53	2	83	2	2	5	420	115	4.95	1.380
2	SP	Freeland*	40	11	36	2	55	7	1	0	409	131	4.87	1.452
3	SP	Senzatela	47	15	28	0	67	4	2	1	380	110	4.84	1.224
4	SP	Marquez	34	7	26	2	62	5	0	3	306	115	4.01	1.413
5	SP	Anderson*	43	15	23	0	63	2	2	3	281	83	5.42	1.547
6	SP	Hoffman	19	3	11	1	44	1	0	0	177	126	2.84	1.157
7	CL	Holland	5	1	14	1	40	0	0	4	117	343	2.32	0.989
8	RP	Oberg	18	2	13	2	35	2	0	3	152	109	3.17	1.471
9	RP	McGee*	11	3	9	0	41	0	0	4	137	174	2.67	1.029
10	RP	Ottavino	17	4	21	1	38	3	0	7	132	96	4.80	1.552
11	RP	Dunn*	17	7	16	0	35	0	0	2	121	88	5.76	1.709
12		Rusin*	12	3	12	1	33	1	0	1	175	211	3.41	0.978
13		Lyles	27	8	9	0	25	2	0	1	156	74	5.61	1.500
14		Gray	8	2	8	0	19	0	0	1	80	130	3.80	1.418
15		Estevez	15	1	6	1	18	1	1	1	82	63	3.02	1.860
16		Qualls	10	3	5	0	11	0	0	0	72	95	5.06	1.320
17		Carle	0	0	0	0	1	0	0	1	4		1.14	0.000
18		Diaz	2	0	0	0	2	0	0	0	8	36	-0.86	4.000

\* - throws left-handed

# National League Team Standard Batting

Table 16: 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	37	29.1	5.55	82	3227	2879	455	797	169	14	123	442	62	19	293	636
LAD	38	28.0	5.23	84	3248	2829	439	726	168	7	119	409	42	14	348	730
ARI	34	28.2	5.20	83	3202	2872	432	758	168	23	107	412	61	20	276	735
COL	36	28.3	5.01	84	3203	2887	421	771	139	19	94	404	29	22	240	730
NYM	41	29.7	4.85	81	3136	2781	393	696	155	15	122	380	22	7	284	619
CIN	40	27.3	4.84	81	3129	2799	392	727	142	23	114	376	69	17	254	654
MIL	38	27.2	4.82	84	3206	2866	405	723	154	15	127	389	70	22	276	804
LgAvg	38	28.2	4.62	82	3144	2805	379	711	144	15	101	362	44	17	268	679
MIA	38	28.4	4.58	80	3040	2744	366	723	123	11	93	350	45	11	216	620
ATL	37	29.4	4.57	81	3119	2806	370	738	145	9	81	358	36	15	229	605
CHC	37	27.0	4.56	82	3147	2754	374	654	138	14	110	351	25	13	313	701
STL	37	28.5	4.46	81	3107	2743	361	689	143	11	95	342	41	17	288	664
PIT	38	28.2	4.21	82	3148	2783	345	676	131	20	79	319	36	25	285	599
SFG	43	29.6	3.94	84	3222	2900	331	709	137	15	70	319	44	16	244	621
PHI	37	27.3	3.90	80	3020	2737	312	664	143	15	78	297	33	17	235	692
SDP	40	26.2	3.61	82	3004	2693	296	613	105	13	98	289	48	20	245	772

Table 17: 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	37	29.1	5.55	0	0.344	0.473	0.817	110	1363	62	12	21	22	35	584
LAD	38	28.0	5.23	0	0.343	0.447	0.790	108	1265	66	32	18	20	17	596
ARI	34	28.2	5.20	0	0.332	0.450	0.782	96	1293	49	24	18	12	24	568
COL	36	28.3	5.01	0	0.326	0.426	0.752	84	1230	61	22	37	17	18	539
NYM	41	29.7	4.85	0	0.324	0.448	0.772	102	1247	63	29	19	23	19	553
CIN	40	27.3	4.84	0	0.327	0.449	0.776	100	1257	51	36	19	21	15	566
MIL	38	27.2	4.82	0	0.324	0.449	0.773	99	1288	55	31	23	10	16	553
LgAvg	38	28.2	4.62	0	0.323	0.423	0.746	94	1187	62	30	22	19	20	558
MIA	38	28.4	4.58	0	0.324	0.418	0.742	98	1147	68	37	22	20	19	538
ATL	37	29.4	4.57	0	0.326	0.408	0.734	91	1144	81	41	26	17	32	551
CHC	37	27.0	4.56	0	0.324	0.418	0.741	94	1150	70	44	22	13	28	568
STL	37	28.5	4.46	0	0.326	0.415	0.741	96	1139	72	29	23	24	21	544
PIT	38	28.2	4.21	0	0.321	0.390	0.711	86	1084	66	43	22	14	20	586
SFG	43	29.6	3.94	0	0.305	0.374	0.679	81	1086	64	24	18	36	13	577
PHI	37	27.3	3.90	0	0.305	0.391	0.696	84	1071	61	19	12	17	15	520
SDP	40	26.2	3.61	0	0.296	0.385	0.682	79	1038	48	23	29	14	10	527

## Current Injuries

	Name	Updated	Type	Details
1	Tyler Anderson	June 27 2017	Knee	Anderson has been designated for the 10-day disabled list as he will have arthroscopic left knee surgery and is expected to miss up to four weeks of action.
2	Chad Bettis	June 06 2017	Illness	Bettis is on the 60-day disabled list while recovering from testicular cancer but is expected to make his season debut sometime around the All-Star break.
3	David Dahl	June 27 2017	Ribs	Dahl has been moved to the 60-day disabled list with a stress reaction of his sixth rib and it is unknown as to when he will be ready to join the lineup.
4	Ian Desmond	July 02 2017	Calf	Desmond departed the previous game due to cramping in his right calf and his status is uncertain for Monday's game against the Reds.
5	Carlos Gonzalez	June 26 2017	Shoulder	Gonzalez has been placed on the 10-day disabled list with a sore right shoulder and is without a clear timetable for a recovery.
6	Gerardo Parra	July 02 2017	Quadricep	Parra has landed on the 10-day disabled list with a strained right quadriceps and will likely remain sidelined until the All-Star break.

Table 18: 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 - We finally got started on this one this week. I will continue to explore WAR values in coming weeks.
- What is the OPS+ statistic and how is it calculated.
- Survey MLB ticket prices.
- 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](mailto:jdreed@q.com).

Yours truly,

Jim Reed

# Appendix

## Glossary

### Batting Statistics

Statistic Abbreviation	Definition
<i>G</i>	number of games (participated)
<i>PA</i>	plate appearances
<i>AB</i>	at bats
<i>R</i>	runs scored by player or team
<i>RA</i>	runs allowed
<i>H</i>	hits
<i>2B</i>	doubles
<i>3B</i>	triples
<i>HR</i>	home runs
<i>RBI</i>	runs batted in
<i>BA</i>	batting average
<i>OBP</i>	on-base percentage
<i>SLG</i>	slugging percentage
<i>OPS</i>	on-base percentage plus slugging percentage
<i>OPS+</i>	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
<i>Rk</i>	Rank This is a count of the rows from top to bottom. It is recalculated following the sorting of a column.
<i>Pos</i>	Position
<i>Name</i>	Player Name
<i>Age</i>	Player's age at midnight of June 30th of that year
<i>W</i>	Wins
<i>L</i>	Losses
<i>W-L%</i>	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.
<i>ERA</i>	$9 * ER / IP$
<i>G</i>	Games Played or Pitched
<i>GS</i>	Games Started
<i>GF</i>	Games Finished
<i>CG</i>	Complete Game
<i>SHO</i>	Shutouts No runs allowed and a complete game.
<i>SV</i>	Saves
<i>IP</i>	Innings Pitched
<i>H</i>	Hits/Hits Allowed
<i>R</i>	Runs Scored/Allowed
<i>ER</i>	Earned Runs Allowed
<i>HR</i>	Home Runs Hit/Allowed
<i>BB</i>	Bases on Balls/Walks
<i>IBB</i>	Intentional Bases on Balls First tracked in 1955.
<i>SO</i>	Strikeouts
<i>HBP</i>	Times Hit by a Pitch.
<i>BK</i>	Balks
<i>WP</i>	Wild Pitches
<i>BF</i>	Batters Faced
<i>ERA+</i>	$ERA+ 100*[lgERA/ERA]$ Adjusted to the player's ballpark(s).
<i>FIP</i>	Fielding Independent Pitching
<i>WHIP</i>	$(BB + H)/IP$ For recent years, leaders need 1 IP per team game played
<i>H9</i>	$9 \times H / IP$ For recent years, leaders need 1 IP per team game played
<i>HR9</i>	$9 \times HR / IP$ For recent years, leaders need 1 IP per team game played
<i>BB9</i>	$9 \times BB / IP$ For recent years, leaders need 1 IP per team game played
<i>SO9</i>	$9 \times SO / IP$ For recent years, leaders need 1 IP per team game played
<i>SO/W</i>	SO/W or SO/BB For recent years, pitching leaders need 1 IP per team game played.

## Fielding Statistics

Fielding Statistic	Definition
<i>Name</i>	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.
<i>Age</i>	Player's age at midnight of June 30th of that year
<i>G</i>	Games Played or Pitched
<i>GS</i>	– Games Started
<i>CG</i>	– Complete Game
<i>Inn</i>	– Innings Played in Field
<i>Ch</i>	– Defensive Chances Putouts + Assists + Errors
<i>PO</i>	– Putouts
<i>A</i>	– Assists
<i>E</i>	– Errors Committed
<i>DP</i>	– Double Plays Turned
<i>Fld%</i>	– Fielding Percentage (Putouts + Assists) / (Putouts + Assists + Errors)
<i>Rtot</i>	– 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
<i>Rtot/yr</i>	– 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
<i>Rdrs</i>	– 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
<i>Rdrs/yr</i>	– 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
<i>RF/9</i>	– Range Factor per 9 Inn $9 * (\text{Putouts} + \text{Assists}) / \text{Innings Played}$
<i>RF/G</i>	– Range Factor per Game $(\text{Putouts} + \text{Assists}) / \text{Games Played}$
<i>PB</i>	– Passed Balls
<i>WP</i>	– Wild Pitches
<i>SB</i>	– Stolen Bases
<i>CS</i>	– Caught Stealing

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