# Changing a Team's wRC+ Statistic

*This is the seventh of a series of preseason articles about the impact of air density on baseball performance, written for DailyBaseballData.com by Clifton Neeley of [www.baseballVMI.com](http://www.baseballVMI.com).*

Even casual observers understand that the Colorado Rockies are the single most unique team ever to compete in Major League Baseball. They have the highest home batting average of any team ever over the course of their history and maintain the highest home winning percent over their history. But, coupling those gaudy home numbers with the lowest road batting averages and win percent, as well as recent revelations of their Weighted Runs Created, Plus (wRC+) statistic, the Rockies remain an anomaly, almost indescribable.

A recent article in the Denver Post by writer Patrick Saunders pointed out the wRC+ road statistic as being the worst in the league in spite of the overall high scoring production. Mr. Saunders also outlined the management's planned attempt to bring the road stat into more normal ranges. To be fair, the management has their hands tied. Each year the Rockies add another statistical anomaly without being able to fix any, and the team has done nothing in terms of facilities to prepare for the future, so a new idea must be born every year in order to promise the fans a reason to buy tickets. Just as all the other teams in the league have done for years, they promise a new player, a new coach or manager, and/or a new focus on bringing the most recently exposed anomaly into conformity with the balance of the league. The Rockies think they are making progress with the team and the fans, but it always turns out to be a disappointment to everyone. A subsequent article by Mr. Saunders revealed what almost everyone in baseball agrees with: The Colorado Rockies are loaded with talent.

In 2016 the plan is to use a drill while in Spring Training in Scottsdale, AZ. which will be fun (that is, if putting money in a hat and gambling it against winning an inning is fun) and will cause professional players to focus better than they were capable of during the previous years. So, let me get this straight in my head...the problem over the course of their history was focus? The problem was not trying hard enough to play the necessary small ball? Let's see, was the problem then Vinny Castilla's? Walt Weiss's? Todd Helton's? Larry Walker, Craig Counsel, Andres Galaraga, Dante Bichette, Troy Tulowitzki, Carlos Gonzales, Blackmon, Dickerson, LeMahieu, Fowler, Arenado, Cuddyer, Morneau, Jeff Baker, Matt Holliday, Eric Young, Clint Barmes, Juan Uribe, Jeff Cirillo, Chris Ianetta, Nick Hundley (.355 Home and .237 Road)? Just who, over the past 22 years, hasn't been able to focus on doing things the right way, playing good small ball, and creating runs, like a quality professional baseball player? Maybe it was the fault of managers (Don Baylor, Jim Leland, Buddy Bell, Clint Hurdle, Jim Tracy) and now Walt Weiss!

Actually, the answer is ***all of them were handicapped by playing professional baseball with their home field at Denver, Colorado***. This drill that is planned at 1,200 feet Scottsdale in warm weather will do

Visual Memory by Clifton Neeley, creator of the Visual Memory Index© and author of the web-site www.baseballvmi.com. Clifton pitched and played baseball and fast-pitch softball in the mountainous southwest Colorado area from 4,000 feet in Grand Junction to 6,000 feet in Durango to 9,000 feet in Telluride prior to his college experience in baseball.

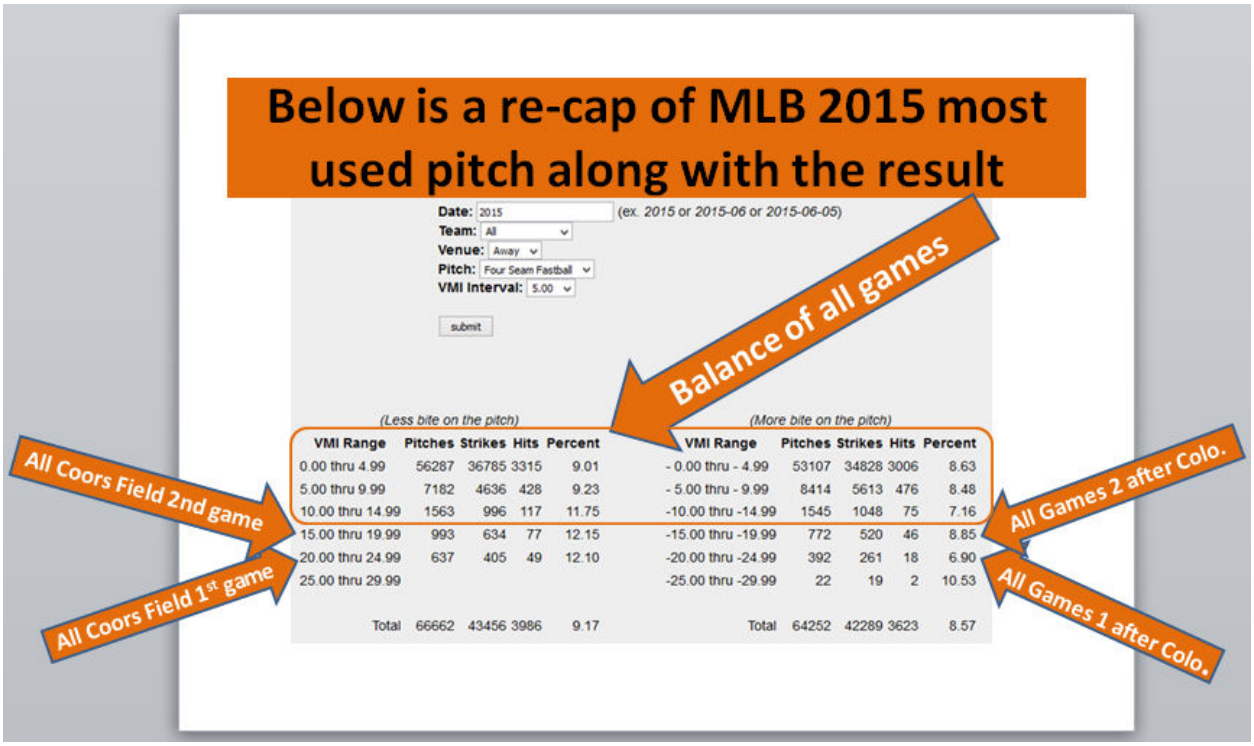
nothing for the team in terms of wins and the wRC+ statistic. However, if (during any season) they could fly to a sea level location, run the drills, take BP and bunt good moving pitches for about 3 days prior to leaving on every road trip, then this planned drill would have a chance to take effect. Obviously they can't do that, because the schedule will not allow them to do so. Therefore, their work in spring training at Scottsdale will have little positive effect on the team statistics.

If you have been doing some reading on the Rockies and on the effects of altitude and temperature on a baseball pitch, then you know that I am referring to the data on MLB hitters and pitchers moving in and out of good ball movement conditions. Baseball is a much easier game to play when you know effectively where the ball is going. When players spend a home stand at Coors Field, then leave for a road trip to say, San Diego, the ball is diving and darting and they aren't used to it. How are they going to consistently compete in a professional league against ***the Home Team*** under those conditions? They have two different games to play -- one type at home and the other on the road -- and it is well known that professional athletes, in order to keep up with the competition, must be exposed to the full gamut of MLB ball movement **every day** as opposed to on and off every two weeks or so. The extra movement players experience upon leaving Coors Field makes it impossible for them to bunt effectively, hit and run effectively, get timely hits, move runners around the bases, throw accurately from catcher to 2nd base, pitch with precise control, and play the game with great confidence.

Typical baseball answers will never work for Coors Field players, so all the advice the team takes from traditional baseball coaches, managers, owners and players will not work except for in typical baseball aspects. Colorado high school and college coaches and players cannot help the Rockies as they misunderstand the difficulty of the ball movement transitions for players in MLB. These are far more complex for Denver than for the balance of the league. Players, coaches and managers from outside the Rockies organization have never needed to deal with this issue, so few understand enough to help the team. There are teams within MLB that carry tendencies that the Rockies carry, due to either hot temperatures or above sea level locations, but they lose only a maximum of 8 to 10 road games per season as a result. The Coors Field effect causes the Rockies to **lose 18 road games per season** due to this transitional effect, and some additional games each year, due to the lack of confidence that losing creates.

Below is a summary of all teams' road numbers ***including*** when they first travel to Denver for a series, ***plus*** the first few games away from Coors Field for all teams.

Visual Memory by Clifton Neeley, creator of the Visual Memory Index© and author of the web-site www.baseballvmi.com. Clifton pitched and played baseball and fast-pitch softball in the mountainous southwest Colorado area from 4,000 feet in Grand Junction to 6,000 feet in Durango to 9,000 feet in Telluride prior to his college experience in baseball.




The numbers displayed above are statistical proof that all players in MLB are affected similarly by additional ball movement on the **four-seamer**. Further, it is statistical proof that they all adjust to familiarity within 3 to 6 games. For the Colorado Rockies, it is obvious that they need a place where they can consistently see more bite on the fastball, so they can increase their hit percentage on the road. They have tried to change the ball and the pitching machine, but these attempts cannot possibly cover all the 80-some pitch-movement scenarios that the air density can identify and duplicate within a controlled environment. They can change players, but they cannot change their statistics. Other teams fight the same battle, just not as often, so they too could benefit by advance preparation to play anywhere, anytime. Two websites explain it all to the bonafide baseball person: www.baseballvmi.com and www.airchamberfacilities.com . How soon stubbornness and tradition will be replaced by winning and financial gain is all up to the owners and managers of MLB teams. It is the only way, given the schedule of MLB, that the more affected teams can change their wRC+ statistic.

The average number of hits in MLB is just above **8 hits per game** for both home and road games. The average number of runs per game is just over **4 runs per game**, both home and road. The average ***hits***

Visual Memory by Clifton Neeley, creator of the Visual Memory Index© and author of the web-site www.baseballvmi.com. Clifton pitched and played baseball and fast-pitch softball in the mountainous southwest Colorado area from 4,000 feet in Grand Junction to 6,000 feet in Durango to 9,000 feet in Telluride prior to his college experience in baseball.

***per run scored*** in Major League Baseball is **2**. Below is a chart showing the hit percent on the four-seamer and runs generated within the ball movement and VMI categories from 2015 MLB data.

| MLB Average Road Runs Created Against Four-Seam Fastball 2015 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Road Games W/Less bite on pitch for hitter to adjust to:** | Percentage of hits to strikes when less bite on pitch | Average MLB runs generated per hit | Runs Created per 100 strikes (series) | **Road Games W/More bite on pitch for hitter to adjust to:** | Percentage of hits to strikes w/more bite on pitch | Average MLB runs generated per hit | Runs Created per 100 strikes (series) |
| **Normal baseball between +0.00 to +10.00** | 9.04% | 0.045 | 4.52 | **Normal baseball between -0.00 to -10.00** | 8.61% | 0.043 | 4.31 |
| | | Per game= | 1.49 | | | Per game= | 1.42 |
| | | | | | | | |
| **Easier Hitting between +10.00 to +15.00** | 11.75% | 0.059 | 5.88 | **Tougher Hitting between -10.00 to -15.00** | 7.16% | 0.036 | 3.58 |
| | | Per game= | 1. 94 | | | Per game= | 1.18 |
| | | | | | | | |
| **Visitors to Coors Field between +15.00 to +25.00** | 12.13% | 0.061 | 6.06 | **Teams Leaving Coors Field -15.00 to -25.00** | 8.19% | 0.041 | 4.10 |
| | | Per game= | 2.00 | | | Per game= | 1.35 |

Visual Memory by Clifton Neeley, creator of the Visual Memory Index© and author of the web-site www.baseballvmi.com. Clifton pitched and played baseball and fast-pitch softball in the mountainous southwest Colorado area from 4,000 feet in Grand Junction to 6,000 feet in Durango to 9,000 feet in Telluride prior to his college experience in baseball.