

PENNANT RACE

INTRODUCTION

Pennant Race is a game that allows you to replay Major League Baseball Seasons. With a simple roll of three dice (white, red and green) and some quick chart checks a score is immediately generated. Some stats can also be added, being the system able to do so. Following the schedule of a specific season, play day-by-day all the games and look at the standings development in a reasonable amount of time.

1.0 RATINGS

1.1 STARTERS

PITCHERS	ST	END	REST	CG	Sho	REL	FAT
CHARLIE HOUGH	4.5	8	4	522	666	-	-
PAUL KILGUS	2.5	6	4	612	634	-	-
JOSE GUZMAN	3.5	7	4	555	644	-	-
JEFF RUSSELL	3.5	8	5	553	666	-	-
BOBBY WITT	3.0	7	5	334	634	-	-
RAY HAYWARD	1.5	3	7	636	636	-	-

Every starting pitcher has a line of ratings as in the example above (1988 Texas Rangers):

- **ST** (Starting Value). Indicates the generic pitcher skills and the propensity to allow earned runs. The higher the rating, the better the pitcher.
- **END** (Endurance). Indicates the ability to go on through several innings. The higher being the better.
- **REST**. Represents the number of days a starter must rest before being able to start again. Pure relievers don't have this rating.
- **CG** (Complete Games). Ability to complete the games. It is a three digit number. The lower the rating the better the possibility for the starter to achieve the complete game.
- **SHO** (Shutouts). Ability to complete the game holding the other team to zero runs scored. It is a three digit number. The lower the rating the better the possibility for the starter to achieve the shutout.
- **REL** (Relief Value). Indicates the generic skills when the pitcher comes in the game as reliever; negative numbers are for better pitchers, while pure starters don't have this rating.

- **FAT** (Fatigue). Indicates how many points the "REL" rating must be raised for each consecutive day the reliever is used. An asterisk means that the pitcher can be used in some situations only, see later page 3 about use of relievers and fatigue. Pure starters do not have this rating.

1.2 RELIEVERS

PITCHERS	ST	END	REST	CG	Sho	REL	FAT
DEWAYNE VAUGHN	-	-	-	-	-	+7	*
DWAYNE HENRY	-	-	-	-	-	+7	*
ED VANDE BERG	-	-	-	-	-	+2	*
JOSE CECENA	-	-	-	-	-	+4	*
CRAIG MCMURTRY	-	-	-	-	-	-4	+4
DALE MOHORCIC	-	-	-	-	-	+4	+3
MITCH WILLIAMS	-	-	-	-	-	+3	+1

Some pitchers played in both roles, starter and reliever, so that they have all the ratings. Look at the specific rule explained later on how to handle this kind of pitchers (paragraph 2.6.3).

1.3 BATTERS

LINEUP	POS	BAT	POW	SPD	X-HR	FLD	E.I.	DICE
1 ODDIBE MCDOWELL	CF	2	2	5	12	+0	11-12	11
2 CECILESPY	RF	2	1	5	-	+1	13-14	12
3 PETE O'BRIEN	1B	4	3	1	21	+2	15-16	13
4 PETE INCAVIGLIA	LF	2	4	2	33	+1	21-22	14
5 RUBEN SIERRA	DH	3	3	3	51	-	23-24	15
6 STEVE BUECHELE	3B	2	3	1	61	+2	25-26	16
7 CURT WILKERSON	2B	5	2	2	-	+1	31-32	17
8 GENO PETRALLI	C	4	2	0	63	-1	33-34	18
9 SCOTT FLETCHER	SS	4	1	2	-	+2	35-36	

For batters you will find the following ratings:

- **BAT**. Indicates the contact ability of the batter, based on the batting avg.
- **POW**. Indicates the power ability based on the slugging pct.
- **SPD**. Indicates the ability to steal bases and is calculated on the number of stolen bases.
- **X-HR**. This range is used to find extra homeruns hit during the game. That's optional.
- **FLD**. This represents the fielding ability of the players; positive numbers are for best gloves.

- **E.I.** This range is to be consulted when the game goes to extra-innings.
- **DICE.** Indicates the sum of the three dice and the player to take in consideration when this sum is rolled by the team at bat (rolling team).

1.4 TEAM RATINGS

- **BAT VALUE:** is the basic offensive strength of the team and is used in every game. You find it in the upper left corner of the roster sheet and is the sum of the batting value of the starting lineup. In leagues where the DH is not in use, the BAT value of a pinch hitter is considered instead of the pitcher.
- **UNEARNED RUNS**

	UNEARNED RUNS ALLOWED								
Runs	2	0	1	1	0	1	2	1	
DICE	3	4	5	6	7	8	9	10	

Is used whenever the sum of the dice rolled by the opposing team is 10 or less and indicates the number of un-earned runs allowed.

- **EXTRA HR GRID**

X-HR:	3	2	1	0
DICE:	111	141	245	666

The use of this grid is optional if you want to determine the number of homeruns hit in a specific game. See later the optional rule.

2.0 GAME RESOLUTION

Write on the scoresheet the team names (according to the schedule) with their Team Bat Values (BV) and choose a full rested starter for each team. To be a “Starter”, a pitcher must have a “ST” value.

For each team (Visiting Team first) roll the three dice (white, red and green) and write the resulting numbers in the appropriate cells of the scoresheet. We always will refer at this order with the following examples of play, meaning that a 234 is a white 2, a red 3 and a green 4.

The Visiting Team will roll for its offense first, when everything is done for them, it will be the turn of the Home Team.

The first thing to do after the roll is to check the CG and the SHO ratings of the opposing pitcher; if the three dice are showing a three digit number (triad)

higher than the SHO rating of the opposing pitcher, it is a shutout and no calculations must be done. Zero runs are scored for the rolling team.

If the triad is equal or lower there is not a shutout but a complete game can still occur if it is higher than the opposing pitcher CG rating. A 666 rating means that no Sho or CG can be achieved by that pitcher.

EXAMPLE: California is playing at Texas and the Home starter is Jose Guzman (see above). California rolls 6 white, 4 red and 5 green. The triad 645 is higher than Guzman SHO rating (644), so the runs scored by California in this game are zero and Guzman has a complete game shutout. Let’s suppose the roll have been 556, that’s not a shutout, but still a complete game by Guzman because it is higher than his CG value (555).

If the game is not a complete game shutout, we must determine the following things:

- 1) **TOTAL OFFENSE.** To obtain the total offensive value in a given game sum the following:
 - Team Bat Value
 - Power Bonus if you have doubles (white and red or white and green).
 - Speed Bonus if you have doubles (red and green).
 - Individual BAT if the sum of the dice is 11 or higher.
 - Total Relief Value of the opposing team if some reliever came in the game.

If no double occur, the sum of the dice is 10 or less and the game is a CG (so without relievers), the total offense is simply determined by the team Bat Value.

- 2) **TOTAL DEFENSE.** Multiply the opposing pitcher ST and the white die. When the sum of the dice is 10 or less, the white die can be modified by an opposing fielder, determined by the Fielding Chart. See later paragraph 2.2 about how to determine the defense value.
- 3) Divide TOTAL OFFENSE by TOTAL DEFENSE and drop fractions down to obtain the number of earned runs allowed by the opposing team.
- 4) Look at the sum of the three dice and check the opposing team “unearned runs allowed” grid to see if the rolling team has also scored some unearned runs.

2.1 DETERMINING OFFENSE

The team BAT VALUE is the base for every game, but some additions and/or subtractions can be made to this value:

- a) Power Bonus. This occur when the white die is equal to the red or to the green die. Check the Power Chart to determine which player had a true impact during the game thanks to his power. When you have him, multiply his POW value by the sum of the three dice and add the result to the Bat Value of the rolling team.

EXAMPLE: Texas rolls 443. White and red dice are identical, so a power bonus occur. In the Power Chart you will find that the player at spot 3 in the lineup comes in action. This is a Power Bonus for Pete O'Brien, meaning that 33 points (POW rating 3 x sum 11) must be added to the team bat value.

- b) Speed Bonus. This occur when the red die is equal to the green one. Check the Speed Chart to determine which player was important during the game thanks to his speed and stolen bases. When you have him, multiply his SPD value by the sum of the three dice and add the result to the Bat Value of the rolling team.

EXAMPLE: Texas rolls 233. Red and green dice are identical, so a speed bonus occur. In the Speed Chart you will find that the player at spot 1 in the lineup comes in action. This is a Speed Bonus for Oddibe McDowell, meaning that 40 points (SPD rating 5 x sum 8) must be added to the team bat value.

If a triple dice roll occur, the rolling team is awarded of one Speed and one Power Bonus added together.

- c) Individual Bat bonus. This occur when the sum of the three dice is higher than 10 and can occur together with Speed and Power Bonuses. Simply determine the sum and look at the roster under the column "dice" to determine the player that thanks to his batting average had a good performance in the game. Take his BAT value and sum it to the Team Bat Value.

EXAMPLE: Texas rolls 452. The sum is higher than 10, so the bat value of a single player must be considered. The sum of the dice (11) calls in action Oddibe McDowell that adds is bat value (2) to the total

offense for Texas. If the roll is 443, a Power Bonus occur (because the white die is equal to the red one) and a Bat Bonus occur also, because the sum is higher than 10.

- d) Relievers. Refer to this paragraph only if the opposing starting pitcher wasn't able to complete the game (i.e. triad equal of lower than his CG rating). In this case, you have to determine the number of opposing team relievers called in the game consulting the "Inning Pitched Chart". Look at the white die and cross reference it with the END Value of the OPPOSING starting pitcher to obtain the number of innings pitched by the opponent Bullpen. When you have the number of innings pitched by the Bullpen, consult the "Reliever to Use Chart" and cross-reference the number of innings with the red die. You will find the number of relievers used by the opposing team.
- Choose the best relievers available basing the choice on the REL rating. Sum together the REL ratings of all the relievers involved and add the result to the Team bat value of the rolling team (as you have eventually already done for the bonuses explained above).

EXAMPLE: Let's assume still California playing at Texas and rolling a 335 triad. For Guzman is not a complete game this time (because his CG value is higher than the triad rolled), so we have to determine the number of relievers. Guzman has END = 7 and with a 3 rolled with the white die the Chart tell us that 1.2 innings were played by the bullpen. In the Reliever to use Chart you will find that two relievers are used, cross referencing 1.2 with the red die (3). So Texas will choose their two best relievers at the moment available: Craig McMurtry (REL= -4) and Mitch Williams (REL=+3) The sum of -1 will be subtracted from the California total offense. Note: Ed Van De Berg is not available even if he has a better REL value because of the asterisk in the FAT field. See rule explained below paragraph (e).

N.B. When the sum of the dice is 10 or less, one inning must be added to the bullpen total resulting from the "Inning Played Chart".

- e) Relievers fatigue. Relievers with "FAT" numerical rating must rest at least one day after three consecutive days of usage. They have to add the FAT value to the REL value if they played the day before. If a reliever pitches in three consecutive days the FAT value must be doubled. When finally a day of

rest is fulfilled, the reliever can play again with his normal REL value. The better relievers at the moment available (always considering fatigue) must be chosen, so that a team cannot decide to elect a poor reliever in a given game to save a better one for another game. In case of a tie among two or more relievers, chose those with less fatigue points accumulated.

EXAMPLE: In the first game McMurtry and Williams have been used. For the second consecutive day of the serie, McMurtry has FAT = +4, so his REL rating becomes $-4+4 = 0$. Williams has REL = $3+1$ for fatigue = +4. Let's suppose that again two pitchers are needed; this time together with McMurtry (REL=0), Mohorcic will be chosen because he has REL=+4 but without including any fatigue point in the value. In a third consecutive day, McMurtry goes to +4, Williams has +3 because rested the day before. Let's suppose that three pitchers are requested, Van De Berg (+2), Williams (+3) and Mohorcic (+4) must be picked. Note that Van De Berg could not play if two pitchers only are requested for the game (see below asterisk rule).

The asterisked relievers (*) can play if the following conditions are met only:

- They are rested; i.e. they didn't play the day before. They cannot play in consecutive days.
- At least three relievers have been called in the game, according to the Relievers to Use Chart or some of the non-asterisked relievers (that would appear again in the game because of a good rating) have been already used for three days or more.

EXAMPLE: Three relievers are required for Texas, so Van De Berg can play instead of Mohorcic (together with McMurtry and Williams) because he's rested, has a better REL rating and more than two relievers are requested.

EXAMPLE: Two relievers are required for Texas but Williams and McMurtry have been used for three consecutive days: use Van De Berg and Mohorcic.

EXAMPLE: Three relievers are required for Texas but Williams and McMurtry have been used for three consecutive days: use Van De Berg, Cecena and Mohorcic.

2.2 DETERMINING DEFENSE

To determine the total defensive value just multiply the white die with the opposing pitcher ST value. As

an important part of this procedure you have to remember that the total defense **can never be lower than 6**, so for example if a roll of a white 2 is obtained against a starter with ST value = 2, the total defense to be considered is 6 (instead of 4).

EXAMPLE: California playing at Texas. With a 321 roll by California the defense will be 10.5 (white die 3 x 3.5 Guzman ST value). With Ray Hayward on the mound (ST=1.5) this roll will result in a total defense of 6 (instead of 4.5).

FIELDING: When the sum of the dice is 10 or less, the fielding skills of the opposing team are also checked using the "Fielding Chart". Refer to the FLD rating of the player indicated in the chart and add or subtract it from the white die.

EXAMPLE: With a 323 roll (sum 8), the Fielding Chart must be considered. The Chart indicates that Steve Buechele (3b) must use his FLD rating (+2) because the green die is odd. The white die becomes 5 (3+2) and the total defense becomes $5 \times 3.5 = 17.5$ (instead of 10.5).

2.3 DETERMINING RUNS SCORED (EARNED)

When you know the total offense points and the total defense, divide offense by defense and drop fractions down to obtain the number of runs scored by the rolling team. This is not the final result because this number can still be increased by some unearned runs (see later).

EXAMPLE: The roll by the visiting team is 321. Let's assume that after all calculations the total offense will reach 48. Guzman (ST=3.5) totalize 10.5 as total defense value (white die 3 x ST 3.5). 48 divided by 10.5 yields 4 runs scored (dropping fractions down).

You can imagine that the part of wasted offense due to fractions simulates some runner left on base.

2.4 DETERMINING UNEARNED RUNS

When the sum of the dice is 10 or less it is possible that the opposing team allowed some unearned runs also. Consult the "Unearned Runs Allowed" grid on the opposing team roster and find the number of unearned runs eventually allowed.

EXAMPLE: The 321 roll by the visiting team means a sum of 6. Go to the Texas Fielding Grid and find the number above 6. This will determine 1 unearned run allowed by Texas.

This unearned run must be added to the 4 “earned” runs already obtained, yielding the final score of 5 for the visiting team.

Follow the same procedure for the Home Team to determine the final score of the game.

2.5 EXTRA INNINGS

When the two teams, after all the above calculations are tied, one extra inning is necessary. For both teams pick the best reliever still available (not yet used in that game) and record his REL rating eventually modified by fatigue. Also check the red and the green die of the triad rolled and read them as two digit number. Look at the “E.I.” column in the rolling team roster. You will find the player that in some way will be decisive in the clutch hitting situation. For each team sum the BAT value of the so found player and the REL rating of the opposing picked reliever. Compare the result of the two teams and assume the team with the higher obtained number having scored one run to win the game in the extra inning. If the tie score persist, pick another pitcher for both teams to break the tie and assume the extra innings have been two. Remember that relievers used in the extra innings get fatigued in the same way as the others used during the regular game.

EXAMPLE: The roll for Texas was 532 and resulted in a tie game. The best visiting reliever has a +2 REL, looking under “E.I.” in the Texas roster you will find Curt Wilkerson . Wilkerson has a BAT value of 5, so that Texas totalize 7 points (5 for Wilkerson bat + 2 for the opposing reliever). Should the visiting team totalize less points, Texas will win the game. Add one run (earned) to the regular score for Texas. If the visiting team totalize 7 as well, both teams will chose another pitcher to break the tie and a second extra inning will be played.

2.6 PITCHER USAGE

There are three categories of pitchers:

- 1) Starters. Every pitcher with a ST value
- 2) Relievers. Every pitcher with a REL value
- 3) Both. Having ST and REL value as well

The starter must be chosen at the beginning before the roll of the dice. Every starter has a “rest value” indicating the number of days he must rest before starting another game. He can eventually start one day before the required rest period reducing ST and END value by 1 for that game. Also a short rested pitcher cannot achieve CG and Shutouts. For some leagues and seasons the real starter for each game is indicated in the schedule. So the gamer has the option

to choose between this system that uses rest or the real starter. Please note that not every pitcher that actually started for a given team is in the roster, so when a pitcher not in the roster is indicated as starter in the schedule, pick any full rested starter instead.

Relievers must be used according to the fatigue rules already explained above in paragraph **2.1.d** and **2.1.e**

To keep track of fatigue for relievers is useful to compile the grid provided with the game, showing for every pitcher the day in which he was used. Remember that the asterisked relievers cannot play in consecutive days and when less than three relievers are requested for the game. Precedence is always given to non-asterisked relievers except when they have already played for three consecutive days.

Pitchers that played in both roles must be treated in a quite different way. First of all, if they have an asterisk under “FAT” that means that they played mainly as starters. They cannot jump in or outside the rotation whenever they want. To be eligible for a relief they must be rested for at least **three days** since the last start. Moreover, they can be called in the game only when 3 or more pitchers are needed according to the “Pitcher to use Chart” or when an extra inning occur and at least two pitchers have already been used. Finally, to come back in the rotation and play again as starter three days of rest are needed since the last relief.

If in the “FAT” column there is a number instead of the asterisk, the rest rules are the same, but that pitcher can be used as first or second reliever as well.

3.0 STATISTICS

Some of the statistics are generated by the game engine during calculations needed to determine the final score (complete games, shutouts, games started, games played by relievers and innings pitched by bullpen) and in some way are influent on the outcome of the score. Others can be added if you want more detail. All of the stats described below are optional and the game can be played normally without all or some of them.

3.1 BATTERS STATS

- Record all Power bonus points for every player to elect the best slugger in the League.
- Record all Speed bonus points for every player to elect the one with most stolen bases.
- Record all Bat bonus points to elect the player with the best batting avg.

- For the best fielder, calculate the supposed score without the white die modification and count the runs saved by good fielders.

These numbers are something that abstractly represents the strength of players for each of these categories and are enough to assign awards at the end of the season.

- Homeruns. Automatically assign one HR to the player obtaining a POWER bonus in the game (if any). Some extra homer can be added checking the X-HR grid of the rolling team. Three, two, one or no homers can be added in that way. At the end of the game roll two dice for each HR resulting from the grid. The extra homeruns must be determined even if a Power Bonus situation didn't occur.

EXAMPLE: Texas rolls 223. The bench player in spot A has hit an homerun according to the Power Chart (white and red dice are equal). Moreover, the team grid indicates that one more ball went over the fences (range 142-245). At the end of the game roll two dice once and read them as a two digit number: say the rolls is 31 Under the X-HR column of the roster you will find Pete Incaviglia with an extra Homerun for that game (range 22-33).

When a shutout occur, no offensive stats must be considered and tracked. Everything is zero. Also Bat/Power/Speed bonuses have no effect. Any unearned runs check is also ignored.

3.2 PITCHER STATS

- Innings pitched by starters. It is quite easy to determine this stat. Subtract the bullpen innings (already known) from 9 to obtain the starter's innings. When the team lost on the road subtract the bullpen innings from 8. If the game goes to extra innings, assume this is always played by the reliever picked to break the tie. Also assume the losing team on the road having played 0.2 extra inning instead of one whole inning with a "walk-off" run by the home team.

EXAMPLE: McMurtry and Williams played 1.2 innings in the example above; so Guzman pitched 7.1 innings. Should Texas have played on the road and lost the game, Guzman would have pitched 6.1 innings.

- ERA for statrers and Bullpen. To keep track of this important stat you have to keep record of inning played by starters and share the earned runs between bullpen and starters. To do so use the Runs to assign to Relievers Chart. Cross reference the number of earned runs allowed by the team with the number given by the difference between white die MINUS green die (ranging from -5 to +5). The result will be the number of runs allowed by the bullpen. Use the number on the right of the slash if the bullpen played 3.0 or more innings, use the number on the left of the slash if the bullpen played less than three innings. Assume every run after the eight as always allowed by the bullpen as well as every run allowed during the extra inning.

EXAMPLE: Let's say Texas allowed 6 total earned runs and the bullpen performed not so well with +1 (this can result from an opponent triad like 322 for example where the difference between white and green die is +1). Cross-referencing 6 and +1 you find 2/3. Since the bullpen played less than 3.0 innings you refer to the number on the left showing 2 ER allowed. The other 4 have been allowed by Guzman. With 3.0 innings played by the bullpen 3 ER would have been on the relievers and 3 ER on the starter.

You can note here that the higher the green die the better the bullpen played, charging more ER on the starting pitcher.

- Spreading innings among relievers: if you want more detail and not a cumulative ERA for the whole bullpen you can divide innings among the relievers to obtain an individual ERA for the single reliever. The relievers are supposed to enter the game in the same order they are listed in the roster (except for the pitcher picked for an extra inning). Assign the outs equally to the relievers starting from the first and going down.

EXAMPLE: In our example above McMurtry and Williams played 1.2 innings together, these are 5 outs to be distributed among the two; three outs are for the first of the list (McMurtry) and two for the second (Williams) so that the first played one inning and the second 0.2 innings.

- Spreading earned and unearned runs: runs earned and unearned follow the same procedure even if separated. Assign them starting from the relief that is playing with the higher REL rating (including fatigue) and in

case of a tie, to the reliever that first came in the game. Do the same with the unearned runs.

EXAMPLE: Williams played with REL=+3, while McMurtry played with REL= -4. If one run must be assigned, this will be charged to Williams since he has the worst rating.

- Decisions: it is possible to determine who got the decision looking when and on who the runs have been charged. This may result quite difficult sometime but logically is a possible task. Usually the starter that played less innings and allowed more runs if compared to the other starter is usually the loser of the game. In the opposite situation he is usually the winner. When the two starters have the same number of runs allowed one of the relievers can get the decision.
When a game goes to the extra inning is always the reliever who gets the decision. Remember that no starter can be eligible for a win if he doesn't play for at least five innings.
- Saves: A save occur when all of the following conditions are met:
 - a) It was not a complete game,
 - b) The difference in the score between the two teams is three runs or less,
 - c) There is at least one reliever that didn't already get the decision.

The reliever that get the save is always the last entering the game.

3.3 STATISTICAL NOTES

When an extra inning occur, this statistically nullify the CG or the individual Shutout that eventually the starter achieved. It is always supposed that during the extra inning another pitcher is called to finish the game.

The batter used in the extra inning to break the tie must consider his bat value for the batting crown purpose in the same way it is done with the individual bat bonus (dice sum 11 or higher).