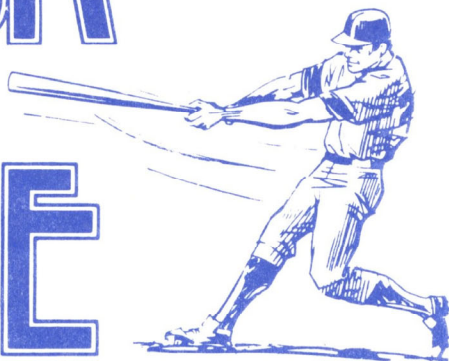# MAJOR LEAGUE

## INSTRUCTIONS

## GAME EQUIPMENT

1. Rules Folder
2. Mounted Playing Board with Reference Charts & Tables
3. Out Charts (3)
4. Fast Action Cards Set (*approximately 95*)
5. Player Cards representing players of every Major League Baseball team (or in GREAT PENNANT RACES, the teams from the 1950 and 1967 American League and 1964 National League)
6. Scorepad
7. Pawns for baserunners (3)
8. Statistical Guide

## OVERVIEW

*Congratulations! You are now the owner of Avalon Hill's STATIS PRO MAJOR LEAGUE Game of Professional Baseball. Designed by James Barnes, president of Statis-Pro Publications, the MAJOR LEAGUE game is the finest statistical game for baseball ever designed for the general public.*

*The following rules will explain the game to you and allow you to get right into its play. There is also a special section explaining how you can, if you choose, make up your own player cards. If you have not played a game of this type before, it might at first seem complicated, but it is really quite simple, and once you become familiar with the system you will probably be able to play a complete game of MAJOR LEAGUE in less than one hour.*

## HOW TO PLAY

**Your first step** is to select the players and write in their data on the columns on the scoresheet provided in the game. This includes ERROR, THROWING, CD (if any rating) and ON BASE RUNNING SPEED (OBR).

The abbreviations used in both batting and pitching are:

OBR: On base running speed
SP: Stolen base running ability
HR: Hit and Run ability (when used as batter rating at top of card)
BD: Power batting with men on base
CD: Special defense ability when men are on base
SAC: Sacrifice ability
INJ: Personalized injury rating for fielders
1Bf: Infield Single (A one base advance at all times)
1B7: Single to left field
1B8: Single to center field
1B9: Single to right field
2B7: Double to left field
2B8: Double to center field
2B9: Double to right field
3B8: Triple to alleys, but always fielded by center fielder
HR: Home Run (when used as a result opposite random number)
K: Strikeout
W: Base on balls
HPB: Hit by pitched ball
OUTS: Out range of batter
Cht: How batter goes out; used as a reference in conjunction with Fast Action Card. NOTE: After "Cht" you will see an abbreviation such as "RP", "LN", etc. This indicates two things. The first letter shows you which side the batter swings on, e.g. L = left, .R = right, and S = switch hitter. The second letter shows whether the batter is considered a power hitter (P) or normal (N).

## RATINGS USED ONLY ON PITCHER CARDS

PB: Control factor of pitcher

SR: Starting rating of pitcher
RR: Relief rating of pitcher
BK: Balk
WP: Wild Pitch
PB: (as a result) Passed ball by catcher
OUTS: How batter goes out—use batter Cht designation with Fast Action Card.

Pitcher Cards also give a BATTING CARD NUMBER which shows which batting card is used when this pitcher is at bat.

From these ratings listed above our game plays in a manner that takes both pitcher and batter abilities into consideration.

## SETTING UP THE GAME

Lay out the two mapboard sections on a convenient table or other space. If there are two players it would be more convenient to sit so that both of you are facing the charts on the board, but if not you should be able to read them if one of you sits opposite first base and the other opposite third.

We provide you with three plastic pawns to be used as baserunners, but if you choose to use the optional "Outs" indicator (which we put on the board to avoid unseemly arguments among those of you who prefer not to use the scoresheets) or pitcher reduction charts you will also need three coins such as pennies. Lay the three Outs Charts close at hand, and you are ready to play.

**FAST ACTION CARDS:** This is where we get the random results to determine what happens when each batter comes to the plate. Shuffle the entire deck thoroughly, making sure that the colors are well mixed. When you play the game, refer only to the left side readings. Once you are finished with a particular card, place it on the discard pile on the board. When you reach the bottom of the deck, turn the discard pile around so that the readings which were upside down before are now face up, thus becoming the new left side readings. Play through as before, and when the bottom is reached again, flip over and repeat with new readings. Games will not necessarily use up all four readings on all cards—but in case they do before the game is over, simply re-shuffle and repeat the above process.

**NOTE:** *The above paragraph refers to the new 4-color Fast Action Cards printed by Avalon Hill. The only difference between these cards and the original 1-color Statis-Pro version is that we put four sets of results on each card to make the entire deck less cumbersome. If you prefer using the original cards, simply ignore above paragraph and proceed as you've always done.*

## BASIC PLAY STEPS

**PITCHER VERSUS BATTER:** Our game is primarily based on pitching because, as any fan knows, good pitching is the heart of baseball. Each pitcher has a PB RATING of either 2-5, 2-6, 2-7, 2-8 or 2-9. This is his CONTROL FACTOR. The PB RATING is used to determine if the play result is on either the pitcher or batter card. Here is the sequence of play:

1. Refer to the first Fast Action Card and look at the PB number. If the number is within the range of the PITCHER CARD (under

PB), the play result is taken from the pitcher card. Otherwise it is taken from the batter card.

2. Turn to the next Fast Action Card and look at the RANDOM NUMBER reading. This number is then applied to data on either the pitcher or batter card, depending on which player is in control of the situation.

3. Either a hit or an out will occur (or some similar result).

**EXAMPLE:** Suppose a pitcher has a PB rating of 2-7 and the Fast Action PB number is 8. This means the BATTER is in control of this head to head meeting and the play result will be found on the batter's card. If the PB number from the Fast Action Card had been between 2 and 7, the result would have come from the pitcher's card.

Our game is designed so that when a pitcher is on his card, he will be tough to hit, but when play is on the batter's card, watch out . . .

**RESULTS ON FAST ACTION CARDS:** Our game uses a base 8 numbering system, which means that there will never be any 9 or 0 numbers. The random numbers range from 11-88, which means that there are 64 possible numbers.

When the random number gives you a result listed under OUTS, this means the batter goes out (on either pitcher or batter card). Consult **Cht** on right-hand bottom of batter card to get a reading such as LN, RP, etc., and **using the same Fast Action Card** from which you obtain the OUT reading, look below under the proper chart heading to see just how the batter was retired. You will get a result such as G4, FD8, etc. Then refer to the OUT CHARTS for a description of what took place (the reference to "P" on the OUT SEQUENCE is used whenever a pitcher is at bat).

**CHECKING FOR ERRORS:** Whenever an asterisk (*) appears at the bottom of the Fast Action Card next to a G4, etc., a check for possible error is made. Turn to the next Fast Action Card and look under ERROR and it will either give a number or say NONE. If NONE, then no error is committed and the batter is retired according to the result on the OUT CHART. If a number is given that is WITHIN THE ERROR RANGE of the fielder, then an error has been made and the OUT CHART will tell you what happened.

**EXAMPLE:** G4* appears and the second baseman is rated E2. The next Fast Action Card says, under ERROR, "1 to 3". Our fielder is within that range so he has made an error. We now turn to the OUT CHART to find a description of the error. When an error has been committed, you turn to the next Fast Action Card and get a REFERRAL NUMBER (listed as either "ERROR ON INFIELDER" or "Error on outfielder" depending where the play was made) that is used on the OUT CHART.

**You only check for errors in two instances: When an asterisk (*) appears under OUT SEQUENCE and after a hit off the BATTER CARD (never hits off the PITCHER CARD).**

The above rules should be enough to give you an understanding of our game and the simplicity of its mechanics. Try an inning and see the beauty of the game and how the Fast Action Cards mold pitcher and batter.

## NOTES ON THE FAST ACTION CARDS

### PB READINGS

2 to 12:   Used as a reference to determine whether result of play is to be found on pitcher or batter card.

BD:   Clutch batting ability. Use BD rating and BD chart only when men are on base. If none on ignore and get a new PB number.

CD:   Clutch defense ability. Use fielder CD number and rating only when men are on base. If none on ignore and get a new PB number

Z:   Stop play at once and consult Z chart for special play result.

### RANDOM READINGS

These will give a random number from 11-28, 21-28, 31-38, 41-48, 51-58, 61-68, 71-78 or 81-88.

PITCH: This is used only when a BK, WP or PB (passed ball) is indicated on the pitcher card. Turn to next Fast Action Card and PITCH will say either YES or NO. YES means there was a BK, WP or PB. NO means there was none, and normal play is continued.

OF TH: Ignore as not in game anymore. For early editions this was the outfield throwing rating, but it has been dropped in favor of new OUT CHARTS.

### PITCHER REDUCTION

This is where SR and RR come into play. Each time a pitcher makes a mistake, his SR or RR is reduced by one. SR is used when starting and RR when in relief. Note that some pitchers have *only* RR ratings, which means they can only relieve, while others have only SR ratings, which means they can only start. When the SR or RR reaches 0, the pitcher is no longer effective. This means you ignore PB and get all results off the batter card. This makes changing pitchers almost mandatory.

The SR or RR is reduced by one when any of the following occur: HIT ALLOWED, WALK ALLOWED, RUN ALLOWED, WILD PITCH, PASSED BALL, HIT BATTER, and ERROR IN THE FIELD. This is cumulative, so, for example, if a home run was hit, you would deduct 2, and 1 more for each runner that was on base at the time it occurred. Reduction is simple to use and follows common sense.

## NOTES ON THE PLAYING BOARD

**PITCHER REDUCTION AND OUTS CHART:** These are both optional, and are placed on the board merely for the convenience of players who, for one reason or another, do not wish to use their scoresheets to keep track of outs and how far along a pitcher is toward reaching a rating of 0.

**LINEUPS:** This is where you place the player cards of your batting team in order of their appearance at the plate, with the first batter up at the top of the stack, the second under him, and so forth.

**FAST ACTION CARDS:** This should be pretty obvious. Begin with the entire deck in one of the spaces, and every time you play a card transfer it to the other space until the entire deck is used. Then turn it around and go through it again, as explained previously.

**NUMBERS ON THE FIELD:** These are just to give you an idea of where the ball actually was hit during a specific play. The numbers on the field are the actual position numbers used when keeping a scorecard, and beside each number is the abbreviation for that position.

**SPECIAL NOTE—STOLEN BASE CHARTS:** On any attempted steal where the result says "Runner cannot get jump . . . normal play continues" you may *not* attempt another steal until *after* the batter then at bat has made a hit, or an out, or a walk, etc. In other words, if you come up with this result you cannot immediately try a second steal.

**QUESTIONS ON PLAY** will be answered only upon receipt of a self-addressed envelope bearing current first-class postage. We will *not* answer questions dealing with the design of the game, but only those that concern clarification of specific rules. Questions such as, "Please explain this game", while challenging, will be immediately consigned to the basket.

**FOR COMPLETE INFORMATION** and current Parts List, write: The Avalon Hill Game Company, 4517 Harford Road, Baltimore, MD 21214.

# How to Rate the Players Yourself

The following pages outline the scientific method by which James Barnes, designer of Statis-Pro games and consultant to Avalon Hill, transfers the hard data onto the Player Cards. We provide them to you so you can rate teams and players yourself, if you wish, from seasons not yet covered by our game, and also replace any cards you may have lost without having to buy an entire new set.

For your convenience, BLANK PLAYER CARDS are available direct from Avalon Hill, In each set you get approximately 80 Pitcher Cards and 160 Batter Cards per 240-card set—enough for ten teams. To order, send $3.00 plus 30¢ for postage and handling.

# PLAYER RATING METHOD

As is the case with any writing on baseball, or any other sport, certain evaluation techniques are available to bring about a visual comparison and baseball is an exact science in that statistics can bring about impact comparison and allow one player to be weighed against another at a momentary glance. Baseball, by passage of time, has been computed into a per cent sport and you must realize

that the difference between one player and another is not great although it might appear to be. As an example, John Smith bats .344 and Tom Jones, not the singer, hits .289. This may seem to be a wide variance in batting skills, but is less than five per cent. Only through many, many times at bat does the five per cent difference begin to take shape and luck alone could account for three per cent of the difference in variation.

For our evaluation methods, we do not rely on percentages, but run each player through a constant FACTORIAL BASE which has the same overall effect as percentiles. Our hitters and batters go through a base 8 marriage that results in each claiming 64 numbers and a total partnership of 128. Using our systems to do one team is not all that bad, but if you want to rate a whole league it will take considerable time and effort, but the guidelines to do it are herein contained.

## BASEBALL BATTERS

**Classification OBR:** This is a player's ability to run on base and can be measured both by runs scored and times on base. The easiest method is to divide runs scored by times on base for each player in the game or season to be rated and then break them down into five categories. (As a quick method, this can almost be done by common sense.)

OBR: A   Very fast and runs bases perfectly.

OBR: B   Strong, mobile runner, Makes few mistakes

OBR: C   Average runner and where most should be rated

OBR: D   Slow and moves mostly on two out hits and extra base hits

OBR: E   Very slow. Painfully slow. Almost never gets there.

**Classification SP:** This is steal ability and is measured by steals per times on base and computed over full season. To get players on same level, multiply steals by games played . . . then rate:

SP: A   Usually steals 30 or more bases in a season

SP: B   Ends up with between 20 and 29 steals per season

SP: C   About average with 10 to 19 steals per season

SP: D   Has only a few steals, 1 to 9

SP: E   Never, never steals.

**Classification HR:** Here is where bat control speaks and herein lies hit and run ability. Hit and Run is simply making contact and the rating is based on STRIKE-OUT times. The key is the number of strike-out numbers allotted to the player card:

HR: 2   No strikeouts appear next to K rate on card

HR: 1   One or two strikeout numbers next to K rate on card

HR: 0   Everyone else

**Classification BD:** This relates to getting runs with men on and measures home run ability. Note that when a player is rated BD-2, you must deduct one Home Run number from his regular card rating. BD-1 and BD-0 have no change next to HR number on card.

BD: 2   Hits 30 or more home runs in season

BD: 1   Hits between 25 and 29 home runs per season

BD: 0   Everyone else

**Classification CD:** This measures a man's ability to turn double play. Study each position and rate those who made a lot of double plays per games played:

CD: 2   High double play involvement

CD: 1   Good double play involvement

CD: 0   Everyone else

There is no limit on how many players may get either a BD or a CD rating. The first is quantitative and the second, usually qualitative.

**Classification SAC:** This is based on actual number of sacrifices in a season. Sliding scale adjustment needed for those with few times at bat, but not necessary for most players.

SAC: AA   Eight or more sacrifices in season

SAC: BB   Five to seven sacrifices

SAC: CC   Two to four sacrifices

SAC: DD   None or one sacrifice

**Classification INJ:** This relates to how the man was used and his ability to stay in lineup. We call them injuries although games missed probably were not for that reason.

INJ: 0   Played in every game

INJ: 1   Played in all but one game

INJ: 2   Missed only a few games

INJ: 3   Missed four or five games

INJ: 4   Missed six to ten games

INJ: 5   Missed eleven to 20 games

INJ: 6   Missed 21 to 30 games

INJ: 7   Missed about half the season

INJ: 8   Did not appear very often

**Classification Cht:** This rates a batter for his hitting power. As noted previously, batters rated "P" have power, and batters rated "N" are normal, while pitchers have their own category. The first initial (L, R or S) merely informs you whether the batter is righthanded, lefthanded, or a switch hitter.

**Cht: P** All batters who have at least 4 home run numbers (Ex: 27-30) or who hit at least 15 home runs in the season. It is possible for this rating to be *somewhat* subjective, so if the batter is a borderline case use your own judgement.

## NUMERICAL SEQUENCE

Our range of 64 numbers is base 8, 11 to 18, 21 to 28, etc. When allotting numbers to cards for hits, rotate according to how a hitter swings. If a left handed batter has seven singles, allot two to left, two to center and remainder to right field. This is a common sense valuation.

## CREATING THE BATTING CARDS

Add the number of walks and times hit by pitched ball to the actual number of at bats. Take this sum and divide by 128 to get the evaluation factor. This FACTORING number is used constantly when figuring the data for this batter.

As an example, if a hitter was at bat 450 times, walked 37 times and was hit by three pitched balls, he would have a total of 450 + 37 + 3 or 490. To get his factor, divide 490 by 128 and the result is 3.8. This means that each

of the 128 numbers that come into play when he bats is worth 3.8.

Say our hitter had 100 singles, 12 doubles, one triple and three home runs. You divide each by 3.8 and his basic card is:

100 Singles divided by 3.8 = 26.3

12 Doubles divided by 3.8 = 3.1

1 Triple divided by 3.8 = 0.26

3 Home Runs divided by 3.8 = 0.78

NOW FOR PLACEMENT ON THE ACTUAL CARD. Our evaluation method in pitching takes into consideration the inability of singles to produce an instant run and, therefore, we use singles as a pitching variant to show more realistically the value of good pitching. To all batters, to fit our standard pitching charts, you must deduct the following:

SINGLES ON BATTER CARDS: Deduct 11.0 (Our man does not get 26 singles, but 15)

REMEMBER . . . Deduct 11 Singles from all batter cards once the factoring has been completed.

Therefore, our hitter would have 15 singles on his card, three doubles, no triples (0.26 is not a value of 1.0) and one home run. Using our numerical scale of 11 to 88, our hitter would have singles from 11 to 27, doubles 28-32, no triples and a home run number of 33.

To get the number of walks and strikeouts and times hit by pitched ball, repeat the same as above, dividing each by the constant factor. Then, to fit the pitching charts, deduct as follows:

WALKS: Deduct 7 from the batter

STRIKEOUTS: Deduct 11 from the batter

## FIGURING THE PITCHER CARDS

PB MEASUREMENT: This is a pitcher's ability to control a game and ratings vary from a low of 2-5 to a high of 2-9. The PB is measured through ERA and a standard model has been created for ease in figuring the cards. Take all the pitchers to be rated and rank them according to ERA and then allot the rankings to the various classes through the following model:

2-9: FIVE PER CENT OF PITCHERS FALL INTO THIS CLASSIFICATION

2-8: TEN PER CENT OF PITCHERS FALL INTO THIS CLASSIFICATION

2-7: THIRTY PER CENT OF PITCHERS FALL INTO THIS CLASSIFICATION

2-6: FORTY PER CENT OF PITCHERS FALL INTO THIS CLASSIFICATION

2-5: FIFTEEN PER CENT OF PITCHERS FALL INTO THIS CLASSIFICATION

If you have 100 pitchers to be included in your season, five would be 2-9, ten would be 2-8, etc.

NOW . . . A WARNING. There are some variables that change a pitcher classification and watch for these situations

2-5 PITCHERS: If the pitcher has won 12 games, up grade to 2-6

2-6 PITCHERS: If the pitcher has won 20 games, up grade to 2-7

2-7 PITCHERS: If the pitcher has lost 20 games, down grade to 2-6

2-8 PITCHERS: If the pitcher has lost 10 games, down grade to 2-7

SR MEASUREMENT: This measures his ability to finish a game and can be computed with ease. Simply, multiply the ERA by 1.75. Retain this sum. Secondly, add walks and hits and divide by games played. Add both sums and you get the proper SR rating.

RR MEASUREMENT: This is the relief rating. Common sense is important and usually you can divide the SR by 2 and get a good rating. Here are the guidelines to follow:

2-5 Pitchers: Starters, divide SR by 2
2-6 Pitchers: Starters, divide SR by 2
2-7 Pitchers: Starters, divide SR by 2
2-8 Pitchers: Starters, divide SR by 2

Relief only: Use 8 as a standard
Relief only: Use 7 as a standard
Relief only: Use 4 as a standard
Relief only: Use 2 or 3 as a standard; 2 if on pennant contender, 3 if not

WILD PITCHES, BALKS, PASSED BALLS: This rating is simple to use:
Wild Pitches: If had 1 to 5, give one rating on card? Right. If 6 or more, give two numbers to card.
Balks: The same as wild pitches
Passed Balls: Based on walks on card:
1-3 walk numbers = 0 wild passed balls on card
4-5 = passed ball
6-up = 2 passed balls on card

HITS, STRIKEOUTS, WALKS on PITCHER CARDS
Now, the rest of the data for pitchers is simple to do.

Using the charts that follow, find out how many hits, walks and strikeouts each pitcher had per inning pitched. Divide hits, walks and strikeouts by innings pitched and get a ratio number, then use the tables based on the 2 to what grade and you get the number to be put on each pitcher card.

Make sure that you always use the proper columns.

## Basic Chart
## WALKS, STRIKEOUTS TO PITCHER CARDS

| BB, K per inn | 2-9 | 2-8 | 2-7 | 2-6 | 2-5 |
|---|---|---|---|---|---|
| .00 to .10 | 0 | 0 | 0 | 1 | 4 |
| .11 to .15 | 1 | 1 | 1 | 2 | 5 |
| .16 to .20 | 1 | 1 | 2 | 3 | 6 |
| .21 to .25 | 2 | 2 | 3 | 4 | 7 |
| .26 to .30 | 2 | 3 | 4 | 5 | 8 |
| .31 to .35 | 3 | 4 | 5 | 6 | 9 |
| .36 to .40 | 3 | 5 | 6 | 7 | 10 |
| .41 to .45 | 4 | 6 | 7 | 8 | 11 |
| .46 to .50 | 5 | 7 | 8 | 9 | 12 |
| .51 to .55 | 6 | 8 | 9 | 10 | 13 |
| .56 to .60 | 7 | 9 | 10 | 11 | 14 |
| .61 to .65 | 8 | 10 | 11 | 12 | 15 |
| .66 to .70 | 9 | 11 | 12 | 13 | 16 |
| .71 to .75 | 10 | 12 | 13 | 14 | 17 |
| .76 to .80 | 11 | 13 | 14 | 15 | 18 |
| .81 to .85 | 12 | 14 | 15 | 16 | 19 |
| .86 to .90 | 13 | 15 | 16 | 17 | 20 |
| .91 to .95 | 14 | 16 | 17 | 18 | 21 |
| .96 to 1.00 | 15 | 17 | 18 | 19 | 22 |
| 1.01 to 1.05 | 16 | 18 | 19 | 20 | 23 |
| 1.06 to 1.10 | 17 | 19 | 20 | 21 | 24 |
| 1.11 to 1.15 | 18 | 20 | 21 | 22 | 25 |
| 1.16 to 1.20 | 19 | 21 | 22 | 23 | 26 |
| 1.21 to 1.25 | 20 | 22 | 23 | 24 | 27 |
| 1.26 to 1.30 | 21 | 23 | 24 | 25 | 28 |
| 1.31 to 1.35 | 22 | 24 | 25 | 26 | 29 |
| 1.36 to 1.40 | 23 | 25 | 26 | 27 | 30 |
| 1.41 to 1.45 | 24 | 26 | 27 | 28 | 31 |
| 1.46 to 1.50 | 25 | 27 | 28 | 29 | 32 |
| 1.51 to 1.55 | 26 | 28 | 29 | 30 | 33 |
| 1.56 to 1.60 | 27 | 29 | 30 | 31 | 34 |
| 1.61 to 1.65 | 28 | 30 | 31 | 32 | 35 |
| 1.66 to 1.70 | 29 | 31 | 32 | 33 | 36 |

## DEFENSE RATINGS
Rate according to actual fielding percentage. If a player did not have an error, rate E0.

## THROWING RATINGS
(Common sense is the only factor employed as statistics are unreliable in arms as good arms get few assists as runners do not run on good arms)

### OUTFIELDERS and CATCHERS
T5: Very strong arm      TA: Very strong arm
T4: Very good arm        TB: Average arm
T3: Average arm          TC: Poor arm
T2: Poor arm

## SINGLES TO PITCHER CARDS—Basic Chart

| H per inning | 2-9 | 2-8 | 2-7 | 2-6 | 2-5 |
|---|---|---|---|---|---|
| .00 to .50 | 5 | 6 | 7 | 7 | 7 |
| .51 to .61 | 6 | 7 | 8 | 8 | 8 |
| .62 to .72 | 7 | 8 | 9 | 9 | 9 |
| .73 to .83 | 8 | 9 | 10 | 10 | 10 |
| .84 to .94 | 9 | 10 | 11 | 11 | 11 |
| .95 to 1.05 | 10 | 11 | 12 | 12 | 12 |
| 1.06 to 1.16 | 11 | 12 | 13 | 13 | 13 |
| 1.17 to 1.27 | 12 | 13 | 14 | 14 | 14 |
| 1.28 to 1.36 | 13 | 14 | 15 | 15 | 15 |
| 1.37 to 1.49 | 14 | 15 | 16 | 16 | 16 |
| 1.50 to 1.60 | 15 | 16 | 17 | 17 | 17 |
| 1.61 to 1.80 | 16 | 17 | 18 | 18 | 19 |
| 1.81 to 1.90 | 17 | 18 | 19 | 20 | 20 |
| 1.91 to 2.00 | 18 | 19 | 20 | 21 | 22 |

## Defense Ratings

| FIRST BASEMEN | (2B, SS, C, P) | THIRD BASEMEN | OUTFIELDERS |
|---|---|---|---|
| .995 to .999 = E1 | .985 to .999 = E1 | .986 to .999 = E1 | .990 to .999 = E1 |
| .990 to .994 = E2 | .975 to .984 = E2 | .976 to .985 = E2 | .980 to .989 = E2 |
| .985 to .989 = E3 | .965 to .974 = E3 | .966 to .975 = E3 | .970 to .979 = E3 |
| .980 to .984 = E4 | .955 to .964 = E4 | .956 to .965 = E4 | .960 to .969 = E4 |
| .975 to .979 = E5 | .945 to .954 = E5 | .946 to .955 = E5 | .950 to .959 = E5 |
| .970 to .974 = E6 | .935 to .944 = E6 | .936 to .945 = E6 | .940 to .949 = E6 |
| .965 to .969 = E7 | .925 to .934 = E7 | .926 to .935 = E7 | .930 to .939 = E7 |
| .960 to .964 = E8 | .915 to .924 = E8 | .916 to .925 = E8 | .920 to .929 = E8 |
| .955 to .959 = E9 | .905 to .914 = E9 | .906 to .915 = E9 | .910 to .919 = E9 |
| .000 to .954 = E10 | .000 to .904 = E10 | .000 to .905 = E10 | .000 to .909 = E10 |

Now you have all the rating systems needed to create your own cards.