ON BASE

ADVANCED

On Base Advanced (OBA) is the advanced version of the sabermetric-driven game, *On Base Baseball*. In the advanced version each outcome is derived from the previous outcome.

Dice

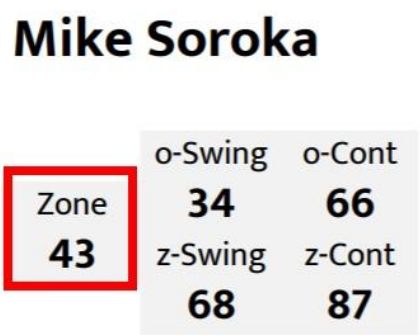
OBA uses 2 D10 dice of different colors. The dice are always rolled together. The game is built on a base 10 system with roll results ranging from 1-100. It is necessary to designate one die as the die you will read first and the other you will read second. This is a matter of personal choice for the gamer. There is no right or wrong color to designate as the first die.

How to Play

There are 6 possible rolls that need to be made for an at bat to be resolved. Not every at bat will need all 6 rolls, but the majority will. Don't worry, you'll begin to recognize when the different events occur and things will move more quickly as you roll more at bats. Let's take a look at each roll.

Roll 1

The first roll of the 2 D10 dice determines if the pitcher throws the ball in the strike zone or not. We determine this by looking on the pitcher card:



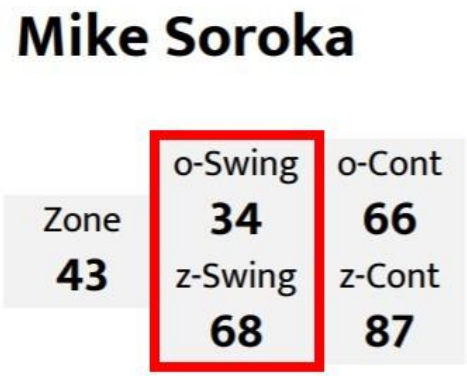
Each pitcher card has a value labeled Zone. This is the percentage of balls the pitcher threw in the zone for the given season. In the example above, Sorka threw 43% of his pitches in the zone in 2019. Roll 1 is rolled against this value to determine if the pitch is in the strike zone or

out of the zone. If the result of Roll 1 is 1-43 then the ball is in the strike zone. If the result of Roll 1 is greater than 43 then the ball is thrown out of the zone.

Note: OBA is a pitch-by-pitch game. Balls and strikes should be noted on the scorecard. If the pitcher throws four balls then the result is a walk for the batter. If the batter gets three strikes then he is out.

Roll 2

Roll 2 determines whether or not the batter swung at the pitch and uses the o-Swing (swing percentage at pitches out of the zone) and z-Swing (swing percentage at pitches in the zone) values. Batters swing at pitches both in the zone and out of the zone so a pitch out of the zone is not necessarily a ball. If the pitch is in the strike zone, use the z-Swing value for Roll 2. If the pitch is not in the zone, use the o-Swing value. Compare the result of Roll 2 with the appropriate swing percentage.

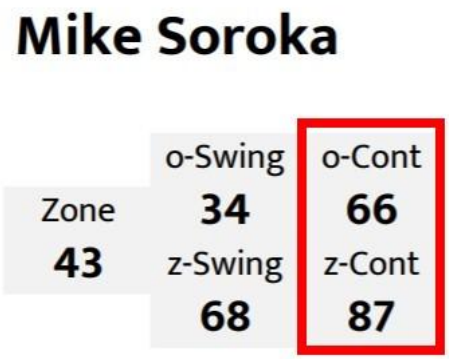


If the result of Roll 2 is *equal to or lower than* the swing percentage value then the result is that the player has taken a swing. If the result of Roll 2 is *higher than* the swing percentage value on the batter card then the result is no swing at the pitch. If the pitch is swung on then the at bat moves onto Roll 3. If there is no swing and the pitch is in the zone, then the result is a strike. If there is no swing and the pitch is not in the zone then the result is a ball. The at bat then goes back to Roll 1.

Roll 3

Roll 3 determines whether or not the batter makes contact with the ball. If the result of Roll 2 is a swing then we need to check whether or not the batter made contact. Generally, batters make more contact with pitches in the zone than out of the zone. If the pitch is out of the zone then the

o-Cont (contact percentage on pitches outside the zone) value should be rolled against. If the pitch is in the zone then the z-Cont (contact percentage on pitches inside the zone) value should be used for Roll 3.

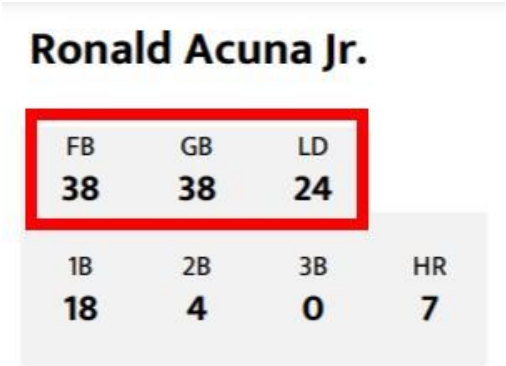


If the result of Roll 3 is *equal to or lower than* the contact percentage then the result is that the batter makes contact with the pitch. The at bat then moves on to Roll 4. If the result of Roll 3 is *higher than* the contact percentage value then the result is a swing and miss. The batter takes a strike and the at bat goes back to Roll 1.

Roll 4

For Roll 4 we shift the at bat over to the hitter card. This roll determines the type of contact the batter makes. There are three types of contact: Fly Ball (FB), Ground Bal (GB)l, and LIne Drive (LD). There are 3 chances to get a hit with both fly balls and ground balls, but 4 chances to get a hit with a line drive. Generally, you want players who hit a lot of line drives, because every hit type is in play with a line drive contact type.

Reading the outcomes for hit types can be a little tricky at first but you'll get the hang of it. Let's take a look at Ronald Acuna's batter card:



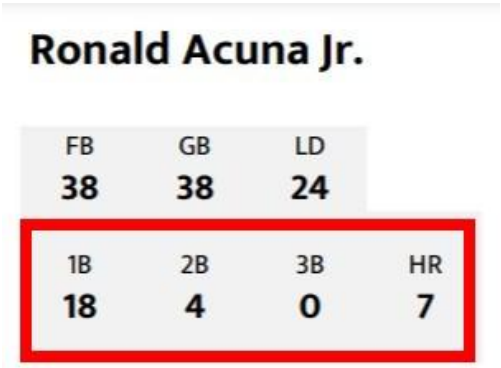
We take the result of Roll 4 and compare it against the FB, GB, and LD values. These numbers represent the actual percentages of each contact type for the hitter that season.

Note: The three values should add up to exactly 100. If they do not (which occasionally happens because of rounding) then adjust the LD value so that the total equals 100. Do not adjust the FB or GB values.

For Acuna's card above, if the result of Roll 4 is 1-38 then the type of contact is a fly ball. If the result of the roll is 39-76 then the outcome is a ground ball. Finally, if the result of roll 4 is 77-100 then the outcome is a line drive. It might help to envision the three numbers on a line with 100 marks. Marks 1-38 are fly balls. Marks 39-76 are ground balls. And every mark from 77-100 is a line drive. Take note of this as Roll 5 also employs the same kind of thinking.

Roll 5

Roll 5 determines whether the contact that the batter made will result in an automatic safe hit. Evaluate the result of Roll 5 against this set of numbers on the batter card:



These numbers represent the player's percentage of at bats for each type of safe hit. The types of hits are:

1B = Single
2B = Double
3B = Triple
HR = Home Run

The tricky part here is that not all safe hit types (1B, 2B, 3B, HR) are available for all contact types (FB, GB, LD). For instance, you cannot hit a ground ball home run. Technically, you might be able to get an inside the park HR on a ground ball, but that sort of possibility does not exist in *On Base Advanced*. We stick with conventional HRs hit over the outfield fence.

The safe hit types for a **FB** are: **2B, 3B,** and **HR**.

The safe hit types for a **GB** are: **1B, 2B,** and **3B**.

The safe hit types for a **LD** are: **1B, 2B, 3B,** and **HR**.

Let's say that Acuna hit a FB and the result of Roll 5 was a 03. We begin with the 2B because that is the first safe hit type available for a FB. 4% of Acuna's at bats went for doubles, so a roll of 1-4 would give him a double. He has no possibility on his card for a triple, therefore, the next possibility would be a HR. Acuna hit a HR in 7% of his at bats. In total he has an 11% chance to get a hit on a fly ball. 1-4 is a 2B, 5-11 is a HR. In our example Acuna hits a 2B. The gamer can then move on to roll 5 and determine where the double was hit or simply write down "2B" on the scorecard and move to the next batter.

If the type of contact was a GB, then the Roll 5 result is evaluated first against the 1B value. Our initial roll for Roll 5 was 03. Therefore, if the contact type was a GB, then 03 would be within the range for a 1B. For Acuna, he has a possibility for a single on a 1-18 roll and a 2B on an 19-22 roll. He has no triples so that is not a possibility with him. If the result of Roll 5 is higher than 22 then the outcome is not an automatic safe hit..

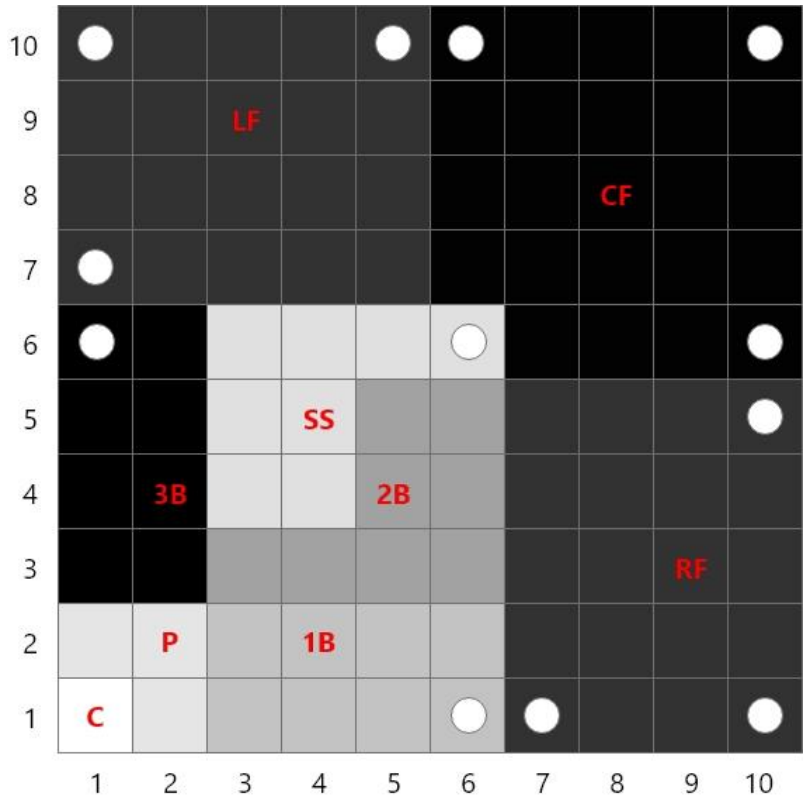
For a line drive, all safe hit types are in play. For Acuna, a roll of 1-18 is a 1B, 19-22 is a 2B, and 23-29 is a HR. Any line drive higher than a 29 is not an automatic safe hit.

After determining whether the batter has hit safely or not, we must find out where on the field the ball was hit to. That leads us to Roll 6.

Roll 6

The final roll of the at bat is Roll 6. This roll determines what part of the field the ball is hit to and if we need to perform an error check, range check, HR check, or if the player in the field makes the play outright.

This is called the fielding matrix. It consists of 1-10 on the x-axis and 1-10 on the y-axis. Roll 6 should be read as two numbers. For example a roll of 2 and 9 should be read as 2 and 9, not 29. In this example 2 would be number on the y-axis and 9 would be the number on the x-axis. Let's look at the fly ball matrix:



In our example of a 2 and 9 the ball would go to the right fielder. You can remember it as “up and over” which should help you know how to read each matrix. A roll of 2 and 4 would be a pop up (fly ball) to the first baseman.

A roll of 8 and 8 would be a fly ball to CF. When the roll is a double (88, 77, 66, etc.) then an error check should be made on the fielder who is in the zone to make the play. For this example, the error check would be on the center fielder. Roll both dice and compare the result to the fielder’s Def value. If the roll result is equal to or lower than the Def value then the player makes the play. If the roll result is higher than the player’s Def value then the result of the play is an error.

If the play result is an error, check to see if the runners get an extra base or not. Roll the dice again and evaluate the roll result against the *slowest* runner’s BsR value. If the roll result is equal to or lower than slowest runner’s BsR value then each player takes an extra base on the error (a two-base error). If the roll result is higher than the slowest runner’s BsR then the error is only a one-base error. Each runner moves up one base on the play.
Home run checks should be made when a player hits the ball to the wall. In other words, if one of the two dice rolls is a 10 then a HR check should be made. Roll both dice and compare that number against the player’s HR percentage on his card. If the result of the roll is equal to or less than the HR value on the player’s card then the result is a HR. If the roll result is higher than the HR value on the player’s card then the result is either an out or a range check. In the case

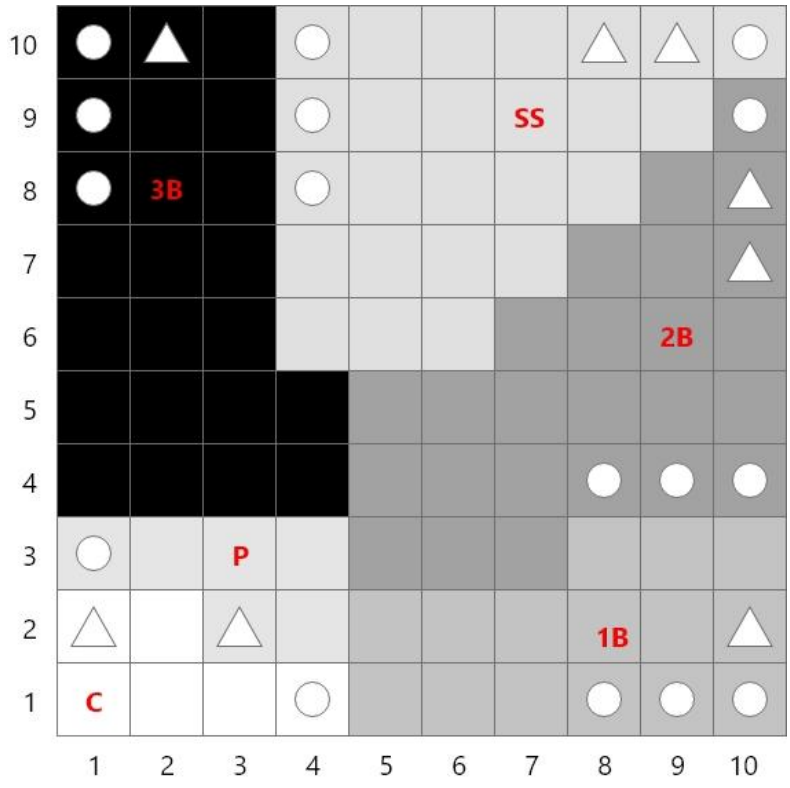
where there is a white circle in the square (such as 10 and 10 above) then the HR check should be made first then the range check can be made if there is no HR.

The white circles on the fielding matrix indicate that a range check must be made. If our Roll 6 result was 7 and 1 then a range check needs to be made on the left fielder since the ball is hit into his zone. Range checks are completed just like error checks. Roll the dice and compare the roll result against the player's Def value. If the roll result is equal to or lower than the Def value then the player makes the play. If the roll result is higher than the player's Def value then the result of the play is a safe hit.

If a range check needs to be made and one (or both) of the dice values is 10 then the result is a double. You can check for an extra base by rolling against the batter's BsR value. If the roll is equal to or lower than the batter's BsR value then the batter gets an extra base (i.e., a triple). If the roll result is lower than the batter's BsR value then the result is no extra base on the play.

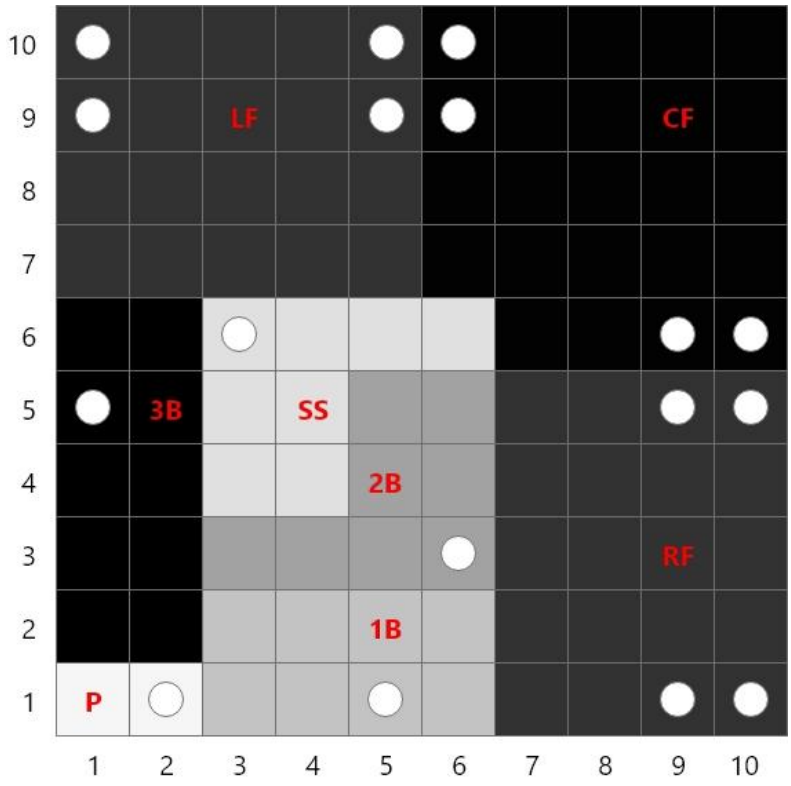
If a range check needs to be made and neither die has a value of 10 then the result of the play is a single. Think about the hits as bloopers just out of the reach of the fielders. To check if the batter gets an extra base on the play roll the dice again and compare the roll result against the batter's BsR value. If the roll result is equal to or less than the batter's BsR value then the batter takes an extra base (i.e., a double). If the roll result is higher than the batter's BsR value then the batter does not get an extra base on the play, but the result is still a safe hit.

Here is the ground ball fielding matrix that is to be used when the contact type is a ground ball:



Notice the triangles on the ground ball chart. This indicates an automatic double play. If the ball is hit to a square with a triangle (and there is an opportunity for a double play) then the two lead runners are automatically out. If no double play situation exists then the result is an out at first base.

This is the fielding matrix for line drives:

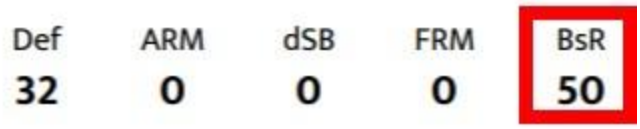


Once all 6 rolls have been resolved the at bat is resolved. If there are three outs then the teams change sides. If not then the next batter begins his at bat with Roll 1.

Baserunning

Stealing Bases

To steal a base, declare the intention to steal and then roll the dice. Compare the roll result with the BsR value on the batter card:



The BsR value is a baserunning metric created by Fangraphs that takes into account multiple aspects of baserunning and stealing and condenses that down to one number. The number is called Baserunning Runs Above Average. League average is 50. Any number higher than that means the player is a better than average baserunner. Anything below means he is a below-average baserunner. Our example runner here is an average baserunner.

To steal with this player, roll the dice and compare the number to this BsR value. If the roll result is *equal to or lower than* the BsR value then the player successfully steals the base. If it is *higher than* the BsR value then the batter is out.

Two other values have an effect on the baserunner's ability to steal bases. The first is the catcher's and/or pitcher's dSB value. This represents how well the catcher or pitcher controls the running game, including figuring in caught stealing. To use this number you will add or subtract it from the baserunner's BsR value.

This catcher's dSB rating is -5, which means he is worse than average at controlling the running game. Therefore, 5 is *added to* the baserunner's BsR value. A catcher who does not control the running game well should give the baserunner an advantage. If the dSB was +5 then 5 would be *subtracted from* the baserunner's BsR value. This catcher controls the running game better than the average catcher so the baserunner should have less of a chance to steal the base.

Pitchers also have an opportunity to affect the running game. If a pitcher has a dSB rating that is not equal to 0 then that should also be added to or subtracted from the baserunner's BsR. These additions and subtractions should happen before the roll is made to determine the stolen base. The final BsR value is one that has been adjusted according to the pitcher's and catcher's dSB rating.

Extra Bases and Tagging Up

Like stolen bases, taking extra bases and tagging up is straightforward.First, declare the intention to take an extra base or tag up then roll the dice.

There are two metrics to look at with regard to tagging and up and extra bases: the baserunner's BsR value and the outfielder's ARM value. Compare the roll result against the *higher* value. If the outfielder has a 60 ARM value and the baserunner has a 49 BsR value then the roll should be compared to the ARM value, not the BsR value. For this example, if the roll result is 1-60 then the baserunner is out. If the value is 61-100 then the batter is safe.

In another example, the baserunner has a BsR value of 72 and the outfielder has an ARM value of 51. The roll result will then be compared with the baserunner's BsR value since it is the higher value. If the roll result is 1-72 then the baserunner is safe. If it is 73-100 then the baserunner is out.

Double Plays

Double plays are not always automatic in *On Base Advanced.* The BsR value that will help to determine the results of a double play. When there is a double play situation (a force out) and a ground ball is hit to an infielder then the first force out can be assumed while the batter BsR must be rolled against to see if he beats out the throw to first base.

For example, if a ground ball has been hit to shortstop with a runner on first base then the out at second base can be assumed. At the very least the play will result in a 6-4 fielder's choice. However, we can try for a double play by rolling the dice again and comparing them with the batter's BsR value. If the roll result is *less than or equal to* the batter's BsR value then the runner is safe. If the roll result is *greater than* the batter's BsR value then the runner is out. The faster the batter the more difficult it will be to double him up.

If the ball goes to a square on the fielding matrix that has a triangle, a double play is automatically turned. The two lead runners are automatically out on the play.

Pitcher Stamina

There are multiple ways to handle pitcher stamina. Each pitcher card has a Stamina value.

The Stamina value is the pitcher's average batters faced for that season. It is figured as Total Batters Faced / Games. All starting pitchers should have a stamina value of at least 20.

If a pitcher begins an inning below his stamina value but goes over his stamina rating in that inning he can continue to pitch that inning without being pulled. He must be replaced if he will start the next inning *over* his stamina value.

Game Feedback

On Base Advanced is a brand new game. There are no doubt holes and things that can be improved in the game play. Please provide feedback about the game so those holes can be closed up and it can be made more complete.

You can email the game designer at:
onbasebaseball@gmail.com