Baseball field

From Wikipedia, the free encyclopedia

A **baseball field**, also called a **ball field** or a **baseball diamond**, is the field upon which the game of baseball is played. The terms "baseball field" and "ball field" are also often used as synonyms for **ballpark**.

The baseball diamond of the San Diego Padres' PETCO Park, seen from the stands.

Contents

Specifications

Unless otherwise noted, the specifications discussed in this article refer to those described within the Official Baseball Rules[1], under which Major League Baseball is played. The starting point for much of the action on the field is **home plate**, which is a five-sided slab of whitened rubber, 17-inches square with two of the corners removed so that one edge is 17 inches long, two adjacent sides are 8½ inches and the remaining two sides are 12 inches and set at an angle to make a point. Adjacent to each of the two parallel 8½-inch sides is a batter's box. The point of home plate where the two 12-inch sides meet at right angles, is at one corner of a ninety-foot square. The other three corners of the square, in counterclockwise order from home plate, are called first base, second base, and third base. Three canvas bags fifteen inches (38 cm) square mark the three bases. These three bags along with home plate form the four **bases** at the corners of the infield.

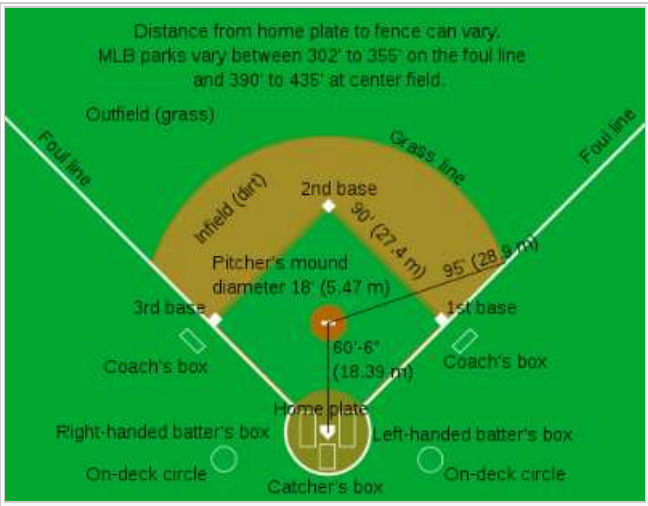


Diagram of a baseball field.

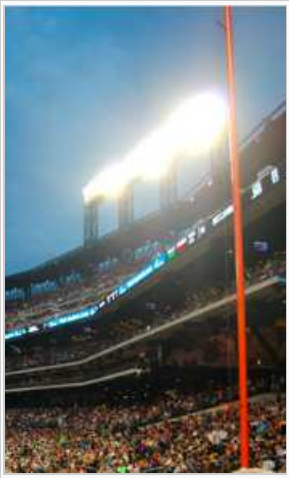
All the bases, including home plate, lie entirely within fair territory. Thus, any batted ball that touches those bases must necessarily be in fair territory. While the first and third base bags are placed so that they lie inside the 90 foot square formed by the bases, the second base bag is placed so that its center (unlike first, third and home) coincides exactly with the "point" of the ninety-foot infield square. Thus, although the "points" of the bases are 90 feet apart, the physical distance between each successive pair of base markers is closer to 88 feet. This positioning of the second base bag creates an "offset" (of one-half of its bag width) from pure "alignment" with the first and third base bags - an anomaly which does not seem to have affected play over the years and generally goes unnoticed by players and fans.

The lines from home plate to first and third bases extend to the nearest fence, stand or other obstruction and are called the **foul lines**. The portion of the playing field between (and including) the foul lines is **fair territory**; the rest is **foul territory**. The area in the vicinity of the square formed by the bases is called the **infield**; fair territory outside the infield is known as the **outfield**. Most baseball fields are enclosed with a fence that marks the outer edge of the outfield. The fence is usually set at a distance ranging from 300 to 410 feet (90 to 125 m) from home plate. Most professional and college baseball fields have a right and left foul pole. These poles are at the intersection of the foul lines and the respective ends of the outfield fence and, unless otherwise specified within the ground rules, lie in fair territory. Thus, a batted ball that passes over the outfield wall in flight and touches the foul pole is a fair ball and the batter is awarded a home run. Another common feature of baseball fields is a warning track, a narrow dirt path that follows the outer edge of the outfield at the fence to serve to warn outfielders of their proximity to the wall.

First base

Main article: First baseman

First base is the first of four bases that must be touched by a player on the batting team in order to score a run. Unlike when an offensive player reaches second or third base, it is permissible for a batter-runner to overrun first base without being in jeopardy of being put out. After contact is made with the base, the batter-runner may slow down and return to first base at his leisure, so long as he makes no move or attempt to advance to second base.



Left field foul pole at Citi Field in Flushing, Queens.

There are nine ways a batter can reach first base. They are:

- Walk
- Hit
- Hit by pitch
- Fielder's choice
- Error
- Uncaught third strike
- Catcher's interference
- Umpire's interference
- Obstruction

The first baseman is the defensive player responsible for the area near first base. A professional first baseman is often tall. A tall first baseman presents a large target to which other fielders can throw, and his height gives him a larger range in reaching and catching errant throws. Players who are left-handed are preferable for first base because: first, it is easier for a left-handed fielder to catch a pick-off throw from the pitcher and tag the baserunner; and, second, his left foot (which he uses to maintain contact with first base after receiving a throw from another fielder) is closer to first base than his right foot. (A right-handed first baseman must, when setting himself up to receive a throw from an infielder, execute a half-pivot near the base; this is a move that a left-hander need not make.)

In the numbering system used to record defensive plays, the first baseman is assigned the number '3'.

Second base

Main article: Second baseman

Second base, or 2B, is the second of four stations on a baseball diamond which must be touched in succession by a base runner in order to score a run for that player's team. Second base is typically defended by the second baseman and the shortstop. Second base is also known as the keystone sack. A runner on second base is said to be in "scoring position," owing to the high likelihood of reaching home plate and scoring a run from second base on most base hits. Since second is the farthest base from home plate, it is the most common target of base stealing.

Ideally, the second baseman and shortstop possess quick hands and feet and the ability to release the ball rapidly and with accuracy. One will usually cover second base when the other attempts to field the ball. Both players must communicate well to be able to make a double play. Particular agility is required of the second baseman in double play situations, which usually forces the player to throw towards first while his momentum carries him in the opposite direction. In the numbering system used to record defensive plays, the second baseman is assigned the number 4, and the shortstop 6.

Third base

Main article: Third baseman

Third base is the third of four bases a baserunner must touch in a counterclockwise succession in order to score a run. Many batted balls that result in the batter being put out (such as a sacrifice fly) may nevertheless allow a runner to reach home plate and score a run from third base, provided that the third and final out is not recorded before he can do so. A runner on third base is therefore particularly valuable to the batting team when fewer than 2 outs have been recorded.

The third baseman, or 3B, is the defensive player whose responsibility is to defend the area nearest to third base. A third baseman ideally possesses quick reaction to batted balls and a strong arm to make the long throw to first base. In the numbering system used to record defensive plays, the third baseman is assigned the number 5.

Andy Wilkins rounds third base following a home run for the 2010 Arkansas Razorbacks baseball team.

Home plate

Home plate, formally designated **home base** in the rules, is the final base that a player must touch to score. Unlike the other bases, home plate is a five-sided slab of whitened rubber that is set at ground level. The use of rubber was developed by Robert Keating, who pitched one game for the 1887 Baltimore Orioles. Previously, more dangerously, the plate was made of stone, iron or wood.[2]

Home plate of Třebíč baseball field

50 to 100 feet (15 to 30 meters) behind home plate is the **backstop**, which is a wall/fence that will stop wild pitches, passed balls, and foul balls. In enclosed stadiums, the backstop is often composed of a lower part, which is like any other part of the wall, and an upper netting to protect spectators seated behind it; in recreational baseball fields, there is usually a tall chain-link fence, including an angled top section, composing the entire backstop.

Additionally, the catcher covers home plate when a runner is attempting to score a run; he must tag the runner with the ball (or the glove with the ball inside) before the runner touches home plate, or in the event that the bases are loaded he may simply touch home plate while in possession of the ball to get the runner out. Professional catchers in the major leagues often have large body frames to maximally obstruct home plate from the runner's access. In the numbering system used to record defensive plays, the catcher is assigned the number 2.

Batter's box and catcher's box

The **batter's box** is the place where the batter stands when ready to receive a pitch from the pitcher. It is usually drawn in chalk on the dirt surrounding home plate, and the insides of the boxes are watered down before each game.

David Ortiz (in gray) of the Boston Red Sox stands in the batter's box for left-handed hitters.

The chalk lines delineating the 2 Foul Lines are never extended through the batter's boxes. However, those lines exist conceptually for the purpose of judging a batted ball fair or foul. In addition, inside edges of the Batter's Boxes are often not laid-in with chalk. Similarly, though not marked, those lines continue to exist for the purpose of the rules pertaining to the batter's box and the batter's position relative thereto.

There are two batter's boxes, one on each side of home plate. The batter's boxes are 4 feet wide and 6 feet long. The batter's boxes are centered lengthwise at the center of home plate with the inside line of each batter's box 6 inches from the near edge of home plate. A right-handed batter would stand in the batter's box on the left side of home plate from the perspective of the catcher and umpire. A left-handed batter would stand in the batter's box to their right. A batter may only occupy one batter's box at a time and may not legally leave the batter's box after the pitcher has come set or has started his windup. Should the batter wish to leave the batter's box once the pitcher has engaged the rubber, he must first ask the umpire for time-out. Time will not be granted if the pitcher has already started his pitching motion. For playing rules relating to the batter's box, see Rules 6.05 and 6.06 of the Official Baseball Rules.

The catcher is the defensive player who is positioned to receive pitches - generally positioned within the **catcher's box.** The catcher's box is 43 inches wide, centered on and extending 8 feet behind the point of home plate. Rule sets vary as to the catcher's responsibility to remain in the catcher's box. Under Official Baseball Rules, the only specified penalty relating to the catcher's box is that when a batter is being walked intentionally, it is a balk if the catcher steps outside the catcher's box before the pitcher releases the pitch.

Foul poles

The purpose of the **foul poles** is to help the umpire judge whether a fly ball hit above the fence line is foul (out of play) or fair (a home run). The poles are a vertical extension of the foul lines. Both objects are used to determine whether a ball is foul or fair. The outer edge of the foul lines and foul poles define foul territory and both the lines and the poles themselves are actually *within fair territory*. Prior to 1920, the foul lines extended indefinitely: a batter was awarded a home run only if a fly ball over the fence landed in fair territory, or was fair "when last seen" by the umpire. Under the current rule, a batted ball that goes out of play in flight is judged fair or foul at the point it clears the fence. Thus, a fly ball hitting a foul pole above the top of the outfield fence is a home run, regardless of where the ball goes after striking this pole, and a fly ball clearing the fence on the fair side of the pole is a home run regardless of where it lands. Foul poles (shown at right) are typically much higher than the top of the outfield fence, and often have a narrow screen running along the fair side of the pole to further aid the umpire's judgment. It can still be a difficult call, especially in ballparks with no outfield stands behind the poles to provide perspective. Wrigley Field is notorious for arguments over long, curving flies down a foul line (most notably in left field) that sail higher than the foul pole. At PETCO Park, there is no foul pole in

1 of 2 foul poles at Citizens Bank Park, Philadelphia.

left field, that function being served by a yellow metal strip on the corner of the Western Metal Supply Co. building.

Pitcher's mound

In roughly the middle of the square, equidistant between first and third base, and a few feet closer to home plate than to second base, is a low artificial hill called the **pitcher's mound**. This is where the pitcher stands when throwing the pitch. Atop the mound is a white rubber slab, called the **pitcher's plate**. It measures 6 inches (15 cm) front-to-back and 2 feet (61 cm) across, the front of which is exactly 60 feet, 6 inches (18.4 m) from the rear point of home plate. This peculiar distance was set by the rulemakers in 1893, not due to a clerical or surveying error as popular myth has it, but purposely (further details in History section).

The pitcher moves forward off the rubber as the pitch is released.

In Major League Baseball, a regulation mound is 18 feet (5.5 m) in diameter, with the center 59 feet (18.0 m) from the rear point of home plate, on the line between home plate and second base. The front edge of the *pitcher's plate* or *rubber* is 18 inches (45.7 cm) behind the center of the mound, making the front edge's midpoint 60 feet 6 inches (18.4 m) from the rear point of home plate. Six inches (15.2 cm) in front of the pitcher's rubber the mound begins to slope downward. The top of the rubber is to be no higher than ten inches (25.4 cm) above home plate. From 1903 through 1968, this height limit was set at 15 inches, but was often slightly higher, sometimes as high as 20 inches (50.8 cm), especially for teams that emphasized pitching, such as the Los Angeles Dodgers, who were reputed to have the highest mound in the majors.

A pitcher will push off the rubber with his foot in order to gain velocity toward home plate when pitching. In addition, a higher mound generally favors the pitcher. With the height advantage, the pitcher gains more leverage and can put more downward velocity on the ball, making it more difficult for the batter to strike the ball squarely with the bat. The lowering of the mound in 1969 was intended to "increase the batting" once again, as pitching had become increasingly dominant, reaching its peak the prior year; 1968 is known among baseball historians as "The Year of the Pitcher". This restrictive rule apparently did its job, contributing to the hitting surge of modern baseball.

In Little League Baseball, the distance between the mound and homeplate is 46'. PONY Baseball caters to most of the same age ranges as Little League in their Shetland, Pinto, Mustang and Bronco divisions (covering ages 5 through 12 respectively). Each of these divisions features a different distance between the mound and home plate, as well as progressively longer baselines. This gradation of the field dimensions is meant to mirror the growth of the participants themselves as they mature physically. For example the Mustang division mound is 44' from home, and the Bronco division 48'. PONY baseball offers divisions for kids beyond the age of 12 in the Pony, Colt and Palomino divisions. The Pony division utilizes a 54' distance from the mound to home while Colt and Palomino use a major league dimensions of 60' 6" mound distance and 90' basepaths.

A pitcher's mound is difficult for groundskeepers to maintain. Usually before every game it is watered down to keep the dust from spreading. On youth and amateur baseball fields, the mound may be much different from the rulebook definition due to erosion and repair attempts. Even in the major leagues, each mound gains its own character, as pitchers are allowed to kick away pieces of dirt in their way, thereby sculpting the mound a bit to their preference. Mark Fidrych is an example of such a pitcher. The pitcher may keep a rosin bag on the rear of the mound to dry off his hands.

Baseline

A **baseline** is the direct route—a straight line— between two adjacent bases, though it is not drawn in chalk or paint on the field (though foul lines are drawn). The *basepath* is the region within three feet (0.9 m) of the baseline. Baserunners are not required to run in this objective basepath, however; a baserunner may run wherever he wants when no play is being attempted on him. At the moment the defense begins to attempt a tag on him, his **running baseline** is established as a direct line from his current position to the base which he is trying for. A runner straying more than three feet away from his baseline in an attempt to avoid a tag may be called out.

Grass line

The **grass line**, where the dirt of the infield ends and the grass of the outfield begins, has no special significance to the rules of the game, but it can influence the outcome of a game. Dirt running paths between the bases (and, at one time, between the pitcher and the catcher) have existed since the beginning of the game, although they were not mentioned in the rule books until around 1950, and their specifications are flexible. In addition to providing a running path, the grass lines act as a visual aid so that players, umpires and fans may better judge distance from the center of the diamond. Occasionally the ball may take a tricky bounce off the dirt area or the edge between the dirt and the grass. World Series championships (including 1924, 1960 and 1986) have been decided or heavily influenced by erratic hops of ground balls. In artificial turf stadiums (such as those with FieldTurf in Major League Baseball), infield dirt is placed only around the bases and around the pitcher's and batting areas; thus the "grass line" is designated with a white line. The exception is at St. Petersburg's Tropicana Field, where, in spite of artificial turf, standard dirt basepaths are used.

The H.H.H. Metrodome, showing a white "grass" line.

Outfield

The **outfield** is made from thick grass or artificial turf. It is where the outfielders play. The positions to play in the outfield are right, center, and left field named in relation to the batter's position; thus left field is beyond third base and right field is beyond first base). Outfields vary in size and shape depending on the overall size and shape of the playing field.

Warning track

The **warning track** typically refers to the strip of dirt in front of the home run fence. Because the warning track's color and feel differs from the grass outfield, an outfielder can remain focused on a fly ball near the fence and take his proximity to the fence into consideration while attempting to catch the ball safely. It is also used for grounds maintenance so as to not drive on the grass field.

A warning track is also a common feature along the left and right sides of a field.

A warning track's width varies from field to field. It is generally designed to give about three steps of warning to the highest level players using the field. Typical widths run from about six feet for Little League fields to about 10–15 feet for college- or professional-level play.

The track can be composed of finely ground rock particles such as cinders, which is why announcer Bob Wolff called it the "cinder path" rather than the "warning track".

The idea of a warning track originated in Yankee Stadium, where an actual running track was built for use in track and field events. When ballpark designers saw how the track helped fielders, it soon became a feature of every ballpark.

The bottom of the picture shows part of the orange clay colored warning track at Fenway Park.

Despite the warning track's presence, it is common to see outfielders crash into the wall to make a catch, due either to a desire to field the play regardless of the outcome or because they fail to register the warning. For this reason, outfield walls are typically padded for extra safety, where feasible. Wrigley Field's brick wall is covered only by ivy, which is not especially soft. There are pads on the walls of the tight left and right field corners in foul ground.

Warning-track power is a derogatory term for a batter who seems to have just enough power to hit the ball to the warning track for an out, but not enough to hit a home run. The term more generally refers to someone or something that is almost but not quite good enough for something.

Outfield wall

Outfield wall is the wall that separates the outfield from the out of play zone. Certain ballparks give up more home runs depending on the height of their walls. Fenway Park's left field wall, the "Green Monster", is the tallest of these walls at 37 ft. Many ballparks have padding on the walls for the protection of outfielders trying to make plays.

The Green Monster in 2006, showing the manual scoreboard and Green Monster seating, and more recent additions, including charity advertisements along the top, billboards above the Green Monster seating, and the American League East standings.

Bullpen

Main article: Bullpen

The **bullpen** (sometimes referred to as simply "the pen") is the area where pitchers warm-up before entering a game. Depending on the ballpark, it may be situated in foul territory along the baselines or just beyond the outfield fence. Relief pitchers usually wait in the bullpen when they have yet to play in a game, rather than in the dugout with the rest of the team. The starting pitcher also makes his final pregame warmups in the bullpen. Managers can call coaches in the bullpen on an in-house telephone from the dugout to tell a certain pitcher to begin his warmup tosses. "Bullpen" is also used metaphorically to describe a team's collection of relief pitchers.

On-deck circles

Main article: On-deck

There are two **on-deck circles** in the field, one for each team, positioned in foul ground between home plate and the respective teams' benches. They are technically known as **next-batter's boxes**. The on-deck circle is where the next scheduled batter, or "on-deck" batter, warms up while waiting for the current batter to finish his turn. The on-deck circle is either an area composed of bare dirt; a plain circle painted onto artificial turf; or often, especially at the professional level, made from artificial material, with the team's logo painted onto it.

Pitchers warming up in the bullpen

Coach's boxes

The **coach's boxes**, located behind 1st and 3rd base, are where the 1st and 3rd base coach are supposed to stand, but often they don't stand on them and move closer into the field. That is permissible as long as they do not interfere with play. The coach's boxes are marked with chalk or paint. In early days, the term "coacher's box" was used, as "coach" was taken to be a verb. As the term "coach" evolved into a noun, the name of the box also changed.

History

The basic layout of the diamond has been little changed since the original Knickerbocker Rules of the 1840s. The distance between bases was already established as 90 feet, which it remains to this day. Through trial and error, 90 feet had been settled upon as the optimal distance. 100 feet would have given too much advantage to the defense, and 80 feet too much to the offense. As athleticism has improved on both sides of the equation, 90 feet remains the appropriate balance between hitting and fielding, as it continues to provide frequent tests between the speed of a batter-runner and the throwing arm of a fielder. The first baseball field was created in 1845.

It is the pitching distance, and other aspects of the pitcher's mound, and of pitching itself, that were tinkered with from time to time over the many decades, in an effort to keep an appropriate balance between pitching and hitting.

In contrast to the distance between the bases, which seems natural enough, the very specific pitching distance of 60 feet 6 inches is one of those sports oddities that seems like a mistake unless one considers the history:

- The original Knickerbocker Rules did not specify the pitching distance explicitly.
- By the time major league baseball began in the 1870s, the pitcher was compelled to pitch from within a "box" whose front edge was 45 feet from the "point" of home plate. Although he had to release the ball before crossing the line, as with bowlers in cricket, he also had to start his delivery from within the box; he could not run in from the field as bowlers do. Furthermore, the pitcher had to throw underhand. By the 1880s, pitchers had mastered the underhand delivery—in fact, in 1880, there were two perfect games within a week of each other.
- In an attempt to "increase the batting", the front edge of the pitcher's box was moved back 5 feet in 1881, to 50 feet from home plate.
- The size of the box was altered over the following few years. Pitchers were allowed to throw overhand starting in 1884, and that tilted the balance of power again. In 1887, the box was set at 4 feet wide and 5½ feet deep, with the front edge still 50 feet from the plate. However, the pitcher was compelled to deliver the ball with his back foot at the 55½ foot line of the box, thus somewhat restricting his ability to "power" the ball with his overhand delivery. (Lansch, p. 96)
- In 1893, the box was replaced by the pitcher's plate, although the term "knocked out of the box" is still sometimes used when a pitcher is replaced for ineffectiveness. Exactly 5 feet was added to the point the pitcher had to toe, again "to increase the batting" (and hopefully to increase attendance, as fan interest had flagged somewhat), resulting in the seemingly peculiar pitching distance of 60½ feet. (Lansch, p. 230)
- Many sources suggest that the pitching distance evolved from 45 to 50 to 60½ feet. However, the first two were the "release point" and the third is the "pushoff point", so the 1893 increase was not quite as dramatic as is often implied; that is, the 1893 rule change added only 5 feet to the release point, not 10½ feet.
- Originally the pitcher threw from flat ground (as softball pitchers still do), but over time the raised mound was developed, somewhat returning the advantage back to the pitchers.
- Prior to the mid-20th century, it was common for baseball fields to include a dirt pathway between the pitcher's mound and home plate. This feature is sometimes known as the "keyhole" due to the shape that it makes together with the mound. The keyhole was once as wide as the pitcher's box and resembled the "pitch" area used in the game of cricket. Sometimes this path extended through the batting area and all the way to the backstop. Once the rounded pitcher's mound was developed, the path became more ornamental than practical, and was gradually thinned before being largely abandoned by the late 1940s. In recent years some ballparks, such as Comerica Park and Chase Field in the major leagues, have revived the feature for nostalgic reasons.

References

1. ^ [1] (http://mlb.mlb.com/mlb/downloads/y2008/official_rules/01_objectives_of_the_game.pdf) Official Baseball Rules - Rule 1
2. ^ James, B. New Historical Baseball Abstract.

- *Official Rules of Major League Baseball*
- *The Baseball Encyclopedia*, published by MacMillan
- *Glory Fades Away*, by Jerry Lansch

External links

- Baseball field Almanac (http://www.baseball-almanac.com/stadium/baseball_field_construction.shtml)
- PONY Baseball (http://www.pony.org/home/default.asp)
- Baseball Field Dimensions (http://hksportsfields.com/baseball-field-dimensions/)
- Baseball Field Design, construction, and renovations (http://www.fraziersfieldrepair.com/Building_Baseball_Field.html) Frazier's Field Repair

- Baseball field design, construction & renovation (http://www.HKsportsfields.com) H&K Sports Fields
- Outfield fence size calculator (http://www.outfieldfencing.com/calculatefieldsize.asp) Signature Fencing
- Differences among MLB fields (http://snippets.com/how-different-are-major-league-baseball-fields.htm)

Retrieved from "http://en.wikipedia.org/wiki/Baseball_field"
Categories: Baseball field | Baseball venues | Baseball rules | Sports rules and regulations