

LACROSSE STATISTICS

With the rapid growth of the sport of lacrosse, it is important that the recording of the statistics of the game, which serve as a permanent record of the contest, be accurate and be meaningful to anyone who reads them. To this end, it is important to have a compilation of the terms used in statistics. The purpose of this work is to address this need of nomenclature for the statistics currently use. In addition, this work will help to establish some guidelines for consistency.

Consistency is a fundamental part of the taking of statistics. Consistency is important not only from game-to-game for an individual team but also from team to team so that statistics can be compared across teams. There are a number of situations in which players are compared on a statistical basis; it is crucial to a fair comparison that the statisticians that are with the various teams be of the same mindset.

In each of these explanations below, a number of examples are given as possible scenarios that a statistician might encounter. They are by no means exhaustive nor are they all-inclusive. They simply provide a means to demonstrate some situations and provide a guideline for the recording of the statistics. In each of the examples, members from team A all have names that begin with the letter "A" and players on the opposing team all have names that begin with the letter "B."

Following the description of each of the statistics, a list of formulas will be provided to reacquaint the statisticians with the method of determining such statistics as scoring offense, scoring defense, save percentage and goals against average.

The statistics described below are as follows:

GOAL

SHOT

FREE POSITION AWARDED

ASSIST

DRAW CONTROL

GROUND BALL

INTERCEPTION

TURNOVER

CAUSED TURNOVER (STICK CHECK, BLOCKS, DRAWN CHARGE)

FOUL

CLEAR

SAVE

GOAL: A goal should only be recorded if the signal for such has been given by the referee.

There are situations in which the ball might go into the cage but the goal is disallowed for various reasons, including a crease violation or a dangerous shot, which result in turnovers for the player committing those infractions. In addition, it is possible that a player might score against her own team; in this case the goal is recorded as an "own goal" and a turnover is assessed to the player who scored.

Note that goals are recorded with respect to time INTO the game. Thus, if a goal is scored with 25:45 on the clock in the first half, it is recorded as 4:15. A goal scored with 25:45 left on the clock in the second half is recorded as 34:15.

SHOT: A shot is any attempt made by a player to score a goal.

The player, regardless of her position on the field, must be playing the ball in such a manner that her actions could result in her scoring on the opposing team's goal. Where she is on the field, the speed of the shot, and the placement of the other players, both on her team and the opposing team, are irrelevant. A shot can have four outcomes: a goal, a save (for the opposing goalkeeper), a pipe (in which a ground ball is awarded to the player who gains possession and a save is not recorded for a goalie), or it can go wide (in which a ground ball is awarded to the player who gains possession. Note that following a shot, at least one other statistical mark will be made (goal, save, or ground ball).

FREE POSITION AWARDED: A free position awarded (otherwise referred to as an eight- or twelve-meter attempt) is awarded to an offensive player by a referee for a major foul committed by the defense.

This is a team statistic; individual attempts are not marked. A running total is kept on the recording sheet for a team.

The player that is awarded the free position does not have to take the shot; she can choose to pass it to a player that has a better shot, run in closer to the cage, or back it out. In any case, the team that received the free position records a free position awarded.

Examples: Amanda is fouled in the eight meter mark and is awarded a free position. Team A is credited with a free position attempt. On the whistle, Amanda can

a) shoot the ball--Amanda records a **free position shot on goal (FPS)**

- 1) it goes in the cage--Amanda is credited with a goal, assist is recorded as "FP" to distinguish this goal as being from a free position shot on goal
- 2) it is saved by Brittany, the opposing goalie--Brittany records a save
- 3) it hits a post and rebounds back into play--the player who gains control is credited with a ground ball, regardless of team
- 4) it sails wide and stays in play--the player who gains control is credited with a ground ball, regardless of team
- 5) it sails wide and goes outside the playable boundaries, in which case the ball is awarded by the referee to the player closest to the ball--the player who gains control records a ground ball, regardless of team

A statistician should also denote on the stats sheet when a player takes a shot from a free position attempt. This demarcation is made in the column FPSOG. At the end of the game, a team's total shots will be the sum of the SOG's and the FPSOG's.

b) pass the ball

- 1) Alix catches the ball and shoots and scores immediately--Alix is credited with a goal and Amanda records an assist
- 2) Alice catches the ball and play continues without a goal--no additional statistic recorded

c) run with the ball

- no additional statistic recorded for this action; if she runs in and shoots off the same play, statistic is recorded as above in a)1
at this point, play continues with statistics as usual

This change in statistical recording reflects only the awarding of a free position attempt.

Subsequent actions by the player are recorded as appropriate. The old category of FPSOG is maintained; an additional category will be known as FPA. Goals that are scored off free positions will be noted in the stats history of the game as having an assist of "FP."

Please note that a FPSOG should also be recorded in the SOG column, similar to a three-point basket made/attempt in basketball.

ASSIST: An assist is a play made by an offensive player that directly results in a goal being scored by the attacking team.

The assist is usually a pass made by one teammate to another who in turn scores a goal; however, a few exceptions do exist. It is imperative that the statistician exercise consistent and clear judgment in awarding an assist. It should be noted that an assist does not detract from the player who scored a goal; that is, an unassisted goal is no better statistically than an assisted goal. However, not every goal needs to be assisted. Consistency remains the underlying principle with this statistic, as with all statistics.

The guidelines for the awarding of an assist include two parts: the action of the passer and the actions of the recipient. An assist shall be awarded a player following a pass that is converted to a goal provided that:

a) the recipient does not take more than five steps or take longer than five seconds:

EXCEPTIONS TO a)

- 1) a breakaway situation: Amanda, playing first home, is at midfield. Abbie, playing point, intercepts a pass and Amanda takes off downfield uncontested. Abbie passes

Amanda the ball 30 yards from the goal and Amanda runs and scores without a defensive player marking her. Even though Amanda took more than five steps, Abbie set up the play that allowed her team to score. (Note that Team A is also awarded a good clear; see below) If Anna, the goalie, also makes a clear to Amanda and Amanda runs uncontested to the goal, she can be awarded an assist. The yardstick is the defensive pressure that Amanda faces in her scoring run. If Amanda must outrace/performance defensive pressure, she will record an unassisted goal.

2) an odd-woman rush on goal: Amanda picks up a ground ball and races down field with Alix on her side. The only defensive pressure is Barbara, who must cover both players. Amanda runs to goal line extended and draws Barbara to her, being the more dangerous player. Alix is free because Barbara is covering Amanda; Amanda passes Alix the ball and Alix takes four or five steps before shooting. If Alix scores, Amanda is awarded an assist.

b) the recipient does not maneuver around defensive pressure that is excessive: obviously, excessive is a relative term that is subject to subjective reasoning. For this reason, it is imperative that a statistician not only is consistent with his or her recording but also has a good understanding of the game and its play.

An assist is NOT awarded to a player that shoots and has her shot rebound off the post or the goalie and the ball is picked up by a teammate and shot in the goal.

Example: Agnes shoots and her shot caroms off the pads of the goalie. Amory collects the ground ball and scores. Agnes is not awarded an assist; Amory is credited with a ground ball, a shot, and a goal.

DRAW CONTROL: The draw control stat is used to measure the ability of a team to control the start (or restart) of play.

It is thus important to record the statistic with respect to the team that controls the draw in an offensive position. It is possible for a team to control the ball and subsequently lose control immediately; thus allowing the other team to have an offensive set. Draw control should be awarded to the team that advances the ball (advances in a controlling manner) following a draw.

It is important to note that a player cannot be awarded a ground ball in a draw control situation. Play could theoretically continue for a couple minutes before a second statistic is recorded.

Examples (all following a draw):

a) Arlene and Billie are both centers and take the draw. The ball flies straight into the air and Arlene catches it and flips it to Amanda. Arlene gets a draw control.

b) Arlene and Billie take the draw. It flies into the air and lands on the ground where it is picked up by Alix. Alix runs downfield with the ball and works to set up an offensive play. Alix is awarded a draw control, but not a ground ball.

c) Arlene and Billie take the draw. The ball flies into the air and lands on the ground where it is picked up by Beth. Immediately Amanda checks Beth's stick. Beth loses the ball and it is picked up by Arlene. Arlene is awarded a draw control. Note that neither Beth nor Arlene records a ground ball. Beth does not get a turnover because that would imply she had control and therefore would have recorded the draw control.

d) Arlene and Billie take the draw. The ball lands on the ground where it is picked up by Alice. Alice runs back into her half of the field and throws it back to Abbie. Alice is awarded a draw control even though she moved into her defensive end of the field because she was still responsible for setting up the control of the ball following the draw. In addition, team A is awarded a clear attempt if the ball is moved back within the 12 meter arc on the pass-back and subsequent play through. (See clear, below)

e) Arlene and Billie take the draw. The ball lands on the ground and in the battle for control, the referee halts play. She calls a held crosse on Billie and awards Arlene the ball. Arlene is credited with a draw control. Any time in this period that the referee awards possession of the ball before any control is established, the player who is awarded the ball is credited with a draw control.

f) Arlene and Billie take the draw and the ball falls to the ground. In the fight for possession, Beth picks it up and starts to run down field but runs into Aya. The referee halts play and calls a charge against Beth. In turn, she awards Aya the ball. Beth is credited with a draw control, a turnover, and a foul. Aya is credited with a caused turnover (see below) but is not credited with a draw control.

There are many other possibilities/scenarios to the play following a draw. These few are designed to give a statistician a glance at some of the most common. Exercising consistency is the hallmark of good statistic keeping.

The majority of the time, the total number of draw controls in a game should be equal to the number of goals scored plus the number of periods in the game, as each period begins with a draw. However, there are exceptions to this rule of thumb:

a) A goal is scored with a very short amount of time left on the clock. A draw takes place but no possession is gained before the period is over. A draw control does not have to be recorded; the statistician is simply “-1” on draw controls for the game.

b) A goal is scored in sudden-victory. There is no draw control following a goal scored in sudden-victory. Thus, the statistician is “-1” on draw controls for the game.

GROUND BALL: A ground ball marks a player’s ability to pick up and/or control a loose ball that is playable by both her and an opponent, most often when there is a change of possession. It is designed to reward a player for an act that results in her team’s controlling play.

A ground ball, which is different than an interception, shall be awarded each time the ball lands on the playing surface and it is playable by at least two players, one from each team. An exception occurs when a player somehow loses control of the ball and must fight to pick it up; if she recovers her own mistake, she is not awarded a ground ball. Again, the purpose of this statistic is to reward players who are able to obtain control for her team by possessing or controlling a loose ball. It is crucial that in all cases other than a shot, the possession of the ball must change between teams for there to be a ground ball. One of the most common mistakes is that goalies are not awarded ground balls. If a ball rolls towards a goalie and she picks it up in her crease, it is not necessarily a save--in fact, it is probably not a save but rather a ground ball. Examples:

a) Alice is cradling down the field and drops the ball. There is no opposing player nearby to challenge her for possession. Alice picks up the dropped ball. Alice does not get credit for a ground ball.

b) Alice is cradling down the field and drops the ball. Beth, the player that is marking her challenges her for possession. The ball rolls out of bounds and Alice is awarded possession. Alice does not record a ground ball because she lost the ball in the first place.

c) Alice is cradling down the field and drops the ball. Beth, the player that is marking her challenges her for possession. The ball rolls out of bounds and Beth is awarded possession. Beth is credited with a ground ball; Alice records a turnover.

d) Alice is cradling down the field and Beth, her defender, gets off a stick check that causes Alice to lose possession. Alice is able to recover the ball under pressure from Beth. Alice is not credited with a ground ball, as she lost the ball in the first place. If, however, Beth gets the ball she can get credit for a ground ball because they did not originally have possession of the ball. If Beth or a teammate of hers (on Team B) gets the ball, Alice records a turnover and Beth records a caused turnover.

e) Alice attempts a pass to Abbie, but the pass is errant. Abbie chases after it, uncontested, picks it up and play resumes. Abbie does not get credit for a ground ball.

f) Alice attempts a pass to Abbie, but the pass is errant. Abbie chases after it, marked closely by Bobbi. Abbie picks up the ball while being challenged by Bobbi and plays it. Abbie is NOT credited with a ground ball.

g) Alice attempts a pass to Abbie, but the pass is errant. Abbie chases after it, marked closely by Bobbi. Bobbi picks up the ball and plays it. Bobbi is credited with a ground ball. A turnover is assessed to Alice, as the assumption is that the pass is errant. If, however, the statistician feels that the breakup of the play is due to Abbie’s inability to catch the ball, the

turnover can be assessed to Abbie instead. (For more regarding turnovers, see below)

h) Alix takes a shot and the shot sails wide, where it is picked up by Amanda. Amanda is credited with a ground ball. (Alix records a shot as well)

i) Alix takes a shot and the ball sails out of bounds. Amanda, who is closest to the ball, is awarded possession. Amanda is credited with a ground ball.

j) Agnes, behind the cage, attempts a pass through the crease to Alix, but Brittany, in goal, intercepts the pass. Brittany records a caused turnover, not a ground ball nor a save.

k) Arlene and Billie are taking the draw. The ball sails into the air and lands on the ground, where it is picked up by Alice. Alice gets credit for a draw control, not a ground ball. In a draw situation, neither a ground ball nor an interception can be awarded until a draw control is awarded first. The three stats are mutually exclusive.

l) In a race for a dropped ball by team B, Abbie and Bobbi are fighting for possession. Abbie is able to flick the ball to Agnes, who is standing unmarked 10 yards away. Although Abbie never had the ball in her stick, she gets credit for the ground ball as she made the ball controllable by her team, which is the underlying rationale. Note that a ground ball can only be awarded to Abbie if this is a change of possession from Bobbi or the rest of Team B

m) Arlene attempts a pass to Alix, who misses the pass and the ball sails over her. Amanda, who is playing point and is marked by Bobbi, races to pick up the ball and must fight off Bobbi for possession. Amanda is not awarded a ground ball because the pass should have been completed, even though she had to counter an opponent to gain possession. Note that Alix (or Arlene, if the statistician feels that the pass was bad) does not record a turnover if a teammate picks up the ball.

This list of examples is by no means exhaustive; it is meant only to describe a number of situations in which a ground ball might or might not be awarded. In the ground ball situation, it is important to note that a ground ball be awarded each time the ball is picked up and controlled by a player after it has hit the ground AND there is a challenge for the ball between teams. Both conditions must be met to record a ground ball. A ground ball can only be recorded if the player that is attempting the pickup must defend against a challenge by an opponent who has just as much a chance to obtain possession. It is important to note that a player cannot lose possession of the ball and subsequently get credit for a ground ball if she is able to pick it up either uncontested or after a challenge. In addition, a shot that goes wide must be balanced by a ground ball. Note that an interception (part of a caused turnover; see below) is recorded differently than a ground ball. As always, the consistency which is integral to recording stats plays a significant role in this statistic.

CAUSED TURNOVER: This statistic is defensive-minded and is designed to give a player credit for disrupting play in some way that results in her team's gaining control of the ball in a change of possession. **It can appear in five main forms: stick check, direct interception, blocked pass or shot, drawn charge.**

The purpose of this statistic is to reward the players, most often on the defensive half of the field, who disrupt the play of the opponent and who have not received statistical credit for such. Examples include:

STICK CHECK: The stick check records the ability of a player to obtain possession of the ball for her team by means of a stick check.

a) Alice, marking Bobbi, checks Bobbi's stick and the ball rolls to Amanda, who picks it up. Alice records a caused turnover and Bobbi records a turnover. If Amanda picks up the ball under pressure (as above, in ground ball), she records a ground ball.

b) Arlene, marking Billie, allows Billie to race past her and then checks her stick from behind, causing Billie to drop the ball. Arlene picks it up and gains possession. Arlene records both a caused turnover and a ground ball; Billie records a turnover.

INTERCEPTION: An interception is a play in which a team obtains a change of possession by intercepting a pass thrown by the other team.

It is fairly easy to note; the ball cannot touch the ground and must have been thrown by an opponent. This statistic requires a turnover to be recorded by the team that threw the ball. It

should be noted that it is not necessarily a turnover to the person that threw the ball if the statistician feels that the fault was the receiver (not moving to the ball, etc.). A common example of an interception is a play behind the cage in which Agnes, behind the cage, attempts a pass through the crease to Alix, but Brittany, in goal, intercepts the pass. Brittany records a caused turnover, not a ground ball nor a save. It is important to note that a player cannot simultaneously record a ground ball and a caused turnover; nor can a goalie record a caused turnover and a save. A player can get credit for both statistics if they block a pass and gain possession under the guidelines given above for a ground ball.

DRAWN CHARGE: When a player draws a charge and is awarded the ball after the referee stops the play, the player who draws the charge records a caused turnover and the player who charges records both a foul and a turnover. An example:

Amanda holds her ground and draws a charge from Beth. Amanda records a caused turnover and Beth records a turnover.

BLOCK: A block occurs when a player gets her stick in the way of a pass and disrupts the offensive play. An example:

a) While Barbara attempts a pass to Billie, Agnes gets her stick in the way and bats down the ball. She picks it up and gains possession for her team. Agnes records a caused turnover and Barbara records a turnover. If Agnes picks up the ball under pressure, as outlined in the ground ball section, she also records a ground ball.

Obviously, the recording of a caused turnover (of any variety) implies that the opposition must record a turnover. The total number of caused turnovers for team A should never exceed the total number of turnovers by team B; however, the reverse situation is possible as some turnovers can be unforced.

TURNOVER: This statistic is used to record an instance in which a player loses control of the ball to the other team or somehow causes her team to lose possession of the ball.

There are a number of ways in which a player can lose the ball to the other team:

a) While cradling up the field Abbie loses control and the ball falls to the field. She picks it up under no pressure. No statistic is recorded.

b) While cradling Aya loses control and the ball falls to the field. She picks it up under pressure from Beth, who is marking her. Aya is not credited with a ground ball.

c) While cradling up the field Abbie loses control and the ball falls to the field. Barbara, who is marking her, picks up the ball and thus gains control. Abbie is credited with a turnover and Barbara is credited with a ground ball.

d) After earning a draw control, Arlene runs upfield where she is marked by Billie. Billie checks her stick and the ball falls to the ground where it is picked up by Amanda, fighting off Billie. Billie does not record a caused turnover because Amanda picked up the ball and there was not a change of possession for her team nor does Arlene get a turnover.

e) In a clear attempt, Brittany makes a pass up field to Billie, who is marked by Arlene. Brittany's pass is errant and Arlene intercepts the ball. Brittany is assessed a turnover and team B records a broken clear. Arlene is credited with a caused turnover.

f) After passing Abbie the ball, Arlene sets an illegal pick on Billie for her teammate to continue the play. The referee blows the play dead, awarding Billie the ball. Arlene is assessed a turnover and a foul.

g) While making an offensive run into the fan, Alix is called for a charge on Beth. The referee stops the play and awards the ball to Beth. Alix is assessed a turnover and a foul. Beth records a caused turnover.

h) While making an offensive charge into the fan, Alix loses the ball in a cluster. The ball falls to the ground and Bobbi picks it up and starts a clear upfield. Alix is assessed a turnover and Bobbi picks up a ground ball. In addition, team B records a clear attempt.

i) On her shot, Alix fires the ball at the head of Brittany, the goalie. The ball bounces off Brittany's helmet and goes in the goal. The referee does not signal goal; rather, she calls Alix's shot dangerous and awards the ball to Brittany. Alix is not credited with a shot; rather, she records

a turnover. Brittany picks up a ground ball and team B begins its clear attempt.

j) Agnes, behind the goal, tries a quick pass to Arlene who is standing on the crease. Arlene one-times the pass into the cage past Brittany, but the referee does not signal a goal. Rather, she indicates that Arlene committed a crease violation and awards the ball to Brittany. Brittany records a ground ball and Arlene does not get credit for a shot. Instead, she is assessed a turnover and a foul.

FOUL: A foul is recorded each time a referee stops play and calls an infraction on a player.

The foul can be recorded anywhere on the field. Obviously, any card assessed is also recorded as a foul. The purpose for this statistic is to show the effect a player has on the flow of the game. Currently, there is no limit to the number of fouls a player may commit in the course of a game.

In marking an offside foul, the person who is sent back behind the line should be charged with the foul, regardless of the circumstances that led to the offside position. That is, she might not be the last player across the line, but for recording purposes, she will be assessed the foul.

CLEAR: This team statistic is designed to demonstrate the ability of a team to take the ball from their defensive third to their offensive half.

It is not an individual statistic; it is not important who does the actual work as it is quite often a team effort.

The clear has two aspects: a good clear and a broken clear. Each time the defense gains possession in their defensive third--from the 12-meter arc line extended to the end of the playing field behind the goal a clear attempt is in progress. If the team takes the ball across the draw point extended to their offensive end with possession, the team records a clear. If it fails to cross midfield, the team records a broken clear. A good clear is referred to as simply a clear. Examples include:

a) Anna makes a save and outlets the ball to Arlene, who runs up the field to her offensive end of the field where she passes it to Amanda. Team A records a clear.

b) Agnes checks the ball from Brooke and picks up the ground ball. She flips it to Arlene, who passes it to Amanda, who is streaking upfield. Team A records a clear.

c) Anna makes a save and walks it upfield to the draw circle. She passes the ball to Abbie on the far sideline in team A's offensive end. Team A records a clear.

d) Brooke takes a shot and it sails wide and out of play. Abbie, who is closest to the ball, is awarded possession. She passes the ball to Anna, who spot clears it to Amanda. Team A records a clear.

e) Anna makes a save and attempts a long pass to Abbie who is in her offensive zone. The pass is errant and Bobbi gains possession. Team A records a broken clear. Bobbie is also awarded a ground ball or a caused turnover, depending on the situation.

f) Billie commits a foul in her offensive fan and possession is awarded to Arlene. Team A is credited with a clear attempt. While attempting the clear, Arlene loses possession and Brenda picks it up. Team A records a broken clear. Arlene is assessed a turnover and Brenda records a ground ball.

The statistic is fairly self-explanatory. It is important to note that an attempt is recorded each time the defense gains possession in their third of the field. For statistical recording purposes, the attempts to not have to be recorded, as a clear is either good or broken. Thus, the total number of attempts is equal to the total number of good and broken clears. In the end-of-game reporting, a team is noted as recording 10 of 12 clears, for example, meaning that the team had 12 attempts and was successful on 10 of them and was broken on two of the attempts. Again, the individual who actually takes the ball across the midfield stripe does not record a statistic herself; the clear is a team statistic reflecting its ability to transition between defense and offense. It should be noted that if the defense obtains possession in their defensive third in the waning seconds of the half or game and there is not enough time to safely clear the ball--the goalie or some other player holds the ball, not wanting to commit a turnover--the team does not record a clear attempt, as a broken clear is a negative stat and this play as aforementioned is not a negative play.

SAVE: The save records each time a goalie stops a ball from going in her goal that if she did not stop, would result in a goal for the opponent.

Obviously, each time the ball passes the plane of the goal line a goal is scored assuming there is not a violation by the offense (dangerous shot, crease violation, etc.). However, there are situations in which a ball which advances in a scoring manner and the goalie does not record a save. In addition, it is crucial to note that a save cannot be recorded for a shot that would normally sail wide and has no chance of going in the goal. There cannot be more saves recorded than shots for the opponent; in fact, the number of saves is usually fairly less than the number of shots taken by the opponent, which reflects shots that sail wide. In addition, a shot that hits the pipe is not recorded as a save for the goalie. Examples:

a) Amanda takes a shot that would go in. Brittany, the goalie, collects the ball in her crosse. Brittany records a save; Amanda records a shot.

b) Abbie takes a shot that is high and would sail over the crossbar without any interference. Brittany raises her crosse and takes possession. Abbie records a shot; Brittany records an interception, not a save.

c) Agnes, behind the cage, attempts a pass through the crease to Alix, but Brittany, in goal, intercepts the pass. Brittany records an interception, not a ground ball nor a save.

d) Arlene attempts a shot but the ball is knocked down in traffic. The ball rolls into the crease where Brittany picks it up. While it is possible that if Brittany missed the pickup a goal could have been recorded by Arlene; Brittany is not awarded a save. She gets credit only for a ground ball.

e) Amanda takes a shot that caroms off the pipe and back into play, where it is picked up by Barbara. Amanda records a shot, Brittany does not record a save, Barbara is credited with a ground ball, and team B records a clear attempt.

f) Arlene takes a shot and Brittany gets her stick on the ball, preventing it from going in the cage. The ball lands in the crease and Brittany picks it up. Brittany gets credit for the save, but she does not get credit for the ground ball. Arlene records a shot.

g) Arlene takes a shot and Brittany gets her stick on the ball, preventing it from going in the cage. The ball lands out of the crease and Brittany picks it up, fending off a grub attempt by Amanda. Brittany gets credit for the save as well as for the ground ball. Arlene records a shot.

h) Amanda takes a shot and Brittany comes out of the cage to make the play, but she is outside the crease when the ball hits her body. A body ball foul is called, giving Amanda an eight-meter shot and Brittany is placed behind. There is no shot recorded in the stats, thus there is no save. A player does not get charged for an attempted shot if there is a foul in the course of the shot that does not result in a goal. Obviously, if a goal is recorded on a held whistle then a shot is recorded (along with a goal; the foul is waved off).

The only judgment call that should be made in the recording of a save is whether the ball would have gone in the cage. It is rare for a team to have 100% accuracy in shot placement; thus, it would be unusual for a team to have as many saves (and goals against) as the opponent has shots. Again, a crucial point is that a shot that hits the pipe is not considered a save.

It is important that a statistician keep careful account of all of the shots during a game; for this purpose a table has been provided for recording shots that hit pipes and go wide as well as far as totals for a team.

By no means are any of these examples given in the game scenarios perfect nor are they exhaustive. They only represent some of the more common situations and give an idea of how a statistician should record the play. In any situation where a question arises; it is crucial that the statisticians of both teams discuss the situation so that both teams' statistics are identical. If the two statisticians cannot come to a mutually-agreed upon conclusion, the decision of the home statistician should prevail.

STATISTICAL FORMULAS

SCORING AVERAGE: $\frac{\text{Number of goals}}{\text{Number of games}}$
(Scoring offense)

Team A has played 15 games and scored 225 goals.
 $225/15= 15.00$
Team A has a scoring average (offense) of 15.00

SCORING DEFENSE: $\frac{\text{Number of goals allowed}}{\text{Number of games}}$

Team A's opponents have scored 90 goals.
 $90/15=6.00$
Team A has a scoring defense of 6.00

SCORING MARGIN: $\frac{\text{Number of goals scored} - \text{number of goals allowed}}{\text{Number of games}}$

$225-90=135$
 $135/15=9.00$
Team A's scoring margin is 9.00.
(Scoring Average-Scoring Defense=Scoring Margin)

SAVE PERCENTAGE: $\frac{\text{Number of saves}}{\text{Number of saves} + \text{Number of goals}}$

Anna has made 180 saves and has allowed 75 goals.
 $180+75=255$
 $180/255=.706$
Anna's save percentage is .706

GOALS AGAINST AVERAGE: $\frac{\text{Number of goals allowed} \times 60}{\text{Total minutes played}}$

Anna has allowed 75 goals while playing in 840 minutes.
 $75 \times 60 = 4500$
 $4500/840 = 5.36$
Anna has a GAA of 5.36.
Notice that the team has played 900 minutes; she has played 93.3% of the team's minutes. Her GAA is very close to the scoring defense.

CLEARING PERCENTAGE: $\frac{\text{Number of good clears}}{\text{Number of good clears} + \text{Number of broken clears}}$

Team A has recorded 270 good clears and 45 bad clears.
 $270+45=315$
 $270/315=.857$
Team A's clearing percentage is .857.

SHOOTING ACCURACY: $\frac{\text{Total goals}}{\text{Total shots}}$

Amanda has scored 54 goals on 90 shots.
 $54/90=.600$
Amanda's shooting accuracy is 60.0%.

Team A has scored 225 goals on 435 shots.
 $225/435=.517$
Team A's shooting accuracy is 51.7%.

POINTS PER GAME: $\frac{\text{Total points}}{\text{Number of games}}$

Amanda has 54 goals and 36 assists.
 $54+36=90$ total points
 $90/15=6.00$
Amanda's points-per-game (ppg) is 6.00