

The Official National Collegiate Athletic Association

**2001
VOLLEYBALL
STATISTICIANS'
MANUAL**

*Including Special Interpretations
and Approved Rulings
Covering Unusual Situations*



THE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

P.O. Box 6222
Indianapolis, Indiana 46206-6222
317/917-6222
<http://www.ncaa.org>
July 2001

Manuscript Prepared By: American Volleyball Coaches Association.

Edited By: Keri A. Potts, *Communications Coordinator*.

NCAA, NCAA logo and National Collegiate Athletic Association are registered marks of the Association and use in any manner is prohibited unless prior approval is obtained from the Association.

COPYRIGHT, 2001, BY THE AMERICAN VOLLEYBALL COACHES ASSOCIATION
COPYRIGHT, 2001, BY THE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

This booklet is published by the NCAA with material provided by the AVCA, and constitutes a cooperative effort for the advancement of the sport of volleyball.

PRINTED IN THE UNITED STATES OF AMERICA

► Official Volleyball Statistics Rules

Approved Rulings and Interpretations

(Throughout this manual, teams are referred to as Team White players and Team Blue players. When needed, players are numbered accordingly.)

► SECTION 1—ATTACKS

Article 1. An attack attempt (ATT) is recorded any time a player attempts to attack (hit aggressively) the ball into the opponent's court. The ball may be spiked, set, tipped or hit as an overhead contact. There are three possible outcomes of an attack attempt.

- (1) There can be a kill.
- (2) There can be an attack error.
- (3) The ball can stay in play. This is referred to as a "0 attack (zero attack)."

Philosophy. Any ball that is played over the net in an attempt to score a point should be considered an attack. Any ball played over the net simply to keep the ball alive should **not** be considered an attack attempt.

The exceptions to an attack attempt are:

- (1) An attempt is **not** charged on a ball played over the net on serve reception that is kept in play by the opposing team. This is called an overpass.
- (2) An attempt is **not** charged on a free ball played over the net when, in the opinion of the statistician, the free ball is passed only to keep the ball in play.
- (3) An attempt is **not** charged to a player if, in the opinion of the statistician, the set is bad and the player plays the ball over the net only to keep the ball in play.
- (4) An attempt is **not** charged to a player if the player passes the ball over the net only to keep it in play.

However, if in any of the four above-mentioned instances the action results directly in a point for the team playing the ball, a kill (see Article 2), and therefore an attack attempt, must be awarded.

Article 2. A kill (K) is awarded to a player any time an attack is unreturnable by the opposition and is a direct cause of the opponent not returning the ball or any time the attack leads directly to a blocking error by the

opposition. A kill leads directly to a point. When a player is awarded a kill, the player also is awarded an attack attempt.

Article 3. An attack error (E) is charged to a player whenever an attack or attacker:

- (1) Hits the ball out of bounds.
- (2) Hits the ball into the net leading to a four-hit violation.
- (3) Is blocked down by the opposition to the same side as the attacker, and cannot be kept in play as a direct result of the block.
- (4) Goes into the net.
- (5) Is called for a center-line violation.
- (6) Is called for an illegal contact on the attack.
- (7) Hits the ball into the antenna.
- (8) Is called for a 3-meter (10-foot) line violation.

When a player is given an attack error it also counts as an attack attempt and is counted in the player's total attacks.

Article 4. A "0 attack" (zero attack) is any attack attempt that is kept in play by the opposition. Total attempts (TA) equal the sum of kills, errors and "0 attacks." Documentation is required on the work sheet for this play and should be included in the individuals' totals on the Box Score Form.

A.R. 1. *Team Blue serves the ball to Team White which, on the serve reception, passes the ball over the net (a) where it is kept in play by Team Blue or (b) where it falls to the ground untouched. RULING: In (b), Team White player receives a kill. Case (a) is not considered to be an attack, therefore no statistics are awarded.*

A.R. 2. *Team White setter sets a bad set to Team White hitter who (a) forearm passes the ball over the net; (b) hits a down ball (an overhead contact made by the hitter while standing on the floor) over the net; or (c) cannot get to the errant set. RULING: In (a), no attack attempt is given, as Team White hitter only is intending to keep the ball in play. In (b), if, in the opinion of the statistician, Team White hitter is making an aggressive play to earn a point, an attack attempt is awarded. If Team White player only is attempting to keep the ball in play, then an attack attempt is not given. In (c), if, in the opinion of the statistician, Team White hitter is unable to get to the ball or to make a legitimate attempt to attack the ball due to the errant set, no attempt is given. No statistics are given in this instance. An attack error should not be charged to the hitter, as well as nothing to the setter.*

A.R.3. *Team White setter aggressively sets or dumps the second contact by the team over the net (a) such that it goes over the net where Team Blue keeps it in play or (b) such that it goes over the*

net and falls to the floor. **RULING:** In (a), Team White setter receives a "0 attack." In (b), Team White setter receives a kill. If, in the opinion of the statistician, the setter was "attacking" the ball and would have been awarded an attack attempt if the ball was dug by Team Blue, an assist should be awarded to the player who passed the ball to the setter prior to the kill. If, in the opinion of the statistician, the set was not an attack attempt but a failed attempt to set the ball for the attack, an assist would not be awarded for the pass prior to the kill.

A.R. 4. Team White setter is in a 6-2 system. Team White setter jump-sets the ball over the net and the official calls a back row attacker. **RULING:** Team White setter receives an attack error.

A.R. 5. Team White player attacks the ball. Team Blue, attempting to block the ball (a) goes into the net, (b) is called for a center-line violation or (c) is a back row player caught by the official. **RULING:** In all three cases, Team White player receives a kill. The Team Blue blocker commits an error as a result of the attack.

A.R.6. Team White attacks the ball. Team Blue player digs the ball (a) but no one on Team Blue is able to keep the ball in play or (b) over the net where it falls untouched. **RULING:** In (a), Team White player receives a kill. The situation that led to Team Blue not making the play was created by Team White players' attack. In (b), Team Blue player is awarded a dig and a kill.

A.R. 7. Team White player and Team Blue player both jump to play the ball at the top of the net. A held ball is called by the official. **RULING:** No attack attempt is given to either player. Before the held ball, any statistics charted during this sequence, such as digs and "0 attacks," should remain on the work sheet.

A.R. 8. Team White player attacks and Team Blue players block the ball down on Team White player's side. (a) The ball hits the floor. (b) The ball is kept in play but cannot be returned. (c) The ball is kept in play and returned by Team White. **RULING:** In (a) and (b), Team White player receives an attack error and each Team Blue player receives a block assist. In (c), a "0 attack" is given.

A.R. 9 Team White attacks the ball but is called for a thrown ball or an illegal hit. **RULING:** Team White player receives an attack error. If the play happens to involve the Team White setter, an attack error is still given rather than a ball-handling error, as the error occurred during an attack attempt.

A.R. 10. Team White's back row player attacks the ball legally from behind the 3-meter (10-foot) line. (a) Team White player attacks the

ball for a kill. (b) Team White player hits a down ball (an overhead contact made by the hitter while standing on the floor) for a kill. (c) Team White player passes over a free ball. **RULING:** In (a) and (b), Team White player is awarded a kill. Team White player is a back row attacker. In (c), an attack attempt is not awarded.

A.R. 11. Team White player is a back row player. (a) Team White player hits the ball into the net or out of bounds. (b) Team White player hits a down ball into the net or out of bounds. (c) Team White player passes a free ball out of bounds or into the net. (d) Team White player is called for a 3-meter (10-foot) line violation on the attack. **RULING:** In (a), (b) and (d), Team White player is awarded an attack error. In (c), an attack attempt is not awarded.

A.R.12. Team White's back row player attacks the ball legally from behind the 3-meter (10-foot) line. (a) Team White player hits a ball that is kept in play. (b) Team White player hits a down ball that is kept in play. **RULING:** In both cases, a "0 attack" is awarded if, in the opinion of the statistician, the Team White player is making an aggressive play to earn a point.

A.R. 13. Team White player hits the ball off of Team Blue's block. The ball goes off the block (a) out of bounds or into the antenna, (b) and stays on Team Blue's side of the net but cannot be kept in play or (c) and is kept in play by Team Blue. **RULING:** In (a) and (b), Team White player receives a kill. In (c), Team White player receives a "0 attack," and Team Blue player who passes the ball off her teammates' attempted block gets a dig.

A.R.14. Team Blue player passes a free ball or overpass low over the net. Team White player jumps and puts it down with a two-handed motion. **RULING:** Although this motion is similar to a block solo, the Team White player is awarded an unassisted kill. In order for a block solo to be awarded the action by the Team Blue player would have had to be deemed an attack, as blocks can be awarded only on attack attempts, not free balls or overpasses.

A.R.15. Team Blue player passes a free ball or overpass over the net that is unreturned by Team White resulting in the end of play. **RULING:** The Team Blue player who passed the ball is awarded a kill, and therefore an attack attempt.

► SECTION 2—ASSISTS

A player is awarded an assist (A) whenever that player passes, sets or digs the ball to a teammate who attacks the ball for a kill. There are three

possible outcomes of a ball that is being set:

- (1) An assist.
- (2) An assist error or ball-handling error.
- (3) A zero assist. This occurs when a ball that is set does not directly lead to a kill. Documentation on the work sheet only is required if the statistician is calculating assists percentage.

A.R. 1. *Team White player sets the ball over the net where it is killed by a Team Blue player. RULING: Team White player does not receive an assist. Assists are awarded only when a teammate records a kill.*

A.R.2. *Team White player forearm passes the ball to a teammate who kills it for a point. RULING: Team White player is awarded an assist. The ball may be set or passed to a teammate and result in an assist.*

A.R.3. *Team White player passes the ball to a teammate who, on the second contact, scores a kill. RULING: Team White player is awarded an assist. It does not matter on which contact the kill takes place. The pass preceding the kill is considered an assist.*

A.R. 4. *Team White player makes a great play to keep the ball in play. Team White back row attacker puts the ball away for a kill off of that pass. RULING: Team White player receives an assist.*

► SECTION 3—SERVES

Article 1. A serve is when a player attempts to serve the ball over the net into the opponent's court. There are three possible outcomes for every served ball:

- (1) A service ace.
- (2) A service error.
- (3) A zero serve. This occurs when a serve does not result in a service ace or service error but play continues. Documentation on the work sheet only is required if the statistician is calculating serve percentage.

Article 2. A service ace (SA) is a serve that results directly in a point. A service ace is awarded to a player:

- (1) If the serve strikes the opponent's court untouched.
- (2) If the serve is passed by the opponent but cannot be kept in play.
- (3) If the official calls a violation on the receiver (i.e., lift, double hit).
- (4) If the receiving team is out of rotation (i.e., overlap).

Article 3. A service error (SE) is charged to a player:

- (1) If the serve fails to clear the net and lands on the side of the team serving.
- (2) If the serve is out of bounds or hits the antenna.
- (3) If the server foot-faults or takes too much time.
- (4) If the server takes more than one toss for service.
- (5) If a player serves out of rotation. The service error (SE) is charged to the player who should have been serving.

Article 4. A serve reception is when a player attempts to pass a successful serve attempt. There are two possible outcomes when a player attempts to pass a served ball:

- (1) A service reception error.
- (2) A zero service reception. This occurs when a player continues play by successfully passing a served ball and the pass does not result in a kill or lead directly to a kill by a teammate. *Note: Documentation on the work sheet only is required if the statistician is calculating serve reception percentage.*

Article 5. A reception error (RE) is charged to a player:

- (1) If the serve strikes the floor in the area of the player.
- (2) If the player passes the serve but it cannot be kept in play by his or her team.
- (3) If the player is called for a reception violation by the official (i.e., lift, double hit).

Article 6. Reception errors should not be charged to an individual when team reception errors (TRE) are charged. A team reception error is charged when:

- (1) A serve falls between two players and the statistician cannot determine which player is responsible.
- (2) The receiving team is out of rotation.

In both cases, the server receives an ace. The team reception error should be noted on the work sheet and tabulated in the team totals on the Box Score Form.

Article 7. When a service ace is awarded to one team, a reception error is awarded to the other team. In the final compilation of the statistics, the total number of reception errors of one team should equal the total number of service aces of the other team.

A.R.1. *Team Blue player serves the ball. The ball hits the floor (a) near Team White player or (b) between two Team White players. RULING: Team Blue player is awarded a service ace in both cases.*

In (a), Team White player receives a reception error. In (b), the reception error is awarded as a team reception error if, in the opinion of the statistician, it cannot be distinguished who is responsible. Only one team reception error is given.

A.R. 2. *Team Blue serves the ball. Team White passes the ball over the net where (a) Team Blue keeps the ball in play or (b) Team Blue spikes the ball for a kill. RULING: In both cases, a reception error is not given. Neither is a good pass, but a reception error should not be awarded. A reception error is awarded only when a service ace occurs.*

A.R. 3. *Team Blue serves the ball. Team White player 1 makes a bad pass but, (a) Team White player 2 keeps the ball in play and Team White player 3 returns the ball or (b) Team White player 2 keeps the ball in play; however, Team White player 3 hits the ball into the net. RULING: In (a), a reception error is not awarded. In (b), a reception error is not awarded. While Team White player 1 made a bad pass, it was kept in play by Team White player 2. The third contact by Team White player 3 is where the error occurred and Team White player 1 should not be penalized for a teammate's bad play after the ball was kept in play.*

A.R. 4. *Team Blue player 1 serves the ball. However, the referee calls Team Blue for a server out of rotation. The server should have been Team Blue player 2. RULING: Team Blue player 2 receives a service error, not Team Blue player 1 who was serving at the time that the infraction was called.*

► SECTION 4—DIGS

Article 1. A dig (D) is awarded when a player passes the ball that has been attacked by the opposition. **Digs are given only when players receive an attacked ball and it is kept in play.**

Philosophy. The pass or play of any ball that is attacked is awarded a dig. The ball can be kept in play on the digger's side of the net or can go back to the opposition. In either case a dig is awarded.

Note: If an attack, defined in Section 1, occurs and the ball is kept in play, then a player on the defending team receives a dig.

A.R. 1. *Team White attacks the ball. Team Blue player saves the ball but (a) no one on Team Blue can keep the ball in play or (b) the ball stays in play. RULING: In (a), a dig is not awarded. In (b), Team Blue player is awarded a dig.*

A.R. 2. Team White player 1 attacks the ball. The ball goes off Team Blue player 1 and (a) is returned to Team White and passed by Team White player 2 or (b) goes to Team Blue player 2 who keeps the ball in play. **RULING:** In (a), Team Blue player 1 is **not** awarded a block nor is Team White player 2 awarded a dig. A block is not considered an attack and therefore a player cannot be given a dig off a block attempt. In (b), Team Blue player 1 is **not** awarded a block but Team Blue player 2 is awarded a dig.

A.R. 3. Team White player attacks the ball. Team Blue player digs the ball (a) where Team Blue proceeds to keep the ball in play or (b) but returns it to Team White. **RULING:** In both cases, Team Blue player receives a dig.

A.R. 4. Team White's setter aggressively sets or dumps the ball over the net. Team Blue player passes the ball, keeping it in play. **RULING:** Team White's setter receives a "0 attack" while Team Blue player is awarded a dig.

Article 2. A ball-handling error (BHE) is a call made by the official that ends play.

Article 3. A player is charged with a ball-handling error when the official calls:

- (1) A double hit.
- (2) A thrown ball.
- (3) A lifted ball.

The exceptions are:

- (1) A double hit called on serve reception is a reception error, not a ball-handling error.
- (2) A thrown ball during an attack is an attack error.
- (3) A thrown ball during a block is a blocking error.

► SECTION 5—BLOCKS

Article 1. A block is awarded when a player(s) blocks the ball into the opponent's court leading directly to a point. There are three possible outcomes when a player(s) is blocking:

- (1) The player(s) is credited with a successful block solo or block assist.
- (2) The player is charged with a block error.
- (3) The attack attempt is deflected off the blocker's hands and is kept in play by one of the teams.

Article 2. A block solo (BS) is awarded when a single player blocks

the ball into the opposition's court leading directly to a point. That player must be the only blocker attempting to block the ball.

Article 3. A block assist (BA) is awarded when two or three players block the ball into the opponent's court for a point. **Each** player blocking receives a block assist even if only one player actually makes contact with the ball.

Note: Both a block solo and a block assist cannot be awarded on the same play.

Article 4. A blocking error (BE) is a call made by the official that ends play.

Article 5. A player is charged with a blocking error when:

- (1) A blocker goes into the net.
- (2) A blocker is called for a center line violation.
- (3) A blocker is called for reaching over the net.
- (4) A back row player is called for blocking.

Note: A kill is awarded to the attacking team when a blocking error charged to the defending team.

A.R. 1. *Team White attacks the ball. Team Blue player 1 and Team Blue player 2 go up together and block the ball down. The ball appears to be blocked by Team Blue player 1. RULING: Both players receive a block assist. Even though one player may appear to block the ball, each gets credit for a block assist. Both players get credit because even though only one may touch the ball on the block the other player assisted in setting the block. A block solo is given when only one player goes up and blocks the ball.*

A.R.2. *Team White player attacks the ball. Team Blue blocks the ball but it is kept in play by Team White. RULING: No block is awarded to a player on Team Blue nor is a dig given to a Team White player, as the ball is coming off a block attempt, not an attack attempt.*

A.R. 3. *Team White player attacks the ball. Team Blue player 1 and Team Blue player 2 go up to block the ball but are separated by 3-4 feet at the net. Team Blue player 1 blocks the ball down. RULING: If, in the opinion of the statistician, there is an overlap in the area covered by each blocker, then a block assist should be awarded to **each** blocker, even though Team Blue player 1 blocked the ball. If there is not an overlap, Team Blue player 1 would receive a block solo. Even though the two blockers may not be*

directly next to each other, if the two blockers are working together to deflect the attacker's attempt then they receive block assists.

A.R. 4. Team White player attacks the ball. The ball goes off of a Team Blue player and cannot be kept in play by Team Blue. **RULING:** A blocking error is not given. *Note:* A kill hit off of the block may be due to poor blocking technique or it may occur because of a good play by the attacker. The statistician should not evaluate technique. To keep this play from being a subjective evaluation by the statistician, it is being defined as no penalty to the blocker, but a kill for the hitter.

A.R. 5. Team Blue player blocks the ball and is whistled for a throw by the official. **RULING:** A blocking error is given. Team White player is awarded a kill.

A.R. 6. Team White player attacks the ball. Team Blue player, while attempting to block, goes into the net. The referee indicates the kill while the umpire simultaneously calls the net violation on the block. **RULING:** Award the kill to Team White player. Award a blocking error to the Team Blue player for the indicated net violation.

► SECTION 6—CALCULATED CATEGORIES

When a player enters the game, that player gets credit statistically for participating. If the player only played front row, the game still counts for **all** statistical categories (i.e., aces per game). Similarly, if the player only played back row, the game still counts for blocks and kills per game. While totals in these categories may be zero, there is no discrimination between front row games and back row games.

Total attempts (TA) are the total of all attempts within a category.

Article 1 Kills Per Game

$$\text{K/G} = \frac{\text{Total Kills}}{\text{Total Games Played}}$$

Article 2 Hitting Percentage

$$\text{Pct.} = \frac{\text{Total Kills} - \text{Total Errors}}{\text{Total Attempts}}$$

Total Attempts = Kills + Errors + *0 Attacks

*See Section 1, Article 4 for the definition of a "0 Attack"

**Article 3
Assists Per Game**

$$\text{AST/G} = \frac{\text{Total Assists}}{\text{Total Games Played}}$$

**Article 4
Service Aces Per Game**

$$\text{A/G} = \frac{\text{Total Aces}}{\text{Total Games Played}}$$

**Article 5
Digs Per Game**

$$\text{D/G} = \frac{\text{Total Digs}}{\text{Total Games Played}}$$

**Article 6
Blocks Per Game**

Individual

$$\text{B/G} = \frac{(\text{Total BS}) + (\text{Total BA})}{\text{Total Games Played}}$$

Team

$$\text{B/G} = \frac{(\text{Total BS}) + (\frac{1}{2} \text{Total BA})}{\text{Total Games Played}}$$

STATISTICS ACCURACY CHECK

It is possible to spot errors or major discrepancies in your statistics compilations by completing these cross-checks:

- (1) A team's total service aces must equal the opponent's total reception errors. If a team had 10 service aces, then the opposing team must have 10 reception errors. (Team reception errors should be included in the total of reception errors.)
- (2) A team's total assists are nearly equal to, but never more than, that team's kills. The difference would be due to the opposing team's overpasses which Team A kills. The possibility of assists and kills being equal exists, but is unlikely.
- (3) A team's total team blocks must not exceed the opposing team's hitting errors.
- (4) The total number of individual blocks is the sum of block solos and block assists. Each counts one point. The total number of team blocks is the sum of block solos and $\frac{1}{2}$ block assists.
- (5) When a ball is attacked, there are only a certain number of situations that can occur. There can be a kill, an attack error or the ball can stay in play ("0 attack").

There are certain statistical combinations that occur depending on the outcome of the attack attempt. There can be a block solo or block assists (also an attack error), a blocking error (also a kill), a dig (also a "0 attack") or the ball can be kept in play off the block attempt (also a "0 attack").

The check is: A team's attacks are nearly equal to its own kills + errors + the opposing team's digs. The difference would be due to balls that are blocked by the opposing team, but stay on **your** side of the court and are kept in play.

- (6) A team's total digs cannot exceed the number of "zero attacks" by its opponent occurring in the match. Each team has only a certain number of opportunities to record digs during the course of play. For instance, Team A attacks the ball 100 times during the match—35 result in kills and 10 in attack errors. This leaves 55 attack attempts (100-[35+10]) that can be dug by Team B. It is not likely that every ball will be dug, as some may be blocked back to Team A's side by Team B and kept in play by Team A.

Always apply common sense to the final compilation. Follow the logical sequence of the game. As explained above, one statistic affects another. The statistics accuracy checks enable one to be precise when completing the Box Score Form.

THE SHORT BOX SCORE

There is a great deal of information in the box score, more than many publications may want to print. There is a short form that may be used. In it, only the kills, aces and blocks of each player and each team are listed. It is a handy summary of point scoring events in the match. An example is shown below.

Team White def. Team Blue 15-12, 15-17, 13-15, 15-7, 15-13

Team Blue (26-10) (Kills-aces-*blocks)—Karlán 6-2-4; Kavanaugh 0-1-0; Turner 2-0-1; Fiebelkorn 12-1-7; May 4-0-13; Peters 20-2-5; Cragin 17-0-6; Choquette 9-0-2; Stark 0-0-1; **Totals** 70-6-22

Team White (24-13)—Moorehead 9-0-1; Robinson 21-4-2; Salvatore 7-3-6; Hall 10-1-0; Belanger 5-2-4; Thomas 15-1-4; Aldridge 5-2-1; Sobczak 8-0-0; **Totals** 80-13-12

* Assisted individual blocks are counted as one-half in team totals.

WORK SHEET

Examples of work sheets are enclosed in the manual. Each has a unique method of transcribing events in the match. For most categories only a hash mark needs to be made if an event occurs. The use of different colored pencils on a work sheet for each **game** of a match allows the statistician to use a single work sheet for each team for each match.

Attack statistics should be handled differently as three events can occur: (a) there can be a kill, (b) there can be an error or (c) the ball can stay in play ("0 attack"). There are many ways that the three events can be symbolized.

One way is:

○ = the ball stays in play ("0 attack")

∅ = a KILL

● = an ERROR

Total Attempts (TA) = "0 attacks" + K's + E's

There are other ways to mark these events and other kinds of work sheets. Use the one that you find the easiest and that fits your needs best.

“Keeping Standardized Volleyball Statistics”

This video was developed as a means of increasing overall statistical awareness, and through consistent use of both the manual and the videotape, a standard application of volleyball’s statistical categories will evolve.

The **“Keeping Standardized Volleyball Statistics”** video can be purchased from the American Volleyball Coaches Association by calling 719/576-7777 or writing to: AVCA, 1227 Lake Plaza Drive, Suite B, Colorado Springs, Colorado 80906.

Prices: AVCA Members – \$30

Nonmembers – \$35

Index

Assists	6
Attack attempt.....	3
Attack error.....	4
Ball-handling error	10
Blocks	10
Block assist.....	11
Block solo	10
Blocking error.....	11
Calculated categories.....	12
Digs.....	9
Kills.....	3
Reception error.....	8
Sample box score form.....	17
Sample work sheet.....	18
Serves.....	7
Serve reception.....	8
Service ace.....	7
Service error.....	7
Short box score.....	15
Statistics accuracy check.....	14
Statistics video.....	19
Team reception error.....	8
Total attack attempts.....	4
Work sheet explanation.....	16
Zero attack (0 attack)	4