



“National Strike Zone Initiative”

The Impact of Technology

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Objective:

NCAA Baseball Umpire Program (BUP) along with the Conference Coordinators want to improve the consistency of plate zone judgment, which should hopefully help reduce the number of ejections related to balls and strikes.

Strategy:

Develop national metrics that align with electronic data collected to help educate and train officials.

Tactics:

- 1. Understand how the data is collected and used**
- 2. Interpret the data collected**
- 3. Establish national metrics that support the collegiate game**
- 4. Communicate these standards to all constituents**
- 5. Create training and education for all officials**



Why A National Strike Zone Initiative

- More than 150 Division I institutions are currently using pitch recognition technology
- Coaches look at the game-ending scatter plot as part of an umpire evaluation
- Understanding the limitations of technology and how to interpret the data
- This information is directional and inspires better conversations
- **Excellent training and educational tool for umpires**
- Improve the consistency of strike zone judgment and potentially reduce the number of ejections related to balls and strikes



Who

Coaches, Coordinators, Umpires

- Everyone interprets the data differently
- We are all looking for consistency
- Collegiate pitchers are not professionals
- What is an acceptable correctness rate (allowed margin of error)
- The catcher can influence a pitch
- The optics of a pitch are not the same as the results on a scatter plot
- Can we establish a national unit of measurement
- More and more coaches are using it for evaluations
- Umpires are very interested in improving their performance



What Understanding Pitch Recognition

- The strike zone is pre-set (same size for every hitter)
- Current electronic data collection does not allow for true metrics of a pitch
- Establishing a margin of correctness-buffer zone pitches should NOT be considered a miss
- Technology currently measures to the center of the baseball, not the edge
- Does anybody take the time to look at edge pitches-How the catcher influenced?
- A scatter plot should not be the only data point of an umpire's performance
- What did the optics look like when you watched the game?
- Trackman and others metrics are all recorded in feet...not inches!



How Developing the Metrics

- Home plate is 17" wide
- Half of home plate is 8.5", Trackman and others measure from the center plate
- Trackman and others set the width of the strike zone at 9.5", one inch on each side
- Baseball is 2.91 inches in diameter, half the baseball is 1.46
- Trackman and others measure to the center of the baseball
- Trackman and others misses 0.4" of the baseball
- When evaluating pitches, Columns AO & AP of CSV Report, distance is in feet
- We must set the strike zone and a buffer zone for collegiate baseball



Developing the Metrics

Rule 7-Section 4

A-Strike

b. A legal pitch that enters the strike zone in flight and is not struck at:

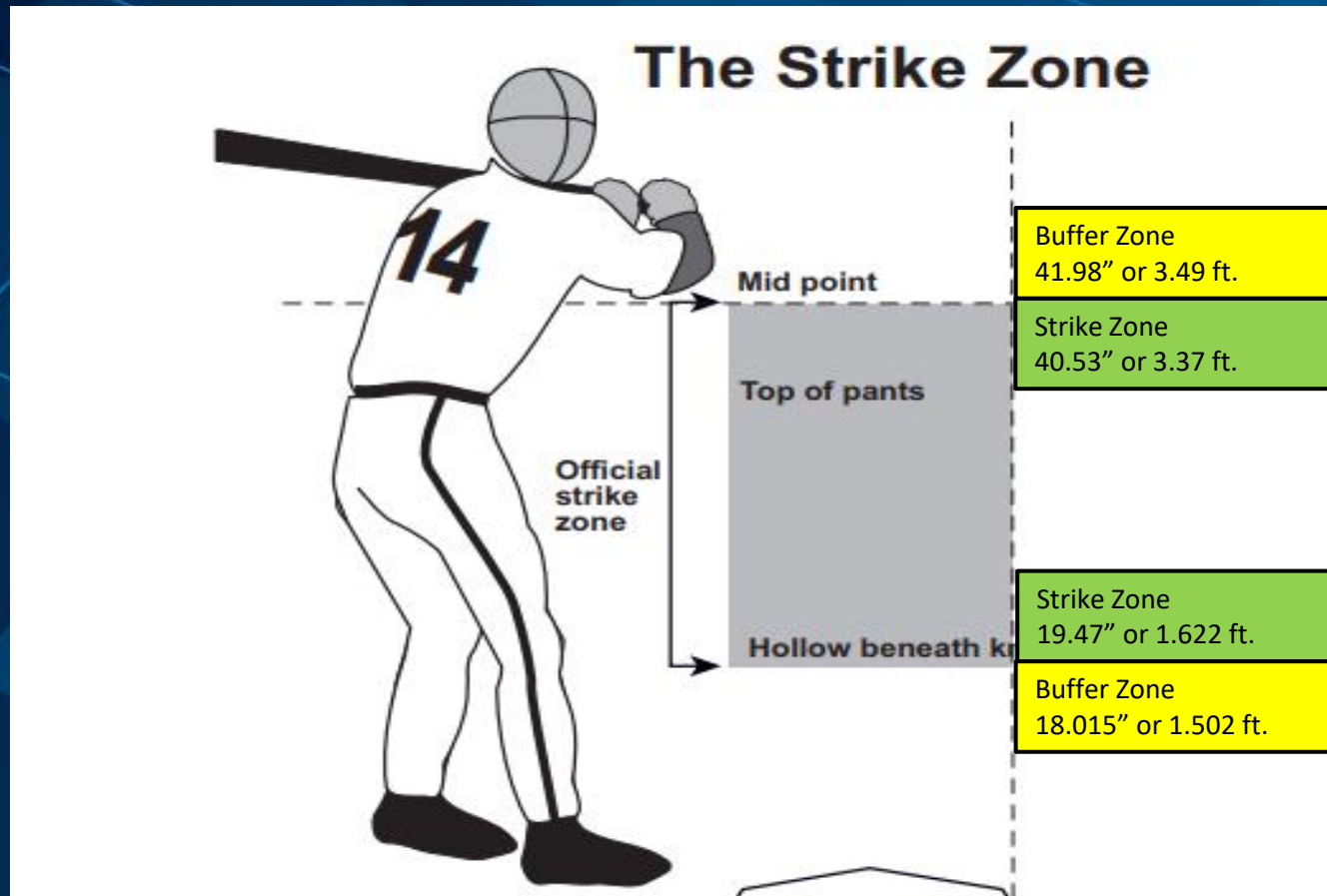
Note 1: The plate umpire should determine if the pitch crosses home plate. **Any part of the ball passing over any part of the plate**, from the bottom of the kneecaps to the midpoint between the top of the shoulders and the top of the uniform pants, is a strike. The pitch should be judged to be a strike or a ball as it crosses home plate, not where it is caught by the catcher.



National Strike Zone

Pitch Location	National Initiative Strike Zone	National Buffer Zone
Platelocheight – (Top)	40.53" or 3.37 ft.	41.98" or 3.49 ft.
Platelocheight – (Bottom)	19.47" or 1.622 ft.	18.015" or 1.502 ft.
Width	19.91" or 1.659 ft.	22.82" or 1.86 ft.
Width Inches from Center	9.95"	11.41"
Edge of Ball from Plate	Edge Touches Plate	1.46" from Edge

Developing the Metrics Plate Loc-Height





National Strike Zone Initiative Summary

- Technology is changing the game-Embrace it
- Understand the data is key to measuring and improving performance
- Coaches, Coordinators, and Umpires should analyze data consistently
- Scatter plots should all be set to the same standards (metrics)
- This is a valuable education and training tool if used properly
- Combining with video gives a better representation of acceptable performance



**“Strive for Continuous Improvement,
Instead of Perfection”**

Thank you for your time