# One Strike, You're Out! A Preliminary Look at Lightning Surrounding MLB Stadiums 

## Authors

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#### Abstract

Between 2001 and 2019, Major League Baseball (MLB) averaged more than 73 million fan visits per year. The MLB season runs from the end of March through October each year, during the peak lightning seasons in the United States. Of the 30 MLB stadiums, 23 have permanently open roofs, 6 have retractable roofs, and 1 is permanently closed. In recent years, social media photos and baseball game broadcasts have revealed lightning within close proximity of several baseball games, without the game being delayed.

Per MLB rule 4.03(e), "As soon as the home team's batting order is handed to the umpire-in-chief the umpires are in charge of the playing field and from that moment the umpire-in-chief shall have sole authority to determine when a game shall be called, suspended or resumed on account of weather or the condition of the playing field." Prior to the hand-over of the lineup card, the home team is the sole judge of whether the weather conditions will prohibit play. The word "lightning" is not found in the official MLB rule book.

To develop an understanding of how significant a threat lightning is to MLB and its fans, a preliminary study was undertaken. One MLB team from each of the 6 MLB divisions were selected, and lightning data within $12.8 \mathrm{~km}(8 \mathrm{mi})$ of each home baseball game for each of the 6 selected teams were collected between the 2016 and 2019 MLB seasons. This provides a sample of nearly 2,000 baseball games from 6 regions of the United States that will be used to provide a baseline for how significant the threat of lightning is to MLB games and its fans.


## Topic Areas

## Lightning Safety, Protection, and Casualty Occurrence

## Submission Format

Poster

Oral

