

“Forgive Your Enemies but Never Forget Their Names”

-John F. Kennedy

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**Abstract:**

On November 22, 1963 President Kennedy was publicly assassinated in Dallas, Texas. After the horrific event, the government appointed a team known as the Warren Commission to investigate the crime. After sifting through 26 volumes of evidence, they submitted a report pointing to the Lee Harvey Oswald as the sole perpetrator of the assassination. However much of the American public did not agree with their conclusions. With every bit of unclear evidence conspirators put together their own theories and thus created a rift in the integrity of the report. A handful of these theories gained popularity causing a huge uproar and multiple reinvestigations of the Kennedy case.

Here we set out to prove the most plausible theory, and disprove any conspiracy theorists. To prove this theory, known as the Single Bullet Theory, topics in advanced mathematics and physics are applied. After much mathematical study we found that the trajectory of the bullet correctly matches what is listed in the official report, with the bullet hitting Kennedy in the neck and his passenger, Governor Connally through the chest. By considering the angle of elevation, distance, and speed at which the lone bullet travelled, our results show that the initial Warren Report can be proven true.

Although this tragedy brought about controversies and loss of trust, it ultimately brought the nation together, and will continue to unite as the 50th anniversary approaches.