

UNITED STATES GOVERNMENT

Memorandum

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| Tolson | |
| DeLoach | |
| Mohr | |
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| Casper | |
| Callahan | |
| Conrad | |
| Felt | |
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| Tele. Room | |
| Holmes | |
| Gandy | |

TO : Mr. Conrad

DATE: 6/10/64

FROM : W. D. Griffith

SUBJECT: ASSASSINATION OF PRESIDENT JOHN F. KENNEDY
REQUEST OF THE COMMISSION

President's Commission

As you know, SA L. L. Shaneyfelt of the Document Section of the Laboratory, has attended numerous reviews of the assassination films at the Commission and has also participated, along with SA R. A. Frazier and Photographer R. E. Triplett, in the re-enactment of the assassination on May 24, 1964. There is attached a detailed account of the work done on the film reviews at the Commission, as well as an account of the survey and re-enactment that took place in Dallas, Texas.

RECOMMENDATION: None, for your information.

105-82555

Enclosure

- 1 - Mr. Belmont
- 1 - Mr. Rosen (Mr. Malley)
- 1 - Mr. Callahan
- 1 - Mr. Callahan (Mr. Gauthier)
- 1 - Mr. Conrad
 - 1 - Mr. Griffith
 - 1 - Mr. Jevons
 - 1 - Mr. Frazier
 - 1 - Mr. Shaneyfelt

LJS:em
(10)

ENCLOSURE

105-109090 -
NOT RECORDED
199 JUN 16 1964

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4 JUN 17 1964

ORIGINAL FILED IN

Re-enactment took 7 hrs

RE-ENACTMENT IN DALLAS, TEXAS, ON MAY 24, 1964

On May 23 and 24, 1964, a survey was made of the assassination site in Dallas, Texas, including a detailed re-enactment. SA Lyndal L. Shaneyfelt, Laboratory Photographer R. E. Triplett and Mr. Roy Rose of the Exhibits Section made a preliminary survey on 5/23/64 at which time plans were formulated for the method to be followed in re-enacting the assassination at which time preliminary information was developed. Since the amateur films made by Mr. Zapruder, Mr. Nix and Mrs. Muchmore were to be the primary basis on which the re-enactment was to be made, it was essential that their exact camera positions be developed. The position of Mr. Zapruder was known, since he was on a specific projection of a nearby structure. Since the positions of Mr. Nix and Mrs. Muchmore during the filming of their pictures were not known, these positions were re-established through use of their cameras and photographs made from their films.

*2 film
Nix
Muchmore
AK
W...*

On Sunday, May 24, 1964, the re-enactment was started at approximately 6:00 AM. The Commission was represented by General Counsel J. Lee Rankin, Norman Redlich and Arlen Specter. SA Lyndal L. Shaneyfelt, SA R. A. Frazier and Laboratory Photographer R. E. Triplett were present from the FBI Laboratory. Inspector Leo J. Gauthier and Mr. Roy Rose were present from the Administrative Division and Inspector James R. Malley was present from the Investigative Division. Inspector Thomas Kelley and Agent John Joe Hawlett of Secret Service were present. A sufficient number of Dallas Agents were also present to assist the above individuals and two-way radio communications were in effect from all essential points.

The Dallas Police Department completely blocked off the portion of Elm Street where the assassination occurred. Secret Service representatives had available a car closely approximating that in which the President was riding and the variations between the car used for the re-enactment and the President's car were known and taken into account. Agents of the Dallas Office, who were the approximate sizes of President Kennedy and Governor Connally were used in the car to re-establish as accurately as possible the films of the assassination, including positions of the car in the street

and the positions of the individuals in the car. SA J. Doyle Williams was used in Governor Connally's position and SA James W. Anderton occupied the position of President Kennedy in the car.

SA Frazier was stationed at the sixth floor window of the Texas School Book Depository (TSBD) Building with the rifle recovered from the building immediately after the assassination. It is noted that the presidential car proceeded down Main Street to Houston Street, turned right on Houston Street toward the TSBD Building and at the corner of the TSBD Building turned left into Elm Street. The assassination occurred along Elm Street. The view from the sixth floor window of the TSBD Building is partially blocked by a tree for a portion of the area of Elm Street.

The re-enactment was based primarily on the Zapruder film and for the purpose of restaging specific frames of the Zapruder film a book of black and white photographs of the pertinent frames was available. The first position established was the location of the car in the street at the point where the person aiming the rifle would have the last opportunity for a clear shot before the car passed under the tree. This location was established through the Zapruder film and through advice from SA Frazier in the sixth floor window. It has been determined that this was frame 161 of the Zapruder film. The next location was at a point in the street where there was a clear shot through an opening in the tree. This position was found to be frame 185 of the Zapruder film. The next position located was at a point where there was the first clear shot after the car emerged from under the tree and this was frame 207. Other frames established were based on pertinent frames developed during the numerous film reviews that had been made at the Commission and they were frames 222, 225, 231, 235, 240, 249, 255 and 313. Frame 313 is the frame depicting the shot that hit President Kennedy in the head. All of the re-establishment of frame numbers after frame 207 were made on the basis of the Zapruder film, using known reference points in the background of the photographs, except frame 313. This frame in the Zapruder film does not have any fixed reference points for the establishment of the location. Frame 24 of the

Nix film and frame 42 of the Muchmore film both depict the shot that hit the President in the head and both have fixed reference points on which this frame could be re-established. As each of the positions was fixed along Elm Street, SA Frazier made studies of the possible bullet path at each frame. Measurements were also taken and a surveyor calculated the distances from the point of the wound in Kennedy's back to the window and to a fixed reference point in the street, as well as the angle to the window. In addition, photographs were made first with 4" by 5" Polaroid film to check the accuracy against the Zapruder photographs, then with 4" by 5" black and white film for permanent record after which the position was photographed on 35 mm black and white film, 35 mm color film, and with Zapruder's 8 mm motion picture camera on 8 mm color film. After frame 313 was established, the car was returned to the corner of Houston and Elm Streets where it was located in a position where there would be the first clear shot after the car turned the corner at Houston and Elm Streets. This point was recorded photographically with measurements and is referred to as point "A," since the Zapruder assassination films do not include this portion of the actual assassination route.

After the fixed positions were determined, the car was driven along the route at the previously estimated speed of 11 miles per hour of the presidential motorcade and while being followed through the rifle scope by SA Frazier was photographed from the camera positions of Zapruder, Nix and Muchmore, using their cameras. This run was re-enacted two times.

Following the above portion of the re-enactment, SA Shaneyfelt and Photographer Triplett went to the sixth floor window of the TSBD Building and mounted an Arriflex 16 mm motion picture camera behind the telescopic sight of the assassination rifle. This was mounted on a tripod and positioned approximately in the position believed to have been used by the assassin. The car was then returned to the corner of Houston and Elm Streets and relocated in the previously determined fixed position and motion pictures were made at each of the points through the telescopic sight of the rifle. Inspector Leo J. Gauthier handled the re-establishment of the car and individuals in the

car as related to the Zapruder film during this portion of the re-enactment. In addition, Mr. Redlich observed the car from the triple overpass under which the presidential car traveled immediately after the assassination. Mr. Redlich found that a shot could be fired from the triple overpass at President Kennedy without going through the windshield. After the motion pictures were made through the rifle scope of the fixed positions on Elm Street, black and white motion pictures were made of the car traveling at the estimated 11 miles per hour on the assassination route with the scope of the rifle and the camera following the car. This was then repeated and filmed on color film.

This concluded the on-sight survey of the assassination and the street was again opened to traffic at approximately 1:00 PM.

In the afternoon of 5/24/64, studies were made in a garage near the assassination site. These studies were made to determine the approximate angle of a bullet traveling through the President's neck and through Connally's chest to determine whether or not there was any basis for the theory that one shot could have gone through both individuals. This angle was re-established based on the Zapruder photographs and the known location of the wounds on both Kennedy and Connally and was found to be approximately 17°. It is noted that the angle from the rifle to the wound in the President's back in the area near frame 222 is also approximately 17°. Photographs were made at the garage of the alignment of the wounds using a rod to show the wound alignment and a string along the wall in the background that had been placed by the surveyor at 17°. This concluded the survey in Dallas.