

Memorandum

TO : MR. CALLAHAN

DATE: 1-23-64

FROM : L. J. GAUTHIER *LJG*

SUBJECT: ASSASSINATION OF PRESIDENT KENNEDY
AND THE KILLING OF LEE HARVEY OSWALD
VISUAL AIDS

President's Commission

Tolson	
DeLoach	
Mohr	
Bishop	
Casper	
Callahan	
Conrad	
Felt	
Gale	
Rosen	
Sullivan	
Tavel	
Trotter	
Tele. Room	
Holmes	
Gandy	

The Commission is utilizing the FBI's visual aids to considerable extent. On 1-23-64, I met with members of the Commission's legal staff, Messrs. Joseph Ball, David Belin, Melvin Eisenberg and Norman Redlich, for a three-hour session re-enacting on the scale model the Secret Service views concerning the approximate points where the shooting occurred. Inspector Thomas Kelly, Secret Service, was present and stated that the versions of the FBI and the Secret Service were good approximations. The staff is hoping to eventually be in a position to say exactly where the shots occurred on the Parkway with a plus or minus factor of several feet. They realize that many variables exist that will make this determination a most difficult one to resolve.

They requested that the FBI show the color movies (Zapruder and Nix) to them at 10:00 a.m. on 1-27-64 at which time an effort will be made by the staff, the FBI and Secret Service to re-enact on the scale model visual interpretations of the shooting sequence appearing in the movies. Secret Service Agent Kelly will be present along with the Secret Service Agent who originally viewed the Zapruder movie and who is responsible for fixing the shooting sequence on the Parkway in Dallas.

Attorney Norman Redlich advised that he will also seek the help of the FBI's Laboratory where Zapruder's camera was examined to determine if it would be possible for the Laboratory, by counting frames, to assist in defining the location where shots one, two and three were fired

ENCLOSURE

The attached information explains the present position of the FBI and Secret Service with regard to the approximations of the shooting sequence re-enacted on the scale model. All of the Attorneys

Enclosure
LJG:bod *bod*
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*See Addendum on Page 2.

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- 1 - Mr. Mohr (Enclosure) (Sent Direct)
- 1 - Mr. Belmont (Enclosure) (Sent Direct)
- 1 - Mr. Rosen (J. R. Malley) (Enclosure) (Sent Direct)
- 1 - Mr. DeLoach (Enclosure) (Sent Direct)
- 1 - Mr. Conrad (Enclosure) (Sent Direct)

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present used the scale model extensively advising they will continue to do so in the future. The meeting of 1-27-64 will take place in the same room where the models are maintained, in order that the versions of those visually examining the movies can be re-enacted on the model without loss of time.

COMMENTS:

1. Arrangements will be made to show the Zapruder and Nix movies to the Commission on 1-27-64. A Bureau employee will be utilized to operate the projector.

2. The points on the Parkway as defined by the FBI are considered to be the best approximations possible and in line with the Secret Service version. Inspector Kelly shares the same views. The FBI has the first shot occurring just before the President's head emerges from behind the sign while the Secret Service approximates the location moments after the President emerges. Approximately one second is involved between the two versions. The Commission realizes that there is no material difference between the FBI's and Secret Service's approximations; however, they wish to attempt to fix shooting sequence with a great degree of accuracy with a plus or minus factor of a few feet.

RECOMMENDATION:

None; for information only.

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ADDENDUM BY I. W. CONRAD 1/24/64:

The FBI Laboratory previously has thoroughly examined the film in question. Laboratory has been in touch with representatives of the Commission and arrangements have been made for the Laboratory representative to be present when the film is shown.

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V. J. [unclear]

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SHOOTING SEQUENCE AS LOCATED ON THE SCALE MODEL

The approximate location of the shooting sequence was determined from an interpretation of the ZAPRUDER movie and from observations made at the site regarding the location of the Stemmons highway sign which was obscuring ZAPRUDER'S line of view while he was photographing the approaching motorcade. The movie also includes details of the surrounding area.

SHOT ONE:

It occurred when the Presidential car was unobserved by ZAPRUDER for approximately twenty feet while moving behind a road sign. Shot one was approximately fixed on the model at a point directly behind the center of this sign. The movie reveals that prior to reaching this sign the President was seen waving and moments later after emerging from behind the sign he was slumped forward. The position on the Parkway where shot one occurred as approximated by the FBI and the Secret Service varies about one car length (13 feet) or about one-half second at 15 mph. The FBI's estimate places the President approximately one-half second nearer to the assassin when shot one was fired.

SHOT TWO:

It occurred approximately at the time Governor Connally was turning his head to the right rear. This point was established through the interpretation of the relative location of trees, shrubs, street lights, curbing, etc. appearing in the movie. The position on the Parkway approximated by the FBI and the Secret Service varies about 1.5 car lengths (22 feet) or about one second at 15 mph. The FBI's estimate places the Governor approximately one second further away from the assassin when shot two was fired.

SHOT THREE:

It occurred approximately at the time a circle of light resembling an explosive blast encircles the President's head. The position on the Parkway approximated by the FBI and the Secret Service varies about 2/3 car length (14 feet) or about 2/3 second at 15 mph. The FBI's estimate places the President approximately 2/3 second nearer to the assassin when shot three was fired.

ENCLOSURE

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ENCLOSURE

COMMENTS:

The FBI's analysis of the shooting sequence was determined independently of a similar study made of the movie by the Secret Service. "WHERE ON THE PARKWAY WAS THE PRESIDENTIAL CAR EXPOSED TO GUN FIRE?" The answer to this question is subject to varying factors such as the speed of the vehicle, the firing position of the assassin and the position of ZAPRUDER. It is a matter of accepting the fact that there will be as many versions as there are analysis made of the shooting sequence. The FBI bases its approximations on an interpretation of the ZAPRUDER movie re-enacted on a scale model. The Secret Service has also used the movie to approximate the shooting sequence; eye-witnesses may vary in locating the car at the time of the shooting; members of the Commission may also have differing opinions regarding this matter.

The ZAPRUDER movie was utilized by the FBI as the best medium for approximating the points on the Parkway where the shooting occurred.