

PRESIDENT'S COMMISSION  
ON THE  
ASSASSINATION OF PRESIDENT KENNEDY

200 Maryland Ave. N.E.  
Washington, D.C. 20002  
Telephone 543-1400

J. LEE RANKIN,  
General Counsel

EARL WARREN,  
Chairman  
RICHARD B. RUSSELL  
JOHN SHERMAN COOPER  
HALE BOGGS  
GERALD R. FORD  
JOHN J. McCLOY  
ALLEN W. DULLES

MAY 7 1964

Mr. J. Edgar Hoover  
Director, Federal Bureau of Investigation  
Department of Justice  
Washington, D. C. 20535

Dear Mr. Hoover:

This Commission has been making a careful study of the various motion picture films taken at the scene of the assassination. In this project, we have had the valuable assistance of members of your Bureau, particularly Inspector James R. Malley, Inspector Leo Gannon and Special Agent Lyndal A. Shaneyfelt. As a result of the information obtained from these films the Commission would like the cooperation of your Bureau in the performance of certain additional investigation at the scene of the assassination.

I will personally be available to supervise this work and will have such other staff members present as may be deemed necessary. We would hope to be able to perform this work in Dallas on May 18 and May 19. The purpose of this letter is to set forth the steps which we feel are necessary to properly complete this project.

I. PROBABLE RANGE WITHIN WHICH THE FIRST TWO SHOTS OCCURRED

Our examination of the Zapruder films indicates that Governor Connally was hit at some point prior to frame 240. (All references to frames in the Zapruder films are on the basis of a numbering system worked out with FBI personnel who have been working on this project.) Doctors familiar with the Governor's wounds concluded that after frame 236 his body was not in a position to have received the wound from a projectile fired from the sixth floor southeast corner window of the Texas School Book Depository Building. The Governor feels he was hit at approximately frame 230; some members of our staff feel that it could have been as late as 240. There is general consensus, however, that it could not have been later than 240. Governor and Mrs. Connally also testified that the Governor was hit by the second shot.

The FBI laboratory examination of the Zapruder camera establishes that it operates at a speed of 18-1/3 frames per second. Weapons experts have testified that the minimum time required to operate the assassination weapon is 2-1/4 seconds. It would appear, therefore, that a minimum of 41 frames would have to elapse between the first and second shots (18-1/3 X 2-1/4).

The Commission is aware that it is impossible to determine the exact point at which the first two shots were fired. We request the following on-site investigatory steps, however, in order to determine whether it was possible for a person located in the sixth floor southeast corner window of the TSEB building to fire two shots at the Presidential car, the second of which occurred no later than frame 240:

(1) A point should be marked on the road corresponding to frame 199 on the Zapruder film, which is the last point at which the assassin could have fired from the window and still have been able to fire again by frame 240. A car should be photographed on this spot from the point where Zapruder was standing so that this photograph can be compared with frame 199 to make certain that the location is accurate. This should be done with the Zapruder camera, which has been retained for this purpose. A Polaroid should also be used for immediate comparison.

(2) After a car has been placed at this point on the road it should be photographed from the assassination window to determine whether the assassin had a clear shot at the occupants of the rear seat, with particular reference to the tree which at some point blocks the view from this window.

(3) If the car had not passed the tree at frame 199, when viewed from the window, the car should be moved forward to the point at which there is a first clear view from the window and photographed at this point from both the window and from the place where Zapruder was standing so that we may determine what frame in the Zapruder film corresponds with this location.

(4) If the car has in fact passed beyond the tree at frame 199, it should be moved back to the point where it first cleared the tree and photographed from the window and the Zapruder location to establish the corresponding frame reference.

(5) The car should also be placed at the point where there is the last clear shot before it goes behind the tree and photographed from the window and the Zapruder location to determine the frame reference at this point.

(6) All the above points should be mapped on a survey. Lineal distances should be measured on the ground between these various points. Trigonometric readings should be taken to determine the distances from these various points to the assassination window and the surveyor should also determine the angle with the horizontal which is made when a line is plotted from each of these points to the assassination window.

## II. PROBABLE LOCATION OF THE THIRD SHOT

Unlike shots one and two, the third shot has been fixed at a particular frame in the Zapruder films (frame 313), as well as a particular frame in two other films (frame 24 of the Hix film and frame 42 of the Muchmore film). A car should be placed at the point which we believe to be the approximate location corresponding to these frames and then photographed from the point where the three cameramen were standing to establish the accuracy of this location. Distances should be measured from this point to the various points described in part I and angles and distances established between this point and the assassination window. The car should also be photographed at this point from the assassination window to establish the view which the assassin had when he fired the third shot.

## III. PLOTTING TRAJECTORIES FROM THE RAILROAD OVERPASS

From each of the ground points established in parts I and II trigonometric readings should be taken from a point on either end of the overpass to chart the path which a bullet would travel if fired from those points on the overpass to the rear seat of the car. It should be determined whether a bullet could reach the rear seat without hitting the windshield, and the angle with the horizontal which would be made by a bullet fired from these points to a car located at each of the points on the ground as determined in parts I and II.

A copy of this letter has been sent to Chief Rowley of the Secret Service with a request that the Secret Service provide such assistance in this work as the Commission and your Bureau may require. The Secret Service has furnished the Commission with photographs, surveys and measurements which we have used in our examination of the films and which will no doubt be useful to your Bureau in completing this project.

We would like your Bureau to make all necessary arrangements for this project. Members of the Bureau assigned to this project should contact either Mr. Norman Redlich or Mr. Malvin Eisenberg of the Commission staff if additional information is required.

Sincerely,

SIGNED

J. Lee Rankin  
General Counsel