

Itek Investigation Conclusive

JFK Assassination Film Study Rules Out 2nd Gunman Theory

By JACK V. FOX and
MAURICE SCHONFELD
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LEXINGTON, Mass. (UPI) — An analysis by one of the nation's top photographic laboratories has demolished a widely circulated theory that a second gunman was involved in the assassination of President Kennedy.

The Itek Corporation revealed yesterday that a months-long study of an amateur movie of the actual shooting had disproved the existence of a rifleman pointing his weapon from a grassy knoll at the Kennedy car in Dallas on Nov. 22, 1963. Itek made the study as a public service.

The 8 millimeter color motion picture was shot that day by Orville Nix, a federal government employe who was standing among the parade spectators in Dealey Plaza. It shows the President hit by the fatal bullet to the back of the convertible.

In the background is the knoll and atop it a wooden picket fence and a white concrete pavilion with a low wall.

Enlargement of certain frames brings out what to the naked eye bears a resemblance to a man with one elbow resting on the roof of a station wagon behind the wall and squinting down a gun barrel at Elm Street where Kennedy was shot.

Proponents of the theory of a conspiracy have sought to use the photographs as evidence that the Warren Commission was wrong in finding that Lee Harvey Oswald acted alone and that all the shots were fired from the Texas School Book Depository Building.

Several persons in Dallas who were eyewitnesses to the assassination have reported seeing smoke or flashes from the knoll area and even more thought they heard shots from that direction.

The gunman on the knoll theory is only one of several second gunman theories. Other theories have put a second gunman at other vantage points.

Nix first turned his film over to the FBI and it was used, among other things, to determine the position of the President's car at the moment the fatal bullet struck his head.

The Nix film subsequently be-

came the property of United Press International Newsfilm (UPIN).

Last February, the Itek Corporation agreed at the request of UPIN to make an exhaustive scientific study of the 31 feet of film. Itek is one of the major manufacturers of highly sophisticated aerial reconnaissance cameras and its equipment was used in development of closeup color pictures of the moon made by the Surveyor spacecraft.

Itek photographic scientists improved the quality of the film content by utilizing advanced image enhancement methods. Itek photogrammetrists and photointerpreters made precise measurements of a number of significant objects in the photographs to insure proper identification of the objects and to determine the feasibility of the fatal shot being fired from certain points.

Several objects on and behind the grassy knoll were unclear in the original films and the Itek scientists were themselves at first struck by the image of a gunman.

"The man with the rifle," however, was found to be nothing more than the shadows of tree branches and leaves on the side of the white pavilion.

Itek said the analysis showed that the object which apparently was a station wagon or

some vehicle actually is in a parking lot behind the wooden picket fence and 20 feet behind the "shadow gunman."

A rifleman at that location would have had to fire from nine feet above the ground for his trajectory to clear existing vertical obstructions, it said. No person was visible on the roof of the vehicle. Even assuming a gunman was at sufficient height, the timing of the cavalcade was such that he would have had less than one-thirtieth of a second to get off the fatal shot, Itek said.

The laboratory used a variety of techniques in studying the photographs. A method known as "dodging" produced an amazing clarity of light and dark tones. Use of color filters made them even sharper.

Nix, an employe of the General Services Administration and a man 6 feet, 6 inches tall, took his first few seconds of film approximately 200 feet from Kennedy's car and 300 feet from the pavilion atop the knoll.

Then he ran through the crowd about 18 feet to his left and zoomed his camera in on the scene again. The resultant triangular pattern permitted stereoscopic analysis of the objects in the background and was fundamental in determining that the so-called rifleman was actually a blend of shadows.

The Nix photos showed no individuals in front of the wooden picket fence up to the concrete wall.

One of the persons who saw Kennedy shot and who is convinced that one report came from the knoll area is S.M. Holland, a signal supervisor of the Union Terminal Co. who was standing on the railroad overpass above Elm Street.

Holland told the Warren Commission that he heard four reports and that one of them came from beneath trees on the knoll.

"There was a shot, a report, I don't know whether it was a shot. I can't say that. And a puff of smoke came out from about 6 or 8 feet above the ground right from under those trees. And at just about this location from where I was standing, you could see that puff of smoke, like someone had thrown a firecracker, or something, out and that is just about

the way it sounded. It wasn't as loud as the previous reports or shots."

Holland's testimony, along with Nix's pictures, have been used by a number of protagonists of the second gunman theory in public lectures and publication purporting to disprove the Warren Commission findings.

The independent Itek conclusions on the Nix film were in keeping with the Warren Report with one exception. The Itek study indicated that at the moment of the impact of the fatal bullet, the Kennedy automobile was about three feet farther back than the spot where the Warren investigation placed it. That finding, however, would make it even more unlikely — if not impossible — for a second gunman to have hit Kennedy from the aperture between the picket fence and the pavilion on the knoll.