

Dallas policeman H.B. McInain: open microphone on motorcycle captured sounds of Dealey Plaza shots.

**Findings on Tape 'Beyond a Reasonable Doubt?'**

## Second JFK Gunman, Experts Say

By George Lardner Jr.

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Two acoustics experts told the House Assassinations Committee yesterday their tests showed "beyond a reasonable doubt" that a second gunman fired at President Kennedy in Dallas 15 years ago from the area of the so-called grassy knoll.

They said the Warren Commission could have done the same work, and reached the same conclusion, back in 1964, without any great difficulty. Far from practicing any "modern electronic witchcraft" on a police recording of the sounds in Dealey Plaza when Kennedy was killed, the experts assured the committee that they used nothing more than "simple, basic physics, and geometry," without the help of any newfangled gadgets. "This is not an arcane science," one of the experts testified emphatically. "It is taught in high school and college-level physics . . . and I think [it] can be understood by anybody who has ever heard an echo."

With less than a week left before it goes out of business, the committee listened to the last-minute evidence with perplexed fascination. The members capped the day-long public hearing by moving into executive session for a potentially divisive

series of votes on its findings in the president's murder. The findings are due next Wednesday.

A majority was expected to agree that someone in addition to Lee Harvey Oswald shot at the president just before he sustained a wound that literally exploded his head on Nov. 22, 1963. That, in turn, as Chairman Louis Stokes (D-Ohio) observed at the close of the hearing, "could point to a conspiracy in the assassination of President Kennedy."

The new findings involve a tiny segment of a police recording that started shortly before the assassination when a motorcycle patrolman left his microphone switch in the "On" position, deluging his transmitter channel with what seemed to be a lot of background noise.

The experts, Mark Weiss and Ernest Aschkenasy of Queens College in New York City, said they were sure of their findings even though they reached them only with trepidation. Weiss said he and his colleague were well aware of the "enormous impact" of their study. Stokes said it could "change the course of history."

With two gunmen firing at the presidential motorcade in Dealey Plaza within the same split-second that day, Stokes observed in understated

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# Experts Testify Tests Show Second Gunman Fired at JFK

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fashion, "one can assume an association" between the two assailants and, from that, "one can make a legal assumption of conspiracy."

Weiss nodded. One of the six experts who served on the court-appointed panel that found a series of evidently deliberate erasures in one of President Nixon's Watergate tape recordings, Weiss said during a break that the JFK tape study was by far the more onerous assignment.

"I can't tell you how many times we went through the agony of doing our calculations over and over again," he said during a break. In the Watergate tapes, he said, "there were six heroes" around to console each other and, even then, they kept calling each other and asking, "Are you sure?" This time, he pointed out, there were only two of them, himself and Aschkenasy, and, he emphasized, "we were nervous" when they realized what their study showed.

"Our initial reaction [to the police recording] was 'somebody's got to be kidding; these can't be gunshots,'" Weiss told the committee. But, he said, "the results of our analysis convinced us."

Aschkenasy agreed. "The numbers could not be refuted," he said, pointing out that he and Weiss used nothing more complicated than a hand calculator to do their computations, again and again.

The only other instruments they used Weiss indicated, were pieces of string to measure distances on a 1963 survey map of Dealey Plaza, some thumbtacks to pinpoint locations, an oscilloscope to observe the waves and shapes of the sounds on the Dallas

police recording, and another device to reproduce the waves graphically.

The two experts concentrated almost exclusively on a segment of the tape lasting only three-tenths of a second, which an earlier study had pinpointed as the possible impulse of a shot from the grassy knoll. That study, conducted by James Barger of the Cambridge, Mass., firm of Bolt, Berneik and Newman, had found a high degree of probability that three shots were fired at Kennedy, all from above and behind him, all from the di-

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*Stokes observed "one can make a legal assumption of a conspiracy."*

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rection of the Texas School Book Depository where Oswald was said to have set up his sniper's nest. To the committee's chagrin, however, Barger calculated the odds on a fourth shot from the grassy knoll at an ambivalent 50-50.

Weiss and Aschkenasy said they were able to determine the location of Dallas policeman H. B. McLain's motorcycle, which inadvertently transmitted the sounds to a Dictabelt at police headquarters, with much more precision.

Their study indicated the motorcycle had just turned onto Elm Street, 120 feet in back of the presidential limousine, when the third shot rang out, leaving a telltale signature or "fingerprint" on the police tape. Weiss said they found 10 echo patterns within the three-tenths of a second segment that precisely matched

sounds emanating from the grassy knoll, traveling carefully measured distances to nearby buildings, and then bouncing off them to hit the motorcycle transmitter at the exact location predicted for it, give or take 18 inches.

He said they were similarly able to place the unknown gunman behind a picket fence at the top of the grassy knoll, MM in front of and to the right of the presidential limousine. Weiss said they were confident of that position, give or take five feet.

He and Aschkenasy added that they were sure, by 95 percent or better, that the sound they had traced was not simply a motorcycle backfiring, or a firecracker, but was indeed a bullet, probably a rifle bullet.

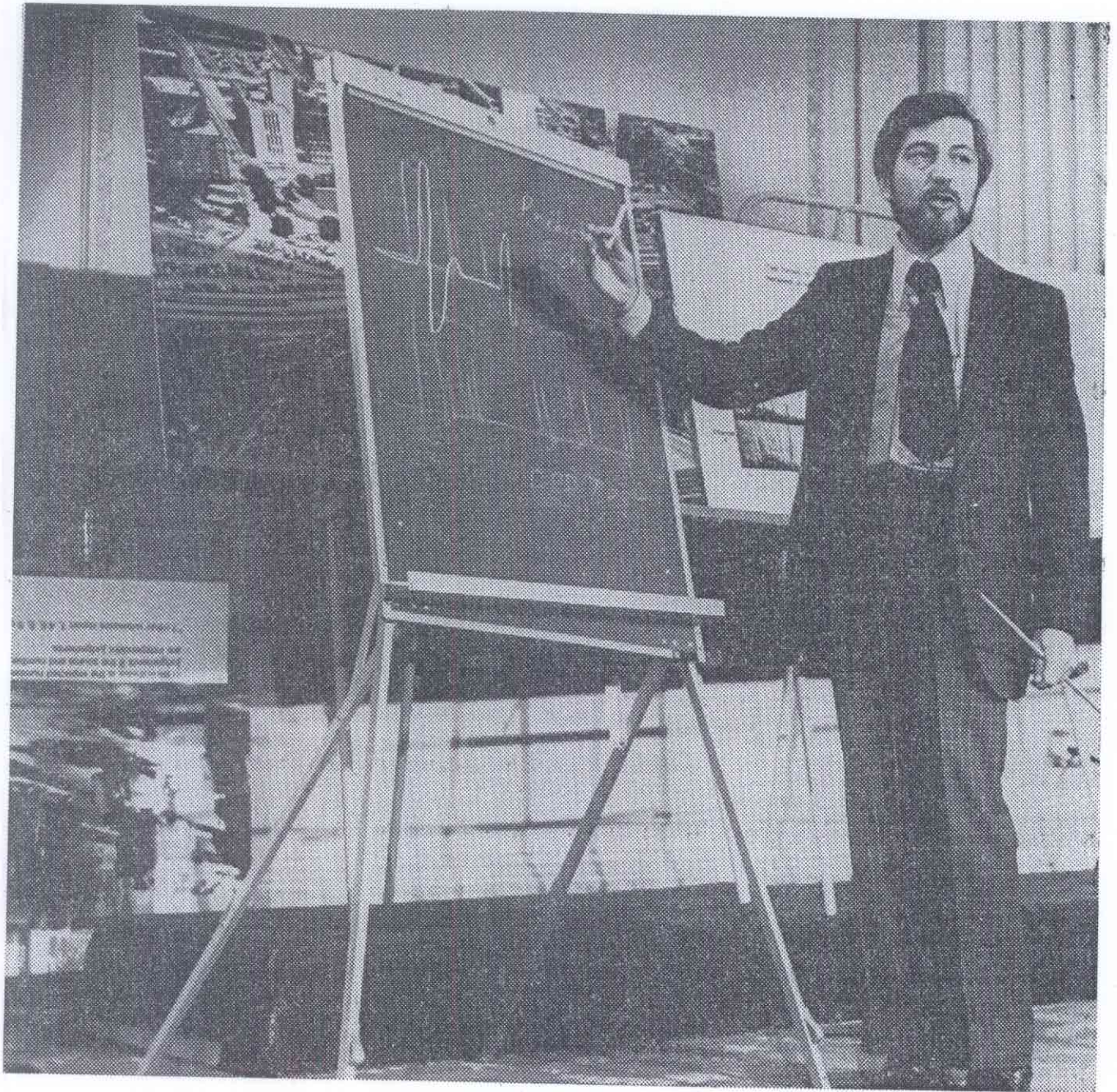
"If I were a betting man, I would say the odds are 20 to 1 [that this is not noise]," Weiss said. "What we're dealing with here is not noise, but in fact a bullet."

The tape also contained strong indications that it was a rifle bullet since the recording showed a so-called "N," or shock, wave traveling faster than the speed of sound and hitting the motorcycle transmitter milliseconds before the arrival of the noise of the muzzle blast itself.

This supersonic phenomenon is characteristic of rifle bullets, but the committee's chief deputy counsel, Gary Cornwell, informed the members that there were handguns available in 1963 that also shot bullets at supersonic speeds.

Since the basic findings of the study were made public more than a week ago by Rep. Harold Sawyer (R-Mich.), there have been contentions that the recording could not have been made in Dealey Plaza, but Aschkenasy made short shrift of such suggestions.





By John McDonnell—The Washington Post

Weiss shows panel how he and Aschkenasy graphically charted police tape sounds and identified grassy knoll shot.



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Acoustic experts Aschenasy, left, and Weiss tell House assassinations panel of tests on tape made by Dallas police Nov. 22, 1963, when Kennedy was killed.

Photos by John McDonnell—The Washington Post