

See Mr. - [unclear] - all comments on last page

HVERFORD COLLEGE  
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Dr. Luis Alvarez  
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Dear Dr. Alvarez,

Dr. Walter Menaker has <sup>last</sup> sent me copies of your two letters to him dated 15 August and 20 September of this year as well as two graphs enclosed in those letters. Since you indicate in your September 20th letter that you welcome the idea that they be sent on to me, I am taking the liberty of sending you my comments.

Although pride of discovery is not something which concerns me very much (especially with regard to a discarded theory), I should tell you that the "giggle theory" of the assassination was first developed in the fall of 1966 by the Life investigative team then examining the evidence in the case. It was discussed and then discarded for the simple reason that we felt the data was simply too rough and ambiguous to permit the drawing of any conclusions that were worth anything. We decided that the wild swing of the camera that began at Z318 was most likely a startle reaction but that the various blurs which appeared at other points in the film were not sufficiently well-defined to permit any clear interpretation. We were aware, too, that a shout from the crowd, a momentary loss of balance, or even one of the facetious "hiccoughs" mentioned by Mr. Garrison might have caused Zapruder to move his camera. It was for these reasons and others that we discarded the "giggle theory" in November 1966. It was then with some surprise I noted in June of 1967 CBS's attempt to prove something with the same theory we had earlier explored and discarded. And I was even more startled to see a distinguished scientist's name used to give authority to their attempt.

I have ~~22107~~ black and white copies of most of the Zapruder frames and have reviewed them while studying your graph. I fear that the half-tones in Vol. XVIII may have misled you. For example, on the Z film, frame 200 is one of the clearest we have while you indicate on your graph that it is blurred. Overall, my study of the photos would indicate that there is much more "grass" than your graph suggests, that most of the photos are somewhat blurred and only a few rather clear. May I point out also a mistake on your graph. You have "hole in tree" marked as adjacent to Z175-180, while in fact it should be correlated with Z186.

But let me move on to the real substance of your theory. I take it that your study of the film shows up four patterns of oscillation: (1) Z180ff, (2) Z222ff, (3) Z190ff, (4) Z313 or 318ff. The Z190 oscillation is particularly damaging to the view that each of these oscillations should be correlated with a shot. First, it would lead to the conclusion that four shots were fired, and more importantly, because it begins only 1.3 seconds before the Z313 oscillation, it rules out that last, killing shot having come from Oswald's rifle. [Oswald's rifle had a minimum firing time of 2.3 seconds.]. To give an explanation for this third oscillation you postulate a siren on the SS follow-up car having been tripped by the driver shortly before Z190, and as evidence for the siren, you point out that the Presidential limousine slowed down at just this point.

When I first read your letter with its suggestion that the siren was tripped prior to the Z313 head shot I immediately thought of my interview with Marilyn Sitzman in Dallas. She was standing with Zapruder on the concrete rectangle and told me that the loudest sound she heard that day was the police siren [presumably the one on the follow-up car]. But she was very clear that this siren had not gone off until well

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after the President had been struck in the head. Earlier,<sup>25</sup> she related it to me, there had only been the sound of the motorcade, the shots, and the crowd. I think her recollection is correct. The Warren Report itself times the siren as having gone off after the fatal head shot (Report, 116) and this timing is supported by literally all the evidence I can find. A number of witnesses riding in the SS follow-up car noted the sound of the impact on the President's head and I cannot believe that they could have heard what they said they heard over the noise of the siren. Most important, of course, is the report of the agent who tripped the siren itself -- the driver of the follow-up car, Special Agent Samuel A. Kinney. In a report written out on the 22nd Kinney pointed out:

I glanced from the taillight of SS-100-X at the President and it appeared that he had been shot because he slumped to the left. Immediately he sat up again. At this time the second shot was fired and I observed hair flying from the right side of his head. With this, simultaneously with the President's car we stepped on the gas. I released the siren at that time. I did hear three shots but do not recall which shots were those that hit the President. (18H732)

On November 30 Kinney reiterated what he had said in the earlier report:

I saw one shot strike the President in the right side of the head. The President then fell to the seat to the left toward Mrs. Kennedy. At this time I stepped on the siren and gas peddle at the same time. Agent Greer driving the President's car did the same. (18H731)

Study of the Zapruder film shows that the Presidential limousine began its acceleration at about Z368. From Kinney's testimony we should correlate the activation of the siren with that frame number, perhaps plus or minus 15 frames. After quite a lot of research I can find no piece of evidence or testimony which suggests that the siren was activated any earlier. Nor can I find any shred of evidence that any other siren was activated at an earlier point in time. A lot of evidence (which I have not bothered to mention) supports ~~the~~ Miss Sitzman's and Agent Kinney's recollection of when the siren went off.

The slowdown in the Presidential limousine at about Z294 has quite a different explanation. On the film we can see Agent Greer, the driver, turned well-around and looking back over his right shoulder at Z302ff. Due to the fact that Greer is ~~partially~~ obscured by Kellerman and by the windshield earlier, it is difficult to locate the exact frame when this turn begins, but the range Z286-296 would seem to be a fair value. Here is a sample of Greer's testimony:

"Well, when we were going down Elm Street, I heard a noise that I thought was a backfire of one of the motorcycle policemen. And I didn't -- it did not affect me like anything else. I just thought that it is what it was. We had had so many motorcycles around us. So I heard this noise. And I thought that is what it was. And then I heard it again. And I glanced over my shoulder. And I saw Governor Connally like he was starting to fall. Then I realized there was something wrong. I tramped on the accelerator, and at the same time Mr. Kellerman said to me, "Get out of here fast." (2H117)

When Kellerman turned over his right shoulder he had to lift his foot from the accelerator pedal; Z302 ff shows clearly that his turn would have necessitated his

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foot coming off the pedal. Furthermore it would seem that his turn began at about 294 as a consequence of his hearing ~~two shots~~ two shots. Hence, the reason the car slowed down at 294 was not because Greer heard a siren [as we have seen, the siren will not be activated until about Z368], but rather because Greer turned around to see what was happening in the back seat

With all due respect, ~~may~~ may I say that your attempt to explain away the oscillation at 294 strikes me as a classic example of post hoc reasoning. One finds data which is resistant to one's theory. One then invents an explanation to explain the resistant data by postulating an event. Then one interprets more data -- namely, that the car did slow down at Z294 -- to support the postulation of the event. But none of this works, and one is left with the oscillation at Z290 and no explanation for it. Of course one can suppose that someone yelled, or a car backfired, or that Zapruder hiccupped at just this point. But clearly this would prove to be only another post hoc invention a la "the siren". My own opinion is that none of these oscillations prior to Z318 is sufficiently well-defined to require an explanation, but that again is just my opinion based upon a study of the Zapruder photos. I have other questions -- Why for example is the background of Z227 quite clear if, as you would have it, Zapruder moved his camera? -- but I'm weary and I suspect nothing I say will have any effect either way. It would be nice to think that after you had had a chance to think over these objections you might be willing to correct CBS's "giggle theory" publicly, but I don't suppose that is very likely.

With the exception of this clown in New Orleans and his antics, the CBS program with its "giggle theory" has done the most to persuade the public that assassination critics are a bunch of nuts, and that the Warren Report is substantially correct. You lent your name and reputation to that fraud -- a reputation recently crowned by your winning of the Nobel prize -- and, I think, must bear some responsibility for its deleterious effect. But who am I to lecture a Nobel prize winner about the responsibilities of the scientist -- forget it!

I was going to forward a copy of Six Seconds to you, but after reading your gratuitous slur concerning "the intelligence of people who write books of the sort Dr. Thompson produced" I don't feel much like it. I should be interested in hearing whether you feel the "giggle theory" still has validity. My copy of the Zapruder film is at your disposal should you ever wish to visit Philadelphia.

Sincerely yours,

*Josiah Thompson*  
Josiah Thompson

*Before this time, Mr. Z's camera was steady in a "rotating frame", following the car. (his wheel blurred the background. But the rotation of the camera (in the rotating frame) - to the left - just steadied the camera (in the real world) and made the background clear. The blurring of the highlights they caused be considered to be due to the motion of the car. I like to "work in the rotating frame", but as any student of relativity could have told you, one can work in either frame and get the same results. I had heard that in various*

of the sequence of events. Since you find this so difficult to understand, and I find it so elementary, I will simply conclude that we can't start any discussion from a common set of postulates - a necessity if two people with divergent ideas are to come to agreement.

I haven't any idea what your scientific credentials are, so I will ignore your advice concerning my way of making and interpreting observations. As you say in effect, my credentials are good, this week.

In reference to your penultimate paragraph: I am quite pleased that my best efforts have done the most to persuade the public that the assassination photos are a bunch of nuts, and that the Warren Report is essentially correct. I wasn't aware that what had any such effect and I had no preconceived ideas about the assassination when I studied the photos. Thank you very much for pointing out to me that I helped restore some sanity to the American public - I take a good deal of satisfaction in learning from you that I was responsible in the double meaning of that word.

I am sorry to upset you by showing not the slightest tinge of contriteness - you, evidently, expected me to retract my views on the basis of your criticisms.

I'm sorry to answer in this scrawl, but I have almost 700 unanswered congratulatory telegrams and letters, and I slipped this one in ahead of its place in line, by this technique. I'll send a copy of this to Dr. Menaker.

Very sincerely,  
L. W. Alvarez