fr SM

8 Jan 70

Harold and Howard (cc Sylvia):

This is in reply to your respective comments on the first draft of my monograph. Since receiving your comments I have made numerous changes, large and small, some anticipating your comments, others in light of comments. Second draft is forthcoming.

Harolds 16 Dec letter:

Greer: I'll check, but I am fairly sure he did not refer to fragments.

para. 10: ref. to Thompson is re double hit, almost simultaneous. I think this best explains what happens, but do not insist on it. Indications are the forward head movement betw. Z312 and 313, and the bruising of suprasternal notch.

Ref to Epstein's book: A footnote is a ~~fer~~ kind of tangential statement. Telling how ~~xxxtxx~~ the FBI report came to be printed there would be attaching a tangent to a tangent; it is not at all pertinent to the fragments. Note stays, nothing added.

Ref to hole in the skull "when examined": "when exam." is purposely vague, so as not to get into peripheral ~~xxdxxxtxxxx~~ issue. I don't know when the piece was lost (or even whether it was missing), and don't need or care to guess.

Para. 8: "during the few seconds instantly after" now changed to simply "instantly after". I did not notice the ambiguity, but now see that the change is helpful.

Zapruder ~~frames~~: I prefer not to refer to Z frames when there is no need. Currently I think there is no need.

Release of Panel Report: prob. will add a footnote end of para 12; have changed wording of the paragraph, but not much.

Re the 6.5 mm fragments and Howard: You have seen his note to me, so this is no concern; I knew what I said does not impinge on what H wants to do. I would not want to treat that matter anyway, since it, too, is peripheral- not relevant to the conclusion re the minute fragments.

Para 30: Diagram revised. Now appears outside text, in an appendix. You will see in Draft # 2. (I think I asked Howard to relay to you my correspondence with Morgan. If you don't get it, tell me).

Para 31 and 32: I have reversed the sequence and combined into one paragraph. I did not see the advantage of it until I put "therefore as a connective.

Para 38 re whether there were more than 40 fragments: you know that I think there were more than 40, but I don't need more than 40 to make a case. I had planned to mention this in a footnote elsewhere than at this place, but will not make much of it.

Para 40 re 6.5 mm frag.: two reasons for not discussing it here: (1) there is no need; (2) I could not say anything pertinent without impinging on Howard's prerogative.

re design of military bullets: I was contemplating mentioning this matter in footnote, but may not-- at least not with emphasis. The matter is not important in the context of the monograph, since what I say later excludes the possibility of any bullet, regardless of design, bursting at the back or otherwise producing small fragments in the front. I had written a few paragraphs on this topic, but deleted them, so as not to get into an area of speculation when it was possible to stay in areas of certainty. Even so, I may still slip something in a footnote.

Para 43: I don't understand your comment. If it implies a suggestion for change, please specify.

Para. 50: re purpose of jacketing, etc-- same as above, re construction of bullets.

Para 64 ff. This last section troubled me the most. I had already revised it when I got your notes and then revised further. I had deleted references to puff of smoke and persons running from knoll-- some other changes, too.

I think "somewhat behind" is OK as designation of Muchmore's location.

In these notes I omitted reference to some things that are handled in the new draft.

Howard's 22 Dec letter to me:

Para 1: I am satisfied JFK was hit by bullet fired from the knoll. The ref to the right stays. I can live with it easier than with merely "forward".

Para 3: Your note makes little sense. So you need to know much about ballistics to know that the bullet burst. If we don't know anything else about the bullet, surely we know that it burst.

Para 4: right on! I have deleted some "invariably's", conclusively's and the like-- but not all. For reasons of rhetoric, though, not because I think some of the things are variable or inconclusive. In matters pertaining to the assassination, there have been too many unwarranted "might's" and "might not's" in places where "is's" and "isn't's" were warranted. There are things that we can know, and when we know them we should say so.

Your rrrr reference does not contradict what I say. It appears that you refer to a xxrx wildcat cartridge called the .257 Roberts. I have not fired it, but know about it. What belies your assertion that there is a contradiction is that the fragments seen in the animal were all the fragments produced. In JFK's brain there remained only some of the fragments.

Para 5: Good point, but I think peripheral in the context of the monograph as I have written it, without reference to high velocity. I did that for the good reason that I did not need to refer to velocity-- nor do I need to refer to weight, construction, and the like. It is sufficient merely to know that the bullet burst.

If you need a reference describing the different effects produced on skulls by missiles of different impact velocities, tell me. I have a dandy, supporting all that we think-- and very authoritative. Nevertheless, to the degree possible, I want to avoid medical questions-- not because they belie my assertions (they do not), but because I want to stay with matters bearing directly on the fragments. I do not need to invoke indefinite matters in support of what is positive with reference to definite matters.

Para 8: You may be right that this is unnecessary, but I may let it stand anyway. When I wrote this section it had bearing on a subsequent section that I later removed. I think, however, that the guess (I do not pretend that it is anything else) is close to the truth-- that what is said here is as much as can be said responsibly.

Para 27: When I send Morgan the diagram I included the paraphrase of the Panel's description. I take it that he considered both OK. You may be right, though. I'll think more on it.

Harold informed me that he learned independently that Humes's suggestion that the X-rays enlarged the images is probably true. He learned this from a radiologist..

Para 33You make an unwarranted distinction between "burst" and "breake apart". I deliberately used the term "burst" throughout, so that the definition tends to arise out of the data. Velocity is not as important for bullets striking bone as for bullets striking soft tissue.

Your worries about comprehensibility may not be justified; Sylvia knows less about firearms than you do, and she did not indicate that she had trouble understanding.

para 34 and 34A: You are right that irregular shape makes a difference, but I think it does not make much difference with very minute projectiles. Even so, I have added a footnote (not in your text) indicating the influence of shape. I have first rate authority that irregular shape is an inhibiting factor in penetration

I myself was not fully satisfied with the references that I set forth (NMA and Braverman). I plan complete revision of page 10 in accord with the discussions in Wound Ballistics, the book that has nearly all that I want on the matter of penetration.

para 36: The same principles apply no matter what substance is penetrated-- they apply equally to hard rubber and chicken soup. I refer to penetration in solids because in these, at least, fragments do not terminate in the bottom of the bowl.

para 37: this is not contradiction, but ambiguity. I have made changes, which you will see in later.

para 47: I ahve misplaced my copy of first draft and do not know what you refer to here. I treat all these matters in the second draft, and believe I treated most (if not all) in the first.

What on earth do you mean by "pressure inside the bullet"? that makes no sense to me. And what does your "etc." mean? Man, you put me on the spot with that one-- it makes me wonder not only what is the answer, but what is the question?

53-57: This is not the "meat" of anything. In fact, it is so meatless that in my revision I have reduced this matter to a footnote. If I can prove that no forward-moving projectile, regardless of its characteristics, can have produced that configuration of fragments, it is moot to emphasize why a particular type of bullet cannot have done it.

I do not have the facilities for doinf tests with the 6.5 M*C, since I lack both ammo and rifle. Nichols has both and can run tests, but I have not bothered him to ask him to do so, and will not, since it is not neccessary. Regardless of results, the tests would be threadbare, meaningless. I shall eventually fire tests, but I am reluctant to use them even in support of my assertions-- they would act as a kind of noisy rhetoric, impressive for demonstration, but essentially moot.

End of page and end of palaver. More later, for sure.

Still

Dick