Dear Chris,

Thanks much for sending me your discussion paper on the acoustics. As requested, here are my comments. In general, I think it's a very impressive compilation of the not-strictly-technical aspects of the acoustics problem. I've gotten away from the acoustics recently; partly as a result, I'm rather pessimistic that anything will ever get done to resolve the controversy. So, I may not take the time to review my original sources for some of my comments; some of what I say will be off the top of my head. I will, of course, list your paper (and this letter) in EOC, for distribution. (I think the copy you sent is clear enough to be Xeroxed without any problems.)

I think there is only one major factual point with which I take issue. (It's not really a crucial point, but it is mentioned a couple of times in your paper.) This concerns the early transcripts, which appear in the WC volumes as Sawyer Exhibits A and B. You noted (p. 22) that the 12:54 p.m. Tippit message appears on Channel II, according to these transcripts. The problem is that the pages in those exhibits are scrambled. Pages 393-7 of WC volume 21, which follow the first pages of the Ch. II transcript, are in fact Ch. I. (The Tippit message is on page 393.) Pages 399-400, which follow the first page of Ch. I, are in fact a transcript of Ch. II. I didn't notice this until early 1982, when Madeline Goddard asked me about the apparent presence of the Tippit message on the wrong channel. I got a copy of these transcripts from the Secret Service file at the Archives many years ago, and the pages are in the correct order.

One other major point: I was rather impressed by your analysis of the sounds on the tape in terms of Hargis' testimony. I gather Steve Barber did some such analysis a while back, but I didn't pay much attention to it. In the best of all possible worlds, further work would be done on this. For example, one could collect all the photos and films which might let you get the precise time intervals between Hargis' various actions. Then this timing could be correlated with what you hear on the tape, assuming the source is his motorcycle engine. If there is a good match, one should look back in time to what would then be the "known" time of the shots (at least the fatal shot).

I suppose it is conceivable that the HSC impulses would match if a fit were done to Hargis' position and modified (i.e., non-TSBD) gun positions. However, if this were to be the case, the original HSC results (95% or 99%) must have been serious overestimates, and therefore the whole methodology of the HSC experts would have to be called into doubt. I don't think anyone will get far, in terms of having any further work done, with an argument like that.

For what it's worth, one of the CBA's reluctantly listed items for possible further work (p. 92, #2) was a review of the section of the tape corresponding to the shooting, as determined from the crosstalk. One could certainly add to that, as determined from the photos, if the sounds fit Hargis's movements.

On to some specific comments:

Without checking, it is my impression that nobody ever said that Ch. I was <u>not</u> voice-activated. I think the context of the statements you quote (to the effect that Ch. I was continuous) is for the period of the open mic only. So, I doubt that Elkind's discovery of a 51-second gap proves tampering. (I'm not taking the time to review the Elkind paper, #45 in my file, in detail.) The clearest evidence that Ch. I was not recorded continuously is that (according to a reliable source) the first belt (according to the markings on it) ran from 6:02 a.m. to 7:24 - 82 minutes, much longer than the laters belts (which were all 32 to 39 minutes). This doesn't prove that Elkind's gap is unrelated to duplication, of course. That possibility remains worth considering.

P. 4, graf 7: (Elkind's reference to an indication, in the Bowles transcript, of a gap in Ch. I) I think this refers to the notations "12:34:19 (Microphone closed)" and "(12:35) (Motorcycle transmitter stuck open again.)" in the Bowles transcript, as reprinted on pp. 72-73 of the Ramsey Report. In the intervening time, the recording was intermittent.

By the way, here is the information I got on the indicated times for the 14 HSCA Dictabelts. (I don't know if I'm still supposed to treat the source as

confidential, but I consider this information reliable - as to what was written on the belts, that is, not what was actually recorded on them.) The first 13 belts were numbered 1 through 13; the last was numbered 1. The indicated starting times were 6:02, 7:24, 7:58, 8:31, 9:10, 9:43, 10:18, 10:56, 11:29, 12:05, 12:40, 1:12, 1:44, and 2:16. The ending time of each belt is the same as the starting time of the next one, and 2:48 for the last belt. This gives time intervals (in minutes) of, respectively, 82, 34, 33, 39, 33, 35, 38, 33, 36, 35, 32, 32, 32, and 32. The ending times in the FBI transcript are, I think, quite consistent with this information, taking into account that the FBI was apparently judging the ending time from the time checks, not from anything written on the belts.

P. 7, graf 2: (reference to WC copy of recording "reported 'missing' in 1976.") Unfortunately, this report doesn't mean anything in the absence of specific information that the recording ever was at the Archives. The problem is that the Abzug subcommittee accumulated and published a long list of items which the Archives had been unable to find after requests by researchers. In many instances, the researchers (including me, and (in many cases) Harold Weisberg) requested an item on the chance that the Archives might have it. Or, we would just ask for all records on a certain individual; sometimes they would report back that none were found. In many instances, there was nothing suspicious at all, since we had no firm evidence that the records had ever been in the WC files. (In some cases, they probably were honestly unable to find records which were somewhere in the files.) Unfortunately, the Abzug committee published this list in an appendix with a heading which clearly gave the impression that all those items should have been found but were "missing." Several buffs have repeated that error.

On the other hand, Harold Weisberg is now doing some work on a early FBI copy of the Dictabelts. I'm not familiar with the details, but he may well be on to something.

P. 7, graf 4: I think there is a good chance that the Rankin-to-Sorrels letter was indeed never sent. Going out of channels like this (i.e., not making the request through SS headquarters) was a touchy thing for the WC. The letter in question (my #1982.29) was, it appears, prepared by Joe Ball for Rankin's signature; that was standard procedure. If Rankin didn't want to send the letter in that form, this draft may well have survived regardless.

P. 8 (first full graf): CE 1974 was taken from CD 1420. Hoover's cover letter to CD 1420 is dated August 25, 1964. According to the WC's incoming mail log, it

was in fact received on 8/25. (Most mail from the FBI was hand delivered.) P. 9: Don't quote me, but I think Blakey has written Mack about the confusion in the record concerning the HSC's first information about the tape, and/or apologizing for using and/or misspelling Gary's non-professional name in his book. Gary would be your best source for information on this.

P. 16: (the hum-frequency anomaly, unresolved by the CBA) I don't recall my source, but I got the impression that they didn't consider this a problem, because of the uncorrected variations in speed. That is, the two different determinations of apparent speed covered different time intervals. Sounds plausible to me, alas. If there remains anything to this argument, I expect that Barger is dealing with it in the detailed rebuttal he reportedly was working on for Stokes. (I haven't heard anything about that rebuttal lately.)

P. 17: Refer to the info above about starting times of the HSCA belts. P. 17, top: What SA Warner actually said is "This recording will start at 12:27 p.m." (He first said 12 noon, then corrected himself.) It's possible that he meant that the copy he was making would start at 12:27, not that the original belt he was copying started at that time. Now, why he would start in the middle of that belt is another question, of course. Quite odd, and quite consistent with the idea that there was pre-assassination, Tippit-related traffic which for some reason "they" didn't want spread around. Certainly there is more than enough reason to go after the SS copy. (Ref. for Warner: my #1982.2, p. 2)

P. 17, 3rd full graf: Without taking the time to check, I expect that the 11:51 starting time in the FBI transcript is consistent with being derived from the time checks on two belts which were changed at 12:05. What the heck, I might as

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well check: Aha, as I thought. (23 HSC 838) 11:51 is not specifically the indicated time of the end of belt; it is the indicated time (presumably from a spoken time check) of the last transcribed message before the indicated end of the belt. The next indicated time check is 12:19, so this is consistent with a 12:05 starting time for this belt.

Again, don't quote me, but I think I noted some time back that the critic's tape doesn't go all the way back to 12:05, and the FBI transcript is generally incomplete, so we don't have any decent transcript for the first part of the key Dictabelt. I pointed this out in a letter to Barger, I think. As far as I know, nobody has done anything to remedy this gap.

Bowles' account, of course, is important if true. Too bad nobody has yet been able to get his hands on the Bowles manuscript.

P. 18: I suppose your implication here is clear enough: if Bowles and/or Schwartz knew that a duplicate belt had routinely been made, and that a copy had "routinely" been authenticated, they sure wouldn't be expected to volunteer that information to Ramsey! (Especially if, as you suggest, that change was made for an 'innocent' reason unrelated to the assassination.)

It's not clear to me whether you have any or all of what I call the "Kimbrough transcript," which was prepared by Arch Kimbrough (with the help of the other Dallas buffs) many years ago. It's a pretty thick document, of course, and at first it was treated as rather confidential. It includes a comparison with the various published versions. (That is, differences are written in, but in general they are not analyzed.) I don't think there would be any problem in copying this, or part of it, for you or Masterman now. (I myself wouldn't have the energy to do the kind of comparative study he suggests. My assumption is that most of the transcribing was just routinely screwed up. It's hard even to transcribe tapes of network news programs accurately.)

P. 21, re Tippit's presence at Keist and Bonnieview. There is some info on Tippit's movements in Judy Bonner's old book, "Investigation of a homicide." (The book includes a very bad 'transcript' of some of the traffic.) She talks about getting the tape from Sgt. Hill, as I (vaguely) recall. Unfortunately, her analysis of relevant traffic is scattered through the entire book. It would be best if you could locate a copy of the book somewhere over there, but maybe I could persuade someone to look through my copy for relevant information. (Maybe Gary Mack or the other Dallas people have already done this?) It's not a particularly convincing book, but to some degree it is the official DPD view of things. Certainly anyone following up your analysis of the Tippit-Nelson traffic should use it.

P. 23, bottom: someone should check the Kimbrough transcript to see if an order to "remain ... available for call" (like the order to Brock) is unusual. Maybe it was routine; maybe not (like "be at large for any emergency.")

All this stuff on Tippit and Nelson is pretty good, I think.

P. 28: I would think that Jackson's 30-second estimate might include the 15 seconds from Daniels; and in any case I'm dubious about that 30-second figure anyhow. That's a long time! Some of the witness time estimates were way off.

P. 32, bottom: that's an odd error you caught Blakey in, saying they didn't contact Hargis. He should have checked the Meagher-Owens indexes!

P. 37, last sentence: for what it's worth, I did send the letter you quote (with a speculative scenario for moving the shots) to Ramsey also, with no cover letter.

P. 41, 3rd full graf: as noted earlier, the reference to just one message turning up on the wrong channel in the Sawyer transcript is in error.

P. 41, next graf: I would assume that the dispatcher would have access to a phone without leaving his radio post. (By the way, has anyone ever checked if phone calls were all recorded? The PD here now does that, for a number of reasons; I would think that recording citizen calls with notification of crimes would be at least as important as recording internal DPD transmissions. Hmm!)

Thanks also for your letters of February 28 and April 11. Again, sorry about the delay in replying. Let me touch on the acoustics-related points first.

PLH to CS

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5/11/83

You asked about Shanin Specter's senior thesis, which is in the NAS public access file. He is the son of Senator Arlen Specter (who was the WC junior lawyer in charge of the basic medical and physical evidence). I haven't seen this thesis, which is about 80 pages. Shortly after the HSC report came out, Specter <u>fils</u> wrote an unremarkable little op-ed piece which was published, I think, in a Philadelphia paper. (I'm sure I listed it in EOC.) He sent this thesis (which he did at Haverford College - by chance where Tink Thompson taught many years ago) to the CBA, and as I recall it was made available to the members. I personally have been able to resist investing any money in this item.

As I hope you already know, I did send you a copy of #1983.3, the Agarwal and Garwin paper. I haven't heard anything about it being published. (I said it would be published in "Science and Society," which was wrong. That was evidently the internal IBM topic classification. The journal by that name is a Marxist quarterly in New York; they're probably not interested!)

With best regards,

Paul L. Hoch