

Acoustics Update:

On February 7, I believed that the Ramsey Panel report was "really imminent this time." (3 EOC 8, p. 9B) Well, it wasn't. At this point in time, maybe it is imminent, and maybe it isn't.

One informed source said "pretty soon" (as of the last week in February), but all other reports reaching me indicate a substantial delay. On March 9, an NAS source supposedly said that the report had been sent to the panelists for signature, and would "possibly" be released in four weeks. Barbara Jorgenson, the official NAS spokesman, has said that the panel is dealing with the comments of the NAS reviewers; she said that the report would be "letter perfect." (The unnamed NAS source promised a "dynamite" report.) Around the beginning of March, an NAS-related source said that there was a significant delay - more than one month, and possibly more than two. There was an implication that the people in Washington were not happy about the repeated delays. At about the same time, a source more directly familiar with what the panelists themselves were doing told me not to expect the report for a couple of months at best.

The interesting question raised by all these apparent delays is simply if the panel is now doing any substantive work. I've heard nothing to indicate that they have wavered from the belief that the Barber observation firmly establishes that the "shots" found by BBN are in the wrong place.

I know of no expert who now challenges the claim that the spoken words which appear on both channels ("hold everything secure...") originated in a single utterance by a single individual. (That is, the voiceprints match.) However, it is by no means as clear that the shots and the words were recorded on Channel One at the same time. The controversy has now become a question of the integrity and authenticity of the evidence.

I do know of a couple of evidentiary issues which the panel ought to be dealing with. Given two conflicting studies (the Barber observation of the words and the BBN/W&A analysis of the shots), the panel is obligated to consider in detail how either study might be wrong. At least, Barger and I think the panel must do this; I don't know how narrowly the panel views its mandate.

In previous issues of EOC, I have suggested how the Channel One recording could have been made discontinuous. I understand that the panel has indeed looked at the 12:30 p.m. Dictabelt, and has found that it was not recorded over. Of course, that does not rule out tampering followed by the creation of a clean copy to replace the original Dictabelt. As noted in 3 EOC 7 (p. 2), I think one can come up with a plausible scenario in which the shots were moved to a later point on the recording, purely as an accidental consequence of the deliberate removal of some (hypothetical) voice traffic after the shots. (I have sent my speculative analysis to the panel.) It is also conceivable that some of Channel Two was overlaid on Channel One by accident in the absence of tampering, e.g. if a copy of Channel One was made with acoustic (rather than electronic) coupling, while Channel Two was being played over another speaker in the same room. I have also noted reasons for suspecting that other Dictabelts (containing messages relating to Tippit) may have been altered. Unless the other Dictabelts for November 22 can no longer be found, a thorough investigation of such possibilities requires that they all be examined.

One consequence of creating a substitute "original" Dictabelt might be a difference in the power spectrum - that is, in the frequencies and relative strengths of the "60-cycle hum" and its overtones. This signal is generally picked up by any recorder working on "house current." If the machine is not running at the right speed, the frequency is shifted, and each copying step can introduce a different power spectrum.

Even if the other Dictabelts are unavailable, study of the power hum on the earliest available tape copy might reveal tampering, if the spectrum varies significantly among the 15-minute segments. (Since the original recording was made on two Dictaphones linked in tandem, there could be two different character-

istic spectra, alternating every 15 minutes.) I have suggested such a study to Ramsey.

I have recently learned that there is in fact an apparent anomaly in the frequency of the power hum. Close readers of the BBN report may have noticed that the frequency of the detected bell was corrected upwards by 5%, from 420 Hz (cycles per second) to 441 Hz. (8 HSC 110) However, the report deduces (in a different section, using the spacing of the spoken time checks) that the original recorder was running about 5% too slow, thus "compressing time slightly." (8 HSC 73) To correct for this, the frequency observed when the recording is played at its nominal speed has to be corrected down by 5%, not up. (Confused? If you slow down your tape recorder when recording, say by holding the tape back with your finger, too much speech gets put on a given section of tape, so when you play it back at normal speed, it sounds too high and too fast.) It turns out that the upwards correction of the bell frequency in the BBN report was not simply a typo or a careless mistake. That correction was evidently made before the time-check study was finished, and it reflects the fact that the power hum accompanying the bell indicates that the recorder was going 5% too fast! You can verify this for yourself, if you have a large copy of the bell frequency spectrum from the HSC's press kit for September 11, 1978. (#1982.1, below) With a good ruler, you can see that the power hum and its first overtone are at about 57 Hz and 114 Hz respectively, not 60 Hz and 120 Hz. If these frequencies are in fact on the "original" Dictabelt (and not just on the tape copies), and if there is no Channel One discontinuity or other bizarre phenomenon which invalidates the straight-line fit to the time checks, then we have a clear-cut inconsistency. That inconsistency is explainable if the original is in fact a copy, containing a shifted 60-cycle hum produced during the copying process.

So, there certainly could be something wrong with the simple interpretation of the Barber observation. What might be wrong with the BBN/W&A analysis? I expect the panel to challenge some details of the original work, but I don't know how compelling this will be. (I know from personal experience that Alvarez, for one, will sometimes act as if a minor error completely ruins someone's work and credibility.) At this point, Barger has not been persuaded that there is any way that his results could have been produced by artifacts.

From the start, many of us have felt that the panel should have begun by doing a detailed analysis of the 3 non-knoll shots. I don't know what the panel will say about its work, if any, on this question. The panel seems rather unenthusiastic about refining the analysis of the data used by the HSC experts - a process which might reveal errors, but which might also strengthen the conclusion that the shots are real. The panel may focus on what the HSC experts reported, rather than on what can be learned (given more time) from their data. The HSC experts have a right to be unhappy with such an approach.

The panel members have seen a graph presenting some details of the original correlation analysis which were not in the published HSC material. This new display of the correlations substantially clarifies and strengthens the BBN claim that the 3 non-knoll shots were recorded by a motorcycle in the motorcade.

The published analysis looked only at the correlations (between the test shots and the recorded impulses) which were above a certain threshold. The poorer correlations were just treated as non-matches, with no details given. It is instructive to look at all the correlations between a single test shot from the TSBD and one of the suspected shot patterns on the tape, as a function of the position of the test microphone along the motorcycle route. The correlations are generally low, with a distinct peak in one segment of the route. This pattern holds for each of the three shots. In fact, the peak moves along the route, at a reasonable speed.

Some analysis has been done of the non-acoustical (primarily photographic) evidence on the location of the motorcycle which McLain identified as his (which comes into view in the Hughes film). Each correlation peak falls within the 50-foot segment of the path where the motorcycle is at the corresponding time.

This calibration of the BBN method, using the "known" shots and cycle positions,

is impressive evidence. We should all watch how the Ramsey Panel deals with it. It is certainly not adequate to say that (because of the Barber observation) the HSC experts simply must have been looking at noise. Similarly, it may not be adequate to just postulate a pause in Channel Two of the length needed to explain the timing of the later crosstalk message (3 EOC 7, p. 2). Such suggestions require careful study of the HSC results, as well as mathematical or experimental simulation.

"If they don't accept scientific evidence from the National Academy of Sciences, what scientific evidence will they accept? The answer is clear: none." That's what Senator George Mitchell said recently, in a completely different context. (The State Department dismissed as uncertain the data in an NAS study on acid rain. See #22, below.) The automatic prestige attached to an NAS panel (with at least one Nobel Prize winner) will be a problem for those of us who know that the Ramsey Panel report should not be the last official word on the Kennedy assassination.

How definitive the report actually will be depends on how broadly the panel has interpreted its mandate. The original contract required the panel to "review the technical acoustical findings presented to" the HSC, and specifically to "review the acoustical data and methodologies employed." (#1980.471) Originally, the NSF said that a second-phase study might be set up, to recommend further work. The panel was certainly not mandated to perform, on its own, any possible analysis which might settle the question of a shot from the knoll. How the panel chooses to present its conclusions will be important.

On the effect of an expert panel, here are some illuminating comments on a 1948 report on nuclear-powered airplanes. "For the next decade that report would be trotted out, often with the [strong] conditional clauses conveniently omitted, as evidence that scientists had blessed the undertaking. 'We had a perfect setup to do a good study, but it turned out lousy,' says [MIT physicist Jerold] Zacharias. 'The report was too confusing - we admitted that you could make a nuclear plane, but we didn't say that you'd never want to do it. It taught me one of the most important things about a study. You've got to allow people to argue the general issues, and not just look at the technological ones.'" (From an article in Science 82 by John Tierney, #14 below.)

The review of the HSC's acoustical analysis by the Ramsey Panel touches on several general issues. One is the integrity of the evidence. Unfortunately, the panelists will probably never be as familiar as we are with this issue in the JFK case as a whole. Even the official investigations recognize the fate of the backyard photo negative lost or destroyed after being in DPD custody, Oswald's note to SA Hosty, the full listing of the contents of Oswald's address book, and the Army Intelligence files. (2 HSC 358, HSCR 195, 186, 221) One cannot simply assume that the DPD Dictabelt is what it purports to be. Other general issues are raised by the history of the panel itself - the selection of members, the secrecy of their work, the adequacy of their efforts to confirm the HSC's results, the FBI's release of its own report, and the overall role of the panel in light of the Justice Department's position that the opinion of the acoustics experts in the HSC report is the only indication of a conspiracy.

Acoustics: Documents and clippings:

* 1. Energy spectrum (power by frequency) of the tape segment with the bell. (Discussed above, p. 2.) An enlarged copy of the graph in the HSC report (8 HSC 111).

2. Excerpts [10 pp.] from SS 168, an early Secret Service transcript of the DPD tapes, evidently made from the copy recorded before November 29. This transcript (found in the Archives by Mark Allen) is inconclusive on the question of the authenticity of the Tippit messages. The second set is transcribed; where the first set should appear is the notation "unreadable." The transcript is generally incomplete and inaccurate, and in any case might have been made after the recording was altered. The transcript is undated; the Archives file in which it was found gives no information about the circumstances of the

transcription, the nature of the SS interest, or the disposition of the tapes and transcript. (The transcript apparently was not sent to the Warren Commission.)

3. 19 Nov 80 [2 pp.] FBIHQ 62-109060-8188; internal transmittal memo for the TSD's review of the acoustics; some names are withheld.
4. 14 Dec 80 [35 pp.] The first writeup of the Barber observation, in the form of a high school English paper by Todd Vaughan. Additional, but less persuasive, analysis of the acoustical evidence is included.
5. 14 Dec 80 [39 pp.] Appendices to the previous item: a tape timing guide, narration and interpretation for some of the tape, and a partial transcript.
6. 29 Dec 80 FBI memo, HQ to Dallas, expressing FBIHQ's "keen interest" in getting Capt. Bowles's acoustical data. Three HQ agents (including two who prepared the FBI's 11/80 review) are available for a trip to Dallas in January.
7. 14 Jan 81 [2 pp.] FBIHQ 62-109060-8192, transmitting the following item. Jeffrey Fogel, a JD attorney who already had a tape of the W&A testimony, had asked for background information on the FBI review, which would be forwarded to the NAS.
8. 14 Jan 81 [5 pp.] This "addendum" consists of two pages compiled by the FBI in response to Fogel's request, plus three pages of graphs and tables relating to the GREENKIL match. There is more than you want to know about the equipment used (e.g., the model number of the time code signal generator), but I still can't tell if a match was made to just one randomly chosen GREENKIL shot. This does confirm that the FBI did not calculate a probability, but relied on an inaccurate statement about probabilities in the HSC material. (See 2 EOC 11, my analysis of the FBI report. Did anyone send the Feds a copy?)
- * 9. 26 Jan 81 [3 pp.] FBIHQ 62-109060-8196, Keuch to the Director, concerning the forthcoming meeting (January 31) of the NAS panel, at which FBI personnel from TSD are to appear. (The names of 3 FBI agents are not deleted.) Some TSD people said "that some matters cannot be discussed with NAS panel members if private-sector [i.e., HSC] experts are present," but Keuch noted that "a Department-endorsed exclusion of those experts could generate public doubt regarding the ability of the FBI to support its widely publicized acoustics report." It sure could! But I can understand why the FBI agents would not be eager to confront Barger, Weiss, or Aschkenasy.
10. 31 Aug 81 Form letter from the FBI to M. Ewing, withholding in full the final report in the GREENKIL case (under exemption b7a, interference with law enforcement proceedings). I hear, by the way, that Weiss & Aschkenasy have been working on the Greensboro tapes.
11. 22 Nov 81 (UPI in Toronto Star) "Report may prove 2 gunmen shot JFK"

Acoustics-related items in TCI: The November issue includes a long letter from Gary Mack to Ramsey, with some comments by Bowles. In the January "Briefs," Gary says there is word that Barger has found at least one break in Channel One; I believe this refers to the hum-frequency anomaly and/or the timing problem mentioned above, rather than to something more specific. Two wire-service stories describe the recent declassification of Ramsey's wartime history of the A-bomb delivery system. The February issue, which I have not yet seen, includes pieces by Barber and Vaughan.

Clippings: NAS; science and public policy:

12. 8 Jan 82 (WP in SFC) "A top CIA man [Inman] warns scientists," predicting "a 'tidal wave' of public outrage and restrictive laws if scientists [in certain fields] do not agree to a voluntary 'review' of their work by intelligence agencies"
13. 16 Jan 82 (SFC) "Stanford, U.S. clash over Russian's visit" (The NAS relayed restrictions imposed by the State Department.)
14. 17 Jan 82 "The big [nuclear-powered] plane that couldn't" (From Science 82, reprinted in SFC) Quoted above, p. 3, and interesting in its own right. JFK canceled the program, making "Aviation Week" very unhappy.
15. 18 Jan 82 (WP) Editorial, "Secrecy, security, and science," sort of in favor of all three. (Response to #12.)

16. 19 Jan 82 (Perlman, SFC) "Stanford backed in fight over Soviet scientist"
Frank Press, president of the NAS, decided to stop relaying State Department restrictions in such cases.
17. 22 Jan 82 (UP) "Soviet scientist can't visit Stanford, [State] says"
18. 23 Jan 82 (SFC) "2nd school protests curbs on Soviet [robotics] expert"
19. 4 Feb 82 (AP) On the report of an NAS panel on college entrance exams.
20. 5 Feb 82 (SFC) "Stanford controversy: new ideas in dispute on scientific freedom" Press (a former Carter science adviser) said, among other things, that a special NAS committee is studying barriers to the free exchange of research information among Western nations.
21. 8 Feb 82 (Newsweek) "The war beneath the seas" [2 pp.] Detecting subs, and making them less detectable. I understand that BBN does lots of this work.
22. 11 Feb 82 (AP) "Senate debate: fallout from acid rain" (See p. 3 supra.)

Clippings: JFK, RFK, MLK; relevant individuals:

23. 25 Nov 63 Photos of Oswald in the Fort Worth funeral home, from the FBI files (Photocopy of 6 of the 12 released photos; 1 p.)
24. 11 & 16 Dec 75 (Tacoma News Tribune) Death notice and obituary for Fred Lee Crisman, described as a writer and radio commentator who became a controversial figure in local politics. (Listed in response to Q24; cf. HSCR 91.)
- * 25. 20 Aug 78 (J. Trento & J. Powers, Wilmington News-Journal) "Was Howard Hunt in Dallas the day JFK died?" [2 pp.] I asked for this in the last EOC, at #688; nobody sent it (!), but I ran across it in my files. Some HSC and CIA sources were reportedly saying interesting things; I'm still curious about what happened to Hunt's suit over this article, which would, offhand, seem to be a tempting target.
26. 1979 Ad for a lecture bureau, presenting (among others) "Frank Sturgis, Watergate burglar, CIA spy, and alleged assassin" with "an inside look at espionage."
27. 1981 Ad from a music magazine: "You'll soon be in range... of SINGLE BULLET THEORY - US tour 1981." Some sort of new wave group, I suppose.
- * 28. Sep 81 (Washingtonian) "Could the President survive a real-life James Bond Movie?" [7 pp.] By N. C. Livingstone with James P. Kelly. Livingstone is a security consultant; Kelly, who died last July, was a HSC investigator, and had previously worked for both JFK and RFK when they were in Congress. The Secret Service reportedly rebuked the Washingtonian for having revealed the vulnerability of the President to sophisticated attacks, although the article seems based mainly on informed logic. Of special interest: various references to the JFK assassination; Kelly (still reflecting the Kennedy family position?) seems much more critical of SS behavior in Dallas than the final HSC report was. "It is apparent in retrospect that the Secret Service misjudged the threat to President Kennedy that day." The training and preparation of the agents were "faulty" (although the relevance of Greer's "grade-school education" escapes me). After Dallas, the SS made many technical improvements which "emanated from a super-secret task force known as Project STAR," with representatives from the Defense Department "and several think tanks. However, a number of the major recommendations were not adopted because of their cost." Did we know that?!

Credits: Thanks to M. Allen (#1), R. Blakey (3, 7-9), M. Ewing (10, 15, 21, 28), B. Katz (26), T. Rubinstein (25), C. Scally (24), T. Vaughan (4, 5, 19, 27), and H. Weisberg (6), and of course to my anonymous sources.

Future attractions: I've got lots of clippings, queries, and comments set aside for the next issue - which will be soon, I hope. Watch for "Best Evidence" in paperback; an ABC-TV News Closeup on Hoover, with some JFK assassination material, "in March"; and M. Kurtz's book, "Crime of the Century" (April, \$17.50).

The next Aries Research catalog will list only books on the JFK, MLK, RFK and Chappaquiddick cases, including some scarce items with only a couple of copies available. Send a 20¢ stamp and your name and address (but no envelope) to P.O. Box 1107, Aptos, CA 95003.