

Good morning. Would you please stand and raise your right hand and be sworn. Do you solemnly swear the testimony you give before this committee is the truth, the whole truth and nothing but the truth, so help you, God?

Dr. SNOW. I do.

Chairman STOKES. Thank you. You may be seated. The Chair recognizes counsel Robert Genzman.

Mr. GENZMAN. Thank you, Mr. Chairman.

TESTIMONY OF DR. CLYDE COLLINS SNOW, CHIEF OF PHYSICAL ANTHROPOLOGY RESEARCH, CIVIL AEROMEDICAL INSTITUTE, FEDERAL AVIATION ADMINISTRATION AERONAUTICAL CENTER, OKLAHOMA CITY, OKLA.

Mr. GENZMAN. Dr. Snow, would you state your full name and occupation for the record.

Dr. SNOW. Clyde Collins Snow. I am a physical anthropologist.

Mr. GENZMAN. Would you briefly state the purpose of your testifying today.

Dr. SNOW. Yes. I am here as a spokesman for the anthropological consultants to the committee to address certain identification issues posed by photographs of various figures involved in the Kennedy assassination.

Mr. GENZMAN. Dr. Snow, would you define forensic anthropology.

Dr. SNOW. Forensic anthropology is a subdiscipline of physical anthropology, in which we attempt to apply the physical anthropologist's knowledge of human biological variation, age variation, sex variation, stature, physique, to problems of legal medicine.

Mr. GENZMAN. How many forensic anthropologists are there in the United States?

Dr. SNOW. Approximately 30.

Mr. GENZMAN. Are each of the panel members forensic anthropologists?

Dr. SNOW. Yes, sir; they are.

Mr. GENZMAN. Could you estimate the combined years of experience of all three panel members?

Dr. SNOW. I would say fairly close to somewhere between 40 and 50 years.

Mr. GENZMAN. Would you briefly describe the kinds of studies forensic anthropologists undertake.

Dr. SNOW. They generally revolve around the issue of human identification. A large proportion of our cases involve the identification of skeletal remains that come to the attention of police or medical examiners, and then also from time to time we are asked to compare living individuals to see whether or not they are one and the same person.

Mr. GENZMAN. What kinds of determinations can you make from examining the human remains of skeletons?

Dr. SNOW. The skeletal remains, we can look at the bones and determine such features as age at death, sex, stature, physique, old diseases, injuries, abnormalities—all the things that are more or less embedded in the bone that serve to make each individual unique and hopefully lead to identification.

Mr. GENZMAN. What method did the panel follow in its studies for the select committee?

Dr. SNOW. We were presented with a number of photographs of, as I indicated before, various individuals. And based on our measurements of these photographs of the faces shown, we attempt to compare them in terms of the morphological features, such features as the shape of the ears, nose, mouth, things of that sort—wrinkles, scars, and other features. Then we also, in addition to the morphological traits that we study, we also take a series of measurements from the facial dimensions of the individual and compare those.

Mr. GENZMAN. How exact is this approach?

Dr. SNOW. It can vary largely. The exactness of the approach depends to a large extent on the quality of materials that we are given. If the photographs are of poor quality or if there is variation in the subject's pose or the apparent age and features of that sort, we are apt to be less firm in our conclusions than we are if we are given good quality photographs of the individual and uniform poses.

Mr. GENZMAN. How certain can you be of your findings?

Dr. SNOW. Again, it varies with the kind of materials we are given. In some cases, for example, if we are given photographs of individuals to compare with very little variation in the position of the subject's head in the photograph and of good quality, we can, in some cases, come up with positive identification, or positively exclude the individual beyond reasonable doubt. In other cases we have to qualify our opinions, using such language as probable or possible.

Mr. GENZMAN. For example, what if you were given photographs of identical twins; could you differentiate between them?

Dr. SNOW. I doubt very seriously whether we could. There are undoubtedly differences, even in identical twins, but whether our measuring techniques are refined enough to discern such differences, I would doubt.

Mr. GENZMAN. Mr. Chairman, at this time I would ask that the exhibits marked as JFK F-556, F-557, and F-558 be entered into the record.

Chairman STOKES. Without objection, they may be entered into the record at this point.

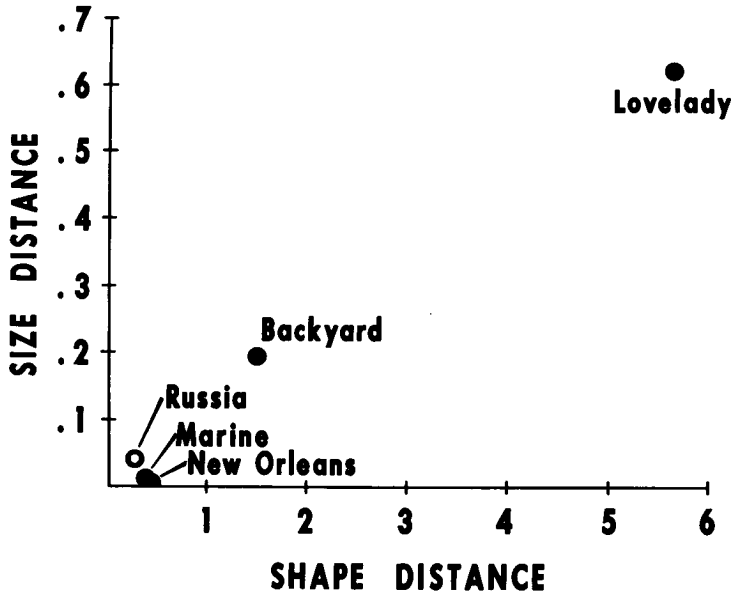
[The exhibits follow:]



JFK EXHIBIT F-556



JFK EXHIBIT F-557



JFK EXHIBIT F-558

Mr. GENZMAN. Dr. Snow, would you walk over to the exhibits.

Dr. SNOW. Yes, sir.

Mr. GENZMAN. Dr. Snow, would you briefly identify these exhibits.

Dr. SNOW. Yes, sir. These two exhibits are a series of 11 photographs of Lee Harvey Oswald arranged roughly in chronological order from the time he entered the Marine Corps, the three here taken while he was in Russia, two taken sometime in the spring of 1963, there are enlargements of the famous backyard photographs, two, later that summer when he was arrested in New Orleans, and three taken on the day on the apprehension of Mr. Oswald in Dallas. We included a 12th photograph here of Mr. Lovelady who, as indicated, bears a strong physical resemblance to Mr. Oswald, and we wanted to enter that in for comparison.

Mr. GENZMAN. What was the issue before the panel of anthropologists?

Dr. SNOW. The issue given us was to morphologically and metrically analyze these photographs to see if we could determine whether there was any indication that they were not photographs of one and the same individual, whether or not one or more of these people could represent a double or an imposter.

Mr. GENZMAN. What is the panel's conclusion?

Dr. SNOW. Our conclusions were that there was no evidence that there was an imposter or a double involved on the basis of what we could measure from the photographs; that they are consistent with the photographs of a single individual.

Mr. GENZMAN. Would you briefly explain the graph marked as JFK exhibit F-558.

Dr. SNOW. Yes, sir. I indicated that we take a number of measurements on the photographs. It is convenient to be able to reduce those, that mass of numbers into some single entities that allow us to compare the overall similarities in shape and size that we see. We have done this. It is a rather involved statistical technique developed by a British biometrician named Penrose back in the 1940's, and it is widely employed in other areas of anthropology. Essentially what we have done here is, using the measurements of the three Dallas photographs as our base line, quantitatively compared the other sets of Oswald photographs here.

Theoretically, if everything were perfect—which it never is—we would find that two objects or sets of photographs exactly duplicated in every detail in terms of the measurements. The Dallas photographs, the points when they are plotted would be down here at the zero point of the graph. You can see that they do cluster very closely to that zero point. This variation reflects differences, we feel, in measurement error and technique.

Mr. FITHIAN. Let me ask you to move that chart about a foot to the right. It is blockout out—we can now see it. I am not sure the panel members on the left-hand side can.

Dr. SNOW. Yes, sir. Would it help to move it back here?

Mr. FITHIAN. Yes. Thank you.

Mr. GENZMAN. Thank you, Dr. Snow.

At this time please refer to exhibits F-559 and F-127. Exhibit F-127 was previously entered into the record.

Mr. Chairman, I would ask that exhibit F-559 be entered into the record at this time.

Chairman. STOKES. Without objection, it may be entered into the record at this time.

[The exhibit follows:]



JFK EXHIBIT F-559

Mr. GENZMAN. Dr. Snow, would you identify these exhibits.

Dr. SNOW. Yes, sir. This is a photograph referred to by Mr. Blakey of the motorcade taken shortly after the first shots, or the shots, were fired, showing this figure standing in the textbook depository entranceway and who has been alleged to be Lee Harvey Oswald.

Mr. GENZMAN. Would you identify the second exhibit marked F-558.

Dr. SNOW. Yes, sir. This is an enlargement given to us by the committee of that figure in the doorway. On this side we have a photograph, one of numerous photographs of Mr. Oswald that we examined, and then here are two of Mr. Billy Lovelady, taken—these two Lovelady photographs were taken, this one a few months I believe before the assassination, this sometime after the assassination, within a few months.

Mr. GENZMAN. What was the issue before the panel of anthropologists?

Dr. SNOW. The issue was to analyze the photographs to determine whether or not the figure in the doorway was indeed Lee Harvey Oswald or Mr. Lovelady.

Mr. GENZMAN. What is the panel's conclusion?

Dr. SNOW. Our conclusions were that it is highly improbable that this individual is Lee Harvey Oswald. It is considerably more probable that it is Mr. Lovelady.

Mr. GENZMAN. Can you give an example of the observations which led to this conclusion?

Dr. SNOW. Yes, sir. We based it primarily on the hairline. As you can see, this photograph permits very little in the way of accurate measurements. We do see one facial feature, however, if you will compare Mr. Lovelady with Mr. Oswald. He tends to have a somewhat longer face in relation to its breadth, and rather prominent breadth across the cheekbones here. We can get an indication of that configuration in this photograph. In other words, the general facial outline resembles Mr. Lovelady more than it does Mr. Oswald.

Another feature we noticed was that in photographs of Mr. Oswald taken about the time of his arrest, he had begun a little insipient lateral pattern of baldness, but in Mr. Lovelady this same type of baldness was more extensively developed at that time. And judging from the hairline in the photograph, the general pattern resembles that seen in Mr. Lovelady more than it does in Mr. Oswald.

Another feature we noted was that Mr. Lovelady has a widow's peak, an extension of the hair beyond the main hairline here, and it is sort of eccentrically located, shifted to the right. And we also get a suggestion of that, this widow's peak displaced to the right in the figure in the doorway.

Mr. GENZMAN. Thank you, Dr. Snow.

At this time would you please refer to exhibits F-131, F-172, F-173, and F-174. Exhibit F-131 was previously entered into the record.

Mr. Chairman, I would ask at this time that exhibits marked as JFK F-172, F-173, and F-174 be entered into the record.

Chairman STOKES. Without objection, they may be entered into the record at this point.

[The exhibits follow:]

TRAMP A



VALLEE



CARSWELL

JFK F-172

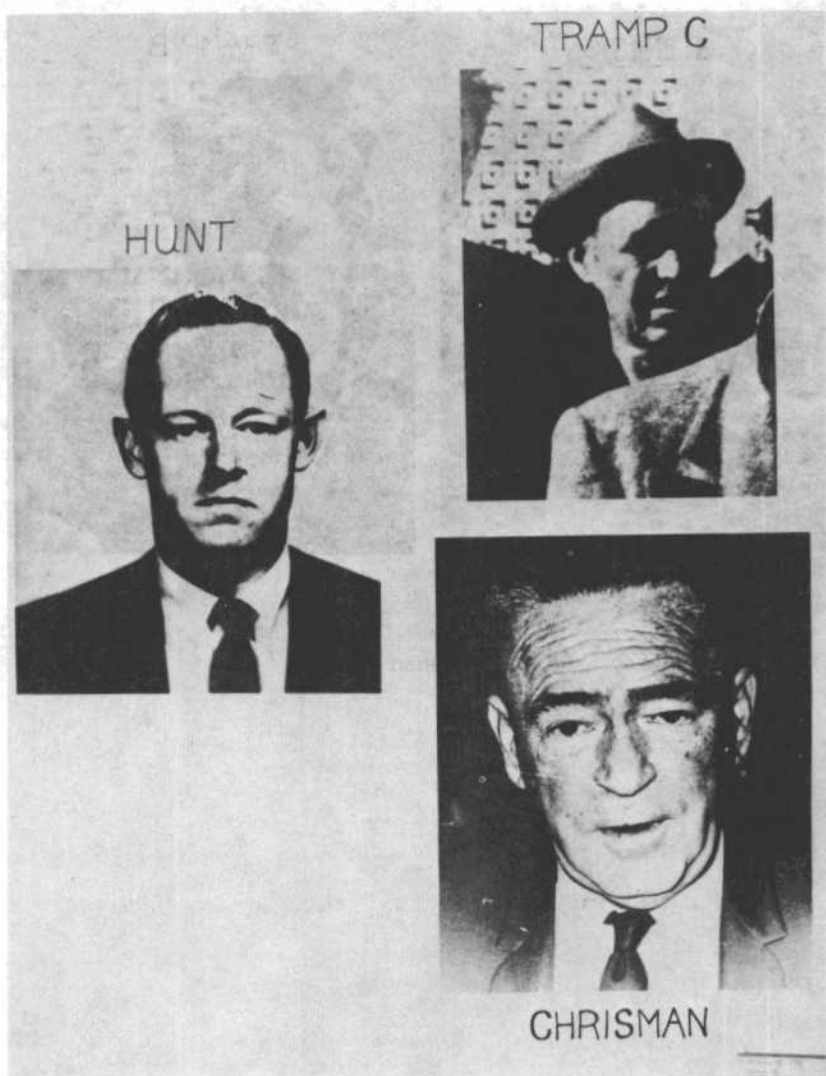
STURGIS



TRAMP B



JFK EXHIBIT F-173



JFK EXHIBIT F-174

Mr. GENZMAN. Dr. Snow, would you briefly identify these exhibits.

Dr. SNOW. Yes, sir. This first set of photographs are some of the several supplied to us by the committee showing the three vagrants, the three tramps who were apprehended close to the site of the assassination sometime very shortly after it happened and are being led away by the Dallas Police officers. These tramps we have arbitrarily identified as tramp A, B, and C, according to their position in the line.

These exhibits compare enlargements of the heads of the three tramps with certain figures who have been alleged to have been involved in the various conspiracy theories at one time or another.

Mr. GENZMAN. What were the issues before the panel of anthropologists?

Dr. SNOW. We were asked, again, using the best available information and the best available materials, to metrically and morphologically compare these photographs with those of the tramps to see whether or not any of these individuals could be identified as one or more of the tramps.

Mr. GENZMAN. What are the panel's conclusions?

Dr. SNOW. Our conclusions were that none of the individuals who have been alleged to have been tramp A are indeed tramp A; that the individual alleged to have been tramp B is not that tramp; and of the two individuals alleged to be tramp C, this one, Mr. Hunt, is not the tramp, but this one, Mr. Chrisman, his measurements are consistent with the face of tramp C.

Mr. GENZMAN. Are you able to make a positive determination as to whether Mr. Chrisman is tramp C?

Dr. SNOW. We cannot positively identify him as tramp C.

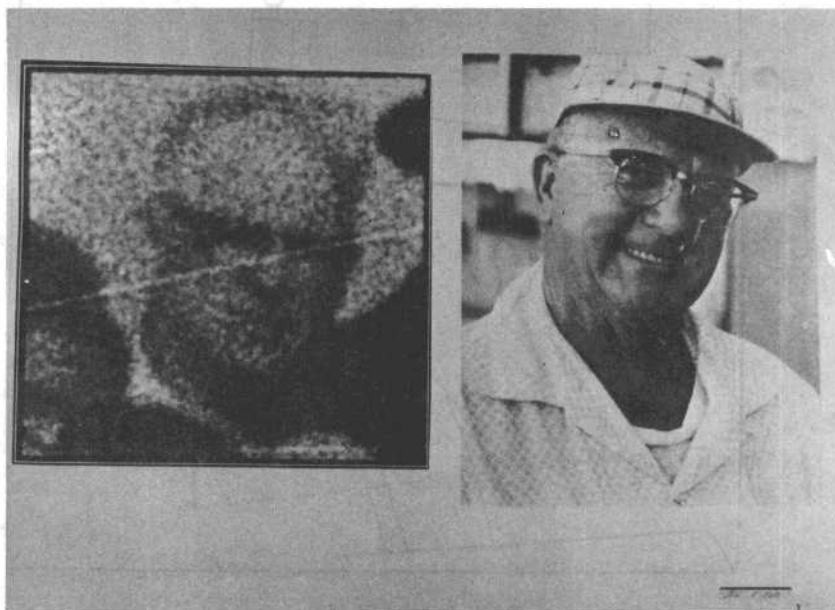
Mr. GENZMAN. Thank you, Dr. Snow.

At this time would you please refer to exhibits JFK F-124, F-560, F-561, F-562, and F-563. Exhibit F-124 was previously entered into the record.

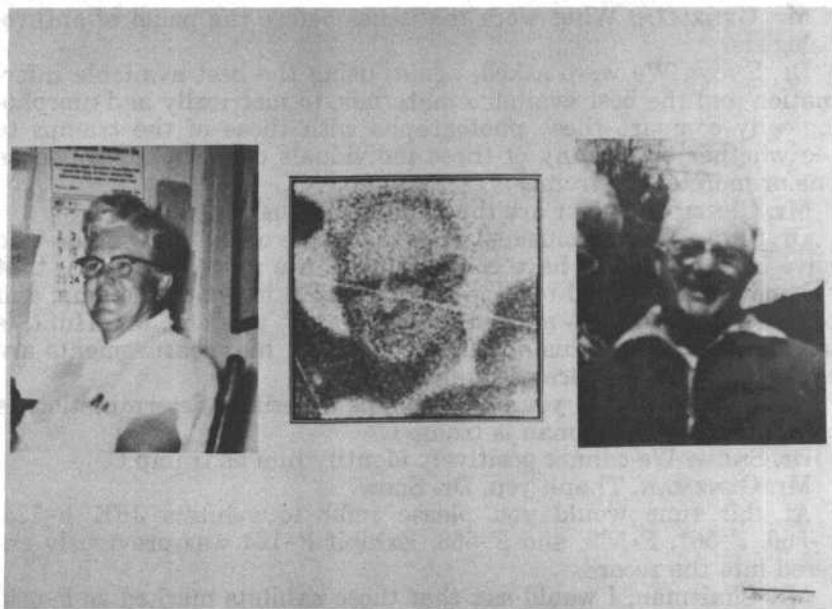
Mr. Chairman, I would ask that those exhibits marked as F-560, F-561, F-562, and F-563 be entered into the record.

Chairman STOKES. Without objection, they may be entered into the record at this point.

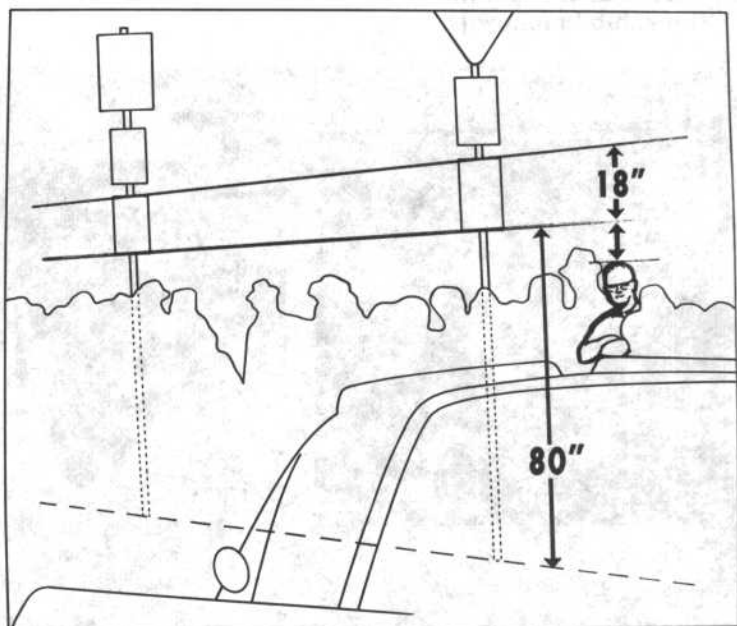
[The exhibits follow:]



JFK EXHIBIT F-560



JFK EXHIBIT F-561



JFK EXHIBIT F-562



JFK EXHIBIT F-563

Mr. GENZMAN. Dr. Snow, would you identify these exhibits and explain the issues involved.

Dr. SNOW. Yes, sir. These exhibits, starting here, is another photograph of the motorcade in Dallas as going down Houston Street shortly before the Presidential limousine made the left turn onto Elm Street.

A figure, whose head appears here immediately next to a somewhat taller man in a black hat, is the figure that some people have claimed to have a strong resemblance to Mr. Joseph Milteer. The other photographs show various enlargements of the spectator photograph, compared to photographs made available to us of Mr. Milteer. And these refer to some analysis of heights that we did, calculating the height of the spectator in order to compare it to the height of Mr. Milteer.

Mr. GENZMAN. Is the enlargement of the individual in exhibit F-560 the original enlargement or is that a flip version?

Dr. SNOW. Yes; we found that this is a reverse of the print. He is facing to his left, whereas—it is a reversal of the print. We did that deliberately in order to show the relative strong resemblance in general facial configuration to this photograph of Mr. Milteer, to show that there is a fair degree of resemblance in the general facial shape.

Mr. GENZMAN. What has the panel of anthropologists concluded?

Dr. SNOW. We concluded that the individual in question is not Mr. Joseph Milteer.

Mr. GENZMAN. What was the basis of this conclusion?

Dr. SNOW. The basis of our conclusion was that, first, although you can see this is very little material to work with, we found one feature of interest, in that there is a suggestion here that this individual had rather full lips, whereas in this photograph and others of Mr. Milteer we found that he is relatively thin-lipped. We also found a series of photographs of Mr. Milteer, some taken before the assassination, this one I believe in 1957, others several years later, that show that he, at least in 1957, was abundantly endowed with hair and as late as the early 1970's he also has hair, whereas in the photograph of the spectator we see an indication of extensive balding with an almost fully exposed crown here. So unless it could be demonstrated, I believe that Mr. Milteer habitually wore hairpieces, I think we could rule him out on that basis.

Mr. GENZMAN. Did the panel take any additional steps on this issue?

Dr. SNOW. Yes; we did. Looking over the photograph, we found that the alleged Milteer appears to be standing on a curb here, arrayed along Houston Street, alongside a number of other spectators. In comparing his apparent stature with those of the other spectators, we felt like we would be able to take information from that photograph and develop some statural estimates of Mr. Milteer. We approached this in two ways. We had some information supplied to us by the staff that Dallas City regulations in 1963 specified that these signs that you see in the photograph here, the lower edge of these signs, were to be placed 80 inches above the sidewalk.

After analysis of the perspective, we were able to extend, in our imaginations, of course, the signs up here to where such a sign would be if Mr. Milteer was standing directly in front of it. We know the dimensions for the signs, 18 inches, here, 80 inches from the pavement. And using that, it becomes a matter of simple proportions to calculate this distance, subtract it from 80 inches, and we concluded that the figure is approximately 5 foot 10, plus or minus an inch, tall. We were able to compare that estimate with an estimate furnished us by the committee from an FBI investigative report of Mr. Milteer which indicated that he was rather short. It gives his stature as 5 foot 5 inches. So there is a 6-inch discrepancy here.

We took this a little further, since the signs are no longer there and the actual signs can no longer be measured, by comparing him in relation to other figures arrayed along the sidewalk on either side of him. We have some good information on the average stature of U.S. adults during this period. And using that and looking at the photograph, as we have done here and you see on this overlay, we selected a segment of the spectator line consisting of 7 males, aside from the alleged Milteer, and 16 adult females. And we asked our question then, or we posed the hypothetical of: What are the probabilities that a 5 foot 4 inch man would, by chance, find himself in a crowd of 16 adult females and 7 males? Of the adult females he is clearly taller than all 16 of them and he is clearly taller than at least 4 of the 7 males. And using the population of the statural statistics that we have available, and assuming that this is sort of a random collection of Dallas spectators, we concluded that the prob-

abilities of this man being 5 foot 4 inches taller—the odds against it are several thousand to one.

Mr. GENZMAN. Would you demonstrate how the overlay was made?

Dr. SNOW. Sorry. This is an enlargement of the motorcade photograph. And we simply made the overlay here to display the spectators that we compared.

Mr. GENZMAN. Thank you, Dr. Snow. Would you please return to your seat?

Mr. Chairman, I have no further questions.

Chairman STOKES. The Chair recognizes the gentleman from Indiana.

Mr. FITHIAN. I wonder if Dr. Snow would remain at the easel for a few questions before he sits down. I would like the staff to put back up the picture of the three tramps.

While they are doing that, Dr. Snow, just for clarification. Are the terms insipient lateral evidence of balding and my own problem of receding hairline the same thing?

Dr. SNOW. Yes, sir. But it refers to a type of balding that begins down here at the side of the head rather than in the middle.

Mr. FITHIAN. From just a quick glance at that picture of Sturgis and tramp B, from here there doesn't seem to be all that much difference. I wonder if you could tell me a little more specifically how you went about arriving at your conclusion that they were in fact different people?

Dr. SNOW. OK.

Mr. FITHIAN. Would you provide Dr. Snow, with a pointer?

Dr. SNOW. I think we should point out that in addition to this photograph, we examined about two dozen other photographs of Mr. Sturgis and also several photographs of tramp B. Some of the features that we noticed were that in terms of the overall facial configuration, Sturgis—and this is much more apparent on some of the other paragraphs—is fairly typical of what anthropologists would classify as a Mediterranean type, whereas this individual is more typical of individuals of northern European extraction.

Among other features noted, tramp B has slightly wavy hair, and in all the photographs we have seen Mr. Sturgis' hair has a very crisp curl. The hair color of tramp B shows up as rather light and in the photographs of Sturgis show him as deeply brunette.

The hairline of Mr. Sturgis is fairly low, giving him a low forehead, whereas in this and other photographs of the tramp B we see a fairly high hairline.

Mr. Sturgis has a massive lower jaw, whereas the lower jaw of the tramp is relatively narrow. Also, Sturgis has a very massive square chin, whereas this individual's chin is smaller and more pointed.

Those are some of the morphological features that we found that served to distinguish Sturgis and tramp B as different individuals.

Mr. FITHIAN. Could you give me a quick summary of why you ruled out Hunt and tramp C, or whatever basic measurements led you to the conclusion you have there?

Dr. SNOW. Yes; again working with not only this photograph but others, we find that Mr. Hunt differs in facial configuration. His nose, especially seen in profile, is very sharp and angular, whereas

that of the tramp is large and more bulbous. There is a difference of lip thickness, Mr. Hunt being rather thin-lipped, the tramp being thicker lipped.

Also there are some differences in the configurations of the ear.

We also noticed that there is a small scar over the right eye of tramp C, and we were unable to find such a scar in any of the Hunt photographs we examined.

Mr. FITHIAN. If you would, just the last one, tramp A, and his counterparts.

Dr. SNOW. Tramp A and Mr. Vallee we ruled out primarily on the basis of the upwardly flaring nostrils of Mr. Vallee. We do not see this trait in tramp A. There is also an indication that Vallee had a concave nasal profile. The nasal profile of tramp A is straight.

Comparing tramp A with Mr. Carswell, the latter has a longer narrower face and a somewhat narrower nose. The antihelix of Carswell's ear is poorly developed whereas there is a strong antihelix in tramp A. There are also differences in the form of the lobe. Mr. Carswell's ear lobes are what we call "welded", that is, directly attached. Whereas tramp A has a slightly free lobe.

Mr. FITHIAN. Are you confident that the three tramps that you just described are not by your measurements and analysis any one of the three characters we have been talking about here?

Dr. SNOW. Yes, sir, I am.

Mr. FITHIAN. And the only one that you have any uncertainty about is Chrisman?

Dr. SNOW. Yes, sir.

Mr. FITHIAN. Is that because there are sufficient similarities of measurements?

Dr. SNOW. Yes. Of course, we only have one photograph of Mr. Chrisman for analysis, and it was taken several years after the assassination. However, the few measurements that we could take from this photograph do seem to be consistent with the corresponding measurements of tramp C.

Mr. FITHIAN. It is my understanding that the CIA and the FBI conducted their own analyses of the tramp photos that attempt to identify the individuals. Did you get into that?

Dr. SNOW. We didn't participate in either of those analyses. However, after being called in as consultants to this committee, we were furnished copies of the reports of the CIA and FBI analyses.

Mr. FITHIAN. Did you then study those reports?

Dr. SNOW. Yes, we have looked them over and we found that although they varied in method from our approach to some extent, they came to the same conclusions: That Mr. Sturgis was not tramp B nor was Mr. Hunt tramp C.

Mr. FITHIAN. Thank you.

Let me ask the staff if we have any other information on Chrisman that I am not aware of.

Mr. GENZMAN. For the record, Mr. Chrisman, now deceased, was implicated by the Jim Garrison probe into the Kennedy assassination, and it was claimed that he had CIA connections. It was later determined that Chrisman was a confidence man who frequented the New Orleans area around 1962 and 1963.

Mr. FITHIAN. Thank you.

Let's stay with the Dallas scene for a minute on the Milteer issue.

You seem to have assumed the individual in JFK exhibit F-124 was standing on the same level with the spectators around him. What basis do you have for that?

Dr. SNOW. We were supplied information by the committee based on other views of this same scene, specifically I think frames taken from either the Muchmore or Bell films that show the same array of spectators before they are obscured by the Presidential limousine at a much greater distance, so we cannot use it for analysis. But they do show that the alleged Milteer and the spectators arrayed immediately on either side of him were standing along the edge of the curb.

Mr. FITHIAN. And the person that has been alleged to be Milteer—

Dr. SNOW. The alleged Milteer.

Mr. FITHIAN. They are all standing on the sidewalk?

Dr. SNOW. Yes.

Mr. FITHIAN. No Coke boxes around?

Dr. SNOW. I don't know about Coke boxes or beer boxes.

Mr. FITHIAN. What evidence do we have—I wasn't sure that I caught that—that Milteer was as short as you said he was.

Dr. SNOW. This comes from an FBI investigative report that was furnished to the committee, and that is all the information that I personally have.

Mr. FITHIAN. Let's turn now to the analysis that you made of the Oswald photographs. On the basis of your measurements and your analysis, can you positively identify or state that the series of Oswald photographs shown on exhibits JFK F-556 and F-557 are indeed those of Oswald?

Dr. SNOW. No, sir; we cannot. We cannot on the basis of the measurements alone positively state that all of those photographs are indeed of Oswald. However, we can say that they are all consistent with the hypothesis that all of the photographs are of Lee Harvey Oswald.

Mr. FITHIAN. Would the staff put back up the chart and graph which I was blocked from seeing at the first part of the questioning.

In your work how do you compensate or adjust for plastic surgery that might be done on an individual?

Dr. SNOW. In the Oswald photographs specifically we saw no evidence of any plastic surgery. But this does not mean that there might not have been some there.

Mr. FITHIAN. You say you saw no evidence of it?

Dr. SNOW. We saw no evidence of plastic surgery in the Oswald photographs.

Mr. FITHIAN. Any other evidence of any kind of disguises that might have been used?

Dr. SNOW. We saw one interesting feature in Mr. Hunt. Comparing his photographs apparently taken in the midfifties with some taken later in the midsixties, there is some indication that Mr. Hunt underwent some plastic surgery. He has rather protruding ears and in later photographs they have been brought back closer

to his head, and that suggests some sort of surgical correction. Of course, we don't know the date.

Mr. FITHIAN. Would you direct your attention to the chart. The first three right down where the two lines intersect, or very close to it, all seem very tightly arrayed. But the backyard photo seems to have slipped out of orbit somehow or other.

Dr. SNOW. Yes, sir. It is most divergent from the cluster. However, if you will recall those photographs of Oswald, with the exception of the backyard photographs most were of good quality with fairly crisp images. The backyard photographs differ from the rest of the series in that they are rather fuzzy and also they vary in the lighting. They are the only two photographs of the series where the lighting is coming from overhead, and we feel that this introduces measurement errors using our technique and would account for this discrepancy.

Mr. FITHIAN. What are you trying to tell us by putting the Lovelady dot?

Dr. SNOW. We used Mr. Lovelady's measurements and plotted them to serve as a sort of control and demonstration of the other results of the technique. In Mr. Lovelady we have a person who admittedly has a strong physical resemblance to Mr. Oswald, so we felt it would be interesting to take his measurements and see how they compared with Oswald's using this method. So here we have a point for Mr. Lovelady that falls far outside the Oswald cluster, and yet is a point of a person who is very similar in facial configuration to Mr. Oswald.

Mr. FITHIAN. I am not sure I followed that. He shows up far outside of the Oswald cluster. Does that tend to prove that he does look like Oswald?

Dr. SNOW. No. The further away, the less he resembles Mr. Oswald. As I say, we plotted it just as a demonstration of the sensitivity of the method to see where a person who was not Oswald would fall. Probably if we used your face or my face and plotted our measurements it wouldn't even be on the graph.

Mr. FITHIAN. So it proves at one and the same time there is enough distinction that you are comfortable that the two faces are distinctly different but enough similarities that they at least end up on the same chart; is that what you are saying?

Dr. SNOW. Yes, sir.

Mr. FITHIAN. I have just one more brief line of questioning. Would you put up JFK exhibits F-556 and F-557.

Dr. SNOW, as I understand it, the two backyard photos, the center and lower right of exhibit—what is that, F-556, for the record?

Would you explain again in a sentence or two why those photos would, when you get through measuring, put the spot or the dot outside that very tight cluster on your chart.

Dr. SNOW. Again, I believe when you look at the photographs you see, compared to the rest of the photographs of Mr. Oswald that we analyzed there, that these two are much fuzzier and blurrier and also there is a variation in the direction of the light. This is going to influence the errors that are going to be introduced in our measurements that we take off the photographs. In other words, we simply cannot measure these photographs with the same degree of accuracy that we can in the better quality photographs.

Mr. FITHIAN. Dr. Snow, as to the results of all these measurements and analyses, and so forth, you are submitting a report for our record; is that correct?

Dr. SNOW. Yes, sir. We will be preparing a detailed report on the photograph analysis on all of these issues.

Mr. FITHIAN. I am sure you realize that scientific evidence that is presented to the committee will be a great deal of interest to others who have studied the assassination of President Kennedy, and in fact over the years created quite a school or quite a number of schools of thought.

Will other individuals in years to come be able to duplicate your methodology?

Dr. SNOW. Yes, sir. I believe in our final report we will be able to present our method here in such a way that it could be replicated by other scientists, provided with the same materials.

Mr. FITHIAN. These methods of measurement that you use have come to be the standards of measurement?

Dr. SNOW. The facial measurements that we employ are quite uniform throughout the discipline area of physical anthropology.

Mr. FITHIAN. Thank you, Mr. Chairman. I have no further questions.

Chairman STOKES. The time of the gentleman has expired.

The gentleman from Pennsylvania, Mr. Edgar.

Mr. EDGAR. Thank you, Mr. Chairman. I have just a few questions. Actually, these questions I think probably go to counsel at this point.

Do we have any evidence of the identities of any of the three tramps?

Mr. GENZMAN. Not to my knowledge, Mr. Edgar.

Mr. EDGAR. Have we reviewed pictures in the Dallas area in terms of photographs of people who have been arrested? I recognize these three tramps were not booked. But has there been analysis by staff of that?

Mr. GENZMAN. Mr. Edgar, this is an ongoing project of the staff. It is continuing at this time.

Mr. EDGAR. So we are continuing to review and to analyze those pictures to try to come up with their identities?

Mr. GENZMAN. Correct.

Mr. EDGAR. Even as a result of our sharing these now as evidence in these public hearings, someone might step forward and identify themselves as being one of the three individuals.

Mr. GENZMAN. That is possible.

Mr. EDGAR. Dr. Snow, it has been interesting to listen to your analysis of the pictures here and to review the chart, and I look forward to your final report. Are there any special characteristics of the Oswald face that stand out as being unique or different?

Dr. SNOW. None in terms of features that you would really consider abnormal. In my opinion he has a fairly average face in terms of the measurements and the morphological features.

Mr. EDGAR. There is nothing that stands out as a distinctive feature that would in essence be unique to Lee Harvey Oswald?

Dr. SNOW. I don't believe so, sir.

Mr. EDGAR. The earlier witness, Sergeant Cecil Kirk, testified it is quite common for records of an individual's height to vary by

several inches. As a physical anthropologist, Dr. Snow, what have you observed on this issue of height?

Dr. SNOW. I have had a wide experience in examining skeletal cases where we estimate the unknown individual's height from his bones then compare those with police records of missing individuals.

In reviewing many police records, I find that it is not uncommon to have discrepancies plus or minus 1 or 2 inches in height reported between one arrest record and another.

Mr. EDGAR. Would that also vary in the type and method of determining the height of the particular prisoner?

Dr. SNOW. Yes, sir. It varies a great deal with the technique used to measure him, the time of day, and many other variables that influence the height.

Mr. EDGAR. Thank you. I have no further questions.

Chairman STOKES. Are any other members seeking recognition?
[No response.]

Chairman STOKES. Dr. Snow, at the conclusion of the testimony of many witnesses before this committee, under our rules he is entitled to 5 minutes in which he may comment upon his testimony or in any way change his testimony or expand upon it. I would extend to you at this time 5 minutes for that purpose if you so desire.

Dr. SNOW. I would just like to point out that the anthropology consultants will be presenting a detailed final report on our findings for publication by the committee. Also I would like to say—and I speak for my colleagues too—it has been a pleasure to work with the very fine young people that you have on your staff; and that if their energy, efficiency, competence, and enthusiasm is any indication of the kind of talent you can draw on in the Congress, then I think the country is in a lot better shape than a lot of people think it is.

Chairman STOKES. Thank you very much, Dr. Snow. On behalf of the committee, we certainly thank you and all of your panel for the work you have done for this committee, and we look forward to your final report.

The Chair recognizes Professor Blakey.

STATEMENT OF MR. BLAKEY

Mr. BLAKEY. Thank you, Mr. Chairman.

There are other photographs, both still and motion picture, that were taken at the scene of the assassination that suggest to critics a conspiracy. These don't show alleged accomplices or masterminds who possibly could be identified. Rather, they show shapes or blurred images that critics have contended are gunmen. Most of these gunmen are in the vicinity of the grassy knoll.

In the years since the assassination, significant progress has been made in the field of photographic enhancement. New chemical and computer processes have been developed that record and improve picture quality.

The select committee assembled a group of photographic consultants to conduct a thorough analysis of photographic materials to see if there is, in fact, visual evidence of gunmen in Dealey Plaza. The members of this panel are scientists from leading educational