

SUMMARY OF CONCLUSIONS

(27) With the restrictions and reservations stated in each panel member's final report,* the members conclude, generally, that the signatures and handwriting purported to be by Oswald are consistently that of one person. Because of the poor condition of the historical diary, they are unable to conclude firmly whether it was written at one or more than one sitting. On balance, it appears to have been written at one or a few sittings.

(28) Purtell and McNally conclude the name "A. J. Hidell" was written on the 1963 Fair Play for Cuba card by the same person who wrote the exemplars attributed to Marina Oswald.

(29) Finally, McNally concludes that the name "Jack Ruby" written on an undated Cuban identification card was by the same person who wrote the exemplars attributed to Jack Ruby.

(30) Scalice concluded that all inked finger and palm prints were identical and were Lee Harvey Oswald's.

FINDINGS AND CONCLUSIONS OF JOSEPH P. MC NALLY

Procedures

(31) I conducted an examination and comparison of the signatures and writings on the items described in this report. At the time of the initial work in Washington, D.C., I made color photomacrographs of the signatures and the writings on these documents. I then made slides from the photomacrographs, which I subsequently projected and studied. The signatures were a particular focus of my examination.

(32) I first met with committee staff in Washington, D.C., on September 7, 1977, to examine and photograph signatures and writings on documents available at the Department of Defense and the National Archives. On September 17, 1977, I went to the committee's offices to examine and photograph a photoreproduction designated item No. 47. On May 8, 1978, I returned to Washington, D.C., to make additional examinations and photographs. These were made at the Department of Defense, the National Archives, and the committee offices.

(33) On July 6, 1978, I met with other members of the handwriting panel to review the documents examined and to consult with them. Subsequently, I prepared my final report with my findings and conclusions.

Conclusions

(34) I. The signatures "Lee Harvey Oswald" and "Lee H. Oswald" on the following documents were all written by the same person:

- 1, 2, 4, 5, 7, 11, and 12. Marine Corps documents.
3. U.S. Armed Forces Loyalty Certificate.
6. USMC fingerprint form.
8. ID card—U.S. Armed Forces, Japan.
- 9 and 10. Three (3) passport signatures.
13. Carbon of U.S. Armed Forces Report of Discharge.

*In particular, members noted that not all documents were available in their original. It is standard practice in the profession of questioned document examination to make definitive conclusions only about documents examined in their original. Thus the panel members gave only tentative opinions for items provided them in some type of facsimile.

14. Selective Service registration.
 15. Selective Service card.
 17. Citizenship revocation.
 22. Support affidavit.
 25. Letter to "The Worker".
 - 27, 45 and 46. Signatures on U.S.P.O. applications (4).
 31. Photo of Lee Oswald (back).
 32. Letter to "Fair Play for Cuba".
 33. Fair Play for Cuba card.
 34. Passport application.
 36. New Orleans Police Department fingerprint form, dated Aug. 9, 1968.
 37. Photocopy of New Orleans Police Department fingerprint form.
 38. Letter to the "Communist Party U.S.A.".
 39. Hotel registry.
 40. Application for Cuban visa.
 41. Photograph of carbon of application for Cuban visa.
 42. Letter to Russian Embassy.
 43. Employment form.
 44. Form W-4.
 45. P.O. Box 6225 application.
 46. Receipt for key to P.O. Box 6225.
 48. Photomechanical copy of letter to Russian Embassy.
 55. Dallas Public Library card.
- (35) II: The script writing on the following documents was done by the same person :
17. Citizenship revocation.
 19. Stationery of Holland-American Line.
 20. Self-questionnaire.
 21. Photocopy of self-questionnaire.
 22. Support affidavit.
 25. Letter to "The Worker".
 29. Xerox of Klein's money order.
 32. Letter to "Fair Play for Cuba".
 38. Letter to "Communist Party U.S.A.".
 42. Letter to the Russian Embassy.
 48. Photomechanical copy of letter to Russian Embassy.
- (36) III. A number of documents have script and handprint, both of which are by the same person (the script writings of these documents correspond to that of documents listed above under I and II) :
16. Historical diary.
 18. Aline Mosby interview.
 26. Employment application with letter.
 30. Envelope and order form—Klein's.
 43. Employment application and letter of resignation.
- (37) IV. A few documents have handprint only. On those listed below, all the handprint is by the same person, and it corresponds to the handprint on documents listed above under III. Since the script in items under III corresponds to the script in items under II, it can be concluded that the items under II, III, and IV correspond.
9. Inside cover of passport.
 - 27, 45 and 46. U.S.P.O. forms—box rental.
 51. Speech.

(38) V. In summary, the script writing (much of it on documents also bearing the signature of Lee H. Oswald) is identifiable with the signatures, "Lee H. Oswald." From the script writing on the documents described in section II, it is possible to create composite signatures, "Lee Harvey Oswald" and "Lee H. Oswald," which correspond to the Oswald signatures on the documents listed in section I.

(39) VI. The Russian language writing on documents 23, 56, and 57 is by the same person. Although there are a few letter design forms which appear to be in the Cyrillic alphabet, the bulk are in the Latin alphabet and correspond to their counterparts in the script and hand-print in the documents listed in sections I, II, III, and IV above.

(40) VII. The two signatures, "Lee H. Oswald," in item 52 (receipts for salary—Texas School Book Depository) do not correspond to the Oswald signatures as described under section I. The handwriting appears to be more skillful, with a more rhythmic flow. It varies in slant and differs in proportion. The overall writing pattern differs from the Oswald signatures in section I, as do the individual letter designs. The "L" of item 52 is taller and without an eyelet loop at the top right of the "L" as found in the section I signatures. The "H" of item 52 is distinctly different from the "H" in the section I signatures. The "O" of item 52 retraces on itself, not the case in the section I signatures, where it loops around at the top right and usually swings into the following "s". The "d" of item 52 reverses slant to go backhand, which does not occur in the section I signatures.

(41) VIII. The signature, "Lee Harvey Oswald," on the Hunt note (item 47) does not correspond to the Oswald signatures described under section I. To begin with, the bulk of the documents which are signed with the full name, "Lee Harvey Oswald," are more formal in tone. For example, the full name appears on all but one of the Marine Corps documents. The full name appears infrequently elsewhere—usually only the first name, middle initial, and last name are used. Further, in the Hunt note, the middle name "Harvey" is misspelled—the "e" appears to be missing; the "H" of "Harvey" differs from that found in the section I signatures; the "ar" of "Harvey" is ellided to a point that does not occur in any section I signatures; the "O" of "Oswald" is retraced part of the way along the left side, not true of the section I Oswald signatures; and the ending "d" of Oswald is smaller than the preceding "l", whereas most of the ending "d"s of the section I signatures are taller than the "l" (only in signatures that appear to be "squeezed-in" is the end "d" shorter than the preceding "l").

(42) While the script writing on the Hunt note is similar in pictorial quality to the writings under section II, the format of the note differs from that of the notes and letters of section II. The writing line is so exact as almost to give the impression it has been made on a ruled line. Usually Oswald writes in an arrhythmic manner—for example, with an irregular and crooked writing line. This writing creates the jumbled effect apparent in the section II documents.

(43) From the examinations of item 47, it was determined that the signature does not correspond with any of the Oswald signatures of section I. Similarly, the writing does not correspond to that in the section II Oswald documents.

(44) I would like to note, however, that the quality of the original photoreproductions of the Hunt note was poor. Under the best of cir-

cumstances, reproductions lack clarity and detail. Here, as can be seen from the copies, the original photoreproduction was out of focus, giving the document a fuzzy appearance. Accurate analysis was difficult. The note is highly suspicious. The original would have to be checked in order to make a more definite analysis and reach a definitive conclusion.

(45) IX. An examination and comparison was made of writings and signatures on documents attributed to Marina Oswald. The writings on the note (item 28) are such poor copies that it is virtually impossible to make a definite determination as to whether they correspond with the signatures of Marina Oswald on item 24. There is some similarity between the name in the return address on the envelope of item 28 and the signature of Marina Oswald on her entry papers (item 24), but the return address name is obscured to some extent by the postmark. The rest of the writing on the note (item 28) is not sufficiently parallel to the writing on her entry documents (item 29) and exemplars (item 54) to warrant any effective determination.

(46) The name, "A. J. Hidell" on the Fair Play for Cuba card (item 33) was examined and compared with the exemplar writings of Marina Oswald (item 54). It was determined that the "A. J. Hidell" of the card (item 33) was written by Marina Oswald (as in item 54). The writing pattern of the signature on the card corresponds with that of the name "A. J. Hidell" as written by Marina Oswald on item 54. The Hidell signature in question is written with the same degree of writing skill as evinced by Marina Oswald. The slant, speed, proportions, et cetera, of the Hidell signature is matched in the writings of Marina Oswald. The design, form, and execution of stroke making up the individual letters of the Hidell signature in question (item 33) correspond to those of the letters in the writing of Marina Oswald (item 54).

(47) X. The "Jack Ruby" signature on the Cuban identification card (item 53) was examined and compared with exemplars of Jack Ruby (item 49). It was determined that the "Jack Ruby" of the Cuban identification card was written by the author of the exemplar signatures attributed to Jack Ruby (item 49). While there is an odd "J" in the identification card which does not occur in the Ruby exemplars, the rest of the letters tally in all respects. The signature has been written quickly, easily, and fluently, consistent with the writing pattern of the known exemplars. The odd "J" may be "accidental" or could be accounted for in additional writing of Ruby, most likely in spontaneous writing contemporaneous with the signature of the identification card. "Request" writing, such as that of item 49, sometimes differs to a slight extent from "spontaneous" writing.

(48) XI. A check was made of the historical diary (item 16). The 12 pages were written with the same type of writing instrument. The paper used for 11 of the 12 pages is similar; only the last page differs—it is appreciably thinner. The writing has a continuity from page to page and line to line that is indicative of being written about, or at, the same time. It does not give the impression of being "random" as would be expected of a diary extended over a period of time. It appears that this diary has been written within a short period of time and not over any extensive period.

Summary of conclusions

(49) Virtually all the Lee H. Oswald and Lee Harvey Oswald signatures are by the same person. There is some normal variation among the signatures, and no significant differences among the Oswald signatures identified as being the same. The overall writing pattern is consistently similar, and the individual letter designs match throughout without major differences. The same holds true for the script and handprint on these documents that are identified as being written by the same person.

(50) The same writing is on the U.S. Postal money order to Klein's (item 29) as is on the various letters and correspondence. The same writing is on the order form and envelope (item 30) as is on the letters and on the inside cover of the passport (item 9).

(51) The writing and signatures that appear on the letters (items 25, 32, 38, and 42) agree with the writing and signatures on the U.S. Post Office applications for post office boxes (items 27, 45, and 46).

(52) The signature and writing on the back of the photograph (item 31) agree with the signatures and script writing of Oswald (sections I and II).

(53) Differences indicative of different authorship were found on the "Hunt" note (item 47) and the salary receipts (item 52).

(54) It appears that the historical dairy (item 16) was written within a short period of time.

FINDINGS AND CONCLUSIONS OF DAVID J. PURTELL

Procedures

(55) Items 1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 29, 31, 32, 33, 34, 36, 38, 39, 40, 43, 45, 47, 48, 51, 54, 55, 56, 57, 58, 59, 61, and 62 were studied, both visually and microscopically. A detailed drawing was made of all features observed in the writings. Later, each piece of writing was compared with every other piece of evidence. Photographs were taken of the evidence, and these were studied along with the detailed drawings. Thus the evidence was evaluated a total of three times.

Findings

(56) The examinations and comparisons revealed that all the writings were executed by a person having limited writing skill. The writings show physical evidence of natural movement and manner, with some normal variations. The carefree qualities and the unrestrained movements associated with genuine writing are present. None exhibit the characteristics of simulation produced by imitators attempting to duplicate the writing of another. The writings have similarities in the formation of letters, quality of writing, movement within the writing, size and proportions of letters and parts of letters, beginning and ending strokes, pen pressure, slope of the writing, spacing, alinement, direction, and speed.

(57) These similarities and the lack of any unexplainable differences resulted in the following findings and opinions:

(58) A. One person wrote the signatures, Lee Harvey Oswald, Lee H. Oswald, and Lee Oswald on documents 1, 4, 5, 6, 7, 8, 9, 11, 12, 15, 17, 22, 25, 27, 31, 32, 33, 34, 36, 38, 43, 45, and 55.

(59) B. The person who wrote the signatures on the above-listed documents also completed the messages on documents 17, 22, 25, 31, 32, 38, and 43.

(60) C. The person who wrote the signatures and completed the messages on the documents listed in A and B above executed the handwriting on documents 18, 19, 20, 48, 61, and 62.

(61) D. One person executed the handprinting appearing on documents 9, 27, 34, and 45, all of which were signed Lee H. Oswald.

(62) E. The person who hand printed the information on the documents listed in D above, also hand printed the material on document 51.*

(63) F. With regard to the Russian writing on items 23, 56, and 57, this examiner is not familiar with this language and the characteristics of the various writing systems used.

(64) It is almost impossible to distinguish between class characteristics and individual characteristics unless the writing styles of a language are known.

(65) This examiner is, therefore, unable to render a definite opinion, but can point out that there are similarities between the writing in items 23, 56, and 57 and the handwriting on the items listed in A, B, and C above.

(66) G. With respect to the timespan of the historical diary (item 16), an answer cannot be provided because of the present condition of the paper. The documents had been processed by the silver nitrate method in an attempt to develop latent fingerprints. While a recognized method, the drawback is that it soils the paper; the silver nitrate which remains on the paper causes it to turn black in time. Today, the pages are in very poor condition, and though the message can be read in part, it is a very difficult task. One observation that can be reported is that one sheet of paper is of a different weight (thickness) than the other sheets.

(67) H. The committee requested that a determination be made as to whether the person who prepared items 24 and 54 also wrote the name, "A. J. Hidell" on the Fair Play for Cuba Committee card, dated June 15, 1963 (item 33).

Known

(68) Known handwriting of Marina Oswald appears in:

Item 24—one fingerprint identification card, dated March 24, 1962; and

Item 54—seven slips of paper containing the writing of the name, "A. J. Hidell" and "A. J. Hidell."

(69) The items above were examined to determine their individual writing features, as was the signature on the FPCC card (item 33). The two groups of writings were then compared.

(70) The examiner is of the opinion that the person who executed the handwriting on item 54 wrote the name, "A. J. Hidell" on the Fair Play for Cuba Committee card (item 33). This opinion is based on similarities in letter formation, quality of the writings, size, and proportions of the letters, beginning and ending strokes, pen pressure, and slant of the writing. No unexplainable differences could be noticed.

*Attached to and made part of this report are photographic illustrations (Purtell Exhibits 1 and 2) made up of signatures demonstrating all the points of similarities noted above.

Limitations on the examination

(71) Five items of evidence were not examined in the original, but were copies. Photocopies have several limitations. They do not reproduce all the fine details in handwriting needed in making an examination and comparison. At best, they do not produce as sharp an image as a properly produced photograph, and they lack tonal gradations, a result of the contrasting process of reproduction. In addition, it is possible to incorporate or insert changes and alterations into copies. A method frequently used is to paste together parts of documents to make one fraudulent document, which is then copied. If the first copy can pass inspection, it will be used; if not, it will be reworked to eliminate all signs of alteration. This amended copy is then recopied for the finished product. This is usually referred to as the "cut and paste" method.

(72) Document examiners only render a qualified or conditional opinion when working from copies. They stipulate that they have to examine the original before a definite opinion will be made.

(73) Because of problems with the following documents, no definite opinion can be rendered:

(74) Item 18, a halftone copy of a photograph of the original document. This is at least a third generation copy and is not suitable for comparison. (A halftone copy consists of very small dots and not continuous lines.)

(75) Item 29 was a Xerox copy made from a microfilm copy. Such a second generation copy has the defects of both processes.

(76) Item 39 was a photograph taken without a scale so that the magnification or reduction of the writing could not be determined.

(77) Items 40 and 41 were very poor quality photographs and lacked scales to determine the size of enlargements.

(78) Item 47 was a photograph of an out-of-focus facsimile copy. Instead of having clear discernible lines, the copy has indistinct and blurred outlines. Such a muddy and unclear copy gives the appearance that it might have been so made for a purpose.

(79) It should be noted that pictorial similarities can still be noticed between the handwriting appearing on items 18, 29, 39, 40, and 41 listed above, and the documents that have been identified as being written by one person (see A, B, and C). While the handwriting appearing in item 47 contains some of the pictorial similarities, the quality of the writing appears different, and the signature has a strange and distorted appearance.

Lee Harvey Oswald

Nov. 8, 1963 - Letter to Mr. Hunt

ed 490 Rodrigues-
lee, Norway Council
W. B. Pligg.

Aug. 27, 1963 - Hotel Registry

ments made by me, as now given in this record, are correct.

(First name) Harvey (Middle name) David (Last name)

Oct. 24, 1954 - Marine Corps Enlistment Contract

For me, according to regulations and the Uniform Code of Military
its made by me, as now given in this record, are correct.

Lee Conway Oswald
(First name) (Middle name) (Last name)

Oct. 34, 1956 - Marine Corps Enlistment Contract

Nov. 7, 1924 - Denial of petition requesting revocation
of citizenship

SIGNATURE OF PERSON BEING TRANSFERRED OR DISCHARGED

Lee Harvey Oswald

SIGNATURE OF OFFICER AUTHORIZED TO SIGN

Jan. 11, 1958 - Armed Services Report of Translated

Lee Harvey Oswald (Full Name) (Se

Sep. 11, 1958 - Maxima Corps Security Termination Statement

Lee Harvey Oswald

Sep. 11, 1958 - Marine Corps Notice of Obligated Service

Lee Harvey Oswald

AT USMC RS Dallas, Texas

SIGNATURE OF WITNESSING OFFICER

Out. 24, 1954 - Marine Corps Loyalty Certificate

Lee Harvey Oswald
(Signature of applicant)

year 1858: Mexican-Spanish Translation of

APPROVED BY DECRYPTING OFFICER

SIGNATURE OF SERVICEMAN (Sign all copies)

Lee Henry Oswald

APPROVED

Lee H. Oswald

Sep. 27, 1963 - Visa Application, Cuban Consulate

from
Lee Oswald

3/19/63 - Back of Photo

Respectfully,
Lee H. Oswald

Nov. 9, 1963 - Letter to Soviet Embassy

APPLICANT
Lee H. Oswald

Nov. 1, 1963 - Application for P.O. Box

ate does not exceed the number to which I am entitled.
Lee H. Oswald

Oct. 18, 1963 - Withholding Exemption Certificate

Lee H. Oswald

Aug. 28, 1963 - Letter to Central Comm. C.P.

Lee H. Oswald

Nov. 1, 1963 - Receipt for P.O. Box Key

Lee H. Oswald
(Signature of applicant)

Nov. 2, 1963 - Application for P.O. Box

Lee H. Oswald

Oct. 15, 1963 - Employment Application

Lee H. Oswald

Nov. 26, 1963 - Passport Application Photo

<p>and that I take this obligation freely, with</p> <p><i>Lee H. Oswald</i></p> <p>Jun. 14, 1963 - Passport Application</p>	<p><i>Lee H. Oswald</i></p> <p>May 24, 1963 - Letter to Fair Play for Cuba Com.</p>
<p>OF APPLICANT</p> <p><i>Lee H. Oswald</i></p> <p>Oct. 9, 1962 - Application for F. O. No.</p>	<p><i>Lee H. Oswald</i></p> <p>July 13, 1962 - Letter to Lertite Welding Co.</p>
<p><i>Lee H. Oswald</i></p> <p>June 10, 1962 - Letter to The "Worker"</p>	<p><i>Lee H. Oswald</i></p> <p>Jan. 17, 1962 - Affidavit of Support (Addressed to American Embassy, Moscow)</p>
<p><i>Lee H. Oswald</i></p> <p>Sep. 14, 1958 - Selective Service Registration</p>	<p><i>Lee H. Oswald</i></p> <p>Sep. 10, 1958 - Passport Photo</p>
<p>ATURE OF BEARER</p> <p><i>Lee H. Oswald</i></p> <p>Nov. 10, 1959 - Passport</p>	<p>as required by Article 137, UCMJ.</p> <p><i>Lee H. Oswald</i></p> <p>May 2, 1957 - Marine Corps - Misc. Information</p>
<p>ATURE OF MARINE (After photo affixed)</p> <p><i>Lee H. Oswald</i></p> <p>OF PHOTOGRAPH</p> <p>Oct. 29, 1956 - Marine Corps - Misc. Information</p>	<p>as required by Article 137, UCMJ.</p> <p><i>Lee H. Oswald</i></p> <p>Oct. 25, 1956 - Marine Corps - Misc. Information</p>

FINDINGS AND CONCLUSIONS OF CHARLES C. SCOTT

Procedures

(80) 1. I examined all documents except items 8, 23, 24, 28, 52, 56, 57, 60, 61, 62, and 63.

(81) 2. Minute scrutiny of the signatures and other handwriting purporting to be that of Oswald was conducted under a stereoscopic microscope with reflected light, sidelight from all angles, transmitted light, and ultraviolet rays. In addition, they were studied under infrared rays by means of an infrared image converter. (The primary purpose of the first two methods is to detect any evidence of tracings, alterations, erasures, or obliterated writing.)

(82) 3. Microscopic examination was also used to determine the color of ink and type of pen used in the execution of each document.

(83) 4. Photographs of original documents were studied in the laboratory in Kansas City.

(84) 5. Photographic comparison charts of the purported signatures of Oswald were prepared and evaluated for most of the documents.

(85) The above-described methods of examination were applied to all original documents submitted for examination, with the exception of two fingerprint cards, dated October 24, 1956, and August 9, 1963 (items 6 and 36), which were not received in time for this type of treatment.

(86) Photographic reproductions could only be compared visually with other photographic reproductions or with original documents. All conclusions based solely upon photographic reproductions are necessarily tentative and inconclusive, since they cannot reveal much about pen pressure and other dynamic qualities of handwriting. Further, they sometimes conceal, rather than reveal, evidence of tracings, alterations, erasures, or obliterated writing.

Findings

(87) *Question.* Are all of the signatures and other writings on the documents purported to have been written by Oswald by one and the same person?

(88) *Opinion.* After very careful examination and comparison of the documents provided, I am of the opinion that, on the following original documents, Oswald's purported signatures and other writings are all in the same handwriting and were all written by one and the same person.

(89) Item 1—October 24, 1956. U.S. Marine Corps enlistment contract and record, signed "Lee Harvey Oswald."

(90) Item 2—October 24, 1956. Carbon copy of item 1 bearing an original signature, reading "Lee Harvey Oswald."

(91) Item 3—October 24, 1956. Loyalty certificate for personnel in the Armed Forces, signed "Lee Harvey Oswald."

(92) Item 4—October 24, 1956. U.S. Marine Corps examination of applicant by recruiting officer, signed "Lee Harvey Oswald."

(93) Item 5—October 24, 1956. U.S. Marine Corps record of emergency data, signed "Lee Harvey Oswald."

(94) Item 6—October 24, 1956. Armed Forces fingerprint card, signed "Lee Harvey Oswald."

- (95) Item 7—October 25, 1956. U.S. Marine Corps miscellaneous information and index form, signed "Lee H. Oswald" in three places.
- (96) Item 9—c.* September 10, 1959. U.S. passport, signed "Lee H. Oswald."
- (97) Item 10—c.* September 10, 1959. Photograph on page 4 of U.S. passport, signed "Lee H. Oswald."
- (99) Item 11—September 11, 1959. U.S. Marine Corps notice of obligated service, signed "Lee Harvey Oswald."
- (100) Item 12—September 11, 1959. U.S. Marine Corps security termination statement, signed "Lee Harvey Oswald."
- (101) Item 15—September 14, 1959. Selective Service System registration card, signed "Lee H. Oswald."
- (102) Item 16—July 15, 1961 to January 4, 1962. Page 11 of a 12-page diary.
- (103) Item 17—November 3, 1959. Declaration requesting revocation of U.S. citizenship, signed "Lee Harvey Oswald."
- (104) Item 19—1960, undated. Handwriting on Holland-American Line stationery.
- (105) Item 22—January 17, 1962. Affidavit of support addressed to the American Embassy, Moscow, signed "Lee H. Oswald."
- (106) Item 25—June 10, 1962. Letter to the "Worker," 23 West 26th Street, signed "Lee H. Oswald."
- (107) Item 26—c. July 13, 1962. Letter to Leslie Welding Co., signed "Lee H. Oswald."
- (108) Item 27—October 9, 1962. Application for P.O. Box No. 2915, signed "Lee H. Oswald."
- (109) Item 31—May 4, 1963. Photograph of man with rifle. On the back of this photograph is a notation reading "To my friend George from Lee Oswald 5/IV/63."
- (110) Item 32—May 26, (1963?). Letter to Fair Play for Cuba Committee, signed "Lee H. Oswald."
- (111) Item 34—June 25, 1963. Passport application, signed "Lee H. Oswald."
- (112) Item 35—June 25, 1963. Passport photograph attached to application and signed "Lee H. Oswald."
- (113) Item 36—August 9, 1963. Fingerprint card of New Orleans Police Department, signed "Lee H. Oswald."
- (114) Item 38—August 28, 1963. Letter to central committee of the Communist Party, signed "Lee H. Oswald."
- (115) Item 43—October 15, 1963. Employment application, signed "Lee H. Oswald."
- (116) Item 44—October 16, 1963. Employee's withholding exemption certificate, signed "Lee H. Oswald."
- (117) Item 45—November 1, 1963. Two cards. Application for P.O. Box 6225, both signed "Lee H. Oswald."
- (118) Item 46—November 1, 1963. Receipt for key to P.O. Box 6225, signed "Lee H. Oswald."
- (119) Item 51—Undated. Handwritten speech.
- (120) I examined each of the above-described documents (with the exception of items 6 and 36) under a stereoscopic microscope by reflected light, side light from all angles, transmitted light, and ultra-

*Circa is used because a passport is usually signed by the holder after receipt, which is often different than that of the date of issuance.

violet rays. I also inspected them under infrared, using an infrared image converter.

(121) I did not find any evidence of tracing or copying in any of the signatures or other handwriting purporting to be Oswald's on any of the original documents, nor did I find any material erasures, alterations, or obliterations. All seem to have been executed in the ordinary course of business without any suspicious signs. Equally important, all the purported signatures and writings of Oswald on the above-described documents conform with each other in letter formation, slant, proportions, alignment, and connecting strokes—allowing for normal variation. If Oswald's writing were imitated by some other person, in all probability the imitations would display a slavish uniformity somewhat like that of rubber stamping. There was no such suspicious uniformity and lack of natural variation in the signatures and writings.

(122) Also highly significant was that all the signatures and handwriting on the above-described original documents were executed with the same type of free, rapid writing movement and without any indications of suspicious hesitations or skips.

(123) Where, as here, two or more writings conforming with each other in the pictorial aspects of form or design (allowing for natural variation) show evidence of having been written with the same type of writing movement and rhythm, and lack any indications of tracing or other imitative processes, the conclusion is inescapable that all were written by the same person.

(124) With respect to the carbon copies and photographic reproductions submitted for examination, the form or design, slant, proportions, connecting strokes, and the like conformed with the writing on original documents. Therefore, tentatively, and subject to modification should the original documents become available for examination, it is my opinion that the following are probably carbon copies or photo-reproductions, as the case may be, of documents bearing writings that conform with the writing on the original documents purporting to be Oswald's:

(125) Item 13—September 11, 1959. Carbon copy of Armed Forces of the U.S. report of transfer or discharge bearing a carbon copy of a signature reading "Lee Harvey Oswald."

(126) Item 18—November 15, 1959. Photocopy of handwritten account of interview with Miss Mosby.

(127) Item 21—1962, undated. Photocopy of document identified as a "self-questionnaire."

(128) Item 37—August 9, 1963. Photocopy of fingerprint card and mug shots taken by New Orleans Police Department, signed "Lee H. Oswald."

(129) Item 39—September 27, 1963. Photograph of a page from a hotel register, signed "Lee, Harvey Oswald."

(130) Item 40—September 27, 1963. Photographs (one of entire document and one of signature on visa application), Cuban Consulate, Mexico City, signed "Lee H. Oswald."

(131) Item 41—September 27, 1963. Photograph of carbon copy of item 40.

(132) Item 47—November 8, 1963. Two photographs of a letter to Mr. Hunt (one of entire document, the other an enlargement of signature).

(133) Item 48—November 9, 1963. Photomechanical (halftone) reproduction of typewritten letter to Soviet Embassy, signed "Lee H. Oswald."

(134) Item 50—Undated. Photograph of unsigned rough draft of Item 48.

(135) The photographs of the visa application (item 40) and of the carbon copy of the visa application (item 41) appear to be in the same handwriting as the other purported signatures of Oswald, as far as the pictorial aspects of form or design, slant, proportions, connecting strokes, et cetera, are concerned. Because the pictures are fuzzy, it is impossible to rule out tracing or some other method of imitative writing.

(136) It is impossible to determine positively whether the letter to Hunt (item 47) is or is not in the handwriting of the same person as the other writings purporting to be Oswald's.

(137) The photographs appear to be photographs of a document bearing handwriting of the same person as that in the other documents purporting to be Oswald's. It is true that the signature is not typical—"Harvey" is misspelled—but that could be due to haste. If not genuine, the original from which this photograph was made is certainly a clever imitation.

(138) It is recommended that an effort be made to obtain the originals of all of the above-described reproductions so that they can be submitted to the same thorough examination, given the original documents.

(139) *Question.* Although they purport to be the handwriting of one Hidell, were the postal money order (item 29) and the envelope addressed to Kleins (item 30) actually written by the person who wrote the signatures and other writings which purport to be Oswald's?

(140) *Opinion.* The original of the money order (item 29) was examined and compared with the original writings purporting to be Oswald's. I am of the opinion that the fill-ins on the face of this money order are in the handwriting of the same person as the signatures and writings purporting to be Oswald's. The writing on the money order conforms with the writing purporting to be that of Oswald on the other documents in every material way, including writing movement and rhythm, as well as the pictorial aspects of form or design, proportions, alinement, slant, and connections. It is also significant that the writing on this money order shows no indication of being a mere copy or imitation of the writing purporting to be that of Oswald. This money order was submitted in the original, and hence it was possible to give it a complete microscopic examination and to study it under the infrared image converter.

(141) The envelope addressed to Kleins (item 30) was available only in the form of a microfilm enlargement. This is even less satisfactory than a photocopy as a basis for an opinion on handwriting. It can only be said that as far as the pictorial aspects of form or design, proportions, alinement, slant, and connecting strokes are concerned, the writing on this envelope, although it purports to be that of one Hidell, conforms with the original writing submitted for examination which purported to be that of Lee Harvey Oswald.

(142) *Question.* Was the diary (item 16) written from day to day, as it is dated, or was it written at one sitting?

(143) Opinion. While the diary was submitted for examination in original form, it was almost completely unsuitable (with the exception of p. 11) for document examination because of treatment with fingerprint developer. Little patches of ink were unobscured, but these were insufficient as a basis for a definite conclusion. From the patches of ink that could be studied, there are indications that the same pen and ink could have been used to write the entire diary. However, this observation is based solely on microscopic examination; no chemical tests were made or authorized. Use of the same pen and ink (particularly when, as here, a fountain pen or a dip pen, rather than a ball-point pen, was used) is more consistent with the diary having been prepared at one time, or over a few consecutive writing sessions, than it is with execution from day to day over the extensive period covered.

Concluding remarks

(144) As far as original documents are concerned, the conclusion is that the signatures and writings on them which purport to be Oswald's are all in the handwriting of the same person. In those instances where reproductions of any kind were examined, it was found that the writing conformed in pictorial aspects with the writing purporting to be Oswald's on the original documents examined. Only a tentative opinion could be reached as to these reproductions.

(145) Attached are two photographic comparison charts, prepared by the examiner, one showing most of the signatures reading "Lee Harvey Oswald," placed close to each other for ready comparison, the other a composite of most of the signatures reading "Lee H. Oswald" and of one signature reading "Lee Oswald." Large mural-size reproductions of these charts, suitable for simultaneous viewing by a number of persons, are being sent to the committee under separate cover.

(146) The photographs on these charts were taken by this examiner, who also prepared the charts. They are reliable representations of all of the signatures depicted, and they show all signatures enlarged to approximately the same extent.

FINDINGS AND CONCLUSIONS OF VINCENT J. SCALICE

(147) The following inked impressions were examined and compared at the latent print section, Federal Bureau of Investigation, on June 8, 1978.

(148) 1. Fingerprint impressions of Lee Harvey Oswald:

U.S. Marine Corps
Service No. 1653230
Prints taken by: Ogell W. Melam
Date of prints: October 15, 1956
Armed Forces No. 327925D
Signed: Lee Harvey Oswald

(149) 2. Arrest fingerprint impressions of Lee Harvey Oswald:

Dallas, Tex. Police Department
Dallas No. 54018
Commission exhibit No. 630
Prints taken by: Not indicated
Date of prints: November 25, 1963
Individual fingerprinted refused to sign same

- (150) 3. Arrest fingerprint impressions of Lee Harvey Oswald:
 New Orleans, Louisiana Police Department
 New Orleans No. 112-723
 Prints taken by : Arthur M. James
 Date of prints : August 9, 1963
 Not signed by Lee Harvey Oswald
- (151) 4. Palm print impressions of Lee Harvey Oswald:
 Dallas, Tex. Police Department
 Left hand No. 628
 Right hand No. 629
 Prints taken by : J. B. Hicks
 Date of prints : November 22, 1963
- (152) 5. Fingerprint impressions of Lee Harvey Oswald:
 Dallas, Tex. Police Department
 Commission exhibit No. 627
 Prints taken by : J. B. Hicks
 Date of prints : November 22, 1963
- (153) The inked fingerprint and palm prints of Lee Harvey Oswald appearing on exhibits 1-5 are identical and are those of Lee Harvey Oswald.
- (154) In addition, the following latent impressions were examined and compared with the inked fingerprint impressions of Lee Harvey Oswald at the latent print section, Federal Bureau of Investigation, on June 8, 1978.
- (155) 6. Latent fingerprint designated 4a recovered from brown paper container (wrapping) and developed by the Federal Bureau of Investigation. I identified it as the left index finger (no. 7) of Lee Harvey Oswald.
- (156) 7. Latent palm print, designated 4b, recovered from brown paper container (wrapping), developed by the Federal Bureau of Investigation. I identified it as the right palm of Lee Harvey Oswald.
- (157) 8. Latent fingerprint recovered from the trigger guard of a 6.5-millimeter, Mannlicher-Carcano rifle, serial no. C2766, processed at the Dallas Police Department. It is of no value for identification purposes.
- (158) 9. Lift from rifle (designated commission exhibit 139) from the underside of the foregrip at the gun barrel end of the foregrip of a Mannlicher-Carcano, serial no. C2766. I identified five characteristics or points of identity which match the lift.
- (159) 10. Latent palm print lifted from the underside of the gun barrel near the end of the foregrip, developed by the Dallas Police Department. I examined enlarged negatives which I identified as being identical to the right palm print of Lee Harvey Oswald.
- (160) 11. Palm print recovered from small cardboard box A (commission No. 641), by Federal Bureau of Investigation. I identified it as the left palm of Lee Harvey Oswald.
- (161) 12. Latent print (designated 2a) recovered from a cardboard box and processed by Federal Bureau of Investigation. I identified it as the right index finger (No. 2) of Lee Harvey Oswald.
- (162) 13. Latent palm print recovered from the bottom of a cardboard carton marked D, developed by Dallas Police Department. I identified it as identical to that of right palm print of Lee Harvey Oswald.

(163) 14. Latent fingerprint recovered from page 37 of the American Rifleman (June 1963), developed by the Federal Bureau of Investigation. An order blank for Klein's Sporting Goods Co. had been torn from page 59. I identified it as the right thumb (No. 1) of Lee Harvey Oswald.

