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THE ANALYSIS OF YURI NOSENKO'S POLYGRAPH  
EXAMINATION

Submitted by

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## INTRODUCTION\*

(1)\*\* As part of its investigation into the possibility that Lee Harvey Oswald was involved in a conspiracy to assassinate John F. Kennedy, the select committee looked into whether he might have been a Soviet agent.

(2) One controversial source of information on this point has been a former high-ranking KGB official, Yuri Ivanovich Nosenko. Nosenko had been, on two occasions, in charge of coordinating surveillance and recruitment of American tourists in Russia. At the time of Oswald's defection to Russia, Nosenko claimed to have personally reviewed Oswald's file.

(3) In February 1964, Nosenko defected to the United States and was placed under custody of the Central Intelligence Agency. Because of strong doubts within the Agency that Nosenko was a bona fide defector, he was later placed in solitary confinement for 3 years. He was subjected to extensive interrogation, and during three periods took polygraph examinations: April 4, 1964; October 18, 1966; and August 6, 1968. The examinations were wide-ranging, but only the second dealt with Oswald in any depth. On all occasions, Nosenko maintained categorically that the KGB had never been interested in Oswald and had never used him as an agent.

(4) The polygraphist conducting the first two tests concluded that on the first test Nosenko had lied, though not to the Oswald question. On the second, he had lied to two of the Oswald questions. Another polygraphist conducted the third test. He concluded that Nosenko was answering truthfully.

(5) In the 1970's, the CIA investigated the overall handling of the Nosenko matter and concluded, with respect to the first two polygraph tests, that they should be considered "invalid or inconclusive" because of deficiencies in the way they were conducted. For example, the first had been designed principally to create a hostile atmosphere for Nosenko. The polygraphist was instructed to tell Nosenko that the tests showed he was lying, regardless of what they actually showed. (The expert, in fact, interpreted the results as showing that Nosenko was lying.) However, the CIA did conclude that the third examination was valid and that the results could be considered credible.

(6) The Warren Commission was aware of the Nosenko issue, but was unable to make much of it since most of the material was classified and unavailable. Similarly, critics of the Warren Commission have not dealt with it in any depth.

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\*Materials submitted for this report by the committee's polygraph consultant were compiled by HSCA staff members G. Robert Blakey and Whitney Watriss.

\*\*Arabic numerals in parentheses at the beginning of paragraphs indicate the paragraph number for purposes of citation and referencing; italic numerals in parentheses in the middle or at the end of sentences indicate references which can be found at the end of each report or section.

(7) The select committee decided to have an independent analysis of the polygraph tests conducted. First, such an examination had never been carried out. Second, it wished to know if the tests had been properly conducted and interpreted and if the answers could be considered credible. If so, then it could be stated with considerable certainty that Nosenko was a valuable source of information. If not, the committee would explore other avenues in order to decide what, if any, relation Oswald had to the KGB.

*Selection of the expert*

(8) The committee retained Richard O. Arther to conduct an independent analysis of the three polygraph tests taken by Nosenko. Arther had been a member of the committee's polygraph panel that examined the Jack Ruby and James Earl Ray polygraph tests. He had been selected because of his extensive qualifications and lack of prior involvement with either assassination investigation.

(9) Arther received a B.S. with honors in police science from Michigan State University in 1951, and an M.A. in psychology from Columbia University in 1960. Arther has been in private practice in New York City since 1963. He founded Scientific Lie Detection, Inc., and cofounded the National Training Center of Polygraph Science. He has taught at Brooklyn College, Seton Hall University, the John Jay College of Criminal Justice and the Graduate School of Public Administration of New York University.

(10) Arther has authored over 200 professional articles and two books. He is a member of the Academy of Certified Polygraphists and the American Polygraph Association.

*Procedures*

(11) As noted, Arther was asked to analyze the material related to the three examinations to determine if they had been validly conducted and interpreted and if the results were credible. On June 2, 1978, he made the first of three trips to CIA headquarters in Langley, Va. Following procedures standard for an analysis of past polygraph tests, he reviewed the polygraph charts "blind," that is, without any knowledge of whether the questions were control, relevant, or irrelevant. The purpose was to try to determine solely from the tracings on the charts to which questions Nosenko appeared to be lying. This procedure was followed on two separate occasions. After each review, Arther then checked the question sheets to determine which questions were control, relevant, or irrelevant (see below for an explanation of these terms).

(12) The other trips were made on June 7 and August 24. Subsequently, Arther submitted his final report, which appears in full following this introductory section.

*A polygraph examination*

(13) A polygraph examination records physiological responses to questions asked. The polygraphist attempts to design the examination in such a way that the truthful person will react to the control questions and the lying person to the relevant questions. The test structure must be constructed so that it poses a threat to both the truthful and untruthful person. The polygraphist attempts to determine the "psychological set" of the examinee. He tries to determine, by reading the physiological activity of the examinee in the polygraph charts, what

questions or question areas pose the greatest threat to the examinee's well-being. A "psychological set" is "a person's fears, anxieties, and apprehension, [which] are channeled toward that situation causing the greatest threat to the individual's well-being. He will tune in on that which is of a greater threat, and tune out that of a lesser threat."\*

(14) Responses to questions are recorded on a polygraph chart, which consists of tracings produced by three different types of psychological reactions associated with the circulatory, nervous, and respiratory systems:

1. The breathing pattern is recorded by means of a rubber tube placed around the person's chest.
2. The Galvanic skin response is measured by placing the attachments on either the fingers or the palms.
3. Changes in blood pressure, heart beat, and pulse rate are obtained by a standard blood pressure cuff placed around the upper arm.

(15) Questions are broken down into three categories:

1. Relevant—those pertinent to the investigation.
2. Irrelevant—hopefully, meaningless, nonemotion-producing ones to get the person used to being questioned and giving answers.
3. Control—nonrelevant, to which it can be assumed the person will lie during the test. These provide a standard for comparing the responses to relevant questions. If a person reacts more to a proper control question than to the relevant questions, then he is considered to be truthful to the relevants. On the other hand, if he reacts more to the relevants than to the proper control question, he is considered to be lying to the relevants.

(16) Relevant, irrelevant, and control questions are interspersed throughout the polygraph chart. The examination may consist of various series covering various relevant issues. Each relevant issue must be asked a minimum of two times in a series, but as many times as necessary to conclude that relevant issue successfully. Each series should have a minimum of two charts, but as many charts as necessary to conclude the relevant issues in that series successfully.

(17) The procedure for a polygraph examination is as follows: The polygraphist first conducts a pretest interview, during which the test questions are read to the person exactly as they are going to be asked. It is vital that all questions be properly worded and discussed with the person. Then the actual test is conducted.

#### FINDINGS AND CONCLUSIONS OF RICHARD O. ARTHUR

##### *Materials examined*

(18) On June 2, 1978, I went to Central Intelligence Agency headquarters to study the polygraph examinations administered by the CIA to Yuri Ivanovich Nosenko. I was given what they claimed was the complete file. When I asked for the polygraphists' handwritten notes, handwritten question sheets, chart analyses and other papers from the examinations, I was again told I had the complete file. This amazed me, since I had been given only official reports, typed test

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\*From the Curriculum of the U.S. Army Provost Marshal General Polygraph School, Ft. McClellan, Georgia.

questions and charts. Handwritten notes have always been included in every polygraph file I have ever reviewed. Either on this day, June 2, or on June 7 (the date of my second visit), I asked for the tape recordings from the examinations. I was told there were none. This also greatly surprised me.

(19) On both June 2 and June 7, CIA polygraphists were assigned to me to provide all the background information they had on all three examinations. I was assured that they were holding nothing back.

(20) My third trip to the CIA headquarters was on August 24. Again I had a polygraphist assigned to me. I was given only material provided in June.

### *Procedures*

#### *June 2 visit*

(21) The purpose of this visit was to get an overview of Nosenko's polygraph examinations, including the quality of the test questions and testing procedures, and to conduct an analysis of the polygraph recordings to determine if I agreed with the interpretations of the CIA polygraph experts.

(22) I spent the first several hours analyzing the polygraph reactions—without knowing if any given question was a relevant, irrelevant, or control. Such a procedure is referred to as a "blind chart analysis" and is a standard one, designed to eliminate all preconceived opinions a polygraphist might have as to a person's truthfulness. That is, I formed my opinions as to Nosenko's truthfulness to each test question prior to knowing if any given question was a relevant, irrelevant, or control.

(23) Only after I finished this blind chart analysis did I learn which questions were relevant, irrelevant, or control. I then determined if I agreed with the CIA expert's analysis of Nosenko's polygraph recordings.

(24) On June 2, Kenneth Klein, committee counsel, asked if I wanted to conduct my own polygraph examination of Nosenko and/or personally interview the two CIA polygraph experts. I replied that I would consider both possibilities.

#### *June 7 visit*

(25) On June 7, I returned to CIA headquarters to reevaluate the polygraph examinations, decide if Nosenko should be given another polygraph examination, and determine if interviews of the two CIA experts would prove beneficial. I also did another blind chart analysis to determine if I was consistent with my June 2 analysis. The results were substantially identical.

#### *August 24 visit*

(26) The objective of this visit was to reevaluate the charts and question sheets to make sure that my preliminary written report was as accurate as possible. I had had to write it from memory as the CIA requested I not take my notes away from the Agency's control.

### *Evaluation of the polygraph examinations*

#### *April 4, 1964*

(27) The April 4, 1964, examination was administered exactly 2 months after Nosenko had defected. It consisted of more than 50 relevant questions, divided into 13 individual tests. (The great major-

ity of polygraph examinations are limited to three or four relevant issues.)

(28) It was obvious that the CIA's purpose was to determine Nosenko's truthfulness to a wide variety of issues. Only one question in one test dealt with Lee Harvey Oswald: "Did you tell us the truth about Lee Harvey Oswald?" The answer was "Yes."

(29) The wording of this question is very general. It is the type of broad question that many polygraphists use only at the very end of a test, after at least three or four relevant questions have been asked on the same issue.

(30) Further, this question was the 51st one asked. It occurred in the 12th test and was the 3rd of 11 questions in the test. Because important questions are generally placed at the beginning, with questions of lesser importance near the rear, it would appear that the Oswald issue had an extremely low priority.

(31) As noted, in this examination over 50 relevant questions were asked. Fred E. Inbau and John E. Reid, authors of the classic textbook on polygraphy, *Lie Detection & Criminal Interrogation* (3d edition, 1953), recommended that no more than three relevant test questions be asked. This is because the more a person is asked relevant questions, the more likely he will become "test-tired," that is, even though lying, he will not react because he has become emotionally exhausted.

(32) Further compounding this situation, the examination started at 10:45 a.m. and ended at 3:15 p.m.—a period of 4½ hours—whereas the usual polygraph examination lasts less than 2 hours, with four or five separate tests. Again there is a definite risk that a person will become "test-tired" if the examination runs too long.

(33) Although the CIA expert's opinion was that Nosenko gave a "reaction" (I presume by this he means that Nosenko was "lying") to 6 of the 11 questions, he listed Nosenko as showing "no reaction" to the Oswald question.

(34) In both my blind chart analyses, I picked the Oswald question as showing the greatest valid "lie" reaction by Nosenko, certainly greater than those for the six questions indicated by the CIA expert as having produced lies.

(35) In spite of all the above problems, which would normally lead a polygraphist to believe that Nosenko should be "emotionally unresponsive," Nosenko gives a substantial "lie" reaction to the Oswald question.

*October 18, 1966*

(36) The October 18, 1966, examination was administered by the same CIA polygraphist who had administered Nosenko's 1964 examination. In his written report, dated October 23, 1966, he stated:

(37) The specific purpose of the October 18, 1966, polygraph test was to:

a. Attempt to establish whether subject was in fact actually involved in the *Oswald* case while *Oswald* was in the Soviet Union, or if his association with the *Oswald* case was only part of his cover story legend.

b. Determine if subject was personally active in the *Oswald* case in 1963 after President Kennedy's assassination.

c. Ascertain if subject received special instructions from KGB to pass on to the American Government regarding the *Oswald* case.

(38) This series of examinations began on October 18 and ended on October 28. The thrust of the first day of examinations had to do with Oswald. The subsequent examinations, that is, October 19 through October 28, had nothing to do with Oswald. It would appear that the CIA now fully appreciated the significance of Nosenko/Oswald, and that their polygraphist was doing his best to determine Nosenko's truthfulness regarding Oswald.

(39) During the examination, Nosenko was asked 32 questions in which the name Oswald appears. On my blind analysis, I selected the following questions as containing valid indicators of lying:

1. Did you receive special instructions about what to tell Americans about the Oswald case? (No)
2. Was Oswald recruited by the KGB as an agent? (No)
3. Did the KGB consider Oswald abnormal? (Yes)
4. To your knowledge did Oswald talk to a KGB officer in Mexico? (No)
5. Is your contact with the *Oswald* case part of your legend? (No)
6. Did you hear of Oswald prior to President Kennedy's assassination? (Yes)
7. Did you hear of Oswald only after President Kennedy's assassination? (No)
8. Did you personally order \_\_\_\_\_, in 1959, to collect material on Oswald? (Yes)
9. Did the KGB instruct you to tell us Oswald was a bad shot? (No)
10. Did the KGB give the Oswalds any kind of help in their departure from the Soviet Union? (No)

(40) When a liar is asked a large number of relevant test questions, he will not react as lying to all questions. Instead he will pick out the questions most significant to him and react as lying only to those. Generally, the questions he does not regard as significant, he will not react to, even though he is lying.

(41) On test series 1, the CIA expert wrote that the "most significant reactions" were to questions 1 and 6 above. For test series 2, the CIA expert wrote that the "most significant reactions" were to questions 5, 6 and 7 above, plus two questions not on my list.\*

(42) By having the Oswald questions the first day of this second series of polygraph examinations, both the validity and reliability were greatly increased.

*August 6, 1968*

(43) The third series of polygraph examinations was administered in August 1968. These examinations were conducted by a different CIA polygraph expert. The first series of tests was administered on August 2.

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\*Since my blind analysis involved selecting only the two or three questions to which Nosenko was reacting the most strongly within each test, I did not expect to agree fully with the CIA expert.

(44) Twenty-three relevant test questions were asked, but not one had to do with Oswald. The second day of testing was August 6, 1968. At this time, 27 relevant questions preceded the first Oswald question, of which there were 2.

(45) It is obvious that once again the Oswald issue was considered extremely minor. As noted, the Oswald questions did not occur until quite far into the procedure. The longer a question is postponed, the more likely a liar will come out as "truthful" because he has become "test-tired," that is, unresponsive. On the first day, the polygraphist himself acknowledged the possibility of Nosenko's becoming unresponsive when he wrote, after the sixth test of August 2, 1968:

No further polygraph tests were administered on this date because the examiner did not want to run the risk of fatigue setting in and thus possibly causing adrenalin exhaustion.

(46) Thus he stopped on August 2, after 6 tests and 23 relevant questions. Yet on the second day of testing (August 6), it was not until test 7 and the 28th relevant question that he first asked about Oswald.

(47) Further, the wording of the two Oswald questions was very startling:

1. Did you actually review the KGB file on Oswald? (Yes)
2. Did Lee Harvey Oswald receive any KGB training or assignments? (No)

(48) No date was referred to within this first question, a serious error in wording. Nosenko was claiming that he had reviewed Oswald's file before the assassination. Therefore, the question should have been worded:

(49) "Before November 1963, had you actually reviewed Oswald's KGB file?" Leaving out the date meant that Nosenko could have truthfully answered this question even if he had first reviewed Oswald's file after the assassination. In fact, he could have reviewed it 1 week before he was told to defect and still come out as truthful to the question.

(50) The second question is also very poor in that it has the word "or" in it, which automatically means that it is really two questions. When there are two questions within one question, if a person happens to be truthful to one of those questions and lying about the other, generally he will come out as truthful.

(51) For example, if Oswald did not receive any KGB training but was told to assassinate President Kennedy, Nosenko could possibly truthfully answer "yes" to this question.

#### *Comparison of 1966 and 1968 examinations*

(52) Not only was the first day of the 1966 examination directed totally toward the Oswald issue, but the questions were very specific and basically worded properly. In 1968, neither was the case.

(53) In 1966, the CIA polygraph expert rendered an opinion that Nosenko was lying both about why he defected and as about Oswald. On the other hand, in 1968, the polygraphist rendered an opinion that Nosenko was "substantially truthful." This second expert even had Nosenko answering truthfully to the question: "Is there any possibility that the KGB would dispatch an officer to defect to the Americans?" Answer: "No."

(54) The HSCA has informed me that without exception every intelligence officer interviewed—including KGB defectors—has stated that the KGB is capable of dispatching an officer to defect. The fact that Nosenko denies this and the polygraphist finds him truthful makes the entire examination suspect.

*Opinions*

(55) 1. For two major reasons, there would be no point in interviewing the two CIA polygraph experts. First, the charts spoke for themselves. Second, since I supposedly had the complete case file, I would rather go by the file than by someone's memory of what happened some 10 to 14 years ago.

(56) 2. Another polygraph examination is not recommended for Nosenko. After such a long period of time and such extensive testing, the results could not be trusted.

(57) 3. The polygraph examination given on October 18, 1966, should be considered the most valid and reliable of the three regarding Lee Harvey Oswald. Given the state of the art in 1966, this examination met the criteria of validity and reliability.

(58) 4. Both the 1964 and 1968 examinations involving Lee Harvey Oswald should be disregarded because of the large number of inherent deficiencies in both examinations.

(59) 5. On another occasion, I provided four questions which I would have asked had I examined Nosenko:

Did the KGB order Oswald to assassinate President Kennedy?

Before November 1963, had you ever heard of Lee Harvey Oswald?

Did the KGB order you to defect?

Did the KGB instruct you what to tell the Americans about Oswald?

(60) *Note:* My August 16, 23, 24, and 28 review of the reports, charts, and my blind chart analysis at the Select Committee on Assassinations' offices served only to strengthen the above opinions.