IV. TERMINATION

The tunnel was discovered (see fig. 21) 21 April 1956, after 11 months and 11 days of operation. A memorandum prepared on 15 August 1956 (reproduced in its entirety as Appendix A) examines in detail all evidence available as of that date on the reasons for the discovery. The conclusion reached was that the loss of this source was purely the result of unfortunate circumstances beyond our control - a combination of the fact that one of the cables was in very poor physical condition (this was known from the beginning) and a long period of unusually heavy rainfall. It appeared that water entered the cable in sufficient quantity to make it inoperative, thus necessitating digging up sections of the cable and causing discovery of the tap.

Subsequent developments offer an alternative reason for the demise of the operation. In April 1956, MI-6 discovered that George BLAKE, case officer in their service, had been recruited by the Soviets while a prisoner in North Korea in 1952 and had continued under Soviet control. BLAKE was privy to all aspects of the tunnel from the earliest planning stages. BLAKE stated that he had informed his Soviet contact of the planned tunnel at the time the final decision was made on its location in the latter part of 1953. The

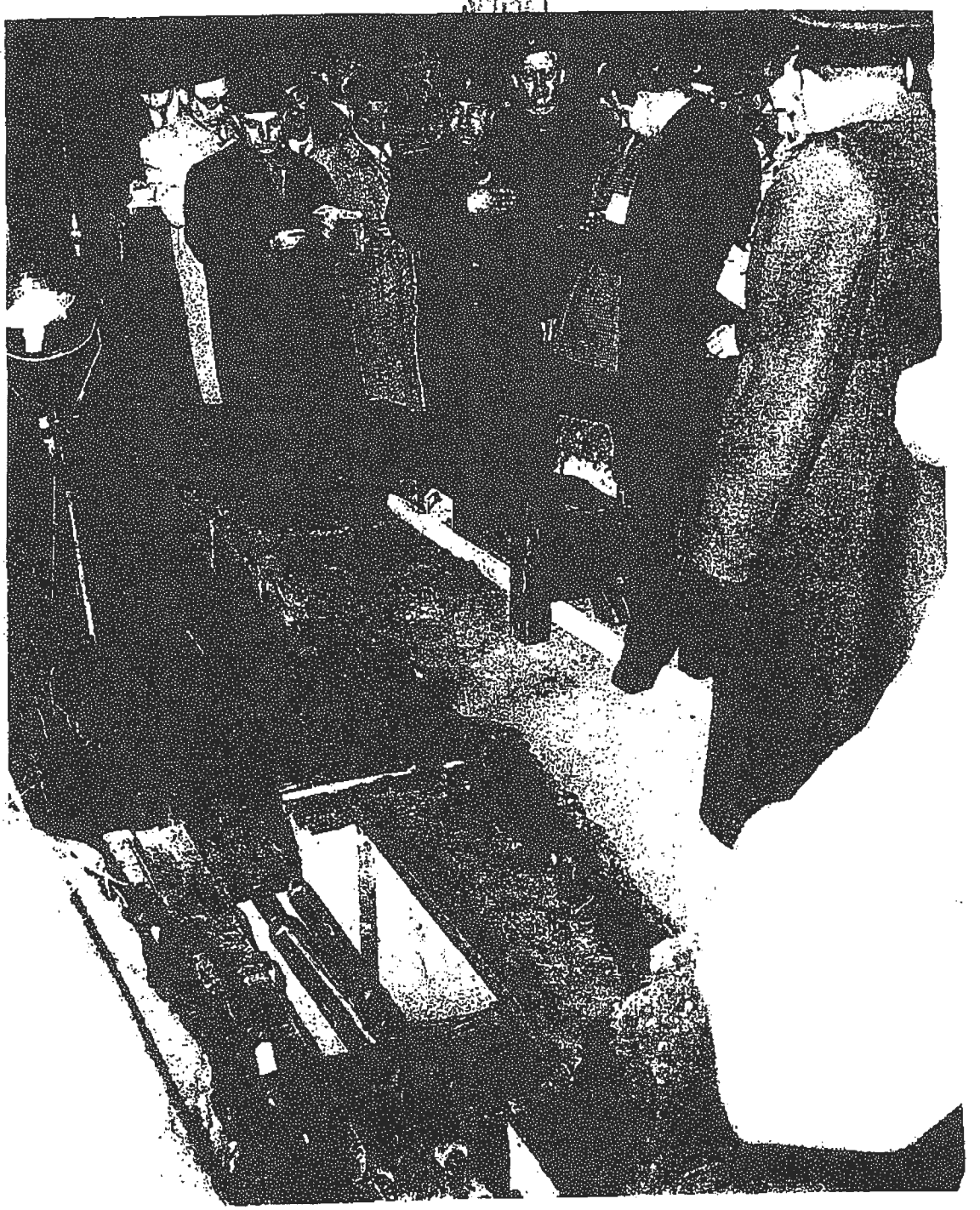

Figure 21

Soviet Press Briefing

question then arises as to why the Soviets permitted the tunnel to be dug and to operate for nearly one year. Many theories have been advanced, but it is most probable that we will never know the exact rationale behind the Soviet moves.

V. PRODUCTION

The following statistics may be of interest in evaluating the project:

a. Three cables were tapped. They contained 273 metallic pairs capable of transmitting a total of approximately 1200 communications channels. The maximum number of channels in use at any one time approximated 500. On the average 28 telegraphic circuits and 121 voice circuits were recorded continuously. Approximately 50,000 reels of magnetic tape were used - some 25 tons.

b. The London processing center employed a peak number of 317 persons. Twenty thousand Soviet two-hour voice reels containing 368,000 conversations were fully transcribed. In addition, 13,500 German two-hour voice reels were received and 5,500 reels containing 75,000 conversations were processed. Seventeen thousand of these conversations were fully transcribed.

c. The Washington center employed 350 people at its peak. Eighteen thousand six-hour Soviet teletype reels and 11,000 six-hour German teletype reels were completely transcribed. It should be borne in mind that many of these reels contained as many as 18 separate circuits, some of which utilized time-division multiplex to create additional circuits. The potential of any given six-hour teletype reel was approximately 216 hours of teletype messages. Both plain text and

encrypted traffic was received. The daily output was about 4,000 feet of teletype messages. Printed in book form, these messages would have filled a space ten feet wide, 15 feet long, and eight feet high.

d. A small processing unit (two to four persons) was maintained at the Berlin site to permit on-the-spot monitoring of engineering circuits for the protection of the project and scanning of the more productive circuits for the "hot" intelligence. Daily reports of sufficient value to warrant electrical transmission to Washington and London were produced.

e. Processing of the backlogged material continued until 30 September 1958 and resulted in a total of 1,750 reports plus 90,000 translated messages or conversations.

f. The total cost of the project was $6,700,000.

The information from this material was disseminated in a closely controlled system called "REGAL." Appendix B consists of a summary of the value of the material received together with typical customer comments. Despite our knowledge of the fact that certain elements of the Soviet Government were aware of our plans to tap these cables, we have no evidence that the Soviets attempted to feed us deception material through this source.

VI. AFTERMATH

As previously noted, considerable thought was given during the entire life of the project on the result its discovery would bring. In retrospect it is probably correct to say that, among those most actively concerned with the project's management, a consensus developed that the Soviets would probably suppress knowledge of the tunnel's existence rather than admit to the world that Free World intelligence organs had the capability of successfully mounting an operation of this magnitude. In other words, it was felt that for the Soviets to admit that the U.S. had been reading their high level communications circuits would cause the Soviets to lose face. Perhaps fortunately, fate intervened, and as a possible consequence the Soviet course of action was exactly contrary to expectation.

The Commandant of the Soviet Berlin Garrison, who would normally have controlled the handling of the situation when the tunnel was discovered, was absent from Berlin and the Acting Commandant, Colonel Ivan A. Kotsyuba, was in charge. There is some reason to believe that he (for whatever reason) was forced to make a personal decision on a course of action without benefit of advice from Moscow. At any rate his reaction was unexpected in that he invited the entire Berlin

press corps to a briefing and tour of the tunnel and its facilities. As a result the tunnel was undoubtedly the most highly publicized peacetime espionage enterprise in modern times prior to the "U-2 incident." Worldwide reaction was outstandingly favorable in terms of enhancement of U.S. prestige. Non-Soviet Bloc sentiment can be generally summarized as follows:

a. There was universal admiration (and this included informed Soviets) on the technical excellence of the installation and the imaginative nature of the undertaking.

b. The non-Communist world reacted with surprise and unconcealed delight to this indication that the U.S., almost universally regarded as a stumbling neophyte in espionage matters, was capable of a coup against the Soviet Union, which had long been the acknowledged master in such matters.

c. Coupled with regret that the Cold War necessitated such measures, thoughtful editorial comment applauded this indication that the U.S. was capable of fulfilling its role of Free World leadership in the struggle.

Appendix C contains a sampling of typical U.S. press accounts and editorial comment on the tunnel. Predictably the Communist press treated the tunnel as an outrage and an

intolerable indecency. Appendix D consists of a study of East German press reaction to the incident.

For their contributions to Project PBJOINTLY awards were made to the following individuals: 5/

CIA Statute	Distinguished Intelligence Medal
	Intelligence Medal of Merit
	Intelligence Medal of Merit
	Intelligence Medal of Merit
Mr. William K. Harvey	Distinguished Intelligence Medal
CIA Statute	Intelligence Medal of Merit
	Intelligence Medal of Merit
	Distinguished Intelligence Medal
	Intelligence Medal of Merit

After the project went into the production phase it was necessary to brief a great many people to properly utilize the product. In all almost 1500 U.S. personnel were cleared for the project, in addition to a very large number of British

5/ Unfortunately the writer has been unable to locate an exact record of those persons who received other recognition from the Agency for their participation in this project and any omissions are regretted. It should also be noted that approximately 1000 people participated wittingly or unwittingly in this undertaking. In fact thereare very few, if any, of the elements of CIA that were not called upon for assistance, either directly or indirectly (such as providing manpower), during the life of the project.

subjects. With the exception of BLAKE (as noted above), we have no indication that there was a single security leak during the life of the project. It is also interesting to note that compartmentation was good enough, even at the Berlin site, that a number of individuals actively engaged in working with the REGAL material were unaware of the exact source until they read about it in the press.

TAB A

~~SECRET~~

APPENDIX A

NOTE: This assessment was prepared by the PBJOINTLY staff immediately after the discovery of the tunnel and is based on pertinent information available. At the time the report was prepared BLAKE's activities had not been surfaced.

15 August 1956

DISCOVERY BY THE SOVIETS OF PBJOINTLY

Analysis of all available evidence - traffic passing on the target cables, conversations recorded from a microphone installed in the tap chamber, and vital observations from the site - indicates that the Soviet discovery of PBJOINTLY was purely fortuitous and was not the result of a penetration of the U.S. or U.K. agencies concerned, a security violation, or testing of the lines by the Soviets or East Germans. A description of the events leading to these conclusions is contained in this paper.

Following heavy rains in the Berlin area a number of telephone and telegraph cables were flooded and began to fault between Karlshorst and Mahlow on the night of 16 April 1956. The first major fault was discovered on cable FK 151 at Wassmannsdorf on 17 April. The fault was repaired by cutting the defective stretch of cable and replacing a 3000 meter length with a temporary replacement cable. Between 17 and 22

April, when the tap was discovered, cables 150, 151, 153, and 157 were inoperative at various times. During this period Soviet signal troops and East German Post and Telegraph technicians worked frantically to re-establish and maintain communications. Telephone lines serving Marshal Grechko, the Commander of the Group of Soviet Forces, Germany (GSFG), and General Kosyakin, Malyi, Tsarenko, and Dudakov failed, temporarily depriving these officers of communications. Faults on cable FK 150 put the Main Soviet Signal Center in Germany out of communications with Moscow, and the Soviet Air Warning Control Center in East Germany similarly lost its communications.

German technicians began a testing program based at Karlshorst and Mahlow and working north from Mahlow. A major fault on FK 150 was discovered and repaired at Wassmannsdorf on 18-19 April, and on 19 April a second major fault on the same cable was discovered at Schoenfeld only two kilometers south of the tap site. It appears that the faulty section of cable was replaced with a new stretch during the early hours of 20 April, but communications remained unsatisfactory, particularly on FK 150[1/], and the testing and repair program

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1/ FK 150 caused project personnel considerable concern from the day that the cables were reached. It was physically in very poor shape, with brittle and cracking insulation. The actual tap of FK 150 was delayed almost three months in deference to its poor physical condition.

continued. This general situation was noted by personnel at the site who checked the tap on the morning of 19 April and found it to be in good condition with no faults present. Berlin notified Headquarters of this fact on the evening of 20 April, noting, "available precautions taken including primary one of crossing fingers."

Throughout 20 April Soviet operators at Karlshorst, the Mahlow cable chamber, and Zossen/Wuensdorf checked FK 150 pairs carrying circuits serving high ranking officials and made switches where necessary or possible. Nothing was said concerning the testing being conducted to discover the faults or work being done by a Soviet labor force lent to the Germans to assist in digging up bad stretches of cable. On 21 April a Karlshorst technician told a colleague in Zossen/Wuensdorf the FK 150 had not yet been repaired and that another two days' work would probably be necessary to clear up the trouble. Testing and rerouting of circuits were stepped up during the evening of 21 April, and the Soviets showed considerable concern over the failure of the Moscow-GSFG Air Warning telegraph channel which had been transferred to FK 150 on 17 April. Lt. Colonel Vyunik, Chief of the GSFG Signal Center at Wuensdorf, telephoned Major Alpatov, Chief of the Karlshorst Signal Center, at his apartment to inform him of the failure of the Air Warning circuit. They agreed that communications had to be

established before morning and Alpatov left for his duty station.

There is no significant information available on the actual progress of the testing and repair program proper from 0300 hours on 20 April to 0050 hours on 22 April. On the basis of available information, however, it seems probable that (a) the testing program continued north until a fault was located near the site and a decision was made to replace an entire section of cable which embraced the tap site; or (b) the repeated faulting coupled with the age and physical condition of FK 150 led the opposition to the conclusion that the only effective remedy was to replace the cable, section by section, and that this program was inaugurated somewhere south of our site and continued northward until the tap was discovered.

At approximately 0050 hours on 22 April, 40 or 50 men were seen on the east side of Schoenefelder Allee, deployed along the entire area observable from our installation, digging at three to five foot intervals over the location of the cable and, incidentally, the tap chamber. At approximately 0200 hours the top of the tap chamber was discovered, and at 0210 Russian speech was heard from the microphone in the tap chamber. The first fragments of speech indicated that the discovery of the tap chamber aroused no suspicion among those present. A small hole was broken in the tap chamber roof

permitting limited visual observation of the chamber, and a Soviet captain [2/] was brought to the spot. After some discussion all agreed that the discovery was a manhole covering a repeater point, and the working crew began enlarging the hole to gain access to the "repeater point."

While the working party was uncovering the tap chamber, Major Alpatov and Lt. Colonel Vyunik discussed the communications situation in a rambling telephone conversation at approximately 0230 hours. They indicated relief at the restoration of Air Warning Communications with Moscow, and Vyunik went on to express suspicion about the continued trouble on FK 150. In context it appears that this suspicion was directed at the failure of the Germans to clear up the difficulties on FK 150 once and for all. In any event, Alpatov clearly did not share his colleague's doubts. The general tone of this conversation was relaxed and casual, completely in keeping with the character of the two men, both of whom we know well. The conversation appears to be a clear indication that, as of 0230 hours on 22 April, neither of these responsible officers was aware of the existence of the tap.

[2/] Presumably Captain Bartash, an engineer who later received an unspecified award from Marshal Grechko for the discovery of the tap.

Meanwhile back at the site the work of enlarging a hole to give full access to the tap chamber continued. At approximately 0250 hours an unidentified Soviet Colonel arrived on the scene, presumably in response to a request for guidance by the working party. The Colonel did not appear to be a signal officer since he took no active part in the investigation and remained on the scene only for a short time. Having enlarged the hole in the tap chamber roof, the workers saw for the first time the cables and the trap door on the floor of the chamber. They assumed the trap door to be "some sort of box" and had no suspicion of the true nature of the installation. At approximately 0300 hours barriers were erected to keep inquisitive onlookers away from the excavation and it was suggested that someone be sent to the Signal Directorate, presumably to obtain relevant cable data. At the same time the first German voice was heard, in conversation with a German-speaking Russian. The German stated that two trucks must have passed the spot without locating it. The Russian answered that "Soviet troops are coming as well," and added that they must wait "until morning" for the decision as to what further work would be undertaken.

While these developments were taking place, Vyunik held a telecon with the Air Warning Center in Moscow in which he referred to the move of the GSFG Air Warning Center and

discussed, in detail, communication arrangements necessitated by this move. This revealing teleconference tends to support other evidence indicating that as of 0300 hours the true nature of the installation had still not been established.

The work of excavation continued, and fragments of conversation connected with it were picked up by the tap chamber microphone. A German-speaking Russian commented that "somebody has come from there and there are fewer workers there," suggesting that similar work was in progress at another point. The Russian gave instructions that nothing in the installation was to be touched. A German remarked that the chamber might be connected with sewage work and proposed that plans of the sewage system be obtained from the responsible authorities. The Russian answered that they already had this information and that the plans showed "that chamber" to be 120 meters away from this point. At about 0320 hours, when still more of the tap chamber was revealed and a better view of the interior obtained, those present began to speculate vaguely about its exact nature and the time of its construction. One of the Soviets, probably an officer, suggested that it might have been built during the war, possibly for "Vhe Che" (Russian abbreviation for "high frequency transmission," but used loosely to denote anything connected with secure communications.) Shortly after 0330 hours, the Soviets left the site by motor

vehicle, presumably to report their findings. For approximately one and one-half hours - from 0330 to 0500 - no sounds or voices were recorded.

At approximately 0415 hours Vyunik telephoned Alpatov's apartment in Karlshorst and asked Alpatov if he had spoken with General Dudakov, Chief Signal Officer, GSFG. Alpatov said that he had, that he was getting dressed, and that he would go to his signal center as soon as possible. Vyunik told Alpatov to telephone him at the GSFG frame room at Zossen/Wuensdorf, adding, "When we speak we must do so carefully. We know what the matter is, so we will speak carefully." This indicated clearly that by 0415 hours the GSFG Signal Directorate and General Dudakov, the Chief Signal Officer, had been informed of the discovery of the PBJOINTLY chamber, viewed it with extreme suspicion, and planned to reroute circuits passing over the target cables. This coincides neatly with the departure from the tap site of the Soviets at 0330. At 0630 Vyunik telephoned Alpatov at the Karlshorst Signal Center and informed him that Lt. Colonel Zolochko, Deputy Chief of the Lines Department, GSFG, had left Wuensdorf at 0625 to go "there." Vyunik, in a resigned tone, then added that all that remained for him and Alpatov to do was to sit and wait.

In due course Lt. Colonel Zolochko arrived at the site, accompanied by an unnamed Colonel and Captain Bartash, the