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Operation GOLD

The spy tunnel in Berlin

Minister Ernst Wollweber (1898–1967)[1] learned of the spy tunnel through a phone call from Soviet authorities, according to one of his deputies, Markus Wolf (1923–2006).[2] It was early on Sunday morning, April 22nd 1956, when he was awakened from his sleep.[3] Wollweber was living in Berlin-Karlshorst at the time, in his home at Bodenmaiser Weg 2. Wolf recalled that, upon learning of the spy tunnel, Wollweber then borrowed an older Volkswagen from a colleague at the ministry who lived in the neighbourhood. Wollweber is said to have driven himself to Markus Wolf's flat at Majakowskiring 59. As, Wollweber apparently did not call his deputy or arrange for him to be informed by telephone, Wolf was still lying in bed, his service weapon next to him on the bedside table.[4] The minister therefore drove the 17-kilometre distance to pick Wolf up, which even today would certainly take more than half an hour. Ironically, Wollweber thus drove in the opposite direction to the spy tunnel, even though he himself lived less than eleven kilometres from the spy tunnel. If Wolf's account is to be believed, Wollweber would have driven to Wolf's house and then another 25 kilometres to the tunnel in Altglienicke.

This is difficult to fathom – as is the rest of the story. According to Wolf, the minister parked the Volkswagen in front of the house on Majakowskiring and then apparently rang the doorbell of the Wolfs' apartment, which only his housekeeper claims to have heard. She then knocked on the bedroom door of Markus Wolf and his wife Emmi (1923–2020). "The minister is waiting for you at the garden gate," she explained. The housekeeper had not invited the minister into the house. Wolf recalled being able to see a Volkswagen – not the ZIM-limousine usually assigned to the Wollwebers – on the street from his bedroom window, but not being able to see the garden gate where his minister was standing and waiting for him. Wolf then went to the front door with his loaded service pistol "in his pocket". There stood the minister with a cigar stub between his lips.[5] As Wolf told Die *Zeit*, the minister had "received a call from the Russians … [I] didn't have time to fetch the driver."[6]

Wolf told *Spiegel* magazine that the minister had said to him: "Hurry up, Mischa! […] You won't believe what they've found."[7] Wollweber then drove "at breakneck speed" to about a kilometre before the airfield to reach the spy tunnel. One asks oneself: if Wollweber was in a hurry, would he really have taken this detour to Wolf's alone, only to then drive back at breakneck speed? Upon arriving, the pair encountered a small group of men, some of them Soviet soldiers, who appeared to be digging a pit. They were GDR telecommunications engineers and "Russian soldiers (including high-ranking members of the Soviet military intelligence service)". In other words, the tunnel was not yet open, no one else was there, but the two men now became the sole eyewitnesses. According to Wolf, Wollweber already knew what was ongoing. It was only once they were there ("now") that Wollweber explained to him that the American and British intelligence services had tapped the cable lines running along the country road, with particular interest in the strand leading to the Soviet headquarters in Wünsdorf. "In the meantime," Wolf recalled, "the diggers had welded open a section of the tunnel and opened the heavy metal door to the spacious amplifier room under the road".[8] According to this account, Minister Wollweber and his deputy Wolf watched the men dig an access tunnel for hours from around 7:00 a.m. to 2:20 p.m.,[9] by which time, the first Germans entered the tunnel. Wolf wrote: "After they had searched the terrain for mines and explosive charges, we

were allowed to visit the facility. In the rather comfortably furnished amplifier room, a true marvel of technology unfolded before our astonished eyes. All of the cables – certainly several hundred – had been cut, connected to an amplifier and rewired to a building about 500 metres behind the border that had been built specifically for this purpose. We groped our way through the tunnel to the underground location where an American joker had placed a small cardboard sign behind a roll of barbed wire with the words 'The American sector begins here'.[10]

Another story

There is also another account in which Wolf does not appear. This account seems concrete and plausible. In the documentation made public here, Thursday April 18th 1956 takes centre stage. During an alleged inspection of the cables by Soviet radio intelligence units, it is said that the control measuring devices on Schönefelder Chaussee indicated malfunctions. An excavation by soldiers of the Soviet radio intelligence troops revealed junctions made on the cables.[11] It can be assumed that Minister Ernst Wollweber was informed immediately, as the documentation states that on the night of Saturday April 21st to Sunday April 22nd 1956, Prime Minister Otto Grotewohl (1894–1964)[12] set up a commission to investigate the facility.

According to this account, on April 22nd, this same commission, together with the "Soviet authorities", uncovered the shaft and began its investigations.[13] The MfS (Ministry of State Security, aka. Stasi) Department "O" later complied a chronicle of the event, which naturally emphases its own role on the day of the spy tunnel's exposure. According this chronicle, Minister Wollweber informed the head of Department "O", Major Adolf Viehmann (1912–2007), on April 22nd 1956 that "an operation by the MfS was to be carried out in Altglienicke together with members of other armed forces".[14] By this telling, Wollweber had, in fact, made a phone call to the department responsible for this area in his ministry, Department "O".

According to this account, Adolf Viehmann was one of the first Germans on the GDR side to enter the tunnel. This man has a history. The electrical engineer, born in Ottange (Lorraine) in France, ended up in Halle (Saale), where he worked part-time and was at times unemployed. From 1935 to April 1951 he worked at the Buna Works in Schkopau. In 1931, he joined the Communist Youth Association of Germany ([15]), and a year later he joined the KPD's (German Communist Party) subsidiary organisation "*Kampfbund gegen den Faschismus*" (Fighting Leaue Against Fascism[16]). In 1945, he first joined the KPD, then soon after the SED (Socialist Unity Party of Germany). Viehmann joined the MfS on May 2nd 1951 and was head of the MfS's wiretapping department from 1951 to 1960. The subject matter was therefore within the major's area of expertise.[17] In addition, he was responsible for all communication devices belonging to "enemy hubs" in accordance with his instructions.[18] Viehmann later fell down the MfS hierarchy in 1960 and was demoted to head of department in Division "N" of the MfS district administration in Leipzig. He first left the MfS on July 31st 1964 ("no longer able to perform his duties"), rejoined and finally left the ministry prematurely in September 1975.[19] Viehmann remained loyal to the political cause however, and in 2007, at the age of 95, he was still a member of the KPD.[20] According to this by the MfS Department "O" chronincle, Viehmann was joined by a still unidentified Stasi employee named Reißner and Minister Wollweber as the people "first to enter the tunnel".[21] In addition, Reißner and another MfS employee named Fathke are said to have gone to the sector border in the tunnel, which was blocked with sandbags.[22] Markus Wolf did not feature in this account, and Wollweber does not seem to have been noticed in the CIA's records either.

The Stasi employee 'Reißner' could be Wolfgang Reißner (*1931)[23] , a native of Leipzig, who most recently headed the 26/6 wiretapping department as a Lieutenant Colonel.[24] Reißner was a member of the MfS from February 5th 1952 to January 31st 1990.[25] Fathke may be Willy Fathke (*1932), who was a member of the MfS from September 1st 1952 to January 31st 1990, most recently in the wiretapping department 26/2.[26]

The discovery of tht tunnel – according to the American interpretaion

During Operation GOLD, the three telephone cables (150, 151 and 152) were tapped. On April 16th 1956, heavy rainfall occurred in the Berlin region overnight, resulting in a number of shafts containing telephone and telegraph cables being flooded.[27] In February, temperatures in Berlin

were still around minus 22 degrees Celsius; overhead lines broke and water pipes burst. It was not until the end of February that the storm "Walpurga" brought a thaw.[28] It was hardly surprising that after the rainfall in April, the telephone connection between Berlin-Karlshorst and Mahlow was prone to disruption. The first fault was discovered on April 17th on long-distance cable 151 in Waßmannsdorf. Cable 151 was repaired provisionally with a three-kilometre-long cable. Between April 17th and 22nd of the same year, long-distance cables 150, 151, 153 and 157 were temporarily shut down. The CIA recorded how Soviet communications units and East German postal and telegraph technicians attempted to restore the connections. The pressure to act must have been enormous, because even the telephone lines to the commander-in-chief of the Group of Soviet Forces in Germany (GSSD), Marshal Andrej A. Gretschko (1903–1976)[29] and to several generals were interrupted. The connection from the Soviet headquarters to Moscow was also affected by cable 150. On April 18th and 19th, the next fault in cable 150 was repaired in Waßmannsdorf, and on April 19th a further fault was repaired barely two kilometres from the listening post. Parts of the cable were also replaced there on April 20th, but on April 21st, the spy tunnel registered an indication that the connection would continue to be unsatisfactory and that a further two days would be required for repairs to cable 150. In view of the disruptions to the GSSD's long-distance cable required for air raid warnings, communication had been switched to long-distance cable 150 on April 17th, enabling the American side to follow the repair work.

At 00:50 a.m. on April 22nd, the American observation point at the radar station registered around fifty men on Schönefelder Chaussee digging along long-distance cable 150 at intervals of one metre, including above the listening station of the spy tunnel. An hour later, at 2:00 a.m., they came across the tapping chamber.[30]

After the head of the KGB residency in Berlin-Karlshorst, Lieutenant General Yevgeny P. Pitovranov (1915–1999)[31] received this information, he, his deputy for intelligence gathering Sergei V. Patrikeev, as well as the head of the England department of the 2nd Main Directorate of the KGB, Nikolai S. Mjakotnych,[32] went to Schönefeld Airport, located near the tapping chamber, and waited for further instructions. They were later informed about the tunnel.[33]

Below the tapping chamber was a microphone, installed as a precautionary measure as part of Operation GOLD, which recorded Russian voices at 2:10 a.m. A hole was made in the metal plate covering the tapping chamber, allowing a view inside. From the discussions that were overheard between the construction crew attempting to enlarge the hole, the prevailing opinion was that this was an amplifier point. At 2:50 a.m., a Soviet colonel briefly visited the site; he could not be identified by the Americans, but had, in their opinion, nothing to do with telecommunications. When the hole in the cover plate was large enough (around 3:00 a.m.) the cables could be seen, as well as a kind of trapdoor on the floor below, which was interpreted as a box. Then, the first German-speaking voice was overheard. Its remarks made it clear that they were waiting for two trucks, whereupon a German-speaking Soviet officer declared that they would wait until morning, until decisions had been made. In the course of further excavation work, a German-speaking voice explained that this chamber might be connected to the sewer system, which is why he felt it necessary to obtain the relevant plans. The Soviet officer replied that these plans were already available and that a sewer system connection could be ruled out. At around 3:20 a.m., with a better view of the cables, those present had the impression that the structure they had discovered was a relic of the Second World War. Ten minutes later, the Soviet participants left the site, as if there had been a break in work, and silence reigned until 5:00 a.m.. However, intercepted conversations later revealed that the Soviet telecommunications department had diverted communications from long-distance cable 150 to another cable. This information led American CIA analysts to conclude that between 3:30 a.m. and a telephone call intercepted at 4:15 a.m., the Soviet authorities had been informed of the discovery of the tapping chamber. Soviet officers arrived at 6:35 a.m. One member of the construction crew entered the chamber, and the American microphones recorded his realization: "The cable is being tapped." Per the American recordings, a German then explained in Russian that they were awaiting the arrival of an official commission, which is why digging and filming may continue in the meantime. The last telephone call was intercepted by the Americans around 9:00 a.m. The structure itself was not yet interpreted as an entrance to the tunnel, but the possibility of an explosive trap was not ruled out. In the discussions held on site, a

"passage" to this box was still considered "highly unlikely." At 11:45 a.m., it was clear that "the box is an entrance to a shaft!" and they began to open the trapdoor. At 12:30 p.m., they entered the tapping chamber, where the padlock had been identified as being of British origin. Once the entrance was large enough, it was recognised at 1:00 p.m. that there was a tunnel behind it. Further filming was arranged. At 2:20 p.m., according to American perception, Soviet officers Colonel Zolochko, Major Nikolai I. Aplatov and Captain Bartasch entered the listening chamber, while the Soviet-German commission had meanwhile arrived at the site of the discovery. The Americans were indeed able to pick up several Russian voices in the tunnel with the microphone. The first German voices picked up were those of two men who addressed each other as Hans and Kurt. These men occasionally referenced their heights in order to estimate the dimensions of the tunnel. One was 1.67 metres tall, the other 1.70 metres. They recognised an installation as a microphone.[34] These were the same two who had walked through the tunnel at around 3 p.m.,[35] as well as those two who had begun cutting the diverted telephone cables at around 3:15 p.m. and switching off the microphone at around 3:50 p.m.[36] Up to this point, only Hans and Kurt had been heard in the spy tunnel on the West-German side. The previously alledged presence of Minister Wollweber and Wolf is therefore not confirmed by this wiretap transcript. However, the joint visit by the President of the GDR, Wilhelm Pieck (1876–1960), and the Minister of the Interior, Karl Maron, after April 22nd 1956 is documented.[37]

During the planning stages of Operation GOLD, explosives were placed in a 12-metre-long garden hose in case the tunnel was discovered at the transition into the Soviet sector.[38] The explosives were dimensioned so that an explosion would cause the tunnel on the American side to collapse without causing major consequences on the earth's surface.[39] However, the Americans decided against detonating the explosives before the tunnel was opened on April 22nd 1956.[40] The CIA subsequently concluded that the discovery of the tunnel had been accidental, as the Soviets' actions in Altglienicke left them with no other conclusion. According to the CIA's verbatim transcript, which was recorded from the start of the first work on the 150 long-distance cable, the first Germans to arrive by 3:35 p.m. were Kurt and Hans – there is no mention of Adolf Viehmann.

The beginning in Vienna

Since the dawn of technical communications, it has been the ambition of intelligence services to listen in to and read foreign communications. It began with the advent of Morse code around 1830, followed by the telephone in the 1860s, telegraphs in the 1890s, covert listening devices in the 1920s, and continues to be refined to this day. Consequently, it is part of everyday life for intelligence services to infiltrate the technical communications of other states or embassies.[41] This also applies to those of the city of Vienna, which was divided into four sectors after the Second World War, where it was the intention of both American and British intelligence services to gain access to the communications of the Soviet intelligence services. The experience gained in Vienna would later form the basis on which the Berlin Spy Tunnel was designed. In the Austrian capital, it was primarily the SIS station chief for the British intelligence service, Second Secretary of the British Embassy, Peter Lunn (1914–2021),[42] who had the communication channels of the Soviet sector tapped from 1950 onwards. These wiretapping efforts include Operations CONFLICT, SUGAR and LORD. The CIA called this cooperation project SILVER.[43] Most of the Soviet military telephone traffic and the telephone lines to Budapest, Bucharest, Prague and Sofia ran through a telephone cable in Vienna's Aspangstraße. These telephone calls were tapped in Operation CONFLICT from 1948 to 1951 by the 291st Field Security Section (FSS) under the command of Captain John Ham-Longman.[44] Operation SUGAR focused on the phonelines of the headquarters of the Soviet military administration, which were tapped underground from the Gablons imitation jewellery shop. The longest spy tunnel was dug during Operation LORD in Simmeringer Hauptstraße opposite the Soviet-occupied city Schwechat. The objective of this spy tunnel being to tap an underground telephone cable from the Hotel Imperial, the Soviet headquarters, which was connected to the Red Army command in St. Pölten.[45]

At the headquarters of the British Secret Intelligence Service (SIS), the intelligence division named Section "N" initially evaluated the intercepted material until 1953. That year, Section "Y" was established at No. 2 Carlton Gardens in London, outside the main building, under the leadership of Colonel Tom Gimson. It is here that the spy tunnel in Berlin was also conceived. Gimson's deputy was

George Blake (1922–2020),[46] who informed the Soviet intelligence service of these activities in October 1953. These tunnel operations ended in 1955 when Austria became independent and neutral.[47]

Berlin plans

In January 1951, there were discussions within the CIA of potential intelligence information breach since the Soviets had abandoned radio communications and had reorganised communications via well-secured overhead lines.[48] The situation was more complex with underground cables. Underground, one must establish where the cables run and what communications re carried out via them in order to identify the location from which the cables can be tapped. As a result, the operational work of the CIA in West Berlin (as well as that of the British SIS) focused on obtaining sources in East Berlin who could provide the relevant information. For example, an employee of a telecommunications office provided books on the use of telephone cables. A lawyer from the Ministry of Post and Telecommunications offered insights into the underground cables used by the Soviet side. The Post and Telecommunications Ministry's chief Russian interpreter provided information about his employer's negotiations with the Soviets. And then a source within the ministry was found who obtained the official maps showing the cable routes, followed by another source who mapped the Soviet users of the connections. Gradually, a picture emerged of the underground cables used by the Soviets. Declassified CIA documents show that as late as August 3rd 1953, there was still only a general, sporadically accurate understanding of the Ministry of Post and Telecommunications. For example, the internal structure of Department IV, which housed the legal department responsible for wage and social policy as well as the press office, proved elusive. The Press Officer, Heinz Senneider (SED), and the Head of the Education Division, Otto Kästner (SED), could already named, but the Head of the Department could only be identified phonetically as "Boden" (SED).[49] Consequently, the American side had only limited operational knowledge at this point in time. This changed completely by December 1954, when the organisational chart had been almost completely reconstructed.[50]

From September 1952 onwards, the CIA deployed William/Bill Harvey (1915–1976)[51] to West Berlin. Harvey was officially assigned as a special advisor to the head of the Berlin department at the High Commission for Germany in West Berlin, but in fact Harvey was to lead the CIA's Berlin Operation Base (BOB), also known as PASTIME. Under his leadership, evidence was uncovered that the Soviets conducted most of their communications via underground cables. Several test runs in January 1953 confirmed this theory, when a CIA source in an East Berlin successfully switched Soviet telephone communications to West Berlin telephone lines for a period of time.[52]

On these grounds, the Berlin spy tunnel project took on increasingly concrete form. In the spring of 1953, it had not yet been decided where the cables in East Berlin would be tapped.[53] Needless to say, there were code names for this operation, which obviously varied. The most widely known codenames for the tunnel include the CIA cover name 'Operation GOLD', and the British SIS name 'Operation STOPWATCH'. However, CIA documents contain signs that suggest that the name PBJOINTLY was initially used for the "Berlin Tunnel Project" itself, while the information obtained from the intercepted material was referred to as REGAL.[54] The names Operation SILVER and GOLD seem to have come into play later – and have become established in society, which is where we pick up here.

The concrete plans in 1953

The experience gained in Vienna, by the "tap specialist" Peter Lunn, was essential for the Berlin spy tunnel. In 1953, Lunn was appointed head of the SIS in West Berlin, where he set up a department dealing with the telephone network in East Berlin. Based on intelligence findings, several proposals were subsequently made to gain access to the Soviet communications network. One of the proposals concerned three telephone cables used by the Soviets in Altglienicke, which was part of the American sector.[55]

On August 28th 1953, the plan was discussed in detail by the British and American intelligence services. The resulting proposal was then sent from the CIA station in Frankfurt am Main to the director of the CIA, Allen Dulles (1893–1969), on September 16th 1953.[56] As a result of the

discussions in August, all parties involved were certain that the information potential of the tunnel project would justify the associated risks and costs, which is why an action plan was drafted and submitted for approval and implementation. It was agreed upon to access the relevant long-distance cables in Altglienicke by digging a 550-metre (1,800-foot) tunnel into the Soviet sector of Berlin, half of which would be under the ground of East Berlin. The plan was to tap into the long-distance cables after a prolonged dry spell, around late summer 1954.[57]

As a result of these considerations, the decision was made to tap into Deutsche Post's telephone cables 150, 151 and 152 located there.[58] Two were in good condition, one was in poor condition.[59] Long-distance Cable 150 connected Berlin-Karlshorst with the Soviet military base Wildpark (barracks on the Großer Entenfänger Lake near Werder/Potsdam, where the headquarters of the Oberkommando der Luftwaffe [High Command of the Air Force] was once located); Cable 151, the cable leading from Karlshorst to the "Mahlow shaft" and then on to Wildpark; and Cable 152, the long-distance cable also laid from Karlshorst to the Mahlow shaft. The targeted listening post was about ten kilometres from Karlshorst. The British-American Operation GOLD will certainly have had the precise planning documents for these long-distance cables, because the clockwise numbering of the cables from Mahlow to Dottistraße in Berlin-Lichtenberg (effectively the Soviet telephone exchange) corresponded exactly to the branches from the cables.[60] The three telephone cables contained 274 long-distance cable lines (150: 63, 151: 114 and 152: 97).[61] However, the documentation provides different information: two of the telephone cables contained 98 line pairs each, and one contained only 63. This means that a total of 259 line pairs could be tapped.[62] Long-distance cables 151 and 152 contained the following telephone distance lines: 93 lines for public traffic, 39 for Soviet services, and 52 for special lines. Additionally, they also contained telegraph lines, totalling 42 lines for public traffic, 36 lines for Soviet telegraphs and 11 special lines. Finally, cables 151 and 152 contained radio lines, four of which were signalling lines and seven transmission lines. After long-distance cable 150 was leased to the Soviet occupying power, the responsible ministry itself had no knowledge of its configuration;[63] it can be assumed that this was also initially the case on the British-American side. However, it was probably known that the long-distance cable 150 had been leased to the Soviet armed forces and that it connected the Soviet armed forces, the intelligence services and the commander in Berlin-Karlshorst with the garrisons in the south of the GDR and, in particular, with Moscow.[64]

The Americans later reported entirely different dimensions of the interception possibilities. According to these reports, taping only three telephone cables would have made 1,200 communication channels accessible, of which up to 500 could have been used at the same time. On average, 28 telegraph and 121 telephone connections would have been tapped at any given time.[65] Certainly, all lines of Soviet agencies were tapped.[66]

The most favourable location for tapping these three long-distance cables was apparently at the sector border in Altglienicke near Schönefeld. The area consisted mainly of fields and allotments, and was therefore sparsely populated. The cables ran for approximately 19 metres along the wall of the Altglienicke cemetery, and continued a further 60 centimetres parallel to the adjacent Schönefelder Chaussee.[67] On January 20th 1954, CIA Director Dulles approved the tunnel construction from the American sector.[68]

The property required by the CIA to embark on this project was located at Schönbergweg 11 and belonged to farmer Hermann Massante (1889–1965). In 1954, he leased the 37,000 square metre plot to the American occupying forces for a period of ten years so that, as he was told, they could erect three buildings on it that were needed for a radar station.[69] The sector border was still 137 metres away from his property in the American sector. On the Eastern side, there was still a distance of 350 metres between the sector border and the three relevant telephone cables on Schöneberger Chaussee. This area in Altglienicke belonged to a farmer by the name of Paul Noack who cultivated fruit trees on his property,[70] and couldn't have fathomed what was happening under his soil.

In West Berlin, the concrete technical requirements of the project were first undertaken by John Taylor, who would design the tapping of the cables,[71] as well as by Colonel Balmain, who was to deal with questions of tunnel construction.[72] According to George Blake's recollections, it was only after the initial planning by the American occupying forces that the CIA secret service was involved in the project.[73] Despite the delay in communication, the CIA director, Allen W. Dulles, was open-minded to the idea.. The design of the tunnel was hotly debated. While the British faboured the use of heavy concrete

blocks in the tunnel's construction, the Americans disagreed, favouring multiple steel plate segements bolted together. The American design ultimately prevailed.[74]

In February 1954, a five-person group from the USA travelled to the MI6's 'Section Y' headquarters in London. Among the group was Frank B. Rowlett (1908–1988),[75] head of the CIA's Soviet Union division, and William (Bill) Harvey, head of the CIA in West Berlin. Section Y was represented by its head, Tom Gimson, as well as Peter Lunn, and the Director of Procurement at the SIS, George Young. George Blake took the meeting minutes.[76] It was agreed that the CIA would finance the project, build the tunnel and provide the labour. The British were to supply the technical equipment. A joint evaluation was to take place in London under British leadership, with the CIA providing the deputy. The audio tapes were to be transported to London for further evaluation by a dedicated air courier service.[77]

The KGB's perspective

George Blake also participated in the joint meetings of the CIA and SIS on December 15th, 17th, and 18th 1953 on the behalf of the British intelligence service. He wrote the minutes in an official capacity and conspiratorially passed on a copy to his case officer at the KGB's 1st Main Directorate, Lieutenant General Sergei A. Kondrashov (1923–2007), who officially served as First Secretary for Cultural Relations at the London Embassy.[78] Blake had committed himself to cooperating with the KGB as an intelligence agent about two years earlier, where he was known by the code name DIOMID ('Diamond').[79] He had previously passed on information about the emergence of British eavesdropping activities against the USSR in Vienna.[80] Through Blake, the KGB was also informed in detail about the intended British-American plans for a spy tunnel and could prepared itself accordingly. Blake later stated that he had also handed over a sketch showing the route of the tunnel and the position of the long-distance cables they were targeting.[81] Blake did not hand over the complete report on the tunnel plans until February 12th 1954. The KGB resident in Berlin-Karlshorst, Yevgeny P. Pitowranow, was officially informed about the source DIOMID and the plans for Operation GOLD which is why efforts were made to keep the communications of the KGB's 1st Main Directorate out of the loop, while telephone calls from the GRU and the Soviet Armed Forces group were tapped without interference.[82] Pitowranow had the area in Rudow discreetly observed and initiated operational investigations into the neighbours.[83] This went unnoticed by the CIA and SIS, who had considered this possibility and prepared security measures.[84] Simultaneously, in December 1955, the KGB sent a group of specialists to Berlin under the leadership of Vadim F. Goncharov ("Gorelov", *1921),[85] who – without having been informed about Operation GOLD and the specific location of the wiretap – was, along with his team, tasked with checking communications security with the GSSD's main telecommunications unit and investigating American wiretapping activities. In January 1956, the group actually located the suspected listening station of the American intelligence service, from which the Rudow spy tunnel was carrying out its monitoring activities, thus confirming Blake's initial intelligence. As a result, a special telecommunications company was set up and trained by the KGB.[86]

Preparations

A pioneer unit of the US Army Corps of Engineers was entrusted with the construction of the tunnel. To this end, the head of the US Army Intelligence Service (G2), Major General Arthur Trudeau (1902–1991)[87], was brought in. He had the engineers build a 150-metre-long test tunnel at the White Sands Missile Range (WSMR) in New Mexico.[88] Additionally, in August 1953, plans were made for the Berlin Military Post to construct three warehouses from which access to the tunnel would be facilitated. Tunnel construction teams were trained for the project during the construction of the warehouses. The training included driving, handling power tools, tunnel construction and personal safety.[89]

Meanwhile, a ten-man British pioneer unit practised constructing a vertical shaft that was necessary to reach the tapping point at a military base in Hampshire, Longmoor Camp. These preparations continued until September 1954.[90] The steel arch segments from which the tunnel body was to be assembled were manufactured in the USA, stored by the army in Virginia, shipped from Norfolk to Bremerhaven, and transported to West Berlin on almost two freight trains. The reported total weight of the materi-

als was listed as 125 tonnes by the Americans, or 139 tonnes by the East Germans. In keeping with the nature of the radar station, the sixteen pioneers wore uniforms of the 9539th Technical Support Unit.[91] Excavation of the tunnel was scheduled to begin on September 2nd 1954.

It was necessary to determine the exact target point of the tunnel for the tapping point. How this was achieved is described by two very similar accounts. The first reports that a vehicle with two CIA agents faked a flat tyre at the intended location on Schönefelder Chaussee in order to install clandestinely a reflector during the car repair, which could then be calibrated from the warehouse via a beam of light.[92] By the second account, one of the technicians involved recalled: "Using the best technical capabilities available at the time, several photographic flyovers were arranged. During one flight, glass plates were used to achieve maximum accuracy. […] We also used a newly developed electronic distance measurement system (EDMS). An employee pretended to have a flat tyre on the side of the road near the target point. While working on the tyre, he placed a small device on the bonnet of the vehicle. This device received and transmitted data to the EDMS system. This allowed the coordinates of the target cables to be determined using aerial photogrammetry and electronic measurement."[93]

The radar system

The construction of the spy tunnel can be described as taking place in three stages. A building resembling an oversized garage was erected on Hermann Massante's property. Officially, it was a US Air Force radar station. The 26 metre long building was actually used to store and transport the mining equipment necessary for the tunnel's construction. The main building had a deep basement, accommodation rooms, a kitchen and a dining room. Another second building contained three diesel generators for power generation. A German construction company built these buildings and handed them over to the intelligence services on August 17th 1954.[94] They were then enclosed by a high-security fence to which microphones were attached to record conversations. From then on, the building itself, and all movements up to Schönefelder Chaussee were monitored, in some cases with infrared night vision goggles.[95]

On August 28th 1954, the designated unit (code named KURBAK) took over the site. The first delivery of equipment arrived with it on that day and was stowed away the next day; the last items of equipment arrived on September 7th 1954. Between August 29th and September 1st 1954, the new facilities were officially put into operation. On September 2nd, KURBAK began the actual excavation work.

On September 8th 1954, excavations began inside the warehouse. A six-metre-deep shaft with a diameter of five metres was successfully dug, at which point it became apparent that the water table was not just under ten metres, but five metres. On the very first day, small amounts of water had already been detected after 2.5 metres. Pumps were immediately procured and put into operation. Between September 8th and 15th 1954, 1,500 litres (400 gallons) had to be pumped out daily from a depth of 3.6 metres. The water flow showed no signs of slowing or reducing. After an internal discussion process, the installation depth was changed.[96] The height of the tunnel was therefore corrected to 2.7 metres below the surface.[97] Analysts in the GDR determined that tunnel construction began in early October 1954, after the official exposure.[98] A tunnel-boring shield was then installed, which was slightly larger than the planned diameter of the tunnel, in order to remove the earth.[99] Actual work on the tunnel structure began on October 11th 1954, and completion of the tunnel was scheduled for January 22nd 1955, assuming no further surprises arose.[100]

The tunnel itself

The tunnel ran about 2.80 metres below the surface and was designed so that the clay soil around it would prevent the tunnel from sinking, while at the same time not affecting the vegetation. The groundwater level in that location rests below five metres. The tunnel was 436-metres-long and was supported by 948 round arches, each made of five-millimetre-thick corrugated sheet steel. The internal height was 1.94 metres. Each of the numbered arches was around 46 centimetres wide and contained five segments that were pushed into each other and connected with screws. Each arch weighed 147 kilograms.[101]

Once an arch had been installed, another half metre of earth was excavated, holding a shield horizontally to pre-

vent the earth from collapsing. Then the next arch was then inserted, and compressed air was used to completely fill the space between the arch and the ground with earth. A converted, electrically powered forklift truck was used to remove the earth from the tunnel. Its trailer ran on rubberised wheels that moved on a wooden track half a metre wide. It was also possible to walk on the track.[102]

Light bulbs hung from the ceiling to illuminate the tunnel. Sandbags were placed on the sides and leaning against the arches, which served in part to store soil (sparing the removal of about 200 cubic metres of sand), dampen noise, catch condensation and also protect the cables.[103] This choice to place sand-filled sacks against the walls, supported by steel cables to keep them against the sides, meant that about one-eighth of the excavated sand was left in the tunnel.[104] In addition, two rubberised pipes wrapped in cotton wool and foil were installed on the right-hand side of the tunnel, facing the tapping point. One pipe carried hot water to the tapping point, while the other carried the cooled water away. There were other pipes resting on the sandbag walls: two for compressed air, one sheet metal pipe with a diameter of 25 centimetres that supplied fresh air, two high-voltage cables to drive the pump motor, and one final pipe that drained the pumped seepage water from the lowest point of the tunnel.[105]

According to the assessment of the experts appointed by the Commission it was estimated that the entrance shaft would have taken approximately fourteen days to construct. As reconstructed by Colonel Sonnet, construction of the tunnel began on October 15th 1954 and was completed approximately March 15th 1955 at the planned location for the amplifier system.[106] According to American sources, work began in April 1954 and ended on February 25th 1955. Note that the Commission's analyses did not take into account the time lost due to groundwater infiltration and the discovery of a clay lens. On average, seven arches could be set each day, which meant that just over three running metres of soil could be removed.[107]

Ventilation and amplification system

There are two within the tunnel, divided by three steel doors. One room contained the ventilation system; the other held the amplifiers for the long-distance cables signals. The first steel door was located at the entrance to the ventilation system, which was accessed from the tunnel. This door was built into a ten-centimetre-thick concrete wall and could only be opened from the tunnel side. The second door for the passage from the ventilation room to the amplifier room was an air-raid shelter door, which was available but not yet installed. The third door, also an air-raid shelter door, was located between the amplifier room and the cable shaft, was fitted with a rubber seal, and led to the area where the branches from the telephone cables had been installed.

The 2.5-metre-long room in which the ventilation system was located was constructed of corrugated steel sheet segments, like the tunnel, but was clad with 2.5-millimetre-thick plywood. The floor was concreted and covered with linoleum. The ventilation system drew fresh air through the aforementioned 25-centimetre-thick pipe, thereby ventilating the tunnel.

Like the ventilation room, the amplifier room was also clad in plywood. This is where the amplifiers and telephone equipment were located. Fluorescent tubes were installed to illuminate the room. Opposite the amplifier system was a row of benches from which the telephone systems could be operated. Temperature and humidity measuring devices were also installed there.[108]

The amplifier room contained eight amplifier racks with a capacity of 432 amplifiers, which is significantly more than were actually in use in the long-distance cables. In addition to the telephone lines in actual service, the long-distance cables contained 399 phantom circuits, which were also proactively tapped so that telephone calls or telegraph messages transmitted via them could be intercepted if necessary.[109] Four connecting cables ran from this amplifier room through the tunnel to the American sector.[110] The amplifier room contained two telephones, one of which was a US Army field telephone, connected to the American sector. The amplifiers themselves, the power supply and the measuring equipment were manufactured in Britain by Siemens Brothers & Co. in Woolwich and U. T. C. Southern Limited in London. The anode power supply was American-made. It was not until later, with the onset of winter, that the air conditioning system was installed.[111] Due to the snowfall that began in February 1956, there were fears that the snow above the tunnel could melt due to the heat build-up in the tunnel itself, which is why a cooling or air conditioning system had to be installed urgently.[112]

Cable duct

Construction of the junction chamber, which began on March 10th 1955, was entirely in British hands, and was completed on March 28th 1955 with the exposure of the three target cables.[113] The plans available to Operation GOLD showed that the long-distance cables ran along Schönefelder Chaussee about 70 centimetres below ground. The top of the vertical tunnel shaft was therefore located just off the road and only 30 centimetres below the surface, so that the team tapping the cables had enough space to work. As such, the structure had to be designed to withstand the weight of a vehicle parked at the roadside.[114] The next section was initially horizontal and then vertical. The horizontal section was located under Schönefelder Chaussee in the East. This section was lined with four strong steel arches and had an internal diameter of 2.10 metres. The areas between the individual arches were filled with concrete. This was followed, about two-thirds of the way across the road, by a section with concrete, double-T girders and oak planks. This was followed by a pipe frame to absorb any crumbling caused by vibrations on the road. Next came a vertical shaft leading upwards, which was also reinforced with oak planks, and then a horizontal section leading to the tapping point. This section was also fitted with pipes and double-T girders. As already mentioned, the British side was responsible for constructing this shaft to a depth of 60 centimetres below the surface. They had developed a steel box measuring 60 by 90 centimetres that opened at the top like a barbecue and was open at the bottom. It was pushed upwards hydraulically.

Disguised (right down to their hairstyles) as American army personnel, they began digging the shaft on March 10th 1955 and reached the tapping point as planned.[115] Within four hours, the branches from the three telephone cables had been installed.[116] This construction phase was later estimated by the GDR to have taken four weeks of work.[117] In truth, it took a good eight weeks.[118] Elsewhere, the CIA states: The three cables were tapped on May 11th 1955, May 21st 1955 and August 2nd 1955. All the equipment for isolating, preamplifying, and forwarding the signals to the tunnel for recording had been provided before each tapping, so that monitoring of each pair of lines could begin immediately after tapping.[119]

The long-distance cables were disconnected at the tapping point and 1.45-metre-long cables were installed between them. Each individual wire was tapped and routed to the amplifier room.[120] The microphone mentioned above was connected inside the cable duct, which was intended for the purpose of registering any unplanned entry into the cable duct. At the same time, sensors were used to measure the temperature and a hygrometer to determine the humidity, to which the electrically controlled air conditioning system could respond.[121] The first conversations were recorded on May 11th 1955.

Volume of information

According to the CIA, around 50,000 magnetic tape reels were used to record the material, weighing a total of 25 tonnes. At the speech processing centre in London, up to 317 employees worked on processing the 20,000 two-hour speech tapes, transcribing 368,000 Soviet conversations in full. This did not apply to the 13,500 two-hour speech tapes recorded in German, of which only 5,500 tapes with 75,000 conversations were processed and 17,000 conversations were transcribed in full. The effort required to process the telexes was no less demanding, with up to 350 employees working on them at times. They transcribed the 18,000 Soviet telex rolls with a length of six hours and 1,000 German telex rolls of the same length in full. The potential of such a six-hour telex roll was approximately 216 hours of telex messages, including both unencrypted and encrypted messages.[122]

The two to four-person processing unit stationed in Berlin monitored the project's technical circuits on site in order to process the most important information immediately, if possible. It produced daily reports that were sent to Washington and London. By September 30th 1958, 1,750 reports had been produced in this way, for which 90,000 messages or conversations had been translated.[123] The CIA assessed this volume of information as authentic and ruled out the possibility that the KGB or GRU had slipped in any "decoys". The CIA had no evidence to suggest this.[124] Of the data recorded up to April 22nd 1956, half a million hours of conversation recordings remained unprocessed.[125]

The value of the information

A CIA analysis of the information obtained broadly concluded that in 1955/56, the US and the UK had been provided with uniquely up-to-date information on the Soviet sphere of influence, the quality of which had not been seen since 1948. Operation GOLD was considered the most important and reliable source of early warnings about Soviet military intentions in Europe and beyond[126] Politically, the operation provided insider information on everything that was happening in Berlin, which often differed from other sources. For example, it revealed that the Soviet Union was in no way interested in ceding its privileges over Berlin to the GDR in favour of the three Western Allies, even though the SED leadership and the GDR government were pushing for this in order to expand their own sovereignty. In October 1955, this source also revealed the planned establishment of the National People's Army in the GDR, and in February 1956, the decisions of the 20th Party Congress of the CPSU and their consequences, in particular the hitherto unimaginable criticism of the CPSU chairman, Nikita S. Khrushchev (1894–1971), of his deceased predecessor, the dictator Josef V. Stalin (1876–1953), and his political decisions, which was noted as a special report with the headline "Khrushchev denigrates Stalin".[127] The futile efforts of the Soviet Minister of Defence, Marshal Georgy K. Zhukov (1896–1974), to limit the role of political officers within the Soviet armed forces were also noted separately. The material also provided insights into the complex relationships between the military and politics in the Soviet hierarchy, including the Soviet armed forces in the GDR and Poland.[128]

From the perspective of a carefully calculated war of aggression by the Soviet Union, it was possible – as was already the case with the information from the tunnel operations in Vienna , the all-clear could be given, as there was sufficient information about the reorganisation of the Soviet Ministry of Defence, the plans to implement the Warsaw Pact through increased military coordination efforts between the Soviet Union and its Eastern European states, and, above all, how serious the published intention to reduce Soviet armed forces was. Finally, the identification of several thousand Soviet officers was enabled.[129]

Operation GOLD made it possible to closely monitor: how the Soviet Air Force in the GDR developed its nuclear delivery system capacity; how it re-equipped itself with new bombers and twin-engine interceptors with airborne radar capability; how it doubled its bomber strength in Poland; and how a new fighter division appeared there.[130] One hundred Soviet air bases in the USSR, GDR and Poland, along with several important aircraft factories, were identified. The combat deployment of Soviet ground forces within the USSR, Soviet training plans in the GDR and Poland, and several thousand Soviet field post numbers used to create Soviet battle orders were also determined.[131] The wealth of information also revealed the reduction in the status and personnel strength of Soviet naval forces, as well as providing insight into the administrative procedures of the headquarters of the Soviet Baltic Fleet and the Soviet naval bases on the Baltic coast. With regard to the Soviet nuclear energy programme, several hundred people involved in it were also identified, which included knowledge of the organisation and activities of uranium mining by the Soviet-German joint stock company in Wismut. Last but not least, the information provided insights into several hundred Soviet intelligence agents in the GDR and the USSR; 350 employees were identified in the Soviet military intelligence service GRU alone.[132] A wiretapped telephone conversation even revealed a reference to a source in the British intelligence service. This source would not be exposed as George Blake until 1961.[133] In this way, it became known that the KGB had tapped the long-distance cable used by the USA from Potsdam.[134] Additionally, KGB wiretapping operations on radio communications between West Berlin and the Federal Republic of Germany were documented.[135] The material was sufficient to provide an insight into the private and professional life of the head of the KGB residency in Berlin-Karlshorst, Lieutenant General Yevgeny P. Pitovranow.[136]

Government Commission of the GDR

A part-government, part-Soviet-German commission, appointed on April 21st/22nd 1956 by Prime Minister Otto Grotewohl was to deal with the spy tunnel even before it was actually opened. This is evident from the documentation.[137] This commission is also referred to in the CIA wiretap transcript of April 22nd 1956. The wiretap disclosed that the commission was expected to visit the tunnel at 7:00 a.m., and arrive it did. Given this intelligence,

the existence of such a commission must be considered as a foregone conclusion, even if only individual fragments of the relevant file are available. However, the timing of its formation gives the impression that organisational measures had been taken on the East German side even before the tunnel was actually opened, so that they could act immediately after the tunnel was officially discovered. Consequently, one must assume that Minister Wollweber and Prime Minister Grotewohl had been informed in advance by the Soviets, at least on the night of April 21st/22nd 1956. That they were made aware of the operation by telephone, as Markus Wolf claims to have heard, is the less likely course of events, in light of the subject matter itself. Apart from that, Wollweber and Grotewohl, in addition to the Interior Minister Karl Maron, Postmaster General Friedrich Burmeister (1888–1968),[138] and Defence Minister Willi Stoph (1914–1999)[139], would have had to coordinated their efforts to organise the commission before Wolf was roused from his sleep. This commission was certainly dominated by the Soviets, with the aforementioned Goncharov playing a key role.[140]

However, the documentation presented here,[141] as well as the Stasi archives, contain documents that suggest the commission's work produced results. The "Structural Engineering Expert Report on the Facility on Altglienicke–Schönefeld Road" is dated April 27th 1956 and should undoubtedly be regarded as a result of the commission's work. It was written by Colonel Erich Sonnet (1913–1989) and Chief Inspector Leuschner.[142] Sonnet was by no means an employee of the MfS (Ministry of State Security) or the MdI (Ministry of the Interior), but an officer in the National People's Army, which had been formed only weeks earlier. His selection was certainly no coincidence. In 1934, after completing his studies at the Technical University of Stuttgart, he joined the *Reichswehr*, becoming a Lieutenant in 1937 and a First Lieutenant and platoon leader in the 1st Pioneer Battalion 25 in 1939. In 1940, he attended Pioneer School II, and in 1942 he was promoted to captain. As commander of the 295th Engineer Battalion, he was taken prisoner by the Soviets in Stalingrad in January 1943, where he became a member of the National Committee for a Free Germany, founded in 1943. On May 1st 1945, he was part of Gustav Sobottka's (1886–1953) group, which had flown in from Moscow,[143] one of three groups of twenty people each that landed in Germany; Sobottka's group, however, landed in Sagan (today Żagań in Poland). Sonnet was initially deputy to the senior district administrator in Cottbus, then mayor of Guben. In July 1952, he joined the Barracks People's Police, then the NVA. During the days of the spy tunnel, however, he was a colonel in the Ministry of National Defence and, as a colonel, head of the NVA's engineering corps.[144] He was perfect for the case of this tunnel, as he was able to act as an expert thanks to his specialised military knowledge. It can be assumed that the Head of Department O, Adolf Viehmann, was also a member of this commission on behalf of the MfS, as were perhaps Willy Fathke and Wolfgang Reißner, to whom, according to the documentation, Colonel Gustav Borrmann (1895–1975), who headed the General Department, was assigned.[145]Captain Leuschner from the "Criminal Technical Institute of the Main Administration of the German People's Police" was a member of the commission on the behalf of the Ministry of the Interior. The Institute had been formed in July 1952 and was located on the top floor of the People's Police Headquarters in Neue Königstraße (today Otto-Braun-Straße).[146] Leuschner and Borrmann the authors of the documentation, which is based in part on commission documents.[147] In addition to the MfS, MdI and MfNV (Ministry of National Defense), the Central Administration for Telecommunications of the Ministry of Post and Telecommunications, Egon Zirzow and Heinz Witascheck (1914–1982) were also identified as a member of this commission.[148] They must have played a significant role, as they commissioned investigations from the Institute for Technology and Testing in Greater Berlin[149] and at VEB Fernmeldekabel-Anlagenbau.[150] According to CIA investigations in 1951, Zirzow headed the Telecommunications Technology Department within the Ministry of Post and Telecommunication,[151] but he later became Head of Department for all telecommunications technology in the ministry.[152] Witascheck[153]a trained telecommunications engineer who reported to Zirzow, had been a member of the Communist Youth Association since 1929 and worked as chief advisor to the Central Committee of the SED in Franz Dahlem's department (1892–1981).[154] Witascheck was responsible for radio communication security within Department I of the Ministry in 1953.[155] He then headed the FESI unit (Fee Office for Soviet and People's Police Departments) and the FESIV unit (special long-distance cable issues) in the Department for Special Issues.[156]

The work of this government commission resulted in the documentation "Spy Tunnels of the American Secret Service," which is published below. It is said to have been compiled mainly by Colonel Borrmann and Captain Leuschner for the Minister of the Interior, Karl Maron. No date is given, but it is clear from the introductory content that it cannot have been submitted before October 1956, although the 108 photos were obviously taken on site on April 22nd 1956 and in the following days, and perhaps a little later in the case of the excavated parts of the tunnel. In light of its spelling and content errors (it refers to "June 1954" when it meant June 17th 1953), the introduction to the documentation appears to have been written very quickly and published without correction. Although it is stated to be based on documents from the commission, it is based only on those that lag significantly behind the actual state of knowledge. It is possible that the receptivity of the addressee was taken into account.

Conclusion

The digging of espionage tunnels to gain access to the telecommunications of relevant targets is to be regarded as an ongoing task for intelligence services. In this respect, Soviet or Eastern European diplomatic missions were probably always surrounded by perforated soil. However, the most famous tunnel by far was the one in Berlin-Rudow, which was built during Operation GOLD or STOPWATCH in 1954/55. According to the CIA, the total cost of the GOLD project amounted to $6,700,000.[157] A total of almost 1,500 US employees were assigned to the project, joined by an as yet unknown number of British nationals. In addition, there were another 1,000 employees from the US who were involved more or less unknowingly.[158] The question is whether these costs were worth it for an active period of eleven months. The American verdict here is clearly positive.[159]

Ultimately, this costly operation confirmed the theory of one of the oldest espionage theorists, Sun Tzu (544–496), who wrote in "The Art of War" that espionage is crucial to defeating the enemy because of the information it provides, which is the most cost-effective method of gaining military advantage and thus avoiding military confrontation. Since wars are expensive, espionage can be used to win the war at the lowest possible cost, ideally without physical destruction.[160]

Operation SILVER had already made it clear to the British and Americans by October 1953 that the Soviet side had not prepared a military attack on Europe in 1953/54. This finding was underscored by information obtained from tapped telephone cables 150, 151 and 152 in 1955/56. Therefore, the all-clear was given, an action that even emphasized by the Soviet side through the critical appraisal of the deceased Soviet dictator Joseph Stalin.

The story of the spy tunnel has not yet been conclusively written. Even after 70 years, neither the British nor Russian intelligence services have released any significant archival material on the subject. Even the CIA has only made a few summary documents public, while keeping the revealing meeting minutes and planning documents largely under wraps. For this reason alone, the previously neglected documents of the MfS, which have been evaluated here for the first time, are just as significant as the documentation "Spy Tunnel of the American Secret Service", published here for the first time, of which only a single copy was made for the Minister of the Interior, Karl Maron, apparently in 1956/57 by those members of the commission who were involved in analysing the spy tunnel. Seen in this light, there is now considerably more light shed on the spy tunnel in Berlin.

Endnotes

1 None of the biographical sketches on Ernst Wollweber contain any references to his role in connection with the spy tunnel; cf. Jan van Flocken, Michael F. Scholz: Ernst Wollweber. Saboteur – Minister – Unperson, Berlin 1994; Roger Engelmann, Silke Schumann: Der Ausbau des Überwachungsstaates. Der Konflikt Ulbricht – Wollweber und die Neuausrichtung des Staatssicherheitsdienstes der DDR 1957, in: Vierteljahreshefte für Zeitgeschichte 43rd year (1995) No. 2, pp. 341–371; Roger Engelmann: Ernst Wollweber (1898–1967). Chief Saboteur of the Soviets and Taskmaster of the Stasi, in: Dieter Krüger, Armin Wagner (eds.): Conspiracy as a Profession. German Secret Service Chiefs in the Cold War, Berlin 2003, pp. 179–206; Ilko-Sascha Kowalczuk: Wollweber, Ernst, in: Neue Deutsche Biographie, Berlin 2024, vol. 28, pp. 491–493. The excerpts from his memoirs published to date also contain no reference to this topic; cf. Wilfriede Otto: Ernst Wollweber: Aus Erinnerungen. Ein Porträt Walter Ulbrichts, in: Beiträge zur Geschichte der Arbeiterbewegung 32nd year (1990) No. 3, pp. 350–378.

2 Forty years later, the former KGB resident in the GDR, Yevgeny P. Pitowranow, recalled not only entering the opened tunnel himself, but also calling the deputy minister, Erich Mielke (1907–2000), in the middle of the night and demanding: "Inform Walter Ulbricht immediately that we have discovered a spy tunnel near Schönefeld"; Klaus K. Sondermann: "Operation Gold", in: die tageszeitung, 22 April 1996. This seems plausible in view of the establishment of a German-Soviet commission that was formed that same night.

3 See Markus Wolf: Spionagechef im geheimen Krieg. Erinnerungen, Düsseldorf 1997, p. 110.

4 See Beste West-Qualität, in: Die Zeit (2006) No. 14, 30 March 2006.

5 This narrative is repeatedly reproduced uncritically; cf. Herbert Kierstein: Heiße Schlachten im Kalten Krieg (Hot Battles in the Cold War), Berlin 2007; p. 71; David Stafford: Berlin underground. Wie der KGB und die westlichen Geheimdienste Weltpolitik machten (Berlin Underground: How the KGB and Western Secret Services Shaped World Politics), Hamburg 2003, pp. 23 and 193.

6 Best Western Quality, in: Die Zeit (2006) 14, 30 March 2006.

7 See Klaus Wiegrefe: „Operation Gold," in: Der Spiegel, vol. 51 (1997) no. 39, 21 September 1997.

8 Wolf: Head of Espionage, p. 110.

9 See Stafford: Berlin Underground, p. 193.

10 Wolf: Head of Espionage, p. 110 f.

11 See here in the documentation Spy Tunnel, p. 54.

12 For more information on this person, see Dierk Hoffmann: Otto Grotewohl (1894–1964). A political biography. Munich 2009.

13 See documentation on the spy tunnel, p. 54.

14 See Operational tasks of Department O after the discovery of the spy tunnel in Altglienicke; BArch, MfS, Dept. 26, No. 183, p. 59.

15 On the KJVD, see Barbara Köster: Die Junge Garde des Proletariats. Untersuchungen zum Kommunistischen Jugendverband Deutsch lands in der Weimarer Republik, n.p. 2005.

16 On the KdF, see Andreas Wirsching: Vom Weltkrieg zum Bürgerkrieg? Politischer Extremismus in Deutschland und Frankreich 1918–1933/39. Berlin und Paris im Vergleich, Munich 1999, pp. 561–570.

17 On the role of Department O, see Roland Wiedmann: The Service Units of the MfS 1950–1989, Berlin 2012, p. 5.

18 See Lieutenant General Erich Mielke: Order on the administrative procedure for transmitting intelligence to the head of Main Department S dated 19 December 1953; BArch, MfS, BdL Doc. No. 2298. Main Department S was the predecessor of Department O.

19 See BArch, MfS, BV Leipzig, KS No. 101/74; BArch, MfS, KS II 262/78; cadre order No. 63/52 in: BArch, MfS, HA KuSch No. 1066; Kaderbefehl No. 97/53, in: ibid., No. 1358; Kaderbefehl No. 323/53, in: ibid., No. 1359; Kaderbefehl No. 2975/55, in: ibid., No. 1068; Kaderbefehl No. 299/57, in: ibid., No. 1073; BArch, MfS, HA IX, AU No. 587/60; BArch, MfS, SED-KL No. 4152; BArch, MfS, Diszi No. 6892/92; Kristie Macrakis: Seduced by Secrets. Inside the Stasi's Spy-Tech World, Cambridge 2008, p. 150. See also Angela Schmole: Wiretapping; Observation, Bugging and Marking. Die Abteilung 26 des MfS, in: Zeitschrift des SED-Forschungsverbundes 19th year (2006), pp. 95–106, here 95, which refers to Major Viehmann's report on "Kabeltrennaktionen 1956" (Cable Cutting Operations 1956); BArch, MfS, Dept. 26, No. 192, pp. 8–54; idem: Department 26. Telephone Monitoring, Wiretapping and Video Surveillance, Berlin 2009, pp. 5, 21–24 and 44.

20 See minutes of the 25th Party Congress of the KPD on 21 April 2007 in Berlin, in: Die Rote Fahne, 21 April 2007.

21 See Operational tasks of Department O after the discovery of the spy tunnel, undated; BArch, MfS, Dept. 26, No. 183, pp. 59 f., here 59.

22 See BArch, MfS, Dept. 26, No. 183, p. 59 f., here 60. During the course of the day, other ministry employees arrived, including Reinhard from the MfS's Main Department V, Heinz Witaschek from the Ministry of Post and Telecommunications, and employees from the MfS's Department KO; ibid. On Department KO, cf. Wiedmann: Diensteinheiten, p. 22.

23 For information on Wolfgang Reißner, see BArch, MfS, KS No. 12379/90.

24 See Schmole: Abteilung 26, pp. 10 and 49.

25 For information on Wolfgang Reißner, see Kaderbefehl No. 63/52; BArch, MfS, HA KuSch No. 1066; Kaderbefehl No. 97/53; BArch, MfS, HA KuSch No. 1358; cadre order no. 41/54; BArch, MfS, HA KuSch no. 1360; cadre order no. 299/57; BArch, MfS, HA KuSch no. 1073; cadre order no. 304/57; BArch, MfS, HA KuSch no. 1073.

26 For information on Heinz Fathke, see cadre order no. 135/54; BArch, MfS, HA KuSch no. 1360; cadre order no. 299/57; BArch, MfS, HA KuSch no. 1073.

27 The following remarks are based primarily on Discovery by the Soviets of PBJOINTLY, 15 August 1956; Appendix A, in: Clandestine Services History. The Berlin Tunnel Operation 1952–1956, 24 June 1968, pp. 1–15; https://www.cia.gov/readingroom/docs/CIA-RDP07X00001R000100010001-9.pdf; cf. the translation by Ingmar Arnold: On the 65th anniversary. "Die Entdeckung des Spionagetunnels durch die Sowjets" (The discovery of the spy tunnel by the Soviets), in: *Schattenwelt - Magazine of Berliner Unterwelten e.V.*, 7th year (2001) No. 1, pp. 71–83; also in redacted form as Document V 4 in: Donald P. Steury (ed.): On the Front Lines of the Cold War. Documents on the Intelligence War in Berlin, 1946 to 1961, Washington 1999, pp. 351–365.

28 See Paul Schlaak: Weather in Berlin from 1950 to 1961, in: Berlinische Monatsschrift (2001) No. 3, pp. 180–192, here 188.

29 For more on this person, see Jan Foitzik: Gretschko, Andrej A., in: Helmut Müller-Enbergs et al. (eds.): Wer war wer in der DDR. Ein Lexikon ostdeutscher Biographien, Berlin 2010, vol. 1, pp. 426 f.

30 See document V 5, in: Steury: Frontlines, pp. 367–393, here 371, 377 and 379.

31 For more information on this person, see http://www.knowbysight.info/PPP/07768.asp.

32 Nikolai S. Mjakotnych was officially First Secretary at the USSR Embassy in Berlin; see Hans-Michael Schulze: Spuren vom „Berliner-Kreml" (Traces of the "Berlin Kremlin"). How the Soviets shaped Berlin-Karlshorst for almost fifty years, in: Zeitschrift des Forschungs verbundes SED-Staat (Journal of the SED State Research Association), (2004) No. 16, pp. 59–69, here 66.

33 See George Bailey, Sergei A. Kondrashov, David E. Murphy: The Invisible Front. The War of the Secret Services in Divided Berlin, Berlin 1997, p. 284.

34 See Document V 5, in: Steury: Frontlines, pp. 367–393, here 371, 377 and 379.

35 See Stafford: Berlin Underground, p. 196.

36 Arnold: 65th Anniversary, p. 81.

37 See Saxon State Archives, 20250 District Authority of the German People's Police Leipzig, No. 5587, there 47; BArch, MfS, ZAIG, Fo

No. 560; reprinted in Stafford: Berlin underground, p. 213.

38 See Clandestine Services History. The Berlin Tunnel Operation 1952–1956, 24 June 1968, p. 21; Stafford: Berlin underground, p. 148.

39 See document V 3 (Memorandum for the record, 29 November 1954), in: Strey: Frontlines, pp. 347–350, here 347 f.

40 See Stafford: Berlin underground, p. 194.

41 See, for example, Sandro Gaycken, Constanze Kurz: 1984.exe. Social, political and legal aspects of modern surveillance technologies, Bielefeld 2009.

42 For more on this person, see Richard C. S. Trahair, Robert L. Miller: Encyclopedia of Cold War Espionage, Spies, and Secret Operations, Westport 2004, p. 176 f.

43 See George Blake: No Other Choice. An autobiography, New York 1990. See also George Blake: Keine andere Wahl. Die Autobiographie des wichtigsten Doppelagenten in der Ära des Kalten Krieges, Berlin 1995, pp. 27–29. See also Stafford: Berlin underground, pp. 27–43.

44 See Thomas Riegler: In search of the British spy tunnels in Vienna, 26 June 2024; https://thomas-riegler.net/2024/06/26/auf-der-suche-nach-den-britischen-spionagetunneln- von-wien.

45 See ibid. See also Erwin A. Schmidl: Austria in the Early Cold War 1945–1958. Spies, Partisans, War Plans, Vienna 2000, p. 96; Stafford: Berlin Underground, pp. 44–59.

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47 See Stafford: Berlin underground, p. 24.

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49 Cf. Title redacted, 6 August 1953; https://www.cia.gov/readingroom/docs/CIA-RDP80-00810A001700680006-3.pdf.

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51 For more on William Harvey, see Bayard Stockton: Flawed Patriot. The Rise and Fall of CIA Legend Bill Harvey, Washington 2006.

52 See Bailey: Unsichtbare Front, pp. 263–265; Stafford: Berlin underground, pp. 69–79.

53 See Engineering the Berlin Tunnel, in: Studies in Intelligence, vol. 52 (2008), no. 1, pp. 17–23, here 19.

54 See The Berlin Tunnel Operation 1952–1956, 24 June 1968; https://www.cia.gov/readingroom/docs/CSHP-The Berlin Tunnel. Incidentally, the American code name LCPROWL refers to the technical service in the Bund Deutscher Jugend (BDJ), which was used by the CIA as a kind of stay-behind network from 1950 to 1953 from the Frankfurt Operation Base (FOB).

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56 For more on Allen Dulles, see Steven L. King: Allen Dulles. Mastermind of American Intelligence, n.p. 2024; James Srodes: Allen Dulles. Master of Spies, Washington D.C. 1999.

57 Document V 3 (letter from the FOB chief to the director of the Central Intelligence Agency, 16 September 1953), in: Steury: Frontlines, pp. 333–335.

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59 See G.: Engineering the Berlin Tunnel, in: Studies in Intelligence, vol. 52 (2008), no. 1, pp. 17–23, here 20.

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61 See expert opinion on the telecommunications equipment at the connection point for wiretapping lines, 27 April 1946; BArch, MfS, Dept. 26, No. 183, pp. 10–14, here 10.

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64 See documentation on the spy tunnel, p. 54.

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71 See Stafford: Berlin underground, p. 42.

72 See Blake: Autobiography, p. 44.

73 See David Stafford: Spies Beneath Berlin. The Extraordinary Story of Operation Stopwatch/Gold, the CIA's Spy Tunnel Under the Russian Sector of Cold War Berlin, London 2003; William Durie: British Garrison Berlin 1945–1994. No Where to Go, Berlin 2012; Steve Vogel: Betrayal in Berlin. The True Story of the Cold War's Most Audacious Espionage Operation. Custom House, New York 2019.

74 See G.: Engineering the Berlin Tunnel, in: Studies in Intelligence, vol. 52 (2008) no. 1, pp. 17–23, here 19.

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84 See Stafford: Berlin Underground, p. 184 f. He does not cite a source.

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86 See Bailey: Unsichtbare Front, pp. 281–283. The source given there (p. 545) is an interview with Sergei A. Kondrashov, which he conducted with Goncharov on 21 November 1994; Stafford: Berlin underground, p. 185, Peter F. Müller and Michael Mueller took over this information in Gegen Freund und Feind. Der BND. Geheime Politik und schmutzige Geschäfte, Reinbek 2002, p. 240, without, however, referring to Bailey or this source.

87 For more information on this person, see https://www.cia.gov/readingroom/docs/CIA-RDP80B01676R001200080047-2.pdf.

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103 See Structural engineering expert report on the listening device on the Altglienicke–Schönefeld road, 27 April 1956; BArch, MfS, Dept. 26, No. 183, pp. 28–36, here p. 31.

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