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The story of the Berlin Tunnel: What the operations narrative teaches us about covert conflict in an ongoing Cold War

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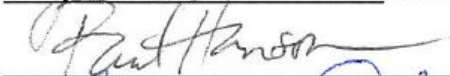
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**The Story of the Berlin Tunnel:
What the operations narrative teaches us
about covert conflict in an ongoing Cold War**

by Jonathan Collier

A Thesis
Presented to the Department of History and Anthropology
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Introduction

The year is 2008, 85 year old George Blake is called on stage by Vladimir Putin to be recognized with the Order of Friendship. Memories brought to the forefront by the recognition of one of the most important double agents throughout the Cold War, reignite concepts of a continued conflict. As a British Secret Intelligence Service (SIS) member who defected to the Soviet KGB in 1953, Blake had already received the Order of Lenin in 1961 and his involvement throughout the peak of the Cold War saw Putin honoring one of Russia's greatest spies.¹ As an essential source of information about various Anglo-American operations, Blake is evidence of the significant value placed on such double agents. One of his greatest intelligence coups involved Operation Gold and leaking information about the top secret tunnel under Soviet territory in Berlin from 1953 to 1956. The tunnel itself was an Anglo-American joint venture to acquire intelligence about Soviet military and their movements. In short, it was an operation with considerable financial investment from the CIA, planned for two years and completed in 1955 with the purpose of providing consistent coverage of Soviet activity. Constructed completely covertly and operational for just under a year, I argue that Operation Gold is evidence that this desire for intelligence was a major motive throughout the Cold War underlining the traditional narrative of the period. Furthermore, it has connotations for the importance of covert activity in the ongoing rivalry between Russia and an Anglo-American alliance which can be identified in 21st century relations.

¹ Tony Halpin, 'Vladimir Putin honours traitor George Blake with tit-for-tat birthday medal', *The Times* 14 Nov 2007.
<https://web.archive.org/web/20080517023556/http://www.timesonline.co.uk/tol/news/world/europe/article2865969.ece>.

Only a month prior to Blake's honoring by Putin the Queen had similarly honored a KGB defector, reflecting the deteriorating Anglo-Russian relations of the late 2000s. The death of Alexander Litvinenko in November 2006 as a result of poisoning with radioactive polonium-210 saw the start of this narrative. Fast forward 12 years and the poisoning of former Russian agents on British soil in Salisbury has truly reignited these tensions.² Regarded as an act of terrorism, the use of a substance, illegal under the Geneva conventions, marks the fresh low point in attitudes toward Russian action internationally. These events see global politics increasingly reflecting sentiments of the Cold War in the 1950s. In the modern day it is the presence of Putin which provides an easy link to past events, from the beginning of the new millenium to the current day Putin has maintained his grip over Russian political life. His past in the KGB has been questioned as a key element to a form of dictatorial control; the Cold War may seem part of history but events that characterised the conflict have continued to be present into the modern day. The development of Cold War methods and narratives into the modern day allow a greater understanding of how covert warfare developed. The honoring of Blake invites us to look back at events as a framework to understand more recent developments in a second Cold War or in many ways the reignition of the 20th century Cold War. The relations between the West and Russia have always seemingly been tied to this narrative of the Cold War and while globalization, societal and technical advances have altered these interactions, it is increasingly evident that this tie is unlikely to be severed in coming years.

² *Ibid.*

The titular Berlin Tunnel under the pseudonym Gold for the CIA and STOPWATCH for the British took place from 1953-56. The origins of the covert operations on the US side began in earnest in the late 1940s after communist led action in France and Italy. The term “covert psychological operations” is particularly relevant for the majority of US operations as they often focused on discouraging communist momentum in capturing the minds of Europeans.³ “Covert psychological operations” refer to agents being deployed in order to influence how events unfold, in this case, discouraging the spread of communism. Operation Gold, on the other hand, was a significant investment in information gathering in order to achieve a greater understanding of Soviet standing and affairs. The nature of Cold War conflict is perhaps most clearly represented in this separate sphere of activity behind the technological advances and arms race. The tunnel itself was a significant attempt to address the seeming intelligence imbalance between the US and Soviet Union. While the US had substantial resources, the tapping of Soviet cables in the Eastern zone of Berlin was a sizeable operation which saw the advantages the Americans did have, utilized to correct its shortcomings. As a form of surveillance, the Berlin tunnel represents a large technological advance within the covert sphere. The value of information within the Cold War and to the CIA and KGB activity was directed toward uncovering knowledge of the status of the opposition’s infrastructure, finances or respective intelligence. As Michael Warner states, ‘The fact that East and West avoided direct conflict in the Cold War

³ David Murphy, Sergei Kondrashev, and George Bailey, *Battleground Berlin: CIA vs. KGB in the Cold War*, Yale University Press, (1997), p.103

stemmed in part from the achievements of their intelligence systems.¹⁴ A number of Cold War events tested this hypothesis but in avoiding direct conflict the intelligence community effectively ensured both sides often had information about deeper motivations and the extent of activity that might be taken. This prevented decisions that would be irreversible in a nuclear capable environment. Operation Gold had a large role in this as it established battle order (BO), a term for military positioning and resources, for the Soviet armies.

The construction of the roughly 1500 foot tunnel through a collaborative operation between the CIA and SIS in 1954 is commonly seen as a great technological achievement, it both built on previous advances and capitalized on unique circumstances. The CSHP Report states that 'In retrospect the first question, "Could the tunnel be dug?" was never really a debatable one - those concerned more or less decided that given sufficient money and personnel the job could be done.'¹⁵ Despite the various barriers to the successful completion of the covert construction, the operation, at least among the intelligence community in the know, was rarely doubted. Any reservations about the feasibility were overshadowed by the enthusiasm and belief of those who permitted the operation to proceed. This can be related to the balance of power between the USSR and US at the time, such that the CIA saw an opportunity to finally use technological and financial superiority to attempt to rebalance the covert sphere. The results it produced have since been questioned with subsequent developments around the operation proving that its seeming airtight security and

⁴ Michael Warner, *The Rise and Fall of Intelligence: An International Security History*, Georgetown University Press, (2014), p.131

⁵ Clandestine Services Historical Paper No.150, *The Berlin Tunnel Operation 1952-1956*, p.7

secrecy had one major leak. This makes straightforward conclusions harder to come by. In addition to this, while the information derived was substantial and the documents surrounding the operation are numerous, Allen Dulles opened the operation with a commitment to keeping as little on record as possible. Furthermore, the British side of the operation has still not declassified documents.

The selection of the pseudonym 'Gold' is of particular interest in analyzing the development of covert affairs as it was an evident advance on the British led Operation Silver in Vienna. This downscale version of the Berlin tunnel laid the essential foundations to the success of its successor. The British had already successfully tapped Soviet communication lines in Vienna utilising the sewer network, with the division of the city providing an essential model for the situation which the CIA and SIS found themselves in a couple of years later in Berlin. It was also noted that the expertise developed by the British in Vienna was the main factor for their substantial involvement in the technical details of Operation Gold. The benefits of divided cities in both of these operations went beyond the symbolic value of breaching physical barriers between East and West. The importance of both Vienna and Berlin as communications hubs prior to the split of Europe meant that cables did not observe the new state of affairs and were used in the same fashion as in the decades leading into the Cold War. This scenario created interesting possibilities and enabled operations such as Silver and Gold to have value. Berlin would be an obvious target and location given the statement of Martin that,

Second only to Moscow, Berlin was the hub of the Soviet communications system. "As a result of the 19th century imperial control of great European nations, all cables ran from the provinces into the capitals and back out again...In

Eastern Europe, “everything came to Berlin. When the Soviet commandant in Bucharest or Warsaw called Moscow the call went through Berlin.”⁶

As suggested Vienna shared these similarities with Berlin. David Pike explores these implications: ‘Vienna, like Berlin was not only a local source for signal traffic but also a switchboard for communications all over Europe’.⁷ The importance of communication lines being uncompromised by the arbitrary surface boundaries, aided the greater emphasis on covert attacks of communications as seen with both of the tunnels. The potential value of Operation Gold was secured with the successes of Operation Silver and the understanding of communication lines. In fact this understanding allowed a particularly simple experiment which further strengthened the commitment to the tunnel operation in Berlin. Martin states that it was largely a matter of previously linked lines being disconnected from their terminals, thus meaning ‘that all that was required to tap into the East Berlin system was to reconnect the lines.’⁸ This resulted in an early tapping of East German lines by simply reconnecting previously severed lines and routing it through a West German post office. As an effort which was not covert this experiment’s lifespan of three weeks was necessary, although also enough to provide evidence of value behind tapping communication lines in Berlin. The Berlin Tunnel was not an operation taken lightly, though subsequent reaction goes to show the possible moral dilemmas of tunneling into enemy territory which was certainly underestimated among the elites who rubber stamped the activities. Thorough planning and preparation meant

⁶ David Martin, *Wilderness of Mirrors*, Harper and Row, (1980), p.75

⁷ David Pike, ‘Wall and Tunnel: The Spatial Metaphors of Cold War Berlin’, *New German Critique*, No.110, p.77

⁸ *Wilderness of Mirrors*, p.75

the build up to the operation was as long lasting as the tunnel itself. This was necessitated by other seemingly mundane aspects such as soil type, water table distribution and location of a graveyard nearby.

These technical details call closer attention to the path from Operation Silver to Gold. As stated, it was the expertise of the British from their successes in Vienna that informed their involvement in the more specialized elements. The collaboration hinged on this involvement, as the CSHP report covers: the British would: (1) drive a vertical shaft from the tunnel's end to the targets; (2) effect the cable taps and deliver a usable signal to the head of the tunnel for recording'.⁹ Now the British were involved, resources could be pooled together and both the US and UK would host centers for translation and analysis of information. While Operation Gold could be seen as the US dominated equivalent to the British led Operation Silver, the development of collaborative ideas was very much a necessity for the Americans seeking an effective project. The flaws in US capabilities were addressed by collaboration but the scale and eventual completion of the tunnel certainly points toward American ingenuity and expertise. While the nature of the operation necessitated measures which may seem overly cautious, approximately 10 foot of top cover and highly sensitive location made these measures essential to the operation's success. In addition, this resulted in significant investment in equipment and specialized methods, including completely buying out two companies' stocks of plastic piping in order to cool the equipment room. While the implementation section does address the predominant amount of these features, the planning of the tunnel contains

⁹ CSHP No.150, p.11

essential commitment to the values which informed the investment in these methods. The nature of the operation made it impossible to avoid interaction with significant other events, from the original thoughts all the way through to its discovery.

The state of intelligence as a whole is not often considered as part of the narrative of the Cold War, often relegated behind the public narrative of resources, weapons and technological superiority. While it was testament to the success of intelligence agencies in discouraging physical conflict between the US and Soviets the balance of power was shifting between the CIA and KGB throughout the Cold War. Furthermore, the differences between the rival agencies are indicated in the nature of operations that were undertaken. The KGB was much more developed than the CIA when the Cold War began. This is tied to their presence from the time of Lenin as the Cheka. With a much longer history the KGB had much more significant mastery of HUMINT (Human Intelligence) than the CIA when it emerged. This can also be related to the emergence of double agents such as Blake whom the Soviets relied upon for much of the inside information they had on their Western enemies. This balance was being shifted by the technological narrative of the Cold War, as, 'The United States was able to develop a unique intelligence culture which focused on technological means of collection because of its technological advances.'¹⁰ With greater fiscal resources the CIA could take advantage of the technology and communications which were characterising the development of the Cold War. While the CIA could therefore relatively dominate the KGB in technological terms, with Operation Gold a reflection of this, the

¹⁰ Gabriel Margolis, 'The Lack of HUMINT: A Recurring Intelligence Problem', *Global Security Studies*, Vol.4 No.2, p.44

US could not completely disregard the importance of human intelligence. The case of Blake and Free Jurists, the latter being an East German human rights group supported from the West by the CIA, indicate that traditional spies, double agents and informants were still as highly valued as ever even at the peak of technological advances. Operation Gold was a form of COMINT (Communications intelligence). Margolis adds a significant drawback that can impact these technologically driven operations, notably, 'A target can go 'off the grid', rendering the COMINT operation irrelevant.'¹¹ With these differences it effectively becomes a discussion of industry scale technological covert operations versus the specific and detailed information from human agents. Realistically both need to exist to create a full picture of an enemy's standing.

The role of traditional agents characterises the Berlin tunnel operation as a result of George Blake's involvement. As a double agent in the SIS, his presence in the narrative tarnishes the collaborative element from the British side. However, it is heavily debated as to whether Blake's involvement actually undermined the results of the tunnel. He later gloated about the number of operations that he compromised, but as an information source he held exceptional value to the Soviets. This value means his activity was largely kept at a superficial level rather than directly leading to large numbers of operations actually being shut down. This is not to say that his information was superficial in value, but in acting on any of his information, the KGB risked arousing suspicion about Blake. Therefore, his situation became a balancing act of potentially shutting down an operation to prevent the US and Britain from gaining information about

¹¹ *Ibid.*, pp.46-47

Soviet activity and risking Blake's position, or maintaining a high level mole within the Anglo-American operations and at least being aware of almost all aspects and their important details. This defines the economic aspects of covert warfare as it relied on weighing up potential information gains in terms of value that it could have for policy and decision making. This was a considerable dilemma in the case of Operation Gold. In *Battleground Berlin* Kondrashev argues that even a misinformation campaign was seen as too resource intensive and risky. It is fairly symbolic that even though the operation was compromised from the beginning this did not mark its failure. This state of affairs largely resulted from the economics of the covert conflict that had developed. Information had its relative value and agents would be valued based on what information they had leaked or acquired. In addition, classified or significant information was highly valued. Nationality and type of agent similarly informed the value of a human source. This can be compared to the simplistic valuation of technologically driven operations, which amounted to a simple calculation of resources invested.

Seeing Operation Gold as part of a trilogy of events in Berlin that characterize narratives through the Cold War is a useful lens through which to study its development. While the Berlin Blockade and the wall receive the most substantial studies and attention, the Berlin tunnel has not been completely neglected. A series of narratives constructed often corroborate essential details of the operation, but as shown there are differences which indicate points of interest. Debate also develops over the nature of the operation's legacy and results. Diverging perspectives value the information that the tunnel did uncover at different levels. The environment also necessitates an

understanding of the different types of intelligence that could be acquired. While some results from the tunnel could be reduced to trivial gossip or unimportant details, it is also difficult to see how the scale of information was simply disinformation from the Soviets. *Wilderness of Mirrors* offered the earliest complete narrative of the Berlin tunnel, but has since been questioned over its major source, Carl Nelson. Certainly a high profile figure in the CIA, Nelson it has been suggested, is prone to exaggerate certain details. *Battleground Berlin* offers the most substantive and accurate story and has extensive sources in the know from both the CIA and KGB side. While details of the planning and implementation of the operation are therefore straightforward to establish, the results and legacy of the tunnel can be debated from a number of perspectives. It is interesting to note, on this point, that some CIA officers argued that the psychological benefits of successfully undertaking the operation were more substantial than any of the physical intelligence that the tunnel garnered.

The operation should be seen as part of the covert sphere. The covert sphere will be defined as the arena in which public involvement was minimised and the economy was run on intelligence and knowledge of the opposition. This arena was heavily involved in shaping public events, but operations within the covert sphere were rarely exposed to public scrutiny unless they failed, were discovered or went spectacularly well. The nature of this arena is essential to the Cold War, as the introduction of nuclear weapons made physical warfare a self-destructive option. Covert warfare, while largely dominated by the trade of information, was also directed at undermining elements of social, economic or political structures. The Berlin tunnel was in many ways aimed at

fulfilling all these criteria by providing substantial information on the standings of Soviet military and society. Covert conflict has therefore also been defined and is the interaction of rival intelligence agencies in covert action and counterintelligence operations. The world in which the Berlin tunnel took place is one which mirrors physical warfare. While human casualties were incurred in the covert sphere, the losses or successes were largely defined by the knowledge acquired and potential destabilization of the rival's society. In addition to these considerations, while the public did not necessarily have access to the covert sphere, they were very much within its influence. The covert sphere was effectively a bubble everyone was in, but only certain individuals could ever interact with. This consideration defines Operation Gold and informs later conclusions about the significance of this covert conflict in the Cold War.

Planning

The planning of Operation Gold began in the early 1950s. The fact that its planning took two to three times longer than its active period is revealing of its technical nature and also the meticulousness of those involved. The Clandestine Services Historical Paper #150 offers the most substantial and firsthand narrative of the Berlin Tunnel outside of interviews and separate documents in other historical sources. A commonality is the extensive space taken to cover the planning and situation of the tunnel. In planning the operation a number of contextual events and trends were reflected in the concerns of the CIA and MI6. Events such as the Berlin blockade, which prompted substantial fear of a Soviet invasion of Western territory, should be considered in analyzing the planning period of the operation. Likewise, intelligence losses as a result of crackdowns on dissident groups such as the Free Jurists should be considered. This acts as justification for such a substantial operation moving away from human agency to technologically driven projects. The context in which the operation took place can be utilized in the planning section to explain the nature of the tunnel as it developed. The Cold War had competing narratives with individually significant events throughout and it is therefore interesting to note the interaction of these events within the context and timeframe of Operation Gold. This section may therefore be lengthy, but due to the many considerations involved it would be amiss not to consider the factors which shaped the operation that Allen Dulles called "one of the most valuable and daring projects ever undertaken".¹² Approached chronologically the different factors

¹² David Stafford, *Spies beneath Berlin*, Murray, (2002).

within the planning of the Berlin tunnel highlight why the operation was pursued. It will also clarify the anxieties that influenced attitudes within the allied powers' intelligence services during the early 1950s.

Opening the planning section by addressing the Berlin blockade sets the tunnel within the Berlin theatre of Cold War action. A trilogy of events centering on Berlin ended with the construction of the Berlin wall. This situation is expanded by considerations of the evolving methods of a covert conflict in which human intelligence from dissident groups like the Free Jurists was being obstructed. Operation Silver in Vienna will similarly inform the narrative towards action in Berlin. These seemingly disparate events combine to increase the complexity of Operation Gold realization and situational background. It is important to consider the influences that these developments had on the psyche and balance of power within the Cold War, but more specifically in the covert sphere. Works such as *Wilderness of Mirrors* and *Battleground Berlin* both debate elements of the tunnel's planning; it is perhaps inevitable that the latter work often tends to correct aspects of the narrative. In the case of the planning stage for Operation Gold this was related to previous influences such as Operation Silver, which itself has documents that have not been declassified. *Wilderness of Mirrors* was one of the earliest works including Operation Gold as a focus. The narrative was constructed from interviews with Carl Nelson alongside documents that David Martin could acquire prior to the more thorough declassification of details. While Nelson was certainly involved in the operative structures, subsequent publications have called his narrative exaggerated at points and misleading in others. The process of

transitioning from Operation Silver to Operation Gold is a major factor in some flaws of Nelson's narrative. Furthermore, with the nature of covert operations being as they are the details that were exaggerated have since been elaborated and distorted further. The talk of the "echo effect" which dramatically eased the process of decoding Soviet cyphers has vigorously been debunked in subsequent work. While the effect itself was uncovered it was neither relevant to Operation Gold and at the time was not part of a nuanced understanding of relations in the covert sphere. Simply put, Operation Gold was an incredibly intricate operation to organize in order to preserve its truly covert nature. As a result the planning was as significant and long lived as any other stage of the operation and was therefore open to debate over details within the historiography.

Berlin Trilogy: Airlift, Tunnel, and the Wall

The trilogy of events in Berlin that defined it as the center of Cold War Europe began with the Soviet Berlin Blockade and the Allied Airlift. The Berlin tunnel marks the less known second event in the symbolic trilogy. It is also interesting to note that many escape tunnels were dug once the Berlin wall was constructed. Operation Gold saw the construction of a tunnel before there was anything to tunnel under except the ever closing iron curtain. The Berlin Blockade and Airlift were certainly relevant to the psyche of US officials leading Operation Gold. Fears of Soviet aggression and movement within Europe have been noted as key motivators for covert activity:

While the eavesdroppers pursued their clandestine tasks beneath the streets of Vienna, Cold War shadows rapidly darkened the landscape above. Stalin's blockade of Berlin sparked a major war scare. Fears of a surprise Red Army attack in Europe gripped Washington, where bitter and traumatic memories of Pearl Harbor remained fresh.¹³

The Berlin Blockade, 24 June 1948 to 12 May 1949 was a major crisis of the Cold War. While the events that have followed showed that some of the fears and anxieties the move caused were not realised, it is certainly easy to see why allied forces were fearful of escalation. The to-and-fro which characterized events in the Cold War can be observed in events of the Blockade and Airlift. It could be seen as a partial result of allied provocation introducing the Deutsche mark to West Berlin. However, the nature of divided Germany and Berlin did leave the Western sector of the capital susceptible and weak to actions such as the blockade. With the capital deep in Soviet territory the

¹³ Stafford, *Spies beneath Berlin*, p.42

complete blockade of access into West Berlin meant valuable and essential goods and resources could not be delivered. The aggressive nature of the blockade certainly marks an attempt to remove allied influence within Berlin but the allied response dramatically shaped how the saga was perceived.

The Berlin Airlift operated longer than the blockade was in place (26 June 1948-30 September 1949). It was also extremely successful not only in delivering necessities to West Berlin residents but also as a propaganda victory. This latter success highlights how Cold War events could be framed to enhance or negate physical or psychological successes on either side. The total cost is estimated at around \$224 million with over 2.3 million tons of supplies. The airlift lasted longer than the active operation of the tunnel and positioned the allies in opposition to potential Soviet expansionism and authoritarianism. The intelligence garnered from the tunnel was intended to further inform about fears of this Soviet expansion that had been sparked by events of the Blockade and Airlift. It is revealing of the capabilities of the Allied infrastructure and military that a city of roughly two million inhabitants was supplied exclusively by air for more than a year. While the Berlin Airlift is a polar opposite to covert operations, the trends that it characterized ultimately influenced the direction and feelings of the intelligence officials.

While the tunnel did not have the same investment as the airlift and had no public profile until its discovery, it certainly built on the same themes. As such the successes were only conclusions open to debate in the months after its discovery. Nevertheless, the story that is presented by Murphy shows the influence of intelligence on events

around the Berlin Blockade and Airlift. He notes that Battle Order intelligence was somewhat available prior to the tunnel. CIA officials reassured President Truman that 'there was no reliable evidence that the USSR intended to resort to military action within the next sixty days.'¹⁴ With this knowledge the CIA had reached their most effective point in such a volatile environment. When aggressive Soviet action was known to not have the physical backing it would require, the US could relax considerably more about the fears that high ranking officials held. This can be seen to frame the events of the Blockade and Airlift as the US behind the scenes had some confidence in the fact that the Soviets would not seek escalation. This information led to a conflict of attrition with both sides testing how far the other would go in order to retain control in Germany and Berlin. The fear of war was therefore reduced by CIA information, although it was not eliminated entirely.

While part of a "trilogy" of events which characterize the significance of Berlin, the blockade and airlift did not directly influence many aspects of Operation Gold. However, they are definitely part of the environment which was a large motivation of the eventual CIA activity in Berlin throughout the 1950s. The importance of the CIA can be seen in directing actions regarding aggressive Soviet activity. Furthermore, the fear of Soviet aggression also created a greater demand for intelligence. Situating this with the progress of Operation Silver in Vienna and the other British-led tunnel operations suggests that much of the Allied covert activity was directed toward reassurance and ensuring that a possible third world war would be avoided. In addition the effects of a

¹⁴ Murphy, *Battleground Berlin*, p.55

blockade were shown to be somewhat restrictive toward CIA activity in West Berlin, but principle agencies within the Russian zone could be maintained fairly straightforwardly. This did, however, influence approaches toward groups such as the Free Jurists who had a client network in East Berlin already. An interesting side note here would be the claim in *Battleground Berlin* that since the blockade angered East Berliners, there was an appetite to cooperate with Western intelligence.¹⁵ As suggested, while the Berlin Blockade and Airlift are symbolic events in the public eye, the impacts they produced in the covert sphere were much more significant. This included a much greater focus on the intelligence and informative capabilities of an effective agency. With political leaders aware of the potential consequences of escalation in Berlin, the intelligence agencies could serve an essential function in informing policies toward Soviet activity. The blockade and airlift effectively heightened the need for an active and effective intelligence operation which was being developed heading into Operation Gold.

¹⁵ *Ibid.*, p.57

The Free Jurist Problem

The Cold War is renowned for the lack of direct conflict between the US and USSR, although many events certainly came close to prompting the collapse of the precarious state of affairs (the Berlin blockade and airlift for example). Studying the nature of espionage in Berlin, however, shows a much greater level of direct interaction, a clandestine war that certainly saw aggression and violence directed toward respective forces. With impulses and perceptions resulting in the CIA developing a major covert action capability, East German dissident groups were essential resources in the development of a covert to-and-fro within divided Berlin. The Free Jurists were one of these anti-communist groups and were eventually involved in paramilitary activities. Events surrounding the organization highlight essential aspects of the clandestine activity that should be seen to define Cold War Berlin. While the building of the Berlin Wall definitely firmed up the previously more permeable boundaries between sectors, the actions of agents in Berlin characterized a competition for information and a drive to undermine and weaken opposing regimes. The Free Jurists were an organization established in West Berlin to question illegal activity of the communist regime in East Germany, specifically human rights abuses. It was a 'subversive organization' that from its inception interacted with GDR citizens offering legal advice against said abuses. The KGB listing of the organization describes it as carrying out 'espionage activities against the GDR with the help of its agent net within the GDR', engaging in campaigns to weaken and delegitimize communist regimes.¹⁶ As a natural source of information on

¹⁶ Murphy, *Battleground Berlin*, p.113

East German judicial and security systems the group offered a valuable source of easy to access information. Furthermore it created a natural network eager to report illegal acts and offer evidence. West Berlin media and opinion was said to value the group as a potent underground organization.¹⁷ The Free Jurists are relevant to the creation of the Berlin tunnel as dissident groups contributed to a sense of Soviet anxiety, which led to tightening restrictions on movement between the East and West. These restrictions made reliance on technological projects more attractive than relying on human agents. While the group was established without the CIA, it received its principal funding from the US agency. This made it an easy target for allegations of espionage, and this accusation made its leaders and members targets for the KGB.

On 8 July 1952 Walter Linse, head of the economic section of the Free Jurists, was kidnapped by the KGB. Linse was an attractive target given his role in undermining particular weak aspects of the Soviet regime, including workers' rights in nationalized industries, and labor law. While under interrogation Linse confirmed reports of anti-Soviet activity. The scale of both the Free Jurist organization and the Soviet response is notable, in that eighty-four agents were subsequently arrested.¹⁸ It is interesting to note both the blow to the Jurists' network, but also to the Soviet regime in discovering the scale of infiltration of various industries. An economic report seized from Linse further dented the KGB success. The importance of information on the state of Soviet society is emphasised by the report in which all of 'GDR industry, trade, and planning' was provided with empirical evidence. Linse intended the report for American

¹⁷ *Ibid.*, p.116

¹⁸ *Ibid.*, p.117

intelligence and through investigations led by the Free Jurists all the details had been collated. Another aspect to this report which highlights the balance of play in US and USSR infrastructure is emphasised by the exposure of GDR trading to receive resources and goods, there were

more than four hundred thousand transactions between GDR offices and West German firms...This resulted in the detention of about eight hundred traders involved in these deals and the interruption of receipt by the GDR industry of goods and raw materials from West Germany in the amount of eight hundred million marks.¹⁹

This information may not have reached the Americans but the flow of details would not have simply begun with Linse's report. This suggests that the relevant authorities may have had a good idea about the difference in resources between the West and East Germans. The increased targeting of groups such as the Free Jurists highlights why a variety of information sources was needed. Similarly the increased suppression of dissent groups meant that more direct covert activity was required. The trend evidenced by the events of Linse's kidnapping and eventual execution highlight why Operation Gold would be valuable to the CIA.

In 1952-53 figures in the CIA proposed the Free Jurists as part of a directed stay-behind program in response to the US attempting to recapitulate their forces in response to aggressive Soviet moves and the Korean war. This followed a National Security Directive of 23 October 1951 calling for resistance forces in areas under Soviet control. This backfired when disagreement over the virtues of introducing paramilitary elements to a group concerned principally with legal matters proved to foreshadow the

¹⁹ SVRA File (Archive of KGB documents), translated in Murphy, *Battleground Berlin*, p.118

eventual collapse of the Free Jurists. While only possessing information about a single individual the 'lethal effectiveness' of East German and Soviet counterintelligence in bringing down the whole organization can be emphasised. The idea that the Free Jurists would have this paramilitary branch made them more legitimate targets for further East German and KGB targeting.

The increase in US attention toward a developed covert capability was somewhat prompted by the interaction of supported dissident groups and the East German regime. Pointing to the Counter Espionage (CE) department in West Germany, it is stated in *Battleground Berlin* that the sector is said to have been 'a counterespionage backwater involved mostly in double-agent operations and support operations'.²⁰ This rapidly turned into 'a cauldron of security investigations arising from MGB (Soviet Ministry of State Security) and MfS (East German Ministry of State Security) operations against OPC-supported (Office of Policy Co-ordination) groups like the Free Jurists'.²¹ The Free Jurists are therefore an essential group for understanding the approach toward human intelligence in divided Berlin. Dissident groups offered a key source of information for the CIA or KGB respectively. However, with the ability to target these groups it is evident that an operation such as Operation Gold would be more difficult to compromise through kidnappings and abductions without taking those directly involved in the monitoring of takings. Furthermore, the information received from the Free Jurists enhanced CIA understanding of Soviet society. Information uncovered by the tunnel would carry similar value as that provided by the Free Jurists.

²⁰ *Ibid.*, p.210

²¹ *Ibid.*

Turning Silver into Gold

Operation Silver represents a precursor to the Berlin tunnel, just as Vienna was a microcosm of the situation in Berlin. Soviet communication lines were tapped underground in a divided city with primary action taken by the British SIS. The extra secretive nature of the operation can also be seen to align with the nature of Operation Gold. Robert Miller summarises this operation, noting that, 'The British had established Section Y, an especially secret section of the SIS...The head of the section was Peter Lunn. Lunn discovered that beneath the French and British sectors of Vienna lay telephone cables that linked field units and airports of the Russian army with its headquarters.'²² The potential value of information from these cables makes clear the importance of the operation. Furthermore, the product of this operation was a motivation for US thought about their own operation. The success of Operation Silver can be cited as the primary reason for SIS involvement in Operation Gold. In addition, the revealing information that came from the British taps in Vienna likely influenced US decision makers that a similar operation in Berlin could be as effective if not more so, given the more significant location of the city. The opportunity for a priceless insight into Soviet operations was valued more than the resources that would have to be invested to ensure the success of the operation.

Operation Silver was made feasible by the technical similarities between communication lines in Vienna and Berlin. The similarities are cited by *Battleground Berlin* as the main reason for the eventual joint venture between the SIS and CIA in

²² R.C.S. Trahair & Robert Miller, *Encyclopedia of Cold War Espionage, Spies, and Secret Operations*, Enigma Books, (2012), p.275-276

Berlin. The sentiments behind unifying efforts do change the foundation of the two organizations working together. These differ between avoiding overlapping effort and a British technical expertise that was a necessity in the building of the tunnel. As the declassified report states, 'The skills developed by the British during the Vienna operations stood us in good stead and the distribution of effort and expense proved in the end to be reasonably equitable.'²³ *Battleground Berlin* suggests a more competitive nature to the transition from Operation Silver to Operation Gold: 'In Vienna, SIS efforts were the first to succeed, and by 1952, CIA had agreed to coordinate its program with that of SIS in order to avoid overlapping efforts.'²⁴ The collaboration brings Operation Silver into clearer focus for the details leading into the Berlin operation, notably the importance of British involvement and their expertise and knowledge that aided the most significant technical aspects of the building stage.

David Martin, in *Wilderness of Mirrors*, goes into deeper detail about the nature of Operation Silver and further widens the focus on sentiments heading into the collaborative effort in Berlin. He most interestingly suggests that Carl Nelson stumbled upon details of Operation Silver and as a result the British were forced into sharing their hard earned communications intelligence. With the environment demanding an operation along the lines of Operation Gold, Martin states that 'Nelson could not have struck Silver - the first successful attack on a major Soviet landline - at a more opportune time.'²⁵ Operation Silver may therefore have been an operation which was

²³ CSHP No.150, p.11

²⁴ Murphy, *Battleground Berlin*, p.209

²⁵ Martin, *Wilderness of Mirrors*, p.73

not initially intended as a grand collaborative effort. These somewhat negative sentiments had been quelled by discussion leading into action in Berlin.

The environment referenced is constructed from a number of factors, namely, ‘the advent of ultra high frequency communications’ but also the loss to intelligence sustained as a result. A CIA Officer asserted that communications changes led to “gaps in our intelligence coverage which were particularly unfortunate during the period of Cold War escalation.”²⁶ Operation Silver therefore fulfilled the criteria of a successful precursor to Gold and showed that such an operation could be undertaken in a much lower pressure situation than Berlin. Amusingly, however, Operation Silver highlighted a number of the pitfalls of a covert tunneling operation: ‘MI6 had first set up a Harris tweed import shop...To its dismay, MI6 found Harris tweed to be immensely popular with the local population. The first shipment from England was an instant sellout, and British operatives were soon buried beneath an avalanche of import license applications as they struggled to keep pace with the demand.’²⁷ This suggests that establishing such an operation can be problematic. Nelson’s testimony in *Wilderness of Mirrors* has since been questioned, and the story of tweed and other misfortune around Operation Silver may therefore be exaggerations. Nevertheless, this highlights that as a result of the operation’s nature some seemingly mundane issues can suddenly become serious concerns. Creating such an extensive covert operation in such a public environment meant that maintaining a cover was essential. Operation Silver and Anglo-American study and action in Vienna had effectively been practice for Berlin and Operation Gold.

²⁶ *Ibid.*

²⁷ *Ibid.*, p.73

Planning while fearing war

So far the overwhelming narrative of the planning stage has been one of reactive action to fears of Soviet expansionism and aggression. This is not to distance the British and Americans from the same form of action and place blame exclusively on the Soviets. However, it is clear that the discussions leading into Operation Gold focus on Battle Order intelligence. In addition, the success of Operation Silver and tunnels under Vienna highlighted the extensive possibilities for a similar approach in Berlin. Therefore, the events covered in this section largely draw attention to the significance of Berlin as a center of Cold War espionage. David Stafford embellishes this focus by suggesting that the divide of Berlin was a fundamental gap in the Iron curtain.²⁸ Terming Berlin as the 'EIDorado for the intelligence services of all sides', it should be concluded that the potential value of intelligence would justify operations to secure it.²⁹ Stafford while analyzing CIA motivations creates an image in which the potential gains would not only be widely known but also something logically worth exploring. With the location a formality, given the infrastructure in Berlin, this added to benefits of creating a tunnel to tap important Soviet communications. The events and narratives correlate to create the atmosphere in which a daring direct attack on Soviet information could be justified and implemented. NSC-68 thus stated that 'the enemy should be weakened from within by an intensified campaign of covert economic, political and psychological warfare.'³⁰ The role of the CIA was elevated in this environment and the developing arms race can be

²⁸ Stafford, *Spies under Berlin*, p.43

²⁹ *Ibid.*

³⁰ *Ibid.*, p.45

seen to reduce the possibility of conventional force. As a result, the planning stage of Operation Gold marks the beginning of a transformation of the Cold War to one in which fears of escalation were well founded but unlikely to be acted upon conventionally. Escalation was certainly a fear, which motivated covert activity, but the covert activity went to show that the extent of this escalation was limited by the potential destructiveness that would follow. This left the agents of the KGB and CIA to fight over information and destabilization of the rival regime as the greatest form of conflict. This development took place in the covert sphere, which was rarely exposed to public scrutiny.

The planning of Operation Gold was as complex as it was necessary. It is also marked by the events which shaped the psyche and approach of those involved. Test tunnels as well as intricate methods to minimize the chance of failure marked the operation. While this operative stage does not have the concerns of disinformation or problems of legacy, it is essential in highlighting areas of concern in US and USSR intelligence. Furthermore, it also highlights the balance of power which was being shaped in the covert sphere as intelligence agencies took center stage. While the public focused its concern on the arms race of the early Cold War, Operation Gold goes to show a parallel narrative in a conflict rarely exposed to public view. This sentiment of a parallel narrative rarely exposed is relevant later in the press reaction to the operation.

Implementation

The Process of Implementation

With Operation Gold being a joint operation between the US and British the logistics were complicated. In addition to this it is worth considering that the tunnel was being built just 10 feet underground below hostile territory. How could the construction of such a sizeable project be kept covert? The simple answer is meticulous and painstaking techniques to ensure every stage was approached independently in order to reduce the risk of discovery. A significant element to this was reducing possible noise, 'the demands of security forced delays at every step'.³¹ One stage epitomises the meticulous methods. The wall liners which had to be gradually moved along the tunnel were operated using hydraulic jacks. This would have taken less time if the jacks used could be set up just once, but for each stage the jacks often jammed and had to be disassembled instead of 'a sharp blow from a sledgehammer' which could move them onward.³² This caused significant delays, given that it had to be done every 12 inches or so once dirt was removed. This minimized the noise, but meant for each section of wall liner the whole process had to be started from scratch. This preparation epitomized the no costs or corner cutting in order to make the tunnel as foolproof as possible. This section on implementation aligns with the section of the CSHP report and will consider the issues that come up in historiography such as the echo effect. While the

³¹ Martin, *Wilderness of Mirrors*, p.81

³² *Ibid.*

construction is therefore a narrative that is relatively complete, the context and nuances to aspects of the technology involved see some differences between sources.

Following the completion of the preliminary cooperative details and the selection of a site at Altglienicke, further stages could be completed.

Activity thus proceeded on three fronts - in Berlin steps were taken to lease the necessary land and right-of-way easements for the site and a contract was let with a German contractor. The compound, which was roughly the size of an average city block, was fenced with chain-type high security fencing and contained the main operations building (the one story with basement type warehouse previously described), combined kitchen-dining facilities and barracks, and another building which housed three diesel driven generators to provide power for all facilities.³³

Fitting this operation into the local environment in Berlin so close to the border to the Eastern sector posed a number of operational problems. Most crucial was how to conceal this covert operation. The warehouse which itself was specifically created to serve a purpose for Operation Gold was disguised as a radar station. In a similarly symbolic situation to the trilogy of Berlin events, the covert nature of a radar station was hiding an even more covert operation being created below the feet of the forces who were watching the facility. Extensive cover was established for the tunnel, which historians have described in considerable detail. While the tunnel itself was a technological achievement, the organization of the surroundings and additional aspects of the operation were similarly significant. All the materials were shipped with innocuous labels of "spare parts" and "office supplies", double crated and covered in rubberized

³³ CSHP No.150

coating. Throughout the transit from the US to West Berlin the CIA had made every arrangement to avoid accidental discovery.

Even mundane issues faced in the implementation of the project became substantial elements of the planning, 'The second question, "Where do we put the dirt?", haunted the minds of project personnel for many weeks and a great many ingenious ideas were brought forth...until the suggestion was made facetiously that we "dig a hole and put the dirt in it."'34 The construction of an unconventional two floor warehouse, instead of two floors, having the main floor and a basement, was built without the floor. The basement was to be filled with the dirt removed from the tunnel constructed below. This was a logistic issue to avoid removing truck loads of dirt everyday. The report does state that the Quartermaster Corps became interested in the new form of warehouse due to the ratio of cost to storage space. This marks another technological advancement derived from the operation as a result of the associated requisite designs. In addition, the scale of the tunnel added further reverence to the achievement of completing the tunnel covertly: 'It was 1,476 feet in length; 3,100 tons of soil were removed; 125 tons of steel liner plate and 1,000 cubic yards of grout were consumed.'35

Those in charge of the operation needed to explain the construction as an experiment to the engineers who were unsure as to the reasoning. The warehouse would be 'one which would be half above the ground and half below with a ramp suitable for running fork lift trucks from the basement to the first floor.'36 The security around the facility was substantial and logs were taken of any movements in and

³⁴ *Ibid.*, p.7

³⁵ G., 'Engineering the Berlin Tunnel', *Studies* 48, 2, (2004), p.17

³⁶ CSHP No.150, p.8

around the area. Furthermore, while the cover of a radar station would indeed distract from the actual operation below, the East Germans and Soviet soldiers who were observing the facility would equally be maintaining strict watch on who was entering and exiting the premises. Those planning the operation reasoned ‘that presenting the opposition with a reason for the site’s existence would make it a less prominent target than leaving it a “mysterious something.”’³⁷

The proximity to the border made the radar station plausible, and while those in charge did not see the cover as a long-term option, the eventual unfolding of Operation Gold did not require a long-term cover story. On the theme of disinformation, however, this cover highlights a number of nuances to the implementation of the project beyond the reliability of the information collected from the tunnel. In a covert conflict to create a radar station in close proximity to the border may seem somewhat aggressive. It was instead a ploy which was fitted into the overarching narrative of covert activity in Berlin. Therefore, while Soviet and East German forces were suspicious, it was not too untoward and simply warranted observation. This could therefore be seen as a successful form of physical disinformation, a sleight of hand trick to divert attention from the true purpose of the facility. The audacity of the CIA’s soil mechanic to select an AN/APR9 state of the art antenna is only matched by his selection being based on its appearance.³⁸ The Vopos (East German Guards) would have been amazed by the use of a more costly state of the art receiver just to act as cover for the even more costly operation taking place below ground.

³⁷ CSHP No.150, p.9

³⁸ Martin, *Wilderness of Mirrors*, p.79

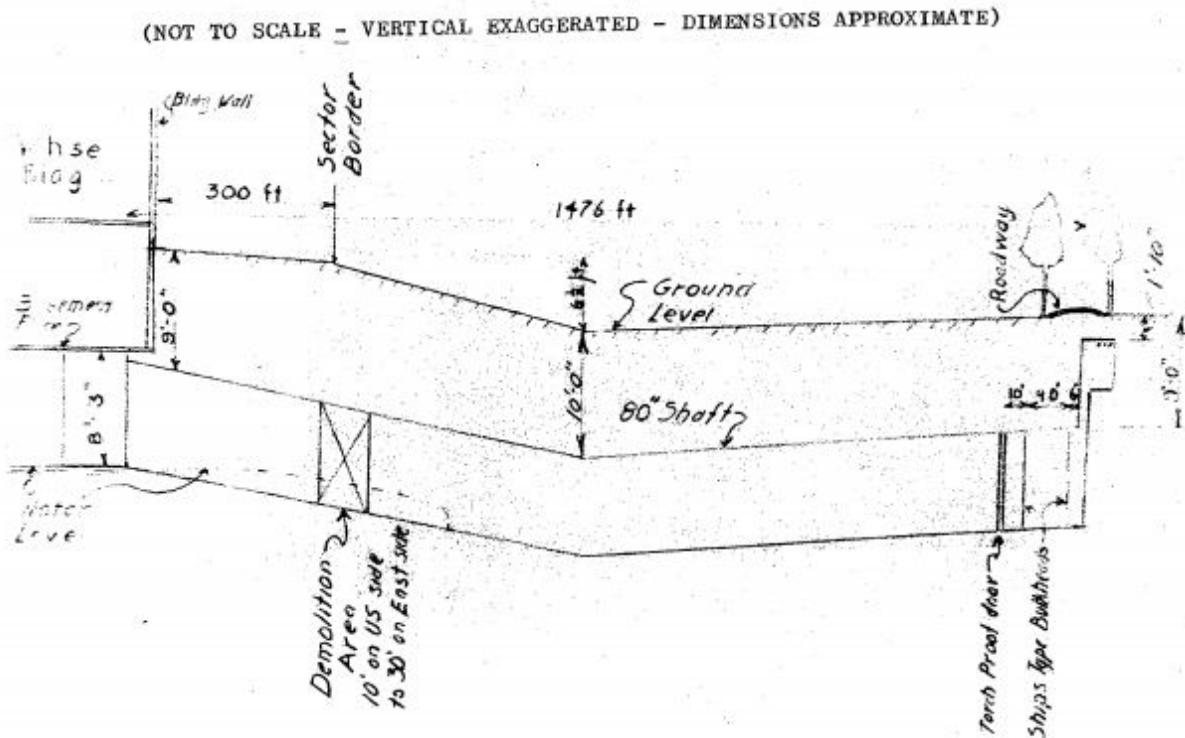
When establishing which cables were being targeted and the spot where the tunnel had to emerge, the methods used required access to the surface. Ingeniously, the engineers settled on a baseball game. The opportunity to have an object of known size in Soviet territory would allow them to make measurements. Throughout the game the ball would be heaved over the border as far as possible (not over a wall at this point) to create a reference point. While a seemingly clever solution, the operatives did not anticipate that the friendliness of the East German guards would stymie their plan. Every time a 'reference point' was created, the guards would good-naturedly return the ball. As a result, the intended reference point could not be established for a substantial enough period for a technician at the facility to take any readings. While the baseball ploy failed it was followed by a similarly enterprising attempt to fix the problem, here summarised by Martin:

Abandoning their bat and ball, the engineers dispatched two CIA agents to have a flat tire on Schoenefelder Chaussée. While changing the tire, one of the agents placed a tiny reflector next to the road. An electronic surveyor's transit hidden behind the peephole sent out a beam that struck the reflector and bounced back, giving the precise distance between the two points.³⁹

The ingenuity of the engineers in problem solving is not always addressed in historiography. What has been covered is the admirable confidence of the engineers that over the course of a covertly constructed 1500 foot tunnel they could accurately calculate the position of the cables within a 12 inch range. This is significant given the small downhill and uphill trajectory of the tunnel following the contours of the ground

³⁹ *Ibid.*, p.80

level as seen in figure 1. Further obstacles were met during the construction of the tunnel but the confidence of the engineers was substantially higher by this stage than the sentiments heading into the operation.



SCHEMATIC VIEW

Figure 16

NOT TO SCALE
 VERTICAL EXAGGERATED
 DIMENSIONS APPROXIMATE

Schematic View of Tunnel

Figure 1: Schematic View of the Tunnel, CSHP Report Figure 16

The achievement of the engineers is even more impressive when considered with the obstacles that had to be adapted to and overcome in the process of digging:

- 1) Encountering a perched water table and the potential flooding of the tunnel.
- 2) Forced evacuation of the tunnel due to the build up of humidity and heat.

- 3) The overheating of the equipment room potentially creating a section of melted snow on the highway above.

While these obstacles do not inform a greater emphasis on covert warfare, they highlight the scale of resources that could and were invested if needed. Furthermore, it epitomises the pragmatic approaches of those involved to ensure that the covert nature was maintained.

The first encountered problem risked compromising the operation from the start. A water table in which soil holds a substantial amount of water was not expected to be a problem for the tunnel given the depth at which it was being constructed. However, early in the digging process, 'ground water was encountered at 16 feet instead of at the predicted 32 feet'. Information indicated that this sloped downward, but this left the tunnel with half the top cover that was initially anticipated.⁴⁰ In order to deal with this, pumps were installed and this adds to the complications suggested in *Wilderness of Mirrors* and 'Engineering the Berlin Tunnel' in which septic tanks were encountered. In neither narrative does the same septic tank get hit - Martin suggests one 50 feet into the tunnel; G. suggests one, only 10 feet into the vertical tunnel from the warehouse. The seemingly obvious issue of sewage from above is an aspect of the mundane details which made the environment in the digging of the tunnel particularly difficult. It was not always possible to be able to see what would lie ahead and engineers have to be pragmatic in dealing with encountered water. The lower top cover would have been

⁴⁰ CSHP No.150, p.18

problematic to some, but the ability to deal with this highlights the successes of the implementation and planning of the tunnel.

The second problem encountered caused similar delays and highlighted the potential obstacles of working in a confined space below ground. The main problem of having agents in the tunnel was the humidity and heat that the claustrophobic surroundings created. More than once the tunneling and tapping had to be suspended to bring in air-conditioning equipment to dehumidify the chamber.⁴¹ Tunnels could conventionally have ventilation shafts. However, this would have jeopardized the secrecy of the operation. While this is somewhat relevant to the third problem faced, the humidity and heat would affect the equipment and those operating it. In an environment of such secrecy the problems caused if the target cables or the equipment encountered faults would be substantial. Namely if the target cables were affected then the tap had a much higher likelihood of being found. This was the essential story of the tunnel's discovery in 1956. On the other hand, if the specialist equipment encountered faults then extra resources would have to be invested and the shipping of these essential parts for the operation was problematic even without considering the further investment that would be required. Each component was rigorously tested to the highest standard and with these standards came the extra levels of preparation in order to avoid the problems that became inevitable given the form of operation.⁴² With each of these problems the operation was adapted to overcome the obstacles. This shows that the officials involved were under pressure to deliver intelligence, and the meticulous nature

⁴¹ *Ibid.*, p.22

⁴² *Ibid.*

of operations was not compromised in order to ensure rapid results. This immediacy could somewhat be addressed by the recruiting of double agents or paid intelligence sources who could provide instant intelligence. The chance of losing these sources was very high, however.

The final and perhaps largest problem at one point of the implementation had the potential to create suspicion and lead directly to the tunnel, ending the operation prematurely. This was again related to temperature within the tunnel, this time emanating from the equipment, which made the recording and machine rooms substantially warmer than other areas of the tunnel. To add to this, the extra warmth underground was predicted to cause such a substantial difference at the surface that snow on the highway might be melted in a patch above where the equipment room was located. The investment and rapid fix that this promoted is indicative of attitudes toward the operation overall. After a period of measurements in the summer of 1955, the need to act was confirmed. A chilled water system was installed rapidly, including newly developed $\frac{3}{4}$ inch irrigation tubing.⁴³ Amazingly, this required using up Sears, Roebuck's entire East Coast inventory of plastic pipe.⁴⁴ While the mistake necessitated the hugely complicated remedy, it epitomizes the meticulousness that has been suggested throughout. These changes were undertaken during periods in which they were not required to avoid future complications, in essence using the warmer seasons to take measures which ensured the operation would not be compromised by harsher conditions as winter hit. The square of melted snow on the highway would have given

⁴³ G., 'Engineering the Berlin Tunnel', p.23

⁴⁴ Martin, *Wilderness of Mirrors*, p.86

away the operation hidden below. After addressing this final obstacle the tunnel was in operation without any issues needing to be solved and the wait for intelligence began.

The tunnel was completed on February 25, 1955 with the target cables exposed and tapped on 28 March, 1955. The tapping of the cables was itself as precarious for the engineers as the construction of the tunnel. While the tunnel was ten feet under the ground, the tap chamber and shaft to the cables had to be built upward toward the heavily used Schoenefelder Chaussée. With the possibility of collapse for this final stage of the construction, British expertise was relied upon. The previous operations in Vienna informed much of the expertise involved in Operation Gold. It is also important to consider the environment in which the operation was taking place. The importance of communication in the Cold War necessitated the highest form of security on the most important lines. The actual tap was therefore the most risky moment of the whole operation, as a mistake might mean that alarm systems would sound for both the East Germans and Soviets. The cliché of high risk, high reward, characterized the Operation Gold venture. The technical details to avoid the East German “fault finder” are therefore some of the most complex throughout the operation as a whole. *Wilderness of Mirrors* captures this saga thoroughly:

The East Germans regularly monitored the integrity of the circuits with a “fault finder,” a device that transmitted a pulse along the line that would come bouncing back the moment it discovered a break. The trick was to draw off such an infinitesimal portion of the signal that the loss would go undetected. With the rubber sheath removed and the back pressure keeping the nitrogen from escaping, the British technicians painstakingly clipped wires to the rainbow of color coded circuits at their fingertips. The wires carried the signal down to banks

of amplifiers in the tunnel and back up to rejoin the circuit. The amplifiers boosted the captured mites of sound and shot them through the tunnel along lead-sheathed cables that rested atop sandbags to rows of sound-activated Ampex tape recorders in the warehouse.⁴⁵

The scale of the possible take becomes clear when one considers that the three cables tapped each contained a total of 172 circuits carrying a minimum of 18 channels. Even at minimum this put the number of channels into the thousands. The CSHP report suggested that only roughly 10% of the total take was expected to be translated and utilized. This triggers two assumptions, first that the total take was so large that not all of it could be processed; second, that 10% of the total take would be worth the investment that had been seen through the planning, implementation and operational stages of Operation Gold. Teams in both Washington and London worked on material which was collected. It is also worth noting that the nature of communications on the cables meant that any form of discovery or suspicion was likely to be processed through the tunnel.

The tunnel produced communications so rapidly that the only form of dealing with the constant whirring of the machines was a similarly sophisticated component, “the bumblebee”, which ensured that the rapid collection of communications could be recorded. Martin notes that to keep pace with “the bumblebee”, “the translators and analysts worked a schedule of two weeks on and one day off.”⁴⁶ This component played tapes of communications at four times the speed they were initially transmitted. It also broke down the 18 possible channels to separate recordings.⁴⁷ With “the bumblebee” the CIA could easily observe if certain channels suddenly went quiet or if specific

⁴⁵ Martin, *Wilderness of Mirrors*, pp.84-85

⁴⁶ *Ibid.*, p.85

⁴⁷ *Ibid.*, p.84

channels were reserved for more important information. However, the sheer scale of the take did mean that delayed translation and transcription occurred; much of the information was therefore not immediately actionable.

The operations security has already been shown as substantial, and throughout the implementation of Operation Gold these standards were maintained. Outside knowledge and the numbers of people in the know were kept to a minimum with those involved at some levels unaware of the true scale of the operation they were part of. The deputy chief of the processing section briefed translators in this way: 'It is greatly in your interest not to know where any of the material you are processing is coming from...for the opposition to stop the flow, all they would have to know is that we have this many Russian and German speakers together.'⁴⁸ Furthermore, the recordings taken that were not immediately cabled to Washington or London were shipped under armed guard aboard military aircraft. No one was going to retrieve these messages until they reached their destination. "The Hosiery Mill" was the building in which these translators and decrypters worked. It was situated between the Washington Monument and the Lincoln memorial. Extensive machinery for processing tapes and other intelligence sources was present, and perhaps more interestingly, 'the entire building was sheathed in steel in order to prevent the electronic pulses that ricocheted about the premises from escaping into the atmosphere possibly to alert the other side.'⁴⁹ These precautions highlight the fears that even a building in the middle of iconic US landmarks was not safe from potential compromise by the opposition.

⁴⁸ *Ibid.*, p.85

⁴⁹ *Ibid.*, p.84

The problems that were encountered during the construction of the tunnel did not seem to foreshadow any large issues during the active period of the operation. Extensive monitoring of movement was maintained from the position of the warehouse, likely mirroring the activity of the guards observing the 'radar station' in the Soviet zone. This was no small matter even during tunneling: 'operations stopped each time the German guards walked over the tunnel on their regular patrols...Observation logs were maintained'.⁵⁰ These logs represented a form of Battle Order information and ensured any heightened attention to the facility would be noted. These logs were also maintained for those who were entering and exiting the facility. As suggested, any anomalous activity around the facility would be noted. This was relevant not only externally, for East German movement, but for activity within the facility. All this preparation did not prevent a large scare being experienced when a series of "thuds" were heard through a microphone in the tap chamber. Despite panicking agents in the tunnel this was not the discovery of the tunnel that was feared. Instead once the fog above ground had cleared, it turned out to be a temporary automobile checkpoint. The police officer in charge had been stamping his feet to keep warm. While all the precautions should have left many feeling a sense of security that all eventualities had been guarded against, the possibility of discovery still left those involved on edge. This could be related to the tunnel's presence in Soviet territory. Despite the nature of the covert war, the moral implications of invading enemy territory become relevant later, once the tunnel was uncovered. Considering that such a meticulously planned operation

⁵⁰ CSHP No.150, p.19

only operated actively for 11 months and 11 days, it is not surprising that the opportunity for scares was limited. The greatest chance of undermining the operation would have been outside of the tunnel itself and extensive precautions were taken at every turn.

Agent Diomid; George Blake

Such precautions could not have stopped the only major leak of the whole operation, that of Agent Diomid, or George Blake among the SIS. George Blake was an SIS/MI6 spy, known under different pseudonyms throughout his career in covert activity. His life is very much a story which would fit in a Hollywood script. In fact, Alfred Hitchcock was initially slated to create *The Short Night* based on Blake's life. Blake became seen as an infamous traitor of the British intelligence service, also compromising a number of operations involving the CIA. Born in Holland as George Behar, he was the son of an Egyptian Jew. Martin easily creates an image of his outsider nature, noting that 'Blake was the "odd man out" in the cliquish world of British intelligence.'⁵¹ This could most certainly be seen as an important characteristic of the man that would eventually betray his employers. However, his capture in Korea and imprisonment as a POW for three years is commonly seen to be the event that most likely pushed Blake into the hands of the Russian intelligence community. His conversion to the cause of communism is seen to be demonstrated by the fact that he charged for the information he provided to the KGB. *Wilderness of Mirrors* points to Blake's heroic deeds as informing the privileged position he reached in Korea (as MI6 station chief) but also his involvement in Berlin. If SIS/MI6 were a unique and privileged club, entrance was particularly difficult for someone without connections:

As a member of the Dutch underground in World War II, Blake had made his way through Occupied France to neutral Portugal and finally to England with a

⁵¹ Martin, *Wilderness of Mirrors*, p.99

warning that the Germans, in a classic double-cross operation, were controlling almost every team of British agents dropped into Holland.⁵²

Blake thus earned his place in the agency, and perhaps this elevated his value further and as a result led to his heroic welcome on return from Korea. It is interesting that his first important action concerned the actions of double agents, given his future path, but he was clearly a valued and a skilled operative for the British intelligence service.

Martin's attention to Blake's career also unveils notable anomalies. This included his familial connections to the Egyptian Communist Party, but also his insistence that his secretary keep copies of certain information, 'for the files, he said.'⁵³ It should not be surprising that certain aspects of an agent in covert operations are never uncovered, but Blake was particularly open and braggadocious about his deception when he was eventually revealed as a double agent over Easter of 1961. Martin cites a CIA officer's testimony about actually trying Blake, "If Blake had held out, they would not have had a case." ...Once he had broken, Blake bragged freely about his treachery.⁵⁴ Blake's role in Operation Gold was therefore never a physical presence in the construction or active operation, but one in which he was involved in planning and subsequently hindering its legacy.

Blake is essential to understanding the economy of the covert sphere and intelligence war. His time in Wormwood Scrubs prison after being sentenced to 42 years (longest sentence handed down in the UK at the time) was not marked by any violent or aggressive response. However, the nature of the intelligence war is seen by Martin as

⁵² *Ibid.*

⁵³ *Ibid.*, p.100

⁵⁴ *Ibid.*, p.100

having a role in his optimism; agents' freedom was being traded between the US and USSR, along with the British in certain cases. Having the confidence that he would be exchanged is essential to understanding his value to the Soviets. The information he fed them thus made him a potential propaganda ploy if the Soviets could free and trade Blake for an agent who had a similar or lesser information value. However, his notoriety and value was such that it would have to be a similar figure on the opposition's side to negotiate a release. Thus when the Russians traded Greville Wynne for Gordon Lonsdale, Blake's greatest opportunity for exchange was lost. Wynne was an essential messenger for Oleg Penkovsky, who himself was one of the few figures who could match the iconic level of Blake. Lonsdale, on the other hand, was a native Russian who forged Canadian nationality and stole British naval secrets. This followed a previous exchange of Rudolf Abel for Gary Powers. In the Wynne-Lonsdale exchange of April 1964 the value of Blake was therefore placed below that of a native Russian but one who had not garnered such valuable intelligence.⁵⁵ While Martin asserts that 'this decision had nothing to do with the relative worth of the two spies', it is clear that nationality and the fact of Blake being a double agent did affect his relative worth.⁵⁶ In fact these factors feed into a formula of sorts to establish an agent's relative worth. Information itself was as valuable as the leads it generated, but nationality and trust were of even greater importance. A double-agent was much more unlikely to generate the same level of trust as an agent raised through the domestic ranks. As such, in regard to Martin's analysis that Blake's lack of exchange for Wynne was not about

⁵⁵ *Ibid.*, pp.180-181

⁵⁶ *Ibid.*

relative worth, if the nationality of agents is considered, this conclusion has to be challenged.

Following the lack of exchange, Blake then proceeded to plot and successfully engineer his escape. Interestingly, his escape to Moscow took more than seven weeks. After escaping Wormwood Scrubs, Blake proceeded to hide with his accomplice Bourke, 'in a rented flat less than four minutes' drive from the prison.⁵⁷ It could perhaps be seen as a compliment that his escape prompted the covering of all exits from Britain and he had to wait for such an extended period. Nevertheless after 24 hours in the back of a van smuggling him into East Germany, Blake made it to Moscow. In a reflection of his heroic welcome back to Britain after his freeing from Korea, Blake was honored on his arrival with the Order of Lenin, the second highest decoration an individual could receive in the USSR.⁵⁸ Blake continues to live in Russia and is now 95 years old. In late 2007 Blake was awarded the Order of Friendship by Vladimir Putin and has since suggested he maintains a role in Foreign Intelligence.⁵⁹ This highlights that current trends and fears can still be traced back to intelligence conflicts that began in the Cold War.

In an environment dominated by a search for greater information, George Blake was a huge asset to an already well developed and thoroughly organized Soviet intelligence community. His desertion to the communist side while maintaining a strong

⁵⁷ *Ibid.*

⁵⁸ *Wilderness of Mirrors*, pp.180-181. Much of the information that Martin describes can also be found in Blake's own autobiography *No Other Choice*.

⁵⁹ Tony Halpin, 'Vladimir Putin honours traitor George Blake with tit-for-tat birthday medal', *The Times*, <https://web.archive.org/web/20080517023556/http://www.timesonline.co.uk/tol/news/world/europe/article2865969.ece> [accessed 3/8/18]

position within the British organization enabled the Soviets to pre-empt and have knowledge about specific operations even before they had been confirmed. Double agents were especially useful in Berlin given the proximity between sectors and the permeability of the border before the wall. Nevertheless this also allows the true value of a double agent such as Blake to be considered in relation to the fact that the Soviets refused to compromise his position and still allowed information to flow through the tapped lines. George Blake is in essence a character who embodies the values and decisions that both the US and USSR intelligence agencies had to take in order to maximise the information they could achieve. While the Soviets may have attempted to alter the forms of communication through the lines, they valued Blake more than any of the information they might release to US and British forces.

Sergei Kondrashev, who served in the KGB and collaborated on *Battleground Berlin*, sent officers a report in February 1954 based on information he received from Blake. In doing so, 'the KGB's top priority became protecting Blake.' Furthermore Kondrashev notes that 'only three persons in the First Chief Directorate were aware that a source existed.'⁶⁰ Not only was Blake a highly valuable source but his value was such that even his own side had limited knowledge of his existence. This importance of intelligence sources leads into the statement which defines the debate about validity and value of the tunnel's information takings. The Soviets found themselves in a Catch-22: 'They knew about the tunnel, but they were unable to do anything about it immediately for fear of compromising Blake.'⁶¹ In addition to this simple weighing of

⁶⁰ Murphy, *Battleground Berlin*, p.217

⁶¹ *Ibid.*, p.218

options, Kondrashev offers the assertion that the communication lines were not used for disinformation as this would simply require too many people and risk the security of Blake. As suggested, while the Soviets could logically justify feeding disinformation through the wires, it was in fact another example of weighing the value of one information source against the possible losses that could be sustained. This is a primary reason that the involvement of Blake defines the economics of the information war. The Soviets had an invaluable source and while information could be lost through the wires it would certainly be offset by consistent communication of SIS and CIA operations not only in Berlin but elsewhere. This also highlights that the KGB believed that finding another source like Blake was incredibly problematic, Operation Gold information being limited to a select few individuals can further illustrate this value as Blake was in a significantly privileged position.

Interestingly, in *Battleground Berlin* Kondrashev does state that Blake was not always correct. Blake's insistence that the British dug the tunnel is at odds with the information in the declassified report of the operation.⁶² The US undertook the major work of construction, with technical details covered by British experts. This highlights another potential aspect of the operation: even those in the know were not necessarily one hundred percent aware of all the details. Furthermore, the nature of double agents and highly secretive operations meant operatives were not infallible about details simply because information was shared on a need-to-know basis.

⁶² *Ibid.*, p.219

Collaboration

Throughout the implementation stage the general success of the operation hinged on the cooperation between the British and American forces. Not only were the most technical aspects of the tunneling left to the British but the resources in London were pooled with those of Washington in order to cater to the substantial requirements of the operation's success. The nature of this cooperation sees its own disagreements; with the level of amiability between the British and Americans being debated, this does not compromise the presence of cooperation at the most significant points however. It is worth noting, though, that the preliminary elements of Operation Gold were not part of a unified attempt at tapping East Berlin intelligence sources.

The British involvement ended up being one of the most significant narratives of the Berlin tunnel, from its planning up to its legacy. The presence of Blake along with the choreographed nature of the tunnel's discovery are evidence of this significance. The nature of the collaboration was defined early with minutes from meetings that have since been released along with those leaked by Blake. Stafford spends a whole chapter on '2 Carlton Gardens'; the headquarters of the SIS Section Y which was chiefly concerned with the most secure and important operations relevant to British intelligence. Importantly this was the location of early meetings and planning of the Berlin tunnel. Stafford notes a motivation for the early attention to the potential intelligence contained in the cables in Berlin. With 'The West possess[ing] only a sketchy Soviet order of battle' it was a priority to fill the gaps of intelligence. Judging the intelligence gains against the initial motivations subsequently enhances the nature of

the information garnered.⁶³ Considering that Order of Battle information effectively dictates immediate action policies, this was therefore a significant gap in Western intelligence. This is especially the case in Berlin with the often volatile environment creating a situation in which awareness of the opponent's real standing was the most important intelligence.

The precedence placed on the US direction relegates aspects of the British involvement. However, the level of British technical involvement revealed when the tunnel was uncovered, just in the equipment within the tunnel, highlights that the SIS role was much greater than stated in the operations report. The CIA report states:

The British would: (1) drive a vertical shaft from the tunnel's end to the targets; (2) effect that cable taps and deliver a usable signal to the head of the tunnel for recording; and (3) provide for a jointly manned US-UK center in London to process the voice recordings from the site.⁶⁴

The expertise of British agents involved in the Vienna operations led into their involvement in Operation Gold. Stafford presents an image of a Cold War world where the covert sphere did not necessarily involve unification between the Western agencies. According to Stafford, 'The Americans had begun their cable reconnaissance work in Berlin independently of the British.'⁶⁵ This brings back ideas of Operation Silver, in which British tunneling had already begun before US interest. Despite only outlining the physical involvement of the British agents in the construction of the tunnel it is consistently noted that without their involvement the operation would never have been

⁶³ Stafford, *Spies beneath Berlin*, p.60

⁶⁴ CSHP No.150, p.11

⁶⁵ Stafford, *Spies beneath Berlin*, p.83

possible. With both US and UK agencies already undertaking their own intelligence into the possibility of such an operation the British experience was the essential enabler to allowing the Americans to forge ahead. The US were the resource heavy directors, but were only effective with the British expertise and technical leadership. The SIS were not therefore involved in large elements of the operation especially given the 'need-to-know' security protocol, but were essential consultants on various engineering aspects. The cost would be borne largely by the CIA. In addition, the tunnel originated in the US sector. This informs the media and public reaction which placed almost exclusive responsibility on the US.

British and US attitudes toward the Soviets were therefore similar from the high ranking officials to the agents undertaking operations. Furthermore, they both faced similar issues and fears, which informed the operation they collaborated on. Late 1953, early 1954, Soviet position in Europe bothered US and British intelligence agencies alike. 'Thirty Red Army divisions were based in Germany'. Simple questions were asked: Why were they there? What were the Kremlin's intentions? What was the state and shape of the forces? Building from this 'The Iron Curtain was now virtually impenetrable. Both the CIA and SIS were finding it virtually impossible to run agents behind enemy lines.'⁶⁶ Collaboration was not a default policy but was certainly a result of necessity in the case of Operation Gold. In addition, collaboration was in this case mutually beneficial given the respective states of the US and UK. While it is claimed in *Battleground Berlin* that Operation Gold was an attempt to avoid overlapping

⁶⁶ Stafford, *Spies beneath Berlin*, p.92

operations, tensions can be extrapolated from some elements of narrative around the initial plans. Not only was the balance of power tipped toward the US, but it is suggested by Martin in *Wilderness of Mirrors* that the US ground-breaking discovery of the “echo effect” was not shared with the British agencies.⁶⁷ This would be a huge breach of trust between the two allies and it has since been vigorously denied that the “echo effect” was even relevant to Operation Gold. Nevertheless this state of affairs could be seen to suggest that not all elements of intelligence were shared between agencies. Collaboration on Operation Gold/Stopwatch did not enforce the same constructive relationship on all operations; the scale of the operation did, however, require awareness of other projects, operatives and methods which may be relevant. As suggested, while the collaboration was mutually beneficial in a significant way, the involvement of the British did also introduce Blake as a factor in how the operation should be seen as a whole. While the construction itself could not be shaped by Blake’s involvement, the Soviets at least had some awareness of the plans and how they were to be carried out. As a result, the exaltation of Agent G. in ‘Engineering the Berlin Tunnel’ summarises the success of the implementation section: ‘The simple truth...is that Leslie M. Gross and this Army Corps of Engineers staff, along with the British sappers, built the tunnel and tap chamber in SECRET!! Hand salute, gentlemen, hand salute.’⁶⁸ Whether the planning, results or legacy can be clouded by contextual factors, one of the most significant successes was the actual successful construction of the

⁶⁷ Martin, *Wilderness of Mirrors*, p.74

⁶⁸ G. ‘Engineering the Berlin Tunnel’, p.23

tunnel and tap. Furthermore, the constructive collaboration between US and UK agencies highlights the mutually beneficial possibilities of joining resources.

Successful Execution

The implementation of the plans for the Berlin Tunnel highlight all the themes that have been suggested through the thesis so far. All the problems that were encountered were unforeseen and dealt with as they came. Otherwise those involved largely planned for every eventuality. There are divergent views regarding the planning and ultimate value of Operation Gold. However, in regard to its implementation there is no disagreement. The construction marked a crowning achievement. Whether the substantial intelligence take was useful or not, completing the facility and tunnel without the operation being blown was a significant success for both the US and British. It is important to note that the CIA was seen at that time as backward in comparison to the Soviet agencies, and with this collaborative operation the CIA saw a great upswing in prestige. This informs the later discussion of the tunnel's discovery. However, internal confidence was enhanced by the operation regardless of the limited knowledge of the true scale of the operation. While knowledge of the operation was kept to a minimum, the intelligence that was being translated was still visible to others even if the source was not. This adds to the idea that the internal confidence was enhanced, since those around any of the materials would see substantial amounts of intelligence on the Soviets. In the environment that the operation was part of, this was an important success since American intelligence had been having a tough time, especially discovering Order of Battle information.

The implementation stage was a great success for both the CIA and SIS. While it has been established that the operation was expected to have a limited life, this should

be seen as extended by the success of the construction. Even in a progress report of the tunnel's construction, the radar station cover story is a notable success: 'In fact, the acceptance of the installation in the role paraded for it has, we believe, been even better than we had hoped.'⁶⁹ As suggested, the problems encountered were efficiently dealt with and the meticulously planned elements were carried out effectively. The tunnel was constructed with East German guards and Soviets not in the know clueless to the operation. While it has been shown that Blake had compromised the mission, the implementation of the operation did not give the Soviets any easy option to "discover" the tunnel. The nature of collaboration has also been shown to be hugely beneficial and a necessity for the full completion of the project. If the operation was being judged up to this point then it was a unanimous success despite the problems that were encountered. This also informs many of the concepts that are relevant to the information conflict as a whole. The radar station cover as suggested is very much a technique to divert attention. Similarly, the nature of taking measurements from a game of baseball or planning a flat tire as an alternative, highlights pragmatic and astute techniques of circumventing security and obstacles created by the covert conflict in Berlin.

Another interesting consideration concerns the collaborative nature of the operation. The nature of covert conflict meant that the Anglo-American alliance was unlikely to ever see completely full disclosure. While the success of collaboration highlights the possibilities of pooling resources and expertise the CIA and SIS were still independent. Both agencies had previously been investigating many of the same

⁶⁹ Progress of the Tunnel, 'progress of tunnel'.pdf, p.343

potential intelligence sources. This narrative begins with tunneling in Vienna and is only built upon in Berlin. The CIA covered the major costs and took the blame despite never formally admitting responsibility. The tunnel was a unique operation as it could only be undertaken at one of two sites and the intelligence that it was expected to glean was such that collaboration was the only viable way of ensuring its success. While British expertise was essential to the successes, the CIA is still seen to have held back certain information from their allies. This is seemingly an essential theme in Operation Gold; despite the huge scale and significance of the operation, certain players were often oblivious to the nature of the tunnel, even those in its vast network. The translators were certainly kept in the dark about the source of the material they were translating. In many ways, the CIA can be seen as a group of splinter cells with a select few individuals being in charge of the large network that would emerge from specific operations. By isolating individual elements the operation had a much greater sense of security, as it could not be compromised by one of the Russian speakers in the 'Hosiery Mill' or one of the engineers initially involved in constructing the warehouse.

The construction of the tunnel and implementation of plans reveals substantial information about the nature of the covert conflict. It also firmly establishes the idea of CIA technological advancement in the face of the KGB's dominance in human intelligence. While the Iron Curtain is seen to be closing, the tunnel marked a significant episode in circumventing the increasing defensiveness of both sides of the Cold War. The covert conflict was less affected by the implications of physical changes to the state of the Cold War, such that major public fears of war did not discourage ambitious and

potentially aggressive projects. However, the addition of nuclear weapons and increasing anxiety and fears certainly informed the sentiments leading into Operation Gold. Implementing such a significant operation is representative of these sentiments in US intelligence circles. Furthermore it builds on narratives established earlier of the failure of other operations such as the Free Jurists or the success of Operation Silver. The Berlin tunnel was effectively intended as the go to news source of Soviet Order of Battle information. Whether its legacy and results are universally positive or not, the implementation of the operation saw this tap created. The covert conflict was a battle for information about the motivations and intentions of the enemy, and as such, physical data was not always necessary. Evidence of a lack of conviction or backing in the opposition was as significant if not more so, especially if reasons for these misgivings could be identified. The success of the implementation of Operation Gold is tribute to the years of planning and significant investment that was devoted at every stage.

Discovery

Termination

The termination of Operation Gold on 21 April 1956 was a hugely significant event for both the Americans and Soviets. Reasons for its discovery have been debated and multiple narratives are established as to why Soviet workers ended up digging up the cables and reaching the end of the tunnel. What can be observed is the huge media attention that the discovery received. The responses from the East and Western media are perhaps inevitable given the need to cover the discovery positively on the respective sides. The response largely concerned the consequences of the operation and shows how important the presentation of events could be. While this presentation is revealing in itself, the termination of the mission is also worth studying. The intricacies which result from the nature of the operation are again all in play at this point. While the mission could have been ended fairly abruptly when the Soviets received Blake's intelligence, it was not. In addition, the nature of the discovery points to a more accidental Soviet uncovering. This leads to two potential conclusions: firstly, that the Soviets did not have the opportunity to truly choreograph the discovery; secondly, the Anglo-American leadership may have anticipated a longer active period than the 11 months, 11 days that the tunnel operated. It is consistent through the sources that natural effects were potential causes of the tunnels uncovering. What is less clear is whether the ensuing discovery was a result of actual accident or once alerted, a rapidly choreographed attempt to delegitimize the US.

In the 'Termination' section of the CSHP CIA report, the contemporary conclusions are focused on natural and unavoidable circumstances. Two factors are named: 'one of the cables was in very poor physical condition (this was known from the beginning) and a long period of unusually heavy rainfall.'⁷⁰ The circumstances of the termination therefore underscored positivity about the operation since those in charge firmly, and logically, believed that the only flaw which caused the end of the operation was a Soviet problem and one of pure chance. Just because a cable was in poor physical condition could not discourage tapping it for intelligence. Similarly, it did not mean that the Soviets were not using it. Routine maintenance and the gradual deterioration of wires and cables is a natural consideration and thus one which is possible for any wiretapping operation anywhere. Furthermore, in this Cold War environment of covert operations and importance of communications, cables would have been checked to ensure that no problems would be encountered. The 'fault finder' addressed in the implementation section highlights this level of security around communications. Even from the beginning of the operation, its lifespan was limited and a potential factor in this would be Soviet or East German maintenance of the cables and subsequent discovery of the tap. Therefore to compromise the mission due to the condition of one of the target cables would be a shortsighted view which would also damage the possible intelligence gain of the operation as a whole. Add to this considerations of rainfall and it is impossible to argue with the knowledge of the agents at the time that the termination of the tunnel was due to anything other than chance.

⁷⁰ CSHP No.150, p.25

Immediately after the tunnel's discovery a report was created. In this, it is considered a 'purely fortuitous' discovery with consideration for the heavy rains which had faulted many phone and telegraph cables in the area.⁷¹ Even in the planning and implementation of the tunnel it has been addressed that natural obstacles caused issues for those in the operation. A perched water table, creating a pool of water underground, falls into this same category of unfortunate circumstances. At the time it was evident that as far as the termination of Operation Gold was concerned, natural and unforeseen circumstances led to the premature ending.

In the termination episode it is noticeable that Soviet attentions were firmly placed on their own communications. Whether or not Blake's information had directed the crews who unearthed the tunnel, the operation was certainly not a primary motivator for the cable repairs that led to the discovery. As stated, these cables were major communication lines for the Soviets. When the rainfall caused faults the ability to communicate effectively diminished. This knowledge is confirmed by the intelligence from the tunnel, therefore alerting those in charge as to which Soviet officers had lost communications as a result. The report cites, 'Marshal Grechko...General Kosyakin, Malyi, Tsarenko, and Dudakov' as well as 'the Main Soviet Signal Center...and the Soviet Air Warning Control Center' which both lost communications with Moscow.⁷² Noting that the tunnel allowed important figures to be aware of which Soviet figures had lost communications also enhances the potential misgivings they must have had about the tunnel's eventual discovery. It would be highly unlikely that these Soviet

⁷¹ CSHP No.150, *Discovery by the Soviets of PBJOINTLY*, Appendix A

⁷² *Ibid.*, p.2

communication gaps would be left unresolved for any prolonged period, and any maintenance would unveil the tap. Those in Berlin notified the headquarters that the prolonged future of the operation left the main available precaution being primarily crossing fingers.⁷³ It was approximately two days after this statement that Russian speech was heard on a microphone at the tap chamber.

The tunnel was still operating and monitoring communications at this point. It is noted that 'the discovery of the tap chamber aroused no suspicion'.⁷⁴ This is not, however, related to Blake's undermining of the operation and maintenance crews being aware of what they had discovered. The lack of alarm was instead related to a misunderstanding of what had been uncovered. Who could expect a major tap chamber under a main highway? The crews instead believed that the discovery was a repeater point under a manhole covering.⁷⁵ While a Soviet captain was part of this discovery group, he also was not aware of what they had uncovered. The group's confusion about their discovery makes the lack of alarm unsurprising but also leads to a more significant conclusion. If awareness of the operation on the Soviet side had spread, it had certainly not spread to the ground level and among the individuals most likely to stumble upon the tunnel.

The discovery itself was also a much more prolonged affair than simply uncovering the tap and acting upon the uncovering. The report states that 'At approximately 0200 hours the top of the tap chamber was discovered'.⁷⁶ After this it was

⁷³ *Ibid.*, p.3

⁷⁴ *Ibid.*, p.4

⁷⁵ *Ibid.*, p.5

⁷⁶ *Ibid.*, p.4

a gradual process of completely unearthing the tap chamber and tunnel while also working out the nature of its use. Soviet figures were travelling to and from the scene with regularity and it is presented as a place of fervent and hectic activity. Attempting to work out what the crews had stumbled upon is a regular theme through the morning of the discovery. At approximately 0635 the statement “the cable is tapped” was made for the first time at the scene.⁷⁷ Prior to this it is testament to the scale of the operation that many of the details were still being recorded through observation from the facility and elements of the tap that were still operational. Major Alpatov, who was in charge of the signal station in the area, moved the most important communications at the time to overhead lines, showing an awareness that this was a cable tap operation once more of the chamber had been uncovered. Traffic still flowed through the tap until 1535 when the wires were cut, but the last ‘call of any interest was placed sometime between 0800 and 0900’.⁷⁸ In this call it is noted that the to and fro of communications in the Soviet leadership were re-routed through different lines. More calls were attempted before 1535 and the cutting of the wires but the operator refused to connect them, citing what must have been a direct order from Soviet command.⁷⁹ The eleven or so hours it took from the uncovering of the tap chamber to the cutting of the cables highlights the quick actions taken by the Soviets, but in this episode it is easy to note that the true nature of what had been uncovered was not known until later. It is noted that communications were shifted once suspicion had emerged around 0600. The full details of the Soviet uncovering of the tunnel highlights the level of coverage that the taps provided. It is

⁷⁷ *Ibid.*, p.9

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

revealing to observe that the Soviet uncovering did not show any sign of pre-planning. In addition, while the tap chamber had been discovered, the much greater technical achievement of the tunnel was still hidden. Only by 1300 had access to the main tunnel been achieved. It took until 1550 for the German crews to dismantle the microphone which had been covering the process of discovery. As stated in the report, this marked the true termination of the project for intelligence purposes, 'Shortly afterward the microphone went dead and, after 11 months and 11 days, the operational phase of [Operation Gold] was completed.'⁸⁰

⁸⁰ *Ibid.*, p.16

Resulting Intelligence

The Berlin tunnel undoubtedly provided extensive intelligence for the American and British agencies. In an appendix as part of the CSHP report on the operation, the resulting comments on the information gleaned were positive about its usage in informing policy decisions. The transcription of material was part of the REGAL project. This 'provided unique and highly valuable current information on the order of battle, training, organization, equipment and preparation of the Soviet and East German ground forces.'⁸¹ This can be corroborated with more specific information such as 'valuable information on atomic energy activities in East Germany, including organization relationships, personalities, procurement details, and uranium ore shipment data.'⁸² While this is not a full statement of the intelligence the tunnel provided, it is evidence of its usage by branches of the CIA. In addition, it is highly likely that the actual source would not have been revealed, therefore these comments would not have been shaped by the uncovering of the tunnel. The relative value of the information is debated in *Wilderness of Mirrors* and *Battleground Berlin*, but it remains difficult to argue that the operation did not provide much substance when faced with the production noted in the CIA report. Evidently summarised, the products are divided into sections and subsections: political, scientific, operational and military, itself divided into: general, air, ground forces and navy.⁸³ We have seen thus far that much of CIA activity was directed toward Order of Battle information as well as quelling fears and anxieties

⁸¹ CSHP No.150, Appendix B p.5

⁸² *Ibid.*

⁸³ CSHP No.150, Appendix B

in the political sphere. While this information is argued to be less valuable than intelligence which directly weakens the Soviets, it was also a substantial element of the justification for the operation's approval. This significance may be undervalued by subsequent studies, but the report itself states: 'The REGAL operation provided the United States and the British with a unique source of current intelligence on the Soviet Orbit of a kind and quality which had not been available since 1948.'⁸⁴ While later studies have potentially integrated costs and results to provide evidence for whether the operation was value for money, the impression seen in contemporary stories and reports places the tunnel as an example of great success. With the REGAL translation of the material from Operation Gold the network of branches and intricacies of a covert undertaking are truly revealed. The results section heavily leads into the legacy of the operation both with considerations of Blake's leak and whether the operation is framed from the Soviet or American perspective.

⁸⁴ *Ibid.*

Volume

Even from the outset of the operation the sheer volume of the take was a consideration for those in charge. The scale of information gathered was breathtaking even after the operation was terminated. This can be tied to some conclusions which would inevitably be positive for the operation. Namely that with such a high volume of intelligence takings, it is inevitable that some of it would be useful, accurate and immediately actable upon. In the CSHP report it is highlighted that a decision was therefore taken that 'personnel and equipment were programmed initially to exploit approximately ten percent of the anticipated take.'⁸⁵ With the security around the operation, finding enough translators and transcribers to actually assist with this process was highly problematic. While there are no values on how much of the information was translated it is highly likely that much of the information which passed through the tunnel was neglected. Staff worked on two-week rotations with a day off and in addition to this had to deal with a tunnel that was producing conversations 24 hours a day.

A list which encompasses this vast volume can be created from the report below:⁸⁶

- 28 telegraphic circuits and 121 voice circuits were recorded continuously, using approximately 50,000 reels, or put in weight 25 tons, of magnetic tape.
- The London processing center employed a peak number of 317 persons. Transcribing, 20,000 Soviet two-hour voice reels containing 368,000 conversations. In addition to 5,500 German two-hour voice reels containing 75,000 conversations, of which 17,000 were fully transcribed.

⁸⁵ CSHP No.150, p.18

⁸⁶ CSHP No.150, pp.25-26

- The Washington center employed a peak number of 350. Transcribing, 18,000 six-hour Soviet teletype reels and 11,000 six-hour German teletype reels.
- A small processing unit of 2-4 persons was maintained at the Berlin site to permit on-the-spot monitoring of the most significant or “hot” intelligence.

In total the number of conversations would number much greater than 500,000. Furthermore, it is noted in the report that as part of these ‘six-hour teletype reels’ the potential length would be upwards of 216 hours due to the technology of different circuits within these reels. The most revealing statistic is related to the continual nature of the intelligence passing through the tunnel:

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.⁸⁷

With this daily output, even 11 months and 11 days at an average output should be seen to be a veritable treasure trove of intelligence. In an environment where information was so highly valued, the tunnel could almost be seen as a money machine providing the British and Americans with a constantly refilled pool of knowledge. These values lead to one of the most significant conclusions which was corroborated by Kondrashev in *Battleground Berlin*: the Soviets could not possibly have afforded to consistently feed disinformation through the tunnel.⁸⁸ In addition, the continual nature of the tap means that any consistent disinformation would have tipped off the Americans about a potential mole within the operation. This strengthens the conclusion reached in

⁸⁷ CSHP No.150, p.26

⁸⁸ Murphy, *Battleground Berlin*, Chapter 11

the production section of the report that, 'we have no evidence that the Soviets attempted to feed us deceptive material through this source.'⁸⁹ Even after the tunnel was terminated and Blake's treachery was revealed it was not worth considering whether some of the taking was compromised. The sheer volume left little space for actually believing that all information was undermined by subsequent developments. The significant investment from the American side would have had to be matched by Soviet counterintelligence measures and this was simply unrealistic. While the KGB had substantial history on their side, they could not match American investment. Creating a choreographed discovery could be more damaging in the long run than any counterintelligence measure. In addition, choreographing an accidental discovery would be much less risky for Blake's position. This leads into the nature of the tunnel's discovery and its framing in a way to enhance or diminish either side's prestige.

Order of Battle

The sheer volume significantly enhances the value of the operation as a whole. However, in addition to this factor the nature of the information gained, in my mind, further legitimizes the operation. A fundamental gap in Anglo-American intelligence had developed leading into the 1950s and the Berlin tunnel went a long way to alter this situation. Both the British and Americans desired a consistent source of Order of Battle information on the Soviets, Churchill, in October 1953, impatiently asked, 'What is the latest statement of the relative strengths in Europe of the Russian and satellite forces compared to the Nato forces?'⁹⁰ Add to this an often quoted statement from Chief of

⁸⁹ CSHP No.150, p.26

⁹⁰ Stafford, *Spies beneath Berlin*, p.87

Staff in the US, George Marshall, 'I don't care what it takes, I just want twenty-four hours' notice of a Soviet attack.'⁹¹ Both of these statements from leading political figures identify the role of the CIA and SIS as a potential informer of policy. The Berlin Tunnel was intended to fulfil the role of early warnings about potential Soviet military moves and given the scale of information it took, it is unlikely that this was the only purpose it served. Nevertheless, its results contained substantial knowledge about various situations and structures in the Soviet Union. Its primary achievement in Order of Battle information was quelling widespread anxiety about the potential of a Soviet invasion of Berlin. Furthermore it provided an interesting image of the Soviets in East Germany in which 'unpreparedness, confusion, and indecision' characterised responses whenever incidents in East Berlin involved citizens from the West.⁹²

In the recapitulation of the intelligence derived from the tunnel, it is also notable that information was acted on relatively quickly: 'The Soviet decision to implement the establishment of an East German Army was disclosed by REGAL in October 1955, in time to notify our representatives at the Foreign Ministers' Conference in Geneva to that effect.'⁹³ Furthermore, REGAL provided details about the decisions of the 20th Party Congress in which Khrushchev's 'secret speech' effectively defined a new direction for the Soviet Union after the death of Stalin.⁹⁴ This information may not have been knowledge which the Americans or British could immediately act upon. However, it was certainly a coup to have this information, which was causing upheaval in the USSR. The

⁹¹ Phillip Nelson, *LBJ: The Mastermind of the JFK Assassination*, Skyhorse Publishing (2013), p.83

⁹² CSHP Report, Appendix B, p.2

⁹³ *Ibid.*

⁹⁴ *Ibid.*

response in the Soviet Union likely relaxed the allied forces who were otherwise kept on edge about Soviet foreign policy and action. This encompasses a large amount of the intelligence derived; mainly, knowledge which stopped potentially unnerving changes in Soviet approaches affecting US or British actions.

Another major fear which was addressed by the tunnel was the position of nuclear development. The intelligence derived addressed not only the development of delivery capabilities but also the structure of the Soviet atomic energy program.⁹⁵ The results from the tunnel helped to create a more detailed image of Soviet command in almost all important aspects. Military positions were established, naval strength was addressed, airforce development was acknowledged and the nature of political relations and intentions was disclosed. In addition, it was only through the operation that these previous gaps were addressed. Soviet movement and intentions were therefore likely known before they physically happened. Pre-empting activity was a major focus of both the KGB and CIA. Creating a deeper understanding of the standing of the enemy allowed greater political maneuvering and confidence in policy decisions. As the Army comment on REGAL information concludes, ‘the variety of the types of information found in REGAL have confirmed that it is our best source of early warning of Soviet attack.’⁹⁶ Operation Gold provided greater Order of Battle information than had been available for years, at a time when it was being most heavily requested. The volume in addition to the form of intelligence provided a background for policy decisions. The importance of the cables tapped meant that communications about Soviet movement

⁹⁵ *Ibid.*, pp.3-4

⁹⁶ *Ibid.*, p.5

would have to pass through the tunnel. Whether or not all the information was transcribed does not diminish the value of the information that was transcribed and acted upon, whether to reduce certain anxieties or support specific political decisions.

Aftermath

The discovery of the tunnel has already been addressed in relation to the causes and narrative of the gradual uncovering. Over the course of 21st April 1956 this gradual process took place, the tunnel was only opened up following hours of Soviet investigation of the actual tap and chamber. However, the most significant element of the event was actually the reaction to and framing of the tunnel. The CSHP report notes that throughout the operation constant attention was paid to the potential results of its discovery.⁹⁷ General consensus was supposedly reached that the knowledge of the tunnel's existence would be suppressed by the Soviets, despite the fact that they had known of the operation at least four years prior to its public exposure. Nevertheless, the conclusion of the Soviet reaction being 'exactly contrary to expectation' is likely to be an accurate representation of actions following the tunnel's discovery.⁹⁸ It has also been established that heavy rainfall had not only compromised the cables that were tapped, but other communication lines in the area as well. This could have caused some of the problems that led to the collapse of communication about Soviet policy on the discovery. An example of this can be found in the CSHP report, such that, 'The Commandant of the Soviet Berlin Garrison, who would normally have controlled the handling of the situation' was absent.⁹⁹ To make matters worse the Acting Commandant, Colonel Ivan Kotsyuba 'was forced to make a personal decision on a course of action without benefit of advice from Moscow.'¹⁰⁰ This corresponds with the

⁹⁷ CSHP 150, Aftermath, p.27

⁹⁸ *Ibid.*

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

narrative of other Berlin tunnel histories and this situation which prompted the specific Soviet reaction certainly surprised CIA officials and leaders. By inviting the media from both the East and West sides the decision allowed reporters to establish their own narrative of the tunnel and frame the operation in a fashion to align with their intentions.

The personal reactions of those who discovered the tunnel is as revealing as the reaction of the media who certainly sensationalized the story. It is also commonly noted that the sentiment of most journalists was one of amazement; one of the reactions is related in *Battleground Berlin*, 'Look at that...it goes all the way under the highway! How did they do it? It's fantastic!'¹⁰¹ The discovery is seemingly accidental, but once uncovered the privileged knowledge of higher level Soviet officials no longer had the sensitivity it had beforehand. It could then be utilized to inform the public approach toward the tunnel and attempt to control reaction. The actions taken after the discovery consisted of five recommendations: '1) A written protest to the HQ of American forces in Europe, published in the press; 2) Invitation of correspondents from both East and West Berlin; 3) Approval for Germans to speak out but only after publication of Soviet side; 4) A group of Soviet specialists to study the equipment; 5) Direct all accusations against the US.'¹⁰² The final recommendation is revealing of the intricacies of politics and covert warfare. Not only were the British involved in the operation, as those aware of Blake's intelligence would know, but equipment in the tunnel was clearly marked. Khrushchev at the time of the discovery was involved in a state visit to Britain, which in the Cold War environment had political and diplomatic importance. Therefore the Soviets did not want

¹⁰¹ Murphy, *Battleground Berlin*, p.231

¹⁰² *Ibid.*, p.232

to damage diplomatic relations and embarrass their leader by implicating the British in the operation. A choreographed discovery was therefore rapidly planned and it was evident that 'Kotsyuba's aim was to expose, for all the world to see, the treachery of American imperialists'.¹⁰³ While awareness of the tunnel could not be used earlier, in order to protect Blake, this barrier was removed after the discovery. The Soviets highly publicised the tunnel, but the US denied any knowledge of the operation. While it was clear who had led the operation, American ingenuity was only officially "alleged". Meanwhile on the Eastern end it is suggested in *Wilderness of Mirrors* that 'The Soviet end of the tunnel quickly became the major tourist attraction in Berlin, complete with snack bar.'¹⁰⁴ The Soviets were effectively providing free publicity for the Americans and CIA. Furthermore, in June 1956 the KGB released a guide to the tunnel, interestingly placing the starting point of the tunnel at the garage or power-generating building. Whether this was to protect Blake, as suggested in *Battleground Berlin*, or whether the KGB truly had not deduced the true origin of the tunnel, the attention paid to the tunnel generated substantial media attention. The public interest in the tunnel's discovery meant that the KGB response could not be overly emphatic, lest it cause problems in the public sphere of the Cold War.

¹⁰³ Martin, *Wilderness of Mirrors*, p.87

¹⁰⁴ *Ibid.*

Press Reaction

An important aspect of Operation Gold is the public reaction to its uncovering. At the time of its discovery no one was aware of Blake's role; this allows the press reaction to fairly accurately summarise the wider public perception of the clandestine conflict. Inevitably the press on each respective side reasonably supports their own country's perspective. However, one finds in both Western and Eastern press a general surprise and respect toward the technological achievement.

The Washington Post offers a representative example of this situation:

Espionage is one game in which the Communists were deemed, even by their enemies, to be particularly expert and our own side to be dismally inept...it would be even more devastating to Communist prestige if it were disclosed that the espionage tunnel had been in operation for some time before the Communists became aware of it.¹⁰⁵

Therefore the discovery of the tunnel devoid of the subsequent information about Blake's involvement and Soviet awareness of the operation, allowed the operation to be framed as an unambiguous success regardless of the scale of intelligence garnered. This framing has been clearly readdressed given subsequent developments, but the press reaction substantially increased the positive aura of the operation. The public had no need for technical details, and had no access to the secret details of the operation. The simple physical presence of the tunnel that had been built covertly was evidence enough that the US had successfully won a "battle" in Berlin over the seemingly more advanced Soviet intelligence community.

¹⁰⁵ CSHP No. 150, p.82, Part of the media cuttings used in the legacy section of the paper. Washington Post, *The Tunnel of Love*, 1 May 1956

Time's effort, only days after the previous Washington Post publication, similarly echoes sentiments of admiration and expands the narrative to the media viewing of the tunnel. This publication, however, notes the Russian expert explaining the tunnel to journalists 'with a note of admiration' and one Berlin editor lamenting the discovery of the 'wonderful tunnel' to a ranking U.S official. This can be compared to the Boston post statement that 'we were beginning to think that what the Central Intelligence Agency needed was a few lessons on the fundamentals of espionage from some defected Russian agent. But, now we take it all back.'¹⁰⁶ In fact, the same message can be reflected in the *Stamford Advocate*, Alex Dreier's radio broadcast, the *New York Herald Tribune* and *Chicago Tribune*; notably that of the CIA had finally proved themselves as a resource in the to and fro of Cold War power politics. The patriotism within all these releases is particularly palpable and while no agency initially claimed responsibility it was not a difficult situation to deduce. It could be seen as borderline hysteria by the manner in which some news sources ran the story. British collaboration was minimized and while this was also an element of CIA misdirection due to the upcoming visit of Khrushchev to London, this fact simply goes back to the nature of framing the Cold War and individual events and conflicts. Simply put, the discovery of the tunnel gave the media an opportunity to frame the operation as a result of American intuitiveness, ingenuity and organization, all qualities which they had otherwise failed to exhibit due to Soviet domination of covert affairs. Furthermore, the *Chicago Tribune* publication notes that their journalists were made to watch a communist movie of the tunnel's discovery,

¹⁰⁶ CSHP No.150, p.84

therefore undeniably also showing that the Soviets attempted to frame the operation for their own benefit. While the scale of the operation was unprecedented, tapping wires was most certainly not, and the Soviets undertook their own operations using similar methods. Therefore while attacking the US for an operation which they saw as overstepping a 'line', the Soviets were most certainly undertaking the same methods elsewhere, themselves tapping an American cable near Potsdam.¹⁰⁷ The conclusion of the *Chicago Tribune* involves the journalist answering a question of legitimacy justly as possible, stating that 'ownership of the tunnel has not been established, but that in a time of "tension," the rightness or wrongness depended upon the side of the fence from which the operation was viewed.'¹⁰⁸ The Soviets had already shown how they wanted the tunnel to be perceived.

The importance of framing effectively falls under the art of propaganda, and the Soviets failed to effectively frame Operation Gold simply as a result of the operation's technical success. The Soviets could not release information about their own ability to compromise the tunnel and effectively left Operation Gold as a free target for US media to laud as one of the CIA's greatest successes. If anything is to be concluded from press releases surrounding the operation, it is the reimagining of the state of covert affairs. However, it also points to other trends including the back and forth of covert conflict and the importance of framing events in order to raise nationalistic pride. The media coverage of Operation Gold, on its own, makes it appear a success. By the time

¹⁰⁷ Murphy, *Battleground Berlin*, p.226

¹⁰⁸ Chicago Tribune 29 May 1955, CSHP No.150, p.88

Blake's betrayal was uncovered, the positive effects of a seemingly unambiguous US victory in covert affairs were already realised.

The media response does, however, add to the nature of exaggeration and spinning of details. In a 1978 London compendium on espionage, an alternative version of the tunnel's discovery was presented. This example emphasised a rapid Soviet discovery, which resulted in operators leaving *so quickly that the Russians found a coffee pot still bubbling in a deserted chamber*.¹⁰⁹ With an exaggerated story such as this, the gradual influence of false facts and hyperbolic details of the operation cloud the most accurate narrative that can be constructed from historical works and the CSHP report. The lack of details about the tunnel until the disclosure of documents ensured that writing about the operation was likely embellished to create a more complete and compelling narrative. The framing of the event was essential to the media.

¹⁰⁹ Murphy, *Battleground Berlin*, p.233

Moral Misgivings

The discovery of the tunnel and its unveiling on a public stage introduced another element to the effects it produced. After its successful framing by media as a unanimous American success, it is stated in *Wilderness of Mirrors* that, 'The CIA was eager to try again, this time with a tunnel - code name BRONZE - beneath an East Berlin telephone exchange, but the proposal was rejected by the White House.'¹¹⁰ The nomenclature of the Bronze, Silver and Gold operations is perhaps indicative of the CIA's relative valuing of the projects as well as their identification of a trend in attempting similar approaches. This relatively mundane observation is further amusing by the code name assigned to Blake by the KGB; 'diomid' literally translated to 'diamond', indicative of his value to the Soviets.¹¹¹ Surrounding Operation Gold, there is therefore Silver, Bronze and Diamond, all of which are related to the grand narrative network that emerges around the focal point of the Berlin tunnel.

While the operation was highly valued and seen as successful in essential measures the discovery muddied the perception of success with moral misgivings. The realization that enemy territory had effectively been 'invaded' by covert methods was startling even to the president of the US at the time, Dwight Eisenhower. While the essence of the information taken from the tunnel was made available, knowledge of the source did not interest him.¹¹² Even in the planning of the operation, the misgivings about digging into enemy territory were raised. However, as an operation that was not

¹¹⁰ Martin, *Wilderness of Mirrors*, p.89

¹¹¹ Stafford, *Spies beneath Berlin*, p.72

¹¹² Martin, *Wilderness of Mirrors*, p.89

expected to receive substantial Soviet coverage even when discovered, the moral considerations were almost exclusively relevant to the CIA agents involved. The discovery and public environment of the tunnel meant that the considerations that were previously reserved to those planning and implementing the operation were now on the minds of the public and leading political figures.

As a result, the potential danger of such an operation in retrospect was magnified. The presence of a tunnel under the opponent's territory not only raised moral misgivings but could be compared to a ground invasion. If either the US or Soviets had launched a major ground invasion of divided Berlin or German territory, the likely consequence would have been a large conflict. The disastrous consequences could also have included nuclear warfare. It was not expected to reach this point. However, it was the manner of the tunnel's discovery that saw many of these hypothetical considerations in the psyche of the public and political figures fail to become reality. While human agents were an acknowledged element of Cold War espionage the introduction of substantial technological operations that directly invaded foreign territory marked a new boundary in covert conflict. The moral misgivings were a substantial negative alongside the positive coverage that the tunnel did receive in the media. These moral aspects were still largely restrained to powerful leaders, as it was the potential physical fallout that was the most obvious concern to the public.

Conclusion

The continuation of the Cold War into the 21st century is most certainly brought to the forefront of consideration when seeing Vladimir Putin on stage with George Blake. While Blake is a link back to events of the 20th century, his recognition in 2008 aligns with a further deterioration of relations which were always slightly frosty. With fears of Russian involvement in American elections along with the Skripal poisoning in Britain, the covert sphere has come back to occupy a prominent spot in relations and the popular consciousness. Similar impulses to the Cold War era can be identified alongside the memories that recent events seem to trigger. Putin's intricate connections to the KGB further these sentiments from this previous era and the recognition of Blake is perhaps the most symbolic and representative of these developments, especially given its nature as a riposte to the British honoring of Oleg Gordievsky.

The dissolution of the USSR could be seen as a shift toward a period of detente with the renewal of tensions marking the beginning of a second Cold War, which as a concept has been postulated by historians and journalists alike. The Ukraine crisis in 2013 is commonly cited as the beginning of this kind of terminology, but relations had certainly been deteriorating due to the events previously addressed.¹¹³ What does mark the new era of relations is an emphasis on technological and information warfare, the involvement of espionage agents internationally has been brought into the light through events such as Litvinenko's poisoning, and the 2018 alleged assassination attempt of

¹¹³ Robert Legvold specifies this position citing the Ukraine crisis. The position of information warfare is specified by Philip Howard.

the Skripals in Salisbury. The human nature of these events, alongside the public political fallout between Russia and other nations, brought concepts of the Cold War back into the popular psyche. While many developments in this arena will be occurring outside of the public sphere, the question of intelligence, information and its use or value must be one of the defining questions going forward.

The development of technology has shaped societal growth but it has also drastically shaped the role of intelligence agencies and responsibilities of business and political leaders. This is summarised by Gabriel Margolis as, ‘an infatuation with technological methods of intelligence gathering’, and he credits this with a movement away from traditional espionage.¹¹⁴ The ongoing debates and questioning over use of customer data and information is tightly related to this issue of intelligence gathering. While it could be argued that technology has drawn the world closer together, it has also created a market for information and data which, as suggested, has recently come under scrutiny. With the growth of social media, information on specific individuals has become increasingly easy to access. The US has, according to Margolis, ‘accumulated an unequivocal ability to collect intelligence as a result of the technological advances of the 20th century.’¹¹⁵ The value of information is in therefore knowing and being able to understand, even predict, the motives or movements of others. This was an observable motivation for CIA activity within the Cold War, but can now be seen in a number of environments in the current day. The potential for information through technological methods far outweighs the specified and targeted intelligence from human agents, but

¹¹⁴ Gabriel Margolis, ‘The Lack of HUMINT: A Recurring Intelligence Problem’, *Global Security Studies*, Vol.4 no.2, p.43

¹¹⁵ *Ibid.*

in the modern day the amount of information is also substantially larger. One of the conclusions that Margolis postulates in relation to agencies is the continuing need to engage in human intelligence. However, it is clear that in this ongoing transition to increasingly sophisticated technology, the balancing of costs will define the nature of covert activity. Technological methods will largely be more costly but it is also the only viable option to cover the scale of information that has been propagated by technology itself.

Technology has the greater potential to accrue vast amounts of information more rapidly. This was a prime consideration for CIA technologically driven operations, such as Gold. Knowing and understanding Soviet activity in the context of the peak of the arms race was the primary objective, and the importance of further information justified the substantial investment in the tunnel. The Berlin blockade highlighted the evident weakness of West Berlin being situated deep within the Soviet zone of Germany. Even after the airlift caused the Soviets to backdrop, events had established Berlin as the epicenter of the Cold War in Europe. Furthermore, it was these events taking place just before the 1950s which created the precarious environment in which Operation Gold was to take place. This could be seen as the Berlin trilogy of blockade and airlift, tunnel and wall which is iconic in the manner that each took place in a different theatre, air, under and above ground. While escape tunnels were dug under the wall following its construction, Operation Gold led to a tunnel being built before it had anything to tunnel under. This adds to the idea of spatial metaphors covered by David Pike and gives the

project extra symbolic value.¹¹⁶ While the wall is seen to embody the global divisions of the time, the Berlin tunnel can be seen to characterize relations within the covert sphere when considering its narrative as a whole. The operation not only has this value retrospectively but was a necessary step for the CIA in embracing technological advances. Both these elements are important in addressing why the tunnel retains value into the modern day.

It was changes in the state of human intelligence gathering which had prompted the CIA to seek other methods. The drawbacks of HUMINT as stated by Margolis can be observed in the case of the Free Jurists. While a valuable source, the ability to bring down the group from one individual was a severe drawback. In addition the group created an environment of more direct interaction between US and Soviets. While the Cold War continued to see indirect confrontation between the two powers, the covert sphere saw substantial interaction. The manner of kidnappings such as Walter Linse in July 1952 highlight the potential to compromise human intelligence sources, as well as the possibility of escalation when agents were kidnapped, assassinated or executed. The Free Jurists do epitomise the need for continued human intelligence methods, but in relation to Operation Gold also highlight why technological projects are increasingly important. A tunnel operation could provide a consistent source of information with a potentially lower human cost while groups such as the Free Jurists would be limited by the strength of the KGB in the area. The main positive of the Free Jurist group lay in their ability to directly interact with Soviet citizens and therefore attempt to orchestrate

¹¹⁶ Pike

dissent within society. However, it was the particular vulnerability of human agents to be detected and apprehended that made technological methods of information gathering more attractive.

Operation Silver provided a valuable example of the value and potential successes of a technological tunnelling project, with agents hoping this could be translated to a more valuable target. Important differences between Operation Silver and Gold provide greater detail to the environment in which intelligence agencies were operating. While Silver was placed within existing infrastructure and operated on a smaller scale, Operation Gold had its iconic warehouse cover. In these details the cover of a radar station highlights that the nature of a covert conflict left such a station being a normal part of the environment and one which would not raise suspicions. This is an interesting consideration given that it effectively distracted Soviet attention from the operation that was actually taking place. With the idea that the environment could change expectations, the duo of Operation Silver and Gold highlight that advanced technological operations could be obscured by cover that had become an essential part of the Berlin landscape. The implementation of Operation Gold is testament to the lessons taken from Vienna and the ability to construct believable cover is relevant to the evolution of the covert sphere. The success of Operation Silver establishing Soviet army movement and positioning without being compromised shows why the opportunity to expand and translate this method to Berlin was emphasised. Building on the conclusions from the differences between HUMINT and SIGINT, Operation Silver offered a practical example of the potential value of Gold.

The discovery of the tunnel occurred on 21 April 1956. It prompted a media storm from both the West and East. The discovery itself saw the Soviets first uncover the tap during maintenance before opening up the full extent of the tunnel. The Operation was effectively terminated once the cables were cut. While these are simple facts, the nature of the discovery is open to interpretation due to intricacies such as Blake's involvement, weather conditions at the time and the subsequent framing of the event. Blake had undoubtedly compromised the secretive nature of the operation, but whether the Soviets acted upon this is unclear. It has been suggested that they simply avoided acting on the information in order to avoid attracting suspicion to Blake. Another speculation was that misinformation was fed through the tunnel, but in *Battleground Berlin*, Kondrashev dismisses this by suggesting that this in itself would be costly and risky.¹¹⁷ In neither of these possibilities were the Soviets active in terminating the tunnel early, it is also fairly clear that those lower down in the Soviet hierarchy were left in the dark about the construction of the tunnel. Generally, it is therefore assumed that the tunnel was providing accurate and substantial battle order information to the US and British. The nature of a covert conflict left Blake as a highly valuable source for the Soviets, unwilling to risk his discovery.

Weather conditions at the time of the discovery were particularly wet and it is this factor that is commonly cited as leading to the faults in the cables which were being tapped. The importance of these cables meant that Soviet workers had to perform

¹¹⁷ *Battleground Berlin*

maintenance. This inevitably led to the discovery of the tap. While the CIA was aware of damage to one of the cables before it was tapped, they could not compromise the operation due to imperfections of one of the three targeted lines. These factors point toward a more fortuitous discovery than a choreographed attempt from the Soviet side. While important Soviet figures may well have been aware of the operation, it was only once the tap had been uncovered that they became involved. Maintenance on cables was not something that would generally require higher level direction. The uncertainty upon stumbling upon the tap certainly suggests a more fortuitous rather than formulated discovery.

Regardless of whether the operation was discovered through fortune or direction, both sides used the event to further their own image. While the Soviets could attack perceived American imperialism and immorality in effectively invading their territory, all US agencies refused to accept responsibility but saw their value soar in Western media. This justified Soviet concepts of defending themselves against Western aggression, while the media praised the CIA for its ingenuity and success in combating the perceived Soviet dominance in covert affairs. In the aftermath of the tunnel's discovery it was the CIA that ultimately succeeded in gaining the most prestige. The role of Blake did not undermine this until years later in 1961, and even then the amount of information that was compromised was not a consideration for many in the US or UK agencies. The scale of material produced as suggested, not only made it highly unlikely that all of it was inaccurate, but established the success of the operation as a source of information. Not only were extensive details about the Soviet nuclear energy programs uncovered

but also information about the explosive 20th Party Congress. While the media were not aware of these details, their perception greatly enhanced the CIA's public image while the CIA could also leverage greater prestige within the US government due to these successes. The discovery opened up a covert operation to the public sphere and this prompted the need to frame just the physical project as a success or failure as the information it produced was still classified. Operation Gold marked a considerable technological achievement and this is the largest reason for its discovery actually largely benefiting the CIA and its image. It also produced substantial material (over 330 small rooms full of information) which gave the CIA much greater Order of Battle information, at a time when it was being most heavily requested.

Following revelations about George Blake's treachery, the legitimacy of information taken from past operations could no longer be taken for granted. While the discovery had already been framed to the US benefit, the uncovering of Blake was certainly damaging to the CIA as a whole. Nevertheless, it did not undermine the successes of Operation Gold and his role largely informs wider conclusions about the covert sphere. His involvement prolongs the narrative of Operation Gold beyond 1956, but it is his involvement which highlights that information was an essential element to the economy of the covert sphere. Agents can be seen as sources of information. As such, Blake was as valuable as the information he produced. The Wynne-Lonsdale exchange, which ended his hopes for an early trade for freedom, shows that a number of factors are considered in valuing an agent. This can be expanded to consider how

operations and pieces of information were valued. Information and its relative importance informs whether an operation or agent was highly valued. Blake was recognised with the Order of Lenin when he eventually escaped to the Soviet Union and this highlights the value placed on the information he uncovered. Similarly his recognition by Putin epitomises his iconic value to the Soviet intelligence community. Whether the Soviets acted on his intelligence does not inform whether he was highly valued, rather it was his position and the scale of information which he produced. Both the CIA and KGB utilized a substantial number of human agents, but it was figures such as Blake who highlighted the potential of HUMINT and its role in the economy of the covert sphere.

By its nature, the covert sphere is rarely exposed to the public, but when operations or agents are compromised, intelligence agencies have to consider how they are handled. Operation Gold constantly produced information, but it was in its discovery that it saw its most substantial value. Not only was the CIA enhanced publically but also within the US government. This interaction of public and covert sphere is a sizeable part of the importance of Operation Gold. Developments, events and other trends of the Cold War can be seen through different perspectives, but the media coverage essentially alters how these occurrences would be viewed by the public. As a result the idea of 'framing' becomes essential in understanding how the Cold War took place. The concept of post-event value can be understood through Operation Gold. While biases and spin can inform how an event is portrayed, operations and events can be framed to subtly alter how their intentions and implications are understood. Operation Gold was an

essential project to provide the British and Americans with Order of Battle information, but through the framing that was prompted by its discovery it symbolised many more developments. Operation Gold can be seen as part of the development of the CIA to rival the KGB, part of the development of SIGINT over HUMINT and the general trend toward technology over human agency. This element of Operation Gold has further value when considering modern day developments.

The implications of Operation Gold are worth considering as they apply to current anxieties about Russian meddling in the political affairs of other nations. While the dissolution of the USSR saw a period of upheaval domestically and a lowering of international tensions, the emergence of Putin should certainly be seen as an emergence of a Cold War-esque environment. The recent developments between the Anglo-American alliance and Russia have created similar situations to those seen heading into the 1950s Cold War. With the alleged Russian involvement in American elections, the value of information can be seen at an alltime high. The rise of technology has continued since Operation Gold and the Cold War, it has drawn the public sphere closer to the covert sphere. Ramifications from cases such as Cambridge Analytica and Facebook show how information is valued and it raises further considerations on privacy. Operation Gold saw the CIA attempting to gather as much information as possible and it is this same motive that can be seen in businesses in the modern day. Covert operations are similarly still going to be centered on gathering information that can inform policy decisions. Human intelligence provides specific and targeted

information, but technology can now provide much more substantial material than was possible before. Operation Gold is a relevant example of this since it marked a move toward technologically driven methods. While the move away from traditional espionage has been lamented, its role will never disappear until technological methods can provide more targeted information. Operation Gold was a project to gather as much information as possible and this aspect creates links into the modern day. The operation marks the beginnings of the Cold War covert conflict which is a substantial narrative behind public developments such as the arms race. Studying the intentions and valuation of an operation such as the Berlin tunnel reveals the direction which covert activity is likely to take and this has already begun to manifest. The importance of the covert sphere not only grew throughout the Cold War but has now grown to be one of the most significant elements of foreign involvement. The tunnel is representative of the developments that have followed and it provides an exciting narrative during the most important period of the Cold War.

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