

~~TOP SECRET//COMINT//X1~~

# (U)Cryptologic Almanac 50<sup>th</sup> Anniversary Series

## (U)The Berlin Tunnel Part II: The Rivals

~~(TS//SI)~~ SYNOPSIS: In the early 1950s, a CIA scientist discovered a flaw in a Soviet teleprinter system that rendered its encrypted traffic exploitable [redacted] (b)(1)

[redacted] the CIA worked [redacted] to dig a tunnel from West to East Berlin and tap into a telephone hub that served Soviet forces in Germany and much of Eastern Europe. However, out of institutional rivalry over control of U.S. communications intelligence (COMINT), the CIA decided against notifying the National Security Agency -- this was wiretapping, not COMINT, they rationalized.

~~(U//FOUO)~~ NOW, ON WITH THE STORY: Intercept operations from the tunnel began on May 10, 1955. Listening in was conducted around the clock.

~~(TS//SI)~~ From the very beginning, the operation produced enormous amounts of intercept. The taps went into three cables, containing 172 circuits, with each circuit carrying 18 communications channels. The voice material was relayed to a bank of 150 tape recorders located in the "warehouse." Tapes of recorded telephone conversations were sent to London, where a group of White Russian émigrés transcribed and translated them. Tapes of material from the teleprinters were forwarded to CIA headquarters, where special processors exploited the equipment flaw that enabled decryption.

(b)(1), (b)(3)-P.L. 86-36  
(b)(3)-50 USC 403  
(b)(3)-P.L. 86-36  
(b)(3)-18 USC 798

~~(TS//SI)~~ CIA security regulations prohibited access to the REGAL material by non-CIA personnel. In fact, CIA did not inform NSA about the tunnel activity until a month after it became operational. [redacted]

[REDACTED]

~~(S//SI)~~ On April 21, after several days of heavy rainfall, electrical shorts disrupted critical Soviet communications in Germany. Soviet signal troops and East German technicians began digging to uncover the cable; while probing for the line, they discovered the tap chamber. Soon, the eavesdroppers heard East German telephone operators refusing to place outgoing calls, because it was "against orders." The tunnel was entered shortly thereafter, and operations ceased.

~~(TS//SI)~~ A very great number of reports were issued based on the telephone and teleprinter traffic. Reports identified previously unknown Soviet military units in Germany, and confirmed other order of battle, training, and equipment data which had previously been uncertain. Many reports dealt with the day-to-day activities of both Soviet and East German military and government units. In a sidelight, the intercepts revealed Soviet interest in the ELINT warehouse from which the tunnel extended.

[REDACTED]

(U) In 1961, five years after the tunnel operation had been exposed, an Eastern European defector revealed that George Blake, an officer in Britain's SIS, was a Soviet spy. Blake pleaded guilty to charges of espionage, and was sentenced to 42 years in prison. He told investigators he had given the Soviets every important document he had seen since 1953. Blake had been involved in discussions about the tunnel operation from the very start.

~~(TS//SI)~~ U.S. and British intelligence authorities now faced a difficult question. If the Soviets knew about the tunnel from the beginning, why had they allowed it to continue? Had they passed deceptive data?

~~(TS//SI)~~ As it turned out, while George Blake knew about the tunnel and the fact that it was tapping telephone lines, he apparently had not been informed of the flaw on Soviet teleprinters that allowed analysts to exploit encrypted messages. Apparently, based on Blake's incomplete knowledge, the Soviets instituted better telephone security procedures, but did not alter their teleprinter communication habits. Thus, plaintext telephone conversations yielded only routine -- but sometimes still interesting -- information while decryption of teleprinter traffic produced high-quality intelligence.

(U//~~FOUO~~) Although some in the intelligence community continued to doubt the value of

the tunnel operation, Allen Dulles called it "one of the most valuable and daring projects ever undertaken." [REDACTED]

(U//~~FOUO~~) And the other side? Reportedly, technicians from the USSR expressed admiration for the technology involved. Soon, the Soviets and the East German government turned the tunnel into a tourist attraction, a way to denounce "imperialist" intervention into their affairs. This stopped, however, as it backfired and as the public began to admire the daring and sophistication of Western intelligence.

(S//~~SI~~) Rivalry continued between NSA and CIA over control of American COMINT, especially as CIA expanded its active program. General Canine was bitter about having been bypassed on the project, and it affected his relations with Allen Dulles for the rest of his tenure. His successor, General John Samford, was more of a diplomat, however, and achieved at least a truce with the CIA. In 1977, a rational division of effort was achieved by memorandum between the two agencies -- widely known as "the Peace Treaty" -- that delineated each agency's role and responsibility more clearly.

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