UNITED STATES CRYPTOLOGIC HISTORY

Series V
The Early Postwar Period
Volume 2

BOURBON to Black Friday (U)
The Allied Collaborative COMINT Effort
against the Soviet Union, 1945-1948 (S-CCO)

Michael L. Peterson

CENTER FOR CRYPTOLOGIC HISTORY
NATIONAL SECURITY AGENCY
1995
Chapter 3

Early American Cryptanalytic Efforts against Russia and the Soviet Union

LITTLE THAT WAS SOVIET IN YARDLEY'S BLACK CHAMBER

In his book *The American Black Chamber*, Herbert O. Yardley, America's first modern cryptanalyst, discussed the Russians mainly in a chapter on deciphering a coded letter (a transposition cipher in the German language), prepared in 1919 by a Soviet spy in Berlin, apparently intended for his superiors in Moscow and found in the wreckage of a plane that crashed in Latvia. Yardley's book put far greater emphasis on the U.S. attacking the ciphers of Germany and Japan. Moreover, French and Spanish and even British ciphers got equal time. In fact, he claimed his operation broke the diplomatic ciphers and codes of twenty countries, among which both Imperial Russia and the Soviet Union are listed, but not prominently.

According to another source, however, Yardley's Cipher Bureau, Department 8 of the Military Intelligence Division (MI-8), which was established at about the same time as the unfolding of the Bolshevik Revolution of 1917, received until April 1919 "a moderate quantity of Russian diplomatic intercepts," including cipher messages composed of five-digit groups and five-letter groups to ten-letter groups, of which apparently none was solved.

In May 1920, Yardley's Black Chamber in New York apparently planned to work on the traffic of five governments, among which was the Soviet Union, albeit last in importance. By 1921, however, as an apparent consequence of changes in U.S. foreign policy, American interest in Soviet traffic became "considerable." Soviet messages were divided into thirteen different categories, including plaintext traffic in French or English, Moscow-Berlin messages, traffic bearing either discriminants or key words, and a variety of three-, four-, five-, six-, and ten-digit and letter traffic.

None of these systems was solved by American cryptanalysts, however, despite work done on them and despite the availability of an interesting variety of collateral information such as the following:
a. details of the COMINTERN "cipher code," surreptitiously acquired from Stockholm, Sweden, in 1923;
b. similarly acquired explanation of a Soviet dinomic system in 1925;
c. copy of a cipher system used by the Soviet Communist Party and its conduit for espionage, the AMTORG Trading Corporation in New York City, in 1928; and
d. details of what was thought to be a Bolshevik code used in Java in 1928, acquired by the Office of Naval Intelligence from Dutch authorities.

AMTORG EFFORT MORE A FALSE START THAN A TRUE BEGINNING

When Yardley's Black Chamber was closed in 1929, the Soviet traffic was turned over to the Army's Signal Intelligence Section (SIS) (a forerunner of the Army Security Agency), staffed at the time with only five cryptanalysts (Friedman and his four assistants, Mesers. Rowlett and Hurt, and Doctors Kullback and Sinkov). A brief attempt was made to solve this and subsequently acquired Soviet traffic but with no success.7

The AMTORG Trading Company was the focus of cryptanalytic attention again in 1931 when Representative Hamilton Fish of New York conducted an investigation into Communist propaganda in the United States. A congressional committee subpoenaed about 3,000 code messages from the cable companies and submitted them to the Navy's Code and Signal Section, itself composed at the time of only two cryptanalysts (Commander Safford and Lieutenant Wenger). When the analysis was unsuccessful, the messages were turned over to the army, with its five experts. All efforts proved fruitless, despite a great deal of work being done.

Mr. Friedman even conveyed Representative Fish's offer to Mr. Yardley of payment of $100 per week for a few weeks to work on them. Friedman clearly anticipated Yardley's lack of interest ("I told them that your peg was higher up... "). Yardley was then at work on his articles on The American Black Chamber, which were about to be published in The Saturday Evening Post before appearing in book form.8