

(U) sinkov.txt

-----+
 -----+
 | THIS IS AN AUTOMATIC POSTING FROM THE ELECTRONIC SUBSCRIPTION SER
 VICE. |
 -----+
 -----+

Message topic: Center for Cryptologic History
 Posted by:
 This article is UNCLASSIFIED.

CRYPTOLOGIC ALMANAC
 The Passing of Dr. Abraham Sinkov

The Center for Cryptologic History is saddened to announce that Dr. Abraham Sinkov, one of the founding fathers of modern cryptology, passed away on 21 January. Dr. Sinkov, [redacted] (b) (6) [redacted] had lived in retirement in a Phoenix, Arizona, suburb for the past several decades.

In his memory, we republish the short biography we issued last summer on the occasion of Dr. Sinkov's ninetieth birthday.

In 1930, William Friedman, a senior civilian in the Army's Signal Intelligence Service (SIS), was authorized to hire three civilians at \$2,000 per year -- a fairly good salary in the early period of the Great Depression. On April 1, Frank Rowlett, a mathematics teacher from Virginia, reported for duty. Later that month, two mathematics teachers from Brooklyn came to Washington to work as cryptanalysts: Abraham Sinkov and Solomon Kullback.

Abraham Sinkov, the son of Russian immigrants, was born in Philadelphia but grew up in Brooklyn. After graduating from Boys High School -- what today would be called a "magnet school" -- he took his B.S. in mathematics from City College of New York. (By coincidence, one of his close friends at Boys High and CCNY was Solomon Kullback). Mr. Sinkov taught in New York City schools but was unhappy with the working conditions and was anxious to use his mathematics knowledge in practical ways.

The opportunity for a career change came in 1930. Sinkov and Kul

(U) sinkov.txt

lback

took the Civil Service examination and placed high. Both received mysterious letters from Washington asking about their knowledge of foreign languages. Sinkov knew French, and Kullback was proficient in Spanish.

This was acceptable to their prospective employer, and they were offered positions as junior cryptanalysts. Although neither was quite certain what a cryptanalyst did, they accepted.

The small SIS organization had the primary mission of compiling codes and ciphers for use by the U.S. Army. Its secondary task was to attempt to solve selected foreign codes and ciphers -- this was not necessarily done for intelligence purposes but as a way to keep the cryptanalysts abreast of new developments in the field.

William Friedman put his new employees through a rigorous course of study of his own design in cryptology, bringing them to high levels of skill in making and breaking codes and ciphers. Friedman also encouraged other self-improvement endeavors: his employees trained summers at a camp at Fort Meade to earn commissions in the military reserves. Both Sinkov and Kullback also went on to obtain doctorates in mathematics. Sinkov received his degree in 1933 from The George Washington University.

SIS grew slowly throughout the early 1930s. However, successes against Japanese diplomatic machine systems after 1935 provided the U.S. government with critical information during a series of crises, resulting in more personnel, bigger budgets, and a wider range of activities for the organization. In 1936, Dr. Sinkov was assigned to the Panama Canal Zone, where he established the U.S. Army's first permanent intercept site outside the continental United States.

In January 1941, while Great Britain battled Nazi Germany, but nearly a year before the United States entered the Second World War, Captain Sinkov was selected as a member of a delegation to the United Kingdom for initial sharing of information about the two countries' respective cryptologic programs. The delegation returned in April with mixed results to report. Sinkov and his colleagues had been shown Bletchley Park, the secret headquarters for British cryptology, and the two allies exchanged information on German and Japanese systems. It is still unclear how much the American delegation was told about British success against the German ENIGMA machine, but Sinkov later recalled that they were told about the ENIGMA problem only a short while before the delegation was

(U) sinkov.txt

to leave, and that details were sketchy. Nevertheless, the mission to the U.K. was a success overall and helped give U.S.-U.K. cryptologic relations a strong practical foundation.

After the Japanese sneak attack on Pearl Harbor on 7 December 1941, the Japanese also attacked the Philippine Islands. General Douglas MacArthur had been ordered to leave the Philippines and reestablish U.S. Army headquarters in Australia, whence counterattacks might be launched. MacArthur recognized the need for cryptologic support; thus, on 15 April 1942 he established the Central Bureau, cobbling it together from refugee elements of American cryptologists evacuated from the Philippines, Australian cryptologists, and other Allied contingents. Central Bureau began in Melbourne, then moved to Brisbane (thus its later name, Central Bureau Brisbane--CBB).

In July 1942, Major Sinkov arrived in Melbourne as commander of the American detachment at CBB. The director of CBB on paper was General Spencer B. Akin, MacArthur's chief signal officer, but General Akin in practice seldom visited the organization. He had worked with Sinkov in Washington and in Panama, and he confidently left CBB operations under Sinkov's control.

Dr. Sinkov, who demonstrated strong organizational and leadership qualities in addition to his mathematics skills, brought this group of Americans and Australians -- representing also different military services from their countries -- into a cohesive unit. CBB quickly became a trusted producer of signals intelligence for MacArthur and his senior commanders. This SIGINT enabled consistent success in the air war against the Japanese and allowed MacArthur to win some stunning victories in the ground campaign in New Guinea and the Philippines.

After the war, Sinkov rejoined SIS, now renamed the Army Security Agency, and in 1949, when the Armed Forces Security Agency (AFSA) -- the first centralized cryptologic organization in the United States -- was formed, Sinkov became chief of the communications security program. He remained in this position as AFSA made the transition into the National Security Agency.

In 1954, Dr. Sinkov became the second NSA official to attend the National War College (the first was Dr. Louis Tordella). Upon his return, he became deputy director for production, effectively swapping

(U) sinkov.txt

jobs with his old colleague Frank Rowlett. Dr. Sinkov retired from NSA in 1962 and lived for many years in the Phoenix, Arizona, area. He served as a professor of mathematics at Arizona State University until 1972.

With the death of Dr. Sinkov, the only survivor of the original three "junior cryptologists" hired by William Friedman in 1930 is Frank B. Rowlett. Mr. Rowlett, 89, recently returned from Florida to Maryland.