

MRS. ELIZEBETH S. FRIEDMAN
(Deceased)



Born in 1892 in Huntington, Indiana, Elizebeth Smith was educated in English literature at Michigan's Hillsdale College and worked as a schoolteacher. In 1916, she was hired at the Riverbank Laboratories outside Chicago, Illinois. Her primary job was to find hidden codes within the works of William Shakespeare. She met and married her husband, William Friedman, while working at Riverbank Labs. At the time, he was working as a geneticist until Elizebeth introduced him to the field of cryptology. He would later become a renowned cryptanalyst within the War Department.

When the United States entered World War I, Riverbank Labs was initially recruited by the U.S. Army to assist in the Army and Navy's codebreaking efforts. Elizebeth and her husband William were heavily involved in this effort, solving hundreds of enciphered messages. Between 1917 and 1920, the Riverbank press published eight booklets that delineated new types of codebreaking techniques developed by Elizebeth and William. The two also began to teach Riverbank's new cryptography and codebreaking training courses for Army officers preparing for cryptologic assignments in the War Department and in France.

After the war, the Friedmans moved to Washington, D.C. and worked for the War Department General Staff as codemakers. Elizebeth left the Army position in 1922 to raise their family but was employed by the Navy for five months in 1923 to create codes and ciphers. Between 1925 and 1933, Mrs. Friedman worked for the Coast Guard to solve the encrypted messages of alcohol smugglers attempting to circumvent Prohibition laws. She provided the Coast Guard with vital intelligence that supported their efforts to interdict smuggling. She also trained a small team in cryptanalysis to expand the effort. She and her team solved approximately 12,000 coded messages, which were used in criminal trials that resulted in 650 successful prosecutions. Mrs. Friedman personally testified as an expert witness in thirty-three of the cases.

During World War II, Mrs. Friedman worked for the Navy, decrypting espionage communications between South America and Nazi Germany. These messages incorporated sophisticated codes generated by various Enigma machines, making them much more difficult to solve. Still, the information she developed was critical to uncovering German intelligence networks across the Southern hemisphere, enabling the FBI and British allies to put major Nazi spy rings out of action. She also helped uncover several domestic spies, including Velvalee Dickinson, a Japanese spy

convicted in New York City. After World War II, Mrs. Friedman consulted on communications security methods for the International Monetary Fund.

The accomplishments of Mrs. Friedman, perhaps America's first female cryptanalyst, came to light only after her death in 1980. While her efforts were largely overshadowed by those of her husband, she proved equally significant to American national security throughout the first half of the twentieth century. The complex techniques she helped develop for the U.S. codebreaking effort during World War I, through the interwar period, and into World War II form the solid foundation on which the U.S. Signals Intelligence enterprise rests today.

Mrs. Friedman was an inaugural member of the National Security Agency's Cryptologic Hall of Honor, and several facilities are named in her and William's honor. Additionally, in 2020, the U.S. Coast Guard announced their eleventh Legend-Class National Security Cutter will be named in her honor. She was inducted into the MI Hall of Fame in 2023.