

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

### (U) Mary Hughes (Polly) Budenbach

(U//~~FOUO~~) If there are those who lead, those who follow, and those who stay out of the way, Mary Hughes (Polly) Budenbach was definitely one of the leaders. At one point the highest paid woman at NSA, she was probably NSA's first female super-grade and a leader in cryptology from the end of World War II. Budenbach was also an outstanding cryptanalyst who helped guide one of NSA's most prestigious branches for many years.

(U//~~FOUO~~) Born in April 1914, she attended Smith College, graduating in 1934 with a B.A. in English. She married Theodore Budenbach and moved to New York City, where he worked as a buyer for a fine furniture store. At the start of World War II, with her husband very likely to be drafted, she began to look around for something to do while he was gone. (Also, the soldier's wife's allowance of \$50 a month was not an amount that Polly felt she could live on.) Therefore, she quit her unpaid volunteer job and took a paid position with the Navy Cryptologic Organization, OP20-G, in Washington, DC.

(U//~~FOUO~~) When she arrived at OP-20-G, Budenbach found that everyone who could possibly join the Navy was pressured to do so; only those ineligible for service remained civilians. She was convinced to go to WAVE Officers Training School. However, the entrance physical turned up a condition that made her ineligible for service. She was officially discharged; total time in the Navy, three days. She returned to New York for corrective surgery. When she recovered, Budenbach returned to OP-20-G and once again the Navy wanted her to join the WAVES. This time she firmly said "no way" and remained a civilian.

(TS//SI) Budenbach worked as a cryptanalyst on a variety of Japanese naval systems throughout the remainder of war, including JADE, the naval attaché cipher machine. Here she "demonstrated a mastery of the analytic disciplines and distinguished herself by her successes with 'impossible' ... problems." At the end of World War II, she moved to

(U//~~FOUO~~) When her husband returned from service in the Pacific in 1946, he found a job with a small Wall Street firm in New York. In order to ensure they would have a steady income, she planned to remain with OP20-G until they were certain the firm was going to remain solvent. Although the firm survived, she never gave up her cryptanalytic job.

Budenbach always hoped that her husband would find a job in Washington, DC, but he never did. She spent the remainder of her 32-year cryptologic career living in a room rented from friends during the week and returning to New York on weekends.

(~~TS//SI~~) By 1949 Budenbach had moved from an analytic office focusing on a particular target to the prestigious Technical Consultants organization. This organization, among other things, assisted target offices with their most difficult cryptanalytic problems and conducted original research on new cryptanalytic devices and problems. She was one of the leaders of this organization, whose targets included [REDACTED]

[REDACTED] In addition to being a leader of this organization and contributing significantly to its success, she also trained and mentored several junior analysts. By 1955 she was one of the two highest paid women at NSA.

(U//~~FOUO~~) Budenbach remained in the Technical Consultants organization until about 1960, when she moved into management for the last decade of her career. She was chief of B4, the Office of Technical Projects, and then deputy chief of G Group under the expert cryptanalyst Frank Raven. In spite of her managerial duties, she remained involved in the technical problems in the organizations under her charge.

(U//~~FOUO~~) During the course of her career, she received numerous accolades, including the Navy's Meritorious Civilian Service Award in 1945 and NSA's Exceptional Civilian Service Award in 1975. She was named the 1969 Federal Woman of the Year.

(U//~~FOUO~~) Budenbach retired in 1975. She currently lives in South Carolina.

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