

~~TOP SECRET//SI//NF//NF~~

# Cryptologic Almanac 50<sup>th</sup> Anniversary Series

## Francis A. Raven

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

(U) Raven had very little patience with administrative detail. In 1974, while sitting on the floor in the hallway outside the OPS 1 infirmary, he commented that nothing in his career had been as much fun as when he was a junior navy officer doing cryptanalysis during World War II. When he made this comment, during the Cyprus coup d'etat that year, he was the chief of G Group and finishing 34 years of cryptologic service. At no time during that 34 years did he ever lose his fascination with the "nitty-gritty" of cryptanalysis and intelligence.

(U) Upon graduation from Yale in 1934, Frank Raven took up his reserve commission earned in NROTC and was assigned to the Naval Security Group in Washington, DC. His cryptanalytic abilities resulted in Captain Laurance Safford telling him in 1935 that he, Safford, had taught Raven all he could about cryptanalysis.

(U) After some intervening time "on the beach," Raven was activated in 1940 and assigned as COMSEC Officer, USNR, 3rd Naval District. In December of that year, he was again assigned to the Naval Security Group, where he served until the end of the war. Initially, he worked with Agnes Meyer Driscoll and developed an interest in the analysis of cipher machines. After a short stint on the German problem, he came back to Japanese cryptosystems. He discovered that Navy cryptanalysts were concentrating on JN-25 (the Japanese naval code) and PURPLE (the Japanese diplomatic machine system) to the extent that they were ignoring the low-level cipher messages that made up the bulk of intercepted Japanese traffic. Beginning in March 1942, Raven and his unit broke an average of one to three of these low-level cryptosystems a week. These systems not only provided valuable intelligence, but also provided text to be used as cribs in working JN-25.

(U) Raven's concentration on low-level systems and his interest in the analysis of cipher

machines led to a concentration on higher-grade systems other than PURPLE. He broke the Japanese naval system known as JADE, a relative of PURPLE, and later he was a part of the American-British team that broke the Japanese naval attaché machine system known as CORAL. During the war, he earned the reputation of being the outstanding cryptanalyst of OP-20-G, and according to Prescott Currier, with whom he worked on CORAL, he was the best all-around cryptanalyst Currier had ever met.

(U) After the war, Raven continued as a civilian analyst with NSG until the formation of the Armed Forces Security Agency in 1949. He served as the deputy technical director for Production in AFSA until 1952, and then worked in the same job with NSA until 1956. In 1954 he became only the fourth NSA employee to receive a "supergrade" promotion -- to GS-16 in April.

(U) The rest of his career with NSA was as a senior executive: chief, GENS, until February 1959; assistant director of the Office of Production until July 1961; chief, B, for one year, until July 1962; and chief of the Office of Cryptology, later known as G Group, until his retirement in 1974.

(U) During those 20 years, he expanded and modernized the scope of training at NSA: he was the prime developer of CY-600, the NSA/NCS Senior Cryptologic course, and CY-100, the Basic Cryptologic Course; he also originated NSA's Junior Mathematicians Program. For his accomplishments, he received the Air Force's Exceptional Civilian Service Award, NSA's Exceptional Civilian Service Award, and NSA's Meritorious Civilian Service Award.

(U) After retiring, Mr. Raven set up Washington National Records Research Services, a firm that carried out research on genealogical and other matters for clients. He continued that work until his death in December 1983.

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