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

## (U) Lambros D. Callimahos, Part 1

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

"If you can read these 26 letters, there is nothing about the universe that you can't learn."

-- Lambros D. Callimahos --

(U) This article, the first of two, concentrates on the professional career of L. D. Callimahos. The second article, to be published tomorrow, concentrates on his famous CA-400 cryptanalysis course and the Dundee Society, of which he was Guru and Caudillo.

(U) Lambros Demetrios Panayiotis Callimahos was more than a teacher. He was also a gourmet, an accomplished musician, a lover of good living, a cryptologist, a polyglot linguist...and much more. But it was as a teacher in a very esoteric field that he had the greatest influence on NSA. At the time of his death at the age of 67 in October 1977, Lambros D. Callimahos -- husband, father, humanitarian, world renowned flutist, and distinguished cryptanalyst -- had enjoyed approximately twenty-seven years of service as an accomplished cryptologist at NSA and in its predecessor organization, the Armed Forces Security Agency (AFSA).

(U) Callimahos was born December 16, 1910, in Alexandria, Egypt, of Greek parents and came to the United States when he was four years old. After high school, at the behest of his father, he attended Rutgers University to study law. Hating it, he transferred to Juilliard where he completed his education as a flautist, graduating in 1933. During the next eight years, he became famous as a concert flautist, playing in all of the capitals of Europe and playing twice in Carnegie Hall in New York City. After a few years of touring, Callimahos realized that a professional concert flautist would not earn a comfortable living, especially for a man who now had a family. An avid amateur cryptologist, he joined the U.S. Army in 1941 and entered the cryptologic service. According to him, he had had his choice of several armies, Greek and Egyptian among others, but the U.S. Army had the best-looking uniforms.

(U) After basic training, Callimahos became head of the language department at Fort Monmouth, teaching Italian and cryptanalysis. He graduated from Officer's Training School in 1942 and was supposed to spend the next several months developing a new

cryptologic course with William Friedman. However, a chain of mistakes led to his being enrolled in a Japanese course, and he was subsequently sent to New Delhi as an assistant signals intelligence officer for the China-Burma-India theater. When the war was over, he was assigned to the Army Security Agency as Friedman's assistant.

(U) Through the 1950s, now as a civilian, Callimahos collaborated with Friedman on a variety of projects and developed his own famous class, CA-400. This was an expansion of Friedman's original intensive-study senior cryptanalytic course and is still a legend around the Agency. The class ran eight hours per day, five days per week, for eighteen weeks. The only acceptable excuse for absence was your own death. Callimahos taught 32 sessions of CA-400 to a total of 270 students. As part of the class, he invented the now infamous country of Zenda, an island nation complete with invented industry, agriculture, history, and leaders. Not content with real world problems, he devised a variety of original high-level cryptosystems for exercises. Graduates of CA-400 became members of the Dundee Society.

(U) A prolific writer of cryptologic literature, he was the author of over 40 books, monographs, and articles. He revised Friedman's books *Military Cryptanalytics I* and *II* and wrote *Military Cryptanalytics III*, a culmination of many years of research. He helped establish NSA's *Technical Journal* in 1955 and served as a technical advisor to the publication for the rest of his career. He wrote articles on codes and ciphers for *World Book Encyclopedia*, *Collier's Encyclopedia*, and the *Encyclopedia Britannica*.

(U) Callimahos was awarded NSA's Cryptologic Literature Award in 1975 "for distinguished and enduring contributions to the literature of cryptology -- as the Agency's most prolific writer of technical articles, monographs, and textbooks, as a technical advisor to the Agency's scholarly journal; and a champion of the cause of cryptologic history and literature." He was awarded the NSA Exceptional Civilian Service Award on 24 August 1976, a recognition of his "highly professional capabilities, inspiring leadership, and personal dedication to the furtherance of the Agency's mission."

(U) By the end of his career at the Agency, Callimahos was one of the living legends of NSA, revered by his students as a true Renaissance man: teacher, writer, linguist, cryptologist, and flautist. The dimensions of his interests were reflected in the CA-400 course. The cryptologic final examination was far more rigorous than the cryptanalysis certification test at that time; and the trivia test covered topics from aardvarks to Zenda.

(U) Callimahos was forced to leave the Agency in late 1976 due to illness, but he remained always available to advise Bruce Fletcher, who had replaced him as instructor of CA-400, on class matters.

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