Admiral, computer pioneer dies at 85

By Kathy Balog
USA TODAY

Grace Murray "Amazing Grace" Hopper, 85, one of the nation's computer pioneers, has died in Washington, D.C. on New Year's Day. The daughter of a Boston mathematician and professor and a Navy rear admiral who had received more than 40 honorary academic degrees,

She pioneered in the development of modern computer languages, including COBOL and PL/I. In 1945 she removed the first computer bug: a moth plucked from equipment and tweezed. She was 85.

She called the Navy her first love because she was 85.


HOPPER: Says the Navy was her first love.

Rear Adm. Grace M. Hopper Dies;
Innovator in Computers Was 85

BY JOHN MARKOFF

Rear Adm. Grace Murray Hopper, 85, a mathematician and pioneer in data processing who was a legendary figure among computer scientists and industry execs, has died in New York City. After receiving a Ph.D. in mathematics from Yale, she taught at Vassar College, her alma mater, where she later became an associate professor. She was married in 1945 but kept her married name.

In 1943, she combined the Eckert-Mauchly Corporation. The company was formed by Dr. John W. Mauchly and J. Presper Eckert, who in 1945 had developed one of the world's first electronic computers, ENIAC, at the University of Pennsylvania. Eckert-Mauchly was then building the Univac I, the first commercial electronic computer. The company was later bought by the Remington Rand Corporation.

Earlier, in 1943, Dr. Hopper had joined the Navy as a lieutenant assigned to the Bureau of Ordnance Computation Project at Harvard University. She worked as a programmer on a calculating device called the Mark I, the first electronic computer.

Recalled by the Navy

Leaving the Navy in 1946, she remained at Harvard as a faculty member in the computation laboratory. She continued to work on early Navy computers and maintained her Naval career as a reservist. Although retired from the Navy reserve in 1966, Commander Hopper was recalled with a year to active duty to oversee a program to standardize the Navy's computer programs and languages.

In 1962, she was elected a fellow of the Institute of Electrical and Electronic Engineers. In 1969, the Data Processing Management Association selected her as its first computer scientist "Man of the Year."

Her work led to the first practical compiler for modern computers. A compiler is a program that translates instructions written by a human programmer into more specific codes that can be directly read by a computer.

Among her many contributions, Admiral Hopper is known for naming the term "bug," which is widely used to refer to mysterious computer failures.

The first bug actually was a moth, as Admiral Hopper told the story. It was discovered one August night at Harvard in 1945 inside the Mark I computer.

"Things were going badly, there was something wrong in one of the circuits of the large glass-enclosed computer," she is quoted as saying. "Finally, someone located the trouble spot and, using ordinary tweezers, removed the problem, a two-inch moth. From then on, when anything went wrong with a computer, we said it had bugs in it."

Like another Navy figure, Admiral Rickover, Admiral Hopper was known for her combativeness and her unorthodox approach.

A self-described "ball of fire," she once said in a speech that she hoped to live until the year 2000. "I have two reasons," she said. "The first is that the party on Dec. 31, 1999 will be a New Year's Eve party to end all New Year's Eve parties. The second is that I want to point back to the early days of computers and say to all the doubters, 'See? We told you the computer could do all that.'"

She is survived by a brother, Dr. Roger F. Murray II of New Hampshire, and a sister, Mary Murray Wescott of New Jersey.