

**Volume 10**

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**Admiral Grace Hopper – Teaching  
Computers to Speak**

**Lead:** When Grace Hopper got into the business in 1944, the number of people who had ever heard the word computer could not fill a small room. She stayed with it until she died.

**Intro.:** *A Moment in Time* with Dan Roberts.

**Content:** When the United States was sucked into World War II, Vassar College Professor Grace Murray Hopper could have avoided military service. She had a Yale PhD

**and was in a vital profession, a college math teacher barred from military service, but Grace Hopper loved the U.S. Navy. Her great-grandfather had been a rear admiral, and she battered the doors down and finished first in her midshipman class. The Navy wanted her mind, specifically, her ability to calculate and help operate the new generation of mechanical calculators that would be required if modern weapons were to reach their destructive potential.**

**She reported to Harvard University in the summer of 1944, and there worked under Howard Aiken, one of the pioneers in the new field of computing. He set her to work teaching Mark I, a 51-foot wall of**

**clacking computation, to calculate the trajectory of Naval ordinance. After the war she went to work with the new electronic calculators ENIAC and the first true electronic computer, UNIVAC.**

**During the 1950s Hopper was obsessed with the growing problem of computer babble, the things couldn't talk to each other, and developed the first English based programming language, Flow Matic, which after fits and starts became the foundation for COBOL, one of the important programming milestones in computer progress.**

**After retiring from industry in 1967, Hopper was called to active**

**duty and spent twenty years bringing order from chaos in the military computer system. In 1992 Rear Admiral Grace Hopper, after living a life on the cutting edge of the computer revolution, was buried with full honors in Arlington National Cemetery.**

**At the University of Richmond, this is Dan Roberts.**

## Resources

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**Fenster, J.M. "Amazing Grace," *American Heritage of Invention and Technology*. 14 (2, Fall 1998): 24-33.**

**Yount, Lisa. *Contemporary Women Scientists*. New York: Facts on File, 1994.**

**<http://www.cs.yale.edu/homes/tap/Files/hopper-story.html>**

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