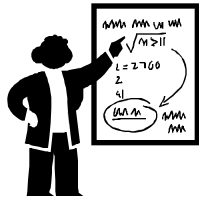


ACCOMPLISHMENTS



Hopper developed the first computer compiler and developed a computer language that helped the computer world become what it is today. Her contributions were also in the world of mathematics, where her work was done on irreducibility criteria. Hopper spent half of a century dedicated to keeping the United States on the edge of high technology.

In 1944, she started to work on the Bureau of Ordinance Computation Project at the Cruft Laboratories at Harvard University. Here Hopper worked on the Mark I with Howard Aiken and was the third person to program the Mark I. The Mark I was the world's first large-scale automatically digital computer, and was very large, 51 feet long, 8 feet wide, and 8 feet high. It was made of more than 760,000 pieces and could perform 3 additions per second and store 72 words. This computer was used by the Navy for gunnery and ballistic calculations. During her work on the Mark I, Hopper was given credit for coining the

term "bug", which is a reference to a glitch in the computer. She actually found a moth inside the computer, which was causing the problems.

While she was at Harvard, she designed an improved compiler and helped develop Flow-Matic, the first English-language data-processing compiler. A compiler is a special program that processes statements that are written in a programming language, and turns them into a "code" that a computer's processor uses. Flow-Matic became a model for a new program COBOL (Common Business Oriented Language), which eventually came out in 1959. This was the first user-friendly business software program. Her aim in compilers was that there needed to be standardization. This made it possible for computers to respond to words rather than numbers. Programmers, previous to COBOL, would write programs in binary code, strings of one's and zero's. This left room for mistakes and errors to programmers and was extremely time consuming.

During her lifetime, Grace Hopper received numerous awards. She was named the first computer science Man of the Year in 1969 by the Data Processing Management Association. On September 16, 1991, President George Bush awarded Hopper the National Medal of Technology. She was the first woman to ever receive this award. In addition to

these awards, Grace was awarded 36 honorary doctorates from such colleges and universities as Newark College of Engineering, University of Pennsylvania, Pratt Institute, and Long Island University, just to name a few.

Professional Activities

1931-1943

Instructor to Associate Professor, Department of Mathematics, Vassar College

1943

Assistant Professor of Mathematics, Barnard College

1946-49

Research Fellow in Engineering Sciences and, Applied Physics, Computation Laboratory, Harvard University

1949-52

Senior Mathematician, Eckert-Mauchly, Computer Corporation

1952-64

Systems Engineer, Director of Automatic Programming Development, UNIVAC Division of the Sperry Corporation

1959

Visiting Lecturer to Adjunct Professor, Moore School of Electrical Engineering, University of Pennsylvania

1964-71

Staff Scientist, Systems Programming, UNIVAC Division of Sperry Corporation, (on military leave 1967-71) retired 1971

1967-77

Activity duty, U.S. Navy, serving in the Information Systems Division, as OP-911F

1971-78

Professional Lecturer in Management Sciences, George Washington University

1977-86

Active duty, U.S. Navy, serving as NAVDAC-OO

1986-90

Senior Consultant, Digital Equipment Corporation

Significant Honors/Awards

(This is not a complete list. It merely highlights her many accomplishments.)

1918

Phi Beta Kapp

1934

Sigma Xi
1946 Naval Ordnance Development Award
1962 Fellow, IEEE
1963 Fellow, American Association for the Advancement of Science
1964 Society of Women Engineers, SWE Achievement Award
1968 IEEE Philadelphia Section Achievement Award
1968 Connelly Memorial Award, Miami Valley Computer Association
1969 Data Processing Management Association, Computer Sciences "Man of the Year"
1970 Upsilon Pi Epsilon, Honorary Member, Texas A&M, Alpha Chapter
1970 American Mothers Committee, Science Achievement Award
1970 American Federation of Information Processing societies-Harry Goode Memorial Award
1972 Honorary Doctor of Engineering, Newark College of Engineering
1972 Wilbur Lucius Cross Medal, Yale University
1973 Epsilon Delta Pi, Honorary Member, SUNY Potsdam Chapter
1973 Honorary Doctor of Science, C.W. Post College, Long Island University
1973 Elected to membership in the National Academy of Engineering
1973 Legion of Merit
1973 Distinguished Fellow of the British Computer Society
1974 Honorary Doctor of Laws, University of Pennsylvania
1976 Distinguished Member Award, Washington D.C. Chapter, ACM
1976 Honorary Doctor of Science, Pratt Institute
1976 W. Wallace McDowell Award, IEEE Computer Society
1980 3 Honorary Doctorates

1980
Meritorious Service Medal

1981
3 Honorary Doctorates

1982
2 Honorary Doctorates

1983
5 Honorary Doctorates

1983
Institute of Electrical and Electronic Engineers Computer Pioneer Medal

1983
Golden Plate Award, American Academy of Achievement, California

1983
American Association of University women Achievement Award

1983
Federally Employed Women Achievement Award

1983
Association of Computing Machinery Distinguished Service Award

1984
8 Honorary Doctorates

1984
Living Legacy Award, Women's International Center, California

1984
Woman of the Year Award, Young Women's Christian Association of the
National Capitol Area

1985
7 Honorary Doctorates

1985
The Grace Murray Hopper Service Center built at NARDAC San Diego

1986
4 Honorary Doctorates

1986
Defense Distinguished Service Medal

1986
Meritorious Citation, Navy Relief Society

1987
1 Honorary Doctorate

1988
The Charles Holmes Pette Medal, University of New Hampshire

1988
The Emanuel R. Piore Award, Institute of Electrical and Electronics Engineers

1990
National Medal of Technology