Pioneer of Computer Programming

Grace Murray Hopper

[9 December 1906 - 1 January 1992]

Special Scientific Achievements

Development of the first programmable digital data processor.

Discovery of computer bugs, inventor of the compiler as basis of generations of programming languages, “spiritual mother” of COBOL.

Grace Hopper was very engaged in various women’s organisations and associations.

Achievement Award (1964) of the Society of Women Engineers.


1906 Grace Murray is born in New York City.

1923 High-School degree.

1924 - 1928 Grace Murray visits the well-known Vassar College in New York - the oldest Women’s College of the USA - where she graduates with a Bachelor of Arts (B.A.) in mathematics and physics, passing with distinction.

1928 - 1930 Vassar College grants her a scholarship for the University of Yale. She earns the Masters Degree (M.A.) in mathematics. In the same year she marries the professor for English Vincent Hopper.

1931 - 1943 Grace Hopper works as teacher for mathematics at Vassar College. In 1934 she receives her Ph. D. from the University of Yale in mathematics and becomes associate professor at Vassar College. She is the first woman who receives this title at the University of Yale.

1944 - 1946 Grace Hopper joins the US-Navy, where she works on the development of the first programmable digital data processor of the USA, the MARK series of computers. She becomes the third person to program the Mark I.

1986 - 1990 Grace Murray Hopper works as senior consultant at the Digital Equipment Corporation. She travels and gives lectures at conferences and universities.

1992 At the age of 86, Grace Murray Hopper dies in Arlington, Virginia, USA.

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Note: Since 1994 the biggest congress in the USA of women in computing is named after her: “Grace Hopper Celebration of Women in Computing”.

Grace Hopper received more than 90 awards for her professional and personal accomplishments, not less than 40 of them honorary doctorates, 10 military awards, and various honors by professional associations, mainly in IT and Engineering.

“Some of my most rewarding experiences have been in trying to do something in a new way” – To sharpen the focus for new ideas and new ways was the philosophy of Grace Murray Hopper, the most well-known pioneer of computer programming of the USA.

1946 - 1967 Grace Hopper works on UNIVAC, the first large-scale electronic digital computer which is a tremendous achievement to the prototype of the MARK series.

1986 After working many years as a consultant and lecturer for the United States Naval Reserve she leaves military service.