

115TH CONGRESS  
2D SESSION

# S. RES. 593

Honoring the life and legacy of Grace Hopper, professor, inventor,  
entrepreneur, business leader, and Rear Admiral of the Navy.

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IN THE SENATE OF THE UNITED STATES

JULY 25, 2018

Mr. WYDEN (for himself and Mrs. FISCHER) submitted the following  
resolution; which was considered and agreed to

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## RESOLUTION

Honoring the life and legacy of Grace Hopper, professor,  
inventor, entrepreneur, business leader, and Rear Admiral  
of the Navy.

Whereas Grace Hopper was born on December 9, 1906, in  
New York City, New York;

Whereas, in 1928, Grace Hopper graduated with honors from  
Vassar College with degrees in physics and mathematics;

Whereas Grace Hopper would go on to earn both her masters  
degree and Ph.D. from Yale University, earning her  
Ph.D. in 1934;

Whereas, after the bombing of Pearl Harbor and the entry  
of the United States into World War II, Grace Hopper  
felt called to serve her nation and enlisted in the Navy;

Whereas Grace Hopper was assigned to the Bureau of Ships Computation Project at Harvard University, where she worked on the first electromechanical computer in the United States, which was known as the MARK I;

Whereas, while assigned to the Computation Project, Grace Hopper—

(1) served as second in command in charge of operations;

(2) wrote the 561-page user manual for the MARK I, considered the first book about modern computers; and

(3) used the MARK I to solve various wartime mathematical problems for the Navy that saved thousands of lives, including the implosion problem for the Manhattan Project;

Whereas, after World War II, Grace Hopper remained in the Navy as a reservist, continuing to work on the MARK II and MARK III computers;

Whereas, in the 1950s, Grace Hopper helped pioneer the computer industry at the Eckert-Mauchly Computer Corporation and Remington Rand, where she assisted in developing the Universal Automatic Computer I and II, the first commercial electronic computers;

Whereas, while working on the Universal Automatic Computer I and II, Grace Hopper invented the first compiler, which is the cornerstone of modern automatic programming;

Whereas, in 1953, Grace Hopper was the first person to theorize code as words instead of symbols, which was considered impossible by her peers, and after 3 years her team was using the first written-word programming language;

Whereas the development of a written-word programming language was an incredibly important step in the development of computer science, as it allowed people who lacked advanced engineering and mathematics backgrounds to program computers;

Whereas, in 1959, Grace Hopper organized leaders from government, the private sector, and academia to create a universal business computer programming language called “common business-oriented language”, or “COBOL”;

Whereas, in 2018, COBOL supports over 30,000,000,000 transactions per day and 90 percent of all global financial transactions;

Whereas throughout her work in the private sector, Grace Hopper remained a naval reservist until the age of 60, calling her required retirement from the Naval Reserve “the saddest day of my life”;

Whereas, just a few months after her retirement from the Naval Reserve, “Amazing Grace” was called again to the Navy for active service, where she would serve for another 19 years until her final military retirement as Rear Admiral of the Navy at the age of 79;

Whereas Grace Hopper has received many honors for her groundbreaking ideas and contributions over the years, including becoming the first inductee to the Computer Hall of Fame, receiving the U.S. National Medal of Technology, the naming of the destroyer USS *Hopper* in her honor, and receiving the Presidential Medal of Freedom;

Whereas, of all of the contributions and service of Grace Hopper, she considered her work as a mentor and teacher the most valuable;

Whereas Grace Hopper once remarked that “If you ask me what accomplishment I’m most proud of, the answer would be all the young people I’ve trained over the years”;

Whereas, today the “Grace Hopper Celebration” is the largest gathering of women in computing with 18,000 attendees in 2017;

Whereas Grace Hopper passed away January 1, 1992, at the age of 85, and was interred with full military honors in Arlington National Cemetery; and

Whereas Grace Hopper served as a trailblazer for other women and men who would follow her in the field of computer science, academia, and the Armed Forces: Now, therefore, be it

- 1       *Resolved*, That the Senate honors the pioneering ideas
- 2 and service of Grace Hopper, professor, inventor, entre-
- 3 preneur, business leader, and Rear Admiral of the Navy.

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