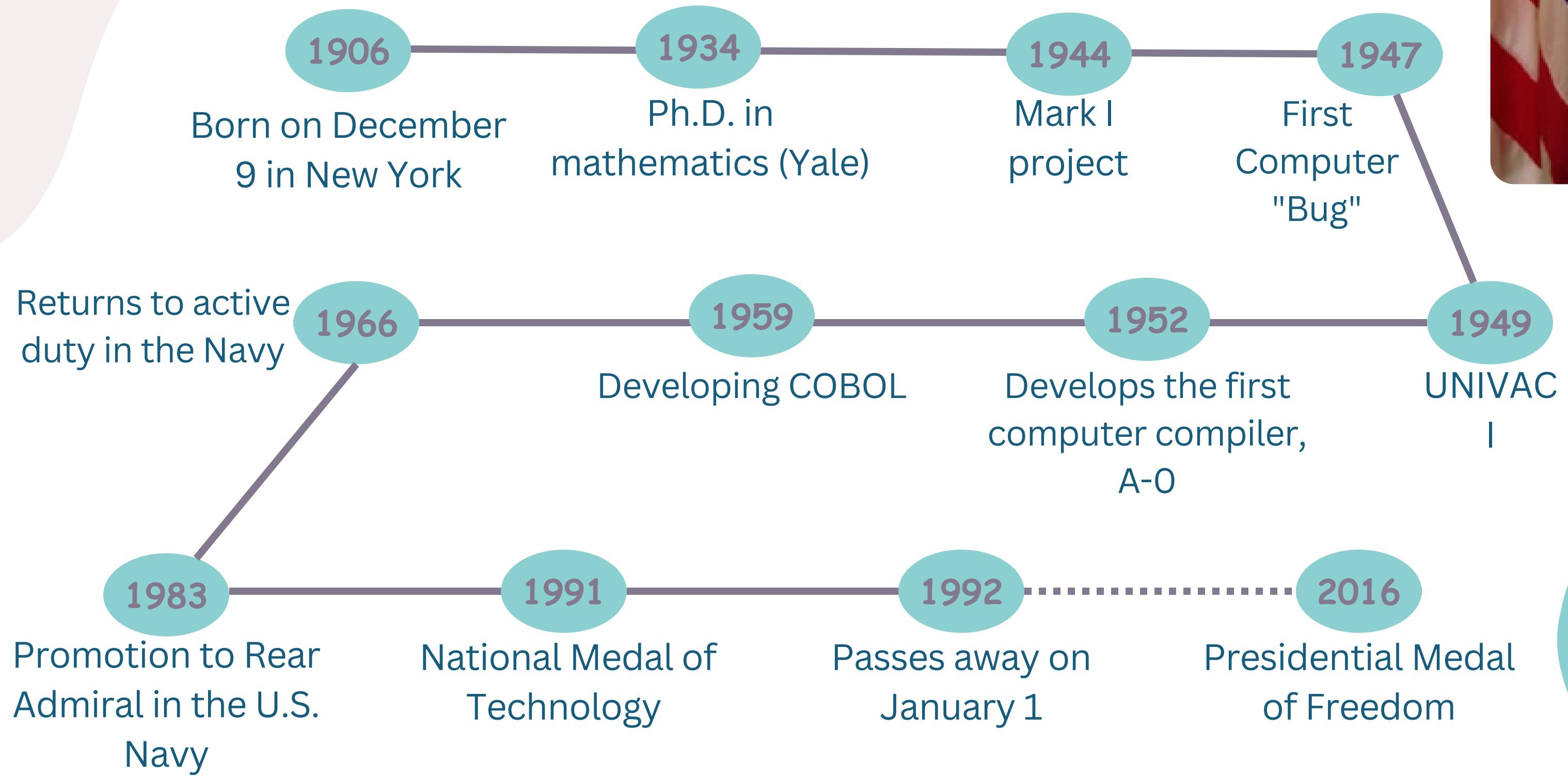


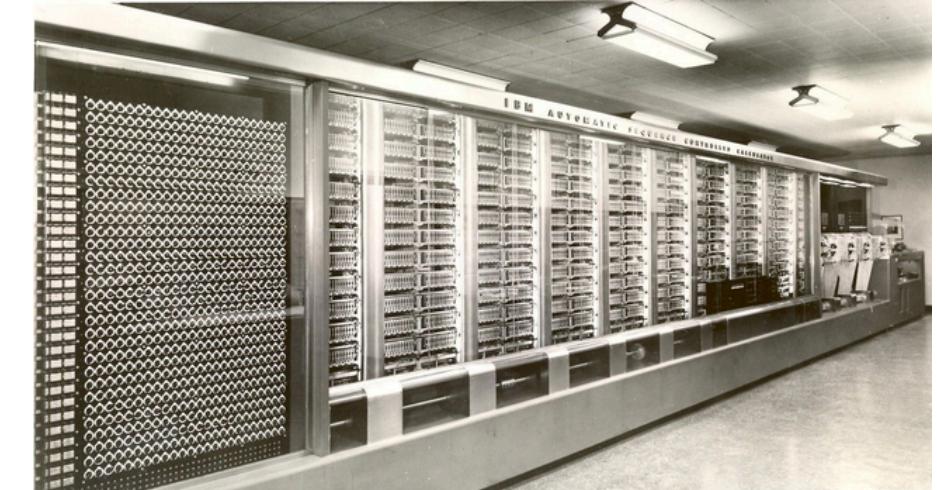
GRACE HOPPER

known as “Amazing Grace” and the “Queen of Code”

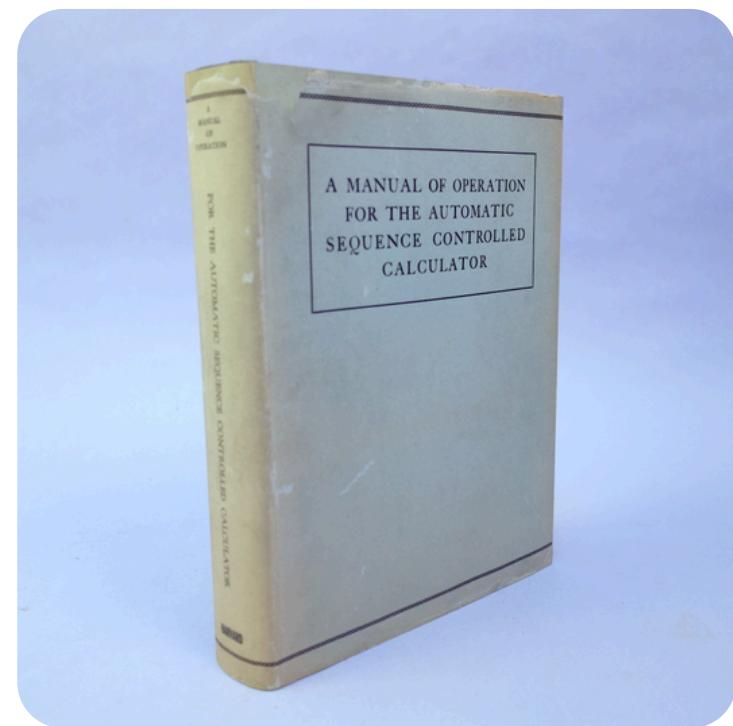
TIMELINE



1944 - Mark I project



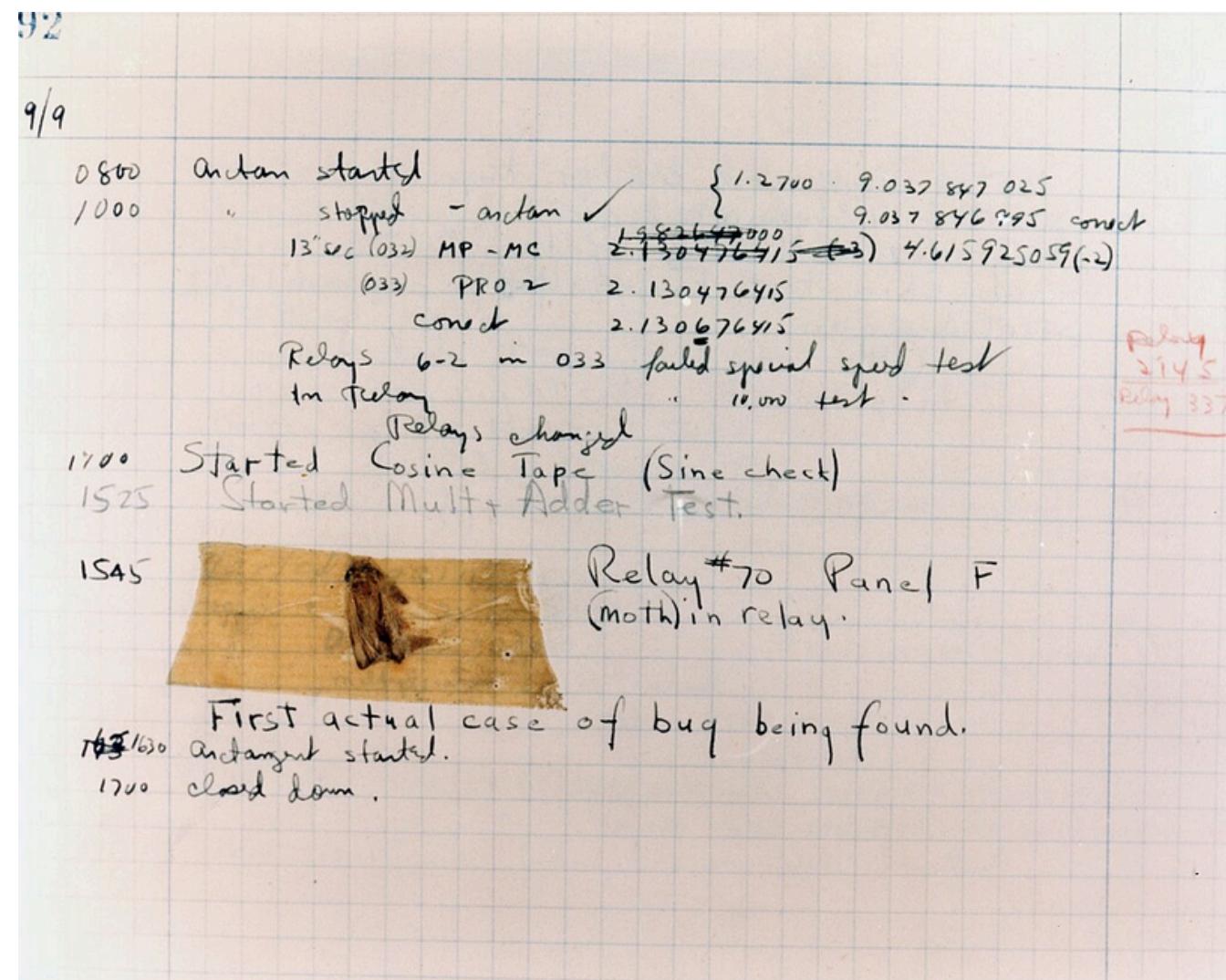
The MARK I Project, developed during World War II, was the **first large-scale electromechanical computer** in the U.S., used for complex military calculations.



Grace Hopper operated the MARK I and wrote its first user manual.



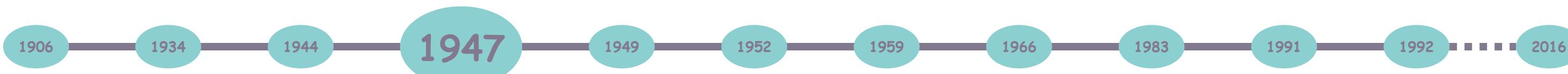
1947 - First Computer "Bug"



The "literal bug" incident
(moth in the MARK II)



Term "debugging"



1949 - UNIVAC I

Grace Hopper joined Eckert-Mauchly Corporation



worked on the UNIVAC I -
the **first commercial computer**



1952 - Develops the first computer compiler, A-0



What is a Compiler?

Translates human-readable code into machine language



- Reduced the time and effort needed to write programs
 - Paved the way for modern high-level programming languages



1959 - Developing COBOL

Grace Hopper was one of the
creators of COBOL
(Common Business-Oriented Language)



high-level programming
language for business
applications

```
***** Top of Data *****
000001      IDENTIFICATION DIVISION.
000002      PROGRAM-ID. MARBJPMN.
000003      ENVIRONMENT DIVISION.
000004      CONFIGURATION SECTION.
000005      INPUT-OUTPUT SECTION.
000006      FILE-CONTROL.
000007          SELECT REPOUT
000008              ASSIGN TO UT-S-SYSPRINT.
000009
000010      DATA DIVISION.
000011      FILE SECTION.
000012          FD REPOUT
000013              RECORD CONTAINS 127 CHARACTERS
000014              LABEL RECORDS ARE OMITTED
000015              DATA RECORD IS REPREC.
000016          01 REPREC          PIC X(127).
000017              F1=Help   F2=Split   F3=Exit   F4=Expand   F5=Rfind   F6=Rchange
000018              F7=Up     F8=Down    F9=Swap    F10=Left    F11=Right  F12=Cancel
```



1991 - National Medal of Technology

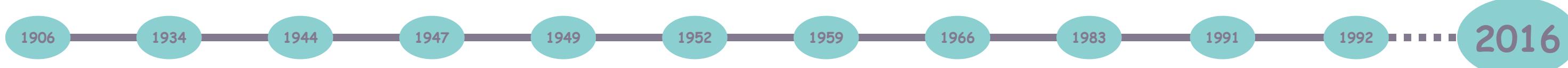


“If you ask me what accomplishment I’m most proud of, the answer would be all the young people I’ve trained over the years; that’s more important than writing the first compiler.”



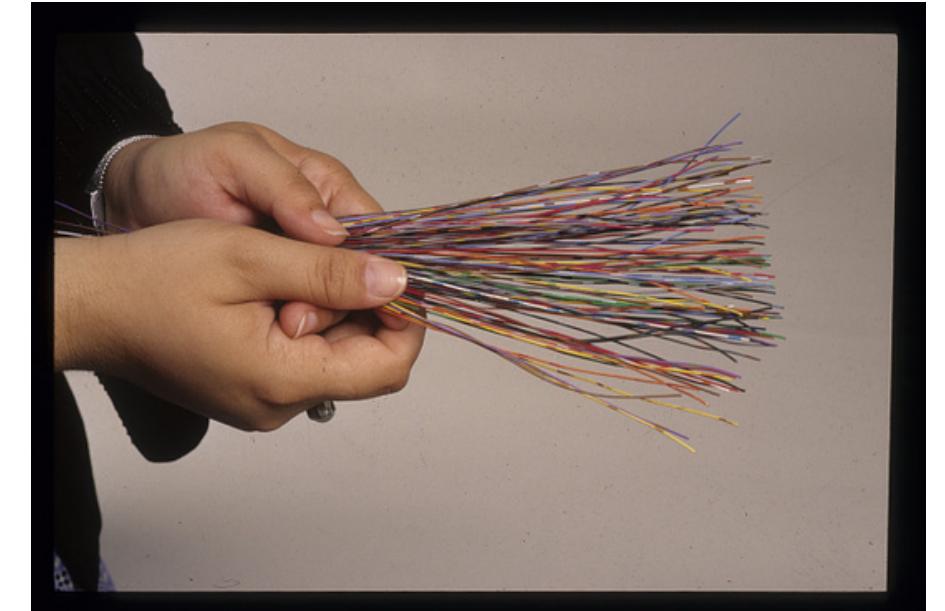
2016 - Presidential Medal of Freedom

In 2016, posthumously, received the Presidential Medal of Freedom, the nation's highest civilian honor, in recognition of her remarkable contributions to the field of computer science.



Curiosities

To explain the importance of efficiency in calculations, Hopper used a 30-centimeter tape to illustrate the distance that light travels in a **nanosecond**.



Later, as components shrank and computer speeds increased, Hopper used **grains of pepper** to represent the distance electricity traveled in a **picosecond**, one trillionth of a second (one thousandth of a nanosecond).

“The most dangerous phrase in the language is, ‘We've always done it this way.’”



Grace Hopper - Queen of Code



Thank You

