

ENIAC Beginning Summarized by Curtis Christensen, July 2007

Dr Mauchly received his PhD from John Hopkins University in 1932; his PhD was as physics with a strong interest in mathematics and meteorology. He got a job on the teaching staff of Ursinus College in Philadelphia. He advertised himself as chairman of the physics department, it should also be noted however, that he was the only member of the physics department. In an effort to determine how to improve weather forecasting, he came to the conclusion, that mechanical calculators were not fast enough. And that he needed to develop a better understanding of electronics and electricity. The MOORE school of engineering was running a course, ESMOT, for the Army Engineering, science, management/ defense training during War World II. There he met his lab instructor, Pres Eckert, a grad student. Upon completion of the course Dr Mauchly became a member of the MOORE engineering staff.

In August of 1942, Dr Mauchly wrote a memo advocating the development of a large electronic computer. The memo was ignored by the MOORE engineering management, however, the Army liaison officer, LT Herman Goldstine, read it and discussed it with his superiors in the Army.

As a result of this, the Army requested a proposal from the MOORE engineering school to develop the computer. Eckert and Mauchly wrote the technical section of the proposal that was submitted in May of 1943. The contract went into effect July 1, 1943. At about this time, Herman Lukoff was hired as an assistant engineer at the rate of \$2,400 per year for a 40 hour week. Herman was assigned to work on the design of the cycling unit. The working prototype of the cycling unit was completed January 1944. Pres Eckert wrote a disclosure on January 1944 on the principles employed in the design of ENIAC and in March 1944 Pres Eckert demonstrated the use of an acoustic mercury delay line as a re-circulating memory. In early 1944 the group tested a two accumulator model as a test vehicle verifying the ability to conduct the required computations. ENIAC at the MOORE school “the first general purpose electronic calculator was formally dedicated at the MOORE School of Engineering at the U of Pennsylvania in Feb 1946.

Built to do ballistic calculations for the US Army, it was named the **Electronic Numerical Integrator and Computer, and called after its initials the ENIAC**”. Further details are available in the books, From Dits to Bits by Herman Lukoff, with Robotics Press; ENIAC: The Triumphs and Tragedies of the World’s First Computer by Scott McCartney with Walker and Company, New York; and A Computer Perspective, by the office of Charles & Ray Eames with Harvard University Press, Cambridge, Massachusetts, 1973.