



**CITY OF OAKWOOD
PROCLAMATION**

**RECOGNIZING MAY AS CODEBREAKER MONTH
AND THE REMARKABLE
ACHIEVEMENTS OF JOSEPH DESCH**

WHEREAS, Joseph Desch, a pioneering and world-leading American engineer and inventor, was awarded the Presidential Medal for Merit in 1947 for his invaluable contributions to the field of cryptography, significantly hastening the Allied victory in World War II; and

WHEREAS, Mr. Desch, born on May 23, 1907, in Dayton, Ohio, and having demonstrated exceptional aptitude in mathematics and engineering, graduated from the University of Dayton and resided in Oakwood for 17 years; and

WHEREAS, tasked by National Cash Register Company (NCR) President, Edward A. Deeds, to form the Electrical Research Laboratory, he innovated the use of thyratron tubes and circuitry to develop high-speed electronic, counting and mathematical computing machines, and created the first electronic calculator; and

WHEREAS, in 1941, following the United States entering World War II, wherein the Axis powers' submarines were devastating Allied shipping, the US Navy sought to rapidly develop a high-speed solution to counter enemy Enigma machine encryption efforts; and

WHEREAS, appointed as Research Director of the United States Naval Computing Machine Laboratory, in NCR's Building 26, Joseph Desch was tasked with the top-secret project to create a machine to rapidly decipher the four-wheel Enigma machine code; and

WHEREAS, having assembled and led a team of dedicated engineers and mathematicians, and supported by the Women Accepted for Volunteer Emergency Service (WAVES), Mr Desch cooperated directly with the UK's key codebreaker, Alan Turing of Bletchley Park; and

WHEREAS, despite working under a compressed schedule, extreme pressure, and tremendous challenges, Joseph Desch's perseverance, ingenuity, technical genius, and leadership resulted in him successfully designing and constructing an electromechanical and electronic computing device, which became known as the American Cryptanalytic Bombe machine; and

WHEREAS, capable of breaking the most complex Enigma-encrypted messages in near-real time, and now considered the cornerstone of modern automated cryptography, Desch's machines provided crucial intelligence and played a major role in winning the Battle of the Atlantic; thereby maintaining a lifeline to the Allied Forces in Europe, and the successful Normandy Landing, which significantly contributed to Allied victory; shortening the duration of the war, and saving countless military and civilian lives; and

WHEREAS, Desch's groundbreaking work on the American Bombe is considered a cornerstone for modern automated cryptography, he went on to co-patent an electronic calculator, and his help in creating the first completely solid-state computer is attributed as being a milestone in electrical engineering and computing.

NOW, THEREFORE, under the power vested in me, I, William D. Duncan, Mayor of the city of Oakwood, hereby proclaim May as Codebreaker Month, and offer our deepest gratitude and admiration for the remarkable achievements of Joseph Desch. We commend his unwavering dedication to serving the United States of America, his extraordinary contributions to the fields of cryptography, computing and innovation, and acknowledge his instrumental role in shaping the outcome of World War II, and in saving countless human lives. May his legacy continue to inspire and guide us in our endeavors to advance science, technology, and global cooperation for the greater good of humanity.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the seal of the city of Oakwood, this 6th day of May 2024



A handwritten signature in cursive script, reading "William D. Duncan", written in dark ink over a horizontal line.

William D. Duncan
Mayor of Oakwood