SENATE JOINT RESOLUTION NO. 101

Celebrating the life of Gladys Mae West.

Agreed to by the Senate, February 19, 2026
Agreed to by the House of Delegates, February 23, 2026

WHEREAS, Gladys Mae West of King George County, a pioneering mathematician and renowned scientist whose groundbreaking achievements transformed global navigation by laying the foundation for the modern satellite-based Global Positioning System, died on January 17, 2026; and

WHEREAS, a native of Dinwiddie County, Gladys West grew up on her parents' tobacco farm and demonstrated an aptitude for mathematics from a young age; she graduated as valedictorian of her segregated high school and earned a full scholarship to what is now Virginia State University (VSU); and

WHEREAS, Gladys West earned bachelor's and master's degrees from VSU and worked as a teacher in Waverly and Martinsville until she joined the Naval Proving Ground, now Naval Surface Warfare Center Dahlgren Division, in King George County; and

WHEREAS, at the time, Gladys West was one of only four Black employees at the facility and only the second Black woman ever hired; she overcame significant prejudice and discrimination and distinguished herself through her work ethic, precision, and commitment to excellence; and

WHEREAS, Gladys West was an early adopter of computer technology, mastering the Fortran programming language to run programs that reduced the calculation time for complex equations from weeks to hours; and

WHEREAS, in the 1970s, Gladys West became the project manager for Seasat, the first Earth-orbiting satellite designed for remote sensing of the planet's oceans; over the next several years, she programmed an IBM 7030 Stretch computer to deliver calculations for the shape of the Earth, accounting not only for extreme terrestrial features, such as mountainous heights and abyssal depths, but gravitational and tidal forces that create further distortions; and

WHEREAS, Gladys West analyzed radio altimeter data from the National Aeronautics and Space Administration's Geodetic Earth Orbiting Satellite program and created geoid models that described every curve and irregularity of the planet's surface; and

WHEREAS, Gladys West's work in satellite geodesy made possible the development of the Global Positioning System (GPS) now used by navigation devices around the world, and her mathematical models of the Earth's shape still reside in every GPS-enabled device; and

WHEREAS, a passionate lifelong learner, Gladys West received a second master's degree from the University of Oklahoma while she was employed at Naval Surface Warfare Center Dahlgren Division, then earned a doctorate from Virginia Polytechnic Institute and State University through distance learning after her well-earned retirement in 1998; and

WHEREAS, many of Gladys West's achievements went unrecognized until a fellow member of Alpha Kappa Alpha Sorority, Inc., read her biography at an alumni event and began to promote her legacy of service to the Commonwealth and the nation; and

WHEREAS, among many accolades, Gladys West was ultimately inducted into the United States Air Force Space and Missile Pioneers Hall of Fame in 2018, and she received the prestigious Prince Philip Medal from the Royal Academy of Engineering in London, England, in 2021; and

WHEREAS, predeceased by her husband, Ira, Gladys West will be fondly remembered and greatly missed by her three children and their families; and numerous other family members and friends; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the General Assembly hereby note with great sadness the loss of Gladys Mae West, whose trailblazing research in satellite geodesy had a profound impact on science, national security, commerce, and daily life around the world; and, be it

RESOLVED FURTHER, That the Clerk of the Senate prepare a copy of this resolution for presentation to the family of Gladys Mae West as an expression of the General Assembly's respect for her memory.