Michael Yachnis

MICHAEL YACHNIS

1922–2012

Elected in 1985

"For innovative design of naval installations, deep ocean simulating, and hyperbaric facilities."

ANGELICA LOWER AND ANTHONY YACHNIS
SUBMITTED BY THE NAE HOME SECRETARY

MICHAEL YACHNIS, former chief engineer of the Naval Facilities Engineering Command, died on June 24, 2012, at the age of 90.

Michael was born in Athens, Greece, in the working-class neighborhood of Gargaretta, in the shadow of the Acropolis and Filopappos Hill, on March 22, 1922. The youngest of seven siblings, he grew up playing on the surrounding hills, singing in the church of St. John, and spending summers with his cousins at nearby Kavouri beach.

His dreams of becoming a Greek Orthodox priest were overtaken by the desire to defend his country, and in 1940 he entered the Greek Military Academy, the Scholi Evelpidon, to study civil/structural engineering. His education was sidelined, however, by the German occupation in April of 1941. His ability to think on his feet and to put together teams of experts to solve specific problems may have been a direct result of his military service and survival during World War II, which included his participation in the Battle of Crete as a 19-year-old academy cadet, his capture and imprisonment by the Germans, his release and return to Athens to fight and to work with British Intelligence on troop movements, and his participation in the National Resistance and Greek Civil War of the late 1940s against the communists.

Michael resumed his education after the wars and received a bachelor's degree in civil engineering from the Greek Military Academy in 1948, working as an army engineer building roads in Northern Greece (which included laying minefields) and constructing housing for the Greek army. He attained the rank of major and, having learned English from his British and American allies, traveled to the US Army Corps of Engineers School at Fort Belvoir, Virginia, in the early 1950s.

It was during this time that he met his future wife, Athena Spyropoulos, gave up his commission, and immigrated to the United States. The couple was married in 1953. Their son Anthony was born in 1957 and their daughter Angelica in 1960.

Settling in Washington, DC, he started working for the US Navy's Bureau of Yards and Docks' Chesapeake Division as the structural engineering branch manager in 1956 and continued his education at the George Washington University, where he earned his MSc in civil engineering in 1956, a master's in engineering administration in 1962, and a DSc in civil engineering in 1968.

He loved sharing his knowledge and experiences, and so he became an adjunct professor of civil engineering and taught several generations of students topics such as ocean engineering, special structures (e.g., antennas, floating platforms), and design and cost analysis of civil engineering structures. He stressed the practical aspects of engineering by giving students the opportunity to read actual design drawings, do quantity take-offs and cost estimates, and explore nondestructive testing. A popular field trip for his students was to the National Bureau of Standards (now the National Institute of Standards and Technology) to observe the latest structural testing methods.

A dedicated public servant, Michael worked his way up through the ranks at the Bureau of Yards and Docks, later the Naval Facilities Engineering Command (NAVFAC), to become chief engineer in 1972. In that position, he provided the highest level of interdisciplinary engineering and design consultation and expertise to all components of the Navy, other federal agencies, and private industry. He assembled and led a team

of engineering consultants that could mobilize at a moment's notice and travel anywhere in the world to solve the most complex and difficult facilities engineering challenges. He and his consultants were dubbed the "SWAT squad" by NAVFAC's former chief of civil engineers, RADM Albert R. Marschall. The team consisted of consultants in special structures, metallurgy, petroleum fuels and energy, geotechnical and pavements, waterfront facilities, antenna systems, hyperbaric facilities, roofing systems, weight handling equipment, earthquake engineering, and environmental engineering.

In 1985 Yachnis compiled *Lessons Learned from Design and Construction of Naval Facilities* (NAVFAC P1010), with short descriptions of the wide array of projects his team had solved and the resulting savings to the government (more than $100 million). Here are a few noteworthy examples: development of a first-of-its-kind concept for simultaneous drydocking of two nuclear submarines in Pascagoula, Mississippi, saving $10 million and enabling the earlier return of submarines to operational areas; development of a creative method of load test and stress analysis to determine the structural adequacy of the Aircraft Test and Evaluation Facility in Patuxent River, Maryland, saving $1.5 million; development of an innovative technique to repair underground fuel storage tanks in Sasebo, Japan, saving $4.1 million; design of a prototype method for repairing the base insulator on the 1,200-foot tower at the Naval Communications Station in Annapolis, Maryland, saving $900,000 and averting interruption of vital fleet communications; evaluation of the structural adequacy of Graving Dock No. 3 at Mare Island Naval Shipyard in Vallejo, California, resulting in the design of a cost-effective repair scheme that saved $1.3 million; and development of a unique method for testing the 40-foot-diameter autoclave used to cure the Trident submarine Fiberglas sonar dome, saving $500,000 and preventing serious disruption of critical operational schedules. Efficient, cost-effective solutions to tough engineering problems were the hallmark of Yachnis' work and established his reputation as the "go-to guy" at NAVFAC.

In addition to his consulting team, he chaired the Technical Review Board for graving docks, marine railways, and vertical lifts, and the System Certification Board for manned and unmanned hyperbaric facilities. He represented NAVFAC at conferences all over the world, giving papers on topics such as seismic design and underwater structures. He holds a patent for an original method of drydocking ships and submarines.

Yachnis received many honors and awards, beginning with five medals for Distinguished Military Service from the Greek Army. He was awarded the Goethals Medal from the Society of American Military Engineers (1972), the George Washington University Alumni Achievement Award (1976), the DC Council of Engineering and Architectural Societies' Engineer of the Year (1980), the Senior Executive Service Achievement Award and Presidential Rank Award for Distinguished Executive in the Senior Executive Service (both in 1982), and the Department of Defense Distinguished Civilian Service Award (1985). He was elected to the National Academy of Engineering in 1985.

In 1974, he decided to make a lifelong dream come true: he became a Greek Orthodox priest, volunteering through a special Archdiocesan program for lay persons. Fr. Michael served the Dormition of the Virgin Mary Greek Orthodox Church in Winchester, Virginia, from 1975 to 2004, traveling with his wife Athena from their home in DC every Sunday to perform the liturgy and visit the sick. For nearly 30 years he provided his love and spiritual guidance to the community of Winchester, oversaw several projects to enlarge the church facilities, and aided in fund raising for the church throughout the DC area. He performed most of the duties of a professional parish priest for only gas money, a car, and lunch. He also helped perform services for the Greek community in Ocean City, Maryland, on his summer vacations. He was much beloved by the Greek community for his many years of selfless volunteer service.

Fr. Michael's hobbies included watercolor painting, walking, and following international soccer. An avid fisherman, he enjoyed reciting the Divine Liturgy while waiting for the next bite. He especially enjoyed spending time with his family and was an exceptionally proud grandfather.

He is survived by his wife of 57 years, Athena; Anthony, a neuropathologist in Gainesville, Florida, where he and his lovely wife Wanda have two children, Michael and Kathryn; and Angelica, a civil engineer who lives in Alexandria, Virginia, with her wonderful husband Robert Lower and sons Joseph and Anthony.