

**In Memoriam**  
**PAUL SHANKLAND, Ph.D.**  
**Director Emeritus**  
**Naval Observatory Flagstaff Station**

**1961 - 2020**

Dr. Paul D. Shankland, a resident of Cedar Key, Florida and former Director of the U.S. Naval Observatory Flagstaff Station (NOFS), passed away on October 20, 2020.

A native of Greensboro, North Carolina, he was born March 6, 1961 in Florence, Italy where his father was studying. Appointed to the U.S. Naval Academy in 1979, he graduated in 1983 with a Bachelors degree in pure mathematics. During his subsequent 25 years of naval service, he earned a masters degree in astronomy (with distinction) from the University of Western Sydney, and his Ph.D. in Astronomy from James Cook University. His thesis research was on optical and millimeter radio detections, and dynamic properties of Earth-like planets and Kuiper belts about M-dwarf stars. During his uniformed career, Dr. Shankland earned military subspecialties in Manpower resourcing, Command and Control (C2), and was designated a Space Professional.

From 1983 until 2008 he served on active duty in the U.S. Navy, retiring from uniformed service with the rank of Commander. During his Navy career he served on a variety of ships and earned his aviator's wings, flying E2C Hawkeye aircraft before being assigned as Executive Officer, then Commanding Officer of Strike Training Squadron NINE (VT-9 "Tigers"). VT-9 flew T-2C Buckeyes and T-45C Super Goshawks to train tactical carrier strike and fighter pilots. When he retired from the flight suit in 2008, he had accumulated 3800 hours in 22 aircraft types, made 374 arrested landings on 12 aircraft carriers, and had earned 42 medals, decorations, and campaign awards. His aviation call sign was "Happy".

In 2004 Dr. Shankland was appointed to the U.S. Naval Observatory (USNO), as Director of Space Acquisitions, Programs, Plans & Requirements (N5/N8). At USNO, he oversaw the scientific development, requirements, programs, and funds sourcing of Astrometric, Earth Orientation, Celestial Applications, and Atomic Time/GPS programs.

In June 2008, Dr. Shankland was appointed via civil service to become the sixth Director of the Naval Observatory Flagstaff Station (NOFS), a 20-member, 290-acre astrophysical dark-sky facility which operates on a 7800-ft peak in Alpine northern Arizona. NOFS astronomers observe celestial objects to create star catalogs for DoD applications and for general use by the global astronomical community. They also measure stellar parallaxes, conduct research to improve operational and research methods, and develop cryogenic imaging systems, adaptive optics, infrared and optical detectors, elements and instruments. NOFS operates 1.55-m, 1.3-m, and 1-m aperture telescopes. It jointly operates the 437-m baseline Navy Precision Optical Interferometer (NPOI) array with Lowell Observatory and the Naval Research Laboratory on nearby Anderson Mesa. He retired from NOFS in January 2020.

During his astronomical career, Paul conducted diverse research endeavors for the Global Exoplanet M-dwarf Search-Survey (GEMSS), using the Very Large Array, the Australia Telescope Compact Array (ATCA), the Giant Metrewave Radio Telescope (GMRT), Lick Observatory, Perth Observatory, the Spitzer Space Telescope, and the Naval Observatory. He also designed and built the airborne Tactical Observatory for Photometry of Astronomical Targets (TOP-hAT) and other instruments. He was lead author of numerous DoD-white and academic astrophysics papers.

His professional memberships included the American Astronomical Society (AAS), where he was elected to seats on the Main and Brouwer Award Committees of the Division of Dynamical Astronomy; the American Institute of Physics; and the International Astronomical Union, actively serving on the Commissions for Celestial Mechanics & Dynamical Astronomy, Extrasolar Planets, Fundamental Astronomy, Stellar Photometry & Polarimetry, and the History of Astronomy.

Paul's extracurricular interests and memberships were diverse. He was a member of the Institute of Navigation, the Navy Tailhook Foundation, the Professional Association of Dive Instructors, the Scottish-American Military Society, the Aircraft Owners and Pilots Association, the National Waco Club, the Experimental Aircraft Association, the Vintage Aircraft Association, the International Aerobatics Club, and the International Sled Dog Racing Association.

Paul was an avid commercial aerobatic pilot and the proud owner of a red and white 1939 Waco Cabin Biplane.

He is survived by his wife Amanda, two grown children, five step-children, his mother, a sister, and four Siberian Huskies.

A celebration of Paul's life will be held in Flagstaff at a future date.

Interment will be at Arlington National Cemetery at a future date.