

# Steven M. Bolen, Ph.D.

18 APR 2023

(HC PAB)

## Executive Profile

**Community Leadership:** Advocate for public safety outreach and people with cognitive developmental disabilities and mental health issues.

**Subject Matter Technical Expertise:** Conducted novel research and engineering development to advance U.S. national security goals and human spaceflight avionics systems.

**Executive Management Experience:** Led interdisciplinary civilian and military teams, set policies, and defended strategic direction across global enterprises for the U.S. government.

## Education/Degrees Earned

### Ph.D. Electrical Engineering

- Polarimetric radar atmospheric remote sensing
- Statistical signals processing
- Electromagnetic field theory

### M.S. Electrical Engineering

- Control systems theory
- Communications and signals processing

### B.S. Electrical Engineering

(Magna cum Laude)

## Community Engagement (volunteer/non-paid)

- U.S. Coast Guard Auxiliary (Vice Flotilla Commander; 2022-23) **2020-present**
- Howard Co. National Alliance on Mental Illness (Exec Board; 2021-22) **2020-present**
- Howard Co. Autism Society (local chapter member) **2020-present**
- Howard Co. Police Dept. Citizens Advisory Council (Vice-Chair; 2022) **2019-present**
- Howard Co. Commission: Vets & Military Families (Secretary; 2019-22) **2019-2022**
- Howard Co. Public School System, Judge: 5<sup>th</sup> Grade Simulated Congressional Hearings, National History Day, and Unheard Perspectives **2018-present**
- Howard Co. Executive Public Safety Subcommittee Transition Team **2018**

## Professional Work (paid work)

### Central Intelligence Agency

**2003-17**

- Supported counter-terrorism, counter-proliferation, and special military operations' activities.

## **National Aeronautics and Space Administration**

**1993-2003**

Human Spaceflight Center, Houston, TX

- Researcher/Technical Manager/Systems Engineer: Space Shuttle Orbiter (SSO) and International Space Station Communications & Tracking; and other avionics' systems programs.

## **U. S. Department of the Air Force**

**1988-91**

Rome Air Development Center, Griffiss AFB, NY

- Program Manager/Engineer/Contract Officer Technical Representative: Worked across multiple government agencies to develop airborne command, control, communications, intelligence, surveillance, and reconnaissance (C3ISR) systems.

## **Other Professional Experience**

- **IEEE Conference Committee Technical Paper Reviewer: IEEE** **2006**  
Radar Conference, Verona, NY.
- **IEEE Conference Committee Co-Chair, Tracking: IEEE** **2005**  
International Radar Conference, Arlington, VA.
- **IEEE Conference Committee Technical Paper Reviewer: IEEE** **2005**  
International Radar Conference, Arlington, VA.
- **IEEE Invited Speaker:** **2002**  
S. Bolen, V. Chandrasekar and C. Sham, "Estimation of Spaceborne Ku-band Signals from Ground Radar S-band Polarimetric Measurements for use in Radar Meteorology," IEEE Galveston Bay Section.
- **NASA TRMM Science Team Meeting - Invited Speaker (2 papers):** **2000**  
S. Bolen and V. Chandrasekar, "Method for Comparing Ground Radar (GR) with TRMM Precipitation Radar (PR) Observations," Tropical Rainfall Measuring Mission (TRMM) Science Team Meeting, Salt Lake City, Utah, May 2000.  
  
S. Bolen and V. Chandrasekar, "TRMM Precipitation Radar (PR) & SPOL Inter-Comparisons," Tropical Rainfall Measuring Mission (TRMM) Science Team Meeting, Salt Lake City, Utah, May 2000.
- **TRMM Visiting Scientist** **1999**  
Kwajalein Island, Republic of the Marshall Islands
  - TRMM Kwajalein (KWJAEX) Field Campaign (Joint NASA-NCAR-NOAA); collected and analyzed radar field campaign data.

- **TRMM Project Scientist:** **1998**  
 Ji-Parana, Brazil
  - TRMM Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA) Field Campaign (Joint NASA-NCAR-NOAA); collected and analyzed radar field campaign data.

## Professional Organizations

- Institute of Electrical and Electronic Engineers (IEEE) (member since 1984)
- Tau Beta Pi Engineering Honor Society – alumnus, Michigan Eta Chapter
- Eta Kappa Nu Electrical Engineering Honor Society - alumnus & former secretary, Theta Upsilon Chi

## Awards

- **U.S. Coast Guard Auxiliary**  
 Flotilla Auxiliarist of the Year, 2022; Department of Homeland Security Outstanding Unit Award: 2022.
- **Howard County Commission on Veterans and Military Families**  
 Three-year service award, 2022.
- **Howard County Police Department Citizens' Advisory Council**  
 Three-year service award, 2022.
- **Central Intelligence Agency (CIA)**  
 CIA Exceptional Performance: 2014, 2012, 2011, 2010, 2008 (2), 2007 (2), 2006, 2005 (2), 2004, and 2003.
- **National Reconnaissance Office (NRO)**  
 NRO Sentinel Award, 2008; NRO Director's Circle Award, 2008; NRO Directorate Employee of the Year (nominee), 2006; NRO Director's Team Award of the Quarter (Q2), 2006; NRO Meritorious Service Award (Tier 3), 2006; and, NRO Meritorious Service Award (Tier 2), 2006.
- **National Aeronautics and Space Administration (NASA)**  
 NASA Time-Off Award (MAC LOS blockage/RF signal attenuation research), 2002; NASA Space Act Board Award, 2002; NASA Performance Award, 2002; NASA Tech Brief Award, 2001; NASA Go-the-Extra Mile Award, 2001; NASA Performance Award, 2000; NASA JSC Team Award for Excellence (TransHab Program Office), 2000; and NASA Go-the-Extra Mile Award (TransHab Program Office), 1998.

- **U.S. Department of the Air Force**  
U.S. Department of the Air Force Performance Award: 1990 and 1989.
- **Lawrence Technological University**  
Awarded four-year tuition scholarship; Dean's List (6 quarters).
- **United States Air Force Academy**  
Dean's List, Commandant's List, and Superintendent's List (first semester).