

Sparky

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PROFESSIONAL EXPERIENCE

7/1999 - 11/2002: **Deputy Branch Chief, Radio Frequency Radiation Branch, Air Force Research Laboratory:** Co-directed branch of 60 personnel and \$6M budget in support of non-lethal weapons system programs. Administered research facilities and infrastructure development. Engineered anechoic chamber for critical radiofrequency research. Led engineering of several Beowulf Parallel Computing Clusters which lead to a minor revolution in radiofrequency modeling and research. See; <http://www.sparkherd.com/paycheck/beowulf/index.html>

6/1997 - 6/1999: **Policy Development Manager, HQ Air Force Operational Test and Evaluation Center:** Developed and implemented Operational Test and Evaluation (OT&E) policy and procedures to ensure testing complied with Congressional and Secretary of Defense-directed policy. Corrected critical deficiencies in the USAF CV-22 test program.

6/1994 - 6/1997: **Program Manager, Nuclear Aircraft/Missile Support Equipment, Air Force Safety Center:** Program manager for all US and NATO nuclear-certified support equipment. Nuclear Program Officer for European PA-200 Tornado aircraft. Developed and implemented USAF nuclear surety policy on weapon system design, modification, and operating procedures. Air Force Safety Center responsible engineer for the C-17 Prime Nuclear Airlift Force (PNAF) mission certification. Developed procedures to allow continued use of the Munitions Lift Trailer for the B-2 Stealth Bomber during re-engineering to correct design flaws. Compiled 25 years of Nuclear Weapon System Deficiency Reports, stored on microfilm, into a computerized database.

12/1988 - 6/1994: **B-2 Subsystems Section Chief and B-2 Weapons Engineer, B-2 Combined Test Force:** Responsible for OT&E of the weapon delivery system on the B-2 Stealth Bomber. Supervised three engineers evaluating B-2 subsystems, including structures, weapons, air refueling, mission planning, deployability and environmental testing. Co-authored a paper contrasting accuracy of fielded weapon systems with contractor-predicted B-2 accuracy. This was a direct cause of test program restructuring, and more-detailed B-2 weapons accuracy testing. Chief Engineer/Range Control Officer for first-ever B-2 operational test weapon releases.

4/1984 - 12/1988: **Missile Performance Engineer, 49th Test Squadron, Strategic Air Command:** Tested Strategic Air Command (SAC) aircraft and air-launched weapons. Evaluated guidance and control, navigation, propulsion, terrain-following and aerodynamic systems. Served as real-time test engineer and range safety monitor aboard ARIA, AWACS, and US Navy P-3 Orion telemetry aircraft. Developed test plans,

procedures, software and analysis methodology for strategic weapon systems. Range Safety Monitor onboard AWACS for first four years of Canadian/US Air Launched Cruise Missile (ALCM) tests. Coded the ALCM and Short-Range Attack Missile (SRAM) terrain following, time-of-arrival, and reliability databases and analysis software in FORTRAN, VAX/VMS and Datatrieve. Sole Air Force engineer responsible for the first three years of USAF/US Navy B-52/Harpoon Antiship Missile testing. Lead engineer for the first-ever B-1B/ALCM operational test launch.

2/1981 - 12/1982: **Wafer Probe Inspector, Motorola Inc, Austin Texas:** Quality Control Inspector for microprocessor fabrication process.

2/1980 - 9/1980: **Motorcycle Mechanic, Austin Kawasaki, Austin, Texas:** Wrenching on Kawasaki motorcycles and Jet Skis.

10/1978 - 2/1980: **Safety Valve Technician, Texas City Armature Works, Texas City, Texas:** Safety valve repair, rebuilding and calibration.

5/1974 - 9/1974: **Forklift Operator, Texas City Dike and Marina, Texas City, Texas:** Move boats around and drop them in the water with forklifts.

EDUCATION & TRAINING

BS, Aerospace Engineering, University of Texas, 1983

Accident/Incident/Test Experiences, Nuclear Surety Training, Sandia National Laboratories, Kirtland AFB, NM, 1997

Nuclear Safety from Production to Retirement, Nuclear Surety Training, Sandia National Laboratories, Kirtland AFB, NM, 1997

Lightning Phenomenology and Effects, Nuclear Surety Training, Sandia National Laboratories, Kirtland AFB, NM, 1997

System Safety and Reliability Analysis, University of Washington, Kirtland AFB, NM, 1996

Nuclear Weapons Orientation Course, Defense Nuclear Agency, Kirtland AFB, NM, 1995

Flight Test Engineering Performance, National Test Pilot School, Mojave, CA, 1993

Flight Test Engineering Stability and Control, National Test Pilot School, Mojave CA, 1993

Ultrix Utilities and Commands, Digital Equipment Corporation, Edwards AFB, CA, 1989

Various DoD Acquisition Management classes 1984 - 2002

SECURITY CLEARANCE: Top Secret/ Special Background Investigation (TS/SBI) 1984-2000. Critical Nuclear Weapon Design Information (CNWDI). Current status; Inactive.