

ELECTRICAL ENGINEER AND TECHNICIAN

Michael J. Durbin PE Ph,D E.E.

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EDUCATION

Ph,D. E.E. Century Univ. Aug. 1992

BSEE TEXAS A&M - 1976

CREI Degree - Specialized Electronics and Advanced Mathematics,

Majoring in Missile and Spacecraft Guidance - April 1972

Registered Professional Engineer Since 1987 (Texas #63369)

Graduate Of General Motors Quality Institute

EDS Leadership/Professional Development

SECURITY-CLEARANCES

TOP Secret Crypto

NSA Top Secret

EXPERIENCE

Jan. 2000 -

Advisory Engineer Verizon Business Retired June 2009

Transitioned to Verizon continuing in the same duties except supporting a much larger customer base on world wide systems. Continuing to support evolving Disaster Communications systems with new technologies. Design of realtime research systems utilizing satellite, fiber, microwave, radio, and internet continue for various educational programs and research facilities. Design, build, and operate Shipboard systems for yearly research expeditions around the world for the Institue For Exploration (IFE) with Dr. Robert Ballard (discoverer of the Titanic) and the University of Rhode Island.

Sept. 1986 -
Dec 2000

"Systems Architect/Staff Engineer" Electronic Data Systems

Designed and implemented 12 Channels of SCPC digital video in a single transponder for Spectravision. This system was the first of its kind with coverage to all 50 states using 1.8m antennas. Designed, installed and tested communications system for Marine Spill Rapid Response Corporation, (MSRC), which includes HF, VHF, UHF, Telco Switching, LAN, and Satellite systems on board ships and shore based systems.

Designed, proposed and implemented a Ku-Band replacement system for the aging C-Band system, to allow the use of emergency restoral Systems and VSAT technology at all EDS facilities.

Responsible for all Satellite/Wireless communications and technical licensing issues at EDS, both Domestic and International.

June 1982 -
Oct. 1986

Director of Engineering/Chief Scientist Dalsat.

Work was as Engineering Director and Chief Scientist with responsibilities, including all R&D work at Dalsat, Inc. of Plano Texas. This includes all Engineering in design or fabrication of new systems. Had total responsibilities for Antenna testing, as well as system proof of performance tests, including Digital, Video, and SCPC. As R&D manager, designed and tested Ku, L, and C Band systems. These systems include offshore and on-shore systems for the oil Industry. Including a monitor and control system for production pipe lines. Developed a system for use in the Bering Sea on a floating research platform.

May 1976

System Engineer for Collins Radio

Redesigned small transportable (4.5 Meter Dish) for use with French Symphony Satellite.

As Project Engineer, designed, wrote procurement specifications, ordered and accepted equipment, integrated equipment, shipped and performed final acceptance tests on private communications system for Royal Family of Saudi Arabia. Including Television Transmitting equipment, VHF, UHF, PABX, and microwave systems.

Supported the first operation of system for the Royal Family on a mobilization of the equipment on a six week desert operation. Wrote proposals on additional equipment for above system to be linked to other Arab countries and for international links.

Resume (Continued)

1974-1976 **Senior Technician** in Electrical Engineering Labs at Texas A&M. Responsible for upkeep of all equipment in labs. KAMU Station Engineer AM and FM Transmitter systems.

1974-1975 **Self-Employed** - Durbin Electronics. - Stereo and television repair helped to finance education.

1972-1973 **Field Engineer** for Radiation, Inc., (Harris Inc.) Melbourne, Florida. Assigned to Kagnew Station in Asmara, Ethiopia. Supervised four technicians responsible for maintenance, modifications, alignment, calibration, and preventive maintenance of deep-space research station IF/RF equipment. Including GSQ 53 timing, cesium beam standards, tracking filters, and various types of receiving equipment, as well as antenna control systems. Site consisted of one 150 foot diameter DC drive elevation over azimuth dish, and one 85 foot full motion antenna. Most work done was classified.

1970-1972 **Intercept Equipment Repairman** in Army, stationed in Kagnew Station, Asmara, Ethiopia. Radar and Radio Remote Identification Section (Radio, Finger Printing). Also in charge of Documentation-Drafting Department. Reorganized department and updated all files. Supervised department of three people responsible for all blueprinting at Stonehouse.

1969-1970 **Army Training** as Intercept and General Systems Repairman, special Purpose Receiver Systems, AN/URQ15 Radar Intercept Receiver, Special Purpose Identification systems. Honor Student in All Classes. Honorably Discharged from Army as E-6.

-AWARDS-

Army Commendation Medal.
1976, was Engineer of the Year for Collins Radio Commercial Satellite Group.
1993 EDS Signature Award "Leaving Your Mark Through Creativity and Initiative"
2005 Circle of Excellence award Verizon.

-PERSONAL-

Ham radio operator for forty years. Build and maintain own equipment.
Built stations in Alaska, Philippines, Galapagos, Saudi Arabia, Belize, and Ethiopia.
Electrical Engineering Student Council at TAMU (two years).
Volunteer Examiner for FCC Amateur radio Testing.
Volunteer worker in Head Start Program.
Technical advisor to Various Amateur Radio Repeaters.
Raise Horses, as well as teach Horsemanship for Boy Scouts.
"Technical Specialist Amateur Radio Relay League" - North Texas Section
"Assistance Emergency Communications Coordinator" - Savoy Texas
Formed first mounted CERT (Community Emergency Response System) in Texas.
Train local emergency responders in the operation of GPS, and other radio equipment.

-REFERENCES-

Glenn Estes	Jerry Baskett
232 CR 2650	EDS Communications
Telephone, Texas 75488	972-604-9920
214-616-6595	

Resume (Continued)

-PUBLICATIONS-

Rockwell International Working Paper
Title: 'Collins Commercial Satellite Communications
HP67/97 Programmable Calculator Programs
Space Systems User's Guide'
Date: March 31, 1978

Material: This paper is a collection of 18 HP 67/97 calculator programs involving the design and/or analysis of satellite operational parameters.
Converted to run on computer systems.

Satellite Link Calculator - Written in Microsoft Excel complete link calculations for Digital, Analog, C-band, Ku Band, Multiple or Single channel, Including Rain analysis based on Crane Including intermodulation calculations for ground and space based networks.

Technical Advisor for the Jason Foundation for Education and technical writer for "JASON VI: ISLAND EARTH HAWAII EXPEDITION"

Publisher/Writer for Amateur radio Newsletters in the Texas area.
Maintain Web sites for Radio club and Trail riders club.

Ph.D. E.E. Thesis ' Satellite Link Topics including Inter-Satellite Optical Links'

Co-Authored with Dr. Robert Ballard "Archaeological Oceanography" Princeton University Press

-COMPUTER SKILLS-

Proficient at Microsoft Office including;
Microsoft - Word, Excel, Power point, Publisher, Front Page, Explorer, Windows 98/XP/VISTA.
Write my own programs for specific network analysis based on design requirements.