

## Broadcasters' Desktop Resource

www.theBDR.net

... edited by Barry Mishkind - the Eclectic Engineer

# **Grant Bingeman**

1949 - 2016

Grant William Bingeman of Plano, Texas passed away at home on February 29, 2016, surrounded by his wife and children. He was 66.



Grant William Bingeman December 11, 1949 – February 29, 2016

Grant was born on December 11, 1949 to Jonas Byron and Agnes Kathleen (MacDonald) Bingeman in Minneapolis, Minnesota. Growing up his family moved around spending time in Long Beach, California, Baton Rouge, Louisiana, and Richmond, Virginia.

Grant married Ruthann Logan on January 29, 1972 in Middletown, New Jersey. During their first years of marriage, Grant attended the University of Virginia where he earned a degree in Electrical Engineering. His major field of study included modeling of antenna system using the Numerical Electrical Code (NEC) for modeling of all types of antenna systems.

Following graduation from UVA in 1975, Grant joined the Gates Radio division of Harris Corporation, where he worked in the AM Engineering Department designing Antenna Coupling and Phasing Systems.

#### A PIONEER IN BROADCAST MODELING AND DESIGN

As part of his studies at UVA, Grant learned numerous programming languages, both high level and low level code which led him to develop a broadcast specific version of Mininec, a version which could run on minicomputers of the mid-1970's era.

He developed a version which could accurately model the characteristics of broadcast towers, both series and shunt fed, which led to the ability to accurately predict the driving point impedance over a particular bandwidth. Additionally, he developed a companion program to design the associated antenna couplers which, in conjunction with a known length of transmission line of known characteristics, would allow the load of a transmitter to be optimized for the best transmitted bandwidth.

His next step was to develop a companion program to optimize the RF and Pattern Bandwidth of Directional Antenna Systems. This materially improved the received sound quality perceived by the listener.

#### **MOVING ON TO TEXAS**

Grant left Harris Corporation in 1978 to join the Broadcast Equipment Division of Collins Radio Company in Richardson, Texas.

There he designed Directional Antenna Phasing and Coupling Equipment and transmitter output networks for AM Transmitters. When Rockwell International sold their broadcast business in December, 1979 to Continental Electronics in Dallas, Texas, Grant moved with the product line to Continental, where he continued his work until his health took a serious downturn – during his last years he had two liver transplants.

During his years designing directional antennas and matching networks, Grant often went overseas to see his designs implemented and improved.

Grant was also a prolific writer of articles for various Broadcast and Amateur Radio publications, having authored more than 200 articles in various publications ranging from hobby magazines to professional journals as well as several presentations at the NAB Spring conventions.

He was a Registered Professional Engineer in the State of Texas and an Extra Class Amateur Radio Operator holding the call sign KM5KG. His other interests included building wooden boats, restoring old electric guitars, and teaching blues guitar to others.

Grant is survived by his wife, two sons, a daughter, and five grandchildren, as well as his parents, one brother, and two sisters. His Funeral Service was held on Friday, March 4, 2016 in Plano, Texas.

He will be missed by his many friends in the Broadcast and Amateur Radio communities.

- - -

We wish to offer our sincere thanks and appreciation to Jack Sellmeyer for pulling together this information on Grant's life and achievements.

### Return to The BDR Menu