CURRICULUM VITAE

BRIAN C HICKS

EDUCATION

1986 Associate of Science, General Engineering
1993 Bachelor of Science in Electrical Engineering, West Virginia Institute of Technology
1992 Engineering Accelerated Training Program, NRL
1994 C Programming, NRL
1997 National Instruments Labview and GPIB, NRL
1999 RF and Wireless Engineering I, Georgia Institute of Technology
2000 RF and Wireless Engineering II, Georgia Institute of Technology
2005 Basic Antenna Concepts, Georgia Institute of Technology
2005 Grounding and Shielding, EMC in PCB Layout, Kimmel Gerke, Associates
2006 Antenna Engineering, Georgia Institute of Technology
2007 Modeling and Simulation of Antennas, Georgia Institute of Technology
2007 Phased Array Antennas for Radar, Georgia Institute of Technology
2007 Antenna Engineering Certificate, Georgia Institute of Technology, Atlanta Georgia

PROFESSIONAL POSITIONS

1989 – Present Electronics Engineer, U.S. Naval Research Laboratory

PROFESSIONAL EXPERIENCE

I have twenty five years of experience in the design of low-noise, high-speed electronics, real-time software development, and scientific instrument design and construction. I have developed circuits and systems for a wide range of remote sensing applications including infrared imaging spectroscopy, millimeter wave spectrometry, satellite remote sensing of the atmosphere (POAM, OOAM), and radio astronomy. I supported Dr. William Erickson in the development the 74 MHz system at the Very Large Array (VLA). This was the first connected-element imaging interferometer to achieve sub-arcminute resolution imaging below 100 MHz through the ionosphere. I have developed five generations of Galactic background limited, wide bandwidth active-baluns for the Long Wavelength Array (LWA). I recently served as the lead engineer on the LWA antenna stand subsystem which has been delivered and installed. These units have enabled exciting new research and have helped to revitalize low frequency radio astronomy. My recent contributions include the design of the low-band receiver (50 to 470 MHz) for the EVLA, and support of early prototyping efforts for lunar low-frequency telescopes.

PUBLICATIONS

Fourteen refereed publications in radio astronomy and stratospheric research. I am the recipient of three Alan Berman Research Publication Awards.

Notable publication:

"A wide-band, active antenna system for long wavelength radio astronomy",
Brian C. Hicks, Nagini Paravastu-Dalal, Kenneth P. Stewart, William C. Erickson, Paul S. Ray, Namir E. Kassim, Steve Burns, Tracy Clarke, Henrique Schmitt, Joe Craig, Jake Hartman, Kurt W. Weiler.; Astronomical Society of the Pacific, 920; 1090-1104, Published 2012.