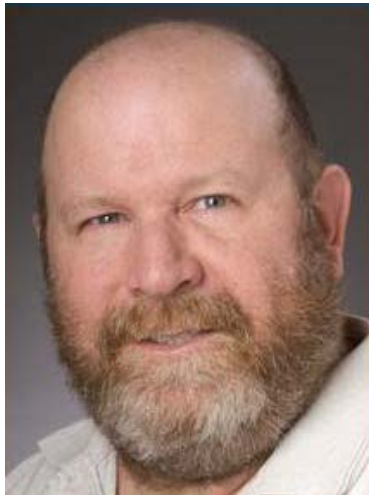


Development of a Compact Range for System Level Testing

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Antennas are developing from simple apertures to more complex systems with ever more complex test requirements. These test requirements drive the design of new test facilities. Not only do the facilities require exceptional field purity, they also require the ability to test operation of various system features. These features can include amplifiers integrated into the aperture, beam steering capability, multiple output ports, high-power transmit signals and many permutations of these functions. This paper describes the specification, development, validation, and operation of a compact antenna test range for system level tests. While providing a general overview of the process it will also go into several of the more interesting issues associated with this process.



Biography – Paul Kolesnikoff

Paul Kolesnikoff has been involved with antenna measurements since 1983 at the RCA Space Center in Hightstown, NJ. Over the years, Paul has been involved in the design, relocation and construction of eight antenna and RCS test facilities. He is currently the Lead Range Engineer for Ball's eight Antenna and RCS test ranges. His latest efforts have been focused on completing a new Compact Range and developing test techniques for system level testing.

Since being on the 1991 Host Committee in Boulder, Paul has co-hosted the 2001 AMTA conference in Denver, served on the AMTA Board of Directors, was AMTA president in 2004, has regularly served on the AMTA technical committee and as a session chair, and recently hosted AMTA 2011 in Colorado.

Paul received his Bachelor's degree in Applied Mathematics magna cum laude from the University of Colorado at Boulder. He is author or co-author of twelve technical papers and co-owner of one patent.