Introduction to High Intensity Radiated Fields (HIRF)

NEW (course debuts October 2016)
Instructors: C. Bruce Stephens, Franklin L. Cummins (This course may be taught one or both instructors.)

Description
This course will discuss the design concepts required to ensure that all aspects of aircraft HIRF electrical wiring, installations, and aircraft-level systems are safe for operation. This course will discuss the typical certification process for HIRF from a very practical, step-by-step perspective and examine all steps used by aircraft OEMs to show compliance to HIRF regulations. 14 CFR 25.1317 for transport category airplanes will be used as the baseline regulation. A review of FAA Advisory Circulars and practical applications of the information will be conducted, as teams will be selected to simulate the HIRF certification process. HIRF requirements for aircraft maintenance and inspection will also be discussed. The course will also include a high-level overview for electromagnetic effects areas. Topics discussed include Electromagnetic Compatibility (EMC), Precipitation Static (P-Static), lightning, ESD, and electrical bonding requirements. An overview of the new requirements for Electrical Wiring and Installation System (EWIS) will also be addressed.

Highlights
• HIRF best practices
• Team HIRF workshops
• DER/UM HIRF requirements
• HIRF examples and practical applications
• Review of the HIRF Advisory Circulars

Who should attend?
The course is intended for all aircraft design areas including electrical, avionics, HIRF engineers, laboratory and aircraft technicians. Aircraft managers and project engineers working in electrical/avionics related areas should also attend.