

EM Measurements & Range Consortium

Electromagnetic measurements continue to be a major area of research at ESL with its research staff developing new technologies and designs to improve the performance of antenna and radar test ranges. At any given time ESL has five to ten research projects involving the design, performance evaluation, and modification of test ranges. These projects are supported by U.S. aerospace industry and government laboratories. Current sponsors include Raytheon, Boeing, Ball Aerospace, MIT Lincoln Laboratory, and John Hopkins University's Applied Physics Laboratory.

ESL RF Measurement Facilities

ESL owns and operates a state-of-the-art compact range facility that is used by ESL researchers and graduate students as well as industrial partners for testing new antennas and for scattering measurements. A fully equipped and staffed RF laboratory is also housed at ESL with multiple vector network analyzers for testing of components, materials, and devices from 1 MHz to 40 GHz. Other RF measurement hardware includes surface contact dielectric probes and kits for S-parameter measurements of active and passive microwave components.

Compact Range Consortium

In 1986, the ESL Electromagnetic Measurements (or "Compact Range") Consortium was formed to transfer the latest technology for accurate Radar Cross Section (RCS) measurements to U.S. industry. Now in its 18th year, the consortium remains very active with five industrial members. The consortium hosts an annual workshop in Columbus, with a large number of participants including invited government personnel. Over the years, the consortium has provided more than \$2.5 million dollars of support to ESL for electromagnetic measurements related research.

