Conference on Applied Statistics in Defense



For more information, visit http://www.armyconference.org

Conference Dates: October 22-24, 2014 **Conference Location:** Washington, DC

The Conference on Applied Statistics in Defense (CASD) is a forum for the presentation and discussion of theoretical and applied papers related to the use of probability and statistics in solving problems in defense and security. The conference provides an invaluable opportunity for interaction among academic, industry, and government scientists. It also serves a nurturing role in the improvement of statistical practice in defense research, development, and testing.

This year's invited speakers include Antonio Possolo (NIST), Richard Davis (Columbia University), David Hunter (Pennsylvania State University), David Marchette (Naval Surface Warfare Center, Dahlgren Division), and Shane Reese (Brigham Young University).

There is also the opportunity to attend the following tutorial. See the website and registration form for more information on the tutorial cost.

Tutorial: Statistical Methods for Product Life Analysis and Accelerated Testing **Instructor:** William Meeker, Iowa State University **Tutorial Dates:** October 20-21, 2014

Reliability improvement and reliability assurance processes in manufacturing industries require datadriven reliability information for making business, product-design, and engineering decisions. This will be a hands-on workshop where participants will use the JMP 11 software for analyzing reliability data and test planning. The course will focus on concepts, examples, models, data analysis, and interpretation. Examples and exercises will include examples using product field (maintenance or warranty) data, accelerated life tests, and accelerated degradation tests. After completing this course, participants will be able to recognize and properly deal with different kinds of reliability data and properly interpret important reliability metrics. Topics will include the use probability plots to identify appropriate distributional models (e.g. Weibull and lognormal distributions), estimating important quantities like distribution quantiles and failure probabilities, the analysis of data with multiple failure modes, the analysis both destructive and repeated measures degradation data, and the analysis of recurrence data from a fleet of systems or a reliability growth program.