AMMTIAC Success Story

AMMTIAC's Accelerated Testing Handbook Provides Lifecycle Cost/Performance Perspective

http://ammtiac.alionscience.com

Customer:	Defense Technical Information Center, (DTIC)
Challenge:	As the DoD shifts to a "total lifecycle" approach for weapons design, it is more important than ever to perform tests that predict the useful life of a system, and to project how it will start to break down as it ages. Real-time testing of such attributes is difficult, expensive and time-consuming. To provide warfighters with cost-effective and long-term test data, DTIC commissioned the development of a comprehensive handbook on Accelerated Testing (AT) Methodologies.
Approach:	To produce this handbook, AMMTIAC conducted an extensive survey of the current state of AT methodology by collecting information from published sources of government research, industrial standards and practices, academic works, and technical societies. A number of SMEs – government, industry, academia, and consultants – provided additional material and guidance to this publication.
Value:	AMMTIAC published a 321-page handbook on AT that provides guidance and information on how and when to perform such tests, as well as to the limitations of this approach. Thanks to the AT handbook, the time required to project service life data for systems, usually measured in decades, can be accelerated by factors up to 1000 or more, reducing the cost of systems testing by several orders of magnitude. AT data also enables program offices to project future maintenance requirements, which allows for more effective budgeting.