

www.advensys.es Ph.- +34 610 758 738 e-mail: jllopez@advensys.es Skype: jllopez.advensys.es in www.linkedin.com/in/jllopezorejas/?locale=en_US

MIL-STD-810H Overview for Design and System Engineers

AdvEnSys (Advanced Engineering Systems) introduction

AdvEnSys has been created with the target of offering to the technical community the extensive experience in Environmental testing and training of its management, by means of dedicated consultancy services in each of these areas.

AdvEnSys wants to fill the space that, in a defined period of a company business development process, may come up. AdvEnSys allows a company to fix a service or to solve a need that appears suddenly, in a quick and professional way by outsourcing it and, therefore, without investing in resources that later won't be required.

Jose Luis Lopez - Founder short profile



Aeronautical engineering background with 30 year experience in high added value products and solutions, into Iberian and International Markets. Main markets covered during his professional career are Industrial, Academic and Research Centers, Test Houses, Military, Aeronautic/aerospace and Automotive.

Direct training activities to companies or in collaboration with public and private organizations to provide Environmental Testing (vibration, climate, packaging...) training courses to multiple entities in Spain, Europe and Middle East.

Experience in Project Management and Technical Consultancy comprising all related aspects as required standards deep analysis, laboratory design, equipment market survey and technicaleconomical proposal evaluation, RFQ generation, project execution or Acceptance Testing Protocol (ATP's) writing and order fulfillment management.

Fields of expertise

AdvEnSys can provide the following training courses:

- Vibration. Basic concepts; vibration technologies; single axis or multi axis testing; shock, SRS, pyrotechnic.
- Climate. Temperature, humidity, corrosion, altitude, vacuum, solar radiation, HALT / HAST, ...
- Transport simulation Packaging testing, drop, compression, dangerous goods, environment data gathering
- Specific standards MIL-STD 810H; DEF-STAN 0035 Part 3; ECSS-E-10-03A; IEC 60068; NASA-STD-7003A, ...

Spanish Committee Member of the following International Technical Committees:

- IEC/TC 104.- Environmental Conditions classification and Methods of Test.
- ISO/TC 51.- Pallets for unit load method of material handling.
- ISO/TC 122.- Packaging.



www.advensys.es Ph.- +34 610 758 738 e-mail: jllopez@advensys.es Skype: jllopez.advensys.es in www.linkedin.com/in/jllopezorejas/?locale=en_US



Course Overview

MIL-STD-810H Overview for Design and System Engineers provides the foundations and understanding of the environmental stress practices applied to systems that are deployed in military applications and insight into design practices to improve consistency, robustness, and reliability of field deployed systems. This 2-day course (14 hours) covers an overview for MIL-STD-810H to understand the requirements for systems deployed in harsh weather, vehicle, and combat environments by translating them into design and test requirements.



Key Course topics

- Planning and documentation to execute a MIL-STD-810H program.
- Understanding of the test cases and stresses that a system is subjected to.
- Understand the goals and function of design and system engineers
- Learn how to establish metrics for tracking system performance to the test cases identified in MIL-STD-810H.

Contents

- 1. Introduction
- 2. MIL-STD-810H History
- 3. Overview of the Sections of the MIL-STD-810H
- 4. Introduction to Part I of MIL-STD-810H
- 5. Role of System and Design Engineers
- 6. Source documents for System and Design Engineers
 - a. From Project Managers
 - i. Concept of Operations (CONOPS); Testing and Validation Modes
 - ii. System Requirements Document Overview; Process for System Requirements Decomposition
 - iii. System Engineering Management Plan
 - b. From EES
 - i. Environmental Engineering Management Plan
 - ii. Life cycle Environmental Profile
 - iii. Operational Environmental Documentation: Tailoring MIL-STD-810H based on your mission profile
 - iv. Environmental Issues and Criteria List (EICL)
- 7. Detailed Environmental Test Plan Overview; Detailed Environmental Test Plan Creation; Failure criteria
- 8. Feedback from Environmental Test reports
- 9. Test level derivation
- 10. Combined tests
- 11. Environmental Effects and Failure Criteria; Analysis of results
- 12. Planning for Execution of MIL-STD-810H
- 13. MIL-STD-810H Part II Overview
- 14. General guidelines and equipment needed for all test methods:
 - a. Climatic related methods
 - b. Dynamic related methods
 - c. Chemical related methods



