



15th LS-DYNA International Conference & Users Meeting

Pre-Conference Training (1 day)

Sunday, June 10, 2018, 9am-5pm

Edward Hotel & Convention Center, Dearborn, MI

Simulation of Explosives

Instructor: Paul Du Bois, Consultant

Len Schwer, Schwer Engineering & Consulting Services

Objective

The training focuses on the application of LS-DYNA to modeling explosives. The modeling methods are illustrated through case studies with sufficient mathematical theory to provide the user with adequate knowledge to confidently apply the appropriate modeling method.

This training class is intended for the LS-DYNA analyst possessing a comfortable command of the LS-DYNA keywords and options associated with typical Lagrange and Multi-Material Arbitrary Lagrange Eulerian (MM-ALE) analyses. The training class will attempt to provide the analyst with the additional tools and knowledge required to model explosives for a range of applications. The typical attendee is likely to have a background in defense applications, to include protective structures and vehicle vulnerability, Homeland Defense topics, and terrorist threat mitigation techniques

COURSE CONTENT

- **Opening Remarks (Len)**
- **Detonation Waves and Explosives (Paul)**
- **Flyer Plate Calibration of Detasheet EOS (Len)**
- **Impact Detonation via Ignition and Growth of Reaction in High Explosives (Len)**
- **Driven Shocks (Paul)**
- **Equivalency of TNT (Len)**
- **Simulation of Propellants with Application to Interior Ballistics (Paul)**
- **Introduction to Non-Ideal and Afterburning Explosives (Len)**

For further information regarding pre- and post-conference training, please consult the conference website www.ls-dynaconferences.com or send email to ConfTraining@lstc.com.