Welcome to the 1st Engineered Residual Stress Implementation Workshop

Weber State University – Downtown Ogden Campus
Ogden, Utah
September 15, 2015

Sponsored by United States Air Force – A-10 Aircraft Structural Integrity Program (ASIP) Office

ERSI

Opening Remarks

- Thank you!
- Restrooms
- Coffee Shop Downstairs –Discount
- Internet Password - downtownabby
- Fire Exit
- Agenda, Proposed Format for Discussion
  - Dialogue is necessary
  - Presenter's will provide specific instructions
- Goal Oriented

Purpose of ERSI Workshop

1. To identify and **lay out a road map for the implementation of engineered deep residual stress** which can be used in the calculation of initial and recurring inspection intervals for fatigue and fracture critical aerospace components.
2. To **highlight gaps in the stat-of-the-art** and define how those gaps will be filled.
3. Then to define the most **effective way to document requirements and guidelines** for fleet-wide implementation.

Vision of ERSI Workshop

Within 2-5 years have developed a framework for fleet-wide implementation of a more holistic, physics-based approach for taking analytical advantage of the deep residual stresses field, induced through the Cold Expansion process, into the calculations of initial and recurring inspection intervals for fatigue and fracture critical aerospace components. Then move from there to other deep residual stress inducing processes, like Laser Shock Peening , and Low Plasticity Burnishing.