

Engine Rotor Life Extension



ENHANCED LIFE PREDICTION TECHNOLOGY FOR ENGINE ROTOR LIFE EXTENSION (ERLE) Stephen J. Hudak, Jr. et al., Southwest Research Institute

“Improvements in lifing models, using more accurate values in stress analysis and fracture mechanics solutions, will add more precision into calculating the predicted life spans of these components,” *Mr. Mazdiyasni (USAF).*”



Challenges

Life cycle management of fracture-critical aircraft engine components is too conservative due to outdated life prediction models.



How can I-SEC help?

Quantifying more accurate values of stress introduced by surface engineering (deep residual stresses) to improve fatigue life and reduce inspection costs.



Benefits

Increased operational life,
Increased depot throughput,
Improved flight safety and
\$600 million savings over 5 years