

# Model-Assisted Probability of Detection

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April 20, 2007

# Agenda

- 0830: Overview of Effort and Motivation (Lindgren and Malas)
- 0900: Review of Demonstration Effort (Forsyth)
- 0930: Update on Studies of Cracks vs. Notches (DSTO, QinetiQ, ISU, AFRL, NIAR)
- 1030: Break
- 1045: Discussion on Open Issues for Cracks vs. Notches (Forsyth, Lindgren, Thompson – Moderators)
- 1130: Review of Totem Pole Issues (Thompson)
- 1200 Lunch
- 1300: Discussion of Progress towards Totem Pole Issues (Thompson, Lindgren, Forsyth – Moderators)
- 1500: Advanced Topics
- 1700: Review of Timeline for Demonstration Effort (Lindgren, Forsyth, Thompson)

# Motivation

- Save Time and Money!
- Demonstrate capability of inspections
- Minimize time to deploy new inspections
  
- Addresses emerging wave of inspection requirements
- Insures aircraft availability for mission
  - USAF: for Warfighter

# Objectives

- Complete Demonstrators
- Report results
- Insure consensus on process
- Chart Progress
- Complete by 2008



# Totem Pole

- System Calibration
- Probe Characterization
- Model Validation
- Transfer Function Validation
- Specimen Design
- Cracks vs. Notches
- Number of Specimens
- Noise
- How do you know you are right?
- Concurrent Programs: data capture

# What is Success?

- Ideal: Complete demonstrators
- Minimum: Learn everything we can and apply this knowledge