

# Model-Assisted Probability of Detection

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MAPOD WGM  
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# Agenda

8:00 a.m.	Welcome .....	Lindgren
8:30	Status of Demonstration Effort .....	Forsyth
9:00	Update on Eddy Current MAPOD Efforts at Iowa State University .....	Thompson for Nakagawa
10:00	<b>BREAK</b>	
10: 15	Review of Brausch Studies on Effects of Cabling, Probe and Inspection System Variabilities .....	Lindgren
10:45	Update from Overseas Groups <ul style="list-style-type: none"> <li>• Canada.....</li> <li>• Australia .....</li> </ul>	Mandache  Lindgren for Hugo/Harding
11:15	Status of Totem Pole Issues .....	Forsyth
11:30	Status of Update of 1823.....	Lindgren for Annis
11:45	<b>LUNCH</b>	
1:15 p.m.	Statistical Approaches <ul style="list-style-type: none"> <li>• Steps required to validate new POD approaches.....</li> <li>• Extension of confidence issues to model-based approaches .....</li> </ul> POD for ISHM data .....	Discussion led by Thompson  Thompson and/or Meeker  Discussion led by Lindgren
4:30	<b>ADJOURN</b>	

# 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 2009



# 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

# SBIR Topic

- Title: Modeling of Nondestructive Evaluation (NDE) Processes for Reliability Assessment
- Pre-release as of November 13, 2007
- Solicitation Opens December 10, 2007
- Solicitation Closes January 9, 2008
- Contract anticipated April, 2008
- Website: <http://www.acq.osd.mil/osbp/sbir/>

# What is Success?

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