

# EO/IR Calibration and Characterization Workshop

6-8 March 2007  
Gaithersburg, MD

*Final agenda*

## Tuesday, March 6

- 8:00 a.m.**    **Registration**  
**Continental Breakfast**
  
- 8:30 a.m.**    **Welcome and Introduction to the Workshop**  
Randy J. Jost, USU/SDL
  
- 9:00 a.m.**    **NIST Lecture 1: Properties of Materials: BRDF and Reflectance**  
Thom Germer, NIST
  
- 10:00 a.m.**    **Refreshment Break**  
**Participant Discussions**
  
- 10:20 a.m.**    **NIST Lecture 2: Diffuse Reflectance Measurement and Integrating Spheres**  
Leonard Hanssen, NIST
  
- 11:15 a.m.**    **NIST Lecture 3: Determining Measurement Uncertainties**  
Howard Yoon, NIST
  
- 12:10 p.m.**    **Lunch Provided**  
**Participant Discussions**
  
- 1:10 p.m.**    **Withdrawn**
  
- 1:40 p.m.**    **EO Standard Processes Task Progress and Its Relationship to Certification**  
Jeff Burks, AFRL/SNS
  
- 2:10 p.m.**    **Comprehensive IR Source Calibrations Across the Whole Military Ambient Temperature Range**  
Sergey Mekhontsev, NIST
  
- 2:40 p.m.**    **Refreshment Break**  
**Participant Discussions**
  
- 3:00 p.m.**    **Material Measurement Working Group Charter**  
Stephen Buckner, The Boeing Company
  
- 3:30 p.m.**    **Introduction to Breakout Group Activity**  
Randy J. Jost, USU/SDL
  
- 3:50 p.m.**    **Breakout Groups**
  
- 5:00 p.m.**    **Conclude for the day**

## Wednesday, March 7

- 8:00 a.m.** Continental Breakfast  
Participant Discussions
- 8:30 a.m.** NIST Lecture 4: Optical Technology Division Calibration Services  
Jerry Fraser, NIST
- 9:00 a.m.** NIST Lecture 5: Fourier Transform Spectrophotometry  
Simon Kaplan, NIST
- 9:55 a.m.** Status of Infrared Reflectance Round Robin  
Leonard Hanssen, NIST
- 10:20 a.m.** Refreshment Break  
Participant Discussions
- 10:40 a.m.** Hemispherical Directional Reflectometer for Characterization of Infrared “Signatures” and Measurement of Thermal Properties of Materials in Infrared Spectral Region  
M. Martin Szczesniak, Surface Optics Corporation
- 11:10 a.m.** Investigation of the Performance of the SOC100 H-DR When Used with Thick Transmissive Samples  
Steve Wilcken, The Boeing Company
- 11:40 a.m.** Improved Emission Subtraction in the SOC100  
M. Martin Szczesniak, Surface Optics Corporation
- 12:10 p.m.** Lunch Provided  
Participant Discussions
- 1:10 p.m.** Assessment of the Surface Optics Corporation SOC-100 Hemispherical Directional Reflectometer (HDR) System  
Dan Northem, The Boeing Company
- 1:40 p.m.** Reflectance Characterization of NIST Flat Plate Target Coupons  
Leonard Hanssen, NIST
- 2:10 p.m.** EOIR Chamber Measurements of NIST Flat Plates  
Jim Sorensen, ATK-MRC
- 2:40 p.m.** Refreshment Break  
Participant Discussions
- 3:00 p.m.** Breakout Groups
- 5:00 p.m.** Conclude for the day

## Thursday, March 8

- 8:00 a.m.** Continental Breakfast  
Participant Discussions
- 8:30 a.m.** Tools for IR Image Calibration and Target Signature Analysis  
Michael Rice, Science Applications International Corporation (SAIC)
- 9:30 a.m.** BSDF Modeling Implementation Into Monte-Carlo Code  
John Cancian, Pratt & Whitney
- 10:00 a.m.** Signature Database for Monte-Carlo Code Validation  
Brandon Satterwhite, Pratt & Whitney
- 10:30 a.m.** Refreshment Break  
Participant Discussions
- 10:50 a.m.** Breakout Group Preparation
- 12:00 noon** Lunch Provided  
Participant Discussions
- 1:00 p.m.** Breakout Groups - Wrap up
- 2:00 p.m.** Reports from Breakout Groups  
Workshop Wrap up
- 3:30 p.m.** Workshop Conclusion