NIST National Institute of Standards and Technology U.S. Department of Commerce

FORENSIC SCIENCES

DRAFT AGENDA

Measurement Science & Standards in Forensic Firearms Analysis

July 10-11, 2012

National Institute of Standards and Technology (NIST), 100 Bureau Drive, Gaithersburg, MD 20899
Room: Building 101 – Lecture Room B

Webcast Information
To access via phone:
Participation Code:
Web Link:

July 10, 2012

8:30 AM – 9:00 AM	**Arrive at NIST Lecture Room B** • Coffee in NIST Cafeteria
9:00 AM – 9:30 AM	**Welcoming Remarks & Framing the Issue** • NIST Opening Remarks - Susan Ballou, Program Manager, NIST, Law Enforcement Standards Office, Forensic Science Program • Scientific Working Group for Firearms and Toolmarks (SWGGUN) Opening Remarks - Doug Murphy, Federal Bureau of Investigation (FBI) Laboratory • Association of Firearm & Tool Mark Examiners (AFTE) Opening Remarks - Dan Gunnell, Illinois State Police (ISP)
9:30 AM – 10:00 AM	**Keynote Address – 40 Years of Firearms Analysis & a Glimpse of the Future** • John Murdock, Private Examiner
10:00 AM – 11:00 AM	**Current State of Firearms Analysis: Review of the Field including Strengths & Limitations** • Current Technology Used in the Laboratory – Bill Demuth (ISP) • Human Performance in Firearms Analysis – Doug Murphy (FBI) • Discussion
11:00 AM – 11:15 AM	**BREAK**

11:15 AM – 12:00 PM	**Manufacturing Processes and Materials** • Manufacturing and Machining – Robert Ivester (NIST) • Firearms Manufacturer – TO BE INVITED • Discussion
12:00 PM – 12:30 PM	**Introduction to Measurement Science Advances in Firearms Analysis** • Optical Methods of Surface Measurement – Ted Vorburger (NIST)
12:30 PM – 1:30 PM	**LUNCH (NIST Cafeteria - on your own)**
1:30 PM – 3:30 PM	**Measurement Science Advances in Firearms Analysis** • Confocal Microscopy – Stephen Shaffer (UC Davis) • Focus Variation - Franz Helmli (Alicona) - INVITED • Interferometric Method for Surface Measurements – Dr. Moosberger – INVITED • Contact Systems - Marcus Brubaker, PhD (University of Toronto) • Infrared for Toolmark Identification - Francine Pookoski (Infrared Identification Inc.) • Discussion
3:30 PM – 3:45 PM	**BREAK**
3:45 PM – 5:00 PM	**Advances in Image and Statistical Analysis in Firearms Analysis** • Comparison and Interpretation of Impressed Marks Left by a Firearm on Cartridge Cases – Christophe Champod (University of Lausanne) • Consecutively Matching Stria (CMS) – John Murdock (Private) • 3D Surface to 2D Barcode - David Howitt (UC Davis) - INVITED • Confocal Analysis - Robert Thompson (NIST) • Discussion

Please note that all times are in Eastern Time

July 11, 2012

8:30 AM – 9:00 AM	**Arrive at NIST Lecture Room B** • Coffee in NIST Cafeteria
9:00 AM – 10:15 AM	**Advances in Image and Statistical Analysis in Firearms Analysis – cont.** • Striation Density –Wei Chu (Intelligent Automation) • Contiguous Matching Cells -- John Song (NIST) • Principal Component Analysis and other methods – Nick Petraco (John Jay College of Criminal Justice and The Graduate Center) • Discussion

10:15 AM – 11:00 AM	**Measurement Uncertainty & Certainty of Conclusions** • Uncertainty in Firearms Presentation - James Yen (NIST) , • Presentation on Conclusion Statements and How to Introduce Evidence (DNA Example) – Mike Ambrosino (Special Assistant to the US Attorney of DC)
11:00 AM – 11:15 AM	**BREAK**
11:15 PM – 12:30 PM	**Industry Panel on Future of the Discipline: Automated Ballistic Search & Identification Systems** • FTI – Alain Beauchamp - INVITED • EVOfinder, - Michael Derenovsky - INVITED • SBC - Yury IIyasov (via Teleconference) • Infrared Identification Inc. – Francine Pookoski • ALIAS – Michael Barrett (Pyramidal Technologies) - INVITED
12:30 PM – 1:30 PM	**LUNCH (NIST Cafeteria - on your own)**
1:30 PM – 2:30 PM	**Role of Standards and Validation to Extend Quantitative Measurement into Practice** • Physical Standards, Calibrations and Traceability – Brian Renegar (NIST) • Adopting New Technology Within an Existing Quality Assurance System – Erich Smith (FBI)
2:30 PM – 2:45 PM	**BREAK**
2:45 PM – 4:45 PM	**FACILITATED DISCUSSION:** **What does the future state of firearms analysis look like?** **What are the barriers to implementing the future state?** **Design a roadmap to get there.** • *Facilitator:* Dr. James Hamby • *Knowledge Capture: John Paul Jones & SAIC* • Discussion Areas include: NAS Statements, Technology, Risk, Research, Validation, Policy, Standards, Legal Admissibility, Cost, etc.
4:45 PM – 5:00 PM	**Meeting Summary & Next Steps** • John Paul Jones - NIST

Please note that all times are in Eastern Time