

### **Priority Action Report**

### **Footwear and Tire**

Physics/Pattern SAC

G. Matt Johnson, Chair

February 23, 2016





### **Subcommittee Leadership**



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Position	Name	Organization	Term	Email
Chair	Matt Johnson	Orange County (California) Sheriff's Department	2	gmj@occl.ocgov.com
Vice Chair	Rodney Schenck	U.S. Department of Defense, Defense Forensic Science Center	4	rodney.a.schenck2.civ@mail. mil
Executive Secretary	Mike Gorn	Sarasota County (Florida) Sheriff's Office	4	mgorn@scgov.net





### **Subcommittee Members**



			Area com
Name	Organization	Term	Email
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Aurora Dumitra	New York City Police Department Police Laboratory	2	aurora.dumitra@yahoo.com
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Cindy Homer	Maine State Police Crime Laboratory	4	cindy.homer@gmail.com
	Sarah E. Bohne  Aurora Dumitra  Ron Mueller  Michael Gorn  Stephen Greene  Christopher Hamburg  Amanda Hanshaw Lane  Gerhard Dean Hauptmann  Dwane Hilderbrand	Sarah E. Bohne  Colorado Springs Police Department  New York City Police Department Police Laboratory  Ron Mueller  Charlotte County Sheriff's Office  Michael Gorn  Sarasota County (Florida) Sheriff's Office  Stephen Greene  U.S. Customs and Border Protection Christopher Hamburg  Oregon State Police  Amanda Hanshaw Lane  Virginia Department of Forensic Service  Gerhard Dean Hauptmann  Baltimore County (Maryland) Police Department Forensic Services Section  Dwane Hilderbrand  Self Employed, Forensic ITC Services Cindy Homer  Maine State Police Crime	Sarah E. Bohne  Colorado Springs Police Department  Aurora Dumitra  New York City Police Department Police Laboratory  Ron Mueller  Charlotte County Sheriff's Office  Sarasota County (Florida) Sheriff's Office  Stephen Greene  U.S. Customs and Border Protection Christopher Hamburg  Oregon State Police  Amanda Hanshaw Lane  Virginia Department of Forensic Service  Gerhard Dean Hauptmann  Baltimore County (Maryland) Police Department Forensic Services Section  Dwane Hilderbrand  Self Employed, Forensic ITC Services 3  Cindy Homer  Maine State Police Crime  4





### **Subcommittee Members**



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11	Alan Kainuma	Honolulu (Hawaii) Police Department	3	akainuma@honolulu.gov
12	David Kanaris	Alaska Scientific Crime Detection Laboratory	4	david.kanaris@alaska.gov
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16	Rodney Schenck	U.S. Department of Defense, Defense Forensic Science Center	4	rodney.a.schenck2.civ@mail. mil
17	Jacqueline Speir, Ph.D.	West Virginia University	2	jacqueline.speir@mail.wvu.edu
18	Christine Snyder, Ph.D.	Seminole County (Florida) Sheriff's Office	3	csnyder@seminolesheriff.org
19	Steven Lund, Ph.D.	NIST	2	steven.lund@nist.gov
20	Melissa Valadez	Texas Department of Public Safety Crime Laboratory	3	melissa.valadez@dps.texas.gov

**National Institute of Standards and Technology** 



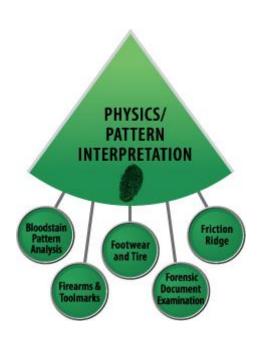
### **Subcommittee Affiliate Members**



				Part (1985)
#	Name	Organization	Term	Email
1	Lesley Hammer	Hammer Forensics, Alaska	N/A	hammer.lesley@gmail.com
2	Brian Yamashita, Ph.D.	Royal Canadian Mounted Police, Canada	N/A	brian.yamashita@rcmp-grc.gc.ca
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### **Discipline Description**



#### **Footwear and Tire:**

Detection, documentation, recovery, examination and comparison of footwear and tire evidence.





# Summary of Standards/Guidelines Priority Actions



Priority	Working Title of Document
High	Footwear/Tires Test Impression Guide
High	Research needs for footwear and tire track evidence
High	Terminology and Training/Competency documents developed from the SWGTREAD standards
High	Source identification conclusion scale and what documents to create or modify for standards or guidelines
Low	Revise the remaining SWGTREAD documents to conform with OSAC SDO requirements





# Topic 1: Footwear/Tires Test Impression Guide

Priority Level: High

 A guideline for examiners in the creation and collection of test impressions made from footwear and tires for comparison purposes.

**Task Group Name: Footwear & Tire** 

**Examination/Comparison Methods** 

**Task Group Chair Name:** Sarah Bohne **Task Group Chair Contact Information:** 

mailto:sarahebohne@gmail.com



#### *Topic 1:* Footwear/Tires Test Impression Guide

# Standards/Guidelines to Move Forward



Title	Organization	Suggested OSAC Process: (Registry, SDO, Canvass)
Footwear/Tires Test Impression Guide	AAFS	SDO





#### Topic 1: Footwear/Tires Test Impression Guide



Priority (high/med/low/)	Planned Actions	Approx. Deadline	Assignee
High	Create KAVI project		
	Address final comments from FW/TT Subcommittee		
	Final Subcommittee vote		
	Seek SAC approval for SDO process	April 1, 2016	Sarah Bohne







Priority Level: High

 Action pending finalization of Physics/Pattern SAC harmonized source conclusion scale

**Task Group Name: Footwear & Tire** 

**Examination/Comparison Methods** 

**Task Group Chair Name:** Sarah Bohne **Task Group Chair Contact Information:** 

sarahebohne@gmail.com



#### Topic 2: Footwear and Tire Comparison Conclusions



Priority (high/med/ low/)	Planned Actions	Approx. Deadline	Assignee
High	Create FW/TT conclusion scale?	TBD	Sarah Bohne
	Create FW/TT report writing/Testimony Guide?	TBD	Sarah Bohne





### **Topic 3: Research Needs**

Priority Level: High

Production of Research Needs documents for OSAC



**Task Group Chair Name:** Jacqueline Speir, Ph.D **Task Group Chair Contact Information:** mailto:

Jacqueline.Speir@mail.wvu.edu







Priority (high/med/low/)	Planned Actions	Approx. Deadline	Assignee
High	PCAST Response	Completed	Jacqueline Speir, Ph.D
High	Submit 5 OSAC Research Needs Assessment forms for SAC approval	April 1, 2016	Jacqueline Speir, Ph.D





### **Topic 4: Terminology**

Priority Level: Medium

- A FW/TT Terminology document is pending Physics/Pattern SAC Terminology Task Group action
- The harmonized source identification conclusion scale and pending FW/TT report writing/testimony documents may delay submission to SDO

**Task Group Name: Footwear & Tire Terminology** 

**Task Group Chair Name:** Jan LeMay **Task Group Chair Contact Information:** 

jlemay@weldgov.com





# Standards/Guidelines to Move Forward



Title	Organization	Suggested OSAC Process: (Registry, SDO, Canvass)
Footwear/Tire Terminology Guide	AAFS	SDO







Priority (high/med/low/)	Planned Actions	Approx. Deadline	Assignee
Medium	Continue to review/revise terminology document	TBD	Jan LeMay
	Adjust and refine terms based on pending conclusion/report writing/testimony documents	TBD	
	Submit for SDO process	TBD	







### **Topic 5: Training/Competency**

Priority Level: High

- Produce a standard for training footwear and tire comparison examiners
- Collaborate with IAI on the updating of the Recommended Course of Study for Footwear/Tire Track Examiners training manual in an effort to harmonize an OSAC FW/TT training standard with the IAI training manual

**Task Group Name:** Training and Competency

**Task Group Chair Name:** David Kanaris **Task Group Chair Contact Information:** 

david.kanaris@alaska.gov





#### *Topic 5: Training/Competency*

# Standards/Guidelines to Move Forward



Title	Organization	Suggested OSAC Process: (Registry, SDO, Canvass)
Footwear and Tire Examiner Scope of Work, Minimum Requirements, and Training Standard (title ?)	AAFS	SDO





# OSAC SEGNING Area COMMITTEE

Priority (high/med/ low/)	Planned Actions	Approx. Deadline	Assignee
Medium	Collaborate with IAI on RCOS and create training standard accordingly	TBD	David Kanaris/Lesley Hammer







# **Topic 6: Footwear & Tire Processing/Enhancement Methods**

Priority Level: Medium

 Documents having to do with the processing and enhancement of evidence impressions at crime scenes or on evidence in a laboratory environment

**Task Group Name:** Footwear & Tire

Processing/Enhancement Methods

Task Group Chair Name: Michael Gorn

Task Group Chair Contact Information: mgorn@scgov.net





#### *Topic 6:* Footwear & Tire Processing/Enhancement Methods

# Standards/Guidelines to Move Forward



Title	Organization	Suggested OSAC Process: (Registry, SDO, Canvass)
Footwear and Tire Impression Chemical Enhancement Guide	AAFS	SDO





#### *Topic 6:* Footwear & Tire Processing/Enhancement Methods



Priority (high/med/ low/)	Planned Actions	Approx. Deadline	Assignee
Medium	Poling of examiners use of various chemicals for enhancement purposes	April 1, 2016	Michael Gorn
	Develop draft for SC input	July 1, 2016	Michael Gorn







# **Topic 7: Footwear & Tire Detection/Collection Methods**

Priority Level: Medium

 Several guideline documents to be developed including photography, casting, and lifting of impression evidence

Task Group Name: Footwear & Tire Detection/Collection

**Methods** 

Task Group Chair Name: Alan Kainuma
Task Group Chair Contact Information:

akainuma@honolulu.gov



#### *Topic 7:* Footwear & Tire Detection/Collection Methods

# Standards/Guidelines to Move Forward



Title	Organization	Suggested OSAC Process: (Registry, SDO, Canvass)
Guide for Casting Footwear and Tire Impression Evidence	AAFS	SDO
Guide for Lifting Footwear and Tire Impression Evidence	AAFS	SDO
Guide for the Forensic Documentation and Photography of Footwear and Tire Impressions at the Crime Scene	AAFS	SDO





#### *Topic 7:* Footwear & Tire Detection/Collection Methods



Priority (high/med/ low/)	Planned Actions	Approx. Deadline	Assignee
Medium	Develop drafts for SC approval and submission to SDO	July 1,2016	Alan Kainuma







### **Topic 8: Resources**

Priority Level: High

 Develop document management workflows and identify features within KAVI to enable effective subcommittee and task group collaboration

**Task Group Name:** Resources

**Task Group Chair Name:** Brian McVicker **Task Group Chair Contact Information:** 

brian.mcvicker@ic.fbi.gov







Priority (high/med/ low/)	Planned Actions	Approx. Deadline	Assignee
High	Create "projects" in KAVI for all documents and TG assignments	April 1, 2016	Brian McVicker





### **Research Gaps Identified**

- OSAC SEENING Area COMMINGS
- 1. Examiner reliability- black box/white box studies for footwear and tires
- 2. Development of a national footwear/tire reference collections
- 3. Studies on the frequency of class characteristics such as outsole design pattern and size of footwear
- 4. Laser scanning of 3D (footwear/tire) impressions to include necessary resolution, depth of field, focus and printing of images into a hard copy format for comparison (includes comparative studies to existing techniques)
- 5. Probability of randomly acquired characteristics in footwear





### **Additional Items of Interest**



- Created a task group for NIST research on footwear/tire evidence to communicate research between subcommittee and NIST
- Considering whether we are going to come out with a report writing/testimony document to compliment the conclusions scale document
- Project to carry over material on SWGTREAD website to an OSAC webpage
- Project to develop standards for printing/imaging/scanning relevant to FW/TT evidence
- Populating AAFS canvassing body for FW/TT documents







### **Summary**

- Sending our first documents through the new AAFS SDO process
- Conclusion consensus amongst disciplines
- Research needs-National Footwear Database
- Populating the Registry

Rank	Topic Area
1	SDO process
2	Conclusions and related documents to move forward
3	Research needs
4	Populating the Registry with comprehensive discipline topics







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