

SWGFAST

Scientific Working Group on Friction Ridge
Analysis, Study and Technology

National Academy of Sciences
Committee on Identifying the Needs of
the Forensic Science Community
Meeting on April 23- 24, 2007

SWGFAST

- | Created in 1995 as a TWG
- | Became a SWG in 1998
 - | Meet twice a year
 - | One week each meeting
 - | Establish committees
 - | Each works on separate documents
- | Executive Committee
 - | Chairman, vice-chair, executive secretary, two at-large members

MEMBERSHIP

- | Up to 40 members
- | Currently
 - | 6 members from Federal agencies
 - | 11 members from state agencies
 - | 6 members from local agencies
 - | 2 members from foreign agencies
 - | 10 members from private sector
 - | 2 members from academic sector
 - | 1 representative from IAI
 - | 1 representative from ASCLD

On average, each member has over 4,000 hours of training received ; formal classroom, mentoring, independent study, continuing education.

SWGFAST DOCUMENTS

- I Glossary – Consolidated (dated 09/09/2003 ver 1.1)
- I Training to Competency for Latent Print Examiners (dated 08/22/2002, ver 2.1)
- I Friction Ridge Automation Training Guidelines (dated 08/23/2002 ver 1.1)

SWGFAST DOCUMENTS

- I Quality Assurance Guidelines for Latent Print Examiners (dated 09/28/2006 ver 3.0)
- I Friction Ridge Examination Methodology for Latent Print Examiners (dated 08/22/2002 ver 1.01)
- I Standards for Conclusions (dated 09/11/2003 ver 1.0)

SWGFAST DOCUMENTS

- I Friction Ridge Digital Imaging Guidelines
(dated 08/08/2002 ver 1.0)
- I Guidelines for Latent Print Proficiency
Testing Programs (dated 09/11/2003 ver 1.1)



SWGFAST DOCUMENTS

- I Guidelines for Professional Conduct (dated 08/09/2001 ver 1.0)
- I Minimum Qualifications for Latent Print Trainees (dated 08/22/2002 ver 2.1)
- I Validation of Research and Technology (dated 08/08/2002 ver 1.0)

SWGFAST DOCUMENTS

- | In progress – Document addressing latent print examinations involving simultaneous impressions.
- | In progress – Document addressing latent print examination documentation.
- | Several others

SWGFAST DOCUMENTS

I Promoting consensus standards

I Draft document for comment

- I Posted on SWGFAST web-site
- I Notification through the IAI Journal of Forensic Identification
- I Open discussion period at annual IAI Conference and Division conferences

I Comments reviewed and documents revised as appropriate

- I Just about all first draft documents get revised after comment period

I Adoption of Document

SWGFAST DOCUMENTS

- | Each document must be reviewed at least every five years
 - | Republished for comment
 - | Can be opened and revised earlier
 - | Comments reviewed
 - | Members review document
 - | Document control; gets new date and revision number

┆ The aggregate of the SWGFAST documents are intended to insure quality forensic latent print examinations:

┆ 1) are being performed by competently trained practitioners (experts),

┆ Training to Competency for Latent Print Examiners (dated 08/22/2002, ver 2.1)

┆ 2) through adherence to standard operating procedures,

┆ Friction Ridge Examination Methodology for Latent Print Examiners (dated 08/22/2002 ver 1.01)

┆ 3) which are linked to a strong, committed quality assurance program,

┆ Quality Assurance Guidelines for Latent Print Examiners (dated 09/28/2006 ver 3.0)

┆ 4) so that the conclusions are accurate and reliable.

┆ Standards for Conclusions (dated 09/11/2003 ver 1.0)

SWGFAST INITIATIVES

I SourceBook

- I Funded by NIJ through WVU grant
- I Chapters covering every major topic of the forensic latent print discipline
 - I Over 800 pages
- I Intent was to have actual reference material included, unfortunately, current status is that this material will not be included.
 - I Copy-right issues
- I Publication and dissemination strategy remains open

SWGFAST INITIATIVES

- | Active participation to revision of ANSI/NIST ITL 1-2007 (and earlier versions) American National Standard for Information Systems – Data Format for the Interchange of Fingerprint, Facial, & Scar Mark and Tattoo (SMT) Information via expert insight and recommendations
 - | Creation of palm print record
 - | Complete friction ridge exemplar record
 - | Extended features set
 - | Better quality fingerprint images via higher digital image resolution

SWGFAST INITIATIVES

- | Open dialogue and exchange with other professional organizations regarding latent print matters.
 - | IAI
 - | ASCLD-LAB
 - | AAFS
 - | IAFS
 - | Interpol Fingerprint Monitoring Expert Group
 - | Other SWG's
 - | ASTAR
 - | Others

SWGFAST INITIATIVES

- | Proposed creation of a Standing Committee for Ten-Print Examiners
 - | Seeking approval process
 - | Revision of by-laws
 - | Selection of members
 - | Revise existing SWGFAST documents where needed
 - | Creation of guidelines and standards specific to ten-print operations


ENFORCEMENT

- | There is no formal mechanism or mandate which requires adherence to the SWGFAST Guidelines or Standards. Adherence is voluntary, however...
 - | By default, documents meet “general acceptance;” Judges and attorneys recognize SWGFAST documents
 - | Experts are scrutinized in court by both sides against these documents
 - | Example – Training to Competency Guideline
 - | used to qualify an expert in court and challenge expertise
 - | Provides means to measure an agency’s current practices
 - | Identifies strengths and weaknesses
 - | Works both directions; mgmt to staff, staff to mgmt

ENFORCEMENT

- | Adherence to all SWGFAST documents is key to quality
 - | Adherence to only select documents may diminish the level of quality actually achieved
- | No mandates or mechanisms are in place to measure adherence to SWGFAST guidelines or standards
 - | However, ASCLD-LAB inspections recognize SWG documents when procedures are brought into question

SWGFAST INITIATIVES

- | Begun to move “Guidelines” to “Standards”
 - | Even with the creation of standards, enforcement authority remains unaddressed
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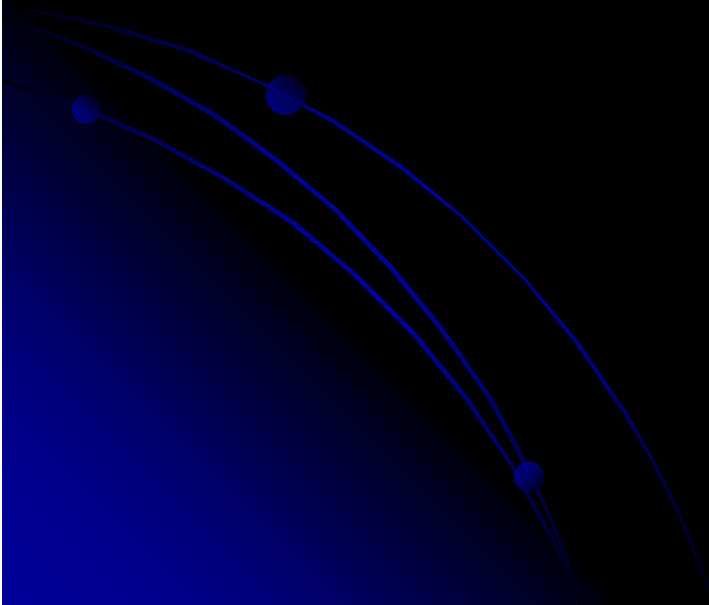
I SWGFAST States:

The fundamentals of the science of friction ridge individualization (identification) are persistence and individuality. The comparison and individualization of two areas of friction ridge impressions are based on the examination of infinite combinations of ridge structure, individual ridge appearance, minutiae, spatial relationships, pores, and other details.

- I There is no scientific basis for requiring that a minimum number of corresponding friction ridge details be present in two impressions in order to effect individualization.

RESEARCH

- | SWGFAST encourages research that challenges or supports these statements.



- | SWGFAST Position:

Fingerprint examination is an applied science based upon the foundation of biological uniqueness, persistence, and empirical validation through observation

- | So, what about statistics and probability models?

- | Falsifiable? – 50K Study

- | Approx. 15 probability models over many years attempted – unacceptable – Why?

- | Will this approach reduce or eliminate errors?

RESEARCH

I SWGFAST draft document:

Guidance for Research and Review of
the Reliability of Fingerprints, Palm Prints,
and Footprints to Individualize



SWGFAST and NAS

- | SWGFAST requests the opportunity to provide input to the NAS Committee on each of the specific tasks as they relate to the fingerprint discipline.
 - | SWGFAST could provide a written document that provides an assessment of the current status, identifies the needs, and recommendations for addressing those needs.