FIREARM EXAMINER COMPETENCE USING 3D IMAGING TECHNOLOGY

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OVERVIEW

Competency

Scope of 3D Imaging

Operator Variability

3D Competence Testing
PROFICIENT

• Skilled & experienced

COMPETENT

• Single skill or function
• Knowledge, abilities & attitudes
• Specific standard in specific conditions to do a job

Bolton-King, RS & Jackson, AW (2014). Personal competency testing in firearms-related disciplines. CS Eye (online), April.
VALUE
COMPETENCE TEST DESIGN

Double blind
- Tester
- Testee

Simulate casework
- ‘No gun’ case
- Range of answers (0 & >1)

Peer-review protocol
- Independent
- Range of conclusions

FIREARM COMPETENCIES

3D Imaging?
3D IMAGING

Detector/CCD

EMR

Surface
SCOPE OF 3D IMAGING
AUTOMATED COMPARISONS

• Activity 1 (2D)
  – Pristine bullet
  – Conventional rifling
  – Identify the LEA
  – Draw anchor lines to outline the LEA:
AUTOMATED COMPARISONS

• Activity 2 (3D Shape)
  – Pristine bullet
  – Conventional rifling
  – Identify the LEA
  – Draw anchor lines to outline the LEA:
ANCHOR LINES
AUTOMATED COMPARISONS
AUTOMATED COMPARISONS

• Activity 3 (Combined)
  – Pristine bullet
  – Glock rifling
  – Identify the LEA
  – Draw anchor lines to outline the LEA:
AUTOMATED COMPARISONS

- Activity 3 (Combined)
  - Pristine bullet
  - Glock rifling
  - Anchor lines outline LEA
HUMAN VARIABILITY
SPEED OF INTELLIGENCE
IMAGING CONSIDERATIONS

3D IMAGING COMPETENCY?
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