	<p style="text-align: center;"><i>Latent Procedure</i></p> <p>Pitt County Sheriff's Office Forensics Services Unit <i>Issued by Technical Leader</i></p>	<p>Effective Date: 2018/04/01</p>	<p>Ver: 2</p>
<p>Procedure for the Alternate Light Sources</p>			<p>Page #: 1 of 4</p>

Technical Procedure ALS (Alternate Light Sources)

1.0 Purpose - This procedure outlines how to examine evidence with ALS (Alternate Light Sources).

2.0 Scope - This procedure applies to all evidence that is examined with ALS. ALS can assist in searching for latent fingerprints and palmprints. Fingerprint residue and other compounds and substances may fluoresce naturally when exposed to ALS (see Technical Procedure for Visual and Inherent Luminescence Examinations). In addition, the ALS may be used with fluorescent dyes to develop and enhance latent impressions. The ALS may be used in the laboratory and when searching crime scenes.

3.0 Definitions –

- **(ALS) Alternate light source:** Any Equipment used to produce light at various wavelengths to enhance or visualize potential items of evidence. ALS equipment readily available in the Latent Evidence Section includes, but is not limited to, the CrimeScope, Mini Blue Maxx, Short and Long Wave lamps and Handscope Xenon (spex) ALS.
- **Ambient light:** Light that is readily available in the office environment (i.e., natural light or light that emanates from an office lighting source).

4.0 Equipment, Materials and Reagents

4.1 Equipment and Materials


- Crime Scope alternate light source
- Mini Blue Max
- Short and Long wave UV Lamp
- Camera equipment
- Filter goggles/plates (red/orange/yellow)
- Image processing systems (UIS)
- Hand Scope Xenon (spex)

4.2 Reagents – N/A

5.0 Procedure – ALS (Alternate Light Sources) are used to aid in detection, visualization and capture of evidence.

5.1 Examination of Evidence

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<p>Procedure for the Alternate Light Sources</p>			<p>Page #: 2 of 4</p>

5.1.1 The available ALS (Alternate Light Sources) are operated by a simple on/off switch.

5.1.2 While wearing goggles, scan the item of evidence with the light source. A strong hand held magnifier may be used to enhance visualization of the latent impressions.

5.1.3 If a latent impression is detected, immediately note the location and direct the light source away from the area.

5.1.4 Position the area of interest under the camera and place the appropriate filter over the lens of the camera.

5.1.5 Direct the light source over the area to be photographed and begin photography in accordance with technical procedures for photographic equipment, Image Processing and Recording of All Analytical Data.

5.1.6 After the photograph is taken, direct the source away from the impression to avoid destruction of the area or surface. Prolonged exposure to the beam may cause the latent impression to photo-degenerate.

5.1.7 After the impression is photographed, further techniques may be applied to enhance or develop additional impressions in accordance with procedure for Image Processing.

5.2 Standards and Controls – N/A

5.3 Calibration – N/A

5.4 Sampling – N/A


5.5 Calculations – N/A

5.6 Uncertainty of Measurement – N/A

6.0 Limitations - N/A

7.0 Safety – Eye protection shall be worn at all times a laser and/or alternate light source is being used. This applies to all individuals who may be in the same room or area. This is particularly important when examining reflective surfaces as the light source may be reflected and result in eye damage.

7.1 Never look directly into any light source as this will cause eye damage.

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<p>Procedure for the Alternate Light Sources</p>			<p>Page #: 3 of 4</p>

7.2 Do not expose the light source to the skin; although it will not immediately cause harm, there may be long term effects with prolonged exposure.

8.0 References

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9.0 Records – N/A

10.0 Attachments – N/A



Latent Procedure

Pitt County Sheriff's Office Forensics Services Unit
Issued by Technical Leader

Effective Date:

2018/04/01

Ver:

2

Procedure for the Alternate Light Sources

Page #:

4 of 4

REVISION HISTORY

CURRENT VERSION	EFFECTIVE DATE	SUMMARY OF CHANGES
1	2016/07/01	Original Version
2	2018/04/01	Define ALS- Change revision history table, Issue date to Effective date, Rev# to Ver#. Edit text of procedure and definition of ALS(Alternate Light Sources)

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