



Digital & Multimedia Sciences - 2017

C5 “HAND-ling” *Daubert*: A Photographic Comparison Case Study

Christina A. Malone, MFS*, 2460 Peachtree Road, NW, #1013, Atlanta, GA 30305; and Carl R. Kriigel, MA, US Army Criminal Investigation Laboratory, Defense Forensic Science Center, 4930 N 31st Street, Forest Park, GA 30297

After attending this presentation, attendees will have an understanding of: (1) the importance of forensic photographic comparisons; (2) a case example in which skin detail was used in such a comparison; and, (3) the *Daubert* challenges that were presented at the court-martial.

This presentation will impact the forensic science community by demonstrating, through a case study, how images retrieved from a computer's hard drive can be linked to a suspect. The challenges encountered in a forensic photographic comparison and the associated legal proceedings will also be discussed as they pertain to a specific case example.

Photographic comparisons are a part of forensic image analysis. In such examinations, the analyst will determine whether the subject or object that is depicted in a questioned image is the same as the subject or object depicted in a known image/photograph. While any number of objects depicted in imagery (photographs) may be the focus of a photographic comparison, skin detail has become of particular interest in forensic casework. The importance of skin detail becomes paramount when a suspect's face is not visible in an image (photograph). For instance, in the present case, an individual's hands and forearms were visible, but a face was not.

In this case, 318 images (photographs) were recovered from a computer hard drive. These images depicted child pornography and the sexual assault of a child by an unknown individual. The individual photographed the assault to include his hands and forearms in the process. A suspect was identified, and sixteen known images (photographs) of a suspect were submitted. It was requested that the known photographs of the suspect (hands and forearms) be compared to the photographs of the assault containing an unknown individual's hands and forearms. A photographic comparison was conducted on the skin detail present on the individual's hands and forearms visible/depicted in the photographs. The photographic comparison conducted visually presented the similarities between the individual in the recovered images (photographs) and the suspect in the known images (photographs).

Prior to the military court-martial, the defense counsel requested a *Daubert* hearing in an attempt to limit the admissibility of the photographic comparison analysis. As such, preparations were made to demonstrate in what manner the photographic comparison met the *Daubert* criteria of: testability, peer review, error rates, standards, and the degree of acceptance in the community. The *Daubert* criteria response materials were presented to the judge and included numerous research articles supporting photographic comparison analysis. The result of the *Daubert* hearing was successful in that the judge ruled that the photographic comparison analysis met the *Daubert* criteria, citing the methods were sound and reliable. The court-martial continued, allowing the photographic comparison to be admitted. The court-martial concluded with the accused being sentenced to life in prison.

Through examining this case example, the ability of photographic comparisons to link a suspect to recovered images is established. Additionally, examiner performance is demonstrated through the analysis conducted and the compelling testimony to educate the court on the photographic comparisons process as it relates to the *Daubert* criteria and the examination involved in this case.



Digital & Multimedia Sciences - 2017

The opinions or assertions contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of Defense.

Names of commercial manufacturers or products included are incidental only, and inclusion does not imply endorsement by the authors, DFSC, OPMG, DA, or DoD.

Photographic Comparison, Image Analysis, *Daubert*