# FACTSHEET FOR ASTM E3149-18

## Standard Guide for Facial Image Comparison Feature List for Morphological Analysis



#### WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy to understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are <u>not</u> intended to provide an interpretation for any portion of a published standard.

#### WHAT IS THE PURPOSE OF THIS STANDARD?

This standard guide describes features and characteristics that should be considered during a morphological facial comparison. These comparisons can be performed between images, or between an image and an individual who may appear in front of a practitioner. The features and characteristics described can be used to evaluate similarities and dissimilarities.

The standard guide includes the main facial features (e.g., eyes, ears, nose, mouth). It also describes details of the characteristics of the features (e.g., lobe of the ear, nostrils of the nose). It further lists the characteristic descriptors that describe what should be evaluated when comparing the facial features and the characteristics of the features (e.g., symmetry of the lips, shape of the jawline).

# WHY IS THIS STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

This standard is important because it provides a standardized way to compare the features of the face.

Adherence to the standard ensures that all examiners that perform a morphological facial analysis are comparing the same features, and also using the same terminology to describe the features.

### HOW IS THIS STANDARD USED AND WHAT ARE THE KEY ELEMENTS?

This standard is the primary approach used in the analysis and comparison process of facial image(s) or a facial image and a person who appears in front of a practitioner. It is utilized in varying degrees within all levels of facial comparisons (assessor, reviewer, and examiner). Each time a comparison is conducted, the practitioner evaluates the features of the face to determine whether the features are similar or dissimilar.

The key elements of the standard are the list of facial components, component characteristics, and the characteristic descriptors. This multi-level list of features helps the practitioner to conduct a step-by-step comparison of each feature with the degree of scrutiny that is appropriate to the type of comparison (e.g., assessment, review, or examination) being conducted. Additionally, the morphological analysis is highly dependent on the quality and quantity of the facial features and characteristics available in the image, which in turn is dependent on the quality of the image itself.

During an assessment (e.g., traffic stop or border patrol passport check) there may not be sufficient time to conduct a full morphological analysis. Time constraints are often a limiting factor. During the review, there is generally more time to conduct a full morphological analysis. An examination, particularly in a forensic application, should involve a comprehensive morphological analysis.

American Academy of Forensic Sciences aafs.org This factsheet is made possible through the following financial assistance award 70NANB21H097 awarded to AAFS from U.S. Department of Commerce, National Institute of Standards and Technology

The\_AAFS

@AAFS.org