



OSAC Research Needs Assessment Form

Title of research need:

Keywords:

Submitting subcommittee(s): **Date Approved:**

(If SAC review identifies additional subcommittees, add them to the box above.)

Background information:

1. Description of research need:

To date, research in photographic comparison has focused on human identification, particularly faces. However, image analysts are often requested to compare vehicles to determine whether a vehicle depicted in surveillance video or capture images is the same as a vehicle linked to a suspect, or alternatively, determine the Make, Model and Year of the questioned vehicle. The VITAL subcommittee requests a study be conducted to determine the accuracy of examiners in making these types of comparisons/determinations, particularly at varying degrees of "Quality" within submitted imagery.

2. Key bibliographic references relating to this research need:

3a. In what ways would the research results improve current laboratory capabilities?

The research results would explore the scientific basis for photographic vehicle comparisons, including exploring error rates related to the quality of images. For the purposes of this study, quality would be defined by the percentage of the imagery that captures the vehicle or the number of pixels that capture the vehicle, and the number of perspectives of the vehicle (multi-camera).

3b. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

The research would assist in determining which features of a vehicle are most conducive to making a vehicle comparison, as well as assisting in the determination of what "Quality" of imagery is needed for an examiner to make an accurate determination of a vehicle make, model and year. In addition, the study would assist in the determination of error rates in vehicle comparisons.

3c. In what ways would the research results improve services to the criminal justice system?

The research would help determine the probative value of vehicle comparison analysis, as well as make/model determinations for lead generation.

4. Status assessment (I, II, III, or IV): I

	Major gap in current knowledge	Minor gap in current knowledge
No or limited current research is being conducted	I	III
Existing current research is being conducted	II	IV

This research need has been identified by one or more subcommittees of OSAC and is being provided as an informational resource to the community.

Subcommittee

Approval date: 1/28/16

(Approval is by majority vote of subcommittee. Once approved, forward to SAC.)

SAC

1. Does the SAC agree with the research need? Yes No

2. Does the SAC agree with the status assessment? Yes No

If no, what is the status assessment of the SAC:

Approval date: 6/15/16

(Approval is by majority vote of SAC. Once approved, forward to NIST for posting.)