

## Technical Report Documentation Page

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<b>15. Supplementary Notes</b> Mr. Jeff Secrist (GTOM); Ms. Jane Lappin and Mr. John Augustine (COTRs)			
<b>16. Abstract</b> An advanced-technology Integrated Safety and Security Enforcement System (ISSES), now deployed at three commercial vehicle inspection sites along interstate highways in Kentucky, was evaluated from the point of view of system performance, potential effects on inspection selection efficiency (choosing the highest-risk trucks from the stream of commerce), user acceptance, and costs. Overall, the subsystems that were under evaluation in this task were found to be performing effectively in a stand-alone mode. The ISSES software and components now deployed, though operational, are considered to be in a development mode. The roadside system was not yet integrated with in-state or national databases of historical safety information on carriers or vehicles, so the ISSES was not able to provide instant, "actionable" historical information that the inspectors could apply in their decision-making. Kentucky's current inspection selection methods were compared with potential applications of ISSES technology across a set of scenarios, used to model improvements in commercial vehicle safety. Applying various combinations of inspection selection strategies and available or envisioned technologies for real-time vehicle identification and safety information exchange at the roadside, in a hypothetical statewide deployment supporting about 44,000 vehicle inspections and 86,000 driver inspections in a year, the ISSES was estimated to contribute to incremental reductions of between 63 and 629 commercial vehicle-related crashes per year, reductions of between 16 and 163 personal injuries, and reductions of up to 7 fatalities. Overall, to the extent that they had been exposed to the ISSES, the users were positive toward it and appeared to recognize its potential, but they regarded it as more of a developmental test or research device than as a tool that they wanted to use immediately in their day-to-day commercial vehicle inspection and law enforcement duties. Further information on the evaluation approach and methods is provided in a separate Technical Report (FHWA-JPO-08-025, EDL No. 14400).			
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