COMMERCIAL VEHICLE OPERATIONS
New York State is committed to improving the transportation system and its operations to support commerce and to help the movement of freight. The New York State Department of Transportation (NYSDOT), in partnership with the I-95 Corridor Coalition and in cooperation with the United States Department of Transportation (USDOT), is undertaking a regional demonstration of Commercial Vehicle Infrastructure Integration (CVII) based operations using multiagency, permanently deployed infrastructure.

The Vehicle Infrastructure Integration (VII) Program is a cooperative effort among the USDOT, state governments and the private sector to develop and to test an Intelligent Transportation System (ITS); this uses 5.9 GHz dedicated short-range communications (DSRC) technologies to exchange real-time information between VII-compliant roadside infrastructure and vehicles. The goal is to improve safety, security, mobility and transportation system asset management.

Using “smart” vehicles and highways, VII systems can provide transportation-based information to transportation users, owners and operators. For instance, VII systems can warn drivers of approaching road and weather conditions; pre-empt traffic signals for emergency services; perform tolling or other payment-based operations; and prevent a vehicle from entering an intersection to avoid a collision. VII-equipped vehicles can collect data and anonymously transmit traffic and road condition information to transportation operators; they also can receive information back from the system on route information, accident locations, road condition warnings, disabled vehicles and other information to improving safety, security and mobility. The data available through VII systems also can help transportation agencies work to reduce congestion, save lives and improve asset management.

Since most of the national VII efforts have focused almost exclusively on passenger vehicles, New York’s CVII Program will concentrate on developing and testing the on-board equipment (OBE) needed to allow a commercial vehicle to transmit and to receive data and information from other VII-compliant vehicles and highway systems. Some commercial vehicle-based capabilities to be researched and developed under this effort include wireless driver identification and verification, using a Transportation Worker Identification Card (TWIC), and driver biometrics integrated with a truck’s operating system. This would allow only authorized personnel to start and operate the vehicle. The CVII Program also will research and demonstrate wireless vehicle-based safety indicators; these include tire pressure and brake status, and developing and testing VII OBE for NYS highway maintenance vehicles.

The CVII Program includes a field demonstration of the 5.9 GHz DSRC commercial vehicle based systems along active highway corridors including VII-deployed sections of NYSDOT’s I-495 Long Island Expressway and the New York State Thruway Authority’s I-87 Spring Valley Corridor. In August of 2008, a team headed by Volvo Technology of America, Inc. - in conjunction with Booz/Allen/Hamilton, TechnoCom Corp., Cambridge Systematics, Inc., Southwest Research Institute and Fitzgerald and Halliday, Inc. - was selected the winning proposer. The team commenced CVII activities in October of 2008 and is expected to take two years to complete the CVII program.