ITS Field Operational Test Summary

Tranzit *XPress* II

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Introduction

The Tranzit *XPress* II ITS Field Operational Test (FOT) uses ITS technology to enhance response to hazardous materials incidents. The Tranzit *XPress* technology was developed and demonstrated in Pennsylvania as part of Phase I of the Tranzit *XPress* project. This test, Phase II of the project, expands the use of the technology to the Port of Los Angeles, in California. The project demonstrates to emergency responders several advanced communication and information handling technologies to improve emergency response information and capabilities.

Project Description

This test combines and refines the emergency response capabilities developed in Tranzit *XPress* I and Operation Respond. The FOT applies the refinements to the system developed in Tranzit *XPress* (I) to intermodal freight at the Port of Los Angeles, California. During the second phase of the project, the Tranzit *XPress* I technology will demonstrate improved HazMat visibility and more efficient HazMat incident response in Port intermodal operations. The test also will develop an open system design in accordance with ITS National Architecture for HazMat incident response. This open design will enable future integration with other ITS technologies, systems, and services. In addition, the project implements external system interfaces with electronic data interface standards to achieve compatibility with the Commercial Vehicle Information Systems and Networks (CVISN).

The system intends to provide a user-friendly, computerized information system to collect and make available accurate and timely information about HazMat movements in the Port area. The system aims to seamlessly monitor HazMat assets while in-transit across transportation modes within the intermodal Port. It is capable of locating HazMat (and other types of) cargo or containers received, transported, and stored in the facility. It will provide descriptions and locations of HazMat shipments to relevant agencies to promote safer, more efficient, and less expensive HazMat incident response.

The system has three separate components: the National Institute for Environmental Renewal (NIER) Information Dispatching/Operations Center, the On-Vehicle Electronics system, and a battery of Off-Vehicle devices. Figure 1 presents a schematic of the Tranzit *XPress* system. The on-vehicle electronics allow personnel to record and maintain cargo information and status and to communicate destination information. The Center manages communications between the shipper, the vehicle, and the emergency response vehicles and manages information collection and distribution. The off-vehicle devices (palm top or laptop computers) help identify and monitor the contents and status of the cargo. In the event of an incident, emergency response units can use the off-vehicle devices or query the NIER Operations Center to obtain timely and important information about the cargo.

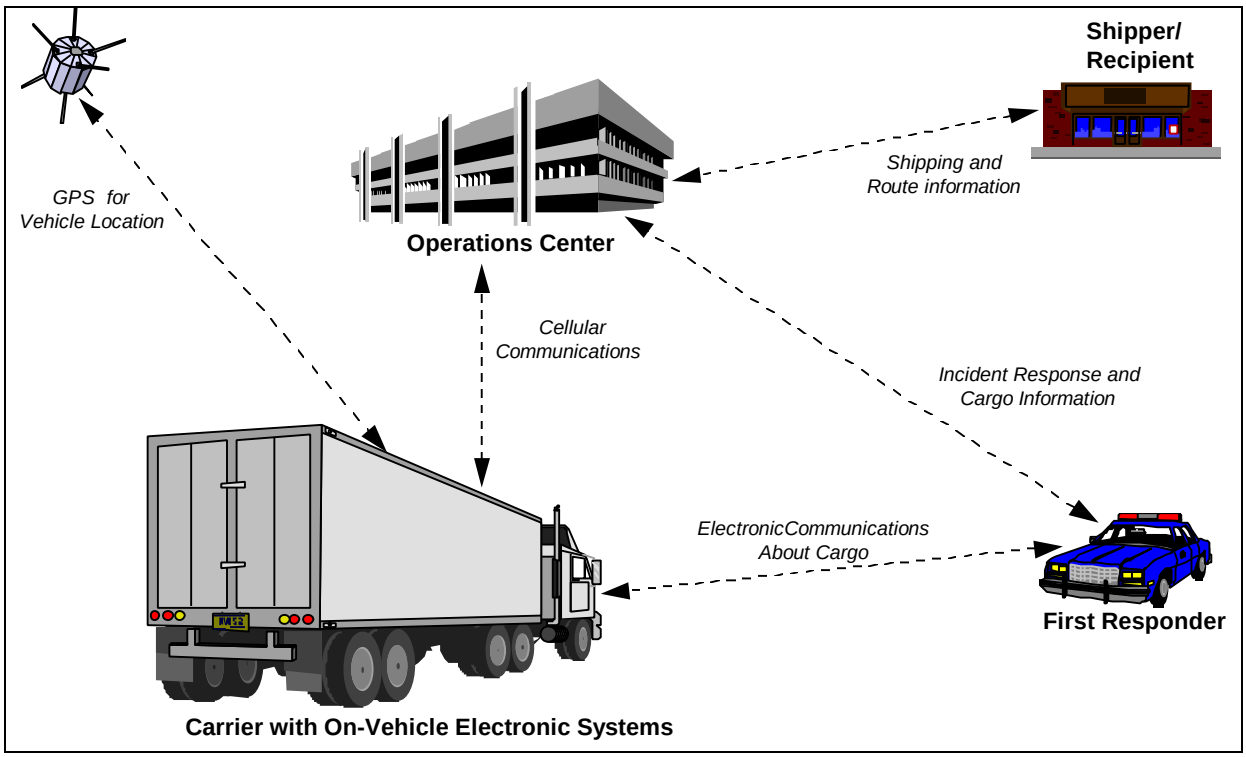

Figure 1: Schematic of Tranzit XPress System

The test evaluator will assess the project in light of its evaluation goals. The evaluation will focus on the following:

- Determine the timeliness of the initiation of the correct hazardous incident response
- Assess the performance of the system components
- Assess system suitability and user acceptance
- Identify system requirements and assess the potential for deployment
- Identify the institutional and legal issues.

Test Status

The National Institute for Environmental Renewal, the lead partner, has assigned a new project manager. The contract with NIER was modified in February 1998. This modification extensively revised the agreement to incorporate the next phase of funding, Tranzit *XPress* IIb, which involves the demonstration of the Tranzit *XPress* system at the Port of Philadelphia, Pennsylvania and at selected emergency response dispatch centers.

The evaluator has performed exploratory interviews with first responders in the Port of Los Angeles area and included this information gained in a draft Evaluation Plan.

Test Partners

Federal Highway Administration

National Institute for Environmental Renewal

Operation Respond Institute, Inc.

PAR Government Systems Corp.

Port of Los Angeles

References

None published