

BORDER WAIT TIME DETECTION PILOT PROGRAM FACT SHEET



U.S. Department of Transportation
Federal Transit Administration

Overview

Billions of dollars in economic output are lost each year due to long border wait times for goods and people traveling across the U.S.–Mexico border. In an effort to gather data that can be used to increase the efficiency of the border crossings in the California–Baja California region, SANDAG and Caltrans, in partnership with federal agencies, are working to implement a pilot border wait time detection system. This is a part of a broader effort to build a next-generation system to efficiently manage border crossings.

If the pilot is successful, the technology could be deployed to other crossings and in both directions. In addition, lessons learned from this pilot may assist in the development of a state-of-the-art intelligent transportation system for the future Otay Mesa East Port of Entry (POE), which SANDAG and Caltrans are planning in partnership with federal agencies and their Mexican counterparts.

The two-year pilot uses advanced technology to calculate how long vehicles wait in line to cross the border. The pilot is being deployed along the southbound route to the San Ysidro Port of Entry—the busiest international land border crossing in the Western Hemisphere. As part of the pilot, SANDAG and Caltrans are leveraging the region’s existing network of solar-powered, freeway call boxes as detection points. These call boxes have been retrofitted to include sensors to gather anonymous data as vehicles drive by them in order to calculate border wait times.

The anonymous data collected from multiple detection points will provide the basis for calculating accurate travel times for vehicles

headed southbound into Mexico. Eventually, this technology could be used to provide wait time information to the public and key local, state, and federal agencies via multiple platforms, including the region’s 511 advanced traveler information system and smart phone applications.

The ultimate goal of this pilot project is to provide travelers with decision-quality information so they can make educated choices on when and how to travel. At the same time, more accurate border wait time predictions will benefit local, state, and federal agencies that are involved in border operations and traffic management. With better information at their disposal, they can be more proactive in alleviating border congestion.

The Need

Due to inadequate infrastructure and increased crossborder trade and traffic, all ports of entry between California and Baja California suffer from chronic traffic congestion. A SANDAG study indicates that the U.S. and Mexican economies lose \$7.2 billion in gross output and more than 62,000 jobs annually due to long border wait times. SANDAG projects that by 2035, traffic would grow nearly 30 percent between the San Diego region and Baja California POEs.

Currently, about 31.6 million people using various modes of travel and 13.7

million vehicles head northbound through the San Ysidro POE each year. This border crossing provides a good pilot location, as wait-time detection devices can be placed along the approach road to the POE.

(Continued on reverse)



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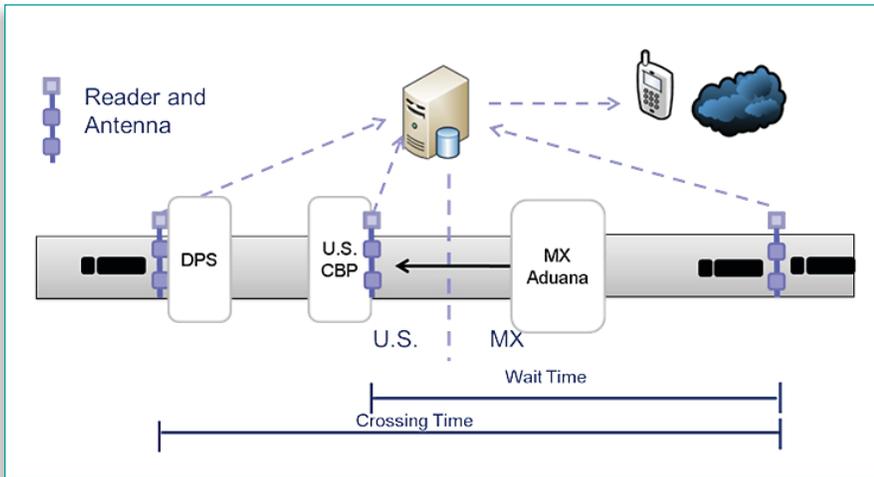
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Concept diagram of future wait time detection points on both sides of the border.

The Technology

Existing call boxes have been retrofitted with sensors, along with bigger solar panels and extra batteries to power the border wait time detection system. The current call box pole and mounting are retained, and a multi-function antenna is mounted on top of the 14-foot pole. The data, which is collected in a manner that does not use any personally identifiable information, is transmitted to a central system for aggregation and processing.

After the data is processed, the central system could disseminate the wait time calculations to the region's 511 traveler information system and other platforms. The real-time capture of border wait times and the development of a historical database over time could be further leveraged to predict travel times—similar to what SANDAG has accomplished along the Interstate 15 (I-15) corridor through its Integrated Corridor Management (ICM) initiative. The I-15 ICM served as the foundation for the launch of the 511 San Diego mobile application.

The SANDAG-Caltrans border wait time pilot is similar to efforts undertaken in recent

years by the Federal Highway Administration (FHWA) in partnership U.S. Customs and Border Protection (CBP) and the Texas Department of Transportation to measure border delays and crossing times along the U.S.–Mexico border.

Partnerships

In addition to collaborating with Caltrans, SANDAG is coordinating the pilot with the U.S. Department of Transportation (USDOT), CBP, the General Services Administration (GSA), and other stakeholders to ensure smooth implementation.

Funding

The border wait time pilot is funded by \$370,000 from the USDOT, with support from its two subsidiary agencies: the Intelligent Transportation Systems Joint Program Office and the FHWA.

Project Status

The pilot is scheduled to conclude in 2018.

For More Information

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