



# I-10 Corridor Coalition Truck Parking Availability System (TPAS)

## WHAT IS TPAS?

The I-10 Truck Parking Availability System, or I-10 TPAS, is a technology system that will detect, monitor, and disseminate truck parking availability information at 37 public truck parking locations along I-10 in California, Arizona, New Mexico, and Texas. The system will use dynamic message signs, smartphone and in-cab applications, and website and traveler information sites to provide real-time information on truck parking availability at parking locations along the corridor. The information will help truck drivers and dispatchers make safe parking decisions. The I-10 TPAS technology system is scheduled to go "online" in 2024.

TPAS may also be the foundation for future technology implementation along the I-10 Corridor, including integrating weather or other alert systems, a truck parking reservation system, and automated and connected vehicle and infrastructure technology.

The project is part of the I-10 Corridor Coalition's efforts to improve safety in the four-state area. It is partially funded by a \$6.85 million Advanced Transportation and Congestion Management Technology Deployment (ATCMTD) grant from the U.S. Department of Transportation. Coalition states are matching the grant 1:1 bringing the total project cost to \$13.7 million.

### PROJECT BENEFITS

The I-10 Freight Corridor Study estimates the economic impact of freight moving along the I-10 Corridor at \$1.38 trillion annually. The I-10 Corridor Coalition TPAS project can help support the economic productivity of this significant commerce route.



Improves mobility and safety along this critical freight corridor.



Reduces infrastructure damage and diesel emissions.



Saves commercial truck drivers thousands of dollars a year in lost earnings and productivity.

## I-10 TPAS TRUCK PARKING SITES





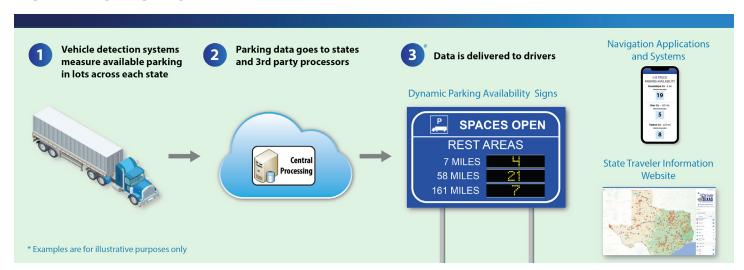
California	243 Miles	6 Sites
Arizona	392 Miles	8 Sites
New Mexico	164 Miles	5 Sites
Texas	881 Miles	18 Sites
Total	1,680 Miles	37 Sites

### CONCEPT OF OPERATIONS

The Coalition completed the draft I-10 TPAS Concept of Operations (ConOps) document providing a high-level understanding of a proposed system that collects and disseminates real-time truck parking availability information along I-10 in California, Arizona, New Mexico, and Texas. The ConOps gives guidance on the design of the system and outlines how it will be operated and maintained.

In summer 2020, the Coalition posted a request for information (RFI) to solicit input from qualified industry experts on detection technology, data distribution, and smartphone and web-based applications. In addition, a Truck Driver and Dispatcher Baseline Survey was conducted and workshops were held with state trucking associations and the Owner-Operator Independent Drivers Association (OOIDA) to understand truck parking needs and driver behaviors. The RFI, the survey, and input from industry workshops provided valuable information for the development of the ConOps.

## **HOW TPAS WORKS**





Vehicle detection systems will measure the availability of spaces by using technologies that count trucks entering and exiting the parking area or by detecting the presence of a truck at each parking space. The technologies used will vary based on site characteristics and other factors.



Each state will gather and process their truck parking availability data, either through a contractor, within their own systems, or a combination of the two. The I-10 Corridor Coalition will work with application developers to integrate the data into existing applications.



Real-time truck parking information will be disseminated through dynamic parking availability signs (DPAS) placed upstream from the parking areas and through smartphone and web-based applications.

Real-time truck parking availability will be provided on each Coalition state's traveler information site.





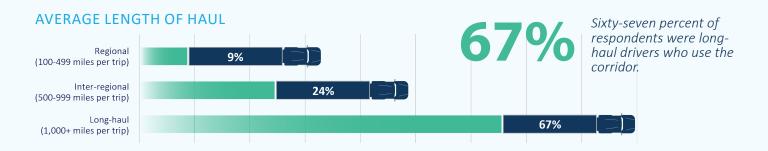




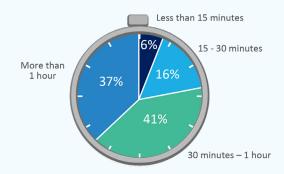


## TRUCK DRIVER AND DISPATCHER BASELINE SURVEY

In fall 2020, the Coalition conducted a survey to gather input from commercial vehicle drivers and dispatchers to understand the challenges and issues drivers experience when attempting to park along the I-10 Corridor. The survey was announced through social media channels, posters at future truck parking sites, press releases, and online industry publication articles. The Coalition received over 500 responses to the survey from drivers and dispatchers.

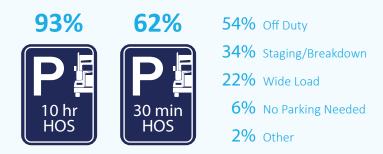


#### AVERAGE TIME TO FIND PARKING



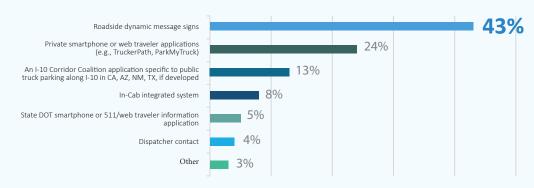
Forty-one percent of the respondents indicated it takes 30 minutes to an hour to find parking; 37 percent responded it takes longer than an hour to find parking.

#### TRUCK PARKING NEEDED BY TYPE



Parking is needed to meet the mandated 10-hour hours of service (HOS) breaks for 93 percent of respondents and parking for 30-minute breaks for 62 percent of respondents.

#### PREFERRED METHOD FOR RECEIVING REAL-TIME INFORMATION



Respondents prefer roadside dynamic message signs for receiving information, followed by mobile applications such as private smartphone applications or in-cab navigation systems.



#### PREFERRED DYNAMIC MESSAGE SIGN

Respondents expressed a preference for signs that display at least two or three upcoming sites. They also preferred a sign that shows rest areas within five to 45 miles and the total number of available spaces.

## PROJECT SCHEDULE

The I-10 Corridor Coalition TPAS project is expected to be deployed in 2024. Following deployment, the Coalition states will operate and maintain the system.

#### TPAS SCHEDULE













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STAKEHOLDER ENGAGEMENT

## **NEXT STEPS**

**System Design:** The Coalition states have completed or have almost completed the final design plans, technical requirements, and specifications. The design builds upon the input from virtual workshops with the trucking industry, the online I-10 TPAS Truck Driver and Dispatcher Survey, the I-10 TPAS ConOps, and system requirements.

**Software Integration:** Each state will integrate truck parking availability software into its existing traffic management and state traveler information systems.

**Construction:** Construction began in California in 2022. Construction is expected to begin in other states in 2023 and 2024.

**Stakeholder Engagement:** Stakeholders along the corridor will continue receiving project updates through newsletters, factsheets, and other engagement materials. Outreach efforts will continue to raise awareness of the I-10 TPAS and promote its benefits.



