

Part 573 Safety Recall Report

24E-049

Manufacturer Name : Waymo LLC**Submission Date :** JUN 10, 2024**NHTSA Recall No. :** 24E-049**Manufacturer Recall No. :** R24-002**Manufacturer Information :**

Manufacturer Name : Waymo LLC

Address : 1600 Amphitheatre Parkway
Mountain View CA 94043

Company phone : 253-0000

Population :

Number of potentially involved : 672

Estimated percentage with defect : 100 %

Equipment Information :

Brand / Trade 1 : Waymo LLC

Model : 5th Generation Automated Driving System (ADS) software prior to the
5/29/2024 driverless software release and map prior to the 6/4/2024 map
update

Part No. : N/A

Size : NR

Function : NR

Descriptive Information : The equipment recalled is the 5th Generation Automated Driving System (ADS) software prior to the 5/29/2024 driverless software release and map prior to the 6/4/2024 map update. The recalled products differ from products not included in the recall in that the recalled products are part of the ADS with which vehicles capable of driverless operation are equipped, while the products not recalled are not used in vehicles capable of driverless operation. Waymo determined the scope of the affected population using information about the driverless capabilities of each vehicle, information about the software on each vehicle, and information about the map on each vehicle. This information is available to Waymo, as Waymo owns all potentially affected vehicles. The affected population all have received the updated software and the updated map.

Production Dates : MAR 17, 2022 - JUN 04, 2024

Description of Defect :

Description of the Defect : Prior to the Waymo ADS receiving the remedy described in this report, a collision could occur if the Waymo ADS encountered a pole or pole-like permanent object and all of the following were true: 1) the object was within the the boundaries of the road and the map did not include a hard road edge between the object and the driveable surface; 2) the Waymo ADS's perception system assigned a low damage score to the object; 3) the object was located within the Waymo ADS's intended path (e.g. when executing a pullover near the object); and 4) there were no other objects near the pole that the ADS would react to and avoid.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Insufficient ability to avoid pole or pole-like permanent objects within the drivable surface may result in an increased risk of a collision.

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

Involved Components :

Component Name : 5th Generation ADS software

Component Description : ADS software prior to the 5/29/2024 driverless software release

Component Part Number : N/A

Component Name : 5th Generation ADS map

Component Description : ADS map prior to the 6/4/2024 map update

Component Part Number : N/A

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

On May 21, 2024, a Waymo AV operating in Phoenix, Arizona collided with a wooden utility pole located in an alleyway while executing a low-speed pullover maneuver. There were no passengers, other road users, or injuries associated with the event, and some damage to the Waymo AV.

On May 22, 2024, Waymo's Field Safety Committee began overseeing the analysis of the event and the development and evaluation of two mitigations: a fully-validated software update to improve the ADS response to pole or pole-like permanent objects, and robust mapping updates and improvements to ensure that the map meets Waymo specifications near pole or pole-like permanent objects by including a hard road edge between the object and the driveable surface.

On June 5, 2024, Waymo's Safety Board determined that the combination of software and map that was in use prior to when the software and map were updated to incorporate the mitigations noted above warranted submitting this report to NHTSA to fulfill relevant notification obligations.

Description of Remedy :

Description of Remedy Program : Between 5/29/2024 and 6/3/2024, Waymo updated the ADS software in all affected vehicles. Between 5/21/2024 and 6/4/2024, Waymo produced updates to the map and by 6/6/2024 all affected vehicles were operating on the 6/4/2024 or later map update.

How Remedy Component Differs from Recalled Component : The remedy includes a new software update and a new map update.

Identify How/When Recall Condition was Corrected in Production : Production ADS-equipped vehicles receive the latest software release and the latest map.

Recall Schedule :

Description of Recall Schedule : Waymo has already applied the remedy to all affected vehicles (all of which Waymo owns), which occurred between 5/29/2024 and 6/6/2024. Accordingly, there is no need for notifications to owners, dealers or distributors under 49 CFR Part 577 or for a further recall schedule.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name : NR

Address : NR

NR

Country : NR

Company Phone : NR

* NR - Not Reported