



U.S. Department of Transportation  
**National Highway Traffic Safety Administration**

# ODI RESUME

**Investigation:** PE23018  
**Prompted By:** SGO and Social Media Reports  
**Date Opened:** 10/16/2023      **Date:** 01/14/2025  
**Closed:**  
**Investigator:** Thomas Haugh      **Reviewer:** Sharon Yukevich  
**Approver:** Tanya Topka  
**Subject:** Automated Driving System

## MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** Cruise LLC  
**Products:** ADS Software  
**Population:** 950

**Problem Description:** Cruise Automated Driving System (ADS) equipped vehicles may not be exercising appropriate caution around pedestrians in the roadway.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
<b>All Incidents:</b>	1	2,759	0	4	1,113*	0
<b>Crashes/Fires:</b>	0	34	0	2	5*	0
<b>Injury Incidents:</b>	0	9	0	2	3*	0
<b>Number of Injuries:</b>	0	9	0	2	3*	0
<b>Fatality Incidents:</b>	0	0	0	0	0	0
<b>Number of Fatalities:</b>	0	0	0	0	0	0

**Description of Other:**

\*Total eliminates duplicates received by the manufacturer

## ACTION/SUMMARY INFORMATION

**Action:** This (PE) Preliminary Evaluation is closed with 23E086.

**Summary:**

On October 16, 2023, the Office of Defects Investigation (ODI) opened a Preliminary Evaluation (PE23-018) to assess whether vehicles equipped with an Automated Driving System (ADS) manufactured and operated by Cruise LLC (Cruise) were exercising appropriate caution around pedestrians in the roadway after receiving 2 reports of crashes involving pedestrians under Standing General Order 2021-01 (SGO). ODI also identified 2 public reports of Cruise ADS-equipped vehicles encroaching on pedestrians present in crosswalks.

On November 7, 2023, Cruise filed a safety recall (NHTSA Recall No. 23E-086) for a defect in its ADS software. Cruise described this recall as relating to the post-collision behavior of the ADS. Specifically, Cruise stated that "In certain circumstances, a collision may occur, after which the Collision Detection Subsystem may cause the Cruise AV to attempt to pull over out of traffic instead of remaining stationary when a pullover is not the desired post-collision response. This issue could occur after a collision with a pedestrian positioned low on the ground in the path of the AV." The recalled software versions affected 950 vehicles that were operating with a driverless version of Cruise's ADS software. Furthermore, Cruise stated that "With the new update, the Cruise AV would have remained stationary during the October 2 incident" that was reported under the SGO (ID 30412-6395).

ODI also analyzed data which included 2,759 reports identified by Cruise that involved the performance of the ADS with respect to avoiding collisions with pedestrians as well as more general behavior of the ADS after a collision. Of these, Cruise identified 1,113 reports that involved a pedestrian conflict. In total, 5 of those incidents involved a collision between a Cruise vehicle and a pedestrian, 3 of which resulted in injury. In each of the 5 pedestrian collision incidents the Cruise vehicle took avoiding action but was unable to avoid a collision.

The recall action taken by Cruise is intended to address safety defects in the post-collision behavior of the ADS in such instances. Moreover, Cruise has since ceased business operations and no versions of its ADS are operating on public roads. As such, ODI is closing this Preliminary Evaluation. NHTSA reserves the right to take additional action if warranted by new circumstances.

To review the SGO reports cited above, go to [NHTSA.gov/laws-regulations/standing-general-order-crash-reporting](https://www.nhtsa.gov/laws-regulations/standing-general-order-crash-reporting). The SGO report ID numbers are provided below:

SGO 2021-01 report ID: 30412-6175

SGO 2021-01 report ID: 30412-6395