What are you doing to mitigate these occurrences?
Our autonomous driving technology prioritizes the safest driving path with the information it has at any given moment. Sometimes, that means our vehicle will pull over or come to a stop if it’s assessed to be the safest course of action in that instance. These events, infrequent as they are relative to the amount of miles we’ve driven autonomously on public roads, are evaluated by our team to improve our service for the future. The Waymo Driver’s performance improves rapidly, and it gains new capabilities with every software release.

The trust and safety of the communities we drive are paramount to us, and our goal is to responsibly roll out the technology that will increasingly improve road safety. The Waymo Driver is designed to follow road laws and rules and act in a safe and familiar manner to other road users - we call this Drivership - a combination of polite, considerate and defensive driving that allows an autonomous driver to move through a world of human ones. We have the teams and systems in place to assist the vehicle and any occupants in all types of situations, and have also trained and worked closely with many public safety officials and first responders on how to safely respond and interact with our vehicles should that be required. We’re constantly observing how the Waymo Driver behaves in its own driving and how it responds to the driving of others.

Why are these autonomous vehicles on the road when this is still occurring?
Before removing a human from behind the wheel, we perform a rigorous review of our safety readiness. We use our robust safety methodologies to evaluate our system’s performance and determine its readiness for deployment. The data to date indicates that the Waymo Driver is reducing traffic injuries and fatalities in the places where we operate. We have come to this conclusion based on the Waymo Driver’s safety performance data, much of which we have publicly shared in multiple papers and reports over the last few years. For example, our safety performance data from the first 1 million public road miles that we drove without a human behind the wheel speaks for itself — we had no reported injuries, no collisions with pedestrians or cyclists, and every vehicle-to-vehicle collision was due to poor driving by human drivers.

As we safely and responsibly scale our technology, our team reviews and assesses all high priority events, good and bad, to continue improving our technological and operational experiences under similar circumstances.

To play devil's advocate, shouldn't these issues have been worked out beforehand? Or shouldn't the driverless, autonomous vehicles be out at the wee hours when such issues would be largely mitigated?
Emergencies can happen at any time. Therefore, we’ve taught our technology how to recognize and respond to emergency vehicles no matter if it’s noon or midnight.

All this is possible because our autonomously driven vehicles are equipped with a suite of custom-built sensors, including cameras, lidar, radar, and microphones. These advanced sensors allow us to both reliably detect emergency vehicles in real-time, and collect better information to train our software.

We work closely with public safety officials to ensure the safe introduction of our technology in every market that we operate in. This team has decades of law enforcement experience and has provided training to thousands of officers and firefighters in California, Arizona and Texas detailing best practices for safe interactions with Waymo vehicles. As part of the training, Waymo outlines best practices, shares its first responder guide and provides a phone number to reach Waymo directly in the event of a stop.