

Monday, Oct 23, 2023

Cruise Comments submitted for the record

SFCTA Commissioners

SFCTA Board Meeting

Tuesday, Oct 24, 2023 10AM

Legislative Chamber, Room 250

City Hall

Dear SFCTA Chair Mandelman, Vice-Chair Melgar, and Commissioners:

Thank you for the opportunity to submit written comments for the record in advance of your October 24th board meeting.

At Cruise, we share SFCTA's goals of safe, accessible, and equitable transportation options for San Francisco residents and visitors. Safety is our top priority and central to our mission: we are proud of our safety record after more than 5 million driverless miles. We are also focused on continuous improvement and, to that end, Cruise regularly releases both major and minor software updates. Recently, Cruise has incorporated significant technological improvements to AV capabilities and implemented new processes and procedures directly in response to feedback from emergency responders and city departments.

We work closely with emergency responders in San Francisco, particularly in the last few months, to understand their specific concerns and to address their feedback. We meet regularly with leaders at the San Francisco Municipal Transportation Authority, the San Francisco Fire Department, the San Francisco Police Department and the San Francisco Department of Emergency Management. We also coordinate with our AV industry partners to standardize processes, where possible, and participate in joint meetings with the city to facilitate communication and collaboration.

As a direct result of the ongoing partnership with CCSF departments, Cruise has taken on a number of workstreams to enhance capabilities and improve our interactions with first responders out on the road. Below, we've outlined highlights of the improvements we've rolled out in the last few months.

### **Software Updates**

**Preemptive AV slowing during siren detection:** AVs now proactively slow down at an early indication of a nearby siren when emergency vehicles are not yet visible.

**Improved emergency vehicle prediction behavior:** Enhanced AV ability to predict if a fire truck will continue to drive through an intersection against a red light, while factoring in the speed at which that will happen.

**Intersection stop regions:** When approaching intersections, we've upgraded our system to identify additional early stopping locations if lights or sirens are detected.

**Emergency scene recognition:** We've improved our existing emergency scene recognition system to better detect these scenes earlier and from farther away.

**Enhanced audio detection:** We are enhancing the car's existing siren detection capability to be able to more rapidly detect a larger diversity of siren types and variations.

**Fire hose and caution tape detection:** earlier this year, we rolled out product improvements that enhance identification of fire hoses and caution tape.

### **Collaboration with City Departments:**

#### **Meetings / Tours / Presentations**

We meet once a week with representatives at the SFMTA and bimonthly in a joint session with SFFD, SFPD, SFDEM, and SFMTA. Additionally, we have hosted various groups at our offices for tours of our facilities and garage and for presentations and discussions about Cruise operations. In mid-July, we hosted a large group from SFTMA's safe streets team and later that month, we hosted members of the SFPD to demonstrate the Cruise AV view of a law enforcement interaction. We also invite representatives of the city to participate in events regarding Cruise's industry-leading work on accessibility and, most recently, to the unveiling of the prototype for the Origin Wheelchair Accessible Vehicle in September. CCSF leaders have offered valuable feedback in all of these engagements that Cruise has either implemented or are under active consideration.

#### **Dispatch**

In coordination with SFDEM, SFFD, and SFPD, Cruise has implemented a short-term process for direct communication between dispatch operators and Cruise operations' leadership regarding emergency scenes and road closures. This allows for the rapid creation of avoidance areas, which keep Cruise AVs away from certain blocks or locations where emergency personnel are engaged. This short-term process will soon be replaced by a permanent automated dispatch system, developed as a result of industry and city collaboration, which will automatically alert Cruise to certain incidents and emergencies.

#### **Motorcade Practice with SFPD**

At the generous request and offer of the SFPD, Cruise participated in a motorcade practice with SFPD and a number of their jurisdictional partners from around the Bay Area in August. The day that we spent with SFPD leadership, the traffic division, and the incredibly impressive motorcycle team was immensely helpful, continued to enhance the foundation of trust and partnership we enjoy with the SFPD, and informed our planning around APEC operations.

#### **APEC Planning**

Cruise has partnered with the San Francisco Police Department and other law enforcement bodies for months in the lead up to APEC in November. We have discussed our operations' plans in collaboration with leadership at those agencies and departments so that there is joint understanding about risk mitigation and confidence in our execution. Cruise will staff the Command Center alongside these agencies during the entire week of APEC activities.

### **Manual Takeover Process**

In response to a direct request from the San Francisco Fire Department, Cruise rapidly instituted a procedure for emergency responders to be able to enter the AV and manually relocate the vehicle, if necessary. We recognize that the best outcome for all involved is for the AV to be able to route away from a location autonomously. However, in those rare situations where an emergency responder decides the preferred option is to manually drive the vehicle, Cruise has made this functionality available. An instructional video detailing how to successfully perform this operation has recently been completed and shared with both SFPD and SFFD.

### **Training**

Cruise has previously performed training for SFPD and SFFD regarding the Cruise AV. In the summer, Cruise brought on former SFPD Captain Joe McFadden and Ed Hutchison, who recently retired from the National Sheriffs' Association, to expand Cruise's national training agenda and to prioritize work with San Francisco emergency responders. Joe is working with SFPD to facilitate training for all officers to familiarize them with Cruise autonomous vehicle features and new capabilities that have been rolled out, including the manual takeover process.

### **Conclusion**

Thank you, again, for the opportunity to detail some of the changes we've instituted and the ongoing coordination we enjoy with various teams and departments in city government. Cruise endeavors to be a partner with you and we look forward to our continued collaboration with SFCTA to make the streets safer and more accessible for all road users in the City and County of San Francisco.

City & County of San Francisco  
London N. Breed, Mayor



Office of the City Administrator  
Carmen Chu, City Administrator  
Nicole Bohn, Director  
Mayor's Office on Disability

October 24, 2023

**Public Comment from the Mayor's Office on Disability:** CTA Agenda Item 11: Autonomous Vehicle Update

Dear Chair Mandelman, Vice Chair Melgar, and Members of the SF County Transportation Authority Board:

Thank you for hearing this item today, and I am sorry that I am unable to attend in person to provide this public comment regarding the importance of continuing to request information pertaining to the deployment of Autonomous Vehicles (AV's) in San Francisco; specifically, requests for information impacting safety and accessibility for persons with disabilities.

The Mayor's Office on Disability (MOD) has been working closely with SFMTA and now, SFCTA, regarding the accessibility impacts of autonomous vehicles on d/Deaf and disabled people. Specifically, MOD remains concerned that there are not currently regulated safety and accessibility minimum standards that AV companies must meet in order to operate. This concern was brought forward as part of recent CPUC hearings, and was also elevated by MOD in a meeting with US DOT Secretary Buttigieg and his staff in June 2023.

MOD serves as a convenor of the disability community on critical issues like these, and community attitude and perception regarding AV's is mixed. While some, especially members of the blind community, celebrate the benefits and potential of AV's as an innovative transportation option, others, especially wheelchair users, feel that wheelchair accessibility minimums should be in place now.

Others remain concerned that the AV's may not currently have the capability to recognize 'non-standard' motion on the street. **How, for instance, does AV technology recognize a person of short stature? A wheelchair user who may be pushing their wheelchair with their feet? Someone with a cane, walker, or mobility device?** Some community members have mentioned that they will not feel safe in or around AV's until and unless these questions are answered. Generally, the disability community as a whole supports the need for data disclosure by the AV companies as a critical next step.

Thank you for reading my comment. Please do not hesitate to contact me with additional questions: [nicole.bohn@sfgov.org](mailto:nicole.bohn@sfgov.org).

Nicole Bohn, Director,  
SF Mayor's Office on Disability