



March 16 2020

Bureau of Science, Technology and Innovation  
Cabinet Office

**Launching field operational tests for automated driving  
on Metropolitan Expressway**

~ Aiming to realize smooth automated driving for merging on expressways ~

Cabinet office has launched field operational tests (FOTs) of vehicle-infrastructure cooperative automated driving that utilizes data to assist with merging lane on Metropolitan Expressway that connects Haneda Airport to Tokyo waterfront city area under the second phase of the Cross ministerial Strategic Innovation Promotion Program (SIP) Automated Driving for Universal Services project (SIP-adus).

**1. Activities taking place under FOTs in the Tokyo waterfront area**

SIP-adus is promoting collaborative research and development on common issues (cooperative area) that should be solved jointly by industry, academia, and government for the practical application of automated driving, with the aim of contributing to solve social issues such as the reduction of traffic accidents and traffic congestion.

Under FOTs which begun in October 2019 on public roads mainly in the Tokyo waterfront city area, automated vehicles with on-board test equipment are being used to verify the effectiveness of information provided by traffic infrastructure, such as traffic signals information.

**2. Summary of the FOT on Metropolitan Expressway**

From March 16, 2020, SIP-adus has started to conduct the FOT to provide information about traffic on the main lane of expressway and the status of ETC gates through ETC2.0 wireless road side units at the Airport west on the Haneda route of Metropolitan Expressway.

The FOT aims to establish technologies for providing traffic environmental data through cooperative infrastructure in order to realize safe and smooth automated driving and provide support for driving in situations which is difficult to continue using automated driving operations, such as merging onto the main lane of an expressway. This test marks the first time in the world that an automated vehicle has been tested under the real-world conditions of an actual toll expressway where the vehicle moves from a general public road, makes toll payments, passes through an ETC gate, and then merges onto the main lane of the expressway.

The FOT aims to accelerate the expansion of automated driving settings from expressways to arterial and general public roads and create an environment that enables safer and more pleasant automated driving.

### **3. Schedule of future activities**

For FOTs in the Tokyo waterfront area, in addition to the Tokyo waterfront city area and the Metropolitan Expressway that connects Haneda airport to the Tokyo waterfront city area, an FOT for advance rapid transit using automated driving technology is planned in the Haneda Airport area and FOTs in the Tokyo water front area will have been conducted until the end of fiscal year 2020.

In order to foster public acceptance of automated vehicles, a test-drive event which collaborate with the Japan Automobile Manufacturers Association (JAMA) is also planned for July 2020 to provide an opportunity for the public to experience automated vehicles. Details of the event will be announced at a later date.

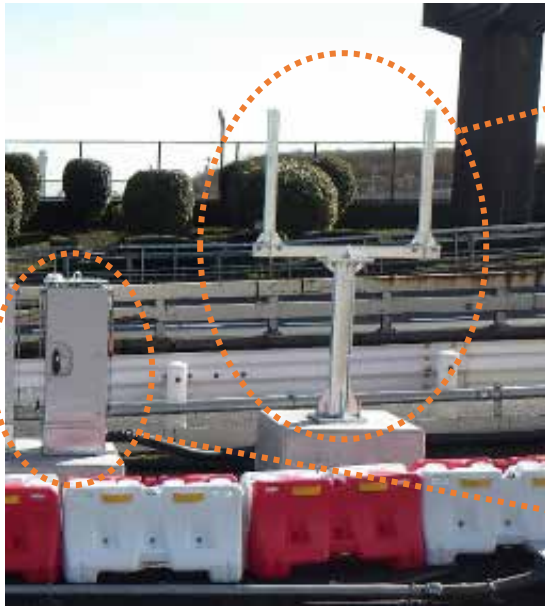
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Website of SIP-adus  
<https://en.sip-adus.go.jp/>

Attachment: Photos of infrastructure equipment used in FOTs

1. Road-side sensors



Antenna section of sensors

Sensor controllers

2. Wireless road-side units



Antenna section of the units



Unit controllers

