

Participation Rules for HMI Field Operational Test

These participation rules (hereafter referred to as "these Rules") define rights and obligations related to a HMI field operational test (hereafter referred to as the "Field Operational Test") among the SIP Large-scale Field Operational Test Operation Executive Secretariat (hereafter referred to as the "Secretariat"), the operational field test contractor (hereafter referred to as the "Contractor"), and a test participant (hereafter referred to as "participant"). Before participating in this Field Operational Test, the participant must read the full text of these Rules and agree to them.

Article 1 Objective

By defining the matters necessary for ensuring mutual cooperation in carrying out the field operational test between the Contractor and the participant, these Rules are intended to ensure that the Field Operational Test is properly and smoothly executed.

Article 2 Mutual Cooperation

The Contractor and the participant agree to cooperate with each other in carrying out the Field Operational Test.

Article 3 Administrative Procedure

- 1) If administrative procedures accompanying the installation of instruments, etc., or consultation or negotiation with the managers of other public facilities are necessary in order to carry out the Field Operational Test in accordance with these Rules, such procedures, consultation, and negotiation shall as a rule be carried out by the party that manages said instruments, etc.
- 2) If a procedure requires cooperation from a party other than the party that manages said instruments, etc., this matter shall be negotiated between the Contractor and the participant in order to obtain the necessary cooperation.

Article 4 Assignment of responsibilities and expense allocation related to the field operational test)

- 1) The participant agrees to develop a vehicle operation plan for the test and operate/manage its test vehicles during testing.

- 2) The participant agrees to collect data related to vehicle operation and cooperate with the Contractor in its analysis and evaluation.
- 3) The autonomous vehicles to be used in the Field Operational Test shall be provided at the participant's expense.
- 4) The expenses associated with the installation and use of measurement equipment, as well as charges for the use of test courses shall be paid for by the Contractor.
- 5) The participant shall agree to allow the Contractor to install measurement equipment.
- 6) Additionally, the allocation of detailed expenses shall be in accordance with *Table: Responsibility assignment and expense allocation (role assignment)*. Any expenses not listed in said table shall be allocated upon mutual consultation between the Secretariat and the participant.

Table: Responsibility assignment and expense allocation (role assignment)

Responsibility assignment	Anticipated expenses	Expense allocation	
		Contractor	Participant
Necessary equipment provision	Equipment manufacturing and installation expenses	✓	—
Test vehicle and system preparation	Vehicle and system preparation expenses	—	✓
Vehicle driver preparation	Driver labor cost	✓	✓
Data-recording device installation	Data-recording device expense and installation expense	✓	—
Data collection	Test operation expenses (including expenses for vehicle fuel, etc.)	—	✓
Data aggregation	Expenses for aggregating the collected data	—	✓
Data analysis	Analysis work expenses	✓	—
Test vehicle movement management	Expenses for operating the movement management system	✓	—
	Expenses for installing the movement management system	✓	—

Article 5 Description of the Field Operational Test

- 1) HMI stands for Human Machine Interface, which refers to devices and means that enable humans and machines to communicate with each other.

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- 2) The tests in this project are intended to help establish data collection and measurement methods for driver states, as well as determination indexes, and to collect data on the effectiveness of the various HMI devices and determine their validity.

Article 6 Test Vehicle Driving Locations

- 1) The participant will be allowed to drive autonomous vehicles on test courses and within the specified public road segments in order to validate the matters described in the preceding article.
- 2) The participant shall drive the vehicles using the method specified in the driving plan that has been submitted to the Contractor.
- 3) The participant will not be allowed to drive autonomous vehicles for purposes other than that described in the preceding paragraph.

Article 7 Test Vehicles

- 1) Test vehicles must meet the safety standards for road vehicles (1951 Ministerial Ordinance No. 67 from the Ministry of Transport). (Includes vehicles that are approved as special exemptions by the director of the Regional Transport Bureau as specified in Section 1, Article 55 of said ordinance or by the Minister of Land, Infrastructure, Transport and Tourism as specified in Section 4, Article 56.)
- 2) The test vehicle must be equipped with a data-recording device that records the driver readiness index output by the DMS and the vehicle status information. For the data-recording device, one owned by the participant (corporation) may be used or one may be borrowed from the Contractor.
- 3) If a vehicle equipped with a new automated-driving system is to be used for this test, the participant must test the vehicle in advance on a facility such as a proving ground to ensure that it can be driven safely.
- 4) If it is detected that the automated driving system has reached or is about to reach its functional limit, or if a system failure is detected, the system must ask the driver to take control of vehicle operation with a sufficiently advance warning. If the driver does not or cannot transfer the driving operation, the system must bring the vehicle safely to a stop.

Article 8 Test vehicle Drivers

- 1) Test vehicles shall be driven only by drivers who have been provided by the participant or by general drivers who have been selected by the Contractor. However, general drivers may only drive on test courses.
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- 2) The test drivers and general drivers described in the preceding paragraph shall follow the *Guidelines for Testing Automated Driving Systems on Public Roads* (hereafter referred to as the "Guidelines") and must agree to the content of the Guidelines and notes related to testing.
 - 3) Test drivers must satisfy the following conditions.
 - Drivers must hold a normal driver's license and have had no accidents or violations within the past three years.
 - Drivers must thoroughly understand the framework and characteristics of the automated driving system of the test vehicle and be proficient in taking emergency actions for the test vehicle. (Education and training must be provided, as needed.)
 - Drivers must have experience driving on expressways.
 - Drivers must be capable of driving continuously for two to three hours. (Except for theme C)
 - Drivers must consent to having their states filmed by a camera during driving and allowing the filmed data to be utilized.
 - Drivers must be able to participate in post-test questionnaire surveys.
 - Drivers must be capable of fulfilling the legal obligations of drivers and always be aware of the responsibilities of driver should a traffic accident, etc. occur.
 - 4) Drivers must be capable of reliably taking the necessary actions following an accident or during an emergency, such as giving the highest priority to aiding the victims and afterward, notifying the police, etc. of the situation.
 - 5) Additionally, drivers must be capable of fulfilling their obligations as drivers, including taking the necessary actions following an accident and abiding by traffic regulations.

Article 9 Safe Management of Test Vehicles

- 1) The participant must safely manage its test vehicles and strive to prevent traffic accidents, etc.
 - 2) The Contractor shall assume no responsibility whatsoever for any traffic accidents, etc. caused by the participant during the Field Operational Test.
 - 3) Test vehicles must record and save the various types of data according to the Guidelines in order to enable a follow-up examination of any traffic accidents or traffic violations that may occur during testing.
 - 4) The various types of data collected by sensors related to the test vehicle and the sensors' operational states must be recorded and saved for use in post-accident analysis, etc. if necessary.
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- 5) When conducting the Field Operational Test in the automated driving mode, the participant must endeavor to ensure safety by following the *Guidelines for Testing Automated Driving Systems on Public Roads* issued by the National Police Agency.
 - 6) The Contractor shall monitor test vehicles, using the cloud-based movement management system, for the purpose of safety. The participant agrees to register its test vehicles in said system and allow them to be monitored.
 - 7) When driving on public roads, appropriate safety measures, such as driving another vehicle alongside the test vehicle, must be implemented.
 - 8) A drive recorder, event recorder, etc., that will record the conditions surrounding the test vehicle and its status, must be installed in the test vehicle. (It is desirable to record not only the conditions ahead of the vehicle, but also those behind and inside the vehicle.)
 - 9) As a safety measure during the Field Operational Test, two people (the driver and a system monitor) will ride in the vehicle, and a structure must be used that enables the system monitor to monitor the system status and carry out the necessary operations should an emergency situation occur.
 - 10) The driver must be seated in the driver's seat so that s/he can take the necessary action should an emergency situation occur.
 - 11) Before driving, the special magnetic sticker distributed by the Contractor must be applied to the vehicle.

Note: While a vehicle is simply being moved from one location to another, it will not be considered to be undergoing the Field Operational Test.

- 12) Issues with which all parties involved must be familiar, such as procedures for handling emergency situations, communication structure, etc., must be documented and made known to all.
 - 13) In addition to mandatory vehicle liability insurance, the participant must take out voluntary automobile insurance that satisfies the various items and insured value described in the appendix. Note that the cost of automobile insurance shall be borne by the participant.
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Article 10 Items to be Submitted in Advance

- 1) The required items must be entered in the driving plan template provided by the Contractor, and the plan must then be submitted to the Contractor by the specified date.
- 2) If the content of the driving plan changes after its submission, the details of the change must be promptly communicated to the Contractor.

Article 11 Test Report

- 1) Unless there are special reasons to the contrary, the participant agrees to submit a test report and data by the date specified by the Secretariat, in accordance with details to be specified separately.
- 2) The participant must also report to the Contractor any data problems discovered during the test.
- 3) The Contractor may send questionnaire-based surveys to the participant and its drivers or inquire about the test results. The participant agrees to respond such requests unless there are special reasons to the contrary.
- 4) The Contractor must summarize the output relative to the required goals and draft proposals of international standards with related organizations.
- 5) The Contractor shall follow the *Ethical Guidelines for Research Involving Human Subjects* issued by Society of Automotive Engineers of Japan (JSAE) when conducting researches involving drivers and pedestrians.

Article 12 Provision of Test Data to Third Parties

In order to evaluate test results, the Contractor may disclose the driving data from tests and other investigation results to companies subcontracted to perform analysis work or related organizations.

Article 13 Public Disclosure or Distribution of Results

- 1) The Secretariat and the Contractor shall be permitted to statistically process the collected test data, in a manner that does not identify individual vehicles or individual participants, and upon negotiation to publicly disclose or distribute the processed results as the results of the Field Operational Test.
 - 2) The specifications of the measuring instruments, etc., used in the tests and security-related information must not be made public or distributed.
 - 3) The participant must obtain a permission by the Contractor when disclosing the test data or outcomes publicly.
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Article 14 Patent Application

If the Contractor and the participant develop an invention based on the results of the Field Operational Test and wish to apply for a patent for said invention, both parties shall negotiate the details in good faith.

Article 15 Compensation for Damage and Loss

- 1) Any loss incurred by the Contractor or the participant as a result of implementing the Field Operational Test shall be ameliorated by the participant, except when the Contractor is responsible for said loss. If loss is incurred by a third party due to a cause attributable to the participant, the participant shall at its sole expense take a necessary measure, such as compensating for the loss.
- 2) Should a complaint be received from a third party in relation to the implementation of the Field Operational Test, the Contractor and the participant shall consult each other and the participant shall, as a rule, take the necessary measure, except in urgent cases. The expense incurred for taking the measure shall be borne by the participant, except when the Contractor is responsible for the complaint.
- 3) Even if a problem, etc. makes it impossible to continue testing, the Contractor shall not be liable for compensating the participant for damage or loss.

Article 16 Asset Ownership

Assets, such as testing instruments, etc., that have been installed in accordance with these Rules, shall belong to the party that purchased them.

Article 17 Field Operational Test Period

The period for the Field Operational Test is planned to run from around November 2017 through around December 2018.

Article 18 Suspension of Participation in the Field Operational Test

- 1) If the participant wishes to suspend its participation in the Field Operational Test, it may do so based on negotiation between it and the Contractor. Once suspended, the participant cannot resume participation in the Field Operational Test.
 - 2) During implementation of the field operational test, if any of the conditions listed below becomes applicable to the participant, the Contractor may ask the participant to immediately suspend the test.
 - (1) All or some of the items described in the application form turn out to be false.
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- (2) The participant no longer satisfies the requirements for participating in the Field Operational Test.
 - (3) The participant turns out to have a relationship with antisocial forces.
 - (4) The Secretariat determines for any reason that participation in the Field Operational Test by the participant is no longer appropriate.

Article 19 Changes to the Rules

If it becomes necessary to change the details of these Rules, the Contractor shall change them and obtain the participant's agreement on the changed rules.

Article 20 Cooperation

- 1) As a rule, the participant must attend various meetings to be held as needed by the Secretariat or the Contractor, such as participant briefings, progress report meetings, and information-sharing sessions.
- 2) The Contractor and the participant agree to cooperate in the filming of PR images for the field operational tests.
- 3) When creating documents for the participant, Contractor must also create English versions for overseas manufacturers.

Article 21 Confidentiality

- 1) The Contractor must not disclose any information learned while evaluating the vehicles owned by the participant to outsiders, except for the purpose of evaluating test results.
- 2) The participant must not disclose any secondary information it may obtain, other than test results, etc., to outsiders.

Article 22 Other

Any matter not stipulated in these Rules or any dispute arising with respect to any provision of these Rules shall be set forth or resolved upon mutual consultation between the Contractor and the participant.
