



National Agency for  
**Automobile and  
Land Transport Technology**



## Service Guide



# The National Agency for Automobile (NALTEC) contributes to the transportation is safe and



## History of establishment

NALTEC was established through the integration of two Independent Administrative Agencies, the National Agency of Vehicle Inspection and the National Traffic Safety and Environment Laboratory. Its objectives are to secure a safe and environmentally friendly transportsystem through the generation of synergy from comprehensive measures from the design process and new vehicles to the usage process based on the Act to Partially Revise the Road Transport Vehicle Act and Act on the National Agency of Vehicle Inspection, Independent Administrative Agency (Act No. 44 promulgated June 24, 2015).



## First-term mid-term plans

NALTEC operates based on a prescribed mid-term plan to achieve the 1st term mid-term objectives (2016 fical year to 2020 fical year) indicated by the Minister of Land, Infrastructure, Transport and tourism.

### Accurate, strict, and fair implementation of duties

- ① Examinations of vehicle  
(Standards compliance examinations for type approval)  
(Standards compliance examinations for the usage stage)
- ② Vehicle registration confirmation check
- ③ Technical verification for automobile recalls

### Basic policies

- Establish and thoroughly implement strict and fair inspection methods
- Establish research and inspection for new technology and strengthen international communicativity

### Support administrations that deal with new technology and social demands

- ④ Produce high-quality research results
- ⑤ Improvement and enhancement of vehicle examinations
- ⑥ Improvement and enhancement of vehicle examinations of technical verification for automobile recalls

### Support the international standardization of Japanese technology

- ⑦ International standardization of automobile technology
- ⑧ International standardization of railroad technology

# and Land Transport Technology realization of a world in which environmentally friendly.

## Operations

NALTEC carries out comprehensive operations from design process and new vehicles to the usage process through integration and implements rapid and reliable measures to introduce new technology and discover defects.

1 Research that contributes to the drafting of related administrative policies carried out by the government, the formulation of technical regulation, etc. (④ and ⑤ of mid-term plan)

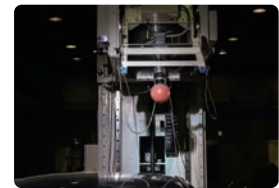
▶ Research work



▶ Meetings for reading research papers

2 Regulations compliance examinations for type approval, etc. (① of mid-term plan)

▶ Regulations compliance examinations for type approval carried before vehicles are introduced to the market, etc.



3 Standards compliance examinations for the usage stage (① and ⑤ of mid-term plan)

\* For details, see the following two-page spread

▶ Inspection at the inspection stations



▶ Road side inspection



▶ Research of OBD\* inspection methods



※OBD:On-board diagnostics

4 Vehicle registration confirmation check (② of mid-term plan)

▶ Pre confirmation check application documents, etc.



5 Technical verification for automobile recalls (③ and ⑥ of mid-term plan)

▶ Verification tests at research facilities



▶ Application of related information of foreign countries



\*In addition, NALTEC makes efforts to ensure international cooperation.(⑦ and ⑧ of mid-term plan)

# Regulations compliance examinations for the usage process

## Inspection Station

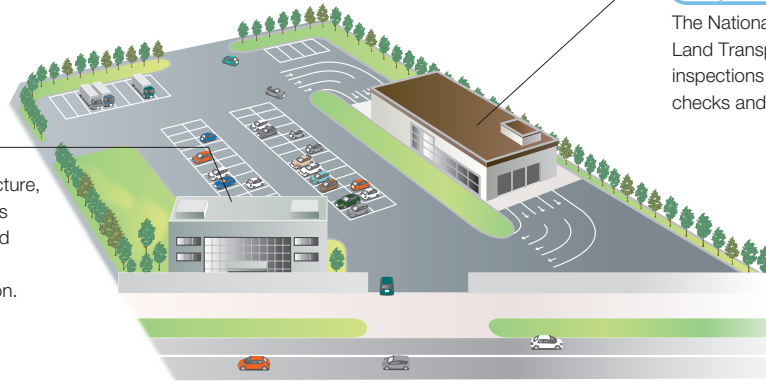
Inspectors efficiently check individual vehicles in the inspection lane using cutting-edge equipment.

### Office Building

The Ministry of Land, Infrastructure, Transport and Tourism accepts applications for inspections and issues an inspection certificate for vehicles that pass inspection.

### Inspection Lanes

The National Agency for Automobile and Land Transport Technology conducts inspections using lanes for compliance checks and for measurement.

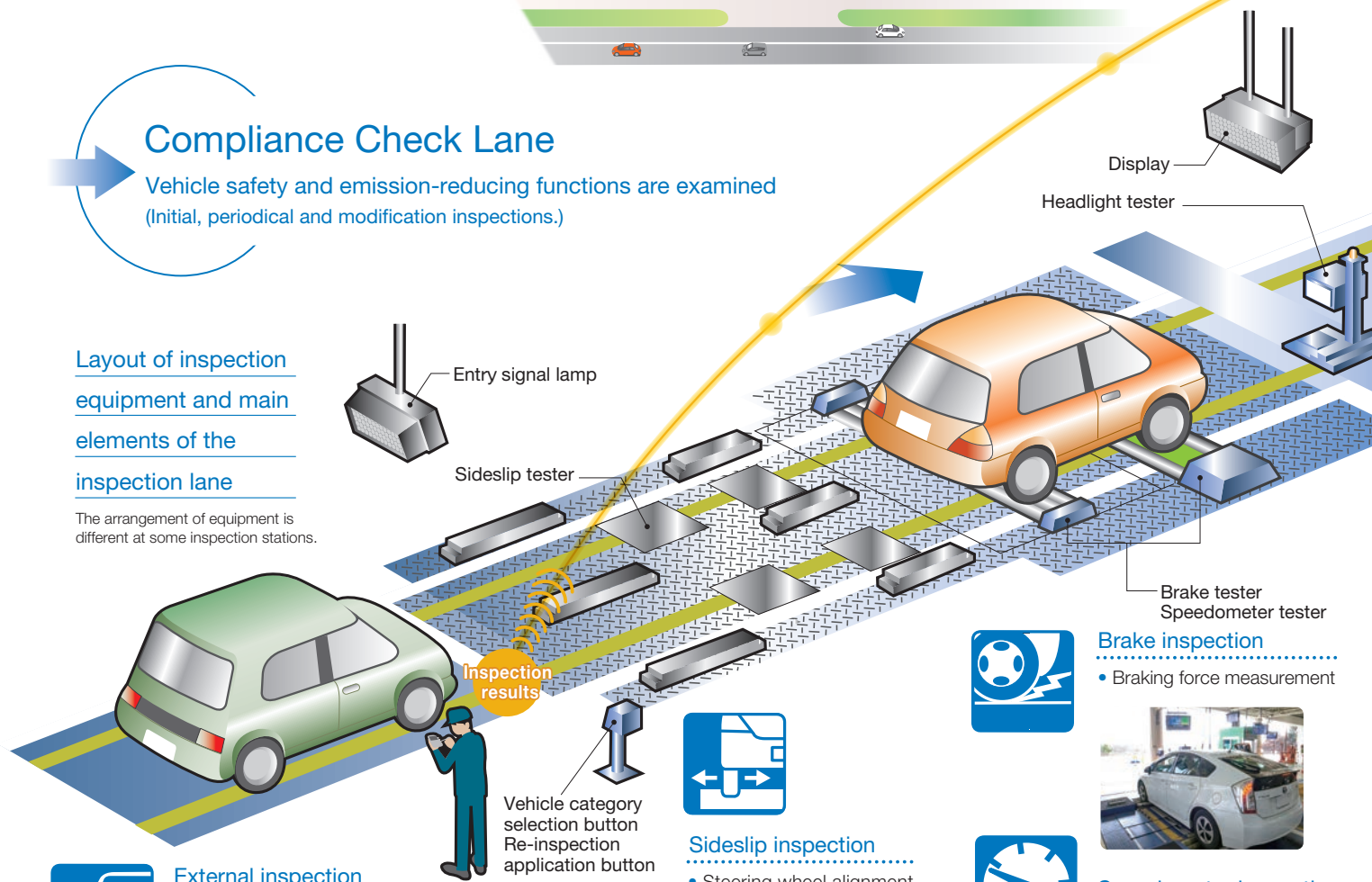


## Compliance Check Lane

Vehicle safety and emission-reducing functions are examined (Initial, periodical and modification inspections.)

### Layout of inspection equipment and main elements of the inspection lane

The arrangement of equipment is different at some inspection stations.



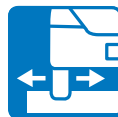
### External inspection

- Body and frame
- Running system
- Lamps
- Steering devices
- Safety-related devices
- Seat and seat belt
- Engine
- Electric devices



### Confirmation of identity

- Chassis number
- Number plate
- Use
- Vehicle shape
- Engine type
- Vehicle category



### Sideslip inspection

- Steering wheel alignment



### Brake inspection

- Braking force measurement



### Speedometer inspection

- Speedometer error



## Various inspections



### Inspection of two-wheeled motor vehicles

Examinations are conducted using automatic testing equipment.

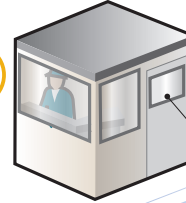




### Overall Judgment

- Examination of inspection results and Judgment

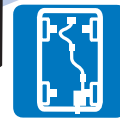
Integration system



Overall Judgment and control room

Inspection results

Display



### Underbody inspection (Pit type)

- Steering system
- Suspension system
- Brake system
- Engine
- Power train system
- Body and frame
- Exhaust emission control system
- Fuel system
- Electric system
- Running system



Inspection results

Display

Exhaust emission tester



### Exhaust emission inspection

- Carbon monoxide
- Hydrocarbons

### Headlight inspection

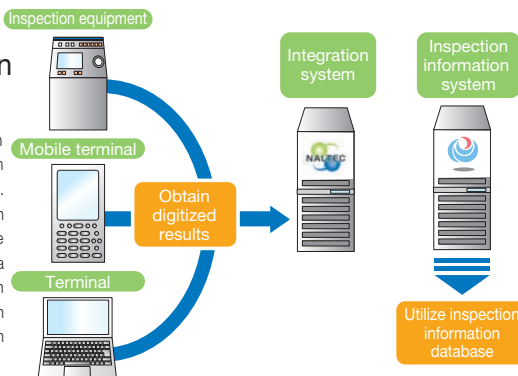
- Luminous intensity
- Photometric axis



### New efforts using IT 1

#### Digitization of inspection results

The results from the inspection equipment and the information from inspector's mobile terminal are digitized. It will be also used to spot defects with vehicles that would otherwise cause recalls, and so on. In addition, there is a plan to provide owners with inspection result data at the time of their inspection so that they can use such information for car maintenance and management.



### New efforts using IT 3



#### Research of OBD inspection methods

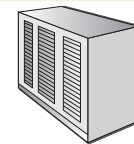
We are developing inspection methods utilizing OBD information in order to implement OBD inspection.



Manage vehicle information by NALTEC

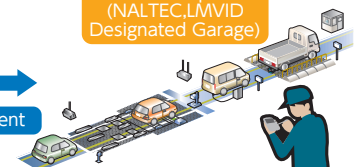


Utilize for inspection (NALTEC, LMVID Designated Garage)

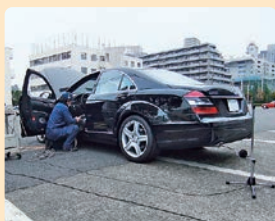


R-DTC

judgment

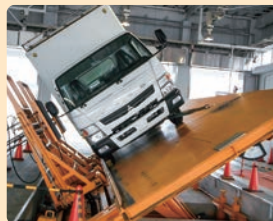


Diagnostic Device



#### Proximity exhaust noise inspection

Exhaust noise made through mufflers are measured.



#### Inspection of stable inclination angle

Stability of motor vehicles is examined.

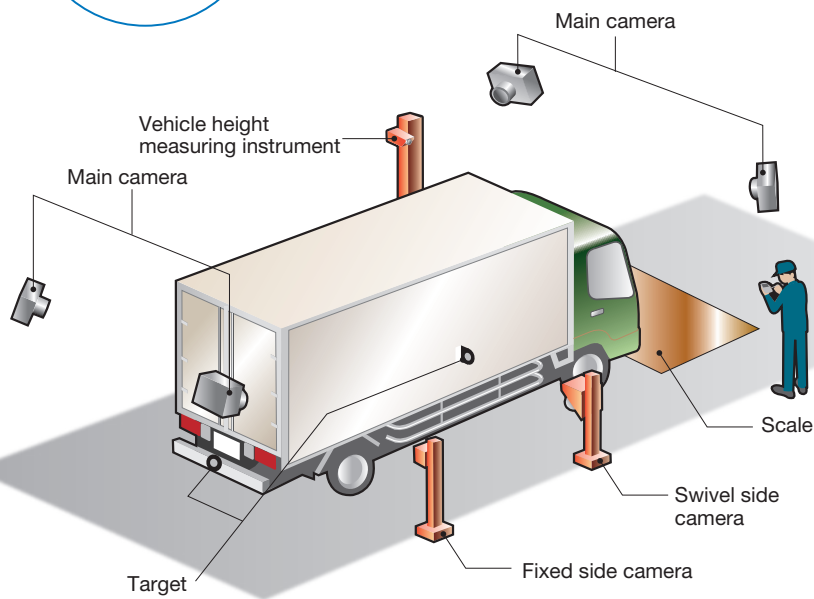


#### Diesel smoke inspection

Opacity meters, etc. are used to examine black smoke.

## Measurement Lane

Vehicle size and weight are measured and vehicle images are obtained primarily (initial and modification inspections.)

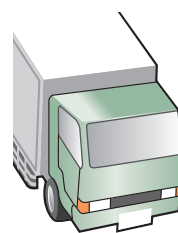


## New efforts using IT 2



### Introduction of 3D measurement and image acquisition equipment

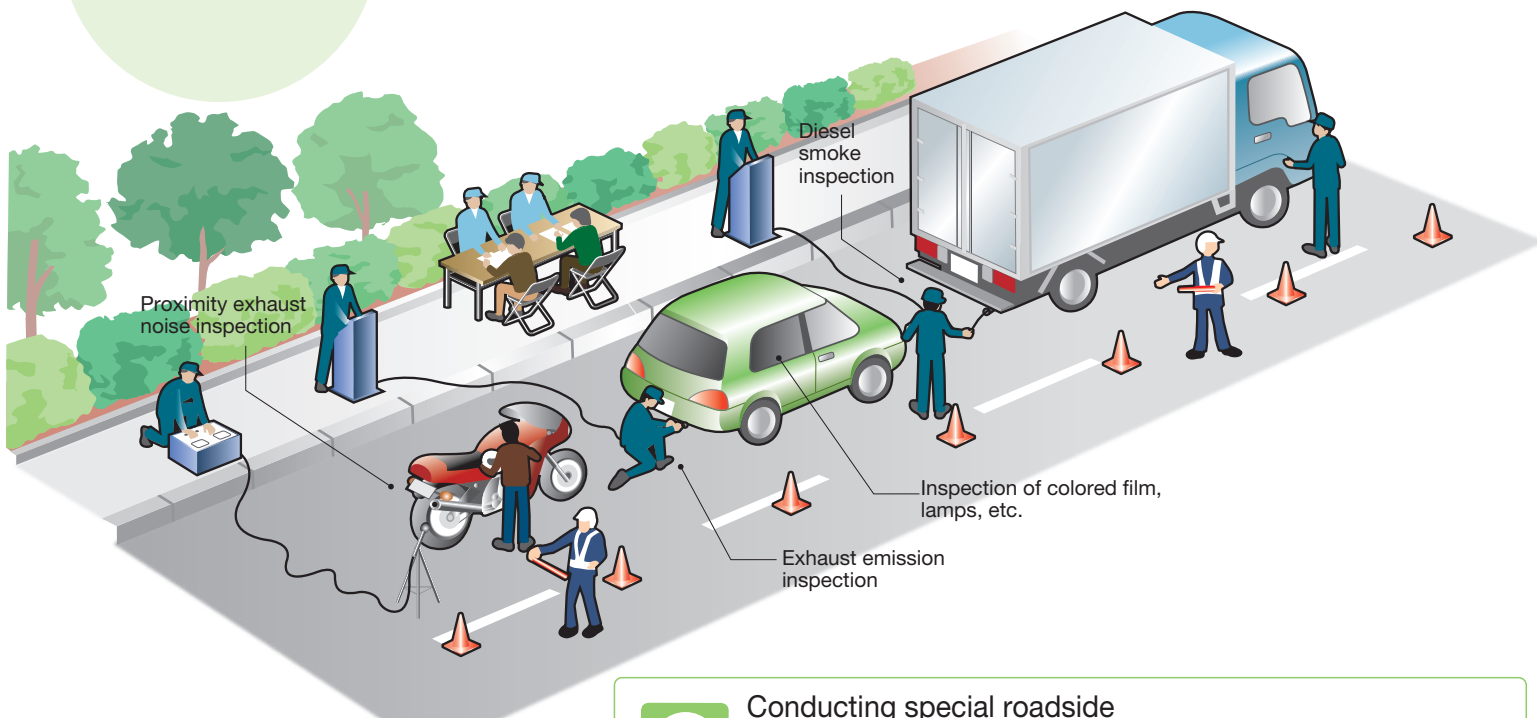
The use of 3D measurement and image acquisition equipment in initial inspection, etc. was introduced in 2008. This equipment takes highly accurate measurements of the specifications of motor vehicles and acquires images of the vehicles, which are then electronically recorded and saved. The image data acquired can then be used in periodical technical inspection or roadside inspection with the aim of preventing unauthorized secondary modifications, etc. after the initial or modification inspection.



## Roadside Inspection

Inspectors conduct inspections along roadsides.

Officers of the Ministry of Land, Infrastructure, Transport and Tourism issue maintenance orders for vehicles with unauthorized modifications and poorly maintained vehicles.



### Conducting special roadside inspection in areas where many motor vehicles with unauthorized modifications are predicted to be driven.

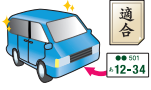



In order to eliminate vehicles with unauthorized modifications, special roadside examinations are conducted in areas where many such vehicles are predicted to be found, such as near the venues of custom motor vehicle shows, or on New Year's Day, when drivers or bikers gather and drive recklessly for the first sunrise of the year.



## About vehicle inspections

In order to secure automobile safety and preserve the environment, the function of vehicle inspections is to ensure that individual vehicles comply with the regulations set by the Ministry of Land, Infrastructure, Transport and Tourism. Vehicle inspections also play a role in confirming that users are properly maintaining their vehicles.

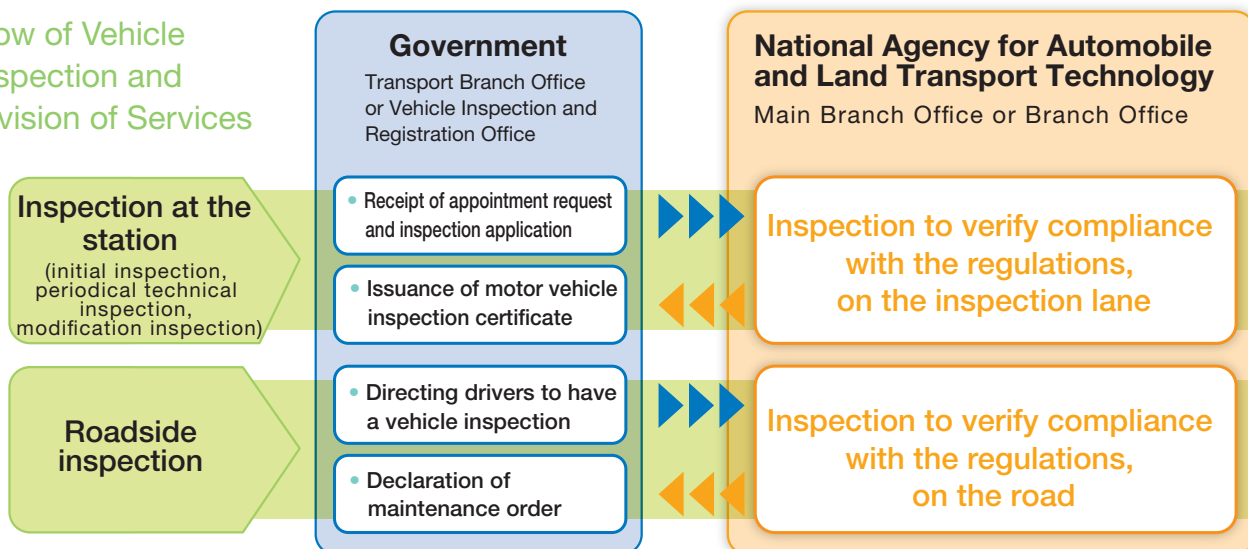
## Category of Vehicle Inspections

Inspection Category	Content	Applicable Inspection Lanes
 <b>Initial Inspection</b>	Inspection required when first operating a vehicle. (Article 59 of the Road Vehicles Act) (In addition to inspecting conformity to the regulations, the size and weight of vehicles are also measured.)	<ul style="list-style-type: none"> <li>Compliance Check Lane</li> <li>Measurement Lane</li> </ul>
 <b>Periodical technical Inspection</b>	Inspection required when renewing vehicle inspection certificate. (Article 62 of the above)	<ul style="list-style-type: none"> <li>Compliance Check Lane</li> </ul>
 <b>Modification Inspection</b>	Inspection required when modifications to a vehicle have been made in length, width, height, maximum loading capacity, or for other changes to its structure. (Article 67 of the above) (In addition to inspecting conformity to the regulations, the size and weight of vehicles are also measured.)	<ul style="list-style-type: none"> <li>Compliance Check Lane</li> <li>Measurement Lane</li> </ul>
 <b>Roadside Inspection</b>	Inspection carried out on roads and other places to remove vehicles with unauthorized modifications and poorly maintained vehicles. (Article 100 of the above)	_____

## The role of the National Agency for Automobile and Land Transport Technology in vehicle inspections

The specific role of the National Agency for Automobile and Land Transport Technology is to verify whether vehicles comply with the regulations in vehicle inspection.

### Flow of Vehicle Inspection and Division of Services



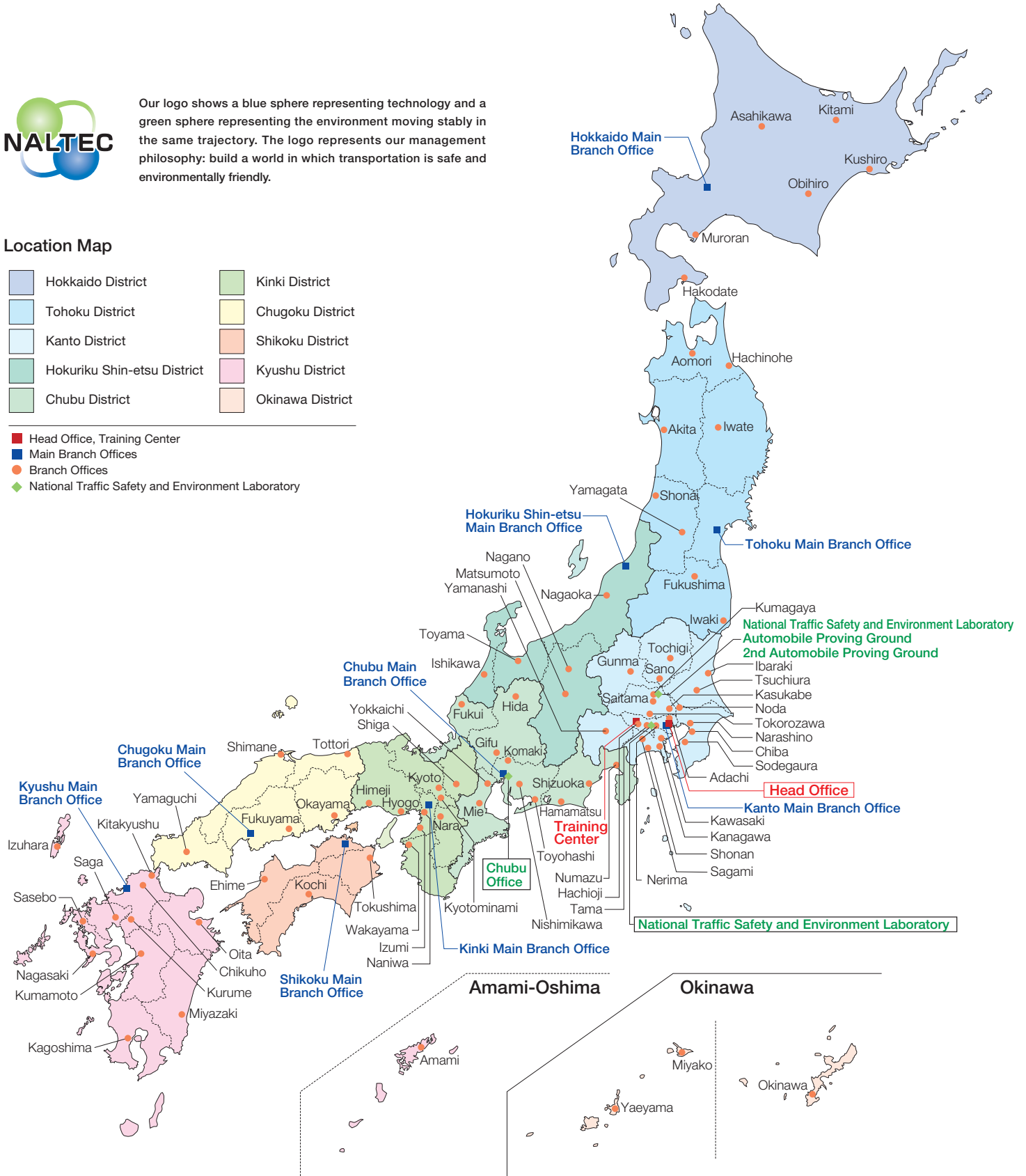


Our logo shows a blue sphere representing technology and a green sphere representing the environment moving stably in the same trajectory. The logo represents our management philosophy: build a world in which transportation is safe and environmentally friendly.

### Location Map

- |  |                             |  |                  |
|--|-----------------------------|--|------------------|
|  | Hokkaido District           |  | Kinki District   |
|  | Tohoku District             |  | Chugoku District |
|  | Kanto District              |  | Shikoku District |
|  | Hokuriku Shin-etsu District |  | Kyushu District  |
|  | Chubu District              |  | Okinawa District |

- Head Office, Training Center
- Main Branch Offices
- Branch Offices
- National Traffic Safety and Environment Laboratory



## National Agency for Automobile and Land Transport Technology

### Head Office

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