# FY2022 Status of Traffic Accidents and

# Current State of Traffic Safety Measures

# FY2023

Plans Regarding the Traffic Safety Measures

(White Paper on Traffic Safety in Japan 2023)

(Outline)

June, 2023 Cabinet Office Pursuant to the provisions of Article 13 of the Basic Act on Traffic Safety Measures (Act No. 110 of 1970), this White Paper on Traffic Safety reports on the FY2021 status of traffic accidents and current state of Traffic Safety Measures, and FY2022 Plans Regarding the Traffic Safety Measures that should be implemented.

# **About the White Paper on Traffic Safety**

# This White Paper on Traffic Safety is an annual report to be submitted to the Diet pursuant to the Basic Act on Traffic Safety Measures. This year's White Paper is the 53rd edition.

Basic Act on Traffic Safety Measures

Article 13: The government must submit a report on the status of traffic accidents, plans pertaining to the policies relating to traffic safety, and the outline of the measures taken in relation to traffic safety to the Diet every year.

### White Paper on Traffic Safety

### **Special Feature**

### **Promotion of Safe Bicycle Riding**

Chapter 1. Current Status of and Background to Traffic Safety for Bicycles

- 1. Current status of bicycle-related traffic accidents
- 2. Partial amendment of Road Traffic Act, etc. (2007-)
- 3. Decision by the Traffic Safety Measures Headquarters

<u>Chapter 2. Promotion of Safe Bicycle Riding (the Five Rules for Safe</u> <u>Bicycle Riding)</u>

- 1. [Rule 1] In principle use roadways and ride on the left; only in exceptional cases may sidewalks be used, and give pedestrians right-of-way there
- 2. [Rule 2] At intersections, obey traffic signals, be sure to come to a stop, and check safety
- 3. [Rule 3] Use your front light at night
- 4. [Rule 4] Do not ride under the influence of alcohol

5. [Rule 5] Wear a bicycle helmet

- 6. Bicycle-related traffic safety measures
- Chapter 3. Initiatives for Bicycle Utilization Promotion
  - 1. Bicycle utilization promotion plan
  - 2. Promotion of participation in bicycle liability insurance, etc.
  - 3. Promotion of cycle tourism
  - 4. Promotion of bicycle commuting, etc.
  - 5. Commendation for achievement in promoting
  - 6. Promotion of shared bicycles
  - 7. Safe riding of bicycles carrying infants

## FY2022 Status of Traffic Accidents and Current State of Traffic Safety Measures

### Title 1 Land Transport Part 1 Road Transport

Chapter 1 Road Traffic Accident Trends

Chapter 2 Overview of Current Road Traffic Safety Measures

- 1. Improvement of road traffic environment
- 2. Dissemination and reinforcement of traffic safety
- 3. Ensuring safe driving
- 4. Ensuring vehicle safety measures
- 5. Maintaining order in road traffic
- 6. Development of rescue and emergency medical systems
- 7. Improving and promoting victim support
- 8. Improving R&D and studies and research

#### Part 2 Railway Transport

Chapter 1 Railway Traffic Accident Trends

- Chapter 2 Overview of Current Railway Traffic Safety Measures 1. Improvement of railway environment
  - 2. Dissemination of knowledge about the safety of rail traffic
  - 3. Ensuring the safe operation of railways
  - 4. Securing the safety of rolling stock
  - 5. Measures for traffic safety in railroad crossings
  - 6. Development of rescue and emergency medical systems
  - 7. Promoting victim support
  - 8. Investigating the causes of railway accidents and preventing accidents
  - 9. Improving R&D and studies and research

### **Title 2 Maritime Transport**

Chapter 1 Maritime Accident Trends Chapter 2 Overview of Current Maritime Traffic Safety Measures

- 1. Improvement of maritime traffic environment
- 2. Dissemination of knowledge regarding maritime transport safety
- 3. Ensuring safe operation of boats and ships
- 4. Securing the safety of maritime vessels
- 5. Enhancing safety measures for small boats
- 6. Maintaining law and order regarding maritime traffic
- 7. Improving rescue and first-aid activities
- 8. Promoting victim support
- 9. Investigating the causes of maritime vessel accidents and preventing accidents
- 10. Improving studies and research into maritime traffic safety **Title 3 Air Transport**

### Chapter 1 Aircraft Accident Trends

Chapter 2 Overview of Current Air Traffic Safety Measures

- 1. Further promotion of State Safety Programme
- 2. Ensuring safe operation of aircraft
- 3. Ensuring aircraft safety
- 4. Development of air traffic environment
- 5. Safety measures for unmanned aircraft systems, etc.
- 6. Development of rescue and emergency medical systems
- 7. Promoting victim support
- 8. Investigating the causes of aircraft accidents and preventing accidents
- 9. Promoting R&D regarding air traffic safety

OMeasures in response to the Shiretoko sightseeing boat accident, etc.

### FY2023 Plans Regarding the Traffic Safety Measures

### Part 1 Measures Regarding the Safety of Land Transport

Chapter 1 Measures Regarding Road Transport Safety Chapter 2 Measures Regarding Railway Transport Safety Part 2 Measures Regarding Maritime Transport Safety Part 3 Measures Regarding Air Transport Safety

### **Topics**

OStatus of Zone 30 Plus initiatives

# **Special Feature: Promotion of Safe Bicycle Riding**

-Purpose of Creating a Special feature on promotion of safe bicycle riding-

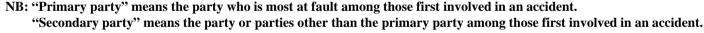
- \* Following the Act Partially Amending the Road Traffic Act (Act No. 32 of 2022), cyclists of all ages were forced to make an effort to wear bicycle helmets from April 1, 2023.
- \* In conjunction with this, the "five rules for safe bicycle riding" hitherto used to publicize and educate bicycle traffic rules have been amended and the policy "Promotion of safe bicycle riding" has been recently decided upon.
- \* In this special feature, we cite each of the new "five rules for safe bicycle riding", clarify the state of bicycle traffic accidents and introduce the measures being implemented by the government as well as various relevant organizations and groups, in order to help promote safe bicycle riding.

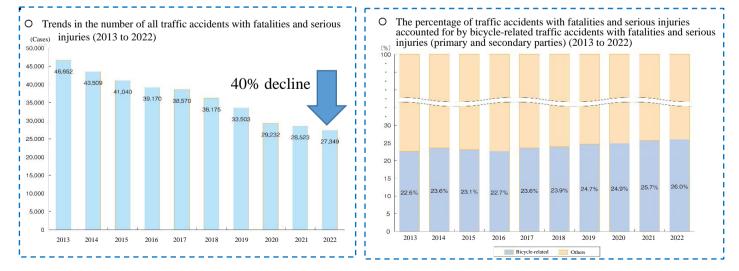
### Chapter 1. Current Status of Traffic Safety for Bicycles

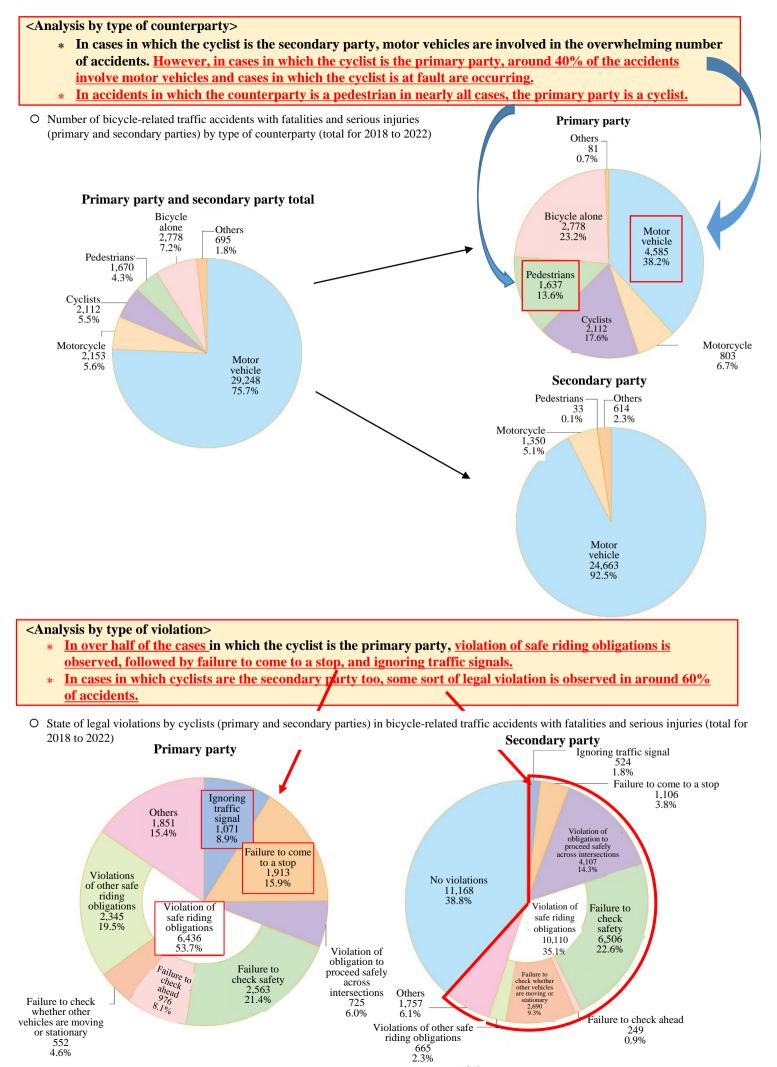
<Trends in the number of bicycle-related traffic accidents with fatalities and serious injuries>

- \* While the number of all traffic accidents with fatalities and serious injuries has declined by around 40% over the past ten years, the number of bicycle-related traffic accidents with fatalities and serious injuries has declined by around 30%.
- \* The percentage of traffic accidents with fatalities and serious injuries accounted for by bicycle-related traffic accidents with fatalities and serious injuries has been flat to a slight increase.
- O Trends in the number of bicycle-related traffic accidents with fatalities and serious injuries (primary party and secondary party) (2013 to 2022) (Cases)





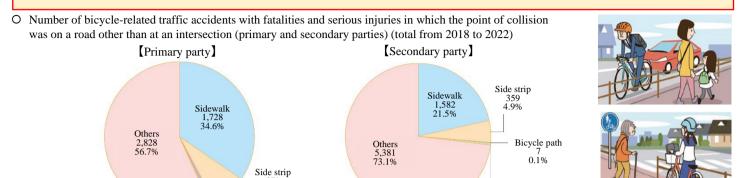




### Chapter 2. Promotion of Safe Bicycle Riding (the Five Rules for Safe Bicycle Riding )

# (1) [Rule 1] In principle roadways and ride on the left; only in exceptional cases may sidewalks be used, and give pedestrians right-of-way there.

\* Among accidents occurred on a road other than at an intersection, the sidewalk is the place of collision among around 30% of the primary party and around 20% of secondary parties. <u>It is observed that cyclists are causing accidents on sidewalks.</u>



Bicycle lane

33 0.4%

R

### (2) [Rule 2] At intersections, obey traffic signals, be sure to come to a stop, and check safety

By point of collision, intersections account for around 50% of primary party accidents and around 70% of secondary party accidents.
The state of legal violations at intersections shows that the most common among the intersections for a secondary party accidents.

379

7.6%

Bicycle path

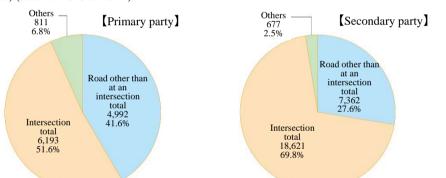
0.9%

Bicycle lane

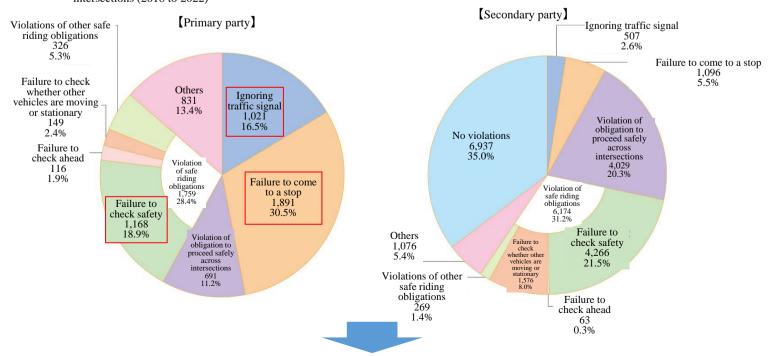
14 0.3%

Ο

- primary party is failure to come to a stop, followed by failure to check safety and ignoring traffic signals.
- O Number of bicycle-related traffic accidents with fatalities and serious injuries by point of collision (primary and secondary parties) (total for 2018 to 2022)

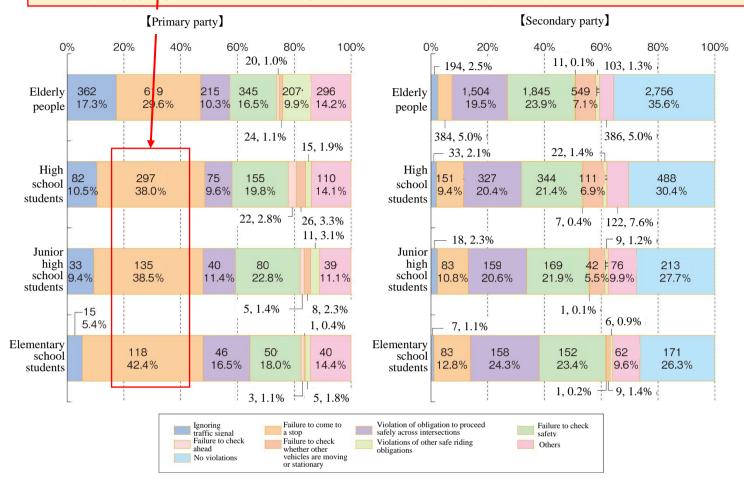


State of legal violations by cyclists (primary and secondary parties) in bicycle-related traffic accidents with fatalities and serious injuries at intersections (2018 to 2022)



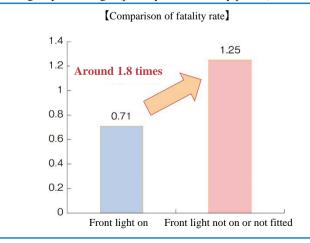


- The state of legal violations by age group shows that <u>the proportion of failure to come to a stop in the case of first party</u> <u>accidents is around 40% for elementary, junior high and high school students, which is higher than for all age groups.</u>
   In contrast, the proportion of ignoring traffic signals is lower among primary, junior high and high school students than
- among all age groups, with less than 10% of primary school students ignoring traffic signals.

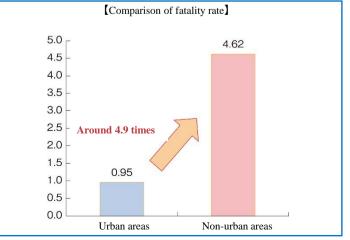


## (3) [Rule 3] Use your front light at night

- \* With regard to whether or not bicycle lights are used at night, the fatality rate is 80% higher in cases in which the front light is not on or not fitted compared to when the light is on.
- \* Furthermore, with regard to accidents in which the front light is not on or not fitted, when accidents are divided into "urban areas" and "non-urban areas" the fatality rate is around 4.9 times that of urban areas.
- O Comparison of the number of fatalities and injuries with the fatality rate (2018 to 2022) according to whether lights are used or not while riding bicycles at night (primary and secondary parties)



O Comparison of the number of fatalities and injuries (primary and secondary parties) by topography with the fatality rate (2018 to 2022) according to whether lights are used or fitted while riding bicycles.



NB Fatality rate: the percentage of deaths among fatalities and injuries

Urban Area: an area, urban in character, in which at least 80% of the land is occupied by buildings and the immediate surroundings of buildings, and in which a road is bordered by at least 500 meters of continuous or mixture of residences, businesses or factories.

## (4) [Rule 4] Do not ride under the influence of alcohol

- Although the number of traffic accidents caused by drunk-driving of motor vehicles, motor bicycles, and moped 1st class or larger is declining, the number of accidents caused by drunk cyclists has been slowly increasing since 2016 Although the number of accidents leading to fatalities or serious injuries accounts for around 10% of general bicycle
- accidents, the number is around 25% in cases of accidents due to drunk-riding and the probability of leading to fatal or critical accidents is also high.

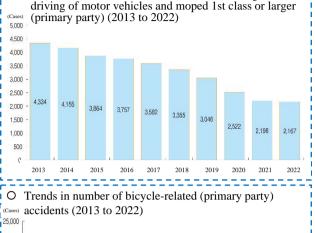
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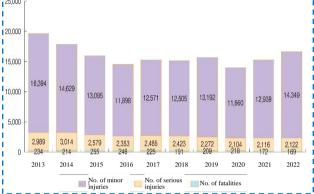
involving drunk-riding (2013 to 2022)

(Cases)

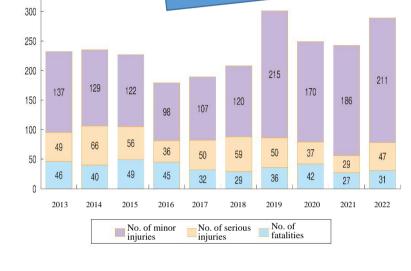
350



Trends in number of traffic accidents involving drunk-



# O Trends in number of bicycle-related (primary party) accidents

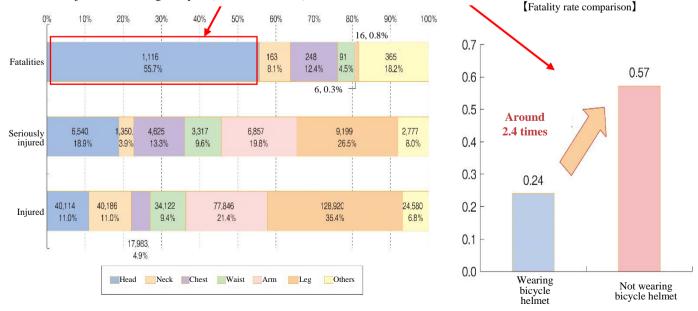


# (5) [Rule 5] Wear a bicycle helmet

- Head injury cases account for over half the fatalities while riding a bicycle.
- Looked at by accidents in which a bicycle helmet is worn or not , the percentage of head injuries when not worn is higher.
- Looked at in terms of the fatality rate too, the number is around 2.4 times higher when a bicycle helmet is not worn.



- Main bodily injury areas among those killed, seriously injured and 0 injured while riding a bicycle (total 2018 to 2022)
- O Fatality rate among those wearing and not wearing bicycle helmets (total 2013 to 2022)



### **O** Road spaces for bicycles

Example: Case of developments to improve the quality of road spaces for bicycles (Shizuoka City, Shizuoka Prefecture)



(Traffic lanes exclusive for standard bicycles (in conjunction with securing effective road width, level and compact gutters were developed and riding spaces improved))

Example: Bicycle traffic safety class

using scared straight education method

### ○ Safety education

Example: Implementation of awareness-raising activities at bicycle traffic safety education events (Gifu Prefecture, Gifu Police, Gifu Daiichi High School)

(Tottori Prefecture)

(Traffic safety lecture)

(Traffic safety education using a bicycle simulator)

○ Inspection and maintenance

Example: Initiatives in cooperation with bicycle shops (Okinawa Prefecture)



(Implementation of inspection at bicycle store)

### **O** Guidance and enforcement

Example: Public guidance and enforcement regarding traffic violations by cyclists (Metropolitan Police Department)



#### **O** Bicycle helmet

Example: Designation of model schools where students wear bicycle helmets (Saitama Prefecture)



Example: Bicycle helmet purchase subsidy system for businesses renting out bicycles to tourists (Tottori Prefecture)



(Bicycle helmets rented out)



(Guidance on wearing bicycle helmets)

## Chapter 3. Initiatives for Bicycle Utilization Promotion

#### O Bicycle Utilization Promotion Plan

The Bicycle Use Promotion Act (Act No. 113 of 2016) was established in December 2016, and the Bicycle Utilization Promotion Plan was stipulated according to Article 9 of the Act. Currently, the government is systematically promoting the utilization of bicycles according to **the Second Bicycle Utilization Promotion Plan passed by the Cabinet in May 2021**.

### **O** Promotion of cycle tourism

In November 2018, the first group of National Cycle Routes were designated, namely the Tsukuba-Kasumigaura ring-ring road, Biwaichi and SHIMANAMI KAIDO Cycling Road. The second group of routes were designated in May 2021, Tokapuchi400, Toyama Bay Cycling Route and the Pacific Cycling Road.

#### • Promotion of bicycle commuting, etc.

The Public-Private Partnership Council for Bicycle Utilization Promotion drew up the "Guide to Promoting Bicycle Commuting" in order to expand the utilization in business activities of bicycle commuting and work.

#### O Benefits of introducing bicycle commuting system

- For employers (1) Reduced expenses
- (2) Improved productivity
- (3) Improved corporate image
- For employees
- Reduction of commuting time
   Improved physical health
- (3) Improved mental health
- O Points to be remembered while considering introduction
- Design a system that acknowledges the fact that commuting routes and modes of transportation may vary from one day to another
   Clarify accident liability and recognition as a work accident regarding (1) above
- and approaches to the risks occurring (3) Design a commuting allowance taking (1) into consideration
- (3) Design a commuting allowance taking (1) into consideration(4) Develop requisite facilities for (1) (bicycle lots etc.)

### **O** Promotion of shared bicycles

In an effort to attempt to popularize and encourage shared bicycles, following the 2021 tax reform, special measures on fixed assets tax related to the development of shared bicycle stations were created for the shared bicycle projects detailed in the Municipal Bicycle Utilization Promotion Plan. Following the amendment of Local Tax Act in 2023, the period of special measures was extended until the end of FY2024.



Shared bicycle stations (Left: Kitakyushu City, right: Shizuoka City)

# • Promotion of participation in bicycle liability insurance, etc.

As of April 2023, ordinances are enacted in 32 prefectures that make it compulsory to take out bicycle liability insurance etc. (Okayama City made this obligatory prior to Okayama Prefecture).

In addition, the government is creating and distributing standard regulations (technical advice) to local governments and supporting them in the establishment of ordinances.

### **National Cycle Routes**



# • Commendation for achievement in promoting bicycle utilization

Commendations have been made each year since 2018, and are awarded in May, which is "bicycle month." In 2022, the commendations were awarded to two individuals and six bodies.

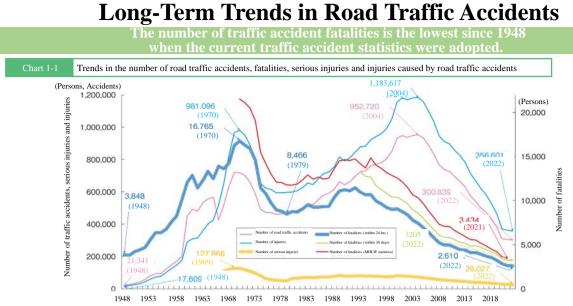


### O Safe riding of bicycles carrying infants

The Consumer Safety Investigation Commission announced its survey report "Accidents Involving Infants Carried on Power -assisted Bicycles." In addition, based on the content of the report, the Commission has compiled the points to be aware of in order to prevent bicycles with infants aboard toppling over, and encourage their safe utilization.



# Title 1, Part 1, Chapter 1: Road Traffic Accident Trends



#### Note

1. Source: National Police Agency

2. "Number of fatalities (within 24 hrs)" means the number of persons who died due to a traffic accident within 24 hours after its occurrence.

3. "Number of fatalities (within 30 days)" means the number of persons who died due to a traffic accident within 30 days after its occurrence (counting the day of the traffic accident as the first day).

4. "Number of fatalities (MHLW statistics)" is prepared by the National Police Agency based on "Vital Statistics" by the Ministry of Health, Labour and Welfare and is the number of fatalities whose cause of death is traffic accident among the fatalities in the year (which excludes anyone who died later than a year after the accidents or due to an after-effect). Data for 1994 and all preceding years indicate the number of automobile fatalities, and data for 1995 and all following years indicate the number of traffic fatalities except those not to be considered due to traffic accidents on roads.

5. "Number of serious injuries" means the number of persons who have suffered injuries in traffic accidents and need medical treatment for one month (30 days) or more.

6. Data on number of road traffic accidents for 1966 and all following years do not include property damage-only accidents.

7. Data on number of fatalities (within 24hrs), injuries and road traffic accidents for 1971 and all preceding years do not cover Okinawa Prefecture

### Trends in the number of fatalities, accidents, serious injuries and injuries in traffic accidents

• The worst traffic accident fatality record was registered in 1970 with 16,765 people.

- The number of traffic accident fatalities fell to 8,466 people in 1979 and started to increase again. Since 1992, however, the number started to decline again.
- The number of both traffic accidents and injuries registered the worst record of 952,720 and 1,183,617 people, respectively in 2004.
- The number of traffic accident fatalities in 2022 (2,610 people within 24 hours) was even lower to the previous year in which had the fell to their lowest level since 1948, when the current traffic accident statistics were adopted. The number of serious injuries in 2022 was 26,027, and this number has continuously decreased since 2000. Both the number of traffic accidents and the number of injuries has decreased for 18 years in a row.

# Status of Road Traffic Accidents during 2022

# **Overall Condition**

300,839 accidents (-4,357, -1.4% over the previous year)
359,211 people (-5,556, -1.5% over the previous year)
356,601 people (-5,530, -1.5% over the previous year)
26,027 people (-1,177, -4.3% over the previous year)
2,610 people (-26, -1.0% over the previous year)
3,216 people (+11, +0.3% over the previous year)

Targets in the 11th Traffic Safety Basic Plan (covering FY2021 to FY2025)

• Reduce the number of fatalities within 24 hours to 2,000 people or less per year by 2025.

• Reduce the number of serious injuries to 22,000 people or less per year by 2025.

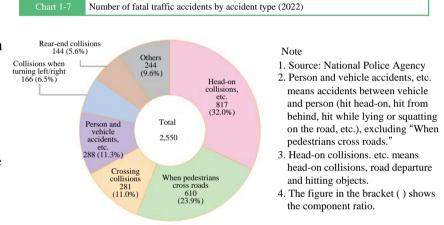
\*The Basic Act on Traffic Safety Measures was established in 1970 and the Traffic Safety Basic Plan was formulated every five years based on the Act since 1971.

### FY2022 Status of Traffic Accidents and Current State of Traffic Safety Measures Title 1 Land Transport, Part 1 Road Transport

#### Number of traffic accident fatalities of elderly people Trends in traffic accident fatalities of elderly people and others Although the number of traffic accident fatalities of elderly people aged 65 or (Persons) 3,000 over (hereinafter referred to as "elderly people") per 100,000 population has 2,309 2.279 2 247 2 1 93 continued to decrease, the number of 2.138 2 0 2 0 1.966 elderly people among people killed in 2,000 2.079 Number of fatalities 782 1.920 traffic accidents was 1,471 people, 1.870 1.520 1.766 1.471 1.674 which is still high at 56.4%. 1.566 1.43 1.243 1,000 1.139 1.116 Elderly people Other than elderly people 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2012 Note Source: National Police Agency

## Number of fatal traffic accidents by type of accident

Looked by type of fatal traffic accident in 2022 the most common type of accidents was "Head-on collisions, etc."\* (817, with the component ratio of 32.0%), followed by "When pedestrians cross roads" (610, with the component ratio of 23.9%), "Crossing collisions" (281, with the component ratio of 11.0%), excluding "Person and vehicle accidents, etc." These three types accounted for about 70% of fatal accidents.

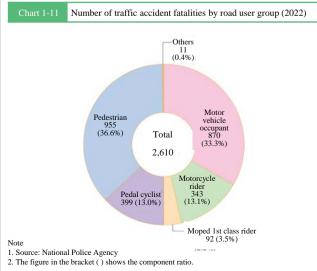


\* Head-on collisions. etc.

Includes accidents of a similar cause such as leaving the road and driving into objects.

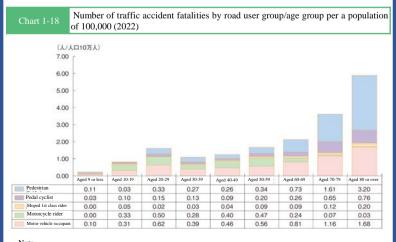
# Number of traffic accident fatalities by road user group

The number of traffic accident fatalities is the highest for pedestrians (955 people with the component ratio of 36.6%) followed by motor vehicle occupants (870 people with the component ratio of 33.3%) and the sum of both accounts for about 70.0% of the total.



### Number of traffic accident fatalities by age group and by road user group

The number of pedestrians killed (per 100,000 population) is high amongst elderly people, and, in particular, that of elderly people aged 80 or over (3.20 people) is about 4.2 times higher than that of all age groups (0.76 people).



1. Source: National Police Agency

 The population used for the calculation is based on statistical data "Population Estimate" (as of October 1, 2021) by the Ministry of Internal Affairs and Communications.

# Title 1, Part 1, Chapter 2: Overview of Current Road Traffic Safety Measures

# **Improvement of road traffic environment**

# **ODevelopment in pedestrian-first walking spaces offering safety and security on community roads**

Zone 30 Plus areas were designated for areas on community roads where traffic safety is to be improved through the appropriate combining of local speed restrictions of 30km/h, speed humps, curb extensions, and other traffic calming devices (122 areas were designated as of the end of FY2022). In doing so, we are seeking to ensure that the streets are safe for all to walk through. In addition, low speed restrictions were introduced including in the already developed Zone 30 areas (of which there were 4,288 zones as of the end of FY2022). In the Zone 30 (4,031 areas) which had been developed by the end of FY2020, the number of traffic accidents with fatalities and serious injuries between the year before the development and the year after development was compared and it was found that the total number of traffic accidents with fatalities and serious injuries and the number of accidents involving pedestrians and bicycles decreased (by 29.5% and by 27.8%, respectively), by which it was confirmed that these measures were effective in preventing traffic accidents and reducing through-traffic speed of vehicles within the Zone.





# Dissemination and reinforcement of traffic safety

### **OPromotion of stepwise and systematic traffic safety education**

We conducted stepwise and systematic traffic safety education to people of all ages from infants to adults in accordance with their mental and physical development and life stages based on the Traffic Safety Education Guidelines (Public Notice of National Public Safety Commission No. 15 of 1998). In particular, we not only enhanced the traffic safety awareness of the elderly (aged 65 or over) but also strengthened education for other generations to protect and consider the elderly through understanding their characteristics in this rapidly aging society. In addition, considering the fact that elementary, junior high and high school students are members of the traffic society and a significant number of them frequently use bicycles, we made efforts to enhance education on the basic road traffic rules for bicycle users, traffic safety awareness and traffic manners.

# **Ensuring safe driving**

### **OPromotion of measures for elderly drivers**

A total of 3,592,795 elderly people attended the courses (including temporary training courses for the elderly and courses (accredited education) to produce the same effect as the training courses for the elderly) in 2022. In addition, the number of people who took the cognitive assessment in 2022 was 2, 510, 882 (including temporary cognitive assessments and certified assessments to produce the same effects as the cognitive assessment); the number of people who took the driving skill test was 77,083 (including certified tests to produce the same effects as the driving skill test), of which 69,041 people passed the test. The number of elderly drivers is expected to increase in the future. Therefore,

in order for the smooth implementation of elderly driver training, etc. we will continue to promote effective initiatives to ensure the requisite implementation system, such as expanding the attendance and testing framework of the elderly driver training through direct implementation by the prefectural police and securing new training institutions.

# **Ensuring vehicle safety measures**

### **OPromotion of the development and diffusion of advanced safety vehicles (ASV)**

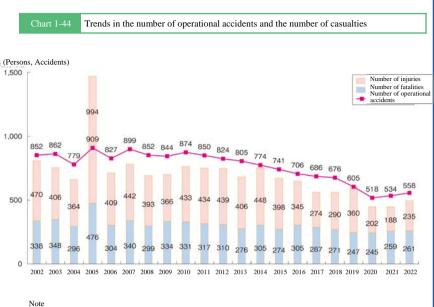
Under the Advanced Safety Vehicle (ASV) Promotion Project, over the five years from FY2021 to FY2025, the Phase 7 Study Group for the Promotion of ASV decided upon the basic theme of "further promotion of ASV towards the optimization of automatic driving." Through the analyses of the state of accidents, examination was made of what types of accidents would be reduced by the safety technologies such as 1) safety technologies in which the safety operations override clear operational errors resulting from driver's steering or cognitive mistakes; 2) safety technologies in which crossing collisions at intersections with poor visibility are prevented by vehicle-to-vehicle communication, and 3) safety technologies for communicating with vulnerable road users such as pedestrians that prevent them from becoming traffic accident victims. Furthermore, as safety measures for buses, trucks and so on, subsidies have been continued for ASV devices such as collision damage mitigation brakes that can detect pedestrians, lane departure warning systems and emergency driving stop systems. Simultaneously, special tax measures have been established in addition to those already implemented with regard to vehicles equipped with blind spot information systems.

### FY2022 Status of Traffic Accidents and Current State of Traffic Safety Measures Title 1 Land Transport, Part 2 Railway Transport

# Title 1, Part 2, Chapter 1: Railway Traffic Accident Trends

The number of operational railway accidents\* has been in a long-term decline. There were 852 accidents in 2002 and the number fell to 824 in 2012 and 558 in 2022. The number of fatalities in operational railway accidents was 261 people, of which no passengers were killed. Since the train derailment accident on the JR East Uetsu Main Line in 2005, there have been no passenger fatalities due to operational railway accidents. \* Operational railway accidents

Operational railway accidents Operational railway accidents include train collision accidents, train derailment accidents, train fire accidents, railway crossing accidents, road impediment accidents, railway accidents causing injury or death and railway accidents causing property damage. Incidentally, operational accidents regarding streetcars are treated as operational railway accidents.



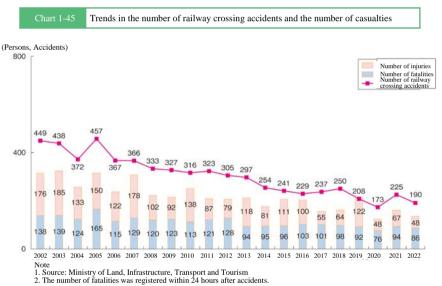
<sup>1.</sup> Source: Ministry of Land, Infrastructure, Transport and Tourism

2. The number of fatalities was registered within 24 hours after accidents

The number of railway crossing accidents\* has been in a long-term (P decline due to the development of safety facilities at railway crossings, etc. There were 449 accidents in 2002 and the number fell to 305 in 2012 and 190 in 2022.

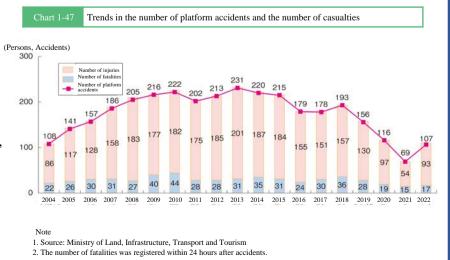
\* Railway crossing accidents

Railway crossing accidents include train collision accidents, train derailment accidents and train fire accidents that occur at a railway crossing and the accidents in which a train or rolling stock collide or come into contact with a person or automobile passing through a railway crossing.



The number of railway accidents causing injury or death in 2022 was 320, an increase of 20.3% compared to the previous year, while the number of fatalities was 175 people, an increase of 6.1% compared to the previous year. The number of railway accidents causing injury or death by falling from the platform, or by being brought into contact with a train (platform accidents) increased, but has been on a downward trend since 2018.

The number of platform accidents caused by intoxicated passengers was 47, accounting for approximately 44.0% of the total platform accidents.



# Title 1, Part 2, Chapter 2: Overview of Current Railway Traffic Safety Measures

## **Improvement of railway environment**

#### $\ensuremath{\bigcirc}$ Strengthening measures against torrential rain at railway facilities

Torrential rain measures have been promoted to deal with the torrential rain damage occurring in recent years with increased frequency and ferocity. These measures include preventing railway bridges over rivers from being washed away and defending against landslides from slopes near railway lines.

#### $\odot$ Promotion of measures to improve safety at station platforms

In order to improve the safety at station platforms, we are promoting both hardware and software measures to prevent people from falling from station platforms, such as the advancement of the platform door installation schedule and guidance by station staff. With regard to platform doors in line with the Basic Plan on Transportation Policy (approved by the Cabinet on May 28, 2021) and the Basic Policy on Promotion of Smooth Transportation, etc. (December 25, 2020), we are aiming to install platform doors on the 3,000 platforms of highest priority by FY2025, of which 800 platforms are in railway stations used by an average of 100,000 or more people per day. As of the end of FY2021, platform doors had been installed at 2,377 platforms across all railway stations, of which 406 are in railway stations used by an average of 100,000 or more people per day.

In addition, at stations without platform doors, the Interim Report on Safety Measures for Visually Impaired People on Railway Platforms Using New Technologies was compiled and published in July 2021, and examinations are still underway with regard to measures to prevent visually impaired people from falling from a station platform using IT and sensing technology.

# Dissemination of knowledge about the safety of railway traffic

In addition to conducting campaigns to prevent accidents at railway crossings using posters and others, dissemination of knowledge and awareness-raising on the manner to safely cross railway crossings and on the prevention of railway accidents were conducted for schools, residents along the railway tracks and road transport operators among others. Furthermore, the railway operators in the Tokyo metropolitan area have come together positively work on PR activities for the "zero platform accidents" campaign to raise awareness about preventing accidents involving intoxicated passengers, and have tried to spread correct knowledge about railroad safety.

## **Ensuring the safe operation of railways**

### $\bigcirc$ Improvement of meteorological information

Measures such as the development of a weather monitoring system were taken to prevent accidents and mitigate damage by accurately monitoring natural phenomena that affect railway traffic and issuing and communicating forecasts and warnings in a timely and appropriate manner, and to enhance the content and effective use of such information. Earthquake Early Warning is provided to railroad operators so that they can use it to prevent the damage of rolling stock falling over by reducing the speed of or halting trains when an earthquake strikes.

### **O**Appropriate response in cases of large-scale accident occurrence

In order to cope with emergency situations such as a large accident or a disaster, procedures were taken to check and validate the emergency contact system at night and on a holiday, which enables the establishment of contact with relevant persons in the government and railway operators in a quick and appropriate manner.

In addition, railway operators were instructed to provide information appropriately to railway users and establish systems to quickly restore services in case of accidents including transportation failure with a view to reducing social impact in major cities and trunk railway lines.

Regarding the protection of railways against tsunami, response guidelines for keeping railway passengers safe in times of tsunami based on the key concept of evacuation from the largest possible tsunami ever, such as one that could be caused by Nankai Trough megaquakes (that is, the prompt evacuation is the most effective and most important response, for example), have been worked out, along with specific examples of such evacuation, to encourage the railway operators to drive their respective approaches.

## Measures for traffic safety at railway crossings

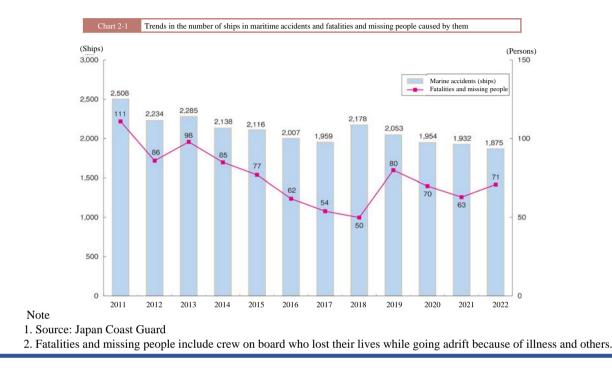
### **©**Current status of measures for prevention of accidents at railway crossings

In FY2022, we designated additional 85 railway crossings to be improved based on the amended Act on Promotion of Railway Crossings (No.9, 2021). Regarding the designated railway crossings and the ones regarding which there are issues, we held meetings to improve regional railway crossings as necessary, and road administrators and railway operators agreed to promote further measures for railway crossings in accordance with local conditions. The number of railway crossings which were improved in FY2021 (including those designated in the past and those voluntarily improved by road administrators and railway operators) was 22 (grade separation), 245 (structural improvement) and 31 (improvement in railway crossing security facilities). Moreover, streamlining of railway crossings were performed in conjunction with grade separation project, etc.

# **Title 2, Chapter 1: Maritime Accident Trends**

# **Current status of maritime accidents**

When we look at the changes in the number of ship accidents that were subject to the Traffic Safety Basic Plan in the seas around Japan, there were 2,256 ship accidents as an average during the 9th Traffic Safety Basic Plan (FY2011 to FY2015). However, the number of ship accidents was 1,875 in 2022, a decrease of about 20%. The number of fatalities and missing people in ship accidents was 91 people as an annual average during the 9th Traffic Safety Basic Plan. However, there were 71 people in 2022, a decrease of more than 20%. Furthermore, there was not a single major maritime accident in congested waters during 2022.



# Maritime accidents and rescues during 2022

- (1) Among the number of fatalities and missing people due to ship accidents in 2022, the proportion accounted for by passenger ships was 36.6% and by fishing vessels was 33.8%. In terms of the number of those who died or went missing due to falling into the sea from ship, 58.1% were caused by fishing vessels and 16.2% by pleasure boats.
- (2) The number of maritime accidents of small ships in 2022 was 1,475, a decrease by 52 ships compared to the previous year. The number of fatalities and missing people as a result of these accidents was 30 people, a decrease by 16 people compared to the previous year.
- (3) The 11th Traffic Safety Basic Plan stipulated a target of reducing the number of fatalities and missing people due to maritime accidents and increasing rescue rates\* to 95%. As a result of the Japan Coast Guard's improvement and strengthening of its rescues and assistance system, and efforts to collaborate and cooperate with private sector rescue organizations, the rescue rate was in 2022 was 95.7%, achieving the target rescue rate.
- (4) Of the 8,162 people aboard ships in maritime accidents during 2022, excluding the 5,094 people who saved themselves, 3,003 of the remaining 3,068 were rescued, which accounted for 97.9% of the total.
- (5) Of the 2,479 people aboard pleasures boats etc. involved in maritime accidents during 2022, excluding the 745 who saved themselves, 1,724 of the remaining 1,734 were rescued, which accounted for 99.4% of the total.

\*Rescue rates:

The proportion of the rescued among those aboard ships requiring rescue in maritime accidents and those falling into the sea (excluding those who saved themselves)
\*Pleasure boats:

A collective term for yachts and motorboats to be used for sports or recreation.

# Title 2, Chapter 2: Overview of Current Maritime Traffic Safety Measures

### **Improvement of maritime traffic environment**

### $\bigcirc$ Development of aids to navigation

In order to prevent destruction and/or extinction of aids to navigation caused by natural disasters, such as earthquakes and typhoons, and ensure maritime traffic safety in disaster-stricken-areas even in times of disasters, we promoted measures to strengthen the disaster-resistance of aids to navigation on the basis of the the Fundamental Plan for National Resilience.

## **Dissemination of knowledge regarding maritime transport safety**

### **©**Raising awareness of the prevention of maritime accidents

To prevent maritime accidents, it is important for each of us to raise our awareness of maritime accident prevention. In parallel, efforts have been made to diffuse and enhance the concept of maritime accident prevention and encourage the acquisition of, and enhancing the knowledge of maritime accident prevention in conjunction with the relevant agencies. These efforts included encouraging the whole nation, as well as maritime personnel concerned, to ensure thorough adherence to the practice of self-rescue measures, such as acting in compliance with relevant laws and regulations and wearing life-jackets at all times, by taking advantage of all possible opportunities, such as maritime accident prevention training sessions and on-board guidance.

In particular, during the period from July 16 to 31, 2022, we conducted the "Campaign for Zero Sea Accidents" across Japan with the participation of the government and people as an effort focused on "Prevention of marine accidents for small boats," "thorough watch-keeping and promotion of inter-ship communication," "securing measures for self-protection such as wearing a life-jacket at all times," and "securing safety in congested waters." We also conducted local-level activities in consideration of regional characteristics including weather conditions, such as fogs, occurrence trend of maritime accidents, as well as characteristics of various ships.

# **Ensuring safe operation of boats and ships**

### $\ensuremath{\textcircled{}}$ Thoroughness in measures to prevent reoccurrence of accidents

In the event that ships are involved in accidents the operating company is encouraged to take appropriate measures to prevent its reoccurrence according to the cause of the accident through audits etc. by the Safety Management and Seafarers Labour Inspector. In addition, efforts to be thorough in preventing reoccurrence were made particularly with regard to operating companies that have undergone administrative disposition, etc. through continuous and exhaustive follow-ups until improvements have been confirmed. In addition, with the objective of improving operating companies' awareness of "transport safety" and securing safer sea transport, the state of implementation of the Safety Management and Seafarers Labour Inspector's on-the-spot inspections and examples of administrative disposition, etc. are made public pursuant to the Marine Transportation Act (No. 187 of 1949) and the Coastal Shipping Act (No. 151 of 1952).

## **Enhancing safety measures for small boats**

### **O**Safety measures for pleasure boats

The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) called for the implementation of regular inspections and maintenance by maintenance operators, etc. using leaflets at all opportunities, such as maritime accident prevention seminars and on-board guidance. In addition, MLIT, in coordination with the Japan Craft Inspection Organization, which conducts inspections of small vessels, made known the need to undergo ship inspection at appropriate intervals to people concerned. Furthermore, through patrol activities and awareness education activities regarding rules to be observed, MLIT, in cooperation with related organizations, cracked down upon violations of these rules and distributed leaflets. In addition, the Japan Coast Guard (JCG) used pamphlets and other materials to raise awareness about compliance with maritime traffic rules and early access to safety information such as weather and marine conditions as well as navigation warnings via the internet and smartphones.

The police ensured maritime traffic safety, not only by patrolling sea areas focused on harbors, other ship congestion areas, bathing beaches with many swimmers, water areas where water sports are actively practiced, etc., but also by providing safety guidance to people related to marine leisure sports in cooperation with related organizations and groups.

# **Title 3, Chapter 1: Aircraft Accident Trends**

# Aircraft accidents in recent years

The number of aircraft accidents in Japan was 21 in 2022, in which nine persons were killed and 14 injured. In recent years, only a few aircraft accidents of large airplane have occurred per year, most of which are caused by air turbulence, and most of the aircraft accidents are that of small airplane.

Table 3-1         Numbers of aircraft accidents and casualties
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Туре	Number of accidents								Number of casualties	
Year	Large airplane	Small airplane	Ultralight aircraft	Helicopter	Gyro plane	Glider	Airship	Total	Fatality	Injury
-	2							10	2	
2018	5	3	4	3	0	1	0	16	11	12
2019	5	1	2	2	0	3	0	13	1	12
2020	4	1	4	3	1	0	0	13	2	16
2021	1	2	2	3	0	3	0	11	3	10
2022	8	4	4	3	0	2	0	21	9	14

Note

1. Source: Ministry of Land, Infrastructure, Transport and Tourism

2. Data as of the end of December each year

3. Includes accidents involving Japanese aircraft that occurred outside of Japan.

4. Includes accidents involving foreign aircraft that occurred in Japan.

5. Accidents/casualties regarding such as natural deaths or deaths caused by violence are not included.

6. The number includes those who died within 30 days after the accident and missing persons.

7. A large airplane is an airplane with a maximum takeoff weight of over 5.7 tons and a small airplane with that equal to or less than 5.7 tons.

# Incidents related to air traffic safety during 2022

### Safety issues involving air carriers

There were 11 cases of accidents and serious incidents\* which air carriers are obliged to report to Government in 2022.

Furthermore, aircraft accident involving passenger fatalities of specified domestic air carriers (domestic air carriers using aircraft with seats over 100 or the maximum takeoff weight exceeding 50,000 kg for air transport services) has not occurred since the crash of Japan Airlines Flight 123 at the mountain Osutaka in 1985.

\* Serious incident: An incident which did not result in an accident, but could have resulted in an accident.

# **Title 3, Chapter 2: Overview of Current Air Traffic Safety Measures**

# **Further promotion of State Safety Programme**

### $\bigcirc Safety \ promotion \ in line with the State Safety \ Programme (SSP)$

The safety objectives of civil aviation and measures that should be taken to achieve them were established as a State Safety Programme (SSP) pursuant to Annex 19 of the Convention on International Civil Aviation, and have been implemented since 2014.

Recently, based on the trends relating to the SSP of the International Civil Aviation Organization (ICAO), statistical methodology has been introduced to evaluate the degree of progress towards safety objectives, and Japan is making reforms to improve the efficacy of the SSP.

#### **OStrengthening Safety Management System (SMS) in service providers**

Guidance was provided to improve the quality of SMS, which is a mechanism for risk management related to safety by promoting safety performance indicators and safety performance targets directly linked to the measures to improve safety for service providers such as Japanese air carrier. Specifically, for service providers such as new entrants of the air carriers or new airport operators based on the Act on the Operation of National Airports, etc. Utilizing the Capabilities of the Private Sector (No.67, 2013) who have limited experience with SMS measures, guidance, supervision and advice etc. were provided by maintaining close coordination so that the setting of safety performance indicators and safety performance targets can be implemented properly.

# **Ensuring safe operation of aircraft**

#### $\bigcirc$ Implementation of Transportation Safety Management Evaluation

Through the implementation of the Transportation Safety Management Evaluation system since October 2006, operators have made integrated in-house efforts to build and improve their safety management systems, and the government implemented initiatives to check and evaluate these systems at 13 companies in FY2022. In addition, utilizing the "Disaster Prevention Management Guidelines for Transport Operators" formulated and published in July 2020, evaluations regarding disaster prevention management within the management evaluation of transport operators were implemented.

#### $\odot$ Improving measures to prevent the performance of duties under the influence of alcohol

In response to a series of inappropriate events involving airmen drinking alcohol that occurred from October 2018, stringent regulations for alcohol intake were established between January to July 2019. In FY2022, we provided guidance and supervision through audits and other measures to ensure that these regulations are properly observed as in previous years, and also promoted the dissemination and enlightenment of knowledge that contributes to the daily health management of pilots (including appropriate education on alcohol intake) as well as the proper operation of medical examinations (including knowledge about diseases and medicines that affect aviation operations) through the implementation of lecture meetings for the personnel in charge of health management at airlines. Furthermore, in light of the fact that inappropriate cases of alcohol testing, alcohol detection cases and false reports of alcohol consumption by cabin crew members have come to light over two fiscal years since FY2021, instructions and supervision have been continued in order to enhance their alcohol testing systems, adequately conduct alcohol-related education (including effect measurements), and ascertain organizational drinking culture.

## **Ensuring aircraft safety**

#### **OImprovement of technical standards of maintenance and inspection of aircraft**

To further improve the safety of aircrafts and its components, we have been developing technical standards for the safety of aircraft and its components, in light of latest technologies and international standard formulation.

#### **OAccurate inspection of aircrafts**

We have been working on appropriate and smooth certification of compliance with safety and environmental standards for domestic and imported aircraft in close cooperation with the aviation authorities in the U.S. and Europe, etc. In addition, based on the Act Partially Amending the Civil Aeronautics Act, which aims to maintain safe operations, we have developed related regulations, etc.

Furthermore, in order to properly conduct aircraft inspections as well as guidance and supervision of manufacturers and maintenance operators, etc., training was conducted to improve the quality of airworthiness engineers and aeronautical engineers - aircraft design.

## **Development of air traffic environment**

### ◎Improvement of flight inspection system

We are upgrading our flight inspection system to accurately respond to the increasingly sophisticated air navigation systems and flight procedures in response to global technological innovations and the increasing volume of air traffic. In addition to upgrading existing flight inspection equipment, we are also introducing new flight inspection equipment that uses new drone technology. We also promote the active use of sustainable aviation fuel and environmentally friendly flight inspections in accordance with the SDGs.

# **Topics**

# **Road transport**

The Act Partially Amending the Road Traffic Act (promulgated in 2022)

Status of Zone 30 Plus initiatives

Progress of urgent measures on traffic safety on roads in school zones and other areas and the eradication of drunk-driving

Efforts by volunteers for traffic safety

Holding of the Traffic Safety Forum

Response to the accident involving a large bus

Enhancement of measures to help victims of automobile accidents

Holding of "Symposium for supporting children who lost their families in traffic accidents"

# **Railway transport**

Efforts for planned railroad service suspension

# Maritime transport

Measures in response to the Shiretoko sightseeing boat accident

Safety measures for marine leisure through public-private partnerships

# Air transport

Safety measures for unmanned aircraft systems