



# **CHALLENGES IN THE FIELD OF FIRE DEFENSE AND DISASTER PREVENTION**

**Section of Civil Protection and Disaster Prevention,  
Fire and Disaster Management Agency  
Ministry of Internal Affairs and Communication**

**Counselor, Yoshinobu FUKASAWA**

## The Mission of the Japanese Fire-Defense Service

### Fire Defense Organization Act defines its mission as follows:

1. It shall protect lives, bodies and properties of the people
2. It shall prevent disasters such as fires, floods and earthquakes, and mitigate the disaster damages
3. It shall carry the injured at the time of disasters



In order to protect the people. . .

- Fire Service Law
- Basic Act on Disaster Control
- Disaster Relief Act
- Emergency Life Guards Act
- Flood Control Act
- Civil Protection Law
- Etc.



We act based on many and diverse regulations



## Fire Control



Mykl Roventine at Flickr

Non smoking area is indicated by the sign above that shows a smoking cigarette in black and a slash and a circle in red on white background that signify prohibition



Smoking area is indicated by the sign above that shows a smoking cigarette without prohibition marks.



Flammable area is indicated by the sign above that shows a burning match and a slash and a circle in red on white background that signify prohibition.

Fire Service Law dictates that any facilities which may accommodate a large number of the general public, i.e., facilities such as theaters and department stores have to put up the flammable sign shown above.



## The Guiding Sign Lights for Emergency Exits and Evacuation Routes



Sign for Emergency Exits



Sign for Evacuation Routes

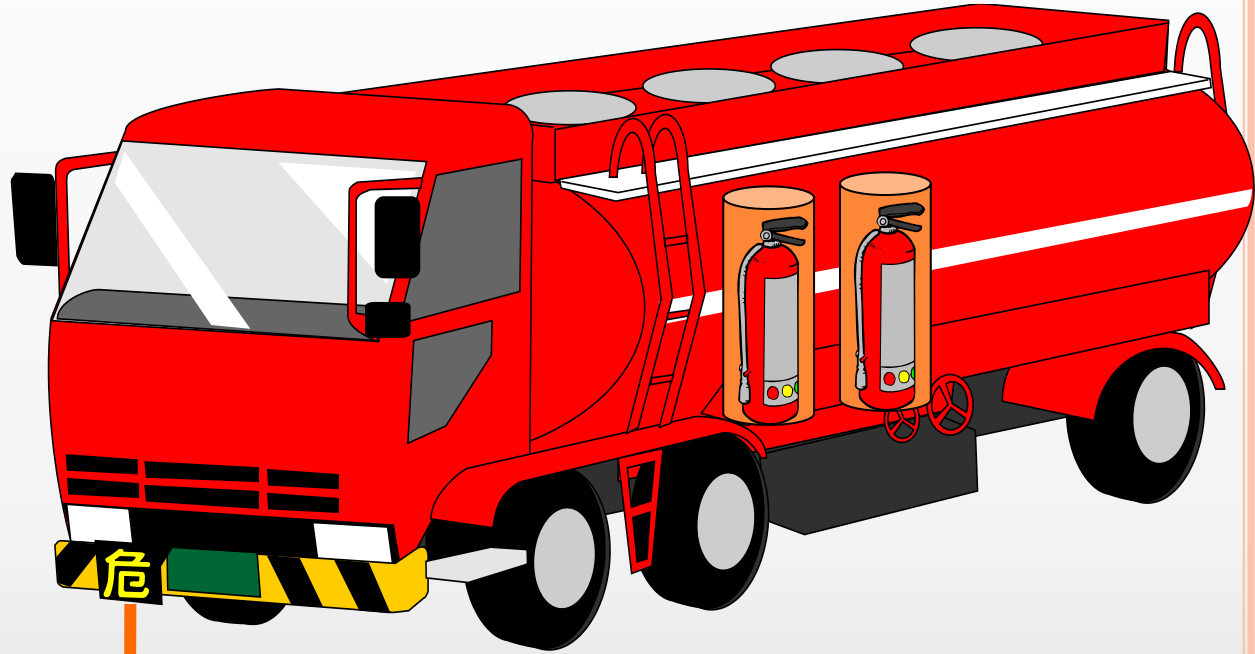
Fire Service Law dictates that these signs must be put up at emergency exits and evacuation routes following the local regulations defined elsewhere.



## The Sign for a Vehicle carrying Dangerous Substances



The Chinese character that signifies “danger” is colored in yellow with black background.



Fire Service Law dictates that any facilities with dangerous substances must put up the sign on the left, following the government ordinance defined elsewhere.

# The Sign of the Safety Certificate for Buildings (Fire Prevention)



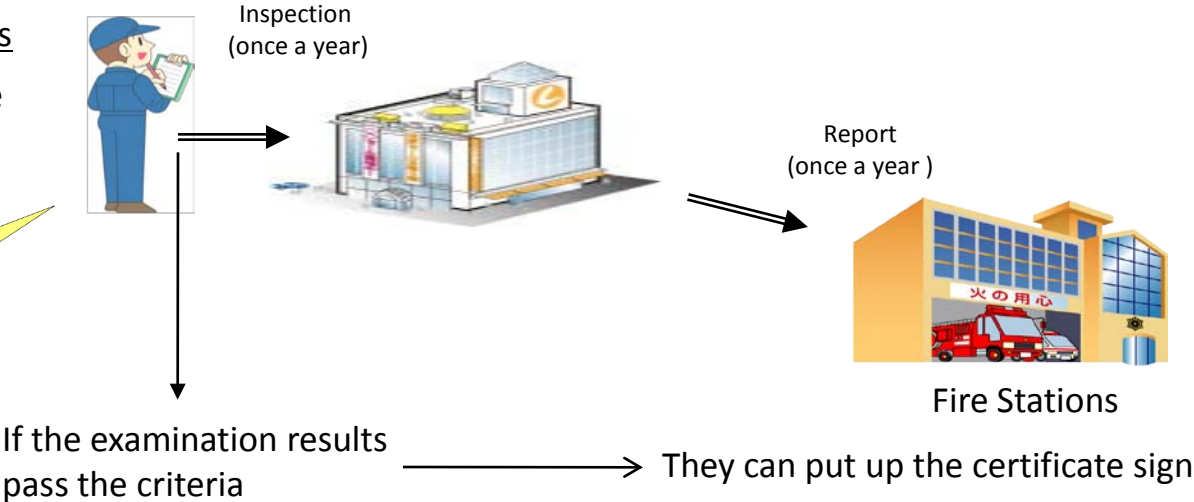
- ◆ The responsibility of owners of facilities such as department stores and restaurants: the owners must regularly make their facilities examined on the points necessary for fire prevention by a certified person, and report the results to a fire defense organization
- ◆ If the result passes the criteria, they can put up the sign of safety certification (shown on the left)
- ◆ The points necessary for fire prevention: positioning of fire control managers; implementation of fire drills; no obstacles on the emergency stairways; indication of fire prevention signs on flammable objects such as curtains.

(Fire Service Law)

### Certified Fire Prevention Inspectors

- \* Facility owners can obtain the certification and inspect their facilities by themselves

A person with specialized knowledge on fire prevention



# The Signs for the Safety Certificate of Buildings (Disaster Prevention)

## Disaster Prevention Examination

防火・防災基準点検済証

The sign features a green circular emblem containing an orange building icon. Below the emblem, the word 'SAFETY' is written in large, bold, green letters. At the bottom, there are four fields for administrative information: '管理権原者の氏名' (Name of the person in charge of management), '点検を行った日' (Date of inspection), '次回点検予定日' (Next scheduled inspection date), and '点検を行った者の氏名' (Name of the inspector). Each field has a small box for input and a label in smaller text.

管理権原者の氏名  (法人等名称用)  
点検を行った日  年  月  日  
次回点検予定日  年  月  日  
点検を行った者の氏名  (法人等名称用)

- Anybody who owns facilities such as department stores and restaurants is responsible to examine the implementation of disaster control and report the results to a fire defense organization.
- If the examination result passes the criteria, the owners can put up the certificate signs (shown on the left).
- The points of the examination (mostly meant to mitigate disaster damages):
  - The maintenance of emergency facilities such as escape chutes and emergency ladders that are meant for the mitigation of damages to be incurred by disasters other than fire i.e., disasters such as earthquakes
  - The disaster control plans such as the organization of self-defense fire teams, fire fighting, reporting, and evacuation guide

防災基準点検済証

The sign features a green circular emblem containing an orange building icon. Below the emblem, the word 'SAFETY' is written in large, bold, green letters. At the bottom, there are four fields for administrative information: '管理権原者の氏名' (Name of the person in charge of management), '点検を行った日' (Date of inspection), '次回点検予定日' (Next scheduled inspection date), and '点検を行った者の氏名' (Name of the inspector). Each field has a small box for input and a label in smaller text.

管理権原者の氏名   
点検を行った日  年  月  日  
次回点検予定日  年  月  日  
点検を行った者の氏名

(Fire Service Law)



# The Sirens of Fire Engines and Ambulances



## The Siren of Fire Engines

The siren of fire engines is defined in the public notice that shows the details of safety standards (Road Transport Vehicle Act). The loudness of the siren has to be more than 90 dB and less than 120 dB when calibrated 20m ahead of the vehicle.

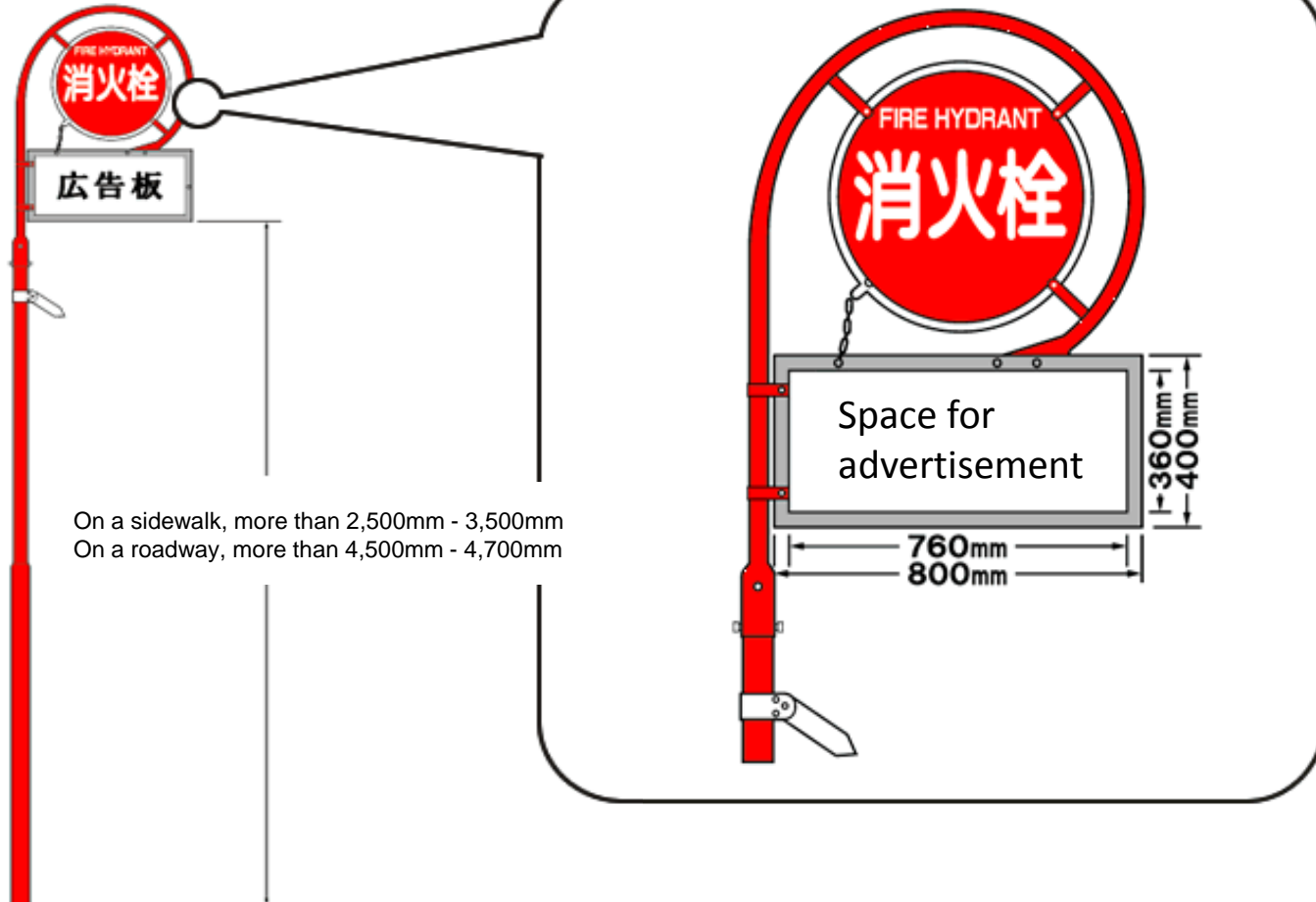


## The Siren of Ambulances

The siren of ambulances has to repeat high and low tones one after another. The high tone is 960Hz and the low one is 770Hz, and each tone has to sound for the duration of 0.65sec, making a cycle of 1.3 sec (that sounds like “pee poo”).

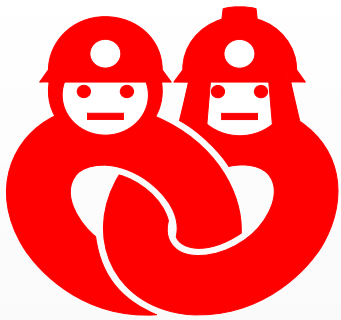


# The Sign for Fire Hydrants



- In Japan fire hydrants are installed mostly underground
- Signs are put up so that fire fighters can find a water hydrant as quickly as possible. It also helps them to prevent people from parking a car or putting things around water hydrants
- Fire Chief's Association of Japan voluntarily decided the national standard of the signs for publicly built water facilities (there is no juridical regulations about them)





## The Safety of Regional Life and Collaboration with Business Places

This is the logo sign that indicates the business places helpful for fire volunteer

- It is necessary to be in partnership with business places (corporations) in order to recruit fire volunteers and set up an environment necessary for their volunteer activities.
- It is necessary to set up an environment in which employees can join a volunteer team and volunteer employees can implement volunteer activities with an encouragement from their business employers.
- By systematizing the indication of helpful corporations by the logo sign, we can socially evaluate and encourage the contributions for a regional society to be made by helpful corporations
- As helpful corporations are to be socially evaluated, partnership between fire volunteer and the corporations will be reinforced, and as a result, regional preparedness for fires and disasters will be matured and strengthen.

\* Fire volunteer coordinates regular fire defense teams and regional residents, and play the central role for regional disaster control. Across the nation, 890,000 volunteers join the teams.



# The Siren of Public Warning for Civil Protection

- The siren that can reach long distance
- The siren that can convey a sense of danger and emergency but does not make residents too nervous so that they may calmly act
- The siren even a person with hearing difficulty can hear
- The siren the emergency warning system with wireless and simultaneous broadcasting devices for local municipalities can broadcast (**\*Fire Defense Agency is now trying to promote and maintain this system for local municipalities**)

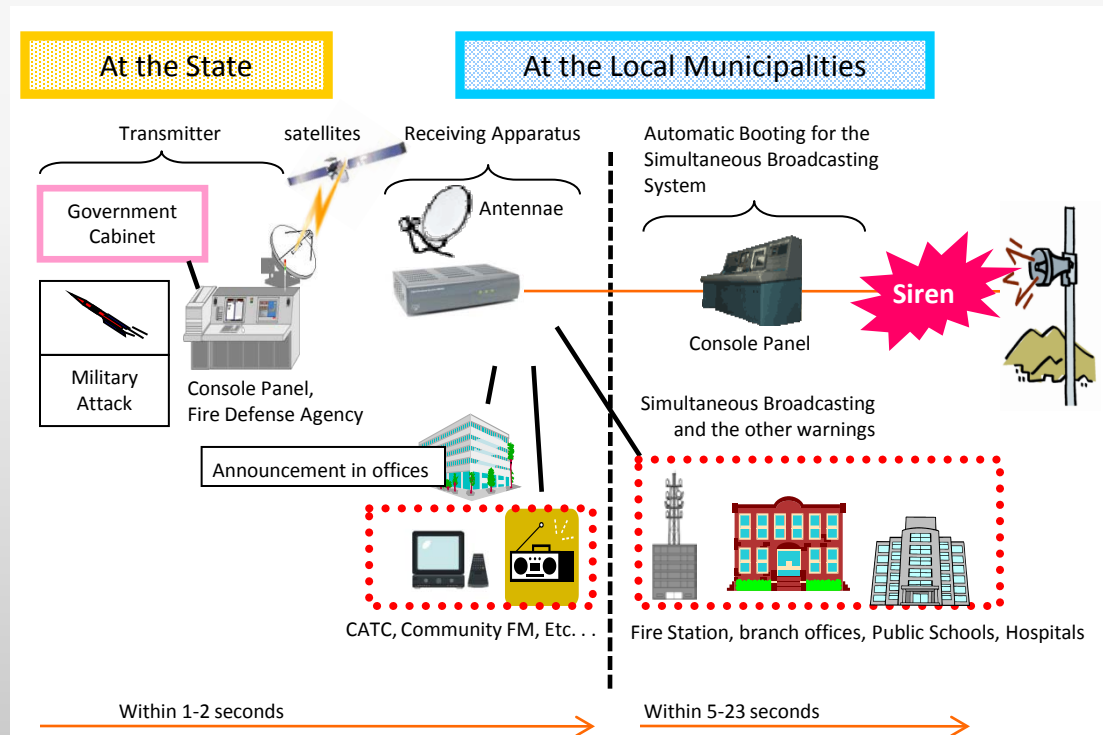
\* As for the actual sound of the siren, its sample is available on the following HP: <http://www.kokuminhogo.go.jp/arekore/shudan.html>

In emergency situations such as military attacks, public warning will be sent to the people by all the available means. The picture on the right illustrates the “J-Alert System” that is designed in order to transmit public warning at the shortest moment.

By the “J-Alert System,” the central government can send information through satellites to local municipalities, and with automatic system-booting devices public warning will be automatically sent to the people, and this is an innovative system in that it can send public warning without incurring human errors.



**This enhances the risk management capacities at local municipalities**



## Universal Signs for Tsunami



Flood Alert



Flood Evacuation Area



Flood Shelter

Since these were registered as universal signs, the Japanese Fire Defense Agency is promulgating them to the Japanese people, too.

