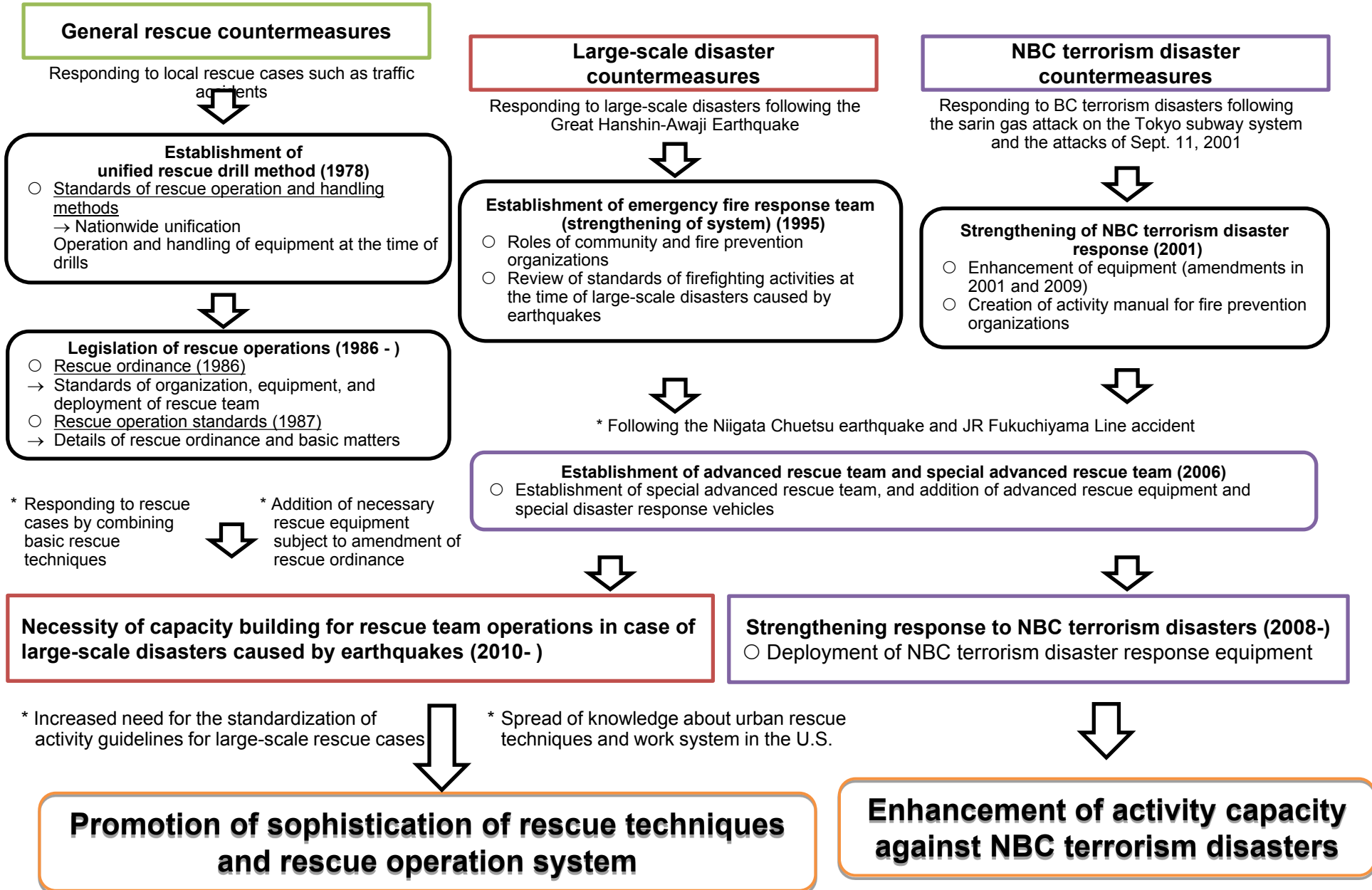


# Rescue Administration

# Framework of Rescue Administration

	Guidelines	Specific articles
“Ministry ordinance specifying the standards of organization, equipment, and deployment of rescue team” (Rescue ordinance)	<p>Specifying standards for the organization of a firefighting team (rescue team) equipped with special rescue apparatus necessary to save human lives that is set by the municipality</p> <ul style="list-style-type: none"> <li>✓ Standards of organization, equipment, and deployment of rescue team, special rescue team, advanced rescue team, and special advanced rescue team</li> <li>✓ Equipment to be provided</li> </ul>	<p>Article 36-2 of the Fire Services Act (Deployment of rescue team)</p> <p>“Municipalities shall, in accordance with the standards that are specified by Ordinance of the Ministry of Internal Affairs and Communications while taking into consideration the population and other conditions, deploy firefighting teams equipped with special rescue equipment necessary for the rescue of human life under the provisions of this Act.”</p>
“Standards concerning rescue operation” (Fire and Disaster Management Agency Public Notice)	<p>Matters specifying details of rescue ordinance and basic matters for rescue operation</p> <ul style="list-style-type: none"> <li>✓ Number, qualifications, and clothing of rescue team, duties of the chief, etc.</li> <li>✓ Standards, signs, and equipped rescue apparatus of rescue vehicles</li> <li>✓ Rescue operation (Rescue investigation, mobilization, activities, cooperation with other teams, etc.)</li> <li>✓ Wide area mutual aid agreement, etc.</li> </ul>	<p>Article 4 of the Fire Service Organization Act (Duty and jurisdictional affairs of the Fire and Disaster Management Agency) Paragraph 2 Item 16</p> <p>“Matters concerning the standards of activities pertaining to lifesaving.”</p>
“Standards for operation and handling methods for fire rescue” (Fire and Disaster Management Agency Public Notice)	<p>Specifying the basic matters concerning operation and handling methods of fire rescue equipment necessary for firefighters in conducting rescue trainings, and taking all possible measures to ensure lifesaving by appropriate rescue operation through stable acquisition of operation methods</p>	<p>Article 16 of the Fire Service Organization Act (Treatment of the status of firefighters) Paragraph 2</p> <p>“Matters concerning the class, training, rules, and uniforms of firefighters shall be stipulated by municipal rules according to the standards specified by the Fire and Disaster Management Agency.”</p>

# Flow of Rescue Administration



# Organization of rescue teams and owned vehicles and equipment by category

- ◆ Types of rescue teams include “Rescue team,” “Special rescue team,” “Advanced rescue team,” and “Special advanced rescue team.” An Ordinance of the Ministry of Internal Affairs and Communications has specified which teams are to be organized, according to the population of the jurisdictional area of the concerned fire defense headquarters.
- ◆ Differences between the 4 types of rescue teams are capacities to control special disasters, which are mainly derived from owned vehicles and equipment and educational content.

Category and deployment	Education and organization of firefighters	Owned vehicles	Owned rescue equipment	Municipalities to be applied
<b>Rescue team</b>	A team is made up of 5 or more firefighters who have received special education in lifesaving.	Rescue vehicles (or other firefighting vehicles)	<ul style="list-style-type: none"> <li>○ NBC-related equipment Combustible gas measuring instrument, gas mask</li> <li>○ General rescue equipment Air respirators, engine cutter, lifeline throwing gun, etc.</li> </ul>	Municipalities with fire defense headquarters
<b>Special rescue team</b>	Same as above	Rescue vehicles	<p><b><u>In addition to the equipment above,</u></b></p> <ul style="list-style-type: none"> <li>○ NBC-related equipment Positive pressure chemical protective suit, radiation protection suit, toxic gas measuring instrument, etc.</li> <li>○ General rescue equipment Large hydraulic spreader, mat-type air jack, rock drill, etc.</li> </ul>	Municipalities with populations of over 100,000, etc.
<b>Advanced rescue team</b>	A team is made up of 5 or more firefighters who have received special and advanced education in lifesaving (including NBC disaster response).	Rescue vehicles	<p><b><u>In addition to the equipment above,</u></b></p> <ul style="list-style-type: none"> <li>○Advanced rescue apparatus Image search equipment, earthquake alarm, etc.</li> </ul> <p>-----</p> <ul style="list-style-type: none"> <li>+ Depending on the area,</li> <li>△Mobile chemical agent detector</li> <li>△Mobile biological agent detector</li> </ul>	Special wards, designated cities, core cities, etc.
<b>Special advanced rescue team</b>	Same as above	<ul style="list-style-type: none"> <li>• Rescue vehicles</li> <li>• Special disaster response vehicles (positive pressure type, etc.)</li> </ul> <p>-----</p> <ul style="list-style-type: none"> <li>+ Depending on the area,</li> <li>△ Large decontamination system vehicle</li> <li>△ Water cutter vehicle</li> <li>△ Large blower vehicle</li> </ul>	<p><b><u>In addition to the equipment above,</u></b></p> <ul style="list-style-type: none"> <li>○NBC-related equipment Chemical agent detector, biological agent detector</li> <li>○Advanced rescue apparatus Radar explorative device, carbon dioxide wave explorative device, sonar explorative device</li> </ul> <p>-----</p> <ul style="list-style-type: none"> <li>+ Depending on the area,</li> <li>△Detection-type remote explorative device (robot)</li> </ul>	Special wards and designated cities, etc.

# Structure of Rescue Team

Rescue operation structure as of April 1, 2014

Number of rescue teams: 1,435 (full-time: 570, Serve concurrent posts: 865)  
(General rescue teams: 814)  
(Special rescue teams: 621 (including advanced rescue teams and special advanced rescue teams))

Number of rescue workers: 24,611 (full-time: 8,668, Serve concurrent posts: 15,943)



## Rescue Team

- Rescue  
Rescue team owns general equipment such as rescue ropes, engine cutters, triple extension ladders, and air respirators, and firefighting vehicles equipped with them.

Engine cutter



Triple extension ladder



Air respirators



Lifeline-throwing gun



Portable concrete destructive equipment



Simplified image search equipment



# Special Rescue Team

- Special rescue team (set up in municipalities with populations of over 100,000, etc.)  
A special rescue team is made up of firefighters who have received special education in lifesaving, and owns special equipment such as mat-type air jacks, positive pressure chemical protective suits and rescue vehicles, in addition to the general equipment owned by a rescue team.

Large hydraulic spreader



Mat-type air jack



Positive pressure chemical protective suit



Radiation protection suit



Decontamination shower



Rescue vehicle



# Advanced Rescue Team

- Advanced rescue team (set up in core cities, etc.)  
An advanced rescue team is made up of firefighters who have received special and advanced education in lifesaving, and owns advanced equipment such as image search equipment, thermal image direct-vision devices, and earthquake alarms, and rescue vehicles equipped with them, in addition to the equipment owned by a special advanced rescue team.

Image search equipment



Thermal image direct-vision device



Earthquake alarm



# Special Advanced Rescue Team

- Special advanced rescue team (set up in Tokyo Fire Department and government-designated cities, etc.)

A special advanced rescue team is made up of firefighters who have received special and advanced education in lifesaving, and owns robust equipment such as special disaster (NBC) response vehicles, water cutters, and large blowers that can deal with special disasters, in addition to the equipment owned by an advanced rescue team.

Special disaster response vehicle



Vehicle equipped with a water cutter



Vehicle equipped with a large blower



Radar explorative device



Sonar explorative device



Special advanced vehicle



\* Special advanced vehicle: A vehicle equipped with a water cutter and a large blower

# Scale of Fire Defense Headquarters, etc.

(As of April 1, 2014)

## Number of fire defense headquarters in Japan: 752

### ○ Number of staff members

■	50 or fewer			84 headquarters (11.2%)
■	51	to	100	223 headquarters (29.7%)
■	101	to	200	249 headquarters (33.1%)
■	201	to	300	90 headquarters (12.0%)
■	301	to	500	71 headquarters (9.4%)
■	501	to	1000	22 headquarters (2.9%)
■	1001 or more			13 headquarters (1.7%)

**☆Headquarters with fewer than 201 staff members account for 74.0%.**

### ○ Category of owned rescue teams

■	No rescue teams	22 headquarters (2.9%)
■	Rescue team	730 headquarters (97.1%)

(Including the Special rescue team, Advanced rescue team, Special advanced rescue team)

**☆Headquarters with rescue teams account for 97.1%.**



# Main NBC Equipment Owned by Fire Prevention Organizations

## 1. Protection suit



Radiation protection suit



Protection suit



Chemical protection suit (Positive pressure type)



Chemical protection suit (Non-positive pressure type)

## 2. Radiation counter



Neutron dosimeter



Air dosimeter



Individual alarm dosimeter

### 3. Biological/Chemical agent detector



**Portable chemical agent detector**

#### Portable biological agent detector

- ◆ Detection takes about 10 to 15 minutes.
- ◆ Agents to be detected  
Anthrax, ricin, botulinus toxin, staphylococcus enterotoxin B, bacillus pestis, smallpox



**Biological agent collector**

- ◆ 0.5 micron and larger biological agents can be collected.



**Biological agent detector paper**

- ◆ Agents to be detected:  
Anthrax, ricin, botulinus toxin, staphylococcus enterotoxin B, and bacillus pestis

### 4. Decontamination equipment



**Decontamination agent diffuser**

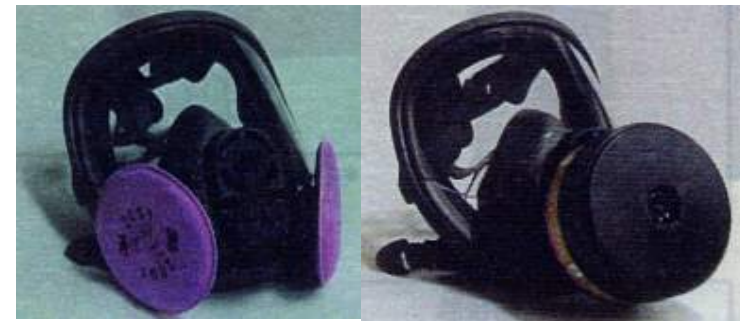
Tank capacity: 11 liters



**Decontamination shower**

To be used for biological/chemical agent

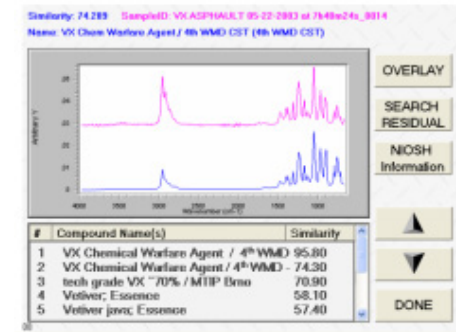
### 5. Gas mask



- ◆ To be used for biological/chemical agent and radioactive dust

# [ Portable chemical agent detection/identification device ]

- ◆ Fourier transform infrared spectrophotometer  
Identify chemical agents by comparing with libraries registered by measuring infrared absorption spectrum
- ◆ Deployed in: Tokyo Fire Department and fire defense headquarters in government-designated cities



- ◆ Gas-ID  
Identify gaseous materials



- ◆ HazMat-ID  
Identify liquid/solid-state materials

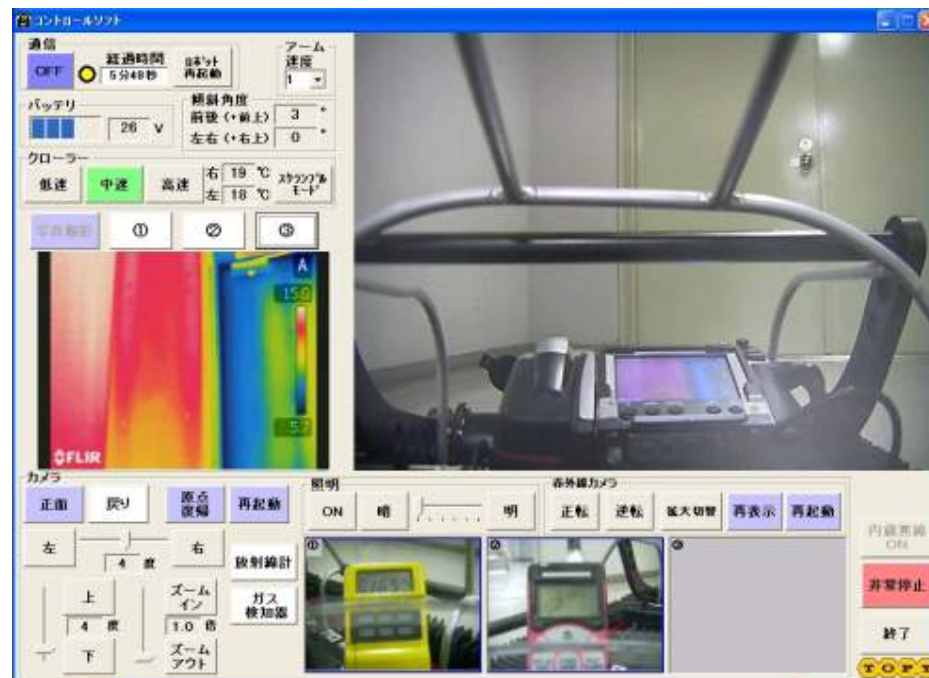
# [ Detection-type remote explorative device ]



- ◆ This device has a structure that can mount chemical agent detectors necessary for detecting chemical agents. The main body and relay equipment can be remotely operated.



- ◆ Example of composition
  - Main body (equipped with a camera)
  - Relay equipment (same functions as the main body)
  - Loaded items: Chemical agent detector, gas detector, infrared camera, etc.
- ◆ Fire defense headquarters deployed:
  - Tokyo Fire Department, Sapporo,
  - Nagoya, Osaka, and Fukuoka



## [ Special disaster response vehicle (NBC disaster response vehicle) ]

- ◆ In order to respond to disasters involving poisonous materials, a special disaster response vehicle is equipped with analysis equipment, etc. to analyze toxic gases inside the vehicle, and a storage compartment loaded with various protection suits and equipment.
- Owned by Tokyo Fire Department and government-designated cities (20)
- Loaded items: Biological agent detector, portable chemical agent detector, mobile chemical agent detector, decontamination shower, positive pressure chemical protective suit, etc.



# [ Special advanced vehicle (Water cutter + Large blower) ]

## [ Water cutter vehicle and large blower vehicle ]

### ◆ Water cutter

By discharging a mixture of water and abrasive at high pressure, concrete and steel can be cut promptly without vibration or spark. Water cutters will be used at sites posing risks of fire or explosion due to combustible gas.

### ◆ Large blower

Cooling of fire by mist discharge and elimination of smoke, toxic gas, steam, and heat by positive pressure ventilation will be conducted in the case of tunnel fires and fire disasters at large facilities.

Large blowers can be used for decontamination by supplying large amounts of air.

○ Owned by Tokyo Fire Department and government-designated cities (20)

### Special advanced vehicle



### Large blower



### Water cutter



## [ Large decontamination system vehicle ]

- ◆ By using a large decontamination system vehicle, decontamination activity can be conducted for a large number of survivors who are contaminated by a chemical agent, etc. Decontamination of more than 200 people can be conducted in an hour.
- Deployed in Tokyo Fire Department and 17 government-designated cities



- Shower lane [3 lanes]  
Walking survivors lane (2 lanes)  
Walking difficulty survivors lane (1 lane)



# **Risk Management Education for Fire Prevention Organizations**

- ◆ **Specialized knowledge and expertise necessary for appropriate response to NBC terrorism are provided in risk management education conducted in Fire and Disaster Management College, etc.**

## **[Fire and Disaster Management College]**

- **Emergency firefighting rescue team education course**
  - **NBC course**
  - **Special advanced rescue/Advanced rescue course**
- **Specialized education**
  - **Rescue course**

## **[Prefectural Fire academy]**

- **Special disaster course (since FY2004)**

## **[Consignment lecture conducted by the Fire and Disaster Management Agency]**

- **Lecture at Omiya Chemical School, Japan Ground Self-Defense Force (5 days)**
- **Lecture at the National Research Institute of Police Science, National Police Agency (2 days), etc.**



# **The Great East Japan Earthquake**

# Outline of the 2011 Great East Japan Earthquake

Around 14:46 of the March 11, 2011 (Friday), the Great East Japan Earthquake occurred and have caused extensive damage in eastern Japan, with the seismic center at Sanriku-Oki (moment magnitude 9.0, the maximum seismic intensity 7 (JMA seismic intensity) at Kurihara City, Miyagi).

## Features of the disaster, etc.

- It has been the greatest earthquake in Japan's history (moment magnitude 9.0), accompanied by three huge destructions occurred continuously in a fault with about 450 km long and 200 km wide. The shaking of the earthquake continued for more than 6 minutes throughout the Tohoku region. (Four large quakes were observed in Sendai City of JMA seismic intensity 6 upper for those 6 minutes.)
- \* The fault destruction began from off the coast of Miyagi Prefecture and transmitted in the direction of off the coast of Iwate, Fukushima, and Ibaraki Prefectures.
- Enormous material damage and human damage were caused due to the tsunami.
- A vast area was stricken. (The human damage and material damage have been widespread in East Japan centered in Tohoku region.)
- The number of refugees reached over 550,000 people (as of March 15, 2011), and many people had to continue to live in evacuation shelters (69,891 people, as of September 6, 2012).
- Fukushima Daiichi NPS disaster occurred. (The main cause of the accident was the tsunami.) \*As of December 1, 2012, Report of Japan Meteorological Agency (JMA)
- The number of aftershocks (Magnitude 5.0 or more) has been 713 times until now.

## Outline of the damage caused by the Tsunami

(As of September 1, 2014, Fire and Disaster Management Agency)

Human damage	Iwate	Miyagi	Fukushima
Number dead: 19,074	5,115	10,496	3,352
Number missing: 2,633	1,132	1,271	226
Number injured: 6,219	211	4,145	183

(As of September 1, 2014, Fire and Disaster Management Agency)

Damage to houses	Iwate	Miyagi	Fukushima
Complete collapse: 127,361	19,107	82,992	21,224
Half-collapse: 273,268	6,609	155,122	73,764
Partial destruction: 762,277	18,827	224,158	161,139

(As of September 1, 2014, Fire and Disaster Management Agency)

Number of fire accidents	Iwate	Miyagi	Fukushima
330	33	137	38

# Damage to Fire Protection Agencies

## Damage to fire protection agencies in major disaster-stricken prefectures

[Major damage to the Fire Defense Headquarters] (As of September 1, 2014) [Major damage to the volunteer fire corps] (As of September 1, 2014)

Fire personnel	Number of the dead and missing: 27	Volunteer firefighters	Number of the dead and missing: 254
Damage to buildings (complete collapse, half-collapse, or partial destruction)	Fire defense headquarters and fire stations: 143 Branches / Sub-stations: 161	Damage to buildings (Unavailable)	Base facilities of volunteer fire corps (Office, etc.): 419
Damage to vehicles, etc.	Vehicles: 86 units, Fire boats: 2 units, Prefectural disaster-prevention helicopter: 1 unit	Damage to vehicles, etc.	Vehicles: 252

### Reference: News reports about volunteer firefighters' rescue operations (examples)

The Fire Bell had been Ringing ... Eleven firefighters of volunteer fire corps were killed or are missing (March 23, The Mainichi)  
In Otsuchi-cho of Iwate, more than 2,000 people were killed or are missing due to the Great East Japan Earthquake. At that time, the firefighters of the Otsuchi-cho volunteer fire corps No. 2 Squad (with Hiroshi Koshida as the head, 28 members) rushed to the breakwater to close the gates, and stayed by the seaside to guide the residents to evacuate until the tsunami hit. As a result of the duty, four members were killed, and seven members are missing. One of them, named Fujio Koshida (57 years old), had kept ringing a fire bell, which was the symbol of the fire corps, and he was swept into the sea by the tsunami.

Went to the Site Immediately after the Earthquake ... 26 firefighters of the squad of volunteer fire corps were killed or are missing (March 28, morning edition of the Yomiuri Shimbun)  
The firefighters of the volunteer fire corps Takada Squad (about 120 persons) of Rikuzentakata City, Iwate, went to the breakwater and closed the five iron gates immediately after the earthquake occurred. However, the huge tsunami reached far above the breakwater and swallowed one after another the firefighters who had begun to guide residents to evacuate. Twenty-six of the volunteer firefighters were killed or are missing. The survived volunteer firefighters have continued searching for the missing persons and removing rubble without taking time to mourn for fellows, having pride as guards of the area.

Firefighters Called for Evacuation until the Very End through Microphone (March 21, morning edition of the Tokyo Shimbun)  
"Run away to higher ground." These were the last words announced by Ayumu Sakurai (46 years old), who lived in Natori City, Miyagi. On the day of the earthquake, the volunteer firefighter who called at the top of his voice for residents on a loudspeaker in a fire truck was drowned in the tsunami. The fire truck was swept away and crushed miserably, and three volunteer firefighters were found dead in the vehicle. Mr. Sakurai was in the passenger seat with a microphone in his right hand.

# Rescue Operations

**Kesennuma City, Miyagi Pref.**



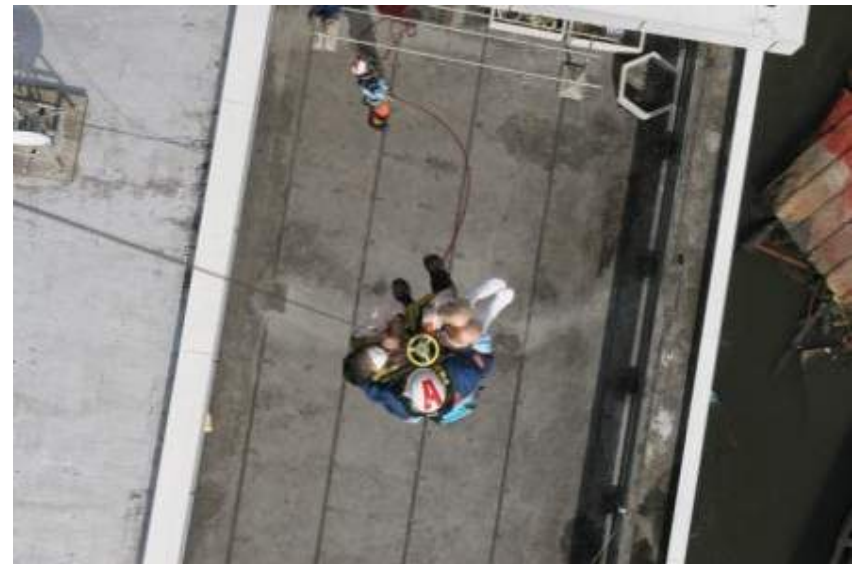
**Rescue operation by fire brigades (1)**



**Rescue operation by fire brigades (2)**



**Rescue operation by fire brigades (3)**



**Rescue operation by fire brigades (4)**



**Kesenuma city,  
Miyagi prefecture**

Courtesy of Tokyo Fire Department



**Kesenuma city, Miyagi prefecture. 12 March, 2011**

# Local Input Regarding the Great East Japan Earthquake (according to local hearing)

1. Vehicles could not enter due to rubble. It **took more than 1 hour** to get to some sites.
2. Since water did not recede, we conducted activities in **chest-high water**.
3. There are not many sites where survivors were trapped in rubble. **Most of them were left on the top of a building or the roof of a house.**
4. Since the whole town was steeped in darkness due to electrical outage, we had almost **lost all sense of direction**.
5. We carried sick people on **stretchers dragged on rubble**.
6. As rubble was scattered all around and targets were washed away, we **could not find out where we were**.
7. **Helicopters were very useful.** (for rescue of people left on roofs, for collecting information, etc.)
8. We had difficulty in securing camp sites and fuels at the time of **accepting emergency fire rescue teams**.
9. It was difficult to position the activities during practical **searching**.

# Lessons for Rescue Operations and Rescue Equipment

## 1. Operations at a site where rubble is scattered all around

- (1) Transportation of equipment is difficult.  
→ Procurement of light and compact equipment
- (2) Vehicles cannot enter the site.  
→ Preparation of heavy equipment for removing rubble  
→ Increase of helicopters
- (3) Transportation of survivors on rubble  
→ Use of light and strong sked stretchers, etc.
- (4) Identification of the site is difficult.  
→ Use of GPS, etc.

## 2. Operations in chest-high mud and water

- (1) Vehicles cannot enter the site.  
→ Preparation of FRP and aluminum boats, etc.
- (2) Difficulty in conducting activities due to wet clothing  
→ Preparation of accident prevention shell-type dry suits and waders, etc.

### **3. Electricity cannot be secured due to electrical outage.**

There are no lights during nighttime. Only individual floodlights can be used. It is hard to find direction due to rubble scattered all around.

→ Preparation of balloon light, etc.

(It may be used as a replacement for a lighthouse for finding direction.)

→ Securing and strengthening of a power generator, etc.

### **4. Operations associated with a risk of tsunami due to repeated aftershocks**

→ Strengthening of monitoring of tsunami and preparation of earthquake alarm, etc.

### **5. Difficulty in securing camp sites, etc. at the time of accepting emergency fire rescue teams**

→ Implementation of acceptance drills

→ Installation of camp sites outside of the jurisdiction, etc.

### **6. Activities when searching for dead bodies is virtually the main operation**

→ Review of duties and roles of firefighting services and cooperation with other organizations



# Issues and measures of the Great East Japan Earthquake

## [Preparation of equipment]

Equipment has been prepared based on the issues found as a result of the questionnaire for fire defense headquarters at disaster sites and fire defense headquarters which conducted activities at disaster sites as emergency fire rescue teams.

### Issue 1. Vehicles could not enter the site due to rubble and mud and water.

- Procurement of light and compact equipment (FY2011 first supplementary budget)
- Preparation of heavy equipment for removing rubble (FY2011 third supplementary budget)
- Preparation of advanced rescue vehicles for large-scale disasters (FY2011 third supplementary budget)
- Preparation of all-terrain vehicles (FY2011 third supplementary budget)



### Issue 2. Conducted operations under mud and water including rubble

- Preparation of dry suits, etc. (FY2011 first supplementary budget)



### Issue 3. Securing of fuels was very difficult due to unavailability of refueling at the disaster site.

- Preparation of fuel service vehicles (FY2011 first supplementary budget)

# [ Advanced Rescue Vehicle for Large-scale Disasters (2 vehicles in a pair) ]

◆ Compact advanced rescue equipment for large-scale disasters is loaded into a small vehicle.



**Advanced rescue vehicle for large-scale disasters (2 vehicles in a pair)**

**Vehicle equipped with air rescue tools**

- “Vehicle equipped with an air destructive equipment” is a vehicle which can be used for rescue operations at a site where vehicles cannot enter due to rubble and equipment transportation is difficult. Rescue operation can be conducted by extending a high-pressure hose (up to about 200 m) from the vehicle equipped with an air compressor and using destructive equipment attached to the hose. Filling of an air tank is also available.



- Disaster response vehicles and high ground-covering 4-wheel drive vehicles equipped with air rescue tools will be lent, with a small rescue vehicle IV type as its base.

**Disaster response rescue vehicle**

- “Disaster response rescue vehicle” is a vehicle equipped with compact advanced rescue equipment, which is used by IRTs, etc.

# [ Heavy Equipment (Power Shovel) and Heavy Equipment Guided Vehicle ]



[Hydraulic shovel 3 t (or 5 t)]

- 3 types of exchangeable attachments
  1. Bucket (Shovel)
  2. Slewing grapple (grab)
  3. Breaker (hole and break)
- Radio-operable



[Heavy equipment guided vehicle]

15 t truck (with 2.9 t crane)

(or 20 t truck (with 2.9 t crane))

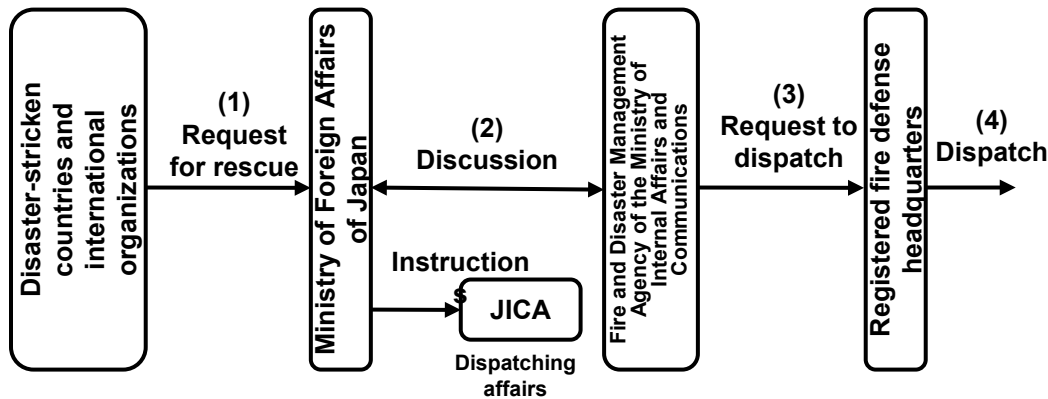
- 3 types of attachments loaded
- Attachment can be exchanged while being loaded.

# **International Rescue Team (IRT)**

# Outline of the International Rescue Team

- ✓ International Rescue Team (IRT) is organized by the Fire and Disaster Management Agency with registered rescuers of cooperative municipalities as members. (Registration: 599 personnel of 77 fire defense headquarters)
- ✓ Upon the dispatch, based on the Act on Dispatchment of the Japan Disaster Relief Team and requests from the disaster-stricken countries or international organizations, the Fire and Disaster Management Agency discusses with the Ministry of Foreign Affairs and requests for the fire defense headquarter in charge of the duty on the day of the request to dispatch rescue teams.

## Flow from a request to a dispatch

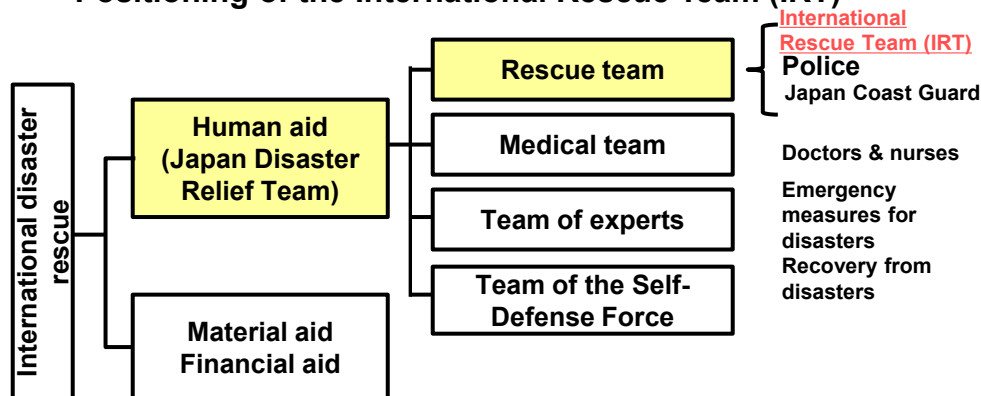


## Duty roster

A fire defense headquarter that is in charge of the duty on the day (Japan time) when the Secretary requests the dispatch will be dispatched.

Mobilization order	Group	No. 1	No. 2	No. 3	No. 13	No. 14	No. 15
	Date	1, 2	3, 4	5, 6	25, 26	27, 28	29, 30, 31
First		Tokyo	Tokyo	Tokyo	Tokyo	Tokyo	Tokyo
		Shizuoka	Sapporo	Fukuoka	Saitama	Niigata	Osaka
		Sapporo	Fukuoka	Hiroshima	Hamamatsu	Osaka	Okayama
		Yokosuka	Funabashi	Ibaraki Seinan	Kawagoe	Ichihara	Kumamoto
		Hachinohe	Nagano	Tokushima	Akita	Utsunomiya	Kanazawa
		Kagoshima	Nara	Joetsu	Takasaki	Moriguchi / Kadoma	Matsuyama
		Iwaki	Maebashi	Miyazaki	Toyama	Mito	Niigata
Second		Okayama	Iwaki	Maebashi	Sakai	Hamamatsu	Shizuoka Pref.
		Matsuyama	Kagoshima	Nara	Mito	Takasaki	Moriguchi / Kadoma
		Kanazawa	Hachinohe	Nagano	Shimonoseki	Akita	Utsunomiya
		Kumamoto	Yokosuka	Funabashi	Himeji	Kawagoe	Ichihara

## Positioning of the International Rescue Team (IRT)



# Japan Disaster Relief Team (International Rescue Team)

## Actual dispatching results so far



1	1986	Republic of Cameroon (blowout of toxic gas)
2	1986	El Salvador Republic (earthquake)
3	1990	Islamic Republic of Iran (earthquake)
4	1990	Philippines (earthquake)
5	1991	People's Republic of Bangladesh (cyclone)
6	1993	Malaysia (building collapse)
7	1996	Arab Republic of Egypt (building collapse)
8	1997	Republic of Indonesia (forest fire)
9	1999	Republic of Colombia (earthquake)
10	1999	Republic of Turkey (earthquake)
11	1999	Taiwan (earthquake)
12	2003	People's Democratic Republic of Algeria (earthquake)
13	2004	Kingdom of Morocco (earthquake)
14	2004	Kingdom of Thailand (the earthquake)
15	2005	Islamic Republic of Pakistan (earthquake)
16	2008	Republic of China (earthquake)
17	2009	Republic of Indonesia (earthquake)
18	2011	New Zealand (earthquake)
19	2015	Nepal (earthquake)



Since these disasters occurred prior to the enforcement of the Act on Dispatchment of the Japan Disaster Relief Team, the rescue teams were dispatched as short-term expert teams of JICA.

# Outline of the 2015 Nepal Earthquake

## Federal Democratic Republic of Nepal

- Population: 26.49 million people (based on the Central Bureau of Statistics Survey of the Government of Nepal, 2011)
- Area: 14.7 square kilometers (approximately 1.8 times that of Hokkaido)
- Time difference from Japan: -3:15
- Capital: Kathmandu
- Altitude: 1,300 m
- Climate: average temperature in April: maximum 28.2° C, minimum 11.7° C

## Outline of the Earthquake

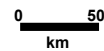
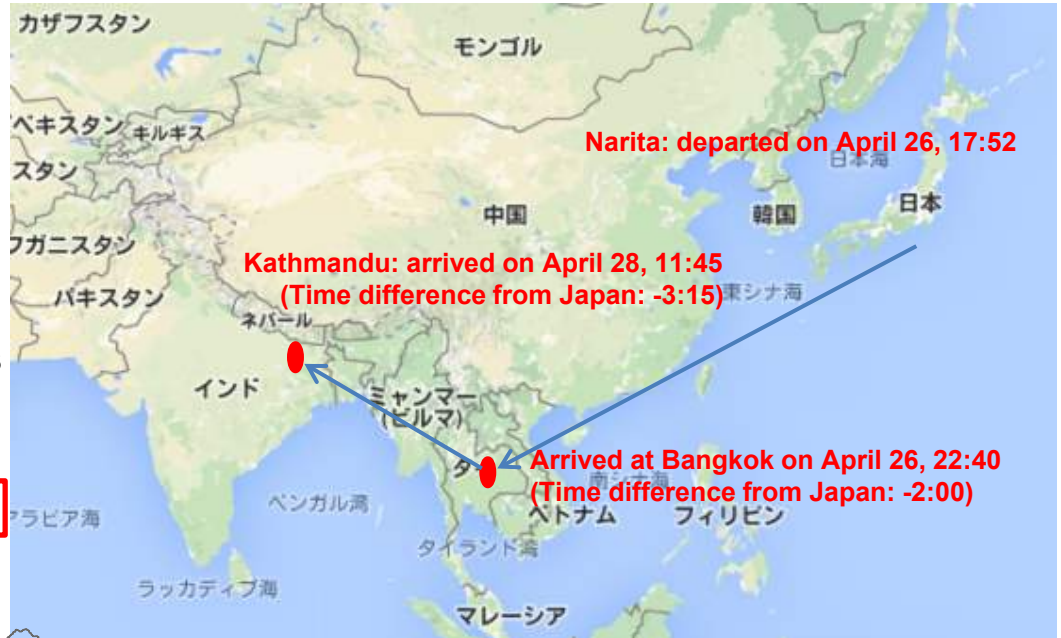
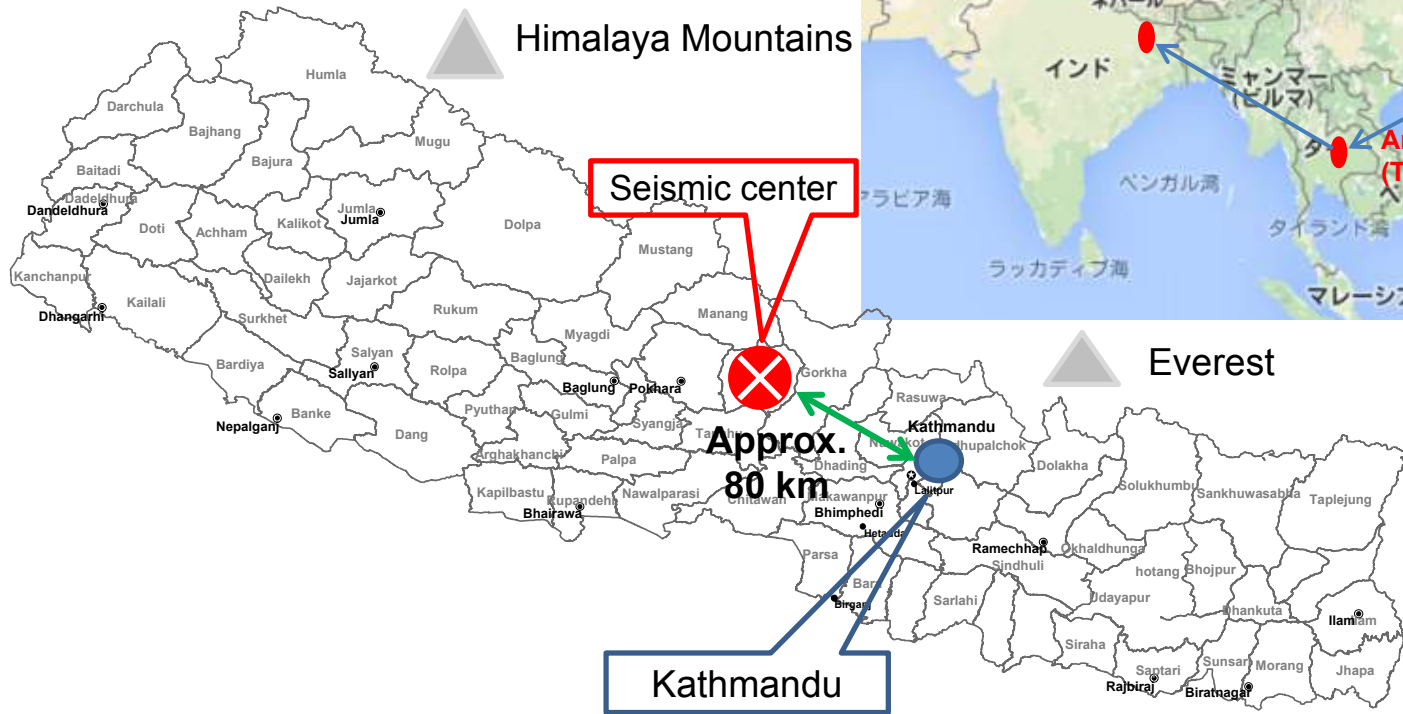
Date of the earthquake: around 15:11 on April 25, 2015 (Saturday) (11:56 on the same day in the local time)  
The epicenter: Lamjung district, Gandaki zone (about 80 km northwest of the capital Kathmandu)  
Scale of the earthquake: Magnitude 7.8 (Latest release of the United States Geological Survey (USGS))

## Outline of the damage caused by the Tsunami

Deaths: 8,460 people (May 15, 10:00 in the local time, including the 117 people who were killed in the aftershocks on May 12, publicized by the Interior Department of Nepal)  
Injured: 20,741 people (including 2,871 people in aftershocks on May 12)  
Damage to Japanese: one killed person (a man in his 50s), one injured person (a woman in her 50s). No other cases of severe damage to Japanese nationals or Japanese companies have been reported.

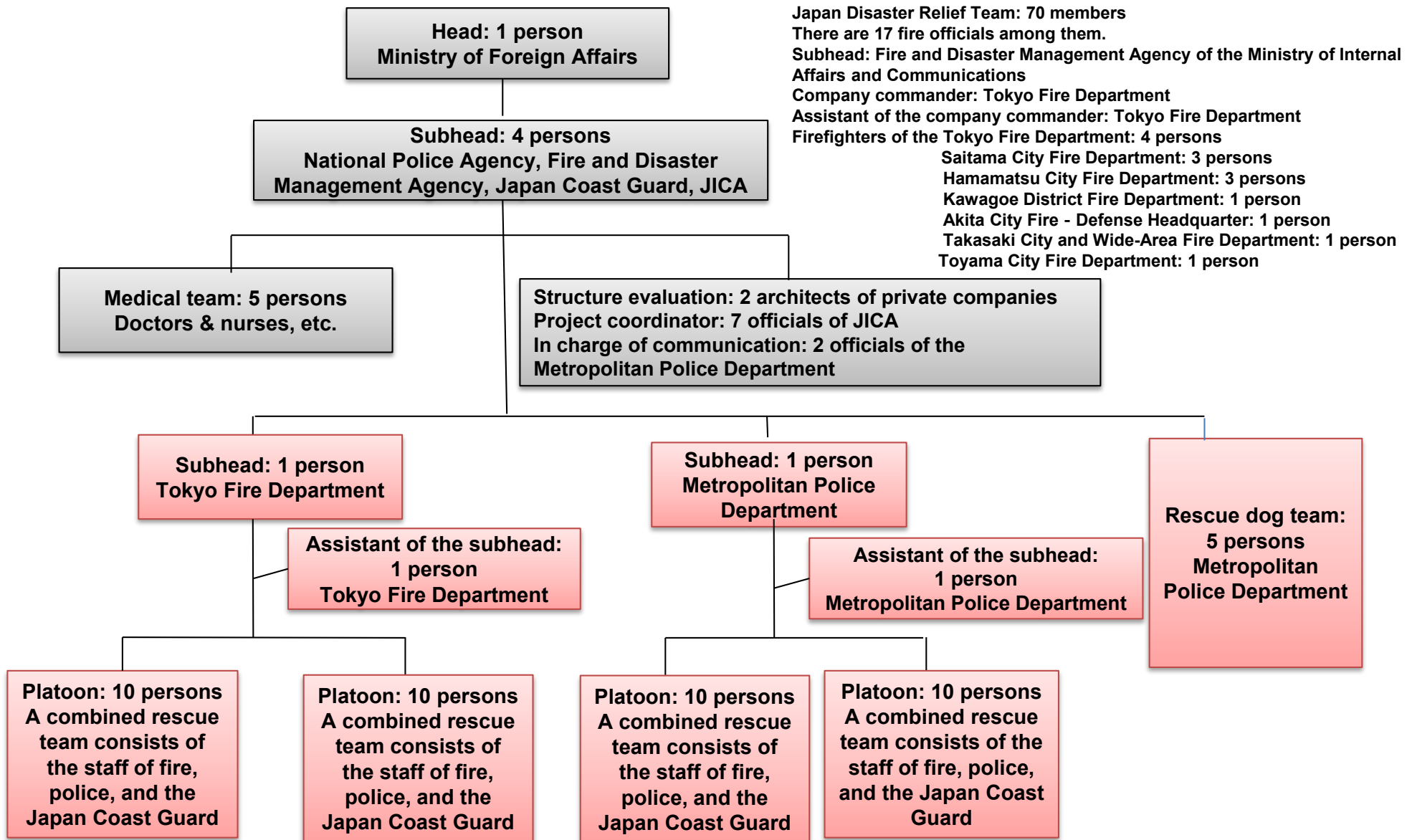
# Federal Democratic Republic of Nepal

Federal Democratic Republic of Nepal





# Japan Disaster Relief Team for the 2015 Nepal Earthquake Dispatch System



# Outline of the Dispatch of the Japan Disaster Relief Team

## [Dispatched period: From April 26 to May 9, 2015 (14 days)]

### ◎ April 26 (Sunday)

12:00: Gathered at the Narita International Airport.

Inaugural meeting of the Japan Disaster Relief Team

Dispatch ceremony of the International Rescue Team (The message of the Minister of the Internal Affairs was read by the Counselor.)

18:00: Departed from the Narita International Airport for Bangkok by charter flights.

### ◎ April 27 (Monday)

The rescue team traveled from Bangkok to Kathmandu, but could not land due to the congestion of the airport and had to turn back to Bangkok.

### ◎ From April 28 (Tuesday) to May 6 (Wednesday) (Rescue operation for 9 days)

After arriving at Kathmandu, the team carried out search and rescue operations.

[Major operation sites]

■ Around the old Royal Palace (Hanuman Dhoka) ■ Bhaktapur and its northern areas ■ Sankhu village ■ Gongbu district

### ◎ May 7 (Friday)

Preparation for withdraw, Reports of departure for Japan to the Ministry of Interior and the Ministry of Foreign Affairs of Nepal, Armed Police Force of Nepal, and the Embassy of Japan in Nepal, etc.

### ◎ May 8 (Friday)

13:30 (Nepal time): Departure, via Bangkok (divided into two flights for boarding)

### ◎ May 9 (Saturday)

[First flight] around 6:10 (Japan time) arrived at the Narita International Airport.

[Second flight] around 7:40 (Japan time) arrived at the Narita International Airport.

Breaking-up ceremony of the Japan Disaster Relief Team

Disbanding ceremony of the International Rescue Team

# Outline of Rescue Operations by Japan Disaster Relief Team in the 2015 Nepal Earthquake



Headquarters of the Armed Police Force of Nepal



May 3, 4, 5 Gongbu district



May 1, 2 Sankhu village

Russia G2



April 28, 29, 30 Around the old Royal Palace (Hanuman Dhoka) One person was found in die on April 29.



Headquarters of the Nepalese Armed Forces Holding OSOCC meetings in the morning

April 30 Around the west side of the airport

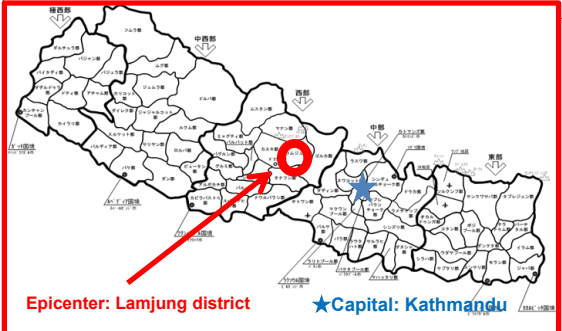
R575f2RTmTik

The Everest Hotel BoO (Base of Operation)

OSOCC On-Site Operations Coordination Center



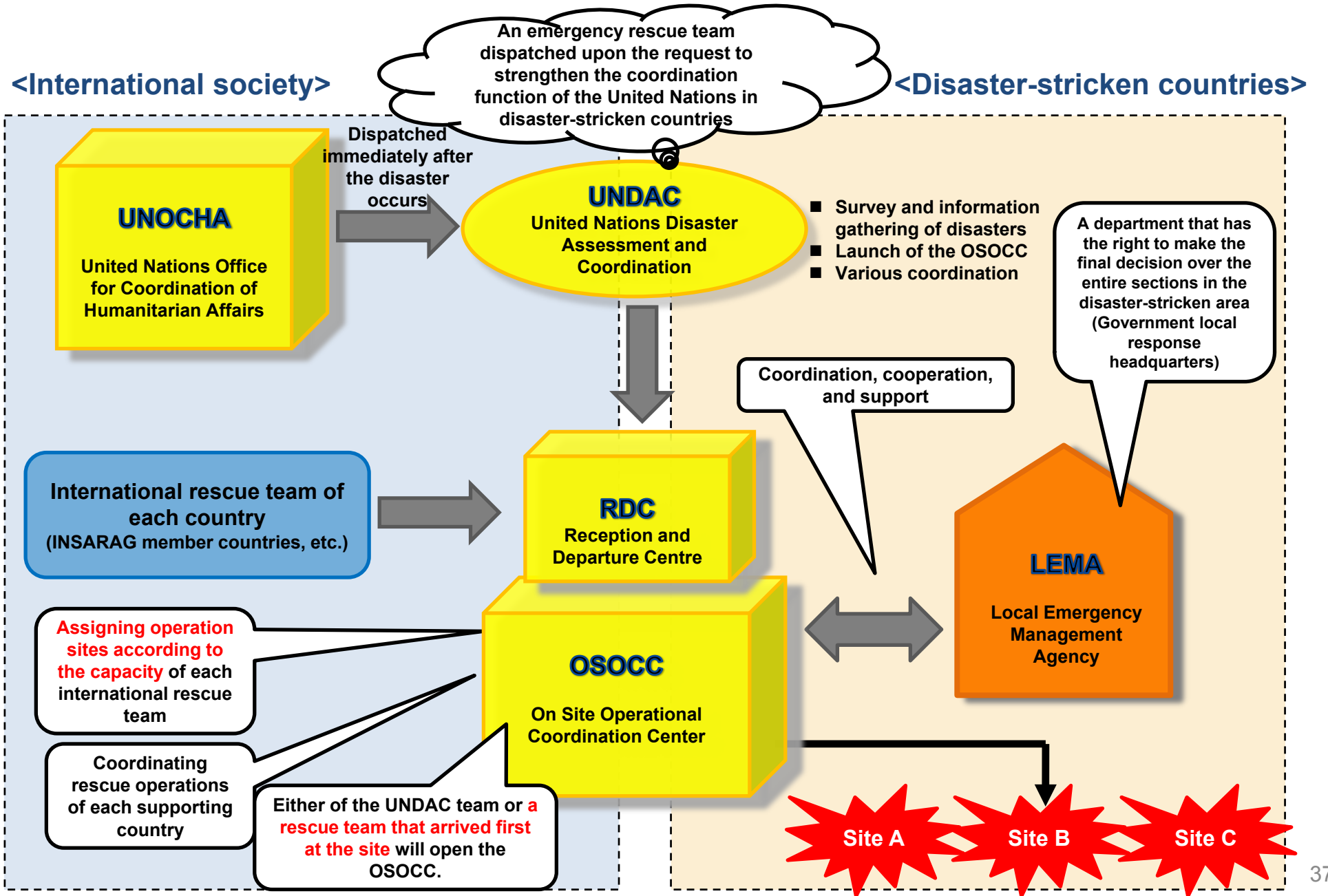
April 29 Bhaktapur



# Rescue Operations in Sites



# Coordination of the rescue operations in disaster-stricken areas overseas



# INSARAG External Classification (IEC)

## Purpose

According to the INSARAG guidelines, the capacity of each country's rescue team is classified into two levels; Heavy and Medium; by using a checklist containing 130 items.

- Use as a guide of acceptance of a rescue team in each disaster-stricken country
- Standardize the organization and capacity of each country's rescue team
- Use for considering the assignment of operation site

## Evaluation methods and details

- Mutual evaluation by the team of evaluators elected from member countries (about 10 persons)
- Re-evaluation of every 5 years (IER)  
(Japan was re-certified as "Heavy" level in March 2015.)

## Requirements for the team of "Heavy" level

- Setting of the OSOCC and the management
- Ability to provide rescue operations continuously for 10 days
- System to provide rescue operations in two places at the same time
- Search operations using both search equipment and rescue dogs, etc.

	Light	Medium	Heavy
Place of rescue operation	Within the home country	Within the home country and overseas	With in the home country and overseas
Capability of search and rescue operations	On the ground	Structure collapsed site	Particularly complicated structure collapsed site
Search operations		Search operations by using search dogs or search equipment	Search operations by using search dogs and search equipment
Start of rescue operations in disaster-stricken areas		Gathering at the airport of each team's country within 8 hours after the decision making.	Gathering at the airport of each team's country within 8 hours after the decision making.
Independent operation period	3 days	7 days	10 days
Possible operation sites at the same time		1 site	2 sites or more

## IEC certification of each countries

	Heavy	Medium
2005	Hungary (HUNNOR)	
2006	UK, U.S. (Fairfax)	
2007	U.S. (LA) the Netherlands, Germany (THW)	Germany (ISAR)
2008	Singapore, Sweden Australia (QFRS), Switzerland	Norway
2009	Poland, Iceland, China	UAE (promoted to the "Heavy" level in 2013)
2010	Japan, Denmark, Czech Republic	Belgium, France (PUI)
2011	Russia, Korea	Lithuania, Austria, Turkey (AKUT) Spain (UME), Spain (ERICAM)
2012	Finland, Austria Australia (NSW), Turkey (AFAD)	Oman, Hungary (HUSZAR)
2013	Jordan, Belarus, UAE	
2014	France (UIISC1), France (UIISC7) Romania, Ukraine, Morocco	

# International Rescue Team of Japanese Fire Service



This emblem means that we will rush to the disaster-stricken site anywhere in the world and hold out a helping hand.