

For Severe Weather

Emergency Warnings are issued if heavy rain or other phenomena on a scale observed only once every few decades is predicted.

Criteria for Emergency Warnings

Phenomenon	Criteria	
Heavy rain	<ul style="list-style-type: none"> Heavy rainfall with a level of intensity observed only once every few decades is predicted in association with a typhoon or similar. Or: Heavy rainfall is predicted in association with a typhoon expected to have a level of intensity observed only once every few decades or an extratropical cyclone with comparable intensity. 	
Storm	A Storm is predicted in association with a typhoon expected to have a level of intensity observed only once every few decades or an extratropical cyclone with comparable intensity.	
Storm surge		A storm surge is predicted
High waves		High waves are predicted
Snowstorm	A snowstorm is predicted in association with an extratropical cyclone expected to have a level of intensity observed only once every few decades.	
Heavy snow	Heavy snowfall with a level of intensity observed only once every few decades is predicted.	

JMA's website provides objective criteria for variables such as rainfall amounts used for the definition of a level of intensity observed only once every few decades.

For Earthquakes, Tsunami and Volcanic eruptions

Major Tsunami Warnings and certain other warnings are issued in the classification of Emergency Warnings#.

Phenomenon	Criteria
Earthquake	Seismic intensity of 6-lower or more is expected. (Earthquake Early Warnings incorporating prediction of tremors measuring 6-lower or more on JMA's seismic intensity scale are issued in the classification of Emergency Warnings#.)
Tsunami	Tsunami height is expected to be greater than 3 meters. (Major Tsunami Warnings are issued in the classification of Emergency Warnings#.)
Volcanic eruptions	Eruption or possibility of eruption that may cause serious damage in residential areas and non-residential areas nearer the crater (Volcanic Warning (Level 4 and 5) and Volcanic Warning (residential areas)* are issued in the classification of Emergency Warnings#.)

In regard to earthquakes, tsunami and volcanic eruptions, JMA maintains the system of warning nomenclature used until 29 August, 2013. As of 30 August, 2013, messages that meet one of the above criteria for high-risk conditions are issued in the new classification of Emergency Warnings.

* When residential areas are not defined, residential areas is replaced with foot-of-mountain areas.

Pay attention to the latest bulletins and follow municipal evacuation advisories and orders in order to protect your life

Emergency Warnings are disseminated through administrative organs and wide variety of media. Residents should look out for relevant messages.



Emergency Warning System

- A New Service to Protect Life -



Great East Japan Earthquake (2011)



Miyakejima volcanic eruption (2000)

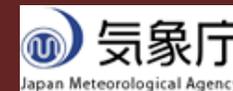


Typhoon Talas (2011)

Massive damage is caused by natural phenomena of extraordinary magnitude in Japan, as exemplified by the major tsunami caused by the 2011 Great East Japan Earthquake and heavy rain caused by Typhoon Talas in the same year.

In response to these natural hazards, the Japan Meteorological Agency (JMA) issued warnings and various other messages. However, in some cases there was no effective means of informing municipalities and residents of a significant risk of imminent fatal disaster in association with natural phenomena on a scale far exceeding the regular warning criteria, and existing warnings and other information did not prompt residents to evacuate urgently. Based on these experiences, JMA introduced a system of Emergency Warnings on 30 August, 2013, to highlight such hazards.

Japan Meteorological Agency (JMA)
 1-3-4 Otemachi, Chiyoda-ku, Tokyo 100-8122, Japan
 Tel: +81-3-3211-4966
 Fax: +81-3-3211-2032 (For the deaf)
 JMA Website: <http://www.jma.go.jp/jma/indexe.html>
 About Emergency Warning: http://www.jma.go.jp/jma/en/Emergency_Warning/ew_index.html

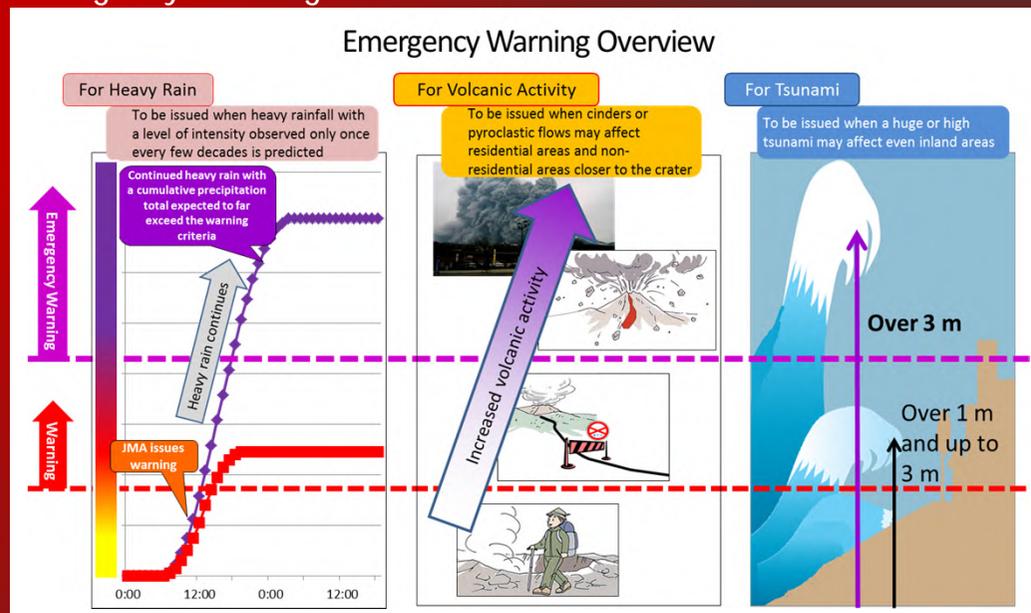


Emergency Warnings are issued to alert people to the significant likelihood of catastrophes in association with natural phenomena of extraordinary magnitude.

If an Emergency Warning is issued:

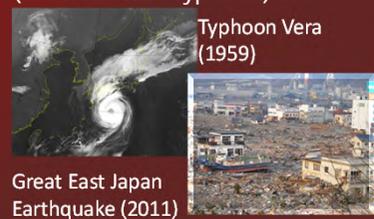
- An extraordinary phenomenon of a magnitude never experienced by local residents is likely to occur.
- The possibility of a catastrophe is significant.
- Immediate action should be taken to protect life.

Emergency Warning Overview



Examples of Catastrophes to which Emergency Warnings would apply

Emergency Warnings are issued if a phenomenon is expected to be of a scale that will far exceed the relevant warning criteria, such as the 2011 Great East Japan Earthquake and Typhoon Vera (a.k.a. Ise-wan Typhoon) in 1959.



Catastrophe	Event	Impact
Severe weather	Kyushu-Hokubu heavy rain (July 2012)	32 people killed or missing
	Typhoon Talas heavy rain (2011)	98 people killed or missing
	Typhoon Vera (a.k.a. Ise-wan Typhoon) heavy rain, storm, storm surge, high waves (1959)	More than 5,000 people killed or missing
Earthquake (Victim numbers include those killed or missing as a result of tsunami)	Muroto Typhoon heavy rain, storm, storm surge, high waves (1934)	More than 3,000 people killed or missing
	Great East Japan Earthquake (2011)	More than 18,000 people killed or missing
	Iwate-Miyagi Nairiku Earthquake (2008)	23 people killed or missing
	Niigataken Chuetsu-oki Earthquake (2007)	15 people killed
Tsunami (Victim numbers include those killed or missing as a result of earthquakes)	Mid Niigata Prefecture Earthquake (2004)	68 people killed
	Great Hanshin-Awaji Earthquake (1995)	6,437 people killed or missing
	Great East Japan Earthquake (2011)	More than 18,000 people killed or missing
Volcanic activity	Earthquake off the Southwest Coast of Hokkaido (1993)	230 people killed or missing
	Central Sea of Japan Earthquake (1983)	104 people killed or missing
	Miyakejima volcanic eruption (2000)	All island residents evacuated
	Usuzan volcanic eruption (2000)	More than 15,000 people evacuated
	Mt. Unzen volcanic eruption (1991)	43 people killed or missing

Routine preparedness and early action for natural hazards saves lives.

Responses advised to protect life (for heavy rain)

On a routine basis Check weather bulletins and look out for changes in the weather.

Onset of rain
Pay attention to the latest bulletins and prepare for disaster conditions. Early action is recommended for people in areas vulnerable to rain/wind-related disasters and people needing assistance to evacuate.

Advisory
Pay attention to evacuation orders/advisories and other related information issued by municipalities, and start voluntary and early evacuation as needed.

Warning
Take immediate action to protect life. Head to an evacuation center in accordance with evacuation advisories/orders and other related information. If it is dangerous to go outside, evacuate to a safer place within the building.

Emergency Warning
Cool-headed decisions are important because evacuation requirements depend on the location/structure of domiciles and whether inundation has already occurred. Advance consideration of action to be taken is key in protecting life.

Nuts and Bolts
• Check whether you're ready for an impending hazard.
• Take early action even if no Emergency Warning is in effect!
• Stay calm.
• Respond flexibly depending on the situation.
• Be aware of the extreme danger of evacuation once inundation has occurred.

Checklist:
✓ Be aware of hazardous places such as lower areas prone to flooding
✓ Check emergency supplies
✓ Check evacuation routes and centers
✓ Check the security of windows and storm shutters
✓ Monitor weather bulletins on TV, radio and JMA's website

- Remember that catastrophes may occur even if no Emergency Warning is in effect.
- Take early action with reference to Warnings, Advisories and relevant bulletins.
- Check evacuation routes and centers constantly.

For Severe Weather

Emergency Warnings are issued if heavy rain or other phenomena on a scale observed only once every few decades is predicted.

Criteria for Emergency Warnings

Phenomenon	Criteria	
Heavy rain	<ul style="list-style-type: none"> Heavy rainfall with a level of intensity observed only once every few decades is predicted in association with a typhoon or similar. Or: Heavy rainfall is predicted in association with a typhoon expected to have a level of intensity observed only once every few decades or an extratropical cyclone with comparable intensity. 	
Storm	in association with a typhoon expected to have a level of intensity observed only once every few decades or an extratropical cyclone with comparable intensity.	
Storm surge		A storm surge is predicted
High waves		High waves are predicted
Snowstorm	A snowstorm is predicted in association with an extratropical cyclone expected to have a level of intensity observed only once every few decades.	
Heavy snow	Heavy snowfall with a level of intensity observed only once every few decades is predicted.	

JMA's website provides objective criteria for variables such as rainfall amounts used for the definition of a level of intensity observed only once every few decades.

For Earthquakes, Tsunami and Volcanic eruptions

Major Tsunami Warnings and certain other warnings are issued in the classification of Emergency Warnings#.

Phenomenon	Criteria
Earthquake	Seismic intensity of 6-lower or more is expected. (Earthquake Early Warnings incorporating prediction of tremors measuring 6-lower or more on JMA's seismic intensity scale are issued in the classification of Emergency Warnings#.)
Tsunami	Tsunami height is expected to be greater than 3 meters. (Major Tsunami Warnings are issued in the classification of Emergency Warnings#.)
Volcanic eruptions	Eruption or possibility of eruption that may cause serious damage in residential areas and non-residential areas nearer the crater (Volcanic Warning (Level 4 and 5) and Volcanic Warning (residential areas)* are issued in the classification of Emergency Warnings#.)

In regard to earthquakes, tsunami and volcanic eruptions, JMA maintains the system of warning nomenclature used until 29 August, 2013. As of 30 August, 2013, messages that meet one of the above criteria for high-risk conditions are issued in the new classification of Emergency Warnings.

* When residential areas are not defined, residential areas is replaced with foot-of-mountain areas.

Pay attention to the latest bulletins and follow municipal evacuation advisories and orders in order to protect your life

Emergency Warnings are disseminated through administrative organs and wide variety of media. Residents should look out for relevant messages.



Emergency Warning System

- A New Service to Protect Life -



Great East Japan Earthquake (2011)



Miyakejima volcanic eruption (2000)



Typhoon Talas (2011)

Massive damage is caused by natural phenomena of extraordinary magnitude in Japan, as exemplified by the major tsunami caused by the 2011 Great East Japan Earthquake and heavy rain caused by Typhoon Talas in the same year.

In response to these natural hazards, the Japan Meteorological Agency (JMA) issued warnings and various other messages. However, in some cases there was no effective means of informing municipalities and residents of a significant risk of imminent fatal disaster in association with natural phenomena on a scale far exceeding the regular warning criteria, and existing warnings and other information did not prompt residents to evacuate urgently. Based on these experiences, JMA introduced a system of Emergency Warnings on 30 August, 2013, to highlight such hazards.

Japan Meteorological Agency (JMA)
 1-3-4 Otemachi, Chiyoda-ku, Tokyo 100-8122, Japan
 Tel: +81-3-3211-4966
 Fax: +81-3-3211-2032 (For the deaf)
 JMA Website: <http://www.jma.go.jp/jma/indexe.html>
 About Emergency Warning: http://www.jma.go.jp/jma/en/Emergency_Warning/ew_index.html

