

Oita City Storm Surge Hazard Map

Nishi Oita Central area

Typhoons cause storm surges in Oita City.

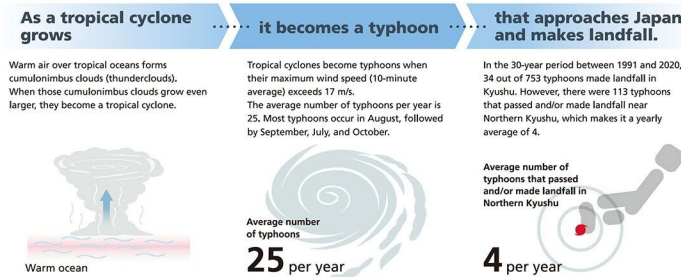
This storm surge hazard map shows high-risk flood zones, floodwater depth, and locations of evacuation centers when the largest storm surge occurs in Oita City. The map was created based on current historical data, so there may be cases of flooding in areas not indicated on the map. In case of a typhoon or storm surge, please look up and understand information about it from reliable sources and be ready to evacuate as soon as possible.

[Simulated Typhoon] The strongest and largest typhoons in history that hit Japan were Typhoon Muroto with a central pressure of 900 hPa in 1934, and Typhoon Iwan with a velocity of 73 km/h in 1958. This map shows what would happen if a typhoon around the same size and intensity were to produce a storm surge in Oita City.

Special issue

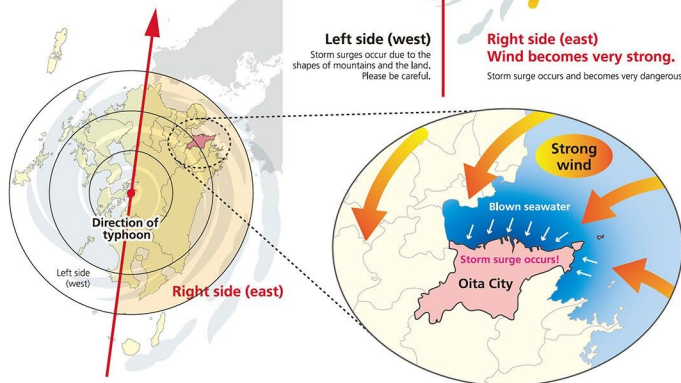
Typhoons generate storm surges

Storm surges that occur in Oita City are caused by typhoons!



The relationship between the direction of typhoon and storm surges

A strong wind blows from the right side (east) of the direction the typhoon is heading, and this wind blows towards the center of the typhoon. When a typhoon passes through the left side (west) of Oita City, strong winds carry large amounts of seawater to the coast, resulting in a storm surge. This phenomenon is called, the blowing effect. This causes lots of flood damage. When a typhoon passes through the right side (east) of Oita City, it creates heavy rain fall.



Be extra careful of storm surges and when typhoons passes through the left (west) side of Oita City!

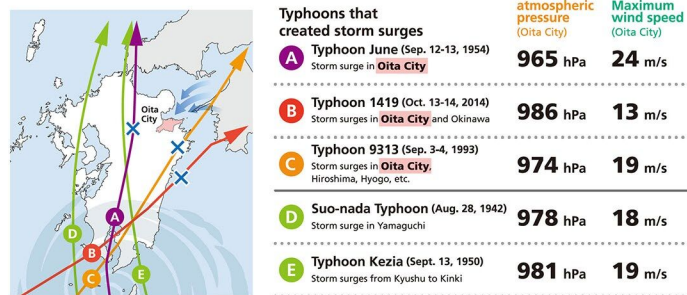
Damages caused by past storm surges

A storm surge occurs when a typhoon with a low central pressure (measured in hPa) and high wind speed (measured in m/s) comes. Note: hPa is hectopascal and m/s is meters per second.



Typhoons that brought storm surge damages

When typhoons pass from south to north, they create storm surges in Oita City which unfortunately drown and kill many people and damage many houses. Even though Typhoon 1419 (2014) listed in row 6 was heading away from Kyushu, it still created a storm surge which caused damages.



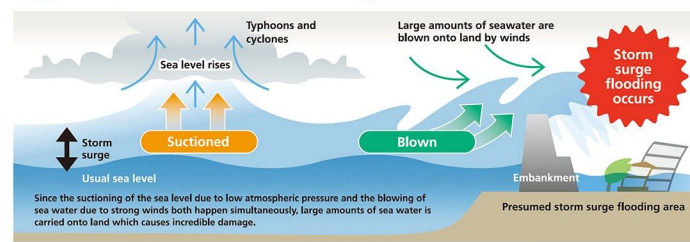
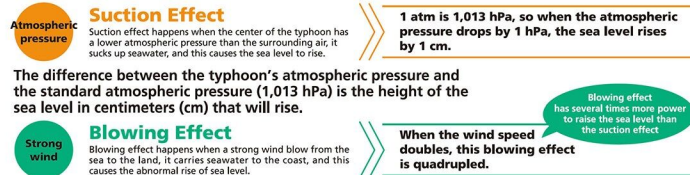
Places flooded by storm surges in the past & places that may be flooded in the future

There were still very few reclaimed land in Oita Port when Typhoon June came in 1954, so water from the sea travelled far into land.



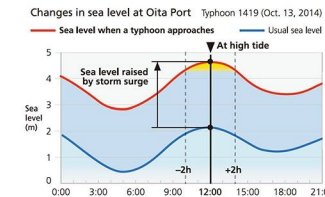
Let's learn about storm surges!

Typhoons raise the sea level to abnormally high levels, and storm surges occur when large amounts of seawater reaches far onto land. Elevated (suctioned) sea levels and large amounts of seawater blown onto land are what cause storm surges to occur.



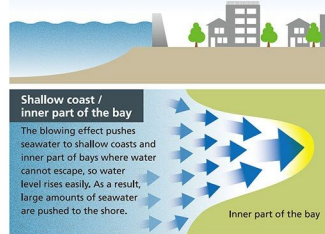
Be extra careful during the high tide of a spring tide!

A typhoon that arrives 2 hours before or after the high tide of a spring tide is very dangerous since a large storm surge will occur in Oita Port (Beppu Bay).



High Hazard Areas

Near the port and the coast
Be careful of flooding in areas that are located below sea level during high tide.



Difference between a storm surge and a tsunami

Storm surge Storm surges are caused by typhoons. It is a phenomenon in which the suction effect and the blowing effect occur together and raise the sea level over a wide area.

Tsunami Tsunamis are caused by earthquakes that occur on the seabed. It is a phenomenon in which the ground of the seabed is moved up and down by an earthquake, causing seawater to rise and fall over a wide area, producing big and high waves. If the Nankai Trough Earthquake occurs, a tsunami with a maximum height of 8 meters will hit Oita City.

Oita City Storm Surge Hazard Map
Created: March 2022
River and Port Development Division, Oita City Public Works and Construction Department
TEL 097-537-5632 (Direct Line) FAX 097-532-7545 (Direct Line)

What to do before a typhoon comes

Things to check inside and around the house



Prepare to live at home in times of disaster



Prepare enough supplies for at least 3 days in the event of a disaster!

- Food**
Store at least 3-to-7-day's worth of food such as canned food and bulk-in-the-bag food.
One adult requires 3 liters of drinking water per day. Prepare at least 3-to-7-day's worth of water.
- Water**
Prepare a portable stove and extra gas cylinders, etc.
- Fuel**
Ropes, garden shovels, etc.
- Tools**
Wet wipes, towels, emergency toilets, blankets, plastic wraps (cling wrap), table wares, etc.
- Other**

Exercise caution before a typhoon approaches and when you leave your home



Pack an Emergency Go Bag

No one knows when a disaster will occur, so now is the time to prepare an emergency bag so that you can evacuate immediately in the case of a disaster. An emergency go bag is a bag that you take with you when evacuating. Please refer to the list below.



Important points to remember at the evacuation center

Please wear a mask at the evacuation center. Wash your hands after touching anything in order to prevent becoming ill.

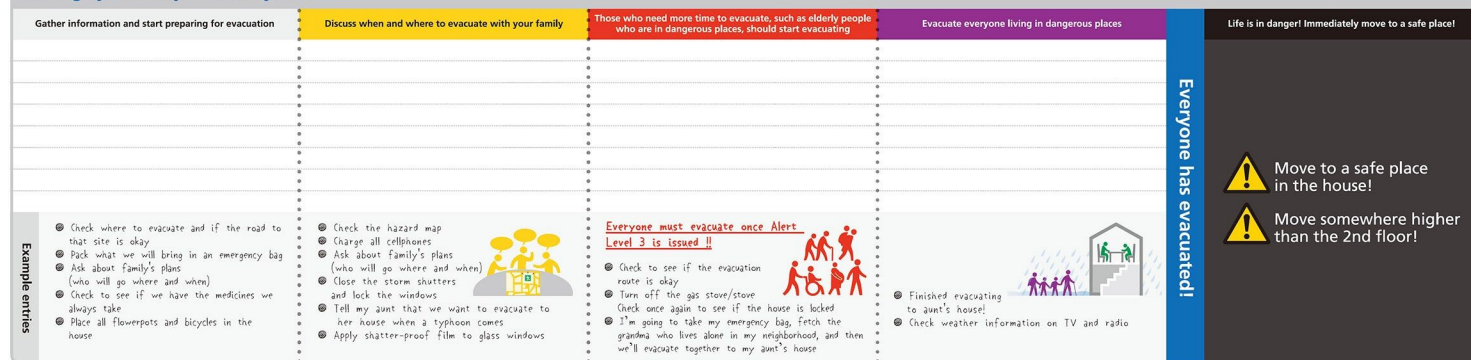


Alert levels & My Timeline

My Timeline is a disaster prevention plan for you and your family. Thinking ahead of time about what to do and when to do it in the event of a storm surge will allow you and your family to react quickly and safely evacuate.



Things you and your family should do



Please refer to these sites for the latest information

