

Weather hazards in the USA

Glushkova Julia, N-51

Weather hazards

- Earthquakes
- Fires
- Floods
- Hurricanes

Earthquakes

Earthquakes (quakes, tremors, temblors) are the result of a sudden release of energy in the Earth's crust that creates seismic waves.

Strength of the earthquakes is measured by *the moment magnitude scale* and *Richter scale*.

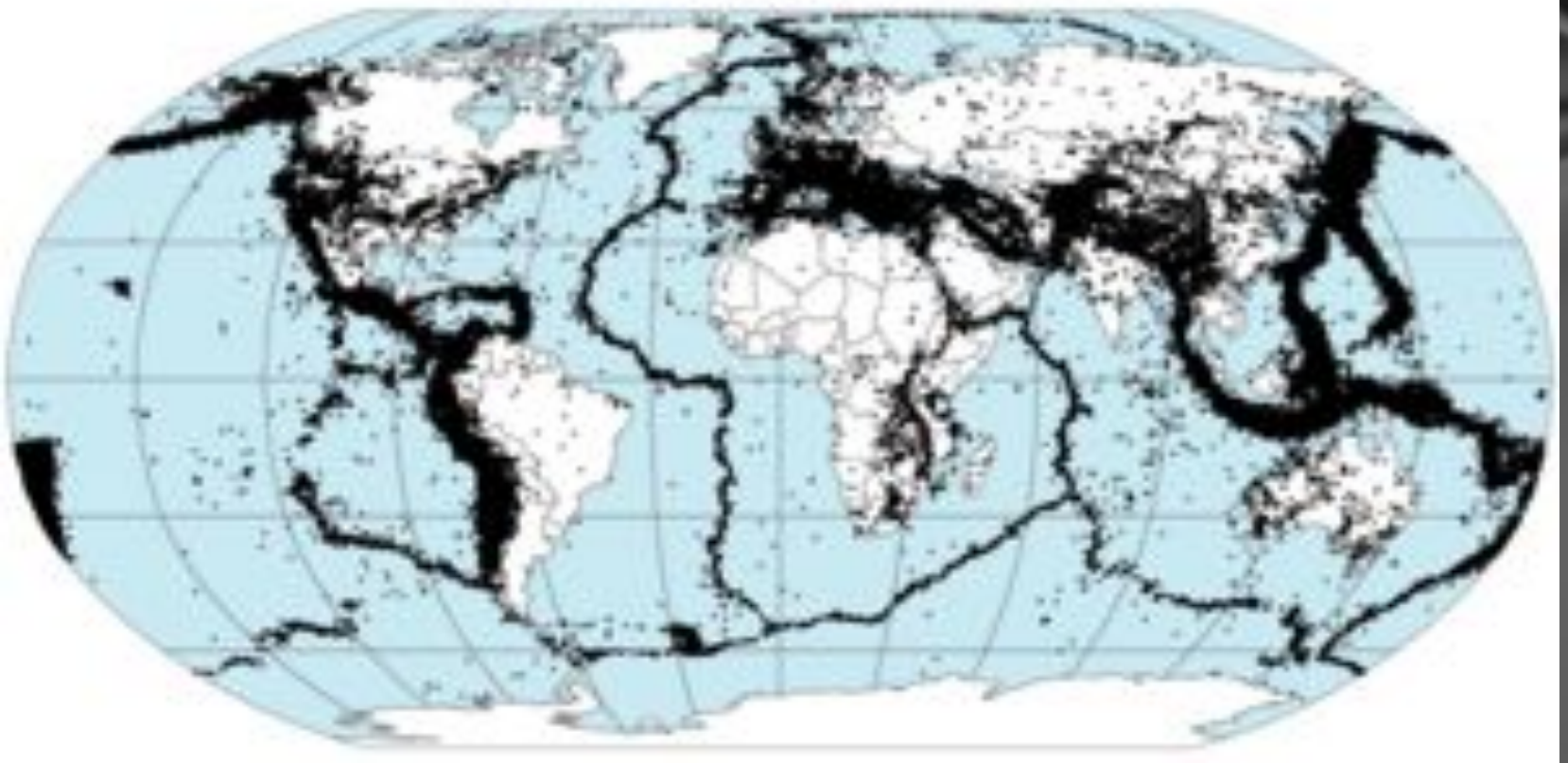
The earthquake with magnitude 3 and lower is called as **imperceptible** and one with magnitude 9 and over is called **serious**.

Earthquakes

They cause the earth shaking and sometimes displacement of the ground. When the epicenter of a large earthquake is located offshore, it's a reason for tsunami and volcano activity.

The areas, where the earthquakes take place

Preliminary Determination of Epicenters
358,214 Events, 1963 - 1998



The areas, where the earthquakes occur

California and Alaska in the U.S.

Guatemala

Chile

Peru

Indonesia

Iran

Pakistan Portugal Turkey

Forest Fires

A wildfire in California, 5 September 2008

Forest fire are any uncontrolled fire, which occurs in forests from the middle summer to autumn begin.



Floods

A flood is an overflow of an expanse of water that submerges land. In April 2011, two major storm systems deposited record levels of rainfall on the Mississippi River watershed. When that additional water combined with the springtime snowmelt, the river and many of its tributaries began to swell to record levels by the beginning of May. Areas along the Mississippi itself experiencing flooding include Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana.

Flooding along Beale Street in downtown Memphis, Tennessee



Hurricanes

- storm with a violent wind, in particular a tropical cyclone
- a wind of force 12 on the Beaufort scale (equal to or exceeding 64 knots or 118 kph)

Beaufort scale is a scale of wind speed based on a visual estimation of the wind's effects, ranging from force 0 (less than 1 knot or 1 kph, "calm") to force 12 (64 knots or 118 kph and above, "hurricane")

Hurricanes

The Saffir–Simpson Hurricane Scale (SSHWS), classifies hurricanes — Western Hemisphere tropical cyclones that exceed the intensities of tropical depressions and tropical storms — into five categories distinguished by the intensities of their sustained winds. To be classified as a hurricane, a tropical cyclone must have maximum sustained winds of at least 74 mph (33 m/s; 64 kn; 119 km/h) (Category 1). The highest classification in the scale, Category 5, is reserved for storms with winds exceeding 156 mph (70 m/s; 136 kn; 251 km/h).

Hurricanes occur in the late summer and early autumn along southern parts of the east coast and the Gulf of Mexico coast.

Hurricanes with Names

- Galveston Hurricane
- Hurricane Irene
- Hurricane Ivan
- Hurricane Rita
- Hurricane Katrina

Galveston Hurricane

made landfall on the city of Galveston in the U.S. state of Texas, on September 8, 1900. It had estimated winds of 145 miles per hour (233 km/h) at landfall, making it a Category 4 storm on the Saffir–Simpson Hurricane Scale. It was the deadliest hurricane in US history, and the second costliest hurricane in US history based on the US dollar's 2005 value (to compare costs with those of Hurricane Katrina and others).

Wrecked negro High School building



Galveston Hurricane

*The only remaining house near the beach
for miles, Galveston, Texas*



*House in Galveston on Avenue N, October
15, 1900*



Hurricane Irene

Route of Hurricane Irene

Irene made landfall in Antilles, Greater Antilles, Turks and Caicos, the Bahamas, eastern United States (Landfalls in North Carolina, Connecticut, New Jersey, and New York), eastern Canada and got a Category 1 hurricane.



Damage

Damage to the Port Jervis Line



A Lexus RX450h damaged by a fallen tree in Washington, D.C.



Damage

A road washout in New Windsor

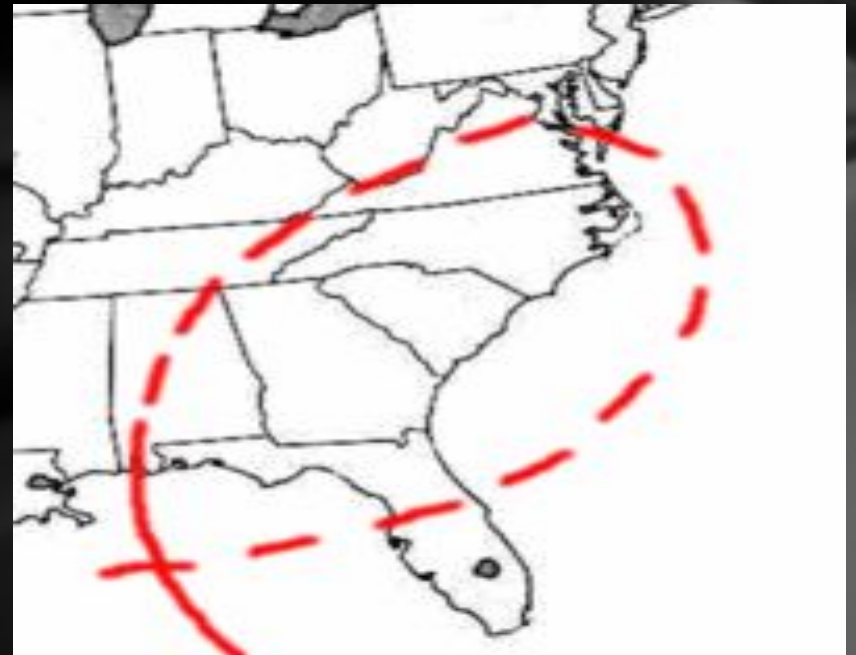
The Raritan River at New Brunswick on August 29, 2011, one day after Hurricane Irene landfall



Hurricane Ivan

Ivan's "return"

Early September 5, Tropical Storm Ivan's winds strengthened to hurricane status 1210 miles (1950 km) east-southeast of the Lesser Antilles. Ivan had rapidly strengthened to a strong category three hurricane (nearly a category four) on the Saffir-Simpson Hurricane Scale with winds of 125 mph (200 km/h). September 16 Ivan struck the US mainland near Gulf Shores, Alabama. At the time, Ivan's maximum sustained winds had dropped to 130 mph (210 km/h), just under Category 4 strength



Damage

damage to I-10 bridge in Pensacola



Hurricane Rita

Storm path

Hurricane Rita was the fourth-most intense Atlantic hurricane ever recorded and the most intense tropical cyclone ever observed in the Gulf of Mexico. Rita caused \$12 billion in damage on the U.S. Gulf Coast in September 2005. Rita was the seventeenth named storm, tenth hurricane, fifth major hurricane, and third Category 5 hurricane of the historic 2005 Atlantic hurricane season. It came through Bahamas, Cuba, Florida, Louisiana and Texas.



Damage

Church in Beaumont with roof ripped off by Hurricane Rita.



A town along the Gulf Coast completely destroyed by Rita



Hurricane Katrina

Storm path

Hurricane Katrina was the deadliest and most destructive Atlantic hurricane of the 2005 Atlantic hurricane season. It is the costliest natural disaster, as well as one of the five deadliest hurricanes, in the history of the United States. Among recorded Atlantic hurricanes, it was the sixth strongest overall. At least 1,836 people died in the actual hurricane and in the subsequent floods, making it the deadliest U.S. hurricane since the 1928 Okeechobee hurricane; total property damage was estimated at \$81 billion (2005 USD), nearly triple the damage wrought by Hurricane Andrew in 1992.



Damage

Damage to a mobile home in Davie, Florida following Hurricane Katrina



Flooding in Venice, Louisiana



Damage

Damage to Long Beach, Mississippi following Hurricane Katrina



U.S. Route 90's Bay St. Louis Bridge on Pass Christian was destroyed as a result of Katrina.

