



San Andreas Fault Reaches Highest Stress Level in Millennia

Description

Stress along the San Andreas and San Jacinto faults in Southern California has reached the highest levels in 1,000 years, according to new research from the University of Hawaii at Manoa. This discovery is important for understanding earthquake risks in a region with many people and vital infrastructure.

Scientist Liliane Burkhard stated that the area might be able to experience a significant rupture affecting both fault systems. Researchers found that Cajon Pass may sometimes block large ruptures and sometimes allow them to connect, causing a big earthquake involving both faults at once.

To study this, researchers created a model that simulates stress buildup on these faults, including the Cajon Pass. They used 1,000 years of earthquake history to estimate stress levels. Burkhard noted that stress is now at a historically high level, and more than 160 years have passed since the last major rupture. This means the faults are under a lot of pressure.

The study showed that stress has been growing and could lead to a large earthquake affecting crowded areas like Los Angeles and Riverside. The San Andreas Fault, which runs about 650 miles, is the main boundary between the Pacific and North American tectonic plates.

Vocabulary List:

1. **stress** //stres// (noun): force or pressure inside the Earth's rocks
2. **fault** //fɔlt// (noun): a crack in Earth's crust where rock moves
3. **rupture** //ˈrʌptʃə// (noun): a sudden break or split in rock underground
4. **infrastructure** //ˈɪnfrəˌstrʌktʃə// (noun): buildings and services a city needs to work
5. **simulates** //ˈsɪmjəˌleɪts// (verb): creates a model to show how something works
6. **tectonic** //tekˈtɒnɪk// (adjective): connected to the movement of Earth's outer layer

Comprehension Questions

Multiple Choice

1. What region is mentioned as having reached historically high stress levels?

Option: Southern California



- Option: Northern California
- Option: Texas
- Option: Nevada

2. Which fault systems are being studied for earthquake risks?

- Option: San Andreas and San Jacinto
- Option: New Madrid and Hayward
- Option: San Andreas and Hayward
- Option: Nankai and San Jacinto

3. How many years of earthquake history did researchers analyze?

- Option: 500 years
- Option: 1,000 years
- Option: 200 years
- Option: 160 years

4. What did the researchers create to simulate stress buildup?

- Option: A computer model
- Option: A physical model
- Option: A theoretical paper
- Option: A survey

5. Who stated that the area might experience a significant rupture?

- Option: A civil engineer
- Option: Liliane Burkhard
- Option: A geologist
- Option: A seismologist

6. What major city is at risk if a large earthquake occurs?

- Option: San Francisco
- Option: Los Angeles
- Option: San Diego
- Option: Seattle

True-False

7. The San Andreas Fault runs about 600 miles.



8. The Cajon Pass sometimes allows large ruptures to connect.
9. More than 160 years have passed since the last major rupture in the area.
10. Stress levels on the faults have remained constant for the last 1,000 years.
11. The study was conducted by the University of Hawaii at Manoa.
12. There is little concern about earthquake risks in the modeled region.

Gap-Fill

13. Stress levels along the San Andreas and San Jacinto faults have reached the highest levels in _____.
14. The Cajon Pass may sometimes block large ruptures and sometimes allow them to _____.
15. Liliane Burkhard is a scientist at the _____.
16. The last major rupture occurred more than _____ years ago.
17. The San Andreas Fault is the main boundary between the Pacific and _____ tectonic plates.
18. A large earthquake could affect crowded areas like Los _____ and Riverside.

Answer

Multiple Choice: 1. Southern California 2. San Andreas and San Jacinto 3. 1,000 years 4. A computer model 5. Liliane Burkhard 6. Los Angeles

True-False: 7. False 8. True 9. True 10. False 11. True 12. False

Gap-Fill: 13. 1,000 years 14. connect 15. University of Hawaii at Manoa 16. 160 17. North American 18. Angeles



Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What is a common strategy used in fighting games that emphasizes aggressive play and constant pressure?

- Option: Defensive
- Option: Rushdown
- Option: Zoning
- Option: Turtling

2. Which type of knife is often associated with martial arts and has a curved blade?

- Option: Butterfly knife
- Option: Straight knife
- Option: Karambit
- Option: Dagger

3. In fighting games, what term is used to refer to a sequence of moves executed in a specific order?

- Option: Juggles
- Option: Combos
- Option: Counters
- Option: K.O.s

4. What term describes the fundamental facilities and systems serving a country or city?

- Option: Architecture
- Option: Infrastructure
- Option: Superstructure
- Option: Framework

5. What term refers to life or organisms that come from outside Earth?

- Option: Interstellar
- Option: Extraterrestrial
- Option: Celestial
- Option: Cosmic

6. What do we call planets that orbit stars outside our solar system?

- Option: Asteroids
- Option: Dwarf planets
- Option: Exoplanets
- Option: Brown dwarfs



-
7. What term describes a sudden powerful forward or upward movement?
Option: Plunge
Option: Decline
Option: Surge
Option: Drop
8. What is the term for the process of solving a problem or dispute?
Option: Complication
Option: Resolution
Option: Conflict
Option: Issue
9. What term refers to the quality of being prone to change or not firm?
Option: Stability
Option: Instability
Option: Predictability
Option: Reliability
10. In an experiment, what do we call a factor that can change and affect the outcome?
Option: Control
Option: Constant
Option: Variable
Option: Parameter

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. The _____ of the game are designed to enhance competitive play.
12. The earthquake was attributed to a major _____ in the tectonic plates.
13. A sudden _____ can lead to significant geological events.
14. The company _____ its plans for expansion yesterday.
15. The documents were deemed _____ and not available to the public.
16. The research team reported _____ signals from deep space.
17. Humans have always been fascinated by _____ travel and its possibilities.



18. The proposed project was determined to be _____ after a thorough analysis.
19. The company is focusing on _____ its operations to meet growing demand.
20. Due to financial difficulties, the business announced a series of _____ last month.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. The study revealed significant findings that could change our understanding of genetics.
22. Tectonic movements are responsible for the shifting of the Earth's plates.
23. High levels of stress can lead to both physical and mental health issues.
24. The expansion of the universe has fascinated astronomers for centuries.
25. There was a surge in electricity demand during the heatwave.
26. The organization exceeded its peak performance metrics last quarter.
27. The variability in weather patterns can affect agriculture significantly.
28. The software simulates various scenarios for better training outcomes.
29. Identifying the fault in the system is crucial for solving the problem.
30. The researchers noticed an anomalous pattern in the data that required further investigation.

Answer

Multiple Choice: 1. Rushdown 2. Karambit 3. Combos 4. Infrastructure 5. Extraterrestrial 6. Exoplanets 7. Surge 8. Resolution 9. Instability 10. Variable

Gap-Fill: 11. mechanics 12. fault 13. rupture 14. announced 15. classified 16. anomalous 17. interstellar 18. feasible 19. upscaling 20. layoffs

Matching sentence: 1. significant 2. tectonic 3. stress 4. expansion 5. surge 6. peak 7. variable 8. simulates 9. fault 10. anomalous

CATEGORY

1. Sci/Tech - LEVEL3

POST TAG



1. 000 years
2. 1
3. B1
4. ESL learning
5. esl news
6. highest stress level
7. Level 3
8. San Andreas Fault

Tags

1. 000 years
2. 1
3. B1
4. ESL learning
5. esl news
6. highest stress level
7. Level 3
8. San Andreas Fault

Date Created

2026/06/16

Author

aimeeyoung99

ESL-NEWS.COM