



San Andreas Fault Reaches Highest Stress Level in 1,000 Years

Description

Stress on the San Andreas and San Jacinto faults in Southern California is very high. This is the highest level in 1,000 years. A new study from the University of Hawaii at Manoa shows this.

Scientists say the area could have a big earthquake that affects both faults. Liliane Burkhard is a scientist involved in the study. She said Cajon Pass might work as an "earthquake gate." This means it can sometimes stop earthquakes or let them pass through to the other fault.

The researchers used a model to study 1,000 years of earthquake history in this area. They found that stress still builds up because no major earthquake has happened in over 160 years. Burkhard noted that the region is very stressed now.

The study shows that a strong earthquake could impact many people. Cities like Los Angeles, San Bernardino, Riverside, and Coachella Valley could see huge effects. The San Andreas Fault stretches about 650 miles and is the main boundary between two big land plates. If you want to know how to prepare for an earthquake, you can find more information online.

Vocabulary List:

1. **stress** //stres// (noun): pressure inside the ground that can cause earthquakes
2. **faults** //fɔlts// (noun): cracks in the ground where earthquakes start
3. **model** //ˈmɒdəl// (noun): a tool that shows how something works
4. **impact** //ɪmˈpækt// (verb): to have a strong effect on someone
5. **boundary** //ˈbɑʊndəri// (noun): the line or edge between two areas
6. **plates** //pleɪts// (noun): large pieces of Earth's outer rock that move

Comprehension Questions

Multiple Choice

1. What is the highest level of stress in the San Andreas and San Jacinto faults in years?
Option: 500 years
Option: 1,000 years



Option: 1,500 years

Option: 2,000 years

2. Which university conducted the study on the San Andreas and San Jacinto faults?

Option: University of California

Option: University of Hawaii at Manoa

Option: Stanford University

Option: Massachusetts Institute of Technology

3. How many years has it been since a major earthquake occurred in the area?

Option: 100 years

Option: 160 years

Option: 200 years

Option: 250 years

4. What city is NOT mentioned as being potentially affected by an earthquake in the study?

Option: Los Angeles

Option: San Bernardino

Option: San Diego

Option: Coachella Valley

5. How many miles does the San Andreas Fault stretch?

Option: 500 miles

Option: 650 miles

Option: 800 miles

Option: 1,000 miles

6. What does Liliane Burkhard refer to Cajon Pass as?

Option: Earthquake gate

Option: Earthquake trap

Option: Fault line

Option: Seismic barrier

True-False

7. The San Andreas Fault is the main boundary between two large ocean plates.

8. Stress levels in the San Andreas and San Jacinto faults have not been this high in 1,000 years.



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9. Liliane Burkhard is a scientist who was not involved in the study.
10. The region has experienced a major earthquake in the last 160 years.
11. Cities like Los Angeles and San Bernardino could be impacted by a strong earthquake.
12. The study indicated that stress still builds up in the area due to the lack of major earthquakes.

Gap-Fill

13. Stress on the San Andreas and San Jacinto faults in Southern California is very high, the highest level in _____ years.
14. Cajon Pass might work as an 'earthquake gate' that can sometimes stop earthquakes or let them pass through to the _____ fault.
15. Burkhard noted that the region has been very _____ due to the lack of major earthquakes.
16. The researchers used a model to study _____ years of earthquake history in the area.
17. The San Andreas Fault is the main boundary between two large _____ plates.
18. If you want to know how to _____ for an earthquake, you can find more information online.

Answer

- Multiple Choice:** 1. 1,000 years 2. University of Hawaii at Manoa 3. 160 years 4. San Diego 5. 650 miles
6. Earthquake gate
- True-False:** 7. False 8. True 9. False 10. False 11. True 12. True
- Gap-Fill:** 13. 1,000 14. other 15. stressed 17. land 18. prepare



Vocabulary quizzes

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

1. What is often a concern in geological studies when investigating potential pollutants?
Option: Magnetism
Option: Contamination
Option: Radiation
Option: Absorption
2. Which method is commonly used to extract samples from beneath the Earth's surface?
Option: Mining
Option: Drilling
Option: Excavation
Option: Sifting
3. Which natural phenomenon is characterized by intermittent eruptions of hot water and steam?
Option: Spring
Option: Geyser
Option: Fountain
Option: Waterfall
4. What force is primarily responsible for keeping objects grounded on Earth?
Option: Friction
Option: Magnetism
Option: Gravity
Option: Inertia
5. What natural process involves the wearing away of the Earth's surface?
Option: Erosion
Option: Deposition
Option: Sedimentation
Option: Compaction
6. What do we call a solid fragment of material from space that reaches the Earth's surface?
Option: Asteroid
Option: Meteorite
Option: Comet
Option: Satellite
7. What type of waves are generated during an earthquake?



- Option: Sound
- Option: Shock
- Option: Light
- Option: Electromagnetic

8. How would you describe phenomena that deviate from what is standard or expected?

- Option: Ordinary
- Option: Common
- Option: Anomalous
- Option: Predictable

9. What term describes the process of growth and improvement in technology and systems?

- Option: Stagnation
- Option: Development
- Option: Decline
- Option: Regression

10. What is needed to perform work, such as in engineering and construction projects?

- Option: Time
- Option: Money
- Option: Energy
- Option: Force

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

11. The research team was excited to share their groundbreaking _____ with the scientific community.

12. The asteroid's _____ caused significant changes to the environment millions of years ago.

13. Geologists study seismic _____ to understand the movements of tectonic plates.

14. Scientists create a _____ to simulate potential future climate changes.

15. The Earth's surface is divided into several tectonic _____ that move over time.

16. The software developers released an _____ to fix bugs and improve functionality.



17. Conservation efforts aim to protect the natural _____ for future generations.
18. The organization provides financial _____ for students pursuing scientific research.
19. The company upgraded its _____ to handle increased online traffic and data storage.
20. The structural engineer measured the _____ on the building to ensure safety during earthquakes.

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

21. Researchers encounter anomalous data that requires further investigation to understand.
22. The drilling operation allowed scientists to extract core samples from deep within the Earth.
23. The Old Faithful geyser in Yellowstone National Park erupts at regular intervals, attracting many visitors.
24. Gravity affects the trajectory of objects thrown into the air, pulling them back down.
25. Erosion can lead to the loss of soil and landscape features over time, reshaping the environment.
26. The impact of climate change can be seen in rising sea levels and extreme weather events.
27. A meteorite struck the Earth, leaving behind a crater that scientists continue to study.
28. The journal published the findings of the recent study on solar energy advancements.
29. The development of new technologies is essential for progress in various scientific fields.
30. Engineers must consider stress factors when designing structures to ensure their reliability.

Answer

Multiple Choice: 1. Contamination 2. Drilling 3. Geyser 4. Gravity 5. Erosion 6. Meteorite 7. Shock 8. Anomalous 9. Development 10. Energy

Gap-Fill: 11. findings 12. impact 13. faults 14. model 15. plates 16. update 17. environment 18. support 19. servers 20. stress

Matching sentence: 1. anomalous 2. drilling 3. geyser 4. gravity 5. erosion 6. impact 7. meteorite 8. findings 9. development 10. stress



CATEGORY

1. Sci/Tech - LEVEL1

POST TAG

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2. esl news
3. highest stress level
4. Level 1
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6. University of Hawai'i

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