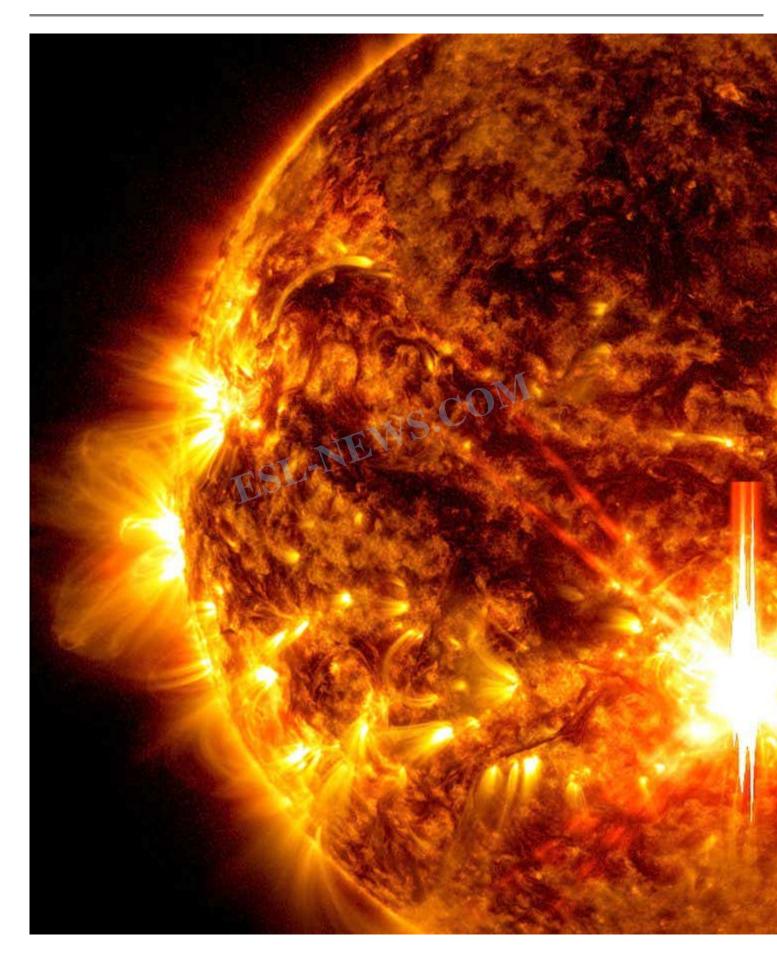


Surprising Frequency of Massive Solar Flares Revealed

Description









The sun can have very strong bursts of radiation called "superflares" that happen about once every century. These superflares might come with particle storms that can harm electronics on Earth. The last big solar storm was 165 years ago, and we might be due for another one soon. But we aren't sure if the sun acts like other stars that have these superflares.

Scientists started keeping track of the sun's activity in the middle of the 20th century, but we know that in 1859, there was a huge solar flare followed by a coronal mass ejection. This caused a geomagnetic storm on Earth known as the Carrington event. If this happened today, it could cause big problems with communication systems and power.

Recent research suggests that sun-like stars have superflares more often than we thought. These superflares are much bigger than what our sun typically produces. Scientists are still trying to understand why some stars have these superflares and if the sun could have them too.

Vocabulary List:

- 1. Superflares /'su:.pa.flerz/ (noun): Very strong bursts of radiation emitted by the sun or other stars.
- 2. Radiation /,reɪ.di'eɪ.[ən/ (noun): Energy emitted in the form of waves or particles.
- 3. Coronal /kəˈroʊ.nəl/ (adjective): Relating to the outermost part of the sun's atmosphere.
- 4. **Ejection** /i'dʒɛkʃən/ (noun): The act of throwing out or forcing out.
- 5. **Geomagnetic** /,dʒi.oʊ.məgˈnɛtɪk/ (adjective): Relating to the Earth's magnetic field.
- 6. Communication /kə,mjunɪ'keɪʃən/ (noun): The act of exchanging information or news.

Comprehension Questions

Multiple Choice

1. How often can the sun have very strong bursts of radiation called "superflares"?

Option: Once every century Option: Once every decade Option: Once every month Option: Once every year

2. What event in 1859 caused a geomagnetic storm on Earth?

Option: Huge solar flare followed by a coronal mass ejection

Option: Meteor shower



Option: Tornado outbreak

Option: Earthquake

3. What do scientists believe might happen soon regarding solar storms?

Option: Another big solar storm might occur Option: No more solar storms will occur

Option: Solar storms will decrease in intensity Option: Solar storms will increase in frequency

4. What are scientists still trying to understand regarding superflares?

Option: Why some stars have them

Option: Why the sun produces them regularly

Option: How to prevent them Option: Where they originate from

5. What event caused big problems with communication systems and power in 1859? NEWS.COM

Option: Carrington event Option: Aurora Borealis Option: Magnetic storm Option: Solar eclipse

6. According to recent research, how do superflares of sun-like stars compare to those of our sun?

Option: Much bigger Option: Similar in size

Option: Small

Option: Happens less frequently

True-False

- 7. Superflares from the sun happen more often than we thought.
- 8. The last big solar storm was 100 years ago.
- 9. Communication systems and power were not affected by the Carrington event in 1859.
- 10. Scientists are certain that the sun acts differently from other stars with superflares.
- 11. Solar storms are harmless to electronics on Earth.



12. Sun-like stars do not have superflares.

Gap-Fill

13. The last big solar storm was 165 years ago, and we might be due for another one soon. Scientists
started keeping track of the sun's activity in the middle of the 20th century. In 1859, there was a huge solar
flare followed by a coronal mass ejection known as the event.
14. Recent research suggests that sun-like stars have superflares more often than we thought. These
superflares are much bigger than what our sun typically produces. Scientists are still trying to understand
why some stars have these superflares and if the sun could have them
15. Scientists are still trying to understand why some stars have superflares and if the sun could have them
16. A huge solar flare followed by a coronal mass ejection in 1859 caused a geomagnetic storm on Earth
known as the event.
17. The sun can have very strong bursts of radiation called "superflares" that happen about once every
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18. Scientists started keeping track of the sun's activity in the middle of the
century.

Answer

Multiple Choice: 1. Once every century 2. Huge solar flare followed by a coronal mass ejection 3. Another big solar storm might occur 4. Why some stars have them 5. Carrington event 6. Much bigger

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

Gap-Fill: 13. Carrington 14. too 17. century 18. 20th



Vocabulary quizzes

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

1. What is a result of great effort or success?

Option: Puzzles Option: Intelligence Option: Achievement Option: Hackers

2. What happens when security has been breached?

Option: Theft

Option: Compromised **Option: Sanctions** Option: Infiltrated

ESL-NEWS.COM 3. What are intense bursts of energy from stars called?

Option: Superflares Option: Radiation Option: Ejection Option: Coronal

4. What are substances added to improve or preserve something?

Option: Toxins Option: Additives Option: Detect Option: Artificial

5. What type of effects can be caused by dangerous substances?

Option: Approval Option: Compliance Option: Dangers Option: Features

6. Where can different software applications operate?

Option: Intelligence Option: Platforms Option: Skills **Option: Progress**

7. What is the action of obtaining something through force or threats?



Option: Extort
Option: Theft
Option: Sanctions
Option: Infiltrated

8. What are poisonous substances produced by living cells or organisms?

Option: Toxins Option: Detect Option: Additives Option: Artificial

9. What is a fact or statement that has been validated as true?

Option: Achievement

Option: Puzzles Option: Skills

Option: Confirmed

ESL-NEWS.COM 10. What term relates to the Earth's magnetic field?

Option: Communication Option: Geomagnetic Option: Superflares Option: Radiation

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

11. Hackers often use their	_ to gain unauthorized access to systems.
12. Continuous learning and improvement lead to pe	ersonal
13. The latest model of the smartphone has advance	ed for better usability.
14. Businesses need to adhere to regulations for leg	al
15. The proposal requires the manager's	before implementation.
16. Using advanced sensors helps in early	of potential issues.
17. Effective is essential for smooth teamwork and collaboration.	
18. Regular practice enhances one's	in various areas.



19. Countries may impose a	s penalties for certain actions.	
20. Burglary involves the illegal	of property.	
Matching Sentences (Match each definition to the correct word from the vocabulary list.)		
21. The spies successfully the enemy headquarters without being detected.		
22. The synthetic diamonds are considered to be of origin.		
23. The new car model boasts advanced safety for driver assistance.		
24. Exposure to excessive solar can be harmful to living organisms.		
25. The security system enables early of unauthorized access attempts.		
26. are skilled individuals who use technology to gain unauthorized access.		
27. Warning signs indicate potential on the hiking trail.		
28. Continuous practice helps in honing one's professional .		
29. Regular assessments track the project team's towards the set goals.		
30. Solar ejections can disrupt satellite communications on Earth.		

Answer

Multiple Choice: 1. Achievement 2. Compromised 3. Superflares 4. Additives 5. Harmful 6. Platforms 7. Extort 8. Toxins 9. Confirmed 10. Geomagnetic

Gap-Fill: 11. Intelligence 12. Progress 13. Features 14. Compliance 15. Approval 16. Detection

17. Communication 18. Skills 19. Sanctions 20. Theft

Matching sentence: 1. Infiltrated 2. Artificial 3. Features 4. Radiation 5. Detection 6. Hackers 7. Dangers 8.

Skills 9. Progress 10. Coronal

CATEGORY

1. Sci/Tech - LEVEL2

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