



NASA's Parker Solar Probe: Awaiting Signal After Close Sun Flyby.

Description

Following the momentous close encounter of a NASA spacecraft with the sun on Christmas Eve, scientists are anxiously waiting to ascertain the fate of their probe. The burning question remains: has their instrument emerged unscathed, akin to a grand Christmas present, or has it been reduced to a charred remnant floating through space?

For the time being, certainty eludes them, as the spacecraft, known as NASA's Parker Solar Probe, will only relay a simple "status beacon" on Friday (Dec. 27) to confirm its well-being. Despite the suspense, the team behind the spacecraft's daring voyage towards the sun on Dec. 24 exudes confidence in its survival.

Nicola Fox, NASA's associate administrator for science missions, expressed, "Right now, Parker Solar Probe has attained the pinnacle of our mission objectives. It is venturing closer to a star than any other entity in history, perfectly aligned with our mission's design."

The Parker Solar Probe ventured within a mere 3.8 million miles (6.1 million kilometers) of the solar surface during its sun-kissed encounter on Tuesday, marking the closest human-made approach to the star. Hurtling at an astonishing speed of 430,000 mph (690,000 kph), it clinched the title of the fastest spacecraft to date. With temperatures soaring up to 1,800 degrees Fahrenheit (980 degrees Celsius) during the encounter, the stakes were undeniably high.

The entire maneuver was meticulously automated. The spacecraft's last communication was on Friday night (Dec. 20), affirming all systems were functioning optimally. The next update is anticipated around midnight on Friday (Dec. 27) at the mission operations center in Laurel, Maryland.

A comprehensive status report from the Parker Solar Probe is slated for New Year's Day, Jan. 1, once it transmits its initial telemetry and data post-flyby. This pivotal data transfer will unveil whether the spacecraft garnered the anticipated solar observations during its daring expedition.

In the realm of audacious missions, the Parker Solar Probe's sun-hugging escapade on Christmas Eve stands as a testament to NASA's pioneering spirit. With bated breath, scientists await the transmission of the probe's first scientific data in late January, heralding a new chapter in solar exploration.

Vocabulary List:

1. **Ascertain** /,æ.s.ə'teɪn/ (verb): To find out or discover with certainty.
2. **Probe** /prəʊb/ (noun): A spacecraft or instrument used to explore outer space.
3. **Encounter** /ɪn'kaʊn.tər/ (noun): A meeting or experience especially one that is unexpected.
4. **Venture** /'ven.tʃər/ (verb): To proceed especially in an enterprise with risk or uncertain outcome.



5. **Telemetry** /tə'lem.ə.tri/ (noun): The process of recording and transmitting readings from remote or inaccessible points.
6. **Expedition** /,ɛk.spə'dɪf.ən/ (noun): A journey undertaken by a group of people with a particular purpose especially for exploration.

Vocabulary quizzes

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

1. What are weaknesses in a system known as?
Option: Strengths
Option: Capabilities
Option: Vulnerabilities
Option: Opportunities
2. Which term refers to the movement of individuals from one place to another?
Option: Adaptation
Option: Migration
Option: Integration
Option: Exploration
3. What term describes a process where one event triggers a series of similar events?
Option: Crossover
Option: Chronology
Option: Succession
Option: Cascade
4. What is a biological community of interacting organisms and their physical environment called?
Option: Habitat
Option: Ecosystem
Option: Territory
Option: Environment
5. What do you call an animal that preys on others?
Option: Preparer
Option: Predator
Option: Provider
Option: Protector
6. Which term refers to something that is complete and thorough?
Option: Superficial



- Option: Fragmentary
- Option: Comprehensive
- Option: Limited

7. What is an investigation into a matter or situation called?

- Option: Probe
- Option: Search
- Option: Research
- Option: Survey

8. What term describes a meeting often a chance one between people or groups?

- Option: Interaction
- Option: Collide
- Option: Encounter
- Option: Impede

9. Which term relates to the combined effects of temperature and salinity on seawater density?

- Option: Thermohaline
- Option: Halothermic
- Option: Temperature
- Option: Salinity

10. What is the importance or meaning of something referred to as?

- Option: Triviality
- Option: Inconsequence
- Option: Significance
- Option: Insignificance

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

11. Being _____ means acting in anticipation of future problems or opportunities.
12. The archaeologists _____ ancient artifacts at the excavation site.
13. The _____ of seawater varies around the world.
14. Starting a new business is always a risky _____.
15. By repeatedly _____ the importance of safety the supervisor ensured that all workers followed the guidelines.



16. Scientists use _____ to remotely monitor data from satellites.
17. The lion is considered a top _____ in the savannah.
18. The _____ of different technologies has led to the development of innovative products.
19. The security breach resulted from a successful network _____ by hackers.
20. During their hiking trip they hoped to _____ rare wildlife.

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

21. The process of combining different elements into a harmonious whole was known as .
22. Animals that primarily feed on plants and vegetation are categorized as .
23. Scientists who study the history of life on Earth through fossils are referred to as .
24. A journey or voyage undertaken for a specific purpose or mission is called an .
25. The long- sequel to the popular movie generated a lot of buzz among fans.
26. The artist's of the classic painting brought a fresh perspective to the original work.
27. The complex plot of the thriller movie was full of and unexpected twists.
28. Taking a approach to problem-solving can help prevent issues before they arise.
29. The children's book was filled with colorful illustrations and characters.
30. The detective needed to the true identity of the suspect.

Answer

Multiple Choice: 1. Vulnerabilities 2. Migration 3. Cascade 4. Ecosystem 5. Predator 6. Comprehensive 7. Probe 8. Encounter 9. Thermohaline 10. Significance

Gap-Fill: 11. Proactive 12. Unearthed 13. Salinity 14. Venture 15. Emphasizing 16. Telemetry 17. Predator 18. Convergence 19. Penetration 20. Encounter

Matching sentence: 1. Integration 2. Herbivores 3. Paleontologists 4. Expedition 5. Anticipated 6. Reimagining 7. Intrigue



8. Proactive 9. Whimsical 10. Ascertain

CATEGORY

1. Sci/Tech - LEVEL6

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