



ISS Maneuvers to Sidestep Space Debris Threat

Description

NASA says the International Space Station (ISS) changed its path on Tuesday. This was to avoid a piece of debris.

At 2:09 p.m. CT, the ISS fired its thrusters for 5 minutes and 31 seconds. This raised the ISS to a higher orbit. The change helped make more space from a piece of broken debris from an old satellite that broke apart in 2015.

If NASA had not moved the ISS, the debris would have come very close, about 2.5 miles away. The debris was small, according to U.S. Space Forces-Space.

NASA knew about the risk of debris on Sunday. NASA and the U.S. Space Force worked together to watch the debris and decided to move the station.

The ISS travels very fast, at least 17,500 mph. It orbits in a place with many satellites and lots of debris.

This is the first time this year the ISS changed its path to avoid debris. Since 1998, it has done this 39 times.

Space debris can be dangerous for the ISS and astronauts outside the station. It can hit and cause damage.

Currently, there are no strong international rules to manage space debris. Some countries have guidelines to help with this problem.

Vocabulary List:

1. **Debris** /də'brɪ:/ (noun): Scattered pieces of waste or remains.
2. **Thrusters** /'θrʌstərz/ (noun): Devices that produce thrust to propel a vehicle.
3. **Orbit** /'ɔ:rbɪt/ (noun): The curved path of a celestial object around a star planet or moon.
4. **Satellite** /'sætəlaɪt/ (noun): An artificial body placed in orbit around a planet.
5. **Risk** /rɪsk/ (noun): The possibility of loss or injury.
6. **Guidelines** /'gaɪd.laɪnz/ (noun): A set of rules or instructions to guide decisions and actions.

Comprehension Questions



Multiple Choice

1. What was the reason for the International Space Station (ISS) to change its path on Tuesday?

- Option: To avoid a piece of debris
- Option: To increase its speed
- Option: To conduct a scientific experiment
- Option: To communicate with other spacecraft

2. When did NASA fire the thrusters on the ISS to raise it to a higher orbit?

- Option: 12:00 p.m. CT
- Option: 5:31 a.m. CT
- Option: 2:09 p.m. CT
- Option: 8:30 p.m. CT

3. How many times has the ISS changed its path to avoid debris since 1998?

- Option: 12 times
- Option: 39 times
- Option: 20 times
- Option: 55 times

4. What is the speed of the ISS in mph?

- Option: 10,000 mph
- Option: 20,000 mph
- Option: 17,500 mph
- Option: 15,000 mph

5. What is the main concern regarding space debris for the ISS and astronauts?

- Option: Causing communication disruptions
- Option: Increased radiation exposure
- Option: Potential damage from impact
- Option: Food shortage

6. Which organization worked with NASA to monitor the risk of debris and decide to move the ISS?

- Option: U.S. Navy
- Option: International Space Agency
- Option: U.S. Space Forces-Space
- Option: European Space Agency



True-False

7. The ISS changed its path to avoid debris for the first time ever this year.
8. Space debris can be dangerous for the ISS and astronauts outside the station.
9. Currently, there are strict international rules in place to manage space debris.
10. The debris that the ISS avoided was estimated to be about 2.5 miles away.
11. The ISS orbits in an area with many satellites and negligible debris.
12. The decision to move the ISS due to the debris risk was made on Monday.

Gap-Fill

13. The ISS fired its thrusters for 5 minutes and 31 seconds to raise itself to a higher orbit and avoid a piece of debris from an old satellite that broke apart in _____.
14. Since _____, the ISS has changed its path 39 times to avoid debris.
15. If NASA had not moved the ISS, the debris would have come dangerously close, about _____ miles away.
16. Currently, there are no strong international rules to manage _____ debris.
17. Some countries have put guidelines in place to help with the problem of space _____.
18. The ISS travels at a speed of at least _____ mph.

Answer

Multiple Choice: 1. To avoid a piece of debris 2. 2:09 p.m. CT 3. 39 times 4. 17,500 mph 5. Potential damage from impact 6. U.S. Space Forces-Space

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

Gap-Fill: 13. 2015



14. 1998 15. 2.5 16. space 17. debris 18. 17,500

Vocabulary quizzes

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

1. What is the regular path followed by a satellite around a celestial body called?
Option: Trajectory
Option: Orbit
Option: Rotation
Option: Thrust
2. What is the process of creating instructions for computers to execute?
Option: Coding
Option: Programming
Option: Debugging
Option: Algorithms
3. Which term describes something that is firmly established and not likely to change?
Option: Volatile
Option: Static
Option: Dynamic
Option: Stable
4. What is the rivalry between individuals or groups for a common goal known as?
Option: Collaboration
Option: Teamwork
Option: Competition
Option: Cooperation
5. What are the substances that provide nourishment essential for the maintenance of life?
Option: Toxins
Option: Antigens
Option: Nutrients
Option: Pathogens
6. A temporary endeavor undertaken to create a unique product service or result is called a _____.



- Option: Task
- Option: Project
- Option: Goal
- Option: Mission

7. An artificial object placed in orbit around the Earth or another planet is called a _____.

- Option: Meteoroid
- Option: Asteroid
- Option: Comet
- Option: Satellite

8. The action or process of investing money for profit or material result is known as _____.

- Option: Divestment
- Option: Investment
- Option: Expenditure
- Option: Revenue

9. Distinctive qualities or characteristics of something are referred to as _____.

- Option: Facets
- Option: Elements
- Option: Features
- Option: Aspects

10. Medical treatment practices aimed at improving health are known as _____.

- Option: Procedures
- Option: Therapies
- Option: Interventions
- Option: Solutions

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

- 11. Investing in stocks involves a certain level of _____ due to market fluctuations.
- 12. Effective teams thrive on mutual _____ and collaboration to achieve common goals.
- 13. In a dynamic environment new _____ arise for those willing to embrace change.
- 14. Employees may be entitled to a _____ package when laid off from their jobs.
- 15. The _____ sector plays a significant role in the economy through business activities



and job creation.

16. High-quality _____ enhance the visual appeal of websites and digital content.
17. _____ push the boundaries of innovation and create solutions to existing problems.
18. Maintaining good _____ is crucial for overall well-being and quality of life.
19. Expert _____ provides valuable insights and analysis on various topics and events.
20. Space missions must consider the risks posed by orbital _____ to spacecraft.

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

21. The young artist was hailed as a for her exceptional talent and creativity.
22. Following established safety is essential in preventing accidents and injuries.
23. Artificial intelligence systems can mimic the human brain's functions through .
24. The provided a detailed account of the historical events leading to independence.
25. The school's music program attracted students from across the country.
26. Continuous feedback helps individuals their skills and performance over time.
27. exploit vulnerabilities in computer systems for various purposes including data theft.
28. Investors can buy and sell shares of a company through the market.
29. Tracing one's can provide insights into family history and genetic heritage.
30. Learning to code is a fundamental skill in the field of computer .

Answer

Multiple Choice: 1. Orbit 2. Programming 3. Stable 4. Competition 5. Nutrients 6. Project 7. Satellite 8. Investment 9. Features 10. Therapies

Gap-Fill: 11. Risk 12. Support 13. Opportunities 14. Severance 15. Corporate 16. Graphics 17. Inventors 18. Health 19. Commentary 20. Debris

Matching sentence: 1. Prodigy 2. Guidelines 3. Neural Networks 4. Documentary 5. Talented 6. Improve 7. Hackers



8. Stock 9. Ancestry 10. Programming

CATEGORY

1. Sci/Tech - LEVEL1

Date Created

2024/11/21

Author

aimeeyoung99

ESL-NEWS.COM