

City Killer Asteroid's Impact Risk Drops to 0.001%!

Description

The European Space Agency (ESA) announced on Tuesday that the probability of a football field-sized asteroid, capable of city-wide destruction, impacting Earth in 2032 has diminished to a mere 0.001 percent.

Just a week prior, this asteroid had established a new benchmark for the likelihood of a collision, with estimates of 3.1 percent from NASA and 2.8 percent from the ESA. Consequently, planetary defense experts have been diligently monitoring the skies.

However, as anticipated, recent observations from telescopes globally have refined the uncertainty surrounding potential impact sites, thereby significantly mitigating the chances of an actual strike.

According to the [ESA](#), the risk has now plummeted to 0.001 percent, and the threat level on the Torino Impact Hazard Scale has been downgraded to zero, having previously registered at level three out of a possible ten last week.

odds of asteroid impact diagram

Risk assessment of asteroid 2024 YR4. ([ESA](#))

This asteroid, designated 2024 YR4, was identified in December and is estimated to measure between 40 to 90 meters (130 to 300 feet) in diameter, a size still capable of wreaking havoc on a metropolitan area.

Originally predicted to potentially impact on December 22, 2032, it is now highly likely that the asteroid will simply sail past our planet.

Despite the sharply reduced risk, the ESA has confirmed that the James Webb Space Telescope will continue to observe the asteroid in the forthcoming months.

Scientists underlined that even if the asteroid were on a collision course, Earth now possesses the technological capability to mount a defense. NASA's DART mission successfully altered the trajectory of a harmless asteroid in 2022 by colliding a spacecraft with it, marking a significant milestone in planetary defense.

artist image of spacecraft near asteroid

The NASA DART mission as it approaches its target. ([NASA](#))



Richard Moissl, head of the ESA's planetary defense office, expressed to AFP that observing the asteroid and progressively eliminating the risk of an impact constitutes "a highly intriguing and educational endeavor."

He commended the swift detection of the asteroid but noted that "there remains considerable scope for enhancement." Several forthcoming telescopes, including the Vera Rubin and Flyeye, are nearing operational readiness and will enable astronomers to identify asteroids with greater efficiency. Additionally, Europe's anticipated NEOMIR early warning initiative is expected to further bolster these efforts.

Historically, the previous significant threat from an asteroid larger than 30 meters occurred with Apophis in 2004, which had a fleeting 2.7 percent chance of colliding with Earth in 2029; this potential was later dismissed through further observations.

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Vocabulary List:

1. **Asteroid** /'æstə,rɔɪd/ (noun): A small rocky body orbiting the sun often in the asteroid belt between Mars and Jupiter.
2. **Impact** /'ɪmpækt/ (noun): The action of one object coming forcibly into contact with another; a collision.
3. **Probability** /,prɒː.bə'bɪl.ɪ.ti/ (noun): The likelihood or chance of something happening.
4. **Collision** /kə'lɪʒ.ən/ (noun): An instance of one moving object or person striking violently against another.
5. **Mitigating** /'mɪt.ɪ.geɪ.tɪŋ/ (verb): Making less severe serious or painful.
6. **Trajectory** /trə'dʒɛk.tə.ri/ (noun): The path followed by a projectile or an object moving under the action of given forces.

Vocabulary quizzes

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

1. What is the term used to describe a situation where pests overrun an area?
Option: Propagation
Option: Infestation
Option: Resilient
Option: Daunting
2. Which term refers to the act of persisting in a task or belief despite obstacles?
Option: Impact



- Option: Perseverance
- Option: Achievement
- Option: Transmission

3. What word means to make something clear or explain?

- Option: Collision
- Option: Elucidated
- Option: Efficacy
- Option: Nominally

4. What term is used to describe the act of breeding multiplying or spreading?

- Option: Trajectory
- Option: Collaborative
- Option: Propagate
- Option: Thermal

5. Which term describes something mysterious puzzling or difficult to understand?

- Option: Mutation
- Option: Enigmatic
- Option: Mitigating
- Option: Challenges

6. What is a viral infection that causes fever cough and muscle aches?

- Option: Epidemic
- Option: Influenza
- Option: Habitation
- Option: Sustainable

7. What term is used to describe the effect or influence of one thing on another?

- Option: Efficacy
- Option: Achievement
- Option: Impact
- Option: Probability

8. What is the term for an instance of two or more things hitting each other?

- Option: Daunting
- Option: Resilient
- Option: Collision
- Option: Contaminated

9. What term refers to a permanent alteration in the DNA sequence that makes up a gene?

- Option: Mutating
- Option: Pathogenicity



Option: Mutation

Option: Resilient

10. Which term denotes the ability to be maintained at a certain rate or level?

Option: Sustainable

Option: Mitigating

Option: Asteroid

Option: Transmission

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

11. An _____ is a widespread occurrence of an infectious disease in a community at a particular time.

12. _____ is defined as something that has been accomplished through effort or skill.

13. Efforts to _____ the spread of the virus have been implemented through strict quarantine measures.

14. The _____ energy generated by the sun is harnessed through solar panels for electricity.

15. The many species of birds found in this region indicate rich biodiversity and suitable _____.

16. Plant _____ involves the process of growing new plants from seeds cuttings or other plant parts.

17. The economic _____ of the pandemic has been felt across various industries worldwide.

18. Governments are implementing _____ measures to reduce the environmental impact of industrial activities.



19. Overcoming _____ often leads to personal growth and development.
20. The task of addressing global climate change can seem _____ due to its complexity and scale.

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

21. Despite facing many challenges the community showed strength and adaptability proving themselves to be .
22. The likelihood of rain tomorrow is high; therefore the of outdoor events should be considered.
23. The project's success was a result of a effort from all team members who worked together seamlessly.
24. Although he was the supervisor he had little actual authority over the team.
25. The doctor explained the modes of of the contagious disease to educate the public.
26. The water supply was found to be with harmful bacteria leading to a health alert.
27. The rocket's was carefully calculated to ensure it reached the intended orbit.
28. Winning the championship was a great for the team after years of hard work and dedication.
29. The medicine was tested for its in treating the new strain of virus.
30. An is a small rocky body that orbits the sun often found in the asteroid belt between Mars and Jupiter.

Answer

Multiple Choice: 1. Infestation 2. Perseverance 3. Elucidated 4. Propagate 5. Enigmatic 6. Influenza 7. Impact 8. Collision 9. Mutation 10. Sustainable

Gap-Fill: 11. Epidemic 12. Achievement 13. Contain 14. Thermal 15. Habitation 16. Propagation 17. Impact 18. Mitigating 19. Challenges 20. Daunting

Matching sentence: 1. Resilient 2. Probability 3. Collaborative 4. Nominally 5. Transmission 6. Contaminated 7. Trajectory 8. Achievement 9. Efficacy 10. Asteroid

CATEGORY

1. Sci/Tech - LEVEL5



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