



Breakthrough: Experimental XB-1 Aircraft Achieves Supersonic Speed Debut

Description

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The XB-1 airplane by Boom Supersonic flew faster than sound on 28 January. It was the first civil airplane to do this over the US. This is a big step towards having supersonic planes for everyone. Greg Krouland, a former engineer for Boom Supersonic, said the XB-1 has the technology needed for a supersonic airliner.

At Mojave Air & Space Port, Tristan Brandenburg flew the XB-1 on its twelfth test flight. It broke the sound barrier, reaching Mach 1.11 speed. The Concorde, a supersonic airliner in the past, had challenges and retired in 2003. Now, Boom Supersonic is planning the Overture airliner that can go even faster.

The success of the XB-1 could bring back supersonic flights for passengers. Other companies like Dawn Aerospace and NASA are also working on supersonic aircraft. A joint flight with the XB-1 and NASA's X-59 experimental plane is being planned.

[Read more about Overture airliner here.](#)

Vocabulary List:

1. **Supersonic** /ˌsuː.pəˈsɒn.ɪk/ (adjective): Relating to speed that exceeds the speed of sound.
2. **Airliner** /ˈeɪ.laɪ.nər/ (noun): A large aircraft designed for transporting passengers.
3. **Technology** /tekˈnɒlədʒi/ (noun): The application of scientific knowledge for practical purposes.
4. **Mach** /mɑːk/ (noun): A dimensionless unit used to measure speed relative to the speed of sound.
5. **Barrier** /ˈbæriər/ (noun): A fence or obstacle that prevents movement or access.
6. **Experimental** /ɪkˌspɛrɪˈmɛn.təl/ (adjective): Related to tests or trials to discover something new.

Comprehension Questions

Multiple Choice

1. Who flew the XB-1 airplane on its twelfth test flight?

Option: Greg Krouland

Option: Tristan Brandenburg

Option: Dawn Aerospace

Option: NASA

2. What speed did the XB-1 airplane reach when it broke the sound barrier?

Option: Mach 1.11

Option: Mach 2.0

Option: Mach 0.5



Option: Mach 3.0

3. Which company is planning the Overture airliner?

Option: Boom Supersonic

Option: Dawn Aerospace

Option: NASA

Option: Concorde

4. Who mentioned that the XB-1 has the technology needed for a supersonic airliner?

Option: Greg Krouland

Option: Tristan Brandenburg

Option: Dawn Aerospace

Option: NASA

5. Which aircraft had challenges and retired in 2003?

Option: Concorde

Option: XB-1

Option: Overture

Option: X-59

6. Which type of flight is being planned involving the XB-1 and NASA's X-59 experimental plane?

Option: Joint flight

Option: Passenger flight

Option: Solo flight

Option: Test flight

True-False

7. The XB-1 airplane flew faster than sound on 28 January.

8. The Concorde is a supersonic airliner that is still in operation.

9. Boom Supersonic is the only company working on supersonic aircraft.

10. Greg Krouland is currently an engineer for Boom Supersonic.

11. The XB-1 airplane is the first civil aircraft to break the sound barrier over the US.



12. The Overture airliner is slower than the Concorde.

Gap-Fill

13. Tristan Brandenburg flew the XB-1 on its _____ test flight.

14. The Concorde retired in _____ .

15. Boom Supersonic is planning the _____ airliner.

16. The success of the XB-1 could bring back supersonic flights for _____ .

17. NASA is working on a supersonic aircraft called the X-59 _____ plane.

18. The XB-1 has the technology needed for a supersonic _____ .

Answer

Multiple Choice: 1. Tristan Brandenburg 2. Mach 1.11 3. Boom Supersonic 4. Greg Krouland 5. Concorde
6. Joint flight

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

Gap-Fill: 13. twelfth 14. 2003 15. Overture 16. passengers 17. experimental 18. airliner

Vocabulary quizzes

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

1. Which term refers to groups of living organisms capable of interbreeding?

Option: Animals

Option: Populations

Option: Ecosystems

Option: Habitats

2. What legal right does an author have to control the use of their work?



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- Option: Patent
Option: Trademark
Option: Fair use
Option: Copyright
3. A prolonged public dispute or debate is known as:
Option: Agreement
Option: Consensus
Option: Controversy
Option: Concord
4. False or inaccurate information that is spread regardless of intent to deceive is:
Option: Information
Option: Disinformation
Option: Misinformation
Option: Propaganda
5. Speed greater than that of sound is termed as:
Option: Hypersonic
Option: Sonic
Option: Transonic
Option: Supersonic
6. The application of scientific knowledge for practical purposes is called:
Option: Theology
Option: Technology
Option: Biology
Option: Meteorology
7. Individuals who freely offer to take part in a task or participate voluntarily are known as:
Option: Candidates
Option: Volunteers
Option: Recruits
Option: Interns
8. The ratio of the speed of an object to the speed of sound in the surrounding medium is known as:
Option: Velocity
Option: Momentum
Option: Mach
Option: Acceleration
9. Involving a scientific experiment or a trial is referred to as:
Option: Theoretical
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- Option: Practical
- Option: Experimental
- Option: Hypothetical

10. The least or smallest amount possible is called the:

- Option: Maximum
- Option: Average
- Option: Minimum
- Option: Optimal

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

11. The _____ temperature of the Earth is a key concern for environmentalists.
12. Many people prefer the _____ lifestyle for its convenience and access to amenities.
13. During the presentation the speaker will _____ the key points of the research findings.
14. She _____ her gratitude for the support she received during a difficult time.
15. The two companies _____ on a joint project to develop a new product.
16. A healthy diet _____ the body's nutritional needs to maintain well-being.
17. The government agency acts as a _____ overseeing the safety of various industries.
18. The company offers _____ services tailored to each individual customer.
19. His comments were deemed _____ to the topic of discussion.
20. Health _____ are often addressed through public awareness campaigns.

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

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| 21. The technology allows users to manage or direct the operation of devices or systems. |
| 22. The company faced a period of extreme confusion and instability due to internal conflicts. |
| 23. A bacterial infection that can be transmitted to humans through water contaminated by animal urine. |



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| 24. The suppression or prohibition of any parts of books films news etc. that are considered obscene politically unacceptable or a threat to security. |
| 25. A process or set of rules to be followed in calculations or other problem-solving operations especially by a computer. |
| 26. A category of artistic composition characterized by similarities in form style or subject matter. |
| 27. Something that blocks the way or prevents movement or access. |
| 28. Actors often use makeup and costumes to imitate or copy the behavior of famous personalities. |
| 29. The process of verifying the accuracy and truthfulness of claims and statements made in public discourse. |
| 30. Individuals who freely offer to take part in a task or participate voluntarily are known as. |

Answer

Multiple Choice: 1. Populations 2. Copyright 3. Controversy 4. Misinformation 5. Supersonic 6. Technology 7. Volunteers 8. Mach 9. Experimental 10. Minimum

Gap-Fill: 11. Rising 12. Urban 13. Highlight 14. Expressed 15. Cooperated 16. Balances 17. Regulator 18. Personalized 19. Unrelated 20. Concerns

Matching sentence: 1. Control 2. Turmoil 3. Leptospirosis 4. Censorship 5. Algorithm 6. Genre 7. Barrier 8. Mimics 9. Fact-checking 10. Volunteers

CATEGORY

1. Sci/Tech - LEVEL2

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