

CNN News Highlights — Jupiter's Moons

1) astronomers	2) confirmed	3) current count	4) Jupiter	5) solar system	6) trivia
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Ten-second ____ : According to ____, how many moons does ____ have? One, two, three, or 95?

The ____ is 95 ____ moons for Jupiter, including the largest moon in our ____, Ganymede, which is larger than the planet Mercury.

1) celestial bodies	2) decades	3) icy surfaces	4) peruse	5) physics	6) probes
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Scientists have been studying Jupiter's moons for ____, sending ____ to ____ them since the 1970s. After discovering some of these moons have actual oceans under their ____, the European Space Agency and NASA want to know, can these ____ support life?

Well, the Juice mission, named after the Jupiter Icy Moons Explorer spacecraft, is going to use some pretty cool ____ to perform the first double-gravity assist maneuver.

1) earthlings	2) flyby	3) on track	4) potential to house life	5) scope out	6) use Earth's gravity to slingshot
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This week, the spacecraft will ____ towards a Venus ____ in 2025, and putting it ____ to ____ Jupiter and its moons by July of 2031.

Jupiter has three moons with oceans underneath their icy shells. They're called Ganymede, Callisto, and Europa. ____ have been curious about these moons and their ____ for a long time.

1) fuse hydrogen atoms into helium	2) gas giant	3) swirl of gases that condense into a smoldering ocean of hydrogen at its core	4) they observed long lines and dark spots	5) tipped scientists off	6) typically, moons have cratered surfaces
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NASA first sent probes in part to get a closer look in 1977. Jupiter is a _____. That means it doesn't have a surface. It's a _____. It's very similar to our sun in this way. But unlike the sun, it doesn't _____ to create energy and heat.

Now back to those first NASA probes, _____ on the moon Europa. _____. But these images _____ that there might be an ocean beneath Europa's icy exterior.

1) discovered	2) elements	3) exists	4) microbial life	5) theory was confirmed	6) water plumes erupting
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In 1996, that _____ when the Galileo spacecraft reached Europa. It was the first ocean _____ on another planet. Then, in 2012 and 2016, the Hubble Space Telescope showed _____ from the warmest parts of Europa.

Scientists don't know much about the plumes. But if Europa has water and _____ like carbon and hydrogen, it could mean that _____ once formed there or even still _____.

Translation

十秒問答：根據天文學家的說法，木星有幾顆衛星？一顆、兩顆、三顆，還是 95 顆？

目前的數據顯示，木星已確認有 95 顆衛星，其中包括太陽系中最大的衛星——木衛三（Ganymede），它的體積甚至比水星還大。

科學家們已經研究木星的衛星數十年，自 1970 年代以來便持續發射探測器進行研究。隨著發現其中一些衛星的冰層下存在真正的海洋，歐洲太空總署和美國太空總署（NASA）希望了解，這些天體能否支持生命的存在？

Juice 任務，取自木星冰衛星探測器（Jupiter Icy Moons Explorer）的縮寫，將利用一些相當酷的物理技術來執行首次雙重引力助推機動。

本週，該探測器將利用地球的引力，將自己彈射到 2025 年進行金星飛越，並使其在 2031 年 7 月左右開始探測木星及其衛星。

木星有三顆衛星，其冰殼下存在海洋。它們分別是木衛三（Ganymede）、木衛四（Callisto）和木衛二（Europa）。地球人對這些衛星及其潛在的生命承載能力已經充滿好奇很久了。

NASA 最初發射探測器部分原因就是為了更近距離地觀察，這發生在 1977 年。木星是一顆氣體巨星，這意味著它沒有固體表面。它是一團氣體旋渦，在核心處可能凝結成一片熾熱的氫海洋。在這一點上，它與我們的太陽非常相似。但與太陽不同的是，木星不會將氫原子融合成氦來產生能量和熱量。

說回那些最初的 NASA 探測器，它們觀察到木衛二上有長長的線條和黑暗的斑點。通常，衛星的表面是坑坑窪窪的。然而，這些圖像讓科學家們懷疑木衛二的冰殼下可能隱藏著海洋。

1996 年，當伽利略探測器抵達木衛二時，這一理論得到了證實——這是首次在其他星球上發現海洋。然後在 2012 年和 2016 年，哈勃太空望遠鏡顯示木衛二最暖和的地方噴發出水柱。



科學家們對這些水柱了解不多。但如果木衛二有水和像碳、氫這樣的元素，這可能意味著微生物曾經在那裡形成，甚至可能仍然存在。You can view this activity online at this link:
<https://linguadox.com/2024/08/21/cnn-news-highlights-jupiters-moons/>

Answers

1) astronomers	2) confirmed	3) current count	4) Jupiter	5) solar system	6) trivia
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Ten-second 6) trivia: According to 1) astronomers, how many moons does 4) Jupiter have? One, two, three, or 95?

The 3) current count is 95 2) confirmed moons for Jupiter, including the largest moon in our 5) solar system, Ganymede, which is larger than the planet Mercury.

1) celestial bodies	2) decades	3) icy surfaces	4) peruse	5) physics	6) probes
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Scientists have been studying Jupiter's moons for 2) decades, sending 6) probes to 4) peruse them since the 1970s. After discovering some of these moons have actual oceans under their 3) icy surfaces, the European Space Agency and NASA want to know, can these 1) celestial bodies support life?

Well, the Juice mission, named after the Jupiter Icy Moons Explorer spacecraft, is going to use some pretty cool 5) physics to perform the first double-gravity assist maneuver.

1) earthlings	2) flyby	3) on track	4) potential to house life	5) scope out	6) use Earth's gravity to slingshot
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This week, the spacecraft will 6) use Earth's gravity to slingshot towards a Venus 2) flyby in 2025, and putting it 3) on track to 5) scope out Jupiter and its moons by July of 2031.

Jupiter has three moons with oceans underneath their icy shells. They're called Ganymede, Callisto, and Europa. 1) Earthlings have been curious about these moons and their 4) potential to house life for a long time.

1) fuse hydrogen atoms into helium	2) gas giant	3) swirl of gases that condense into a smoldering ocean of hydrogen at its core	4) they observed long lines and dark spots	5) tipped scientists off	6) typically, moons have cratered surfaces
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NASA first sent probes in part to get a closer look in 1977. Jupiter is a 2) gas giant. That means it doesn't have a surface. It's a 3) swirl of gases that condense into a smoldering ocean of hydrogen at its core. It's very similar to our sun in this way. But unlike the sun, it doesn't 1) fuse hydrogen atoms into helium to create energy and heat.

Now back to those first NASA probes, 4) they observed long lines and dark spots on the moon Europa. 6) Typically, moons have cratered surfaces. But these images 5) tipped scientists off that there might be an ocean beneath Europa's icy exterior.

1) discovered	2) elements	3) exists	4) microbial life	5) theory was confirmed	6) water plumes erupting
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In 1996, that 5) theory was confirmed when the Galileo spacecraft reached Europa. It was the first ocean 1) discovered on another planet. Then, in 2012 and 2016, the Hubble Space Telescope showed 6) water plumes erupting from the warmest parts of Europa.

Scientists don't know much about the plumes. But if Europa has water and 2) elements like carbon and hydrogen, it could mean that 4) microbial life once formed there or even still 3) exists.