

# Has NASA discovered another Earth? Perhaps

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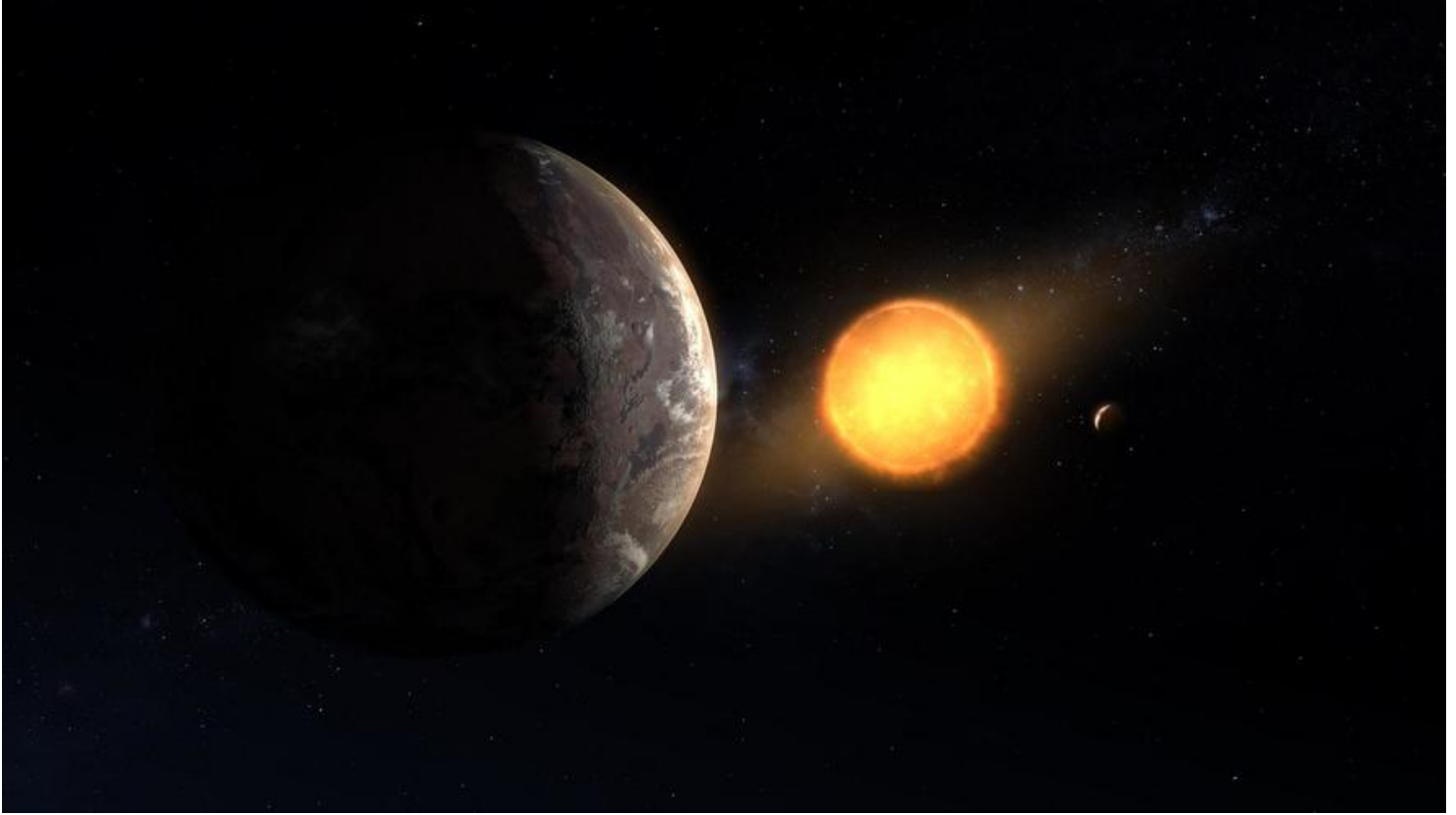


Image 1. An illustration of Kepler-1649c orbiting around its host red dwarf star. This newly discovered exoplanet is in its star's habitable zone and is the closest to Earth in size and temperature found yet in Kepler's data. Illustration: NASA/Ames Research Center/Daniel Rutter

Astronomers have found a new planet. It is very much like Earth.

This new planet orbits a large star. That star is a lot like our sun. Scientists said the planet is in that star's livable zone. This is the area near a star that is not too hot. It is not too cold, either. The planet is in just the right place.

This allows it to support water. Living things might also be found there.

This new planet is called Kepler-1649c.

## **Only A Special Telescope Can See The New Planet**

A study about Kepler-1649c came out in April. The planet is named after the Kepler Space Telescope. Scientists used that telescope to see the distant planet. It is a strong telescope that can see far into space. The planet's name is like other planets near it. One is called Kepler-1649b.

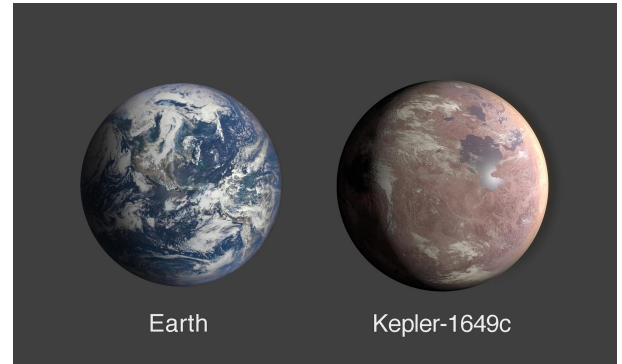
Kepler-1649c is 300 light-years away from Earth. A light-year is how far light moves in one year. Light goes very fast. This means the new planet is very far away.

### **What Is An Exoplanet?**

The Kepler Space Telescope has found many new planets. They are called exoplanets. An exoplanet is a planet outside of our solar system. The sun is in the middle of our solar system. The Earth and other planets move around the sun. They orbit the sun.

Outside of our solar system, scientists have found more than 2,000 exoplanets. One thing makes finding this new planet better than others. Kepler-1649c is a lot like Earth.

This brings great hope, said Thomas Zurbuchen. He is a NASA scientist in Washington, D.C. NASA is the U.S. space agency. Mr. Zurbuchen hopes there is something like a "second Earth." It just needs to be found.



### **Exoplanets And Red Dwarf Stars**

Kepler-1649c is only slightly larger than Earth. Like our sun, a star gives the new planet light. It receives almost as much light as Earth. Scientists think it is about as warm, too.

Andrew Vanderburg is a scientist. He works at a university. He helped write the study about Kepler-1649c.

Mr. Vanderburg said Kepler-1649c is like other exoplanets. They are found around red dwarves. A red dwarf is a star. It is not too bright. It cannot be seen from Earth. This kind of star is cooler in temperature. It only gets hot sometimes.

Mr. Vanderburg said finding this many exoplanets is great. One could turn out to be like Earth. It could have life. That would be a great discovery.

## Quiz

1 What is the section "What Is An Exoplanet?" MAINLY about?

- (A) how scientists measure light-years
- (B) how the Kepler Telescope finds new planets
- (C) why Thomas Zurbuchen works for NASA
- (D) why scientists think Kepler-1649c is special

2 Read the paragraph below from the section "Exoplanets And Red Dwarf Stars."

*Mr. Vanderburg said Kepler-1649c is like other exoplanets. They are found around red dwarves. A red dwarf is a star. It is not too bright. It cannot be seen from Earth. This kind of star is cooler in temperature. It only gets hot sometimes.*

What is the focus of this paragraph?

- (A) what exoplanets are
- (B) what a red dwarf is
- (C) how stars get hot
- (D) how Earth stays cool

3 Read the selection below from the introduction [paragraphs 1 to 4].

*Scientists said the planet is in that star's livable zone. This is the area near a star that is not too hot. It is not too cold, either. The planet is in just the right place.*

What does the author mean by "just the right place"?

- (A) somewhere that scientists already know about
- (B) somewhere that keeps the planet out of trouble
- (C) somewhere that might be good for living things
- (D) somewhere that could be fun to throw a party

4 Read the selection below from the section "Only A Special Telescope Can See The New Planet."

*Scientists used that telescope to see the distant planet. It is a strong telescope that can see far into space. The planet's name is like other planets near it.*

What does the word "distant" mean?

- (A) interesting
- (B) far away
- (C) large
- (D) new