Voyager 1 Nears a One-Day Message Delay

NASA's farthest spacecraft will soon be so distant that a hello takes a day to arrive.



A small spacecraft travels far from Earth in deep space.

Voyager 1 is about to become one **light**-day from **Earth**. That means light needs a full day to travel from Earth to the spacecraft. According to Live Science, the NASA **probe** will reach that mark on Nov. 18.

A probe is a robot spacecraft. It travels where people cannot go. Voyager 1 launched in September 1977. It has been flying for more than 49 years. It is already the farthest human-made object in space.

The number is hard to picture. Voyager 1 is nearly 16 billion miles from Earth. It is moving at nearly 38,000 miles per hour. That sounds fast. In space, it is still a tiny step. Scientists say it will take about 300 more years to reach the inner edge of the Oort Cloud. That is a huge shell of icy objects around our solar system.

The light-day mark matters because it shows how big space is. If NASA sends Voyager 1 a radio **message**, the message travels at light speed. It will take 24 hours to get there. Then a reply would take another 24 hours to come back. Saying hello would mean waiting about two days.

That wait is not the only challenge. Far from the sun, sunlight is too weak for solar panels. Voyager 1 uses **nuclear** batteries. These batteries make electricity from heat. Their power is slowly running down. NASA has turned off some tools to save **energy**.

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Even so, Voyager 1 still has a job. It sends back information from beyond the heliosphere. The heliosphere is a bubble made by the sun. It surrounds the planets and helps shield them from some space radiation, which is strong energy moving through space. Voyager 1 crossed beyond that bubble in 2012.

Imagine being in the control room. Nothing feels fast. There is no quick answer on a screen. A command leaves Earth, crosses darkness for a day, and reaches a machine older than many parents. Then everyone waits.

Voyager 1 also shows what long teamwork can do. Some people who built the mission are gone. New workers now help care for the same spacecraft. The mission is like a relay race, but the baton is far beyond the planets.

One day, Voyager 1 may go silent. For now, it is still moving outward. It is a small machine in a very large place, carrying human curiosity with it.

Written from reporting by Live Science.

THINK IT THROUGH

1. **Is it worth caring for a spacecraft that takes two days to answer a message? Defend your view.**

> **A strong answer:** A strong answer weighs patience and effort against the value of learning from a place no person has reached.

2. **How should scientists change their planning when they cannot get quick answers from a machine?**

> **A strong answer:** A strong answer discusses careful instructions, waiting, and preparing for problems before they happen.

3. **Should a future mission study nearby worlds closely, or travel far like Voyager 1? Explain your choice.**

> **A strong answer:** A strong answer compares depth of knowledge nearby with the excitement and limits of exploring far away.

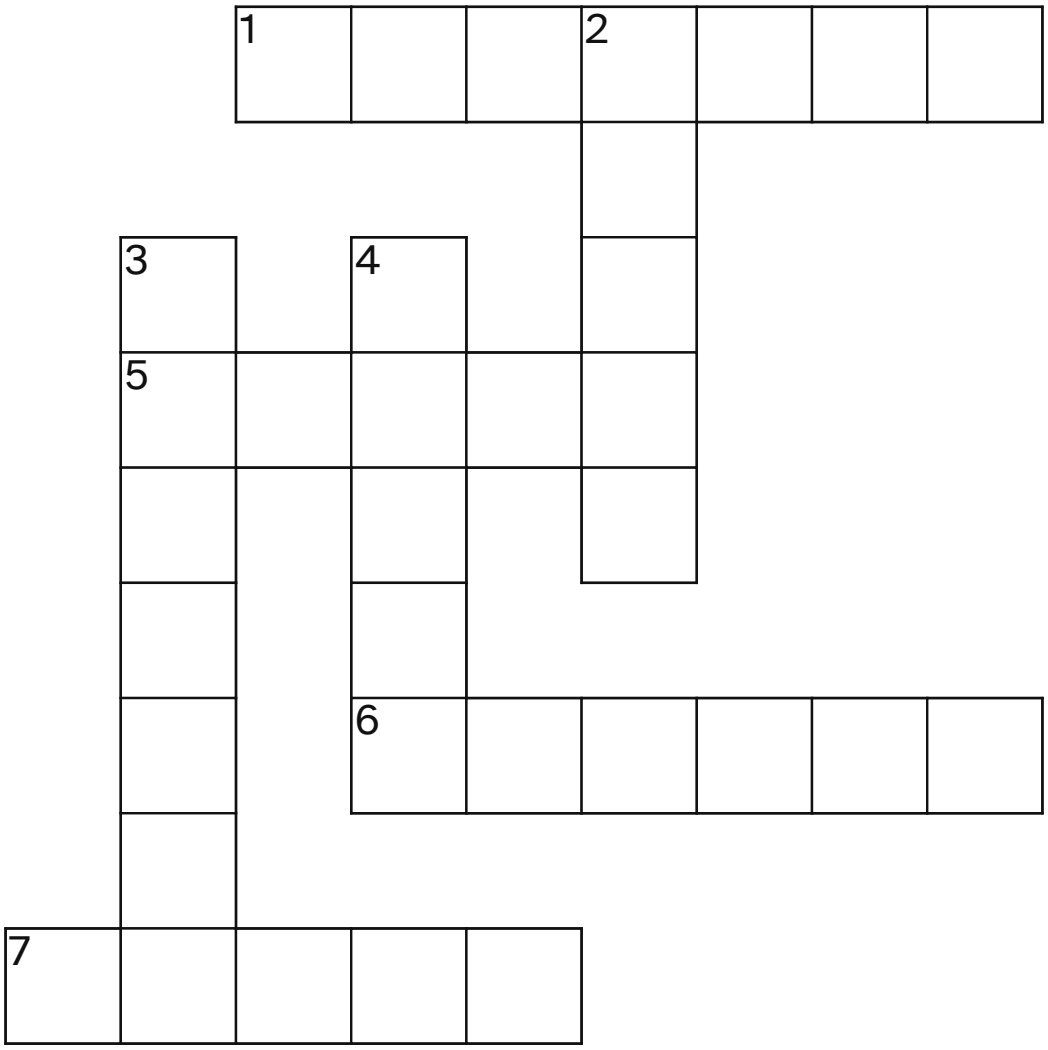
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O R A R M O Y E E D
P R O B E T A H O E
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N Y N L U R R T S E
E N T P L I G H T C
A G G R Y S A Y H R

DELAY EARTH ENERGY LIGHT MESSAGE NUCLEAR PROBE

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ACROSS

1 About power from inside atoms

5 Planet where people live

6 Ability to make things move or happen

7 Wait before something happens or arrives

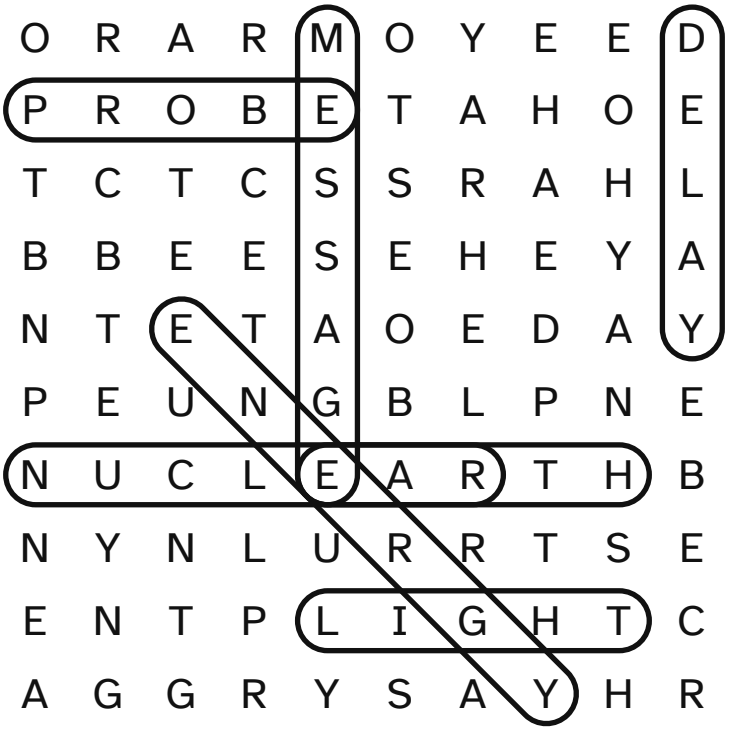
DOWN

2 Fast-moving energy that helps us see

3 Information sent to someone else

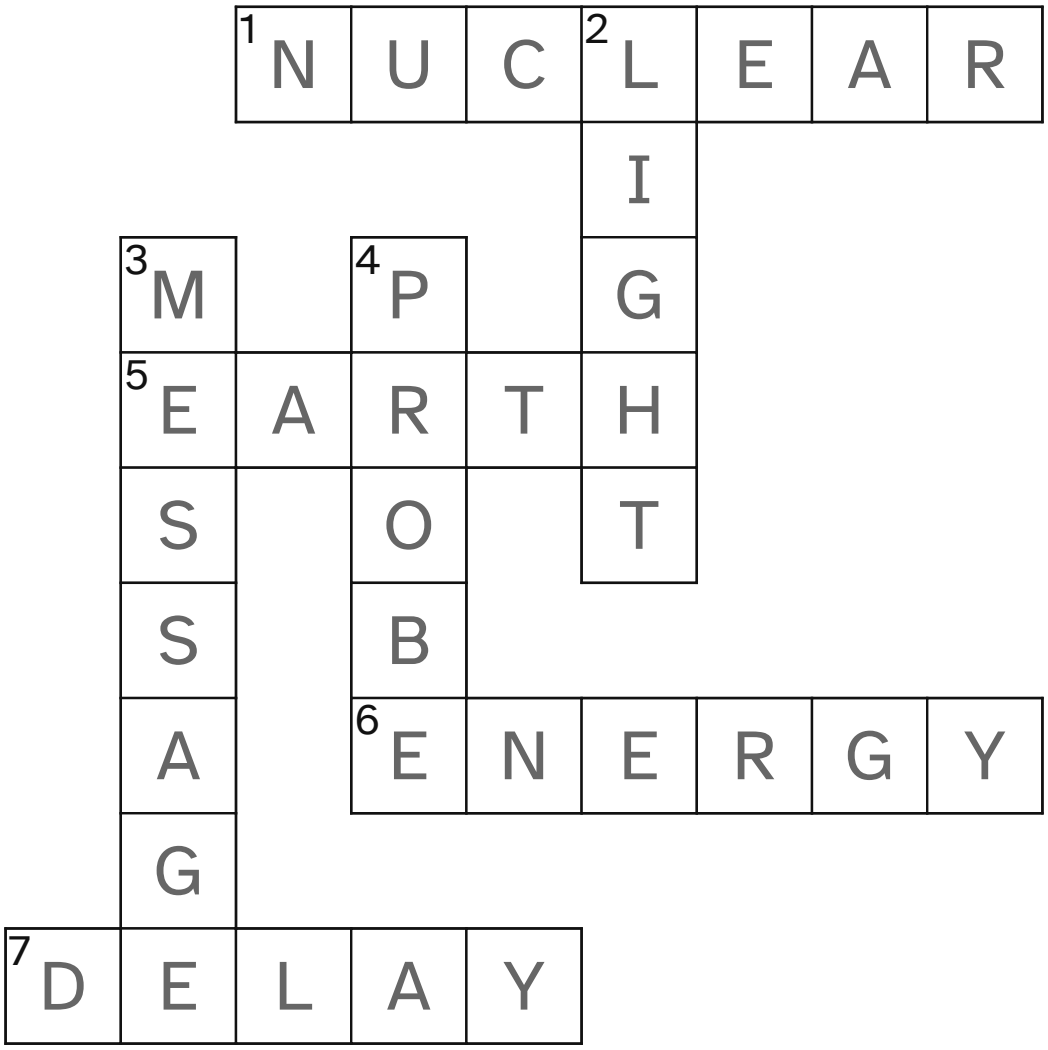
4 Robot spacecraft sent where people cannot go

Voyager 1 Nears a One-Day Message Delay — answer key



DELAY EARTH ENERGY LIGHT MESSAGE NUCLEAR PROBE

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Where this came from

This article was written for 3andB from the reporting below. It is not a reprint — the wording is ours and the facts are theirs.

Live Science

"'Out there, moving into the unknown': As Voyager 1 reaches one light-day from Earth, scientists reflect on its past — and its future"

Published	Sunday, November 15, 2026
Read by us on	Monday, November 16, 2026

https://www.livescience.com/space/space-exploration/out-there-moving-into-the-unknown-as-voyager-1-reaches-one-light-day-from-earth-scientists-reflect-on-its-past-and-its-future

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