National Aeronautics and Space Administration

NOVEMBER 18, 2026

The Voyager 1 spacecraft, after traveling for nearly 50 years, crosses a milestone reached by no other human-made object — one light-day away from Earth. That is the distance light can travel in 24 hours.



VOYAGER

ONE LIGHT-DAY

DISTANCE

ONE LIGHT-DAY IS ABOUT 16.094 BILLION MILES.

> 646,000

TIMES AROUND EARTH

Imagine traveling all the way around our planet—not once, but over 646,000 times.

TRIPS TO THE MOON

You could travel from Earth to the Moon about 67,400 times before traveling one light-day.

A FOOTBALL FIELD TO VOYAGER

Scale a light-day to a 100-yard football field: Earth defends one end zone, Saturn sits less than five yards in front of it, and Voyager 1 is nearly 100 yards away, about to score a touchdown.

SPEED

LIGHT TRAVELS AT 186,282 MILES PER SECOND.

7.5x/second

TRAVELING AROUND EARTH

In one second, light would circle Earth almost seven and a half times.

LIGHT VS. VOYAGER

Voyager 1 travels at approximately 38,000 miles per hour. That's incredibly fast, but light travels almost 17,650 times faster.

HOW FAR CAN YOU GO IN ONE DAY?

In 24 hours, you could drive 1,560 miles (at 65 mph), or fly 13,200 miles (at 550 mph). Voyager 1 travels about 912,000 miles. Light travels more than 16 billion miles.

TIME

THE SAME DISTANCE. VERY DIFFERENT JOURNEYS.

ONE DAY FOR LIGHT / 49 YEARS FOR VOYAGER

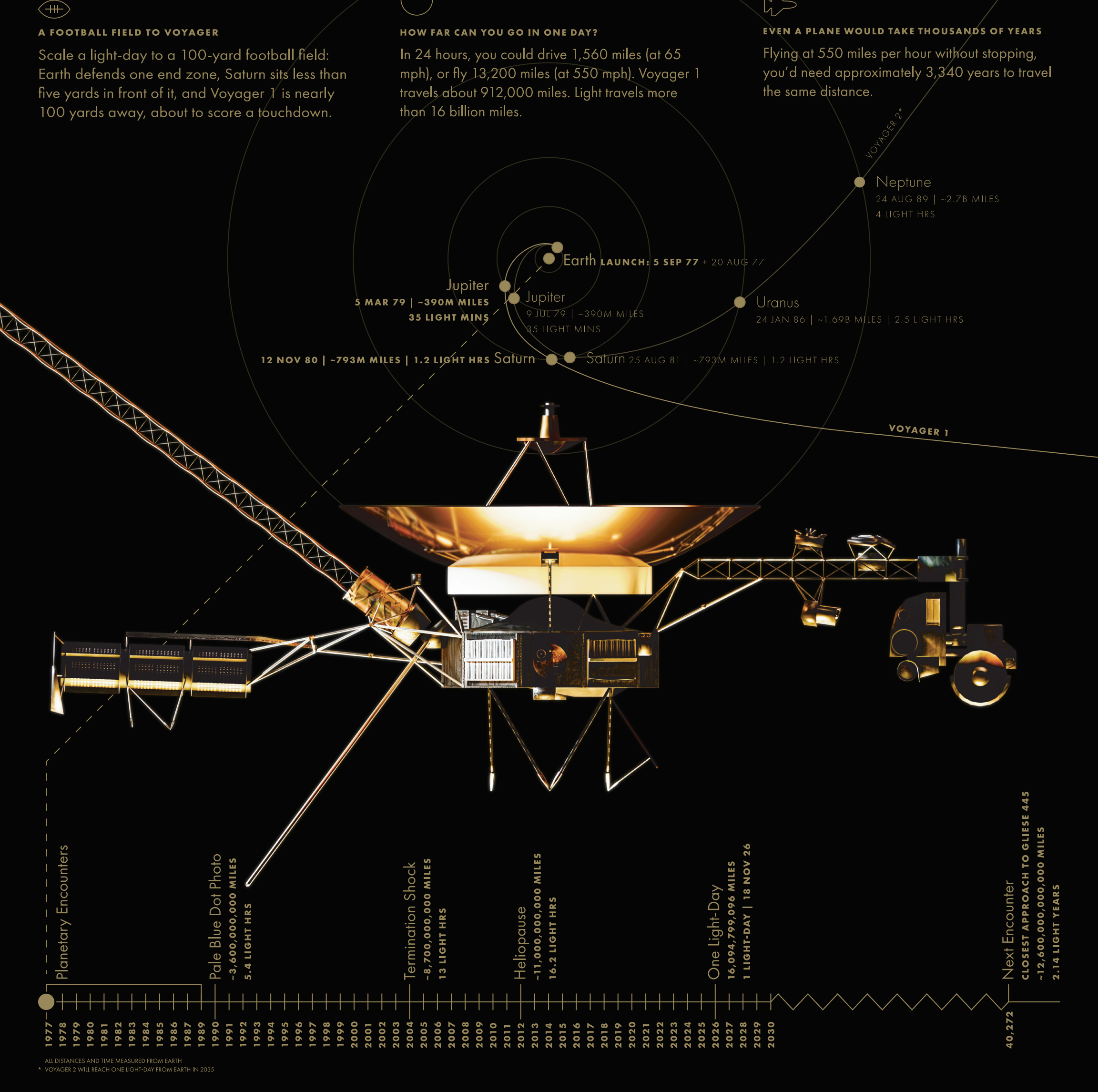
Light travels over 16 billion miles in 24 hours. For Voyager 1, it took 49 years.

WHAT IF YOU COULD DRIVE TO VOYAGER?

Driving nonstop at 65 miles per hour, it would take you about 28,250 years to travel one light-day.

EVEN A PLANE WOULD TAKE THOUSANDS OF YEARS

Flying at 550 miles per hour without stopping, you'd need approximately 3,340 years to travel the same distance.



1977 Planetary Encounters
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1989
1990 Pale Blue Dot Photo
~3,600,000,000 MILES
5.4 LIGHT HRS
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004 Termination Shock
~8,700,000,000 MILES
13 LIGHT HRS
2005
2006
2007
2008
2009
2010
2011
2012 Heliopause
~11,000,000,000 MILES
16.2 LIGHT HRS
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026 One Light-Day
16,094,799,096 MILES
1 LIGHT-DAY | 18 NOV 26
2027
2028
2029
2030
40,272 Next Encounter
CLOSEST APPROACH TO GLIESE 445
~12,600,000,000,000 MILES
2.14 LIGHT YEARS

ALL DISTANCES AND TIME MEASURED FROM EARTH
* VOYAGER 2 WILL REACH ONE LIGHT-DAY FROM EARTH IN 2035