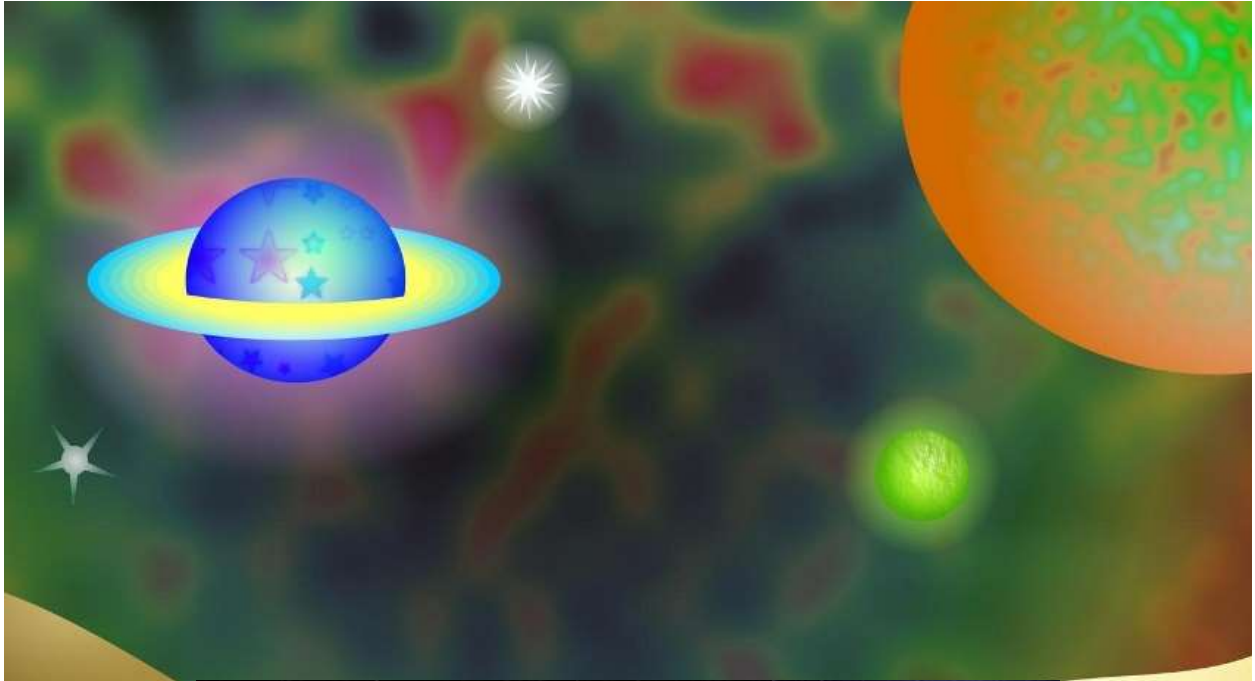


VOYAGER FACTS



Voyager 1 & 2- Are We There Yet?

In 1977, a great and remarkable journey began when twin spacecraft *Voyager 1* and *Voyager 2* were launched by NASA at Cape Canaveral, Florida.

The mission of the space probes was to conduct close up studies of Jupiter and Saturn, of Saturn's rings and their larger moons.

The *Voyager* mission was designed to take advantage of a once in 175 year arrangement of the outer planets which permitted a four-planet grand tour using a minimum of propellant and trip time.

In 1973-74, NASA's *Mariner 10* Venus/Mercury mission first successfully used this "gravity assist" technique to reduce trip time from 30 years to 12 years.

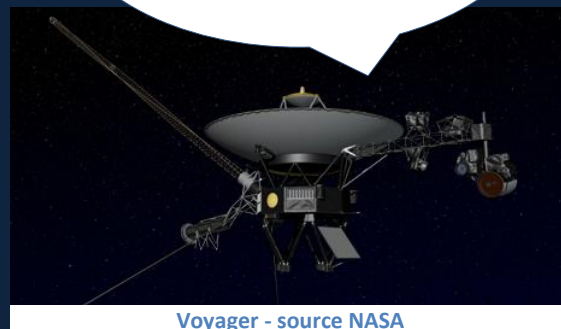
Voyager 1 achieved its mission to reach Jupiter on March 5, 1979, and Saturn on November 12, 1980. *Voyager 2* reached Jupiter on July 9, 1979, and Saturn on August 25, 1981.

Voyager 1's path, designed to send the spacecraft closely past the large moon Titan and behind Saturn's rings, sent the spacecraft out of the plane in which most of the planets orbit the Sun.

Voyager 2 was aimed to fly by Saturn at a point that would automatically send the spacecraft in the direction of Uranus.

The spacecraft were originally built to last five years. As the original mission objectives were achieved, it became possible to extend the journey to Uranus and Neptune. This was an exciting and irresistible opportunity. As the spacecraft flew across the solar system, remote-control reprogramming was used to bestow the *Voyagers* with greater capabilities than they had possessed when they left planet Earth.

JUST POPPING OUT TO
INTER-STELLA SPACE for
THIRTY to FIFTY YEARS or
so.
WE PROMISE TO SEND PICS.



Voyager - source NASA



Saturn



Jupiter

Their two-planet missions and five-year lifetimes have stretched to more than thirty years and exploration of all the giant outer planets and 48 of their moons.

The current mission, the Voyager Interstellar Mission (VIM), will explore the outermost edge of the Sun's domain. And beyond.

Facts & Figures

A snapshot on May 28, 2012

<http://voyager.jpl.nasa.gov/index.html> for real time version

- VOYAGER 1**

DISTANCE FROM EARTH

17,945,909,066 KM 119.96099264 AU

DISTANCE FROM THE SUN

18,068,722,461 KM 120.78194948 AU

ROUNDTRIP LIGHT TIME FROM THE SUN

33:15:22 (hh:mm:ss)

- VOYAGER 2**

DISTANCE FROM EARTH

14,662,324,397 KM 98.01158485 AU

DISTANCE FROM THE SUN

14,753,933,765 KM 98.62395565 AU

ROUNDTRIP LIGHT TIME FROM THE SUN

27:10:16 (hh:mm:ss)



AU is an Astronomical Unit. This is a convenient means of measuring vast distances in space. One AU is 149,597,870.7 kilometres, or approximately the mean distance from the Earth to the Sun.

1979 Mar. 5	Voyager 1 makes its closest approach to Jupiter
1979 July 9	Voyager 2 makes its closest approach to Jupiter
1980 Nov. 12	Voyager 1 flies by Saturn Voyager 1 begins its trip out of the Solar System
1981 Aug. 25	Voyager 2 flies by Saturn
1986 Jan. 24	Voyager 2 has the first-ever encounter with Uranus
1988	Voyager 2 returns first color images of Neptune
1989 Aug. 25	Voyager 2 is the first spacecraft to observe Neptune Voyager 2 begins its trip out of the Solar System
1990 Jan. 1	Begins Voyager Interstellar Mission
1990 Feb. 14	Last Voyager Images - Portrait of the Solar System
1998 Feb. 17	Voyager 1 passes Pioneer 10 to become the most distant human-made object in space
2004 Dec. 15	Voyager 1 crosses Termination Shock
2007 Sep. 5	Voyager 2 crosses Termination Shock
August 2012	In August 2012, Voyager 1 entered interstellar space – the space between the stars. Voyager 1 is the farthest human-made object from Earth, and it still regularly communicates with our planet.