

## My Drift

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On Monday, 26 Sep 2022, Jupiter made its closest approach to Earth in almost 60 years, coming about 367 million miles from our planet. They said on the news that it could easily be seen in the nighttime and early morning sky with the naked eye. Jupiter will be the brightest starlike object in the sky so before bedtime, me and my dog Apache went outside to look for it. There were two bright looking stars in the southern sky - one low and one high. Since I don't know much about where Jupiter should be, I asked a friend, and he said the higher one was Jupiter and the lower one was probably Venus.


Jupiter is called the King of the Planets because it's named after the King of Gods (who was also the King of the Sky) and is the largest planet in the solar system. The planet Jupiter is more massive than all the other planets in the Solar System put together. It's a stormy mass of raging gas and metallic hydrogen.


The Great Red Spot is a long-lived enormous storm system, which has been going for hundreds of years. It is the most conspicuous feature of Jupiter's visible cloud surface. It is generally reddish in color, slightly oval in shape, and approximately $\mathbf{1 0 , 1 6 0}$ miles wide-large enough to engulf the entire Earth.

Here are a few more pictures of Jupiter:


Jupiter at its Biggest and Brightest takes on an Ultraviolet Color

## Jupiter Facts at a Glance

## JUPITER

JUPITER IS THE BIGGEST PLANET<br>IN THE SOLAR SYSTEM



Jupiter's Rings


While all the gas planets (Jupiter, Saturn, Uranus, and Neptune) in our solar system have rings, none of them are as extensive or distinctive as Saturn's. Gas giants are large planets composed mostly of gases, such as hydrogen and helium, with a relatively small rocky core. Jupiter's ring system is faint and consists mainly of dust particles. That is why we can't see them.

Jupiter Moons


Jupiter has 79 moons. Fifty-seven moons have been given official names by the International Astronomical Union (IAU). Another 22 moons are awaiting official names.

There are many interesting moons orbiting the planet, but the ones of most scientific interest are the first four moons discovered beyond Earth - the Galilean satellites. The planet Jupiter's four largest moons are called the Galilean satellites after Italian astronomer Galileo Galilei, who first observed them in 1610. These large moons, named Io, Europa, Ganymede, and Callisto, are each distinctive Worlds.

* Io is the most volcanically active body in the solar system.
* Europa's surface is mostly water ice, and there is evidence that it may be covering an ocean of water or slushy ice beneath. Europa is thought to have twice as much water as does Earth.
* Ganymede is the largest moon (diameter 3,274 miles) in the solar system (larger than the planet Mercury - diameter 3,030 miles)), and is the only moon known to have its own internally generated magnetic field.
* Callisto's surface is extremely heavily cratered and ancient-a visible record of events from the early history of the solar system.


## Just how big is Jupiter?



Well, Jupiter has a diameter of around $\mathbf{8 7 , 0 0 0}$ miles. This means Jupiter has about 11 times the diameter of Earth which is a little over $\mathbf{7 , 9 0 0}$ miles. This planet is so big that it would take around 1,300 Earths just to fill its volume! It is massive!

## Is Jupiter Bigger than our Sun?

Jupiter may indeed be the biggest planet in our Solar System, but it pales in comparison to our Sun.


Our Sun is about 10 times wider than Jupiter. The Sun has a diameter of 865,000 miles. Jupiter, on the other hand, has a diameter of around 87,000 miles. You could fill the Sun with $\mathbf{1 , 0 0 0}$ Jupiter-sized planets.

## Jupiter is the Fastest Spinning Planet in The Solar System

For all its size and mass, Jupiter sure moves quickly. In fact, with a rotational velocity of $\mathbf{2 8 , 1 4 8} \mathbf{~ m p h}$, the planet only takes about 10 hours to complete a full rotation on its axis. Earth spins at roughly $\mathbf{1 , 0 0 0}$ miles per hour and rotates once every 24 hours.

## Jupiter's Magnetic Field is 14 times stronger than Earth's

Compasses would really work on Jupiter. That's because it has the strongest magnetic field in the Solar System.

## Jupiter has been visited 7 times by Spacecraft

Jupiter was first visited by NASA's Pioneer 10 spacecraft in December 1973, and then Pioneer 11 in December 1974. Then came the Voyager 1 and 2 flybys, both of which happened in 1979. This was followed by a long break until Ulysses arrived in February 1992, followed by the Galileo space probe in 1995. Then Cassini made a flyby in 2000, on its way to Saturn. And finally, NASA's New Horizons spacecraft made its flyby in 2007. This was the last mission to fly past Jupiter, but it surely won't be the last.

## You can see Jupiter with your own eyes

Jupiter is the third brightest object in the Solar System, after Venus and the Moon. Chances are, you saw Jupiter in the sky, and had no idea that's what you were seeing. If you see a really bright star high in the sky, then you're probably looking at Jupiter. Get your binoculars or even better - a telescope. Using even modest magnification, you might even spot small specks of light orbiting it, which are its Galilean Moons. Just think, you'll be seeing precisely what Galileo did when he gazed up at the planet in 1610.


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