

COMET SIDING SPRING & MARS PASSING

CONCEPTUAL ILLUSTRATION OF POSSIBLE ATMOSPHERIC COLLISIONS

According to NASA's calculations, comet Siding Spring C/2013 A1 will pass very near the planet Mars on October 19, 2014. The comet was named Siding Spring after the place in Australia where it was discovered in 2013. It is estimated that the distance of the comet will be 133,000 km away. This is about 1/3 the distance from the Earth to the Moon. NASA predicts that the comet nucleus will not hit the surface of Mars but that their respective atmospheres could collide in some fashion. It is considered a once in a life-time event. Most, if not all planets have an atmosphere to one degree or another; so do comets. For the comets, this is the Coma. It is made up of ice (water) and metal elements that is surrounded by the Coma made up of dust and gases. For an approximate scale of how big an average comet's Coma is, it is roughly bigger than the diameter of Jupiter. NASA speculates that if at all, the two atmospheres will interact 'collide' in some way. Perhaps there might be some sort of electromagnetic charge at the upper atmospheric levels. This atmosphere interaction could lead to some atmospheric effects such as Auroras or worse. Is it any coincidence that NASA has a fleet of Mars Orbiters that will be positioned just precisely in-between the Comet and Mars for this particular time and place?

MARS ORBITERS

NASA has been sending Orbiters to Mars since 1964. The latest one, MAVEN will try to learn what caused Mar's climate change. MAVEN is the 21st NASA mission to Mars. These Orbiters are:

1. 2013-MAVEN
2. 2005-Mars Reconnaissance Orbiter
3. 2001-ODYSSEY



MOON (Luna)

The distance from the Earth to the Sun is 1 Astronomical Unit or AU. This is the basic unit of measure to determine relative distance of objects in space. The estimated distance to

1. Earth = 1.61 AU
2. Sun = 1.403 AU

Siding Spring Coma

Nucleus
NOT TO SCALE

Jupiter

THE ISON CONNECTION

What this event might mean, remains to be ascertained.

1. One peculiar correlation of this comet is that it has a factor of a measurement that is related to a prior Mars-comet interaction with comet ISON back in November 3, 2013.

2. The other peculiarity is that the difference between the distance of Siding Spring's distance to Mars is the difference between ISON's tail length compared to the distance of the Earth to the Moon.

3. The trajectory of Siding Spring on the way out of the Solar System will have a similar path as ISON that traversed parts of Ophiuchus, Serpens and Perseus.

COMETS

They are often referred to as 'dirty snowballs' because they are small celestial objects, made of ice, gas, dust, and a small amount of organic material. They orbit the Sun. If they are not disintegrated by the Sun, will return on an elliptical path. There are about a 1000 known comets. Many more comets are being discovered each year. Most go unnoticed as few are observable with the naked-eye.

CLIMATE CHANGE

It has long been postulated and confirmed in recent years that Mars once had a vibrant water system and atmosphere that could have supported life. The MAVEN, Mars Atmospheric and Evolution mission is but one attempt in learning how and why the atmosphere of Mars was stripped away. Some theorize that the core of the planet cooled enough to allow the solar winds to dismantle the electro-magnetic shield or it was caused by some outside catastrophe.

Distance from Earth to Moon

238,900 miles (384,400 km)

1/3



An approximation of the distance from Earth to the MOON that is about 30 Earths, side to side.

Actual width of comet's tail not to scale with Earth-Moon
The speed of light = 186,400 miles/second

ISON's (C2012 S1) TAIL LENGTH

~ 52,500 miles / 84,490 km

~ 133,000 km / 82,600 miles

7,918 miles (12,742 km)
Earth, Diameter



Siding Spring

EARTH (Terra)

TOP VIEW
Discovered in Jan 2013 past the orbit of Jupiter

PERIHELION
Oct 19, 2014
Radius: 30,000 km
Phase Angle: 106.5
Temp: ~160k

YEAR
686 Days
666.6 Sols

GRAVITY
38% of Earth

SUNLIGHT
44% of Earth

Orbit around Sun
1.88 Earth years

JUPITER
The 'King Planet'
SHOEMAKER-LEVY
JUL 17, 1994
9TH OF AV

'THE STRING OF PEARLS'
Comet broke up in exactly 21 pieces, a picture of (7+7+7)

MAVEN

ODYSSEY

M.R.O.

Shoemaker-Levy collision/impact on Jupiter to Siding Spring

20 years

93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

comet

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