PLANETARY CONJUNCTIONS AND THE SEETHING SUN!

THE CAUSE OF NATURAL CLIMATE CHANGE!

Compiled by John Elliston

November 2011

Stargazers did not get much sleep in August 2010!

The Red Planet was spectacular!

MARS

MARS X 75

MOON

Through a simple telescope Mars looked as large as the full moon to the naked eye.

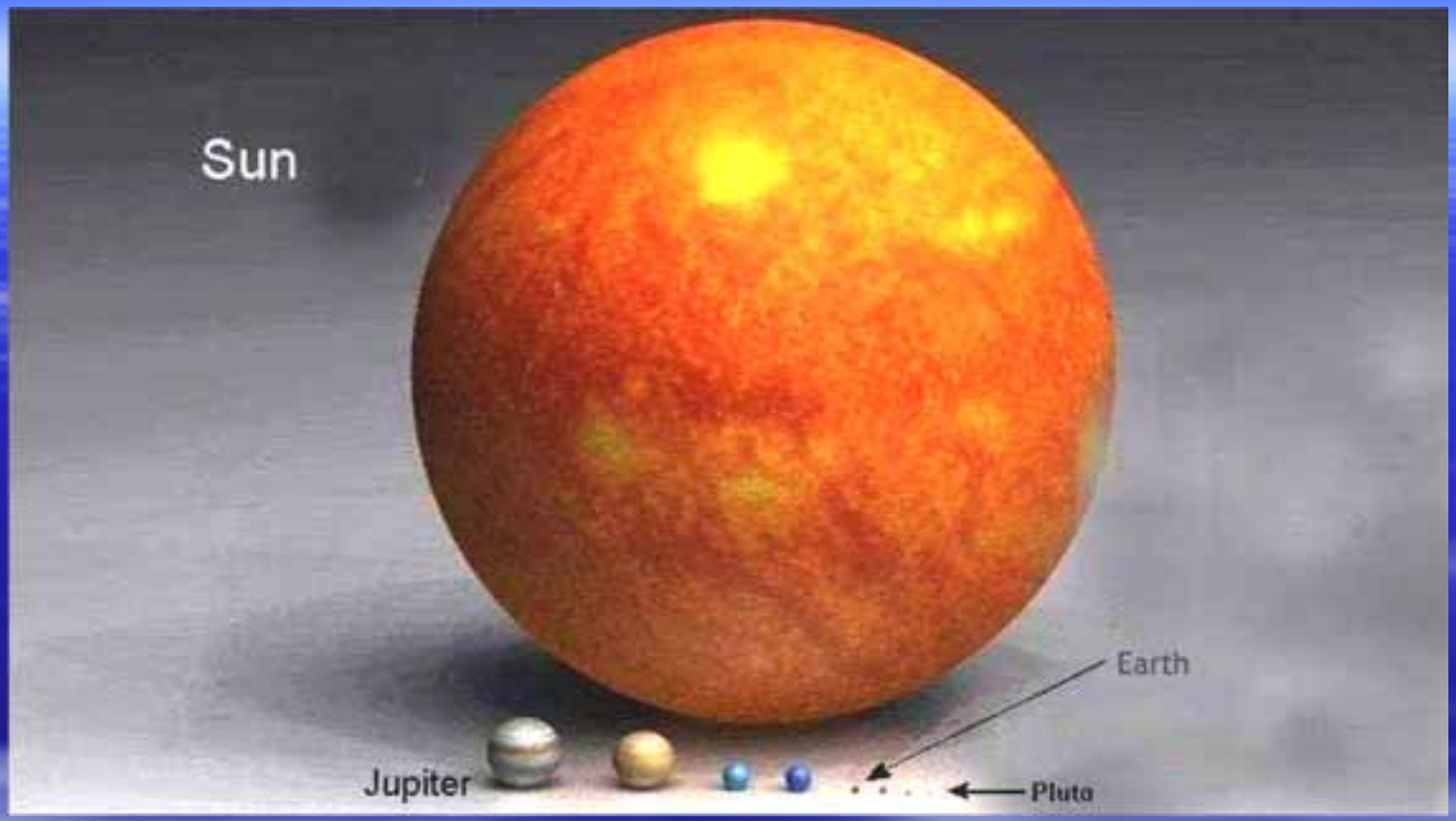
- In August 2010 Earth caught up with Mars in the closest approach between the two planets in recorded history.

- The next time Mars could come this close is in 2287.

These first three slides show that: -

Planets moving in their normal orbits repeatedly but rarely and in complex patterns achieve closer approaches and alignments.

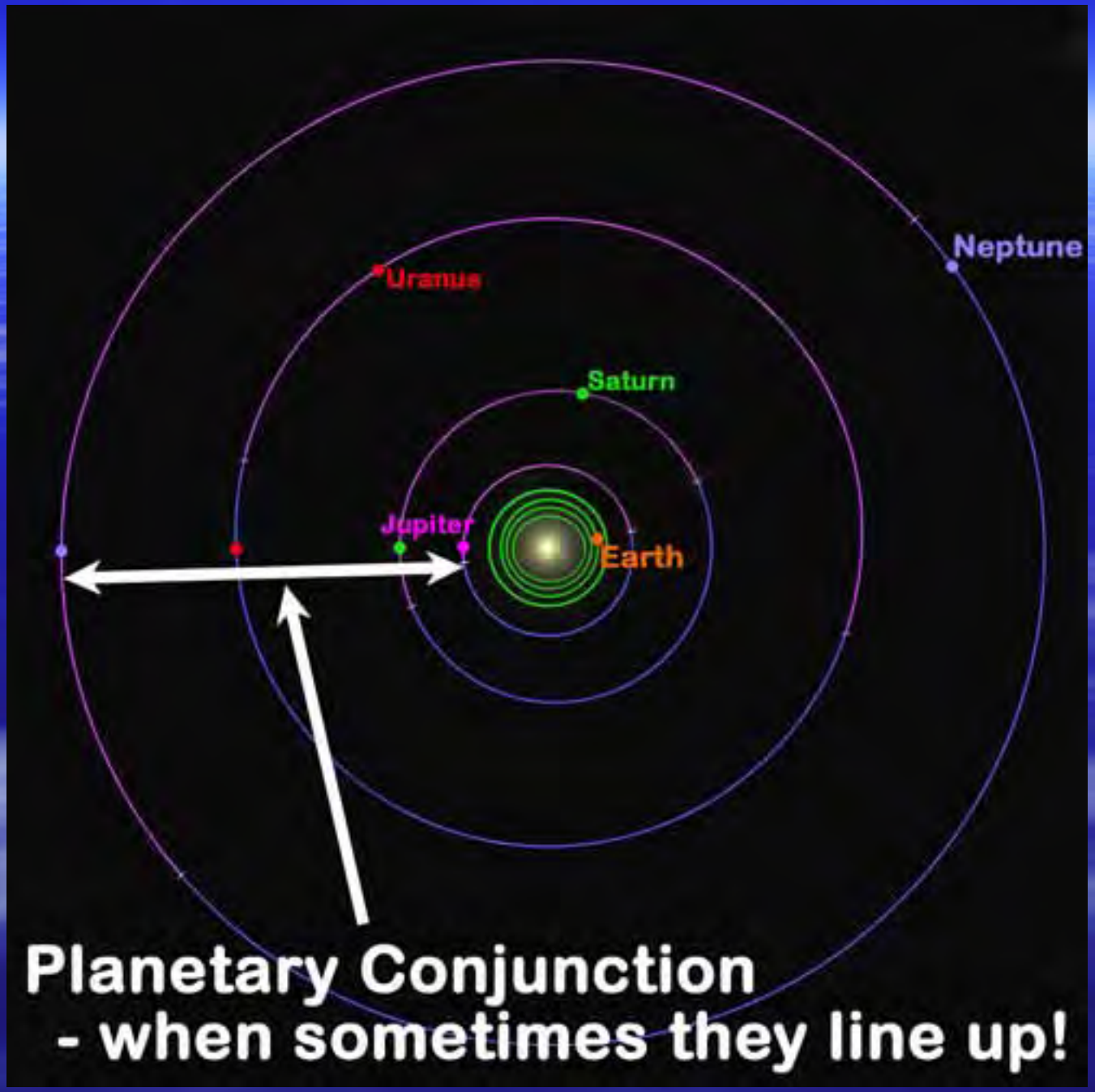
Solar System



Compare the size of the Sun and the planets. Periodically the larger planets, Jupiter, Saturn, Uranus and Neptune, become clustered on one side of the Sun.

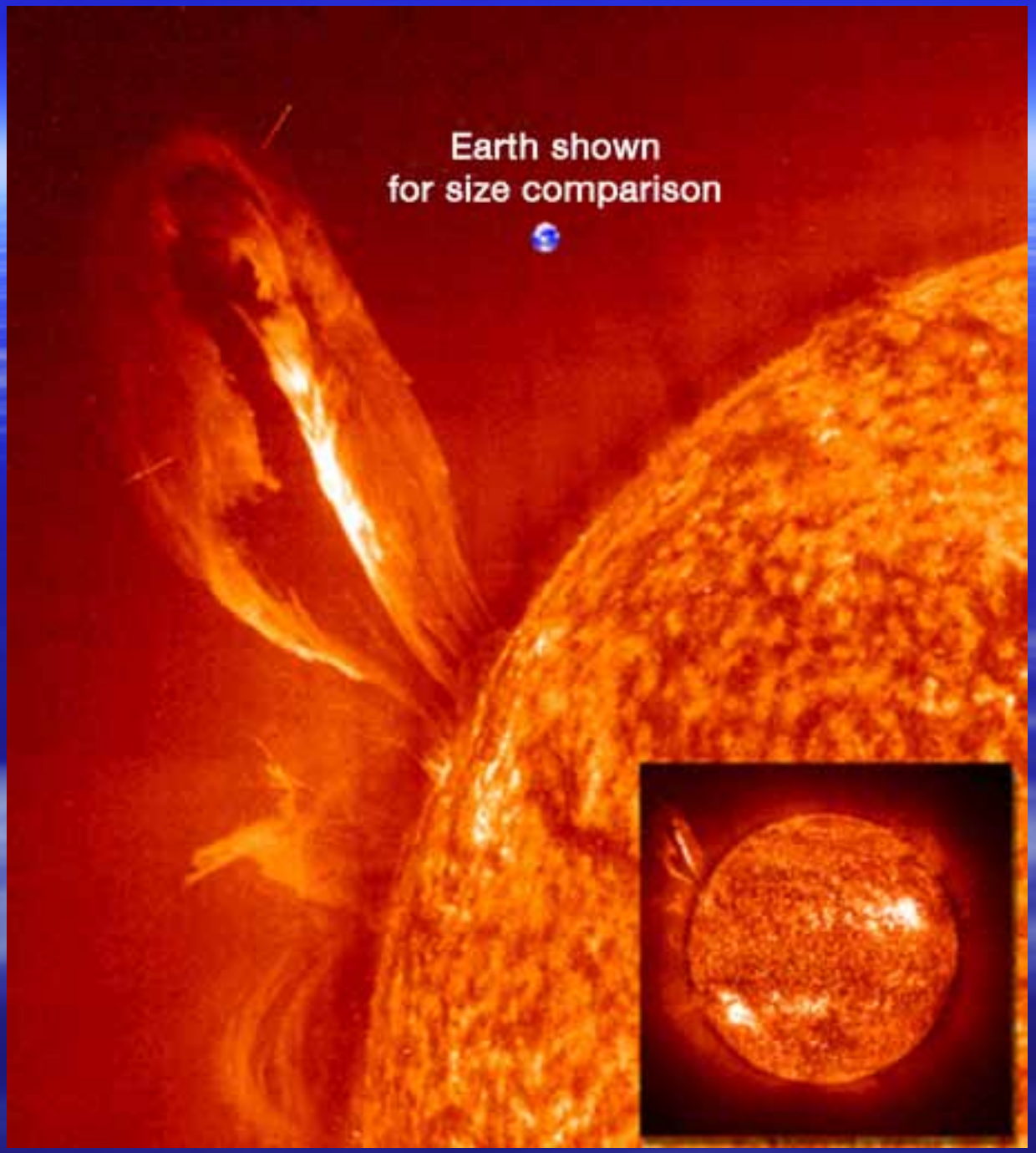
Please note: -

In this presentation images of the Sun are through thick heavy light filters. The Sun appears red, yellow and even black in the sunspots. In reality most solar energy is brilliant white light and ultraviolet. Only sunspots at average 4,200 K (about electric arc temperature) emit much of their radiation as heat.



The Planets orbit the Sun at different rates in elliptical orbits that take them closer and further from each other and from the Sun.

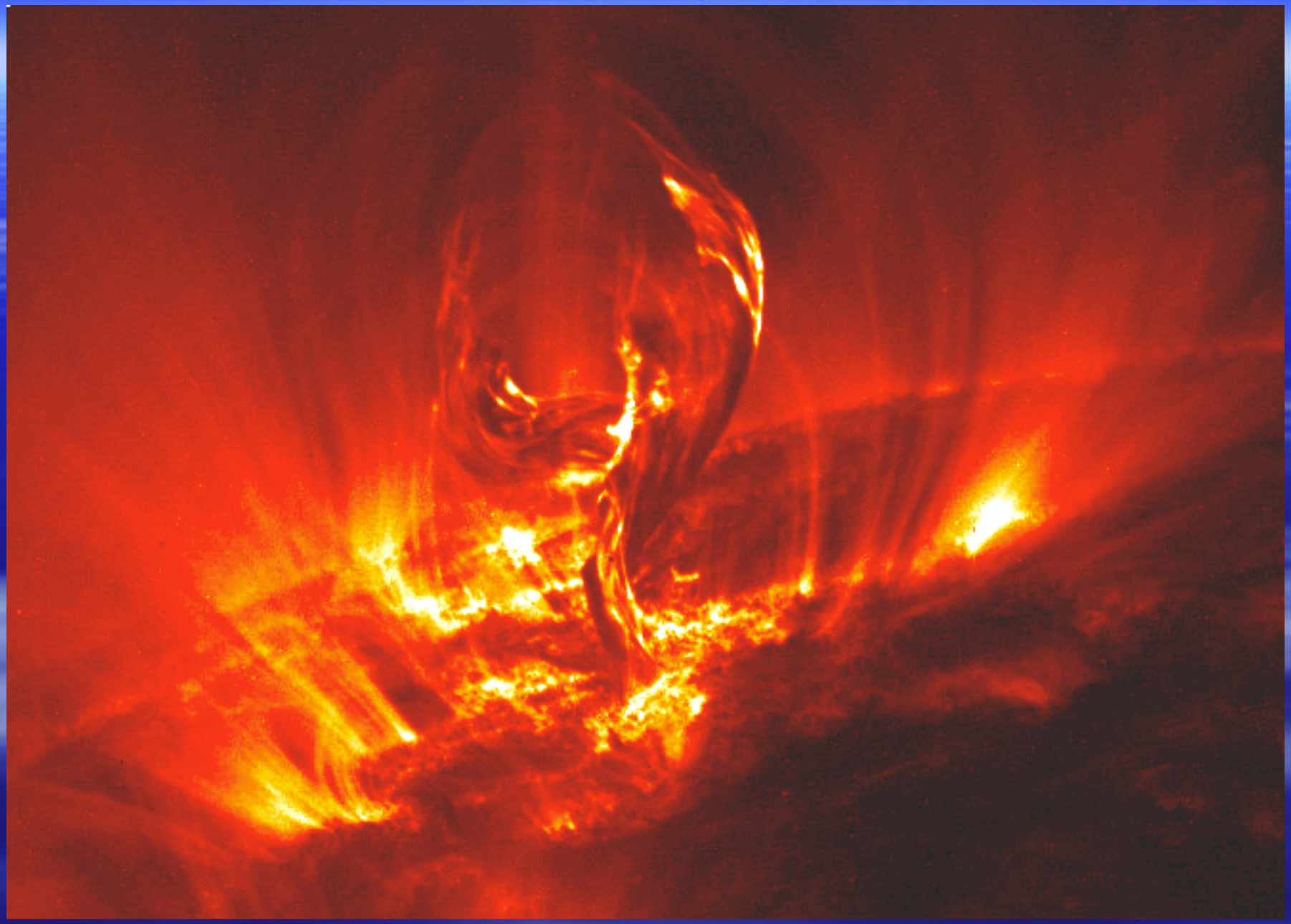
The “tidal effect” of planetary conjunctions (clustering on one side of the Sun) varies in complex cycles!

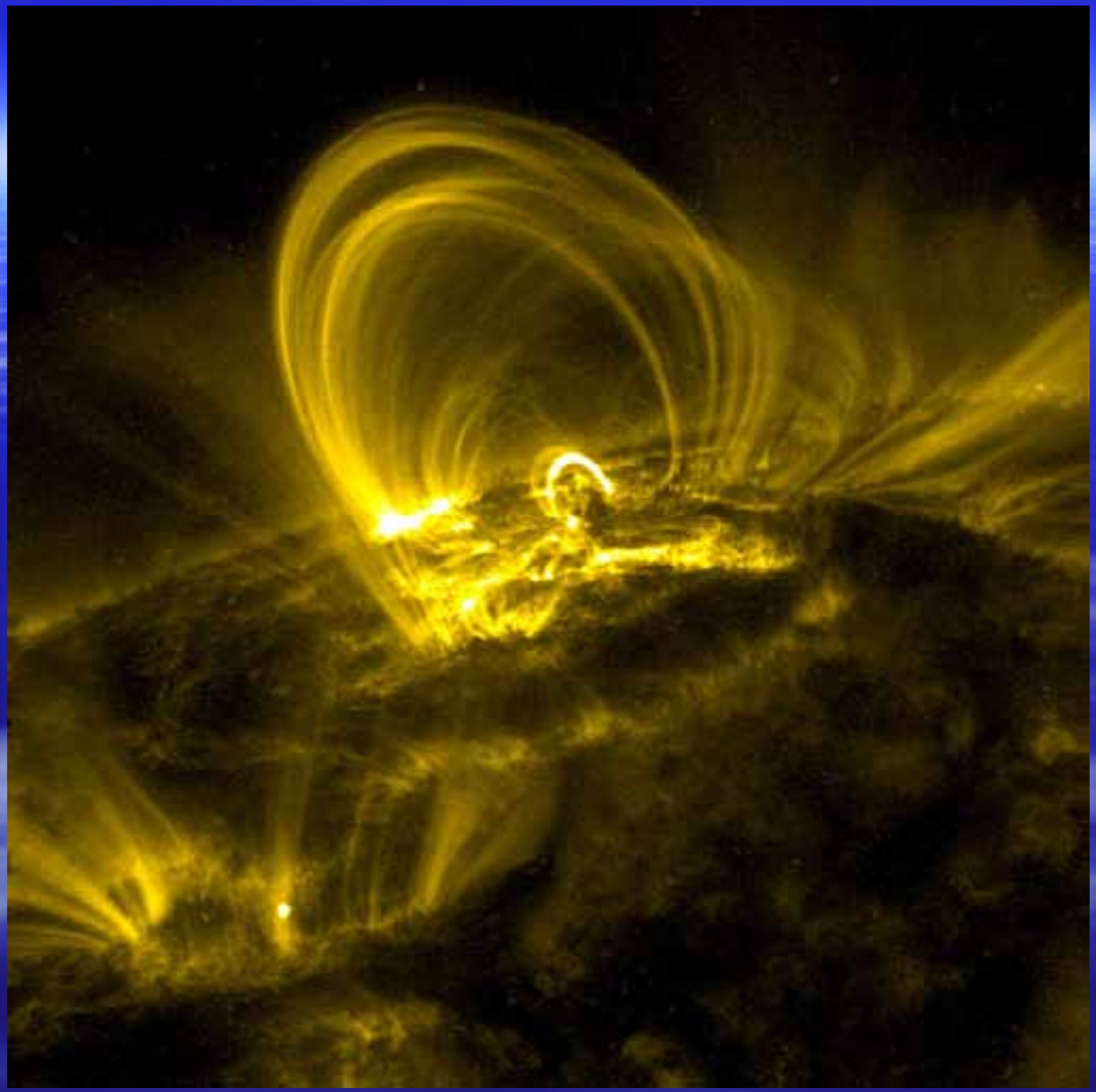


Immense solar flares explode out from the Sun for some half million kilometers.

They make the Earth look tiny!

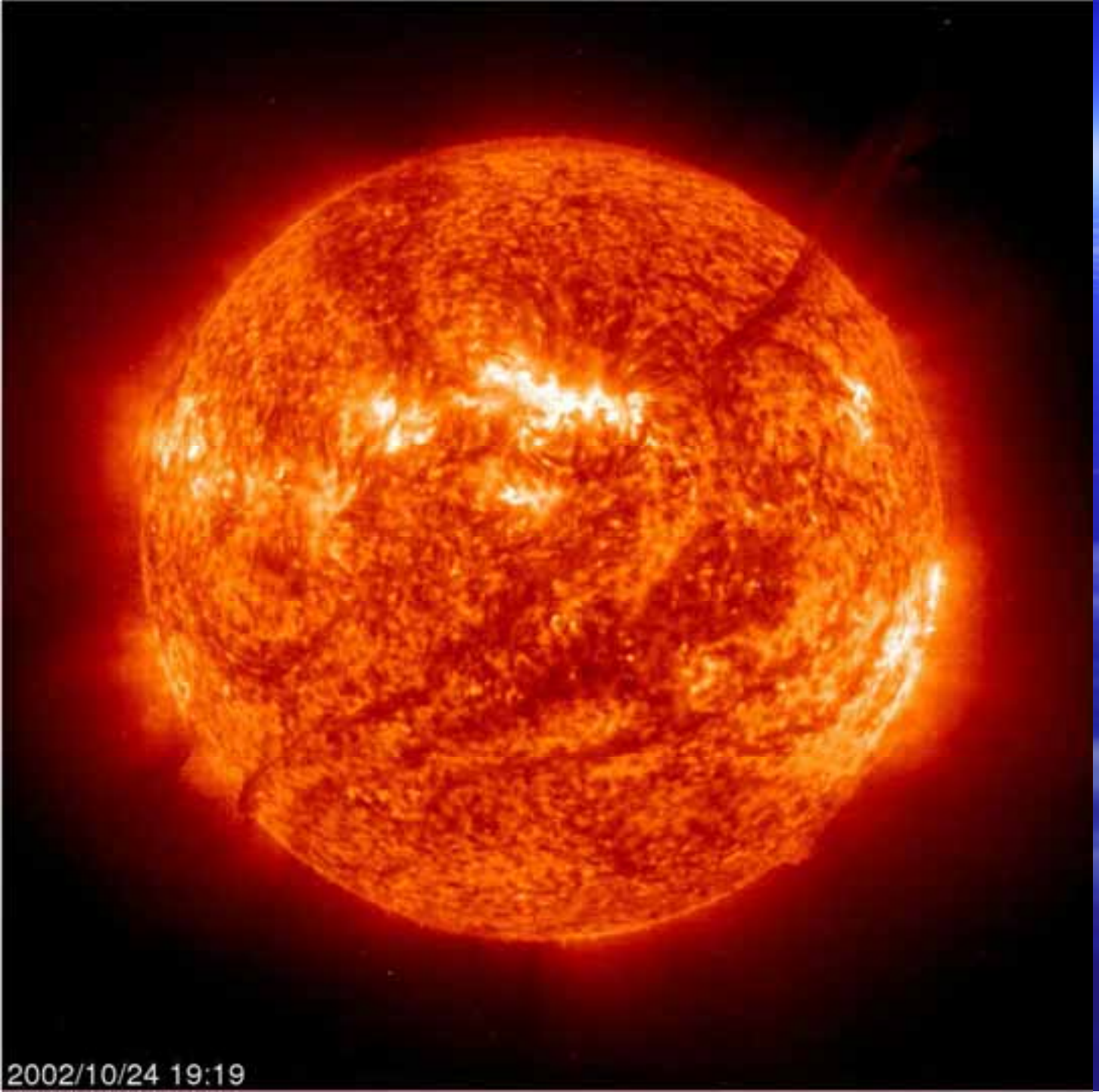
The flames (filaments) leap far out from the Sun!



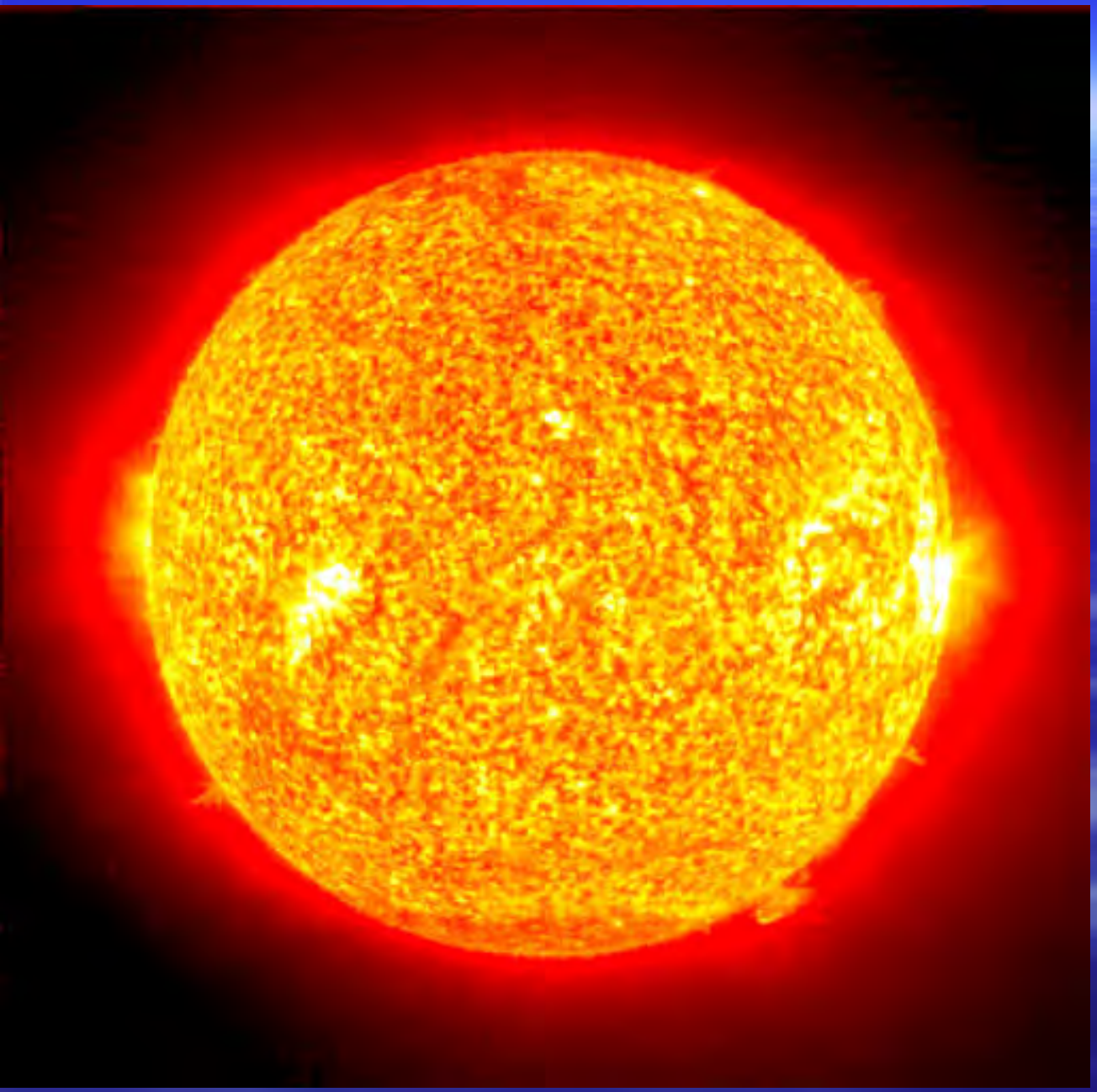


The gaseous plasma at the surface of the Sun is magnetic.

Strong magnetic fields cause loops in the Sun's corona!

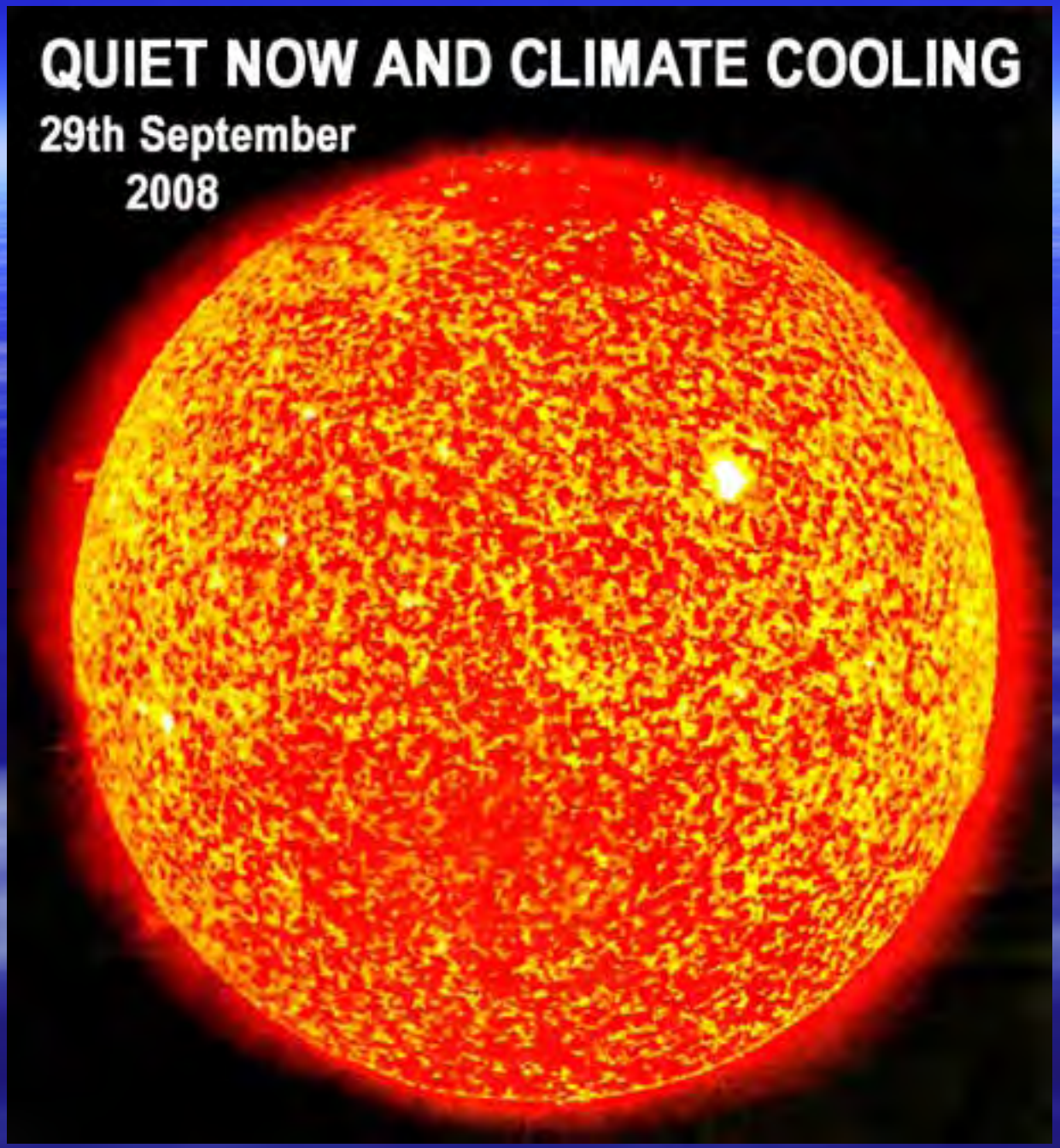


This is the Sun at its normal level of activity with some solar flares, faculae and cooler patches.



The Sun can calm down!

A bright spot is called a facula and these radiate more white light and ultra violet.

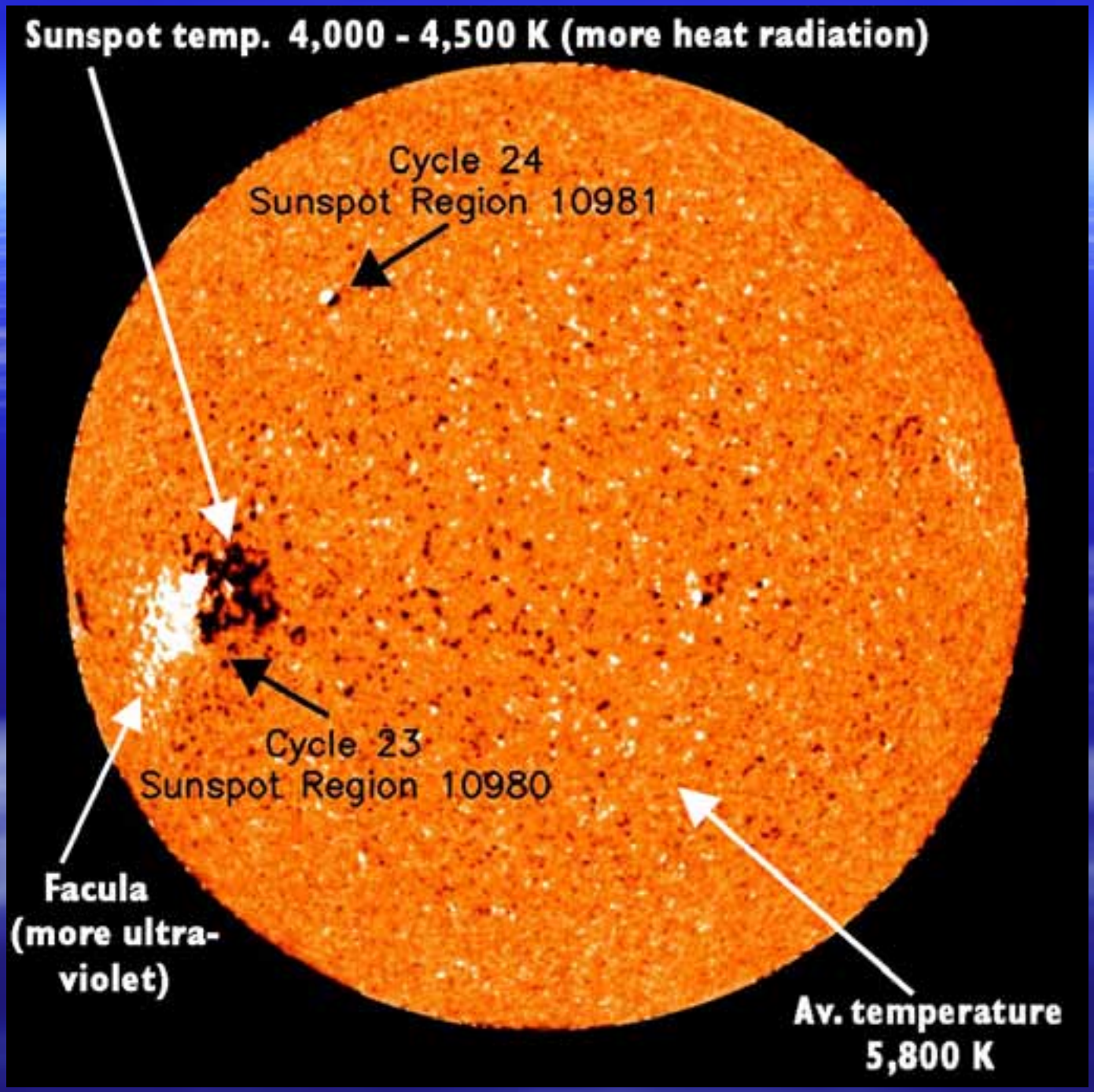


VARIABLE AND LOWER SOLAR ACTIVITY HAS BEEN RECORDED SINCE 2001.

(THIS NASA IMAGE WAS PUBLISHED IN SYDNEY ON 29TH SEPTEMBER 2008)

The Sun (or the side of it facing the Earth) was much quieter in January 2011.

Britain was completely covered in snow in January 2011.



Sunspots are brighter than an electric arc!

Radiation emitted is more towards the yellow-red end of the spectrum that is intercepted as heat.

The strength of sunshine reaching the Earth determines it's climate because this is the only source of heat (assuming negligible geothermal effects).

After millions of years the amount of heat continuously reaching the Earth must balance exactly with the heat continuously escaping to the surrounding cold outer space.

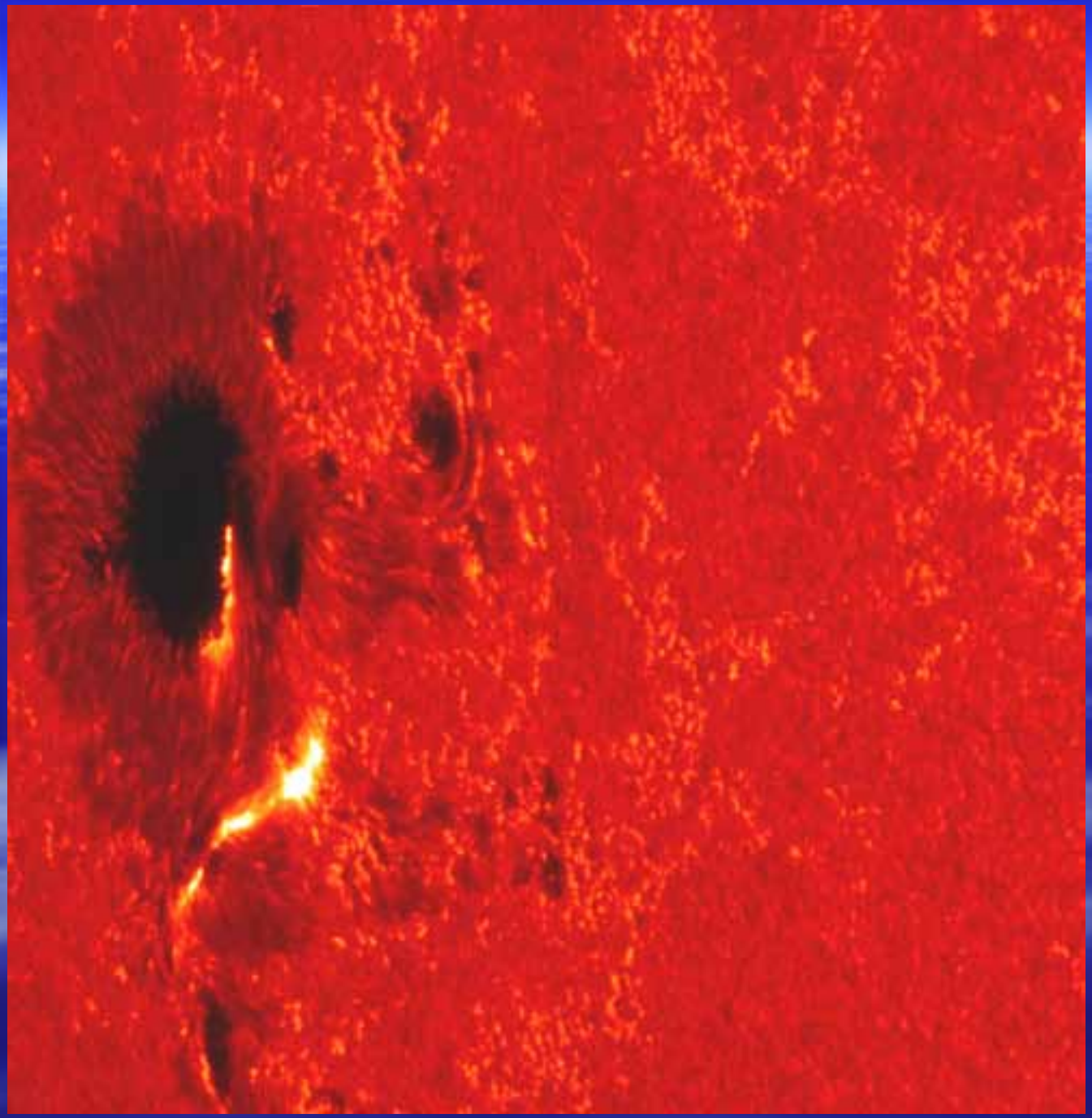
In the long term the Earth's climate can only change if the strength of the sunshine reaching it changes.

The strength of sunshine reaching the Earth varies in three ways: -

1. The size and activity of the of the sunspots.

2. The number of sunspots on the side of the Sun facing the Earth.

3. The proximity of the Earth to the Sun in the normal course of it's elliptical orbit (maximum at perigee).



Sunspots at about 4,200°C and solar flares are normal.

Sunspot emission spectra contain more heat.

Look at the difference that very active sunspots make!

Physicists can accurately calculate the total solar radiation intersected by the Earth: -

$$L_{Sun} = \sigma T_{Sun}^4 \frac{R_{Sun}^2}{d_{Earth}^2} \pi R_{Earth}^2 (1 - \alpha_{Earth}) \text{ Watts}$$

L_{Sun} - Luminosity of the Sun = Total solar power reaching the Earth

σ - Stefan-Boltzmann constant = 5.67×10^8

T_{Sun} - Temperature of the Sun = 5,778°K (Average) = 4,200°K (Av. Sunspots)

R_{Sun} - Radius of the Sun = 696,000 km

R_{Earth} - Radius of the Earth = 6,371 km

π - Ratio of circumference/Radius = 3.14159265358

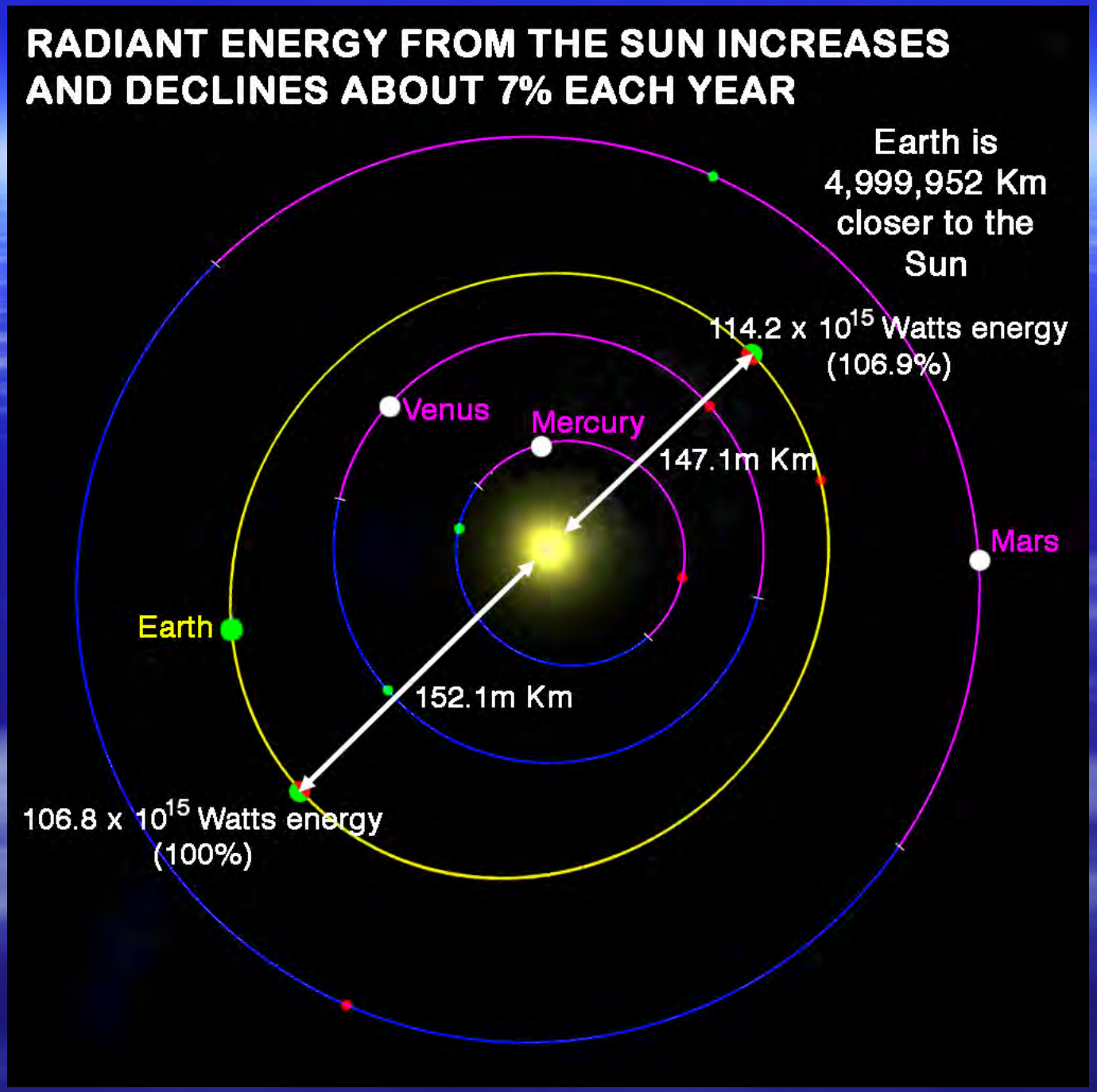
d - Distance of Earth from the Sun =152,098,232 Km (Ap) & 147,098,280 Km (Peri)

α - Albedo of the Earth = 0.367

Solar power intersected by the Earth is very sensitive to it's distance from the Sun!

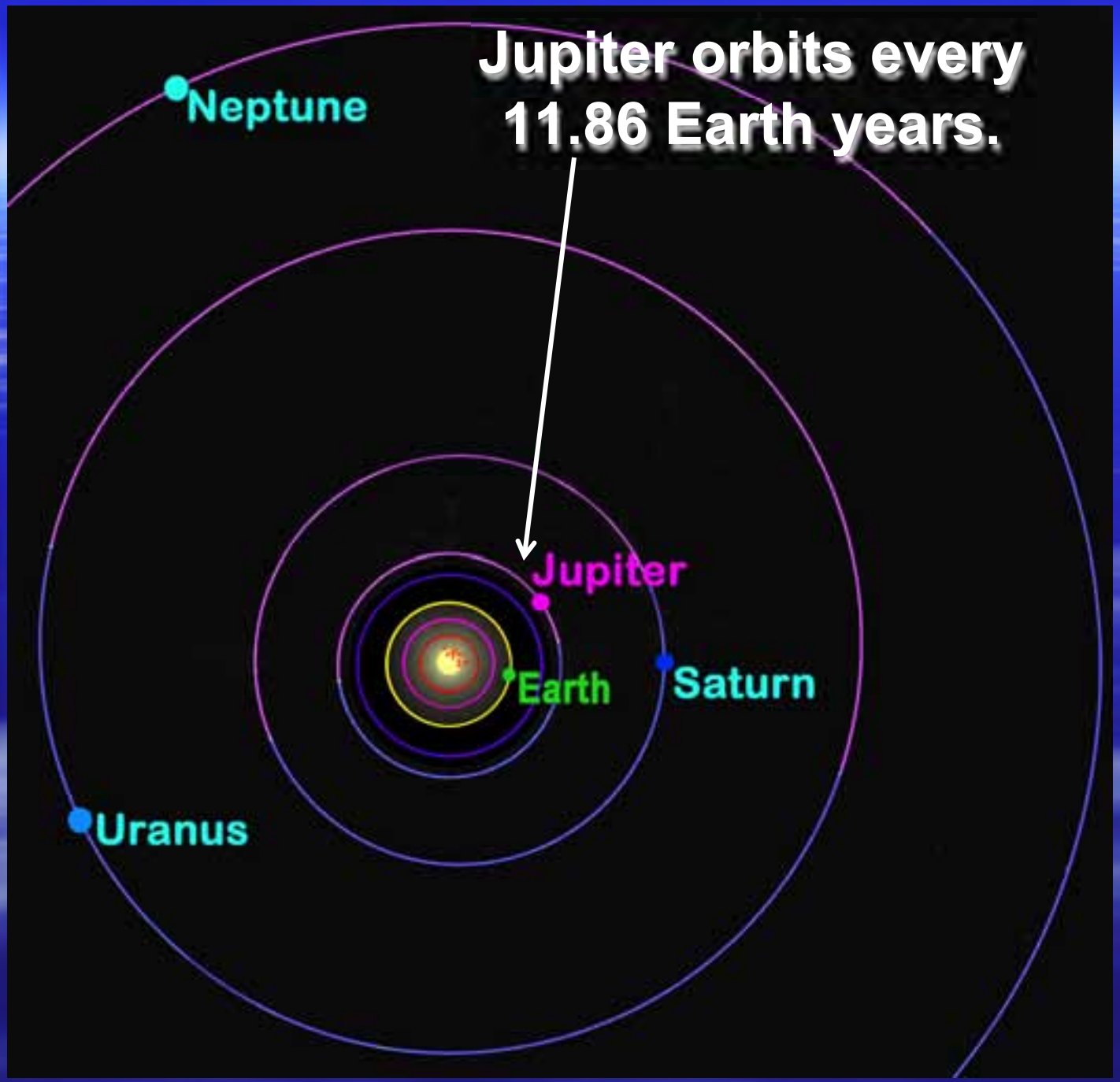
$$L_{Sun} = \sigma T_{Sun}^4 \frac{R_{Sun}^2}{d_{Earth}^2} \pi R_{Earth}^2 (1 - \alpha_{Earth}) \text{ Watts}$$

At the Sun's average temperature (T_{Sun}) the solar irradiance reaching the Earth would increase to about 7% stronger as it's elliptical orbit brings it half a million kilometres closer to the Sun each year!

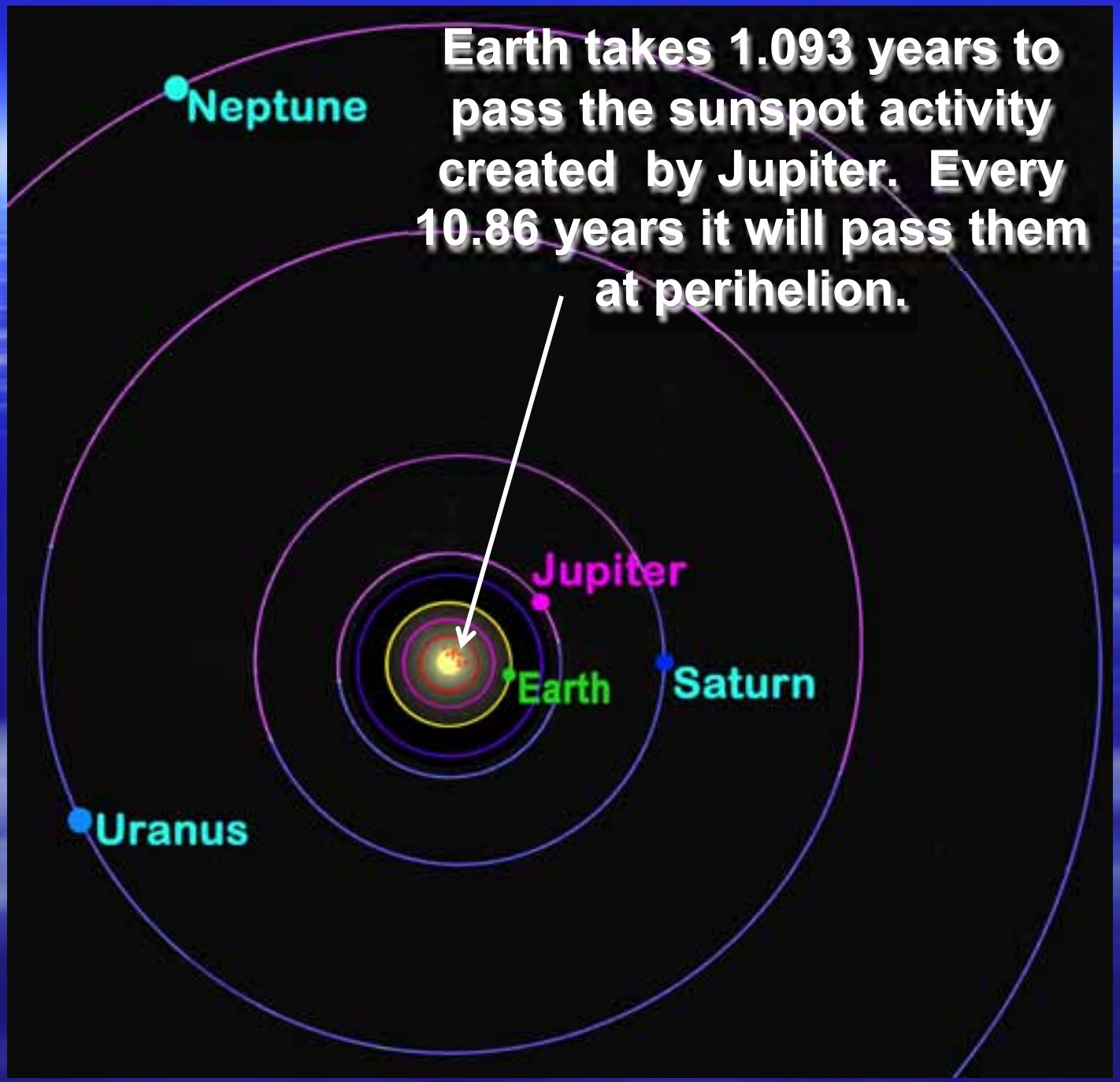


The all important difference!

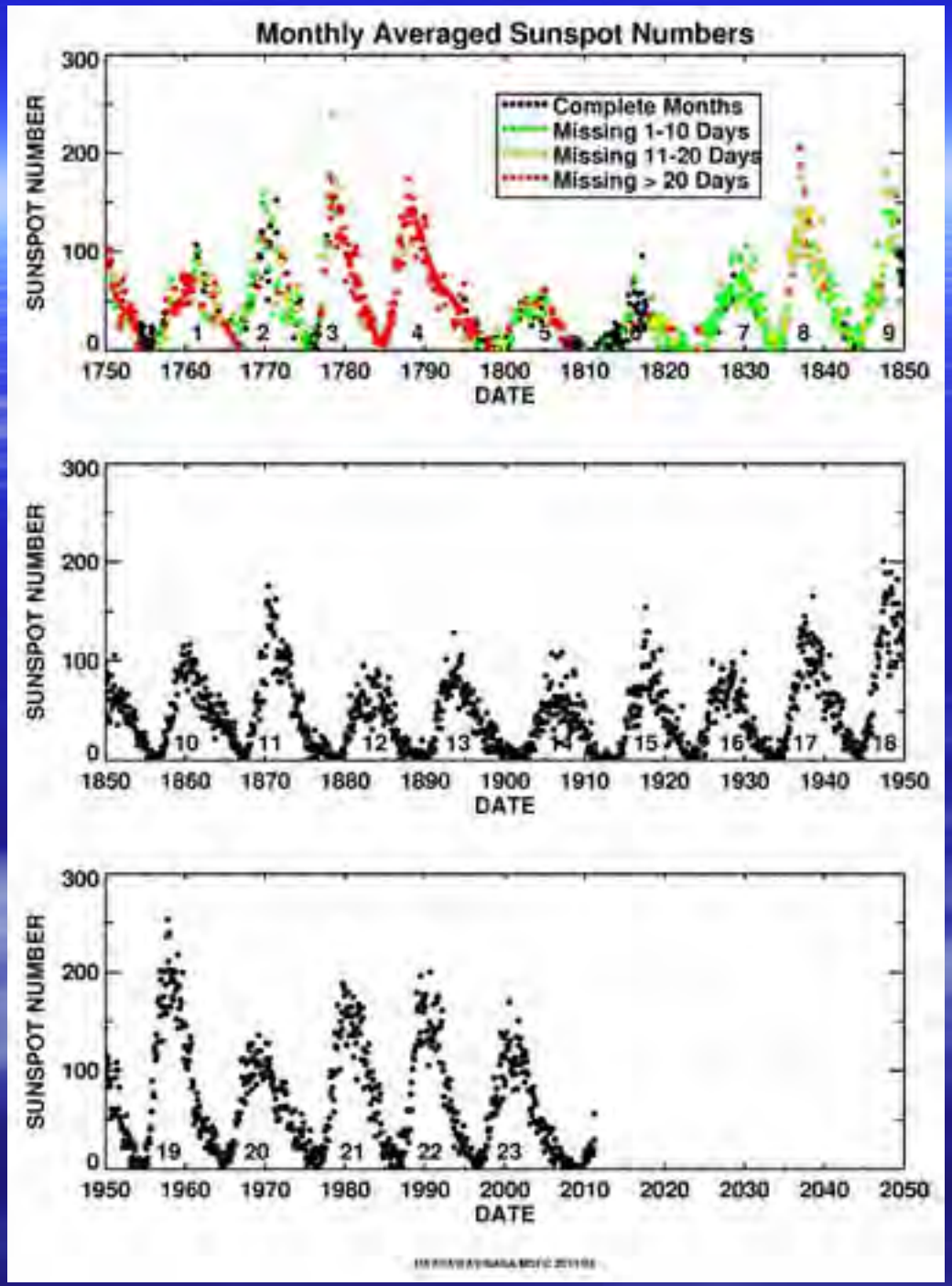
Sun is only 5m km closer each year but total solar radiation on to the Earth varies from 10.6×10^{16} up to 11.4×10^{16} Watts energy.



"Tidal effect" of heavy planet JUPITER causes sunspot activity in the Sun's volatile gaseous plasma.



Sunspots caused by JUPITER'S "tidal effect" fall opposite Earth's closest approach to the Sun (perihelion) every 10.86 years.



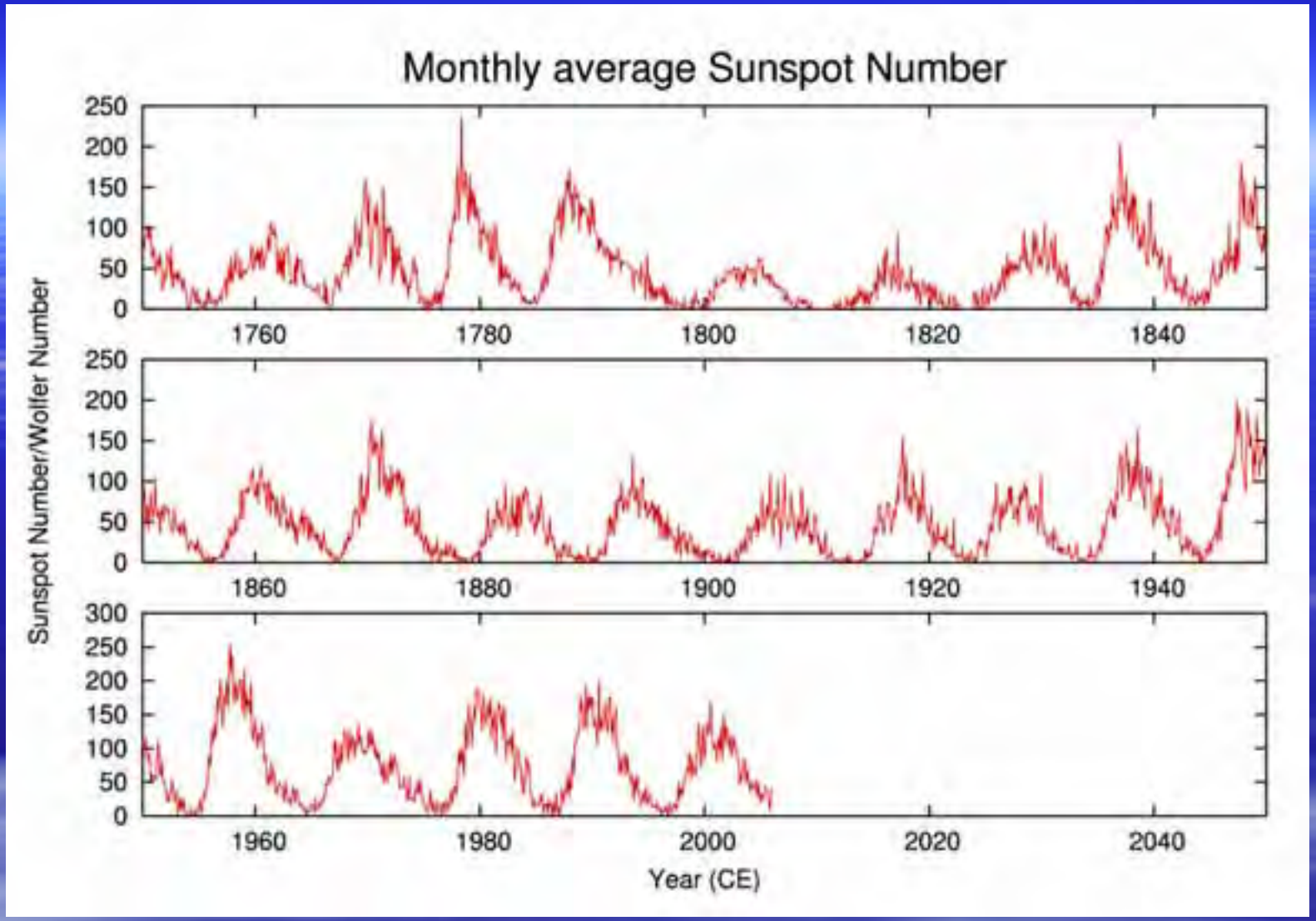
The heating effect due to the number of visible sunspots increases as the Earth is more exposed (closer) at its perihelion.

This corresponds to JUPITER'S "tidal effect" every 10.86 years.

Jupiter's orbital path

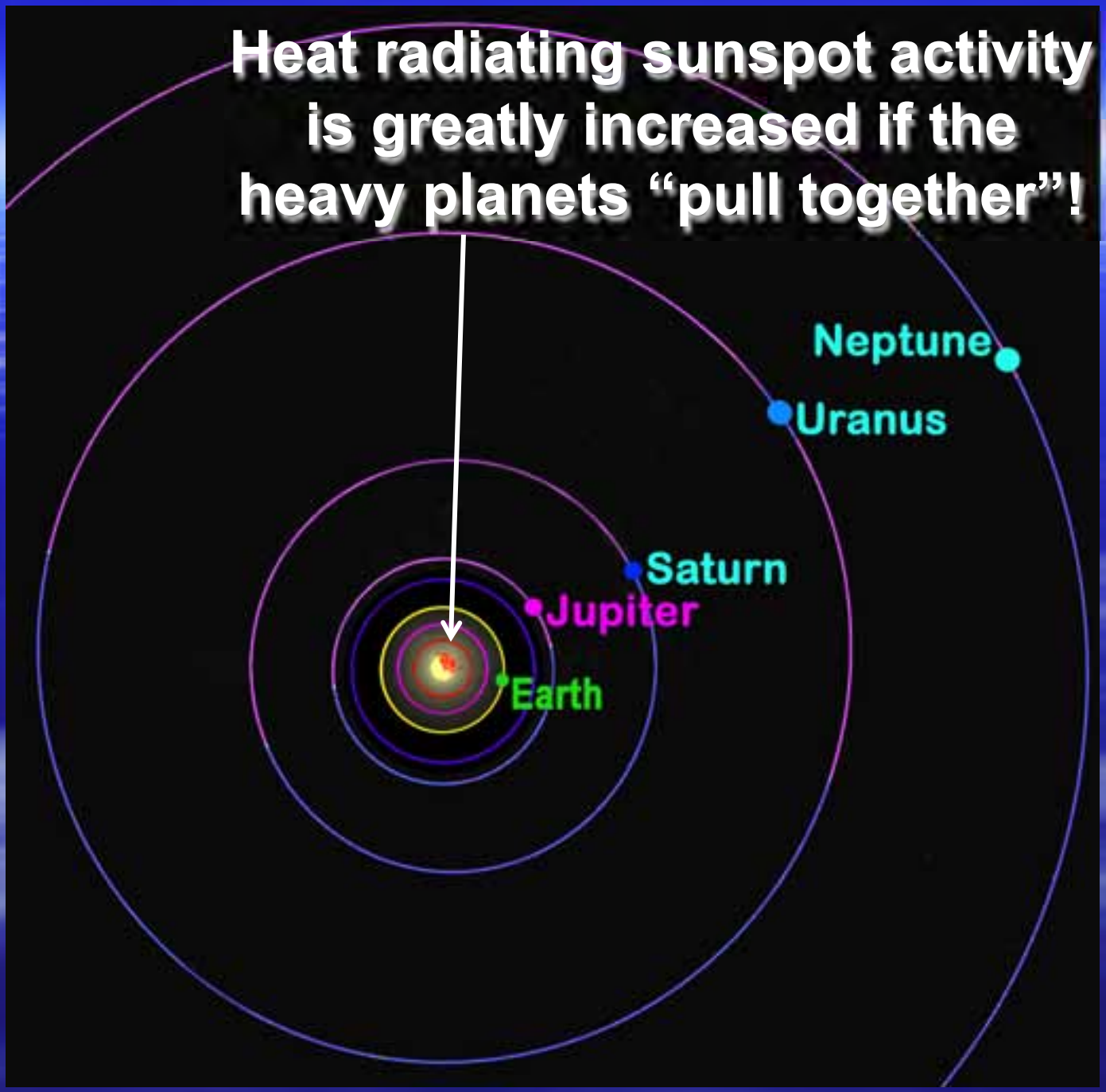
Earth goes round 11.86 times while Jupiter does it once!

The orbital paths of our planets are elliptical and different orbital periods result in a complex pattern of infrequent conjunctions.

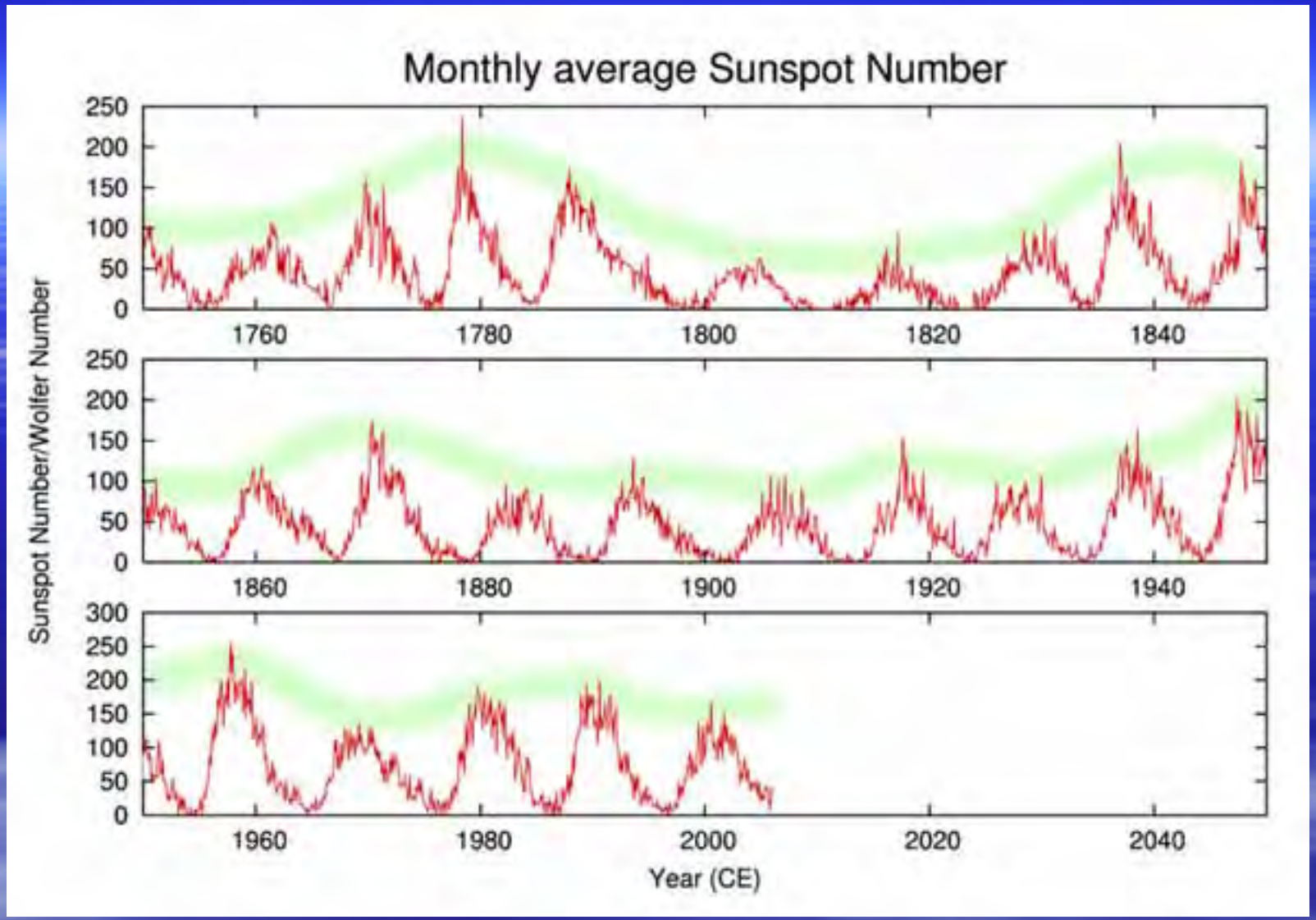


The monthly average number of sunspots varies in cycles from 0 to between 50 and 150 every 10.86 years.

Heat radiating sunspot activity is greatly increased if the heavy planets "pull together"!

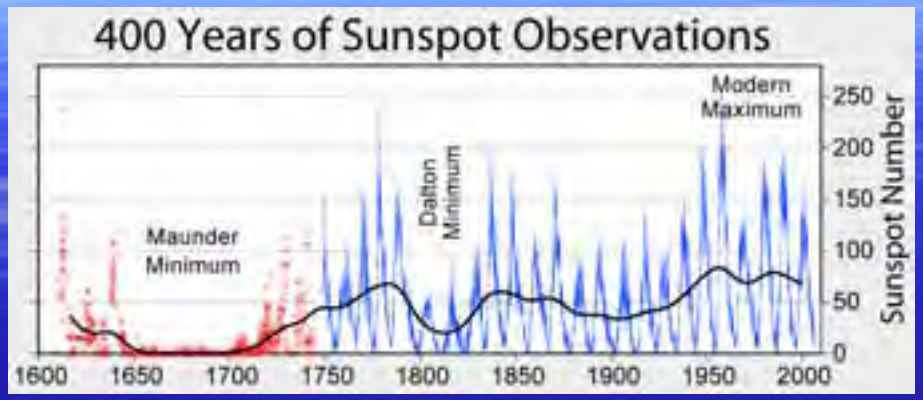


Two or more heavy planets in conjunction is rare but continuous cyclic changes in their position round the Sun modifies the "tidal effect" of JUPITER!

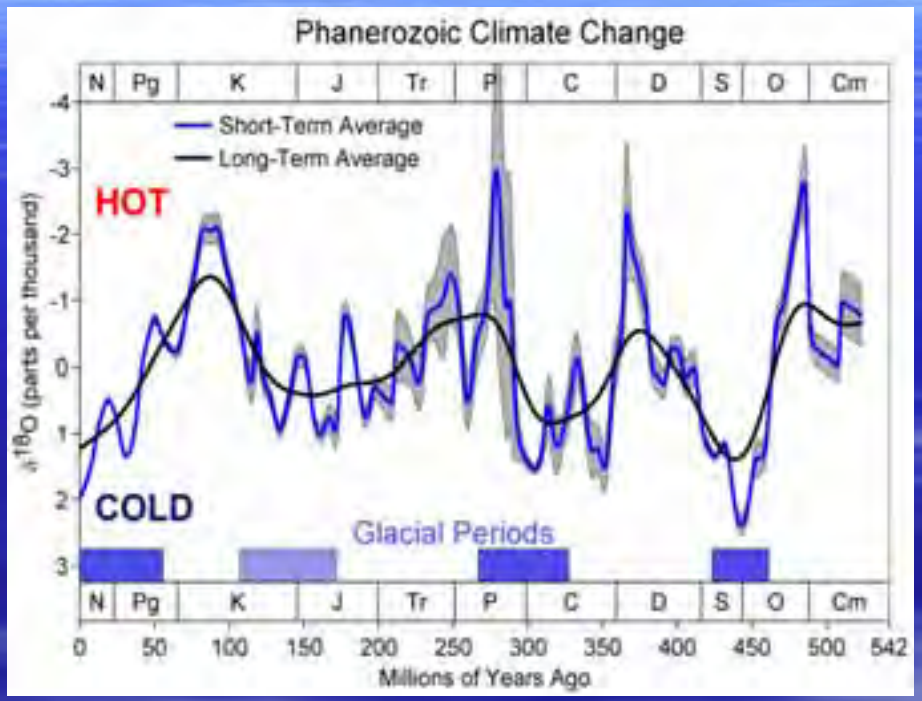


The variation in each cycle corresponds to the longer term pattern of natural climate change.

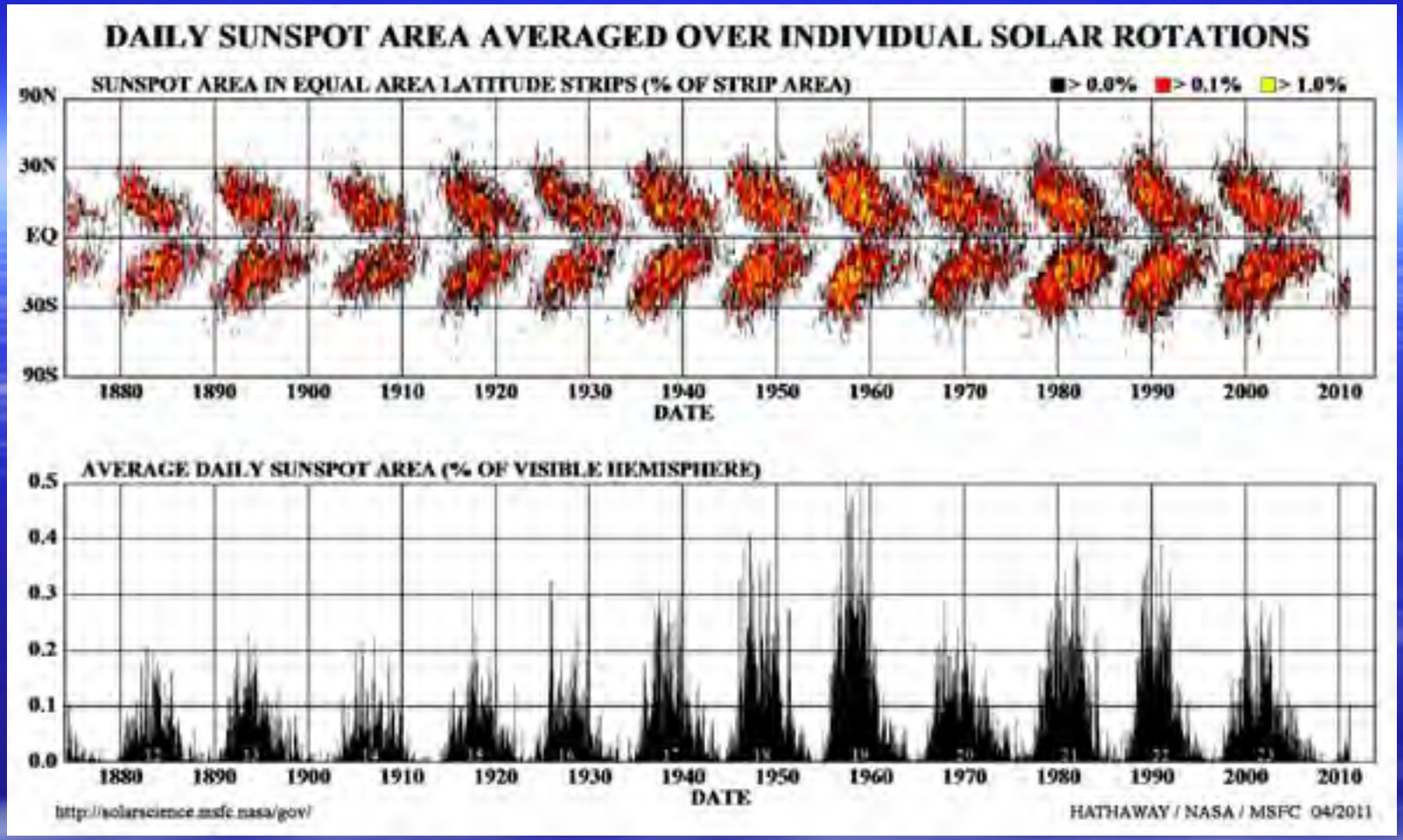
Planetary conjunction cycles result in longer periodic changes in sunspot activity!



Higher peaks in 10.86 year cycles of Earth's increased exposure to sunspot activity correspond to natural warming-cooling changes in global climate!



Previous global warming and cooling periods, all without industrial CO_2 emissions have been due to variations in sunspot activity!



The complex pattern of natural climate change cycles without industrial CO_2 is confirmed by historic measurements of sunspot areas and numbers.

Climate change is normal.

It has been going on for millions of years!

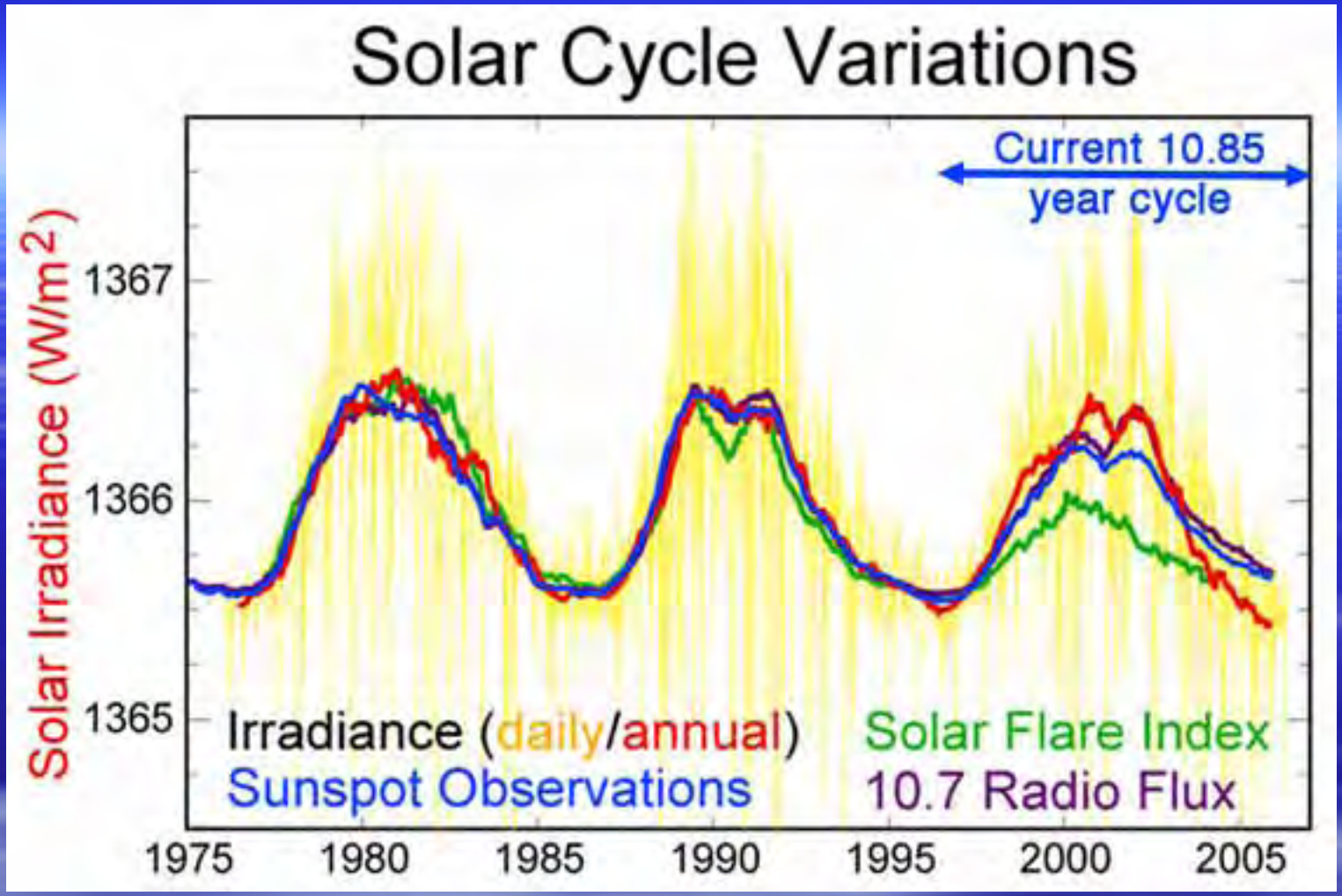
Before the present false "Greenhouse Effect" scare we gave names to recent hot and cold periods!

Event	Start	End	Years duration
Oort minimum (see Medieval warm period)	1040	1080	40
Medieval maximum	1100	1250	150
Wolf minimum	1280	1350	70
Spörer Minimum	1450	1550	100
Maunder Minimum	1645	1715	70
Dalton Minimum	1790	1820	30
Modern maximum	1950	2009	59

The IPCC Report No. 4, 2007, is not based on properly tested scientific experiment!

It is an assemblage of opinions (largely those of meteorologists) that estimate "likelihood" of anthropogenic climate change by consensus!

(Expressions of uncertainty such as "could be", "possibly", "likely", "may be", "suggests", etc. average 8.3 per page of text in Chapter 6!)



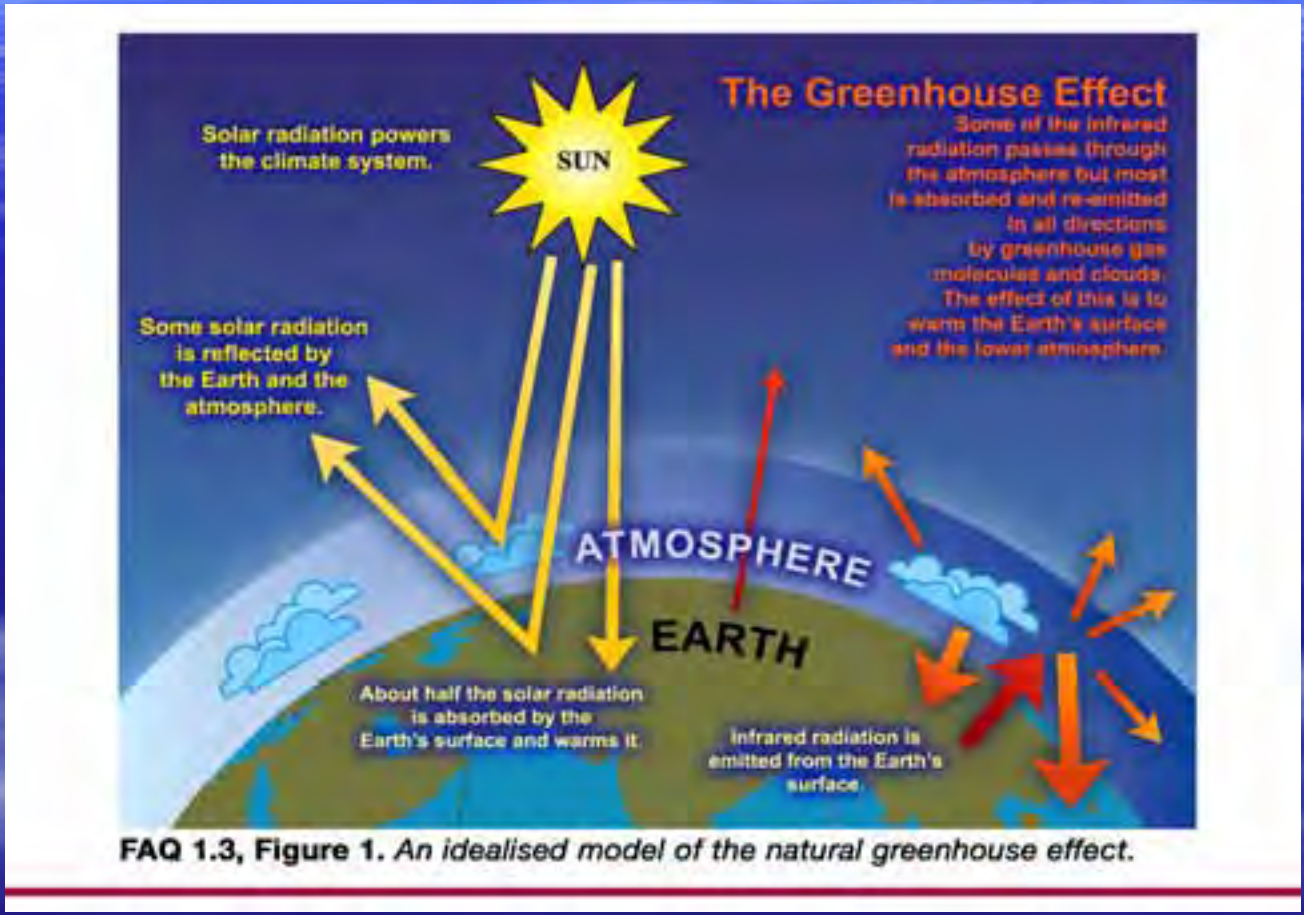
IPCC have "flattened" very strong fluctuations in the 10.86 year cycle of total solar irradiance by using the <u>average</u> distance of the Earth from the Sun!

The IPCC have also made a thoughtless mistake in their definition of "Greenhouse Effect"!

The definition of Greenhouse Effect on page 946 of IPCC Report No 4, 2007, is wrong. It says: -

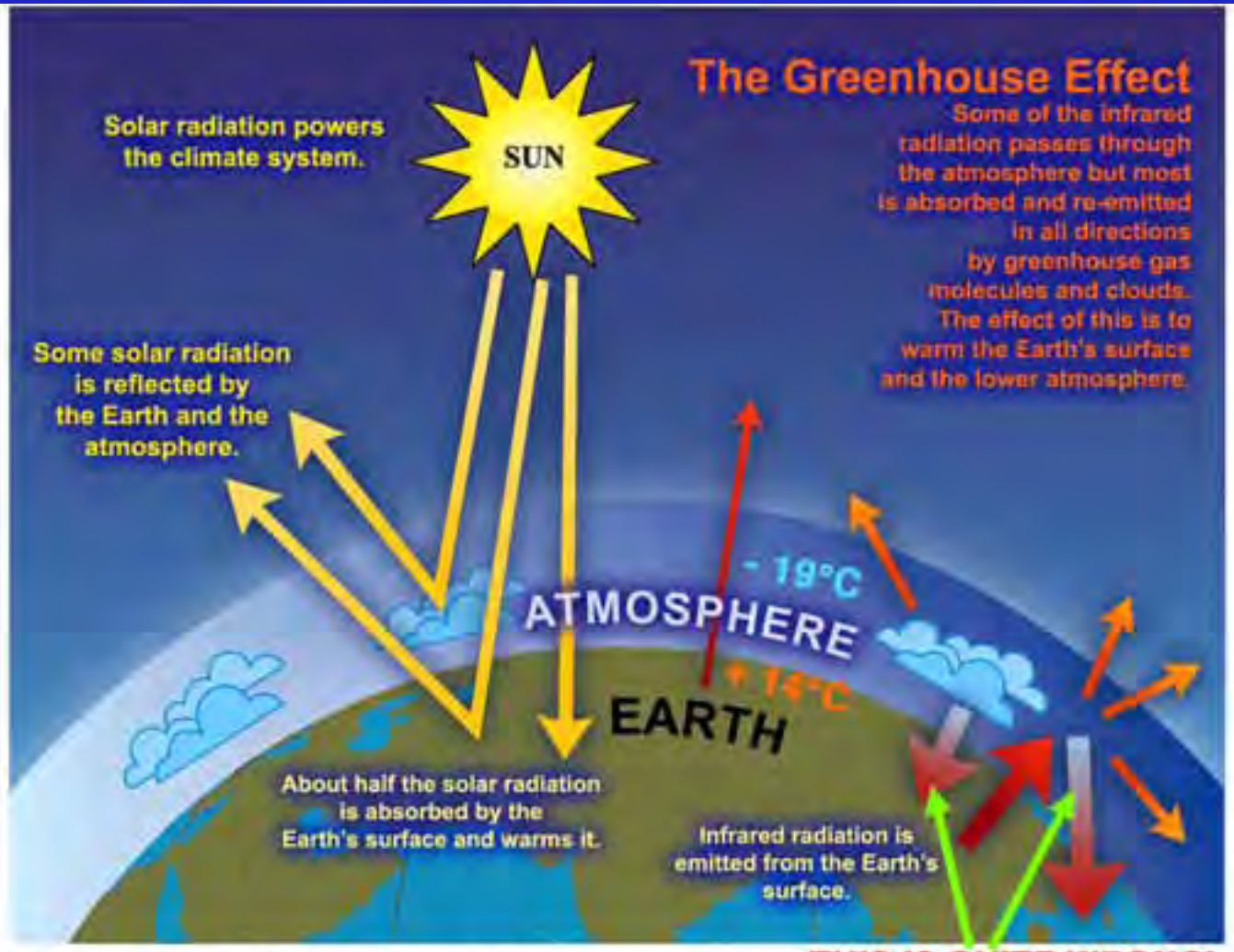
"Greenhouse effect: *Greenhouse gases* effectively absorb *thermal infrared radiation*, emitted by the Earth's surface, by the *atmosphere* itself due to the same gases, and by clouds. Atmospheric radiation is emitted to all sides, including downward to the Earth's surface. Thus, greenhouse gases trap heat within the surface-*troposphere* system. This is called the *greenhouse effect*. Thermal infrared radiation in the troposphere is strongly coupled to the temperature of the atmosphere at the altitude at which it is emitted. In the troposphere, the temperature generally decreases with height. … infrared radiation emitted …. originates from an altitude with a temperature of, on average, –19°C, …. whereas the Earth's surface is kept at a much higher temperature of, on average, +14°C. ….."

The IPCC claim - "Thus greenhouse gases trap heat within the surface-troposphere system" by thermal infrared radiation downwards. "Trap heat" is WRONG!



FAQ 1.3, Figure 1. *An idealised model of the natural greenhouse effect.*

IPCC illustrate their incorrect version of greenhouse effect on page 115 of Report No. 4, 2007.



IPCC Report No. 4, Chapter 1, p. 115;

FAQ 1.3, Figure 1. *An idealised model of the natural greenhouse effect.*

THIS IS QUITE WRONG!

Radiant heat from colder clouds and upper atmosphere cannot possibly transfer heat to or "trap" it in the warmer air below!

This foolish blunder invalidates the premise on which most of the report is based!

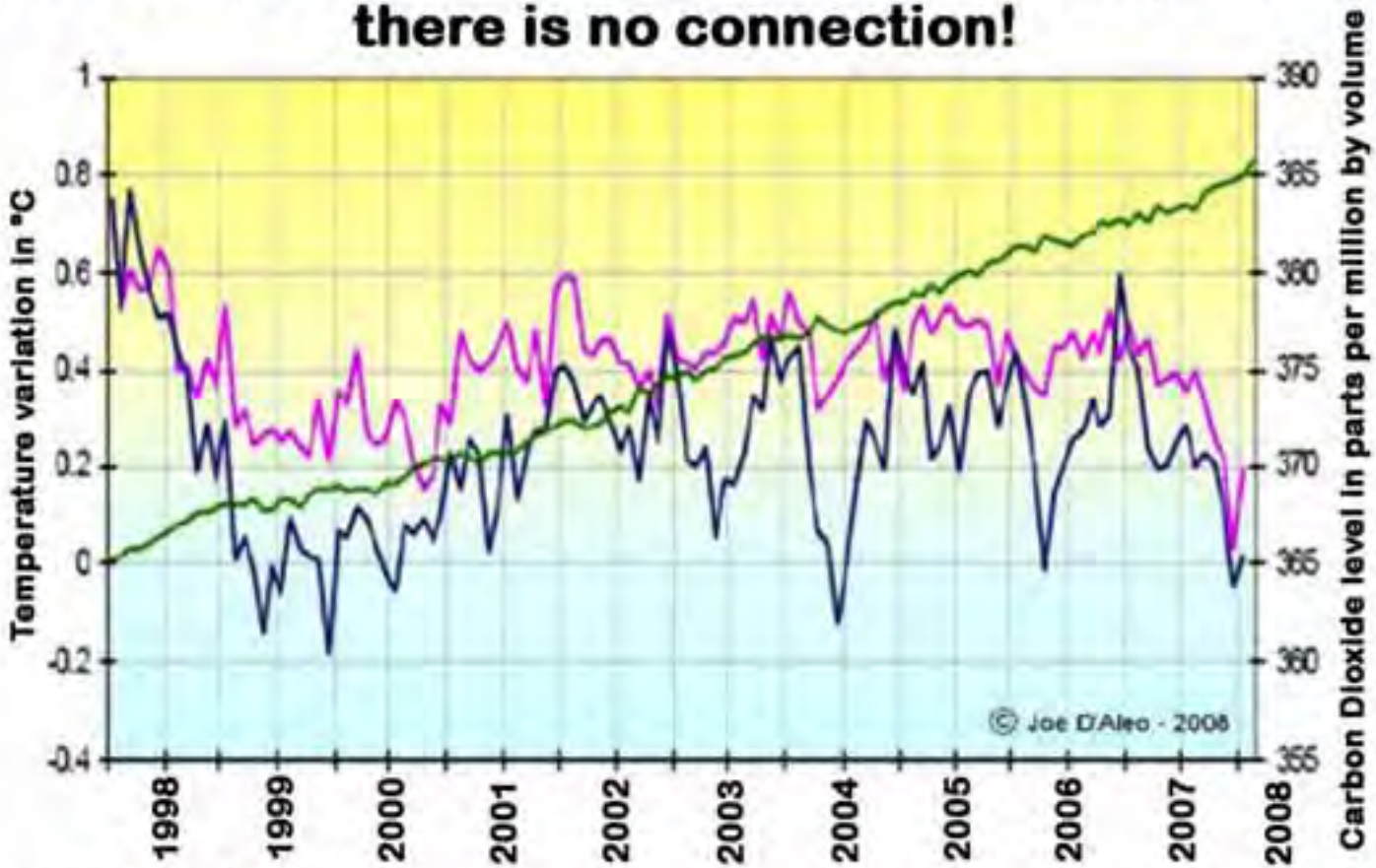
Heat cannot flow from cold to hot and the IPCC definition of "Greenhouse Effect" therefore contravenes the Second Law of Thermodynamics which says: -

"No process is possible whose sole result is the transfer of heat from a body of lower temperature (-19°C) to a body of higher temperature (+14°C)."

No “Greenhouse Effect” is possible from the way IPCC define it!

Measured global temperatures vary, falling slightly from 1998 to 2008. CO_2 (one observatory) goes up!

World temperatures falling whilst CO_2 keeps rising - there is no connection!



Temperature according to: -

Hadley CRU T3 (England)

Satellite measurements MSU

CO_2 measured by Mauna Loa Observatory:

From: Ernst-Georg Beck,
Breisach, Germany, May 2008

The IPCC meteorologists on a "gravy train" appear to have taken us for the most expensive ride in history!

Tell your children and grandchildren about this.

Stronger and weaker sunshine have been with us since the world began!

WE MAY NEVER LIVE TO SEE SUCH CONFUSION ABOUT NATURAL CLIMATE CHANGE AGAIN!