

CHAPTER-8

MOON AND OTHER SATELLITES

Highlights about the chapter (THE MOON) in MATERIALISTIC UNIVERSE by Ramesh Varma:

Note: Chapter over THE MOON is not its encyclopedia. Challenger has illustrated only which relates to the new or contrary findings/ understandings with some existing references to make the subject understandable.

Following riddles, queries/open issues have been solved by understanding unique property of light/rays and true working mechanism of solar planetary system:

The Moon, by causing solar-eclipse has provided by its total solar eclipse-photograph a proof of the unique property of the light/rays which has been discovered/understood by the Challenger.

Was Moon prior to becoming a satellite of the Earth a following small planet of the Earth?

Yes. Read explanation under the origin of Moon.

Origin of the Moon:

Not exactly, what the World understands. Much more is there to arrive at perfect conclusion.

Why orbital plane of the Moon does not coincide with the equatorial plane of the Earth?

World has not yet conceived this query because they have not yet understood unique property of light/rays.

Why are the volcanic eruptions and maria over the Moon concentrated on the side near to the Earth or facing the Earth?

Riddle solved by understanding the rays' factor.

● **Why meteors which strike Moon had some pattern according to their sizes?**

Riddle solved by understanding gravity and the rays' factor.

● **What causes mysterious quakes that vibrate through lunar rocks over the side of Moon which is away from the Earth?**

Riddle solved with the experiment in brain by the factor of Earth's gravity over the stationary (non-spinning) Moon.

● **Does Moon have water?**

No; Moon could not have liquid water like Earth has even at its colder sides due to higher gravity of the Earth and because of stationary (non-spinning) Moon situation; it may have water in the form of ice at the permanent colder regions. (Traces of water or hydroxyl over the Moon is a different subject).

● **Is tidal-bulge-lock over the Moon due to the gravity (pull) of the Earth and vice versa?**

World has understood the secondary reason but not the primary. Primary reason is the rays of the Venus because Venus spins in the retrograde direction. Venus rays intend to spin the Moon in the reverse direction than in which the Earth's rays intend to spin the Moon. Thus

● **Is tidal friction of the Moon responsible for continuous slowing and slowing spin-speed of the Earth?**

No. World has wrong understanding; Earth is slowing its rotation due to some other factors not yet known to the World.

● **Why the Moon always faces the same side towards the Earth?**

World has understood the secondary reason but not the primary.

● **Why is the Moon's dense core off the centre?**

World has understood the secondary reason but not the primary.

● **Is density calculated of the Moon correct?**

Not correct because World has ignored rays thrust/repelling factor.

● **Why Moon is closer to the Earth when it is closer to the Sun and further away when away from the Sun?**

Riddle solved by understanding the rays' factor.

● **Is the Moon moving away from the Earth?**

Riddle solved. Moon is not escaping from the Earth, only apogee is increasing but whereas perigee is decreasing.

● **Why we have twelve months in a year and seven days is a week?**

Query and also the answer is by the Challenger.

● **Forecasted fate of the Moon that how and when Earth would engulf the Moon?**

Explanation by understanding rays' factor proves and confirms so that the Earth one day would engulf the Moon.

Besides above all:

● **Densities calculated of all the heavenly bodies by ignoring rays' thrust factor are wrong thus the density of the Moon.**

● **Basics understood over the subject Astronomy by the World are false thus Astronomy of the Moon.**

● **Much more new understood and explained in this chapter which is beyond explanation and brain/eye opener.**

CHAPTER-8

MOON AND OTHER SATELLITES

THE MOON

(Discovered origin of the Moon and most riddles solved.)

1. (A) Pre-Reference:

(a) This chapter over Moon can be understood if one reads and understands discovered/understood unique property of the light/rays and true working mechanism of solar system. That it is the thrust power of curved materialistic rays emitted by the bodies which spins heavenly bodies, keeps them apart (besides semi-centrifugal force), pushes the bodies to move in an orbit/loop-track and also keeps them in one plane as illustrated under MATERIALISTIC UNIVERSE.

It is a new co-related clubbed-discovery pertaining to two subjects; Astronomy (basics) and Physics (light/rays).

- Discovered unique property of light/rays has resulted to understand correctly true working mechanism of solar/planetary and galaxy system **OR** Discovered true working mechanism of solar/planetary and galaxy system has resulted to understand correctly unique property of light/rays.

- FACT:** Both discoveries about unique property of light/rays and true working mechanism of solar/planetary and galaxy system are co-related thus clubbed-discovery is understandable by the concerned, only by whom, who has knowledge over both the subjects (Astronomy and light/rays).

(B) Some facts need understanding before illustration:

Below stated some facts have already been illustrated and proved under the relevant chapters but here in brief to link the illustration ahead.

- Mean density of all the planets (heavenly bodies) have not been measured but calculated. Experts ignored the **rays thrust factor** over the heavenly bodies thus mean density calculated of all the heavenly bodies is wrong. This has been illustrated under the relevant chapter but in brief ahead in this chapter.

Alas! The Experts on every solar eclipse day always gather at a specific place over the Earth to watch total solar-eclipse; not to observe so but to have the practical experience of darkness in the day and to watch the event/phenomenon of noticing diamond ring and to spread a message of applause like the celebration of New Year at mind-night. Let us forget what had/has happened in the past to know that what reveals the total solar eclipse.

Challenger for the first time noticed the rays of the Sun over a photograph of total solar eclipse which tallied with his observation over Sun rays by seeing photograph of the total solar eclipse in 'Astronomy' magazine over page 56 of issue July, 2009 and later seen more photos of total solar eclipses occurred on different dates.

- Addition of mass over a body results for its move ahead towards the Sun.

- Addition of some quantum of mass over two bodies, one following the other would move the following body at faster rate than the body which is ahead towards the Sun (because of **Sun rays thrust factor**) thus narrowing the distance between the two at their closest approach. For Example: If Moon sized mass is added over the Venus and also the same mass over the Earth; Earth would forward more towards the Sun than the Venus resulting to shorten the distance between the two on their closest approach.

- Any body having its satellite would attract greater mass from nearby space to grow bigger than its satellite which would results in great difference between the two.

(C) Some other miscellaneous facts:

- World Experts (Physicists/Astronomers/Space-Explorers) and all concerned are attempting their best to unfold secrets of the Moon by taking its photographs, by peeping through telescope and by landing Space-Ships and human too. Understanding/analysis of the surface of Moon, its atmosphere, presence of water or not, rocks over the surface and mantle up to little depth can add much to our knowledge but cannot make understand about the correct Astronomy of the Moon and solar system. Even by watching and understanding the eclipse (lunar/solar) formed by the Moon, the concerned are far-far away from correct Astronomy. This stated fact has been given in brief earlier but can be well understood only after going through the pages over the Chapter 'MOON' and true working mechanism of solar system based over unique materialistic property of light/rays as illustrated under MATERIALISTIC UNIVERSE.

Heavenly bodies are composed of the mass, which had its origin at different situations/locations in the solar system thus this fact makes difficult/complex to understand about their origin. However some very important facts discovered/understood over the origin of Moon by the Challenger has lead to the conclusion beyond imaginations.

- There is no specific formula (though existence of every satellite is scientific) about the existence of a satellite near a planet because every body is at different situation, has different chemical composition, has different volume/mass/shape etc besides some have the property to generate rays though every body radiates rays. Challenger has attempted his best to explain about the exiting or vanished satellites from the planet Mercury to Pluto under the relevant paragraphs ahead. **It is important to note that without understanding satellites and flat rings of other planets, origin of the Moon cannot be understood.**



2. Why some planets have satellite(s) and some do not? And why some planets have flat rings around and some do not?

2 (A) Satellites/rings of the Planets from the Sun to Asteroid-belt (or Mercury to Mars):

Sequence of the planets/bodies/objects from Mercury to Mars is simple based over the thrust of Sun-rays, determined by the factor (Surface area, mass, density ratio) as stated under the relevant chapter. It is simple because they (planets) do not generate their own rays thus have no rays' repelling power (except repulsion by the radiated rays which is not much and varies planet to planet).

Note: For the purpose of understanding sequence of eccentric orbital asteroids/ comets from the Sun based over the thrust factor by the Sun rays; distance of an eccentric asteroid/comet should be understood equivalent to its supposed stabilized orbit which is equivalent to the radius of the circumference which is equivalent to the total orbital path of the asteroid/comet.

Mercury (Satellite blown off by the Sun-rays or engulfed by the planet itself):

Mercury has mean density much greater than measured by the World (Densities calculated of the heavenly bodies by the World by ignoring rays thrust factor are wrong as illustrated and proved under the relevant chapter). It is the densest planet among all the planets, though Mercury is facing the high magnitude thrust of the Sun rays also being small in size but it is closest to the Sun. At this location in Solar system, Mercury can not hold with its gravity any

sized satellite because of high thrust by the materialistic Sun rays. Every planet is marching ahead towards the Sun by adding mass bit by bit. So in the past, if Mercury core or small-Mercury had its satellite, that would have been blown off to far-off by the Sun-rays or Mercury would have engulfed it (Planets generally engulf their own satellites on marching near the Sun or on their approach near to the planet which is ahead to it because of the reason as illustrated ahead under the relevant paragraph).

Venus (Satellite blown off by the Sun-rays or engulfed by the planet itself):

Mean density of the Venus too has been calculated wrong by the World as illustrated under the relevant chapter. Its core has the density greater than the Earth but lesser than the Mercury. Venus has thick atmosphere; Sun rays by its thrust forms a tail from this atmospheric gases, this concludes that Sun rays are putting great thrust over the Venus. So because of high thrust of Sun rays, Venus could not hold any Satellite. In the past if Venus had any satellite that would have been blown off by the Sun-rays or would have been engulfed by it self.

Venus in the past, when it was small-Venus and was away from the Sun it had less-dense atmosphere and Venus may have/had its satellite. As its atmosphere became thicker on approach near the Sun it adopted reverse spin because of thick atmosphere (As explained under the relevant chapter). The reverse spin of the Venus resulted in the slow orbital speed of its satellite. Before reverse spin, it had the halt state too. This stage would have resulted to stop speed of its satellite thus would have given the chance to engulf its satellite or this stage would have given the chance to Earth to snatch its satellite. So Moon might be once a satellite of the Venus. Or in an attempt to snatch satellite of Venus by the Earth, satellite might have collided with the Earth, which would have resulted to create a new body (small planet) behind the Earth which later formed satellite (Moon) of the Earth.

Irrespective of spin speed or direction of spin of the planet; planet develops a chance to engulf its own satellite when the planet which is having a satellite approaches near the big planet which is ahead to it. So Venus might have engulfed its own satellite.

Earth (Existing satellite i.e., Moon of the Earth):

Origin of the Moon cannot be understood unless one has some understanding about the satellite(s) of other planets thus explanation is not here but ahead under sub-chapter (Origin of the Moon).

Mars (Existing satellites of the Mars):

Mars has two tiny satellites which orbit very close to the Martian surface. After the Mars, there is Asteroid-belt, which has great numbers of objects (like planets) of the size ranging from 1000 KM diameter to larger than just 50 Meters. Existing satellites of the Mars in the past were also the planets which were in between the Mars-core or small-Mars and Asteroid-belt. As they (satellites) all developed to large size, they all moved forward towards the Sun or towards the Mars. A stage developed between the Mars and the following planets with some interval (One by one) that the following planet(s) de-railed from the solar orbital track to Mars' orbital track to become satellites of the Mars.

The phenomenon that how Mars captured its following small planets to form its satellites would be well understood after going through the illustration (Origin of the Moon).

2. (B): Satellites/rings of the Planets from Jupiter to Neptune:

All these planets generate their own rays (energy), the quantum of rays released by the individual is greater than what the individual receives from the Sun. This factor has drifted them far away from the Sun because of their repulsion power by their (planet's) own rays. Besides this, these planets are further away by the Sun rays because they have raised their size (volume) to a great size by the lighter matter (gases and liquid gases) over their solid core.

Because they release rays more than what they get from the Sun, Thus they have been able to form flat rings of the objects along with keeping their satellites. This opportunity to them is similar to the Sun. Sun is releasing more rays than what it is getting from the Central-Stars of our galaxy (Milky Way). That is why Sun has been able to form flat rings of the material from which all solar bodies have been formed. Now all solar bodies are like satellites of the Sun with respect to the central stars of our galaxy.

These giant planets have formed V-Notch or trap-zone by their own materialistic curved rays like Sun is forming to keep all its family trapped in a flat zone passing through its equator.

Jupiter: (Its rings and satellites).

Jupiter has rings like its following planet Saturn but much fainter and smaller and also has 63 Known satellites as on Feb 2004 including the four large Moons.

Jupiter has become the largest planet because it had and has in bulk to engulf from the Asteroid-belt which is in front of it. Jupiter on its move forward towards the Sun consumes large Asteroids. It cannot consume small asteroids because of the high thrust of its own rays.

Its rays disturb the Asteroid-belt which results in the collision between the asteroids resulting to form small objects, chips and dust. These small objects/chips/dust formed move for wider orbit by the Sun rays, which get trapped by the following planets (Saturn, Uranus and Neptune) to form their rings and satellites.

Besides capturing some satellites (or their cores) from the solar-plane which had been blown-off from the custody of planets ahead to it; most of the satellites of Jupiter and its following giant planets have been formed from the material of their own rings like Sun had in the past which formed planets from the mass of its rings.

Saturn: (Its rings and satellites):

Saturn has vast rings and a number of satellites, more than 30. Saturn is behind the Jupiter, the first receiver of small objects/chips/dust etc formed by the strong rays of Jupiter from the Asteroid-belt by their collisions. So Saturn has rings of the material from which its most satellites have been formed. Some satellites or their cores it may have captured from the solar-plane which had been blown-off by the Sun rays from the custody of other planets ahead to it.

Uranus: (Its rings and satellites)

Uranus has rings and more than 27 satellites. Axis of spin of Uranus is tilted almost parallel to the plane of its orbit.

Past history of the Uranus as understood by the Challenger:

Uranus (Planet-C) has been formed from the collision of two planets (Planet-A and Planet-B). In the past there were two planets (A&B) ahead to the Planet-Neptune towards the Sun; Planet -A near to the Planet-Neptune. Both these planets (A&B) would be having their own rings and also satellites as their situation suggests. As the planets (A&B) developed; Planet-A moved faster towards the Sun than the Planet-B resulting to develop a close situation. As both the planets were big and also having their own rings and satellites, so Planet-B could not make the Planet-A its satellite. Thus both collided; their slow close approach and situation resulted in their mild collision (not smashing but resulting in clubbing). On being clubbed together, their solid core did not develop to a spherical shape but formed a

shape similar to shape formed by two hemispheres having in between a flat disc. Gaseous atmosphere of both the planets (A&B) clubbed to form an atmosphere of almost spherical shape over the solid core of shape as stated. A planet having shape of its core as said could not spin in any other direction, except parallel to the equatorial plane of the Sun as explained under chapter 'Uranus'. Planets (A&B) on being clubbed together formed planet (C) which is now called as Uranus.

Uranus on being tilted formed its V-notch/Trap-zone perpendicular to its orbital plane. Now Uranus has rings and its satellites in this tilted plane. During collision of Planets (A&B) most of the ring-material and satellites would have been lost and gone for wider orbits. On stabilizing, Uranus added most of new mass to its rings and formed satellites.

Neptune: (Its rings and satellites)

Neptune too has rings and more than 13 known satellites.

There is no need for its explanation which is similar to as stated above for other planets of its group.

2. (C): Satellites/rings from Planet 'Pluto' or if any other planet after it like newly discovered 'Xena'.

Pluto

Small-Planet (or Planet like) Pluto is far off from the Sun because of its core which must be composed of lighter mass and must have mantle of ice to make it further lighter.

Pluto has three known satellites. How it got the satellites can be best understood after going through the illustration under 'Origin of the Moon'.

Pluto and its satellites are tough to see even with the best telescopes, so it would not be easy at present to verify any illustration by the Challenger. Orbit of its satellites would be unique than the other planets because core of the Pluto has gone eccentric by its large satellite (Charon). Core of Charon too has gone eccentric resulting to keep the same face towards each other.

Xena

No need of its explanation at present.

3. Origin of the Moon

3 (A) World: (What the World knows?)

(a) Giant planet impact theory: Most Scientists believe that the Moon was formed from the ejected material after the Earth (Planet existed in place of the Earth) collided with a Mars-sized object. This ejected material coalesced/aggregated into the Moon that went into the orbit around the Earth. This catastrophic collision occurred 60 Million years after Earth it self formed (about 4.3 billions years ago). This is determined by the radioisotope dating of Moon rocks.

This hypothesis (Giant planet impact theory) the experts considered good because:

(i) Iron in the cores of Earth & Moon factor: Experts understand that Moon core lacks iron whereas Earth has large iron core. They consider so that before giant planet impact happened Earth's iron had drained to its core thus the debris blown out from the Earth and collider came from iron depleted mantles. The iron core of the collider-body melted on impact and merged with the core of the Earth. This they understood from their computer models.

(ii) Mean density factor: Experts have calculated mean density of Earth as 5.5gms/cc but whereas of the Moon only 3.3gms/cc. From this density difference, they understood that Moon lacks iron.

(iii) Oxygen isotope factor: Moon and Earth, both have

exactly the same oxygen isotopes. Mars rocks and meteorites have different oxygen isotope composition. This suggests that Moon has been formed from the material of Earth's neighborhood.

(iv) All Planets not having similar Moon factor: The theory about lunar origin during evolutionary process lacks because why other planets do not have similar Moons. Experts consider that giant planet impact hypothesizes had the reason to believe because such events might happen only to one or two planets.

3 (A)-b Some of the early ideas:

(i) Sister-moon theory: It was considered that Moon formed in orbit around Earth as the Earth formed. Experts rejected this understanding because Moon lacks iron.

(ii) Captured Moon theory: It was also considered that Moon formed some where else, where iron was little and then it was captured into orbit around Earth. Experts rejected this concept because lunar rocks show the same isotope composition as the Earth.

(iii) Fast Earth spun theory: There was an idea among the Experts that Earth spun so fast that it spun off the Moon to produce Moon similar to Earth's mantle. Experts on getting analysis that total angular momentum and energy involved does not tally the phenomenon thus rejected this Earth-Moon system.

3 (A)-c Some thing more about iron in the Moon and some other related facts taken from the Internet which the World understands.

(i) From Internet, August 2009

Making of the moon: Astrobiology Magazine-earth science.....

The Moon has an abnormally low density compared to the terrestrial planets (Mercury, Venus, Earth, and Mars), indicating that it lacks high-density iron.....

(ii) August, 2009 Yahoo! Answer large-impact hypothesizes explain Moon's lack of iron? Best answer-chosen by the Voters during the year 2008.

It provides an explanation, but unfortunately it doesn't appear to exclude any of the other explanations for the Moon.

We don't know how much iron is in the Moon. Magnetic field measurements show it must have some iron, but low fields could just be a result of the (smaller) Moon cooling faster and not containing as much liquid iron at the core. We don't know that the Moon actually has that much less iron than the Earth.

Next, we really don't know how much less iron a large-impact created Moon should have. Less than the Earth is likely, yet presumably it has taken iron core meteor impacts and we really don't know what the iron percentages of the outer layers of the early Earth might have been.

Most importantly, we don't know the iron content of other similarly sized moons or small planets in the solar system. It could just be possible that other small moons and bodies just naturally have low iron content because maybe they formed mainly from left over dust from nearby planets rather than say denser iron meteor impacts. Thus, low amounts of iron doesn't mean that the Moon wasn't a captured body or formed out of less dense nearby dust. For example, Mars moons (Phobos and Deimos) appear to show that captured asteroids can collect a lot of low density dust and rock and little iron -- yet, we are pretty sure they are captured asteroids. How many of Jupiter's or Saturn's moons have low iron cores? If few do, then one might easily conclude that moon sized objects can easily arise from non-impact creation and be subject to forming along side the Earth or being captured by it.

A large impact hypothesis is one way of explaining the lower density of the Moon, but it does not appear to exclude any of the other theories.

3(B) Challenger (What Challenger has concluded about origin of the Moon?)

(a) Iron factor:

(i) World (Experts) is/are giving too much importance to find whether Moon has iron or not than it is required for the purpose of understanding origin of the Moon.

(ii) World has not yet developed any means or device to assess correctly the amount of iron in a heavenly body at its every shell from surface to its core/centre. Experts have at present two major factors (mean density factor and magnetic measurement factor) with them to determine presence of iron in a heavenly body.

(iii) What rays thrust factor suggests and proves about iron in the Moon has been stated ahead.

● **Mean density factor:** World has calculated (not practically measured) mean density of the heavenly bodies. Densities of all the heavenly bodies calculated is wrong as explained under the relevant chapter because of ignored factor i.e., The trust of light/rays.

In brief: Density calculated of Venus is 5.25gm/c.c and of the Earth 5.52gm/c.c but whereas diameter of the Venus is 12104KM and of Earth is 12756KM. According to rays thrust factor over the bodies by taking into account surface area, mass density ratio factor; a small body can not be ahead towards the Sun unless it has greater mean density but whereas mean density of ahead small planet (Venus) has been calculated as 5.25gm/cc instead of more than 5.52gm/cc. Mercury a very small planet can not be so near to the Sun unless it has extremely great density. Its density must be 50 per cent more than the Earth's density but whereas the Experts have calculated mean density of Mercury slightly less than the Earth. Some more explanation ahead is in this chapter.

Conclusion: Practical Nature's example proves that the understanding about the Moon by calculating false density that it lacks iron as compared to the Earth is wrong; so this factor (presence of iron in the Moon) has no value to understand origin of the Moon.

● **Magnetic field measurement factor:** Magnetic field measurement to know iron in a body works if the body has molten iron core and is cooling (Rate of cooling). In the Moon there is almost nothing like this, it has already been almost cooled.

Conclusion: We can not know the contents of iron in the Moon by measuring magnetic field because of reason as said above.

● Any other mode to know presence of iron:

There is no other proper means as yet to know the contents of iron in the Moon, hence it is futile to keep sticking over the factor of iron in the Moon.

Final Conclusion by the Challenger over presence of iron in the Moon:

Challenger concluded that it is not the proved reality that Moon lacks iron; hence this factor over the iron should not be given any preference to understand origin of the Moon.

3(B)-b Giant planet impact theory:

Note: This explanation by the Challenger is only applicable to collision between two planets only related to Earth i.e., at specific situation/location in the solar system.

(i) At this location newly formed Earth (or Existing Earth too) cannot adopt any fast moving body/fragment as its satellite which would have been ejected by the collision between the two big planets existed prior to formation of Earth and Moon. Every fragment formed from the collision has to take its orbit around the Sun at a distance as per its volume/mass/density ratio. Any fragment smaller in volume/mass than the Earth cannot exist ahead to the Earth in the orbit of the Sun; unless the body has greater mean density than the Earth so it has to adopt wider orbit. (Small sized Mercury & Venus are ahead to the Earth because they have higher mean density. Densities calculated by the World are wrong).

(ii) Bodies/fragments formed from the collision have to perform firstly their prime duty as eccentric asteroids or to merge into some big bodies; only after stabilizing their orbit, they can orbit as normal bodies/planets or like asteroids of asteroids-belt.

(iii) Earth (small-Earth) could only adopt a small-body than it self as its satellite which was following it as a planet. This has been explained ahead under the relevant paragraph.

(iv) Computer models developed (and CD released by them) by the Astronomers/Physicists and NASA too have created the Moon as satellite of Earth by showing impact between the two giant planets. Experts have kept the computer chip away from the information that Earth is facing great thrust from the Sun rays and also Earth is repelling the Sun by its own radiated rays. Further they have **manipulated** the formation of Moon in the computer by concealing some below stated facts from the concerned.

● Space -explorers can set their artificial satellite to orbit over the Earth in any plane among numerous planes then why all the scattered fragments formed from the collision of two planets in their computer model adopted only one plane but not many. They (Experts) who manipulated this computer result did so in the absence of knowledge of the rays' property which is effecting (governing) to arrange fragments to orbit only in one plane.

● How computer arranged the scattered mass to a ball (Moon) that has the orbital plane which exactly tallied with the existing Moon? In the computer, Moon formed could adopt any orbital plane but why it has formed a specific plane in the absence of information that it is the Sun/Earth rays which keeps the body in a flat plane (equator plane of the Sun).

● After going through this chapter over the Moon and also understanding the illustration under MATERIALISTIC UNIVERSE any concerned can understand much more facts that how computer model would have been **manipulated** (in the absence of knowledge about the thrust by the light/rays) to get the result to tally exactly with the existing natural function of the Earth and Moon.

3 (B)-c Understanding of Man-made orbiting objects (satellites) and giant planet impact theory: (A baffling fact or manipulated result?) This information has been taken from the internet:

Now we have thousands and thousands man-made satellites which are orbiting at different heights (altitudes) and in different directions. This we started during the twentieth century and in the years to come, it would grow in thousands. In the future abundant and snagged satellites would pose a serious threat to the world.

(i) Any man made satellite orbiting the Earth can not remain in its orbit unless it is getting power to keep it in the orbit. Power to the man-made satellite is being provided for its function by the Sun (solar-power). Functioning by the solar-power helps the ground-operators to rectify the direction of the satellite by triggering its jets after some days (period). Jet gases help the satellite to maintain speed and direction too. The satellite can circle the Earth four times without power from the Sun or failure of any power. After that the satellite would be lost. It would gradually start losing height and would move (falling) towards the Earth. Most of the parts would be destroyed in the atmosphere and some large may find a place over the Earth like a meteor. Designed satellite prevents such accidents, but some snags may not help in preventing such accidents.

(ii) To keep a man-made satellite in its orbit after every few days or some period; or to keep its direction, speed etc. has to be adjusted. It is not possible to make one-set direction permanently forever and ever due to the different gravitational fields, a residual atmosphere and by the solar-wind.

So it is not possible for any supreme-device or super-man to throw an object which would keep on encircling the Earth like a Moon (satellite).

CONCLUSION BY THE CHALLENGER:

Scattered objects littered by the comets and man-made satellites can not orbit individually or by clubbing to a body around the Earth like Moon then how fast moving that too in random directions and scattered fragments formed from the collision of two planets could form a body (Moon) and would start orbiting (but before becoming a planet) around the Earth? Is not a baffling conclusion? Give a thought.

3 (B)-d How Earth got its Satellite (Moon)?
(What Challenger has understood and visualized?)

Some other possibilities (but before explanation to firm and true possibility) which originated the Moon:

- During the past if Venus had its satellite prior to adopting reverse spin direction, it would have given the chance to Earth to snatch its (Venus') satellite. But such chance was rare. It is the core of the Moon which can reveal the truth. If density of the Moon-core is in between the density of the core of Venus and Earth, then Moon of the Earth was once a Moon of the Venus. (This possibility should be ignored at the cost of firm and true possibility).

- Another possibility is also there that Earth had got its Moon which would have been blown off in the past by the Sun rays from the custody of planets which are/were ahead of the Earth. This possibility could be proved only by knowing the density of the cores of the planet Mercury, Venus, Earth and the Moon. (This possibility too should be ignored at the cost of firm and true possibility).

Formation and capturing of the Moon from the collision of two planets: Two adjacent planets can collide but their fragments can not unite to form a satellite of any planet; this factor is applicable for the planets from Mercury to Mars but not to the planets (Jupiter to Neptune). Bodies and fragments have/had to adopt on stabilization their position as per their surface area, mass, density ratio. Any big object formed, capable to become a satellite would have firstly played the role of a planet for thousands/millions years before becoming a satellite (Moon) of the Earth. So Moon has not been formed from the collision of planets.

Comets on their visit, every time litter objects in the space around the planets (Mercury to Mars) but so far no object has been captured by any planet to make its satellite. All the objects either go far off as per their surface area, mass, density ratio by the Sun rays or find their fate by striking over these planets; then how fragments ejected by the collision of two planets can orbit the Earth?

Every planet/satellite is gaining mass bit by bit. One Such information is exhibited below: This Information is must to understand that how the Earth got Moon as its satellite.

From Amateur Astronomy: Issue Winter 2010.

How Much Does the Earth Weigh?

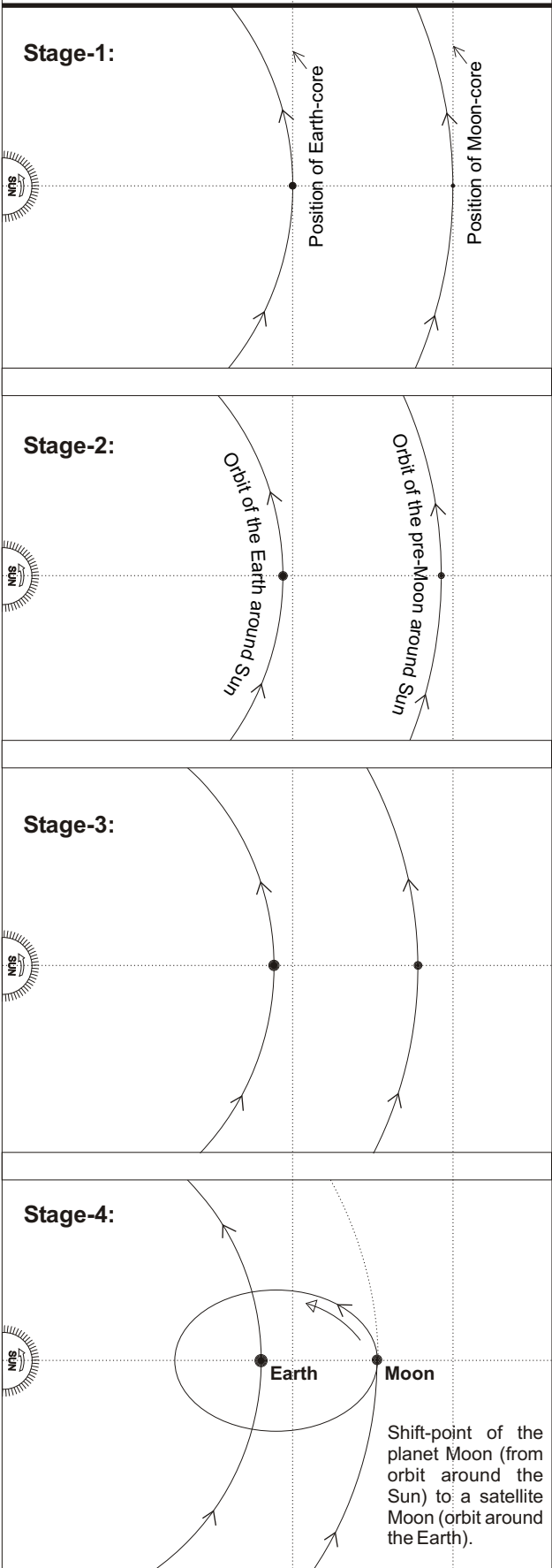
.....The earth's weight increases by 100,000 pounds each year from dust and meteoric material falling from the sky. Time to start thinking about that diet again isn't it?.....

● Firm and true possibility that how Moon originated?

Moon has been formed which was once a small-planet behind the young-Earth (or small-Earth). During that period all the planets were growing at faster rate than the present. On growth they all were marching towards the Sun. Core of the Moon might be the out come of the mass formed by the collision of two big planets which (Big planets) existed before the formation of small-Earth and core of Moon. Or Moon-core might have been developed like other planets. Or Moon-core was the sister-core of Earth-core. What so ever was the truth, Moon-core was a small planet following a big planet (Earth). Moon-core on its growth marched at faster rate towards the Sun than the Earth; resulting to develop a stage that the following planet (Moon) de-railed from the orbital-track around the Sun to orbital-track around the Earth as stated and illustrated with some sketches ahead.

How Earth got its satellite (Moon)?

Dark black points are the cores of the Earth and Moon; whereas shell (seen as rings) over the cores are the deposit of mantle resulting to their (Earth and Moon) growth in size. On growth both, Earth and the following body (Moon) moved toward the Sun. Earth moved slowly than the following body (Moon) because of the reasons stated under the relevant chapter. This resulted to shorten the distance between the Earth and the following body (Moon). A stage reached when the following body (Moon) came under the influence of the effective range of gravity of the Earth to make its satellite. Just after this stage the following body (Moon) de-railed from the orbital path around the Sun and moved over the orbital path of the Earth resulting to become the satellite of the Earth.



Conclusion:

- Moon (small-Moon or core-Moon) was once a following planet of Earth (small-Earth or Earth-core):

Earth is among the planets (Mercury, Venus & Mars) which do not generate its own rays so such planet (Earth) would always capture a **following** small planet (Moon) on its approach (forward) near to it (Earth). Such planet (Earth) keeps its satellite(s) i.e., Moon for some period with it (Earth) and as it (Earth) further moves ahead on its (Earth's) growth towards the Sun or towards the big planet ahead (Venus) to it (Earth) a stage would reach by the rays of the Sun and the big planet ahead (Venus) to it (Earth) to slow down the orbital speed of the Satellite (Moon) and also give a push to the satellite (Moon) towards the holder (Earth) of the Satellite (Moon), resulting to engulf its (Earth's) own satellite (Moon). **Conclusion:** This process makes the planet, bigger and bigger. One day, Earth would pull the Moon to grow bigger in an attempt to go near the Sun resulting to wipe out life from the Earth or life would be reshaped.

- **Iron in the Moon:**
(What rays thrust factor suggests and proves?)

Mean density of every heavenly body has been calculated by the World by ignoring rays thrust factor thus is wrong. Rays thrust factor suggests and proves that mean density of the Moon or its core would be lesser than the Earth because Moon had been formed from a planet which was also of smaller size than the Earth. If the Moon-core is the sister core of Earth, then Moon-core had been formed from the mass in between the Earth and Mars; suggesting and proving that Moon-core is less denser (lighter) than the Earth-core. And if Moon-core (or small-Moon) is the out come of the collision of two giant planets which were ahead to it (Moon) towards the Sun; even then Moon-core (or small-Moon) would have been formed from less-denser (lighter) matter than the body (Earth) which was ahead to it because of the rays thrust factor.

Both the possibilities suggest and prove that Moon is less dense than the Earth or Moon lacks iron as compared to the iron in the Earth.



4. Riddle: Why orbital plane of the Moon does not coincide with the equatorial plane of the Earth?

Explanation:

Earth axis of spin is tilted over the equatorial plane of the Sun. For the Moon both the bodies, Sun and the Earth are guiding its orbital plane by their rays besides some effect of rays by the other planets/bodies. Because of this fact (rays' effect), orbital plane of the Moon does not exactly coincide with the equatorial plane of the Earth, it has to adopt its orbital planet as per the computed effect of the rays of the Sun and Earth in particular.



5. Riddle: Why are the maria over the Moon concentrated on the side near to the Earth or facing the Earth?

Information from the World:

From Internet April 2008

Mare (plural maria) means "sea", but maria on the Moon are plains on the moon.....
 Maria are concentrated on the side of the moon that faces the Earth; the far side has very few of these plains, Scientists don't know why this is so.

There are two types of terrain on the Moon which faces the Earth.

- The heavily cratered and very old bright 'Highlands'.

- The relatively smooth and younger "Maria". The dark and relatively featureless lunar plains which can clearly be seen with the naked eye are called maria. The maria comprises about 16 percent of the Moon surface. It has huge impact craters that were later flooded by molten lava. Most of the maria surface is covered with 'regolith'. The regolith is a mixture of fine dust and rocky debris produced by the meteor impacts.

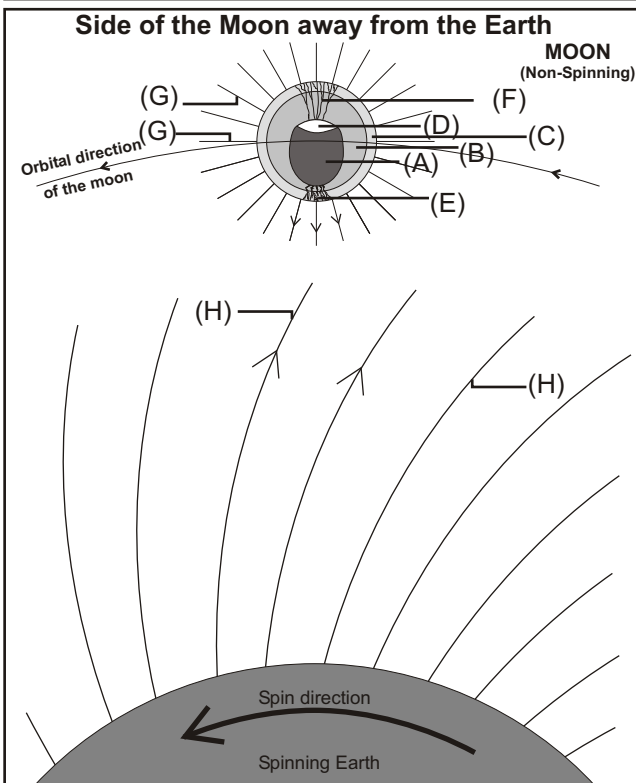
CHALLENGER:

World did not know that why maria over the Moon are concentrated on the side near to the Earth, because World has not understood materialistic rays (white-matter) and some other observations. Author has observed the reason and his explanation is as under:

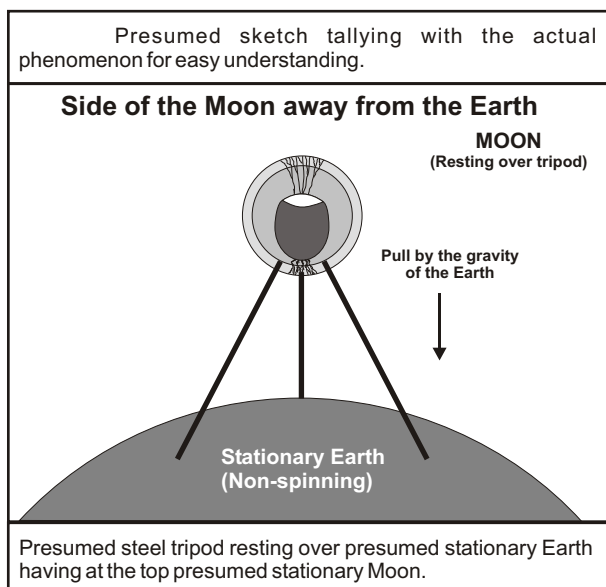
To get the answer; explanation would require understanding of the following some observations first.

(A) Why the volcano eruptions over the Moon are over the side which is near to the Earth?

Understanding of the volcano eruptions over the Moon surface which faces the Earth and escape of gases with pressure from the other side which is away from the Earth to cause quakes. This all is due to the fact that the Moon does not spin and Moon always keeps its same face towards the Earth and also Earth has great gravity as compared to the Moon.



- A- Pear shaped (towards the Earth) semi-solid dense core with dipped surface (away from the Earth).
- B- Past mantle.
- C- Young mantle.
- D- Store of hot gases under pressure.
- E- Molten lava channels (towards the Earth) and lava sucked by the gravity of the Earth when Moon core was perfect molten.
- F- Channels of hot gases and gases escaping under pressure causing vibrations to rocks and quakes over the side of the Moon which is away from Earth.
- G- Rays of the Moon (straight rays because Moon does not Spin).
- H- Curved rays of the spinning Earth.



This was/is very easy to understand, but the Challenger is surprised that why this simple gravity related effect could not be understood by the World. (This phenomenon is due to the factor that Moon does not spin and always keeps its same face toward the Earth).

The following explanation is understandable by the presumed sketch but whereas True-phenomenon sketch confirms that what has been stated is correct:

Presume that our Earth is stationary (not rotating nor orbiting). Further presume that we have developed a device by which we can regulate the gravity of the Earth from zero to existing.

Now presume that we have placed a body named Mooni over the Earth. The size and shape of that body Mooni is equivalent to the size of the Moon. Now we have lifted the Mooni to a height with the support of steel structure in the form of a tripod. The Mooni has a molten core. This molten core due to hot gases is exerting pressure in the shell; pressure is over the walls of the shell of the body Mooni.

Because we have reduced the gravity of our Earth to zero, so the pressure of the molten core inside the body Mooni would be towards all directions. Thus molten lava would come out from any where as per the shell structure, strength, thickness and cracks etc, where lava would find weakness.

Now enhance the gravity of the Earth to its originality. Gravity of the Earth would put a gravity (sucking) effect over the molten lava to come out from the shell and from the side which is facing the Earth. Lava would come out like water from the leaking ceiling. Gravity-sucking effect would be greater if the fluid is of high density material besides highly molten. Lava is always composed of denser substances, so lava in the body would bear more Earth's gravity effect besides pressure of hot gases over the lava but inside the core. (Water can come out easily because of low viscosity than lava, but gravity (pulling) effects would be more over the lava surface than the water).

In addition to pressure of gases over the lava, it is the pull or the earth's gravity which is putting a great sucking effect over the lava to pull it out from the mantle of the Moon, thus almost all volcano eruptions are over the side which is facing the Earth. Had the Moon been rotating, nothing like this would happen.

Note: If gravity of the Moon (which is 1/6th of the Earth) can pull ocean water to cause tides over the Earth; then how much force the Earth gravity has to pull (or suck out) lava from the mantle/core of the Moon to cause volcano eruptions (or bleeding with lava over the surface of the Moon.)

(B) What impact the meteors cause over the Moon?

Author/Challenger had observed that whenever a meteor or some big size object had/has its impact over the Moon,

meteor created crater and produced vibrations resulting in some cracks. These cracks opened the way for the lava to come out. Molten lava is always under the pull of the Earth's gravity and under the pressure of gases from the top and thus lava always finding a chance to come out, so the lava has filled these craters.

(C) Why meteors which strike the Moon had some pattern according to their sizes?

Author had observed that the pattern of strike by meteors over the Moon surface is the computing result of the following factors:

- Moon is not too far away from the Earth.
- Difference in size thus difference in gravity is great.
- Moon does not spin, always keeps the same face towards the Earth.
- Moon emits/radiates very less Moon-FSOM-rays (white-matter) as compared to the Earth-FSOM-rays (white-matter).
- Striking meteors/particles, Moon and the Earth all are in almost one plane of the solar system.
- Further, destination of strike by the meteor(s) depends upon the location of meteor and position of Moon and Earth when meteor moved to hit the Moon surface. This also depends upon the size (surface area), density, distance and speed on its (meteors) approach near to the Moon.

(i) Now consider a very big meteor approaching towards these two bodies (Moon and Earth). On its approach near the Moon, Earth will not be able to expel it by its FSOM (white-matter) rays, but due to its greater gravity, Earth may pull it toward itself thus preventing its strike over the face of the Moon which is facing towards the Earth. But if meteor is coming from any direction and is near the Moon, it would be pulled by the Moon and the strike site could be any except the side which the Moon is facing toward the Earth. If the impact over the Moon is at the site which is opposite to the side facing the Earth, impact would be with greatest force due to the gravity of the Moon and the Earth in line to the impact direction. So, big impact or meteor strikes are over the surface of the Moon which is away from us.

(ii) Any meteor of reasonable size can strike the Moon surface from any side. This all can be well observed and understood by understanding as stated below.

Meteor of reasonable small size to fine dust can only strike or settle over the surface of the Moon, which is facing the Earth. This could not find any place over the Moon other than the said. Moon does not have its own atmosphere, so these small meteors or dust while approaching over the Moon could not be burnt out, like our Earth does. Any meteor of the said size (small) or dust if comes in between the Earth and the Moon, Earth-FSOM rays would thrust it towards the Moon because Earth FSOM rays thrust over small objects at some distance from the Earth, would be greater than the Earth gravity, so these floating bodies (small meteors and dust) would be directed towards the Moon. Moon rays could not oppose much due to its low Moon-FSOM (white-matter) rays' intensity, so these small meteors and dust keep on striking over the moon surface facing the Earth by breaking the existing material and creating dust in addition to settlement of the dust from the space too.

CONCLUSION:

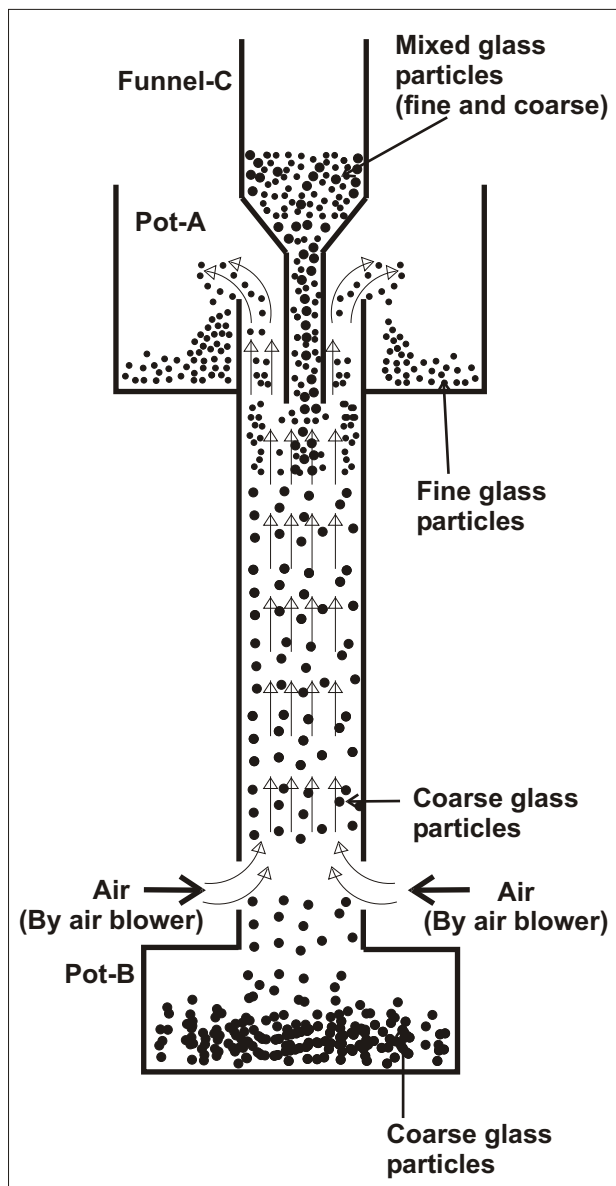
This phenomenon has created maria over the surface of the Moon. This surface would be only which is facing the Earth.

Strong rays of the Earth are thrusting fine-meteors and dust towards the Moon. As Moon does not spin thus fine Meteors and dust are settling towards the side which is facing the Earth. Further strong rays of the Earth along with some rays though feeble to the Moon would blow off fine Meteors and dust existing in space on the other side to far away in space by preventing their settlement over the other side of the Moon which we do not see. This phenomenon results to settle fine meteors and dust only over the surface of the Moon which faces the Earth.

Greater gravity of the Earth than the Moon, prevents strikes over the Moon by the big meteors over the side which faces the Earth but whereas Earth gravity helps the big Meteors to strike over the Moon with great intensity over the reverse side which is away from the Earth. Thus big strikes by the big meteors are over the side which is away from the Earth.

Linking of the fact that why fine dust over the Moon is towards the side which faces the Earth with a practical performed by the Challenger (during the year 1977) for the manufacture of micro glass beads (spheres):

For the manufacture of micro glass beads fine particles of the glass are required and prior to converting these particles to spheres, they required grading as per their sizes. Challenger washed powdered glass in the water to take out extremely fine powder sticking to the glass particles and separated the glass particles into two sizes (fine and coarse particles) by the air thrust separator as shown below over the sketch.



Air was thrust by the air-blower from below the vertical pipe through a number of big holes. Mixed glass particles were put in the funnel. Because of the thrust of the air, fine particles went back upward and collected in the pot (A) and the coarse (big particles) fell at the bottom and were collected in the pot (B).

But in the case of the Earth and the Moon; fine particles are being thrust by the Earth rays upward i.e., towards the Moon. Moon pulls these fine particles to settle over the surface which faces the Sun. But where as particles/objects other than the fine particles the Earth rays can not thrust towards the Moon are being pulled by the Earth.

6. Riddle: What cause mysterious quakes that vibrate through lunar rocks?

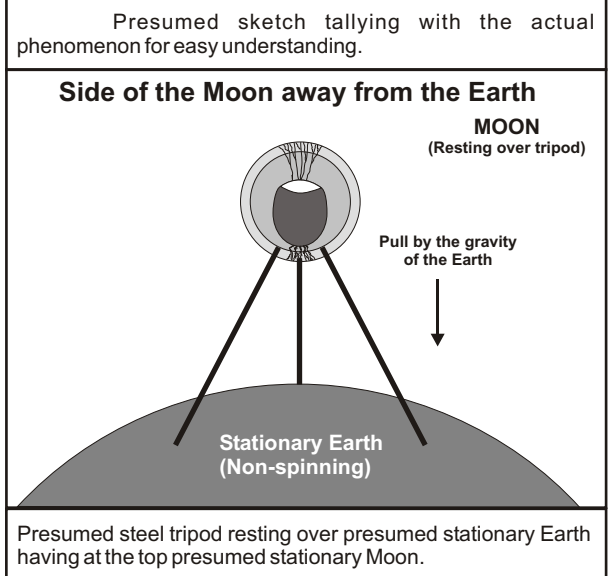
From Newspaper, Nov. 2008

.....The existence of moonquakes has puzzled scientists as the moon does not have the tectonic plate activity that cause quakes on the Earth.

The moon still holds an awful lot of secrets. Most of what we know about the Moon is from a relatively small area on the nearside of the Moon and we have no samples or data from the far side.....

It was reported (2008) in newspaper that Britain is planning to send its space mission 'MoonLITE' with the aim to understand the said cause but the said cause is not under the purview of space missions/devices; it is only the human brain observation that can solve the said riddle.

Answer is similar to the answer that why volcano eruptions over the Moon are over the side which faces the Earth. Both the phenomenons are co-related. Lava comes out from the Moon from the side which is facing the Earth but whereas hot gases mostly are escaping from other side, which we are not seeing.



Moon is always keeping the same face towards the Earth. Further Moon is not very much far away from the Earth and gravity of the Earth is much more than the Moon. Because of the said factor, situation of the Moon is like a body resting over the Earth but at some height.

Gravity of the Earth had/has pulled the semi-molten dense core of the Moon towards its side whereas light mantle is thrust upwards towards the side which we do not see. Further constant gravity effect over the non-spinning Moon has pulled the core to make its pulled half size like pear-shaped; other side might not be spherical but some what flat or dipped. This flat side or dipped upper side (other side) of the dense-core would be having gases, which on their escape would be vibrating the deep-mantle/rocks to cause quakes over the Moon. This phenomenon would be always towards the side which we cannot see from the Earth.

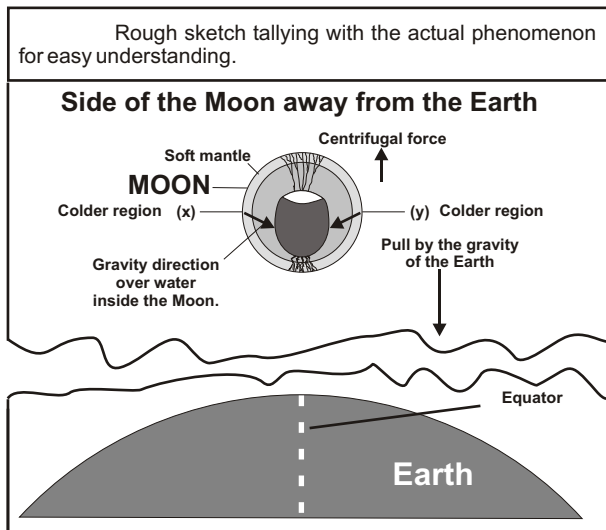
7. Riddle: Does Moon have water?

(A) Does Moon has liquid water or ice?

Water over the Earth is due to semi-live life which in early history of the Earth converted thick atmosphere (gases) of the Earth to water as explained by the Challenger under the relevant Chapter. Water over any other solar body including comets is due to the condensation of evaporated water which had evaporated from the planet Venus. Venus once had water and life too may be almost similar to now Earth has; it had lost water and life on approach toward the Sun. The fate of the Earth too would be the same.

Moon has two permanent colder regions which face the least Sun light. In these regions the depressions have never faced Sun light thus may have traces of water in the form of ice. These two colder regions over the Moon have quite different situation than the cold regions (specifically the poles) of the Earth and the Mars thus possibility of liquid water over these two permanent colder regions too depends upon some factors which are not applicable over other bodies.

Water in the liquid form below the surface over these colder regions has the least possibility. Below is the sketch of the Moon and the Earth; marked (x) and (y) are the permanent colder regions. Simple explanation can not provide the answer; answer can be had by computing the following facts:



- Practical and the facts over the Moon for liquid water would be different. If water is dropped over place (x) or (y) from a height, say 20 feet, water would fall over the Moon like water falls over the Earth. Water on falling over the Moon would start going inside the Moon like water behaves over the Earth but water after going deep to some meters would not behave the same as water behaves over the Earth.

- Gravity of the Earth is 6 times the gravity of the Moon. Earth has so much high gravity, even then water over its surface flows instead of going inside the Earth (except seepage) by finding a slight slope (i.e., easy way).

- Mantle of every body is porous at its surface and mantle keeps on becoming dense and further dense towards its centre. This makes the path of water more resistant towards the centre after some meters of depth. Water, if finds less resistance or attraction towards any side, water would prefer to move towards the side(s) than going towards the centre.

- Moon has 1/6 gravity than the Earth but has the gravity pull power to lift water of the ocean by forming tides. If Moon would have water in the form of ocean, gravity of the Earth would have lifted water of the Moon to several more feet (rather in multiples). To understand this observation (fact) presume Moon over the Earth of the size (6x6=36 times), then presume/visualize the effect of such huge Moon over the ocean (Earth).

- Water after entering into the Moon's top layer of mantle faces three forces, computing effect decides its fate (movement). These three forces are:

- (i) Gravity and centre of gravity of the Moon or in particular gravity of its dense core.
- (ii) Gravity and gravity direction of the Earth.
- (iii) Centrifugal force magnitude and its direction because of Moon's orbital motion.

Dense core of the Moon is off its centre and it is towards the Earth, so water on these permanent cold regions would be pulled towards the Earth side by the Moon's core. Gravity of the Earth is much greater than the Moon so water is some what influenced by the gravity of Earth to move towards the Earth.

Centrifugal force acting over the Moon is intending to take the water away towards the side which is away from the Earth.

Note: Centrifugal force acting over the Moon (or at water) can not perfectly balance the gravity pull by the Earth because Moon is away from the Earth not only by the centrifugal force but by the repelling rays of the Moon and Earth too and Moon is orbiting in the medium which has resistance (not absolute friction less-zone). Because of the said facts, centrifugal force magnitude would be less than the gravity pull magnitude of the Earth over the Moon (or water).

- Moon is not spinning, so all the three forces acting over the water below the colder regions are contentiously effecting to cause their effect.

- Moon has no atmosphere; its surface other than the permanent colder regions is exposed to high temperature.

Conclusion:

Water would not go deep perfectly towards the centre of the Moon, so movement of water towards any direction (facts suggests movement of water is towards the Earth) could lead to its exposure to high temperature, thus would evaporate; so Moon may not have water in the liquid form like Earth has even at its permanent colder regions. Cycle of condensation of water at colder regions and movement of it towards the Earth to evaporate is continuous and is still going on.

(B) Traces of water and hydroxyl over the Moon:

(Written on 26/09/2009) after finding by the India's maiden lunar mission, Chandrayaan -1 that hydroxyl molecule consisting of one atom of oxygen and one atom of hydrogen have been discovered across the entire surface of the Moon. But it not yet confirmed the presence of water on the Moon (water, like Earth has).

Presence of traces of water or hydroxyl over the Moon is a different subject than considering/understanding the presence of water in its other forms (ice and liquid). In liquid form we always understand water besides ocean, like water in lakes, rivers, underground channels and underground water like Earth has. So the subject that Moon has or not has traces of water and hydroxyl and if it has, from where it got traces of water/hydroxyl is a different subject than WATER, which can not be amalgamated with subject of water like we understand (over the Earth).

Where from the Moon got traces of water over its entire surface? And what causes the water molecules to migrate from one part of the Moon to another part?

Finding published by the newspaper Dated 25/09/2009.

Chandrayaan's big find: Water on moon:
 India's maiden lunar mission, Chandryaan-1, has found evidence of large quantities of water on the surface of the Moon..... Data from the spacecraft also suggests water is still being formed on the Moon..... The-water molecules and hydroxyl---a molecule consisting of one oxygen atom and one hydrogen atom---were discovered across the entire surface of the Moon..... Findings from M3 revealed interesting new questions about where the water molecules came from and where they might be going. Scientists have speculated water molecules may migrate from the Moon's non-polar regions to the poles, where they are stored as ice in ultra frigid pockets of craters that never receive sunlight.....
 "If the water molecules are as mobile as we think they are---even a fraction of them--- they provide a mechanism for getting water to those permanently shadowed craters....."

From Newspaper dated:26/09/2009

.....
..Water, as on Earth? Water you could float a boat in?

No, we are not talking oceans here, or rivers, or lakes or even puddles. What researchers claim to have found are molecules of water hydroxyl (hydrogen and oxygen) that interact with molecules of rock and dust in the top millimetres of the Moon's surface in essence, water-bearing minerals, rather than water that is in any way free flowing. But water is water. And water is the essential element for life on earth.....

Challenger:

Moon does not spin at its axis like Earth and other planets spin. Moon orbits around the Earth in almost a month. Its one orbital period can be understood as its spin, so this slow spin of the Moon provides a chance to its entire surface to remain away from the Sun-rays for some period (long periods). Moon surface, which does not receive Sun-rays, lowers its temperature to minus degrees, enough to condense traces of water over its surface from the space/ atmosphere. Besides this, Moon is also getting continuously some moist fine dust over its surface from space due to its low thrust of rays. This fine dust too has some traces of water molecules, which fine-dust would have got from the space. Space gets traces of water by the visits of comets as the World knows and also as explained by the Challenger over the concerned chapter. Because of the said facts, Moon has traces of water molecules over its surface and beneath its surface too to some depths.

Which factor results in the migration of water molecules from one place to another over its (Moon's) entire surface?

It is the gravity factor i.e., higher gravity of the Earth and its (Moon's) eccentric dense core and also the variable cold/hot surface due to its slow orbital (or spin) motion. To understand this fact; divide the Moon into two hemispheres; one part is away from the Earth and another is towards the Earth. Two permanent colder regions of the Moon are over divider line.

Water molecules, which have been condensed over the hemisphere, which is away from the Earth are being pulled by the Earth's gravity and gravity of the eccentric dense core of the Moon towards the Earth, thus they move towards the divider line. Sun-rays keep on evaporating water from the surface of the Moon, which faces the rays but the water molecules which have escaped evaporation by penetrating to mantle and have come/moved over the two permanent cold-regions, must get trapped in the form of ice.

Water molecules; which have been trapped by condensation over the hemisphere and which are towards the Earth, moves towards the Earth by the higher gravity of the Earth and also by the gravity of eccentric dense core. These water-molecules while on their way get evaporated by the Sun-rays before reaching to their targeted point.

Conclusion:

This process has made the cycle of water-molecules to condense and to evaporate. Those molecules which find escape from evaporation migrate and some on the way again evaporate to repeat the cycle by keeping the two colder regions as trap-zones for the water in the form of ice. (How much ice? This needs physical verification.)

Challenger has not yet given a thought about the hydroxyl but he has already stated under the relevant chapter of WATER that in solar system the zone from Mars to Earth is the zone, which had/has converted/formed gases to water over the planets Venus and Earth by the semi-live life.



8. Riddle: Is tidal-bulge-lock over the Moon due to the gravity (pull) of the Earth and vice versa?

Experts are understanding that tidal friction (bulge formed over sea water) by the Moon is resulting to slow and keep on slowing rotation of Earth resulting to stop spin of Earth one day like Earth has stopped spin of the Moon by forming a bulge over the core of Moon. Experts consider so because they understand that the Earth is spinning by the conservation of energy but not by the rays.

Challenger: Earth would not stop its spin by the tidal friction of Moon.

Before understanding properly the true reason, some imaginary observations are a must. (This imaginary visualization does not relate to the fact that how Moon has been formed.)

(A) MOON

(i) Presumed Moon of water:

- Observe (brain-visualize) the Moon in space. Now consider it to be formed of only water. Earth gravity-pull would form a bulge. But due to the Earth-FSOM curved rays, Moon would spin and Moon due to its own radiated FSOM rays, would spin faster. It would never stop its spin but spin speed could be slow because of the bulge.

Note: If the water-Moon was not powered to spin by the rays of the Earth and its own radiated rays, water-Moon would have stopped by the friction of water because of its bulge. But whereas water-Moon is continuously powered by the rays thus would not stop spin because of the bulge formed by the gravity of the Earth.

(ii) Presumed Moon-core of molten mass:

- Now observe the Moon again. Consider it to be formed of molten mass. It would again form the bulge. But due to greater viscosity of the molten mass than the water, spin of Moon would be slower. As the mass cools and cools, viscosity would keep on increasing gradually. Due to increasing viscosity, its spin speed would keep on gradually reducing. A stage would come when mass would solidify to greater extent beyond the limit of the Earth-FSOM rays to provide a spin due to a permanent solidified bulge formed. At this stage observed Moon would stop the spin. Gradually by the passage of time, heavy metal-substances would start moving extremely slower and slower towards the Earth side to permanently lock the spin of Moon.

Conclusion:

Tidal-bulge-lock to the Moon is possible if the Moon-core when it was without existing mantle was in molten state. But the facts suggest that Moon-core at the time of becoming a satellite of the Earth was not in the molten state. Then what had resulted to stop it (Moon-core or the Moon-core with mantle) from spinning thus giving a chance to the Earth to pull its dense core to make it off the centre for locking the spin of Moon permanently. This fact has been stated under the Riddle: Why the Moon always faces the same side towards the Earth?

(B) EARTH

Earth does not come under the same situation as the Moon came due to the following factors.

- (i) Moon could not form bulge over the molten core of Earth as it is deep inside the solidified shell. Bulge formed by the Moon over the sea water could not halt the Earth's spin like Earth could not stop the spin of the presumed water-Moon as observed (brain-visualized) above, however Moon's gravity affects the speed of the spin. This reduced speed of Earth is like a mild brake or friction to the axle (drum) of the wheels of a vehicle.

- (ii) Had the vehicle not getting power from the engine, it could stop due to the said friction (brake), but due to the Engine power, vehicle would move a little slower but would not stop. Similarly the Earth would not stop its spin, because it is getting a regular and ensured power to spin by FSOM rays from the Sun and little self generated FSOM rays besides radiating FSOM rays. But prior to publication of this book (MATERIALISTIC UNIVERSE) and this challenge, World did not know the FSOM or white-matter and was under the concept that Earth spins from the pre-spin got at the time of the formation of the solar system and some spin is due to the angular velocity.

(C) CONCLUSION:

Moon could not lock the spin of the Earth, but is responsible for a little reduction in the spin speed. This can be better understood by going through the following example:

Suppose you are sitting in a car which is running over a best possible smooth horizontal road. Car is run by energy with 100 HP power. Car has 100 engines, each has the power of one HP. Car also has a hand brake. Friction of this hand-brake is equivalent to (-) one HP. You have started the car and it has attained a power of 100 HP by keeping all the engines on. Car would run at speed say 1 KMPH per HP power, so it would be running at a speed of 100 KMPH.

Now you apply the brake of (-) one HP. Car would slow down at a speed of 99 KMPH and it would keep on running at this speed unless you reduce the power.

By keeping the hand brake on now you reduce the power by closing all other engines, except running only 2 engines, car would slow down to maintain a speed of one KMPH and would keep on running till you stop one of the two engines. With one engine car would intend to stop, it would stop when you reduce power a little lesser than 1 HP.

Now again restart the car with 100 engines and stop one engine every one-hour. Keep the hand brake on with the friction equivalent to (-) one HP. Car would be slowing down every hour due to the less power, but not due to the hand-brake. Hand brake would stop the Car after 99 hours, whereas in the absence of this hand brake car would have stopped in 100 hours.

So the tidal friction is not responsible for the continuous slowing down of the rotation or spin of the Earth. It had slowed once and now there is no further slowing of the speed due to the Moon. Spin speed of the Earth has power by the Sun rays and also by its own radiated/generated rays. Spin speed of the Earth is slowing due to some other factors as stated under the next Riddle.

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9. Riddle: Is tidal friction of the Moon responsible for continuously slowing and slowing spin-speed of the Earth?

WORLD:

World understands that the tidal bulge which Moon creates over the Earth is responsible for the slowing of the Earth rotation continuously and one day Earth will show the same face to the Moon like now Moon shows the same face to the Earth. One hundred years from now, the day will be 2 milli - seconds longer than it is now. Besides slowing down spin speed of the Earth, tidal bulge is responsible for the Moon going away from the Earth.

AUTHOR/CHALLENGER:

As already stated that the tidal bulge is not responsible for slowing the speed of the Earth continuously, but responsible to make the speed a little slower.

Slowing of spin-speed by the Earth which the Experts measured is not due to the tidal friction of Moon but it is due to the two reasons among some others (i) that day by day Earth atmosphere is becoming denser and denser by the gases. Denser atmosphere bends the Sun's curved-rays towards normal to make Earth spin slower like denser atmosphere of Venus has resulted to spin Venus from normal spin direction to stopping and stoppage to reverse spin as illustrated under Venus and (ii) reason is that the molten core of the Earth is cooling day by day resulting to emit lesser rays thus reducing spin speed day by day by its own lesser rays.

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10. Riddle: Why the Moon always faces the same side towards the Earth?

World does not know the prime reason except understanding the secondary reason formed by the prime reason. Experts understand from the secondary reason that the Moon is not spinning because of the tidal friction formed by the Earth's gravity over its (Moon's) dense core which resulted to its off the centre thus locking the spin for ever and ever.

Challenger:

Tidal friction by the Earth's gravity is not the cause which stopped spin of the Moon resulting to make its dense core off the centre. Experts consider so because they understand that the Moon was spinning in the past by the conservation of energy but not by the rays of the Earth, its own and by the Sun rays. Before understanding that what had caused dense core of the Moon to go eccentric, it is required that whether the core formed its eccentricity from its birth or some factor developed its eccentricity in the Moon at any later stage. To understand this, it is required to know that how core of the Moon originated.

(A) If the Moon was originated from the core which was in a molten state during its orbit around the Earth; because of the bulge formed by the gravity of Earth and cooling of the solid-core it would have stopped its spin. Later deposit of mantle over this pear shaped solid core would have resulted to keep the solid core off the centre thus keeping the same face of the Moon towards the Earth but the Moon does not have its origin from the Molten core (**which was molten during its orbit around the Earth**). Moon-core might be molten when the two giant-planets collided which formed the Earth but at that time Moon-core was a small planet but not the satellite of the Earth. Sun rays would have kept the Moon-core (planet) at far off and spinning, so Moon-core would not have formed the bulge. **Hence pre-eccentric core of the Moon is ruled out.**

Note: Molten core formed from the collision of two giant planets was not the core of the satellite but was the core of a small planet which was behind the Earth.

(B) **Among true possibilities that how Moon or its core originated:** Moon has been formed from the small-planet which was once following the Earth (young-Earth) thus Moon has been formed from the scattered masses, so core of the Moon was not molten. On growth Moon developed denser core from its mantle which was not eccentric like other planets. Prior to adopting the following planet (Moon-core) by the Earth as its satellite, the following planet, Planet-Moon was spinning. But on becoming a satellite of the Earth or later Moon stopped its spin. **Its spin has been stopped by the rays of Venus.**

How rays of the Venus had stopped the spin of Moon?

(i) Venus stopped spin of the Moon because Venus spins in the reverse direction than the Earth. When Earth captured the Moon-core (Planet), the Moon-core was spinning in the same direction of the Earth but when Earth adopted the Moon-core as its satellite, only then or there after this situation (spinning of Moon direction) changed. If Venus was spinning in the reverse direction, when Earth adopted Moon-core as its satellite; Moon-core would have stopped its spin in few orbits but if Venus changed its spin direction later then Moon stopped its spin only after reversing the spin direction by the Venus.

(ii) Rays from the spinning Earth intend to spin the Moon in its own direction of spin, whereas rays from retrograde spinning Venus intends to spin the Moon in its own direction; Intensity of Venus rays over the Moon is maximum at its closest approach. Once spin of the Moon is stopped, it would not be easy for the Earth rays to re-start the spin of Moon. At stop of the Moon, Earth gravity which is strong over the Moon has pulled the dense-core of Moon to make it eccentric thus to stop it from spinning. Continuous gravity pull by the Earth over the dense core of the Moon resulted to lock the spin permanently.

Now dense core of the Moon is eccentric, so Earth rays cannot spin the Moon and further because Moon too has its own radiated feeble rays for its spin, thus Moon is not spinning hence it keeps the same face towards the Earth.

Why Venus reversed its spin direction?

In the past when Venus was young it was spinning in the same direction in which our Earth and Sun spins. As Venus approached near the Sun it formed dense atmosphere. This has been explained under the chapter over Venus but in brief due to its developed dense atmosphere Sun-rays bend towards normal on being entered to denser media thus changing the thrust torque force direction over the Venus surface (or over its atmosphere which is a part of its body). This has resulted to spin Venus in the reverse direction than the Earth.

11. Riddle: Why is the Moon's dense core off the centre?

World has not yet got its answer properly. Experts understand in doubt that this is because of the tidal lock with the Earth?

Challenger has observed the reason and its answer is similar to the answer already explained/given that why volcano eruptions are over the side of the Moon which is facing the Earth and under Riddle that why the Moon always faces the same side towards the Earth.

Illustration with some more facts:

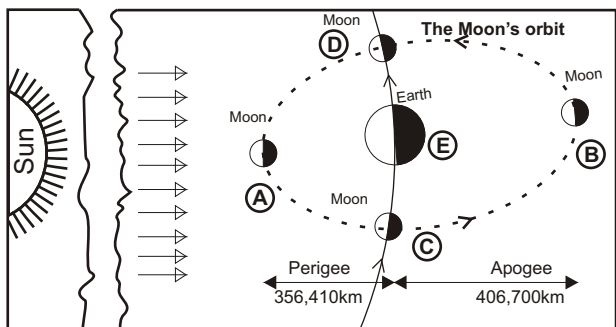
Presume/visualize Moon and Earth the same way as visualized under above said riddles. Hot and molten lava would be sucked towards the Earth. But if the core mass is solid or semi-solid or surrounded in a strong tough jacket from where it could not come out, Earth gravity would gradually pull the entire solid mass toward it self. If the core is less dense than the surrounding, Earth would pull mass from the far off side, thrusting this lighter core away (upward). But if the core is as denser as the other material of the Moon, Earth gravity would do nothing. But because the core of the Moon is denser than its mantle, so Earth will pull towards it self (Earth). This is similar to a situation, if we bury a big ball of heavy metal like lead or gold in soil. This ball gradually would sink towards the centre of the Earth by expelling soft material (soil) above but it would take a long time. So it is due to the Earth gravity that pulled the core of the Moon to make it off centre.

12. Riddle: Is density calculated of the Moon correct?

WORLD:

World has calculated mean density of the Moon as 3.3 gm/cm³, but whereas mean density calculated of the Earth is 5.52 gm/cm³. Density calculated by ignoring rays thrust factor of all the heavenly bodies by the World are wrong as illustrated and proved under the relevant chapters/paragraphs.

13. Riddle: Why Moon is closer to the Earth when it is closer to the Sun and further away when away from the Sun?



WORLD:

World has measured that when Moon is closer to the Sun, it is closer to the Earth and when it is farthest from the Sun, it is further away from the Earth.

AUTHOR/CHALLENGER:

World has measured the distances by keeping a cube-corner mirror over the Moon surface from a fixed point over the Earth. Moon is not spinning/rotating but always keeping the same face towards the Earth. This helped the Experts to measure the distance to know why when Moon is closer to the Sun, it is closer to the Earth and when it is farthest from the Sun, it is further away from the Earth? This all is due to the Sun-FSOM rays. Sun-FSOM rays put a thrust over the Moon to make its orbit eccentric to the Earth. This all results by the Sun rays to push the Moon towards the Earth when the Moon is in between the Sun and Earth and Sun-rays push the Moon away from the Earth

when Moon is away from the Sun. Pushing/thrusting force over the Moon by the Sun rays is great than the push/thrust force by the Sun rays over the Earth because Moon is of small size than the Earth and also Moon has less mean density than the Earth. This factor besides some other factors results so.

Comparison of thrust magnitude of the Sun rays over the Moon and the Earth to understand orbit of the Moon:

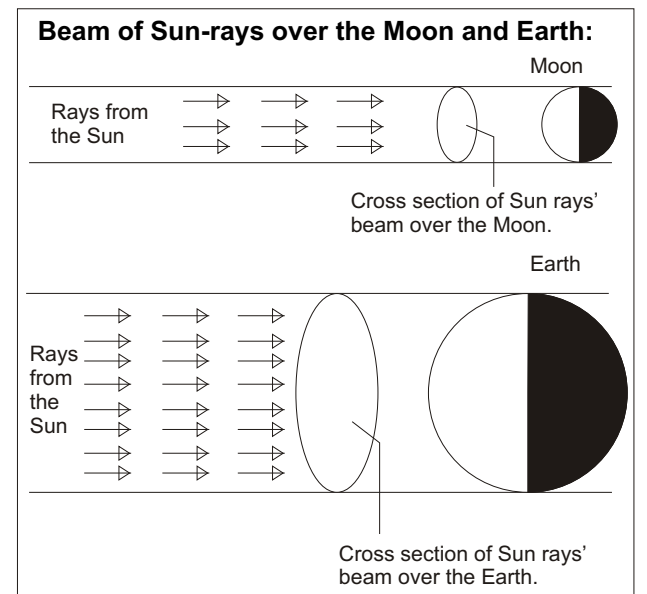
Note: For easy understanding, in below stated explanation, repelling thrust by the rays of the Moon and the Earth has been ignored, only rays by the Sun has been taken into account.

Sun-rays give thrust to the Moon and the Earth in two directions; to a ball like foot-ball and also like a hit to ball by the hockey stick. Forward moving materialistic Sun-rays give repelling thrust like foot-ball "(to keep the bodies away) but whereas the same Sun-rays because of emerging from the spinning-Sun give push-thrust to bodies like hockey stick (to provide move in the orbit).

Moon is of small size than the Earth and also Moon has low mean density than the Earth thus magnitude of the thrust by the Sun rays over the Moon would be greater than the Earth. If Moon is snatched from the Earth and put before the Sun in its orbit by keeping the Earth away from solar system; Moon would be far away and would be near to the Mars. And if the Moon is taken away by keeping the Earth in solar orbit; Earth would adopt slightly more big orbit because of its reduced mass (Moon is the part of Earth and Earth is the Part of the Moon).

Greater thrust by the Sun rays over the Moon is due to the fact (surface area, mass, density ratio). This can be understood as stated below: (Here in brief but explained under the relevant chapter).

Note: Diameter of the Moon and the Earth calculated by the World are correct; it is only the mean density calculated of all the solar/celestial-bodies is wrong because of ignored factor (Thrust and repelling force by the rays). But for comparison purpose that too only for comparison purpose between the two particular bodies i.e., the Moon and the Earth, wrong density calculated would pose no problem because Moon has lower density than the Earth in reality and also by the wrong calculation.



- Moon's diameter is 27% of the diameter of the Earth (In other words, if diameter of the Moon is 27 diameter units then the Earth is of 100 diameter units)
- Moon's mass is 1/81 of the Earth (in other words if Moon has mass of 1 mass unit then Earth has 81 mass units.

● From this data calculated cross sections of the Sun beam rays which is thrusting the Moon and the Earth are as below.

Moon: $22 \div 7 \times (27 \div 2)^2 = 572.78$ say 573 square area units.
 Earth: $22 \div 7 \times (100 \div 2)^2 = 7857.14$ say 7857 square area units.

- Consider: 1 square unit of rays' beam area = 1 thrust unit

Thrust factor calculation:

573 square units area of the Sun rays has to thrust 1 mass unit of the Moon but whereas 7857 square units area of the Sun rays has to thrust 81 mass units of the Earth. **(Or in other words 1 mass unit of the Moon will have Sun rays thrust of 573 thrust units but whereas 1 mass unit of the Earth would have Sun rays thrust of only $7857 \div 81 = 97$ thrust units, thus Moon would be pushed far of by the thrust of Sun rays than the Earth. (Moon is getting $573 \div 97 = 5.91$ i.e., six times greater thrust by the Sun rays than the Earth).**

Because of the stated fact, Moon is closer to the Earth when Moon is near the Sun and Moon is away from the Earth when Moon is away from the Sun by the thrust of Sun rays (like kick by the foot to foot-ball).

Thrust magnitude by the Sun rays for orbital move of the Moon and Earth: For orbital move by the Sun rays, gravity factor has ineffective role to play but whereas to keep the bodies away by the rays gravity factor plays the full role. Because of this fact, Sun rays' thrust factor works quite differently over the thrust which causes orbital movement to the planets/satellites/objects than the rays' thrust factor which keeps them away. To keep the bodies away, Sun rays thrust is more on the bodies which have small size but whereas to provide push to the bodies for their orbital move, thrust of the Sun rays is more over the big bodies than the small sized. (Stated fact is applicable over the bodies which have the same mean density).

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14. Riddle: Is the Moon moving away from the Earth?

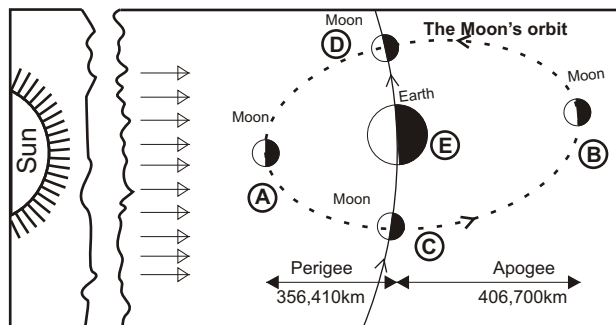
WORLD:

- World understands that the tidal bulge which Moon creates over the Earth is responsible for the Moon moving away from the Earth. Moon's orbit around the Earth is getting larger at the rate of 3.8 cm per year.

AUTHOR/CHALLENGER:

(A) Tidal bulge in no way seems to be responsible for the Moon to go far away from the Earth or Earth from the Moon. The reason for the moon going away would be the expanding Universe. This Universe expansion is not only at far away in space. Its effects are over each and every body to its proportional distance. So this Universe expansion would be responsible for the increase in the distance of Moon from the Earth.

(B) Another reason of noticing by the Experts that the Moon is going away from the Earth would be the measurement of Apogee (or the distance EB). As the Earth moves ahead towards the Sun, Perigee would decrease but whereas Apogee will increase. This increase of Apogee may be the distance measured which has been understood that the Moon is going away from the Earth.



(C) Some other factors that can widen orbit of the Moon:

- Decrease in the mass or gravity of the Moon and Earth but whereas this factor is on the rise.
- Increase in the generation of rays by the Earth or Moon or by the both but whereas this factor is on the decline.

- Increase in the radiated rays of the Moon and the Earth or the both. This factor is also responsible for some widening of the orbit of the Moon as both the Moon and the Earth are going closer fraction by fraction towards the Sun thus both are radiating more and more rays with the passage of time.

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15. Riddle: Why we have twelve months in a year and seven days is a week?

It is the Moon, who has resulted so. Explanation is over the related chapter but here in brief:

(A) Twelve months in a year:

Moon has time period of 29.53 days between the two same phases (i.e., between two full Moons) and this period is called synodic month. But whereas for the ancient person (Astronomer) full Moon would reappear after 30 days and also for the ancient person (Astronomer) days in a year can be any in approximation to 360 days against correct 365.26 days. So, for the ancient person(s) (Astronomers) who introduced the months in a year, for whom Moon had/had twelve periods of full Moon to full Moon in a year, thus we got twelve months in a year.

(B) Seven days in a week:

Moon is second brightest object in the sky followed by the Sun. There are seven bright objects in the sky which are visible to our naked eye and these are Sun, Moon and five planets as per their sequence of brightness observed by the introducer of the days. He named the days, like Sunday for the Sun, Monday for the Moon and rest of the five days were named for the bright planets which were known to past era people/Astronomers. Explanation is under the relevant chapter.

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16. Riddle: Forecasted fate of the Moon that how and when Earth would engulf the Moon?

Every planet/satellite is gaining mass bit by bit. One such information is exhibited below: This Information is must to understand concluded fate of the Earth and the Moon.

<p>From Amateur Astronomy: Issue Winter 2010.</p> <p>How Much Does the Earth Weigh?</p> <p>.....The earth's weight increases by 100,000 pounds each year from dust and meteoric material falling from the sky. Time to start thinking about that diet again isn't it?.....</p>
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(A) Every planet is marching ahead towards the Sun fraction by fraction by the addition of mass bit by bit, so is the Earth. As Earth moves ahead towards the Sun, Earth forces its satellite i.e., Moon to go near the Sun when the Moon is in between the Sun and the Earth but high thrust-powered rays of the Sun pushes the Moon towards the Earth. Moon being small in size and less dense than the Earth thus faces high magnitude (six times more than the Earth) of the thrust by the Sun rays resulting to shorten the perigee distance (distance between the Moon and Earth). When Moon was captured by the Earth as its satellite the difference of distance between apogee and perigee was very less and now it has increased and would keep on increasing till Earth engulfs the Moon.

(B) As Earth moves ahead, it also gains gravity. Increased gravity of the Earth would pull the Moon to make the orbital distance thus perigee distance further shortens by the gravity factor.

(C) Rays emerging from the spinning Sun give a push to the Earth to orbit around the Sun. But when the Moon moves to go in between the Sun and the Earth, it (Moon) gets thrust from the Sun rays in the opposite direction than its forward move, thus reducing its orbital speed. This resistance to orbital speed to the Moon increases, as the Earth moves ahead towards the Sun.

(D) Addition of mass over the Moon which is negligible than the Earth that also plays its own role.

Conclusion:

Computing effect of all the said facts/reasons would result to fall from the orbit by the Moon to have collision with the Earth. OR Earth would engulf the Moon resulting to reshape the life over the Earth.

SATELLITES

(Satellite of the planets, other than the Moon)

Author/Challenger has stated in brief about the satellites of other planets under the chapter 'Moon' but due to paucity of time and to avoid increase in the pages of his discovery, he has restricted the illustration at present (August, 2009) except answer/explanation to the following query.

Why most satellites are not spinning?

It is generally understood that the prime factor to spin a natural body is that the body should be of round shape. But if the body is alone in the space and of any shape or round with an eccentric dense core, that body too can spin by its own generated rays but no body is alone any where. The rays of adjacent body and also rays of other bodies too help (intend) to spin the other body even if its dense core is eccentric or of any shape. **It is the gravity of the bodies which prevents/locks the spin of the body if the body is not of round shape or round but its dense core is eccentric.**

Sun is emitting rays of high magnitude and in the past was not emitting rays of less magnitude, rather might be rays were of very high magnitude. This had kept the small-cores of the planets at very-very far off and helped them to grow round without developing their core eccentric by the gravity of the Sun. But rays radiated/emitted by the planets (young-planets/small planets) were not of high magnitude thus, their captured satellites (or their cores) were/are not far away from them. Gravity of the planets and the satellites/cores had/has played its role to develop dense core of the satellite to go eccentric or planets have developed their satellites with eccentric core as stated earlier under the Moon and also in brief as below.

- If a satellite of the planet is of uniform composition and was spinning by its own rays and also by the rays of its planet but on getting a meteor strike which has high density than the satellite, that could imbalance the density layout, giving a chance to the planet to stop spin of its satellite by its (planet's) gravity. Once spin is stopped, gravity of the planet starts pulling the dense core (or dense patch) of the satellite to lock its (satellite's) spin permanently.
- In another case, if the captured body as satellites by any planet is not of the spherical shape but has irregular shape like natural unbroken stones have; even then the rays and gravity both of the planet would develop this irregular shaped body (satellite) as eccentric core.

As in the case of Moon, fine (small size and also of low density) particles and dust is being thrust by the Earth rays towards the Moon resulting to settle over the side of the Moon which faces the Earth. But having impacts (or greater mass and dense mass) by the meteors which are on the other side. Similarly every satellite of the planet which had/has irregular shape developed/develops to a large body with its eccentric core thus not spinning.

- Situation of the Pluto suggests that core of the planet (Pluto) and its satellite (Charon) would be of the mass which has low density and must be having its mantle made of ice (of further lower density than its core). This formation results to understand that core of the (Pluto) and its satellite are dense than its mantle. Pluto and its satellite (Charon) have feeble rays thus no one can spin the other because of their eccentric cores resulting to make them as one formation but their rays has kept them apart from being clubbed to one body.