

Origin of Moon by The Earth Bang

PREFACE

However much the modern sciences are developed, it is very unfortunate of a thing that, man of 21st century cannot answer a child for questions of primary level such as;

1. how Earth is rotating?
2. why planets orbit around Sun?
3. why not even a single planet move the other way round?
4. why non rotating planets posses no satellites?
5. how gravity does attract things?
6. why gravity doesn't attract electron mass, solar wind, light and heat etc?
7. how weather is changed seasonally?.....

To be frank, there are many things in the world, poorly explained, unexplained or unfound as yet. Otherwise how could such sweet natural things like Air, Water, Land etc could disguise all at once as disastrous Tornados, Tsunamis and earthquakes to kill thousands of unprepared people. It is therefore, of worth to review what we know and what we don't know.

Field specialization has created too many branches in the tree of Knowledge, and the scholars who reach at far most ends of their field branches, are isolated without adequate linkage with other branches and as a result, a wholesome definition or a conclusion upon any matter could not be possible today.

If knowledge is for knowledge's sake, I don't see any need to develop it any further, but it has yet to be improved on behalf of the mankind, to assure protection against overhanging threats, manmade or natural.

Man is far conservative and knowledge is the most dangerous thing in the world, which creates knowledgeable to protect it right or wrong, by shielding it from challenges.

Deduction through observations, is an old art of getting at far distant realities, as used by philosophers, universalists and some of the scientists in the past and it could cut off much laborious and expensive experiments

This is an experimental monograph, born in the desire of explaining the things, so far unexplained or poorly explained. The subject content of Moon is compacted in to this book, 'Origin of Moon by The Earth Bang'. It is to address the origin, existence ever since and its dynamical behavior at present and the future as well.

Sciences are naturally overwhelmed by unnecessary complexity and 'Uncertainty' is the certain destination in absence of essential linking theories. Everything in this world has a good reason behind to happen.

Cyril H Thalpe Gamage

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01. The firm Basis of Gravity :

Gravity has become the fundamental basis of explaining things related to dynamics in the world and therefore all the myths and narrations about ‘**Origin of Moon**’ can be tested to see whether they obey the ‘**Gravitational Laws and Logics**’.

Any realistic concept or hypothesis to describe the ‘Origin of Moon’ must be capable of explaining not only the **Origin** but also the **Existence** ever since and its dynamical behavior at **Present** and in **Future** as well.

Man is born inquisitive and creative enough to understand the world around him and someday or other, he should be able to explain “**How all that happened**” but the question of his child “**Why it happened?**” would remain **unexplained forever**.

02. Full of Data but Lack of Deduction:

An enormous stock of knowledge of Moon, being ever accumulated through astronomical observations and more realistic practical data collected by the historical visit to Moon, are available at hand today but almost no new challenging concepts are there to describe the Origin of Moon.

That is for no other reason but lack of **deduction skills** in the ‘**Modern Day Scientist**’ and lack of energies exhibited in him to challenge **Established Systems**. Or otherwise probably it could be the ‘**Computer**’ in which he is trying modeling to define the universe.

Analytical Deduction is the old art of getting at distant realities by getting the maximum use of **available data** in theorization. It can certainly cutoff or reduce much laborious and expensive experiments which could seem perhaps quite unnecessary at the end.

03. The new concept:-Origin of Moon by The Earth Bang”:

A fragment of the crust of proto-Earth was projected out to form the Moon due to a sudden expansion of the core, which took place at the activation of the inner ‘Spherical Vortex’ of charged particles, which could also account for polarization and spinning of the planet.

Planetary Bangs in a Solar System are due to a common phenomenon which makes planets produce atomic elements in the core by absorption of solar energy from the space.

More productive planets are those who spinning faster by possessing stronger magnetic fields.

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04. Description:

Gravitational Logics in support of the New Concept:-

1. How could the birth mark like great craters originated on the looking face of Moon?
2. How the centre of Gravity of Moon was shifted a bit towards the Earth?
3. How Moon was settled in a bi-orbital track to move round Earth and Sun as well?
4. Why Moon is leaving away from Earth?

4.11 Deduction upon Birth Marks of Moon

Isn't that wonderful to have such grate canyon like craters on the lovely face of Moon? Could it be due to asteroids which hit upon the face?

No, that possibility is of less significance according to the Gravitational Logics as explained bellow.

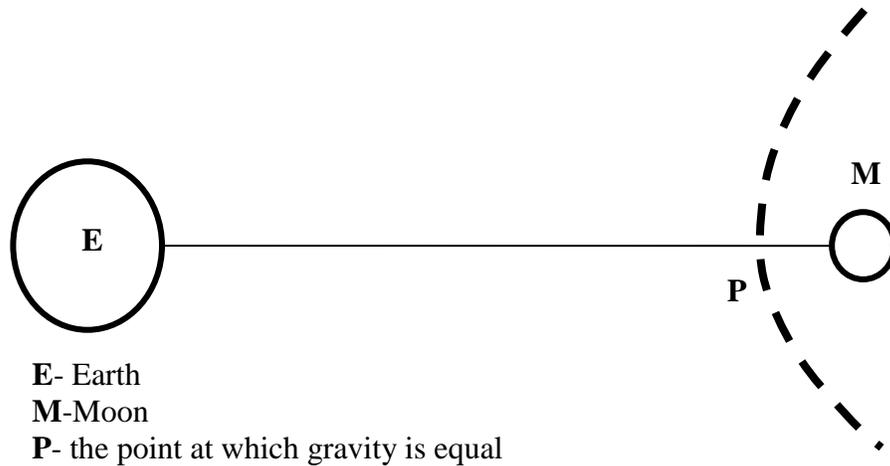


FIGURE-1

As shown in the figure-1, there exists a point 'P', at which gravity of Earth and gravity of Moon are equal in magnitude and opposite in applied direction.

ie.
$$\frac{KMe}{(EP)^2} = \frac{KMm}{(PM)^2} \dots\dots\dots(1)$$

where K is the gravitational constant, 'Me' is the mass of Earth and 'Mm' is the mass of Moon. Also the distance from Earth to Moon 'R' is known such as;

$$EP + PM = R \dots\dots\dots(2)$$

Simple solution of above two equations gives that;

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$$\frac{PM}{EP} = \frac{\sqrt{M_m}}{\sqrt{M_e}} = \frac{\sqrt{(7.347 \times 10^{25})}}{\sqrt{(5.980 \times 10^{27})}} = \frac{8.571 \times 10^{12}}{7.733 \times 10^{13}} = \frac{1}{9}$$

PM = 9EP
=====

It indicates that the possibility for asteroids, that comes from the space, to hit upon the looking face of Moon is much less because majority of them are attracted by the gravity of Earth before entering to the limited gravitational field of Moon.

Besides that, in common sense, why not such big craters to be seen there on the hidden face of the Moon which is more vulnerable being so freely exposed to asteroids from the space?

4.12 How could the Centre of Gravity of Moon be shifted towards Earth?

It is again Gravitational Logic to explain how the center of gravity is shifted.

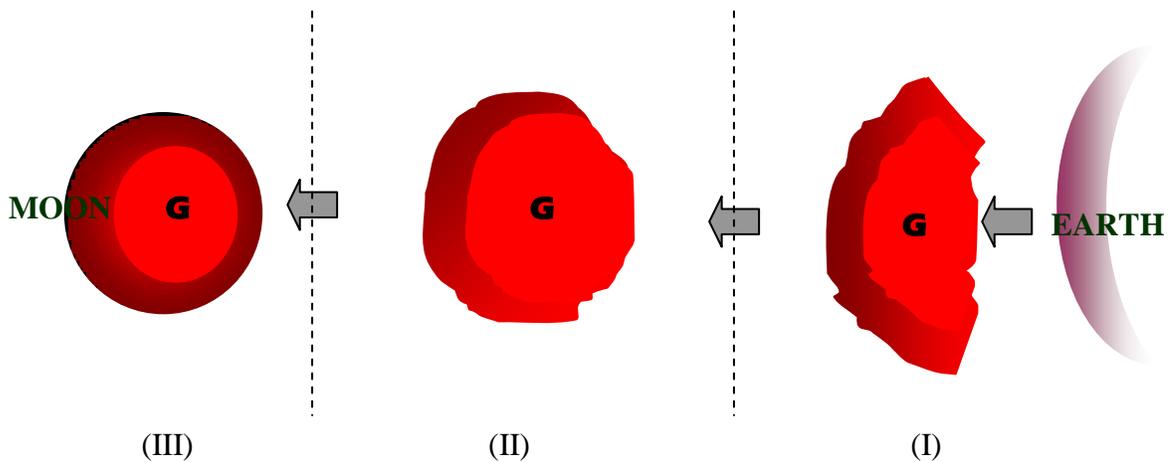


FIGURE-2

It is acceptable that materials towards the core from the mantle should be denser and also could be in melted magma form at the event of the great departure. Magma in liquid form can move a little bit towards the direction of Earth due to gravitational attraction before solidification by transmitting heat in to the space. Shape of the departed earth piece could have been rounded gradually by self gravity, as shown in the sketch-2.

4.13 How Moon was settled on a bi-orbital track?

Gravitational Logics (based on gravitational laws introduced by Sir Issac Newton (1643 – 1727) alone could not explain this deep extend unless the ‘**Theory of Gravity Deviation**’ (Space Dynamics-volume-II/2009) appeared to explain how gravitational field is deviated to support orbital motion, when the Gravity Source is spinning.

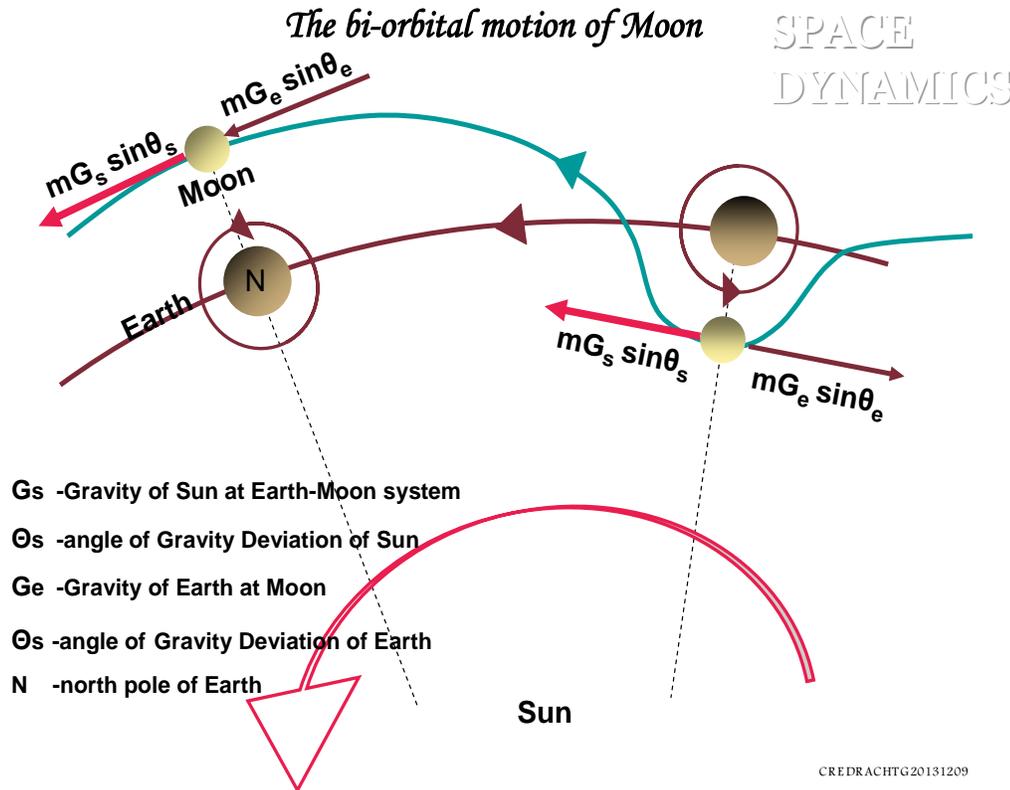


FIGURE-3

According to the theory of Gravity Deviation, a force component of deviated gravity of Sun is applied on both Earth and Moon, to make them orbit around Sun.

(The force component on Moon is shown by a red color arrow in the figure-3). In spite of presence of the planet Earth, the aforesaid force component of Solar Gravity Deviation ($mG_s \sin\theta_s$) is adequate to move the Moon around Sun almost upon the same orbit of Earth.

(pl refer Space Dynamics volume-2 for worked out values for angles of gravity deviation of Sun and Earth)

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Similarly a force component by gravity deviation of Earth too is applied on Moon as shown in brown color arrows in the figure-3. At full Moon it is applied in support of motion of Moon around Sun and in contrary, at blue moon it is applied against of the motion. Therefore velocity of Moon at blue moon is lesser than that at full moon relative to the space. But all the time the force component of Earth's gravity deviation is applied on Moon to rotate it around the planet which creates the so complex bi-orbital motion of Moon.

Figure-4 shows the complete bi-orbital motion of the Moon relative to the space.

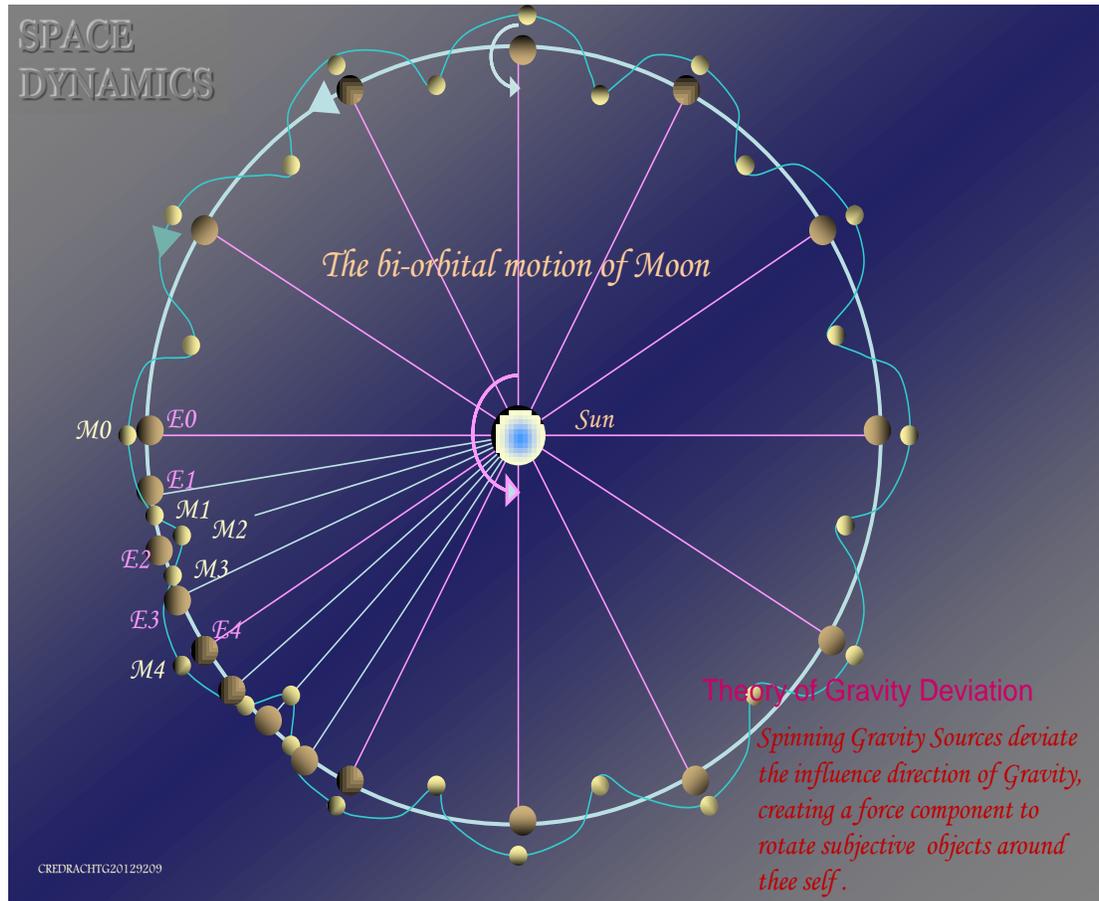


FIGURE-4

Earth has become the first '**Productive Planet**' in the Solar System, when it starts from Sun, because both Mercury and Venus are not productive as yet.

Productive planets are identical for generating energy and atomic elements in the core to activate volcanoes and spinning almost about the magnetic polar axis.

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- **Productive Planets:**

A planet can be considered as 'Productive' if it full fills the bellow furnished conditions;

- i. It has to be polarized to have magnetic poles.
- ii. The magnetic field must be strong enough to spin the planet by absorbing the flux of charged particles from solar wind for activation of the inner Spherical Vortex.(theory of Spherical Vortex-'Space Dynamics' volume-3)
- iii. The rotation should be fast enough to keep at least one (or more) satellite moving around the planet (theory of Gravity Deviation-'Space Dynamics' volume-2).
- iv. It must possess an atmosphere which comprises at least a single gassy compound which could be easily ionized electrically.(that is essentially to absorb charged particles from solar wind and pass them as electrons(energy mass) in to the core for the Spherical Vortex.(Energy Mass-'Space Dynamics' volume-1)

- **Early Warning-[pl-V/1] – is Venus up to a Bang?**

According to the categorization of planets in the solar system, Venus belongs to the non productive group of planets as yet but with all indications it is imminent to be productive all at once with a 'Planetary Bang' in future. It will also give birth to one or more satellites to Venus.

Why should we on Earth worry about that? Because Venus being more closer to Sun, would draw much solar energy (charged particles) before the flux reaches to Earth and as a result, productivity of Earth could be dropped lowering the spinning speed too.

Simply the sidereal day for us shall be longer and number of days per year should become less.

4.14 The Earth Bang to form Moon

Let us observe now how Earth-Moon dynamic system could have been formed.

STAGE-1:-

The Planetary Big Bang:

By the period when the proto-Earth could have developed an atmosphere which was thick enough to absorb charged particles from the solar wind, the electromagnetic '**Geo Spherical Vortex**' was formed at the inner core. In consequence of the activation of the vortex of charged particles, the globe was polarized and started spinning.

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Due to the fast rotation just like an electric motor, the gravitational bond of the Earth crust could have been relaxed a bit due to the developed centrifugal force.

With the activation of the electromagnetic 'Geo Spherical Vortex', a sudden expansion of the core can be expected (pl ref Space Dynamics volume-3 for the mechanism) and that should be the ideal situation for the 'Planetary Big Bang' of Earth.

The identical fragment of the proto-Earth, which was missing, and lately occupied by the ocean Pacific, could have been projected out by the great explosion. But it never returned, because it was pushed in to an orbit by the Gravity Deviation of the spinning Earth.

The Planetary Big Bang of proto-Earth is shown by the figure-5.

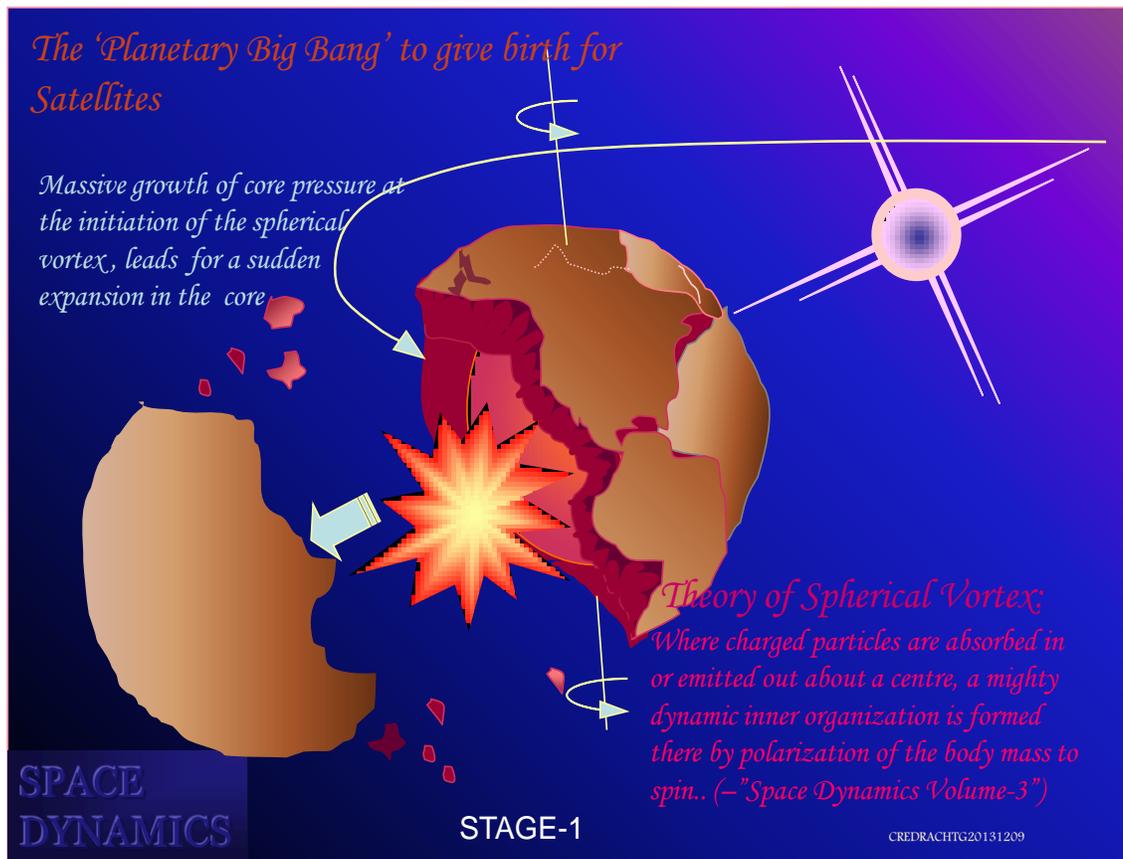


FIGURE-5

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STAGE-2:

The projected fragment of the Earth should have returned home unless the force component of the Gravity Deviation of spinning Earth pushed it in to an orbit. At the same time it was succumbed to the force component of Gravity Deviation of spinning Sun and the resultant force has put Moon in to a much complicated bi-orbital track.

Any alien body can gradually settle in to an orbit around Sun but any alien cannot be settled in to a bi-orbital track around Sun and a planet at the same time. Therefore Moon cannot be an alien at all.

The projected fragment of the proto-Earth, as shown in the figure-6, started shrinking gradually due to Self Gravity while Earth crust was reformed by spacing the remaining plates in order to maintain the hydrostatic shape of a planet.

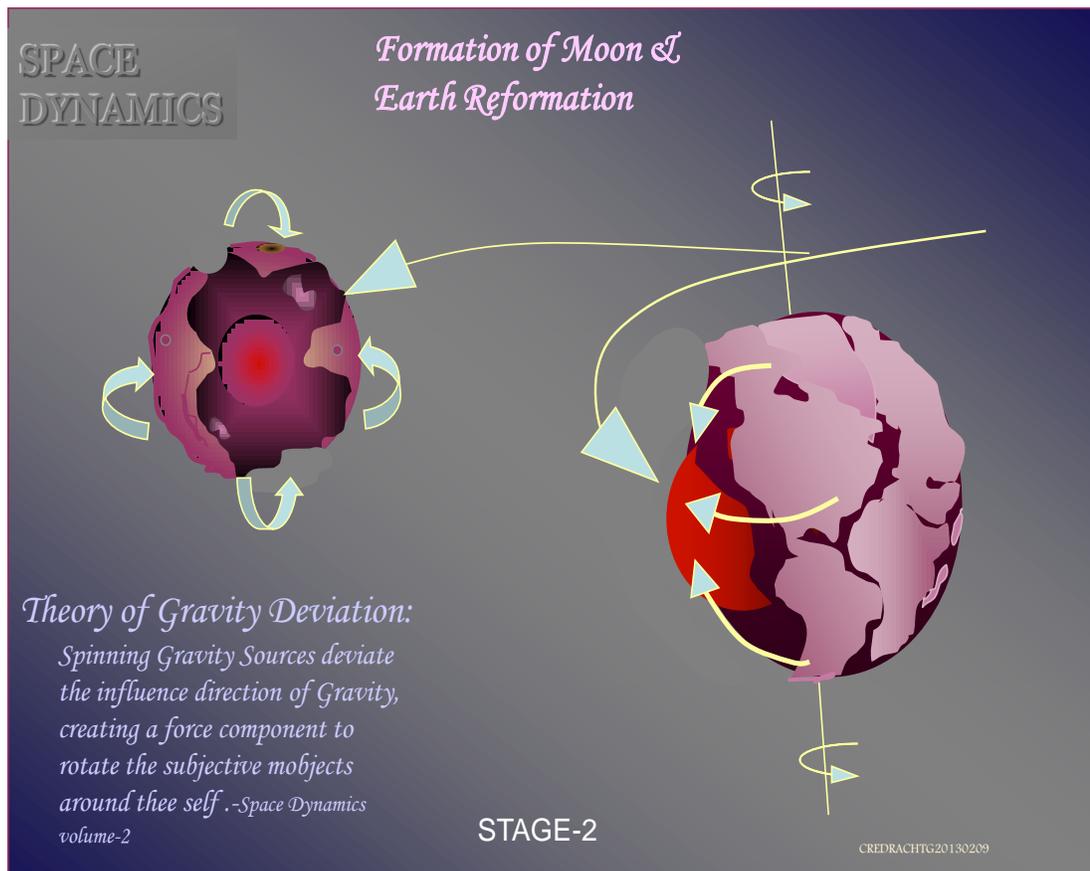


FIGURE-6

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STAGE-3

As shown in the figure-7, Moon also developed a hydrostatic shape like a planet because of its mass, which was adequate to possess a big Self Gravity.

The birth mark like big craters on the looking face of Moon were originated when marginal edges of the earth fragment shrink to meet together in gaining its spherical shape. A keen observer should identify some birthmark edges of Moon which go with the western marginal shape of the continent America just as indicated in the figure-7.

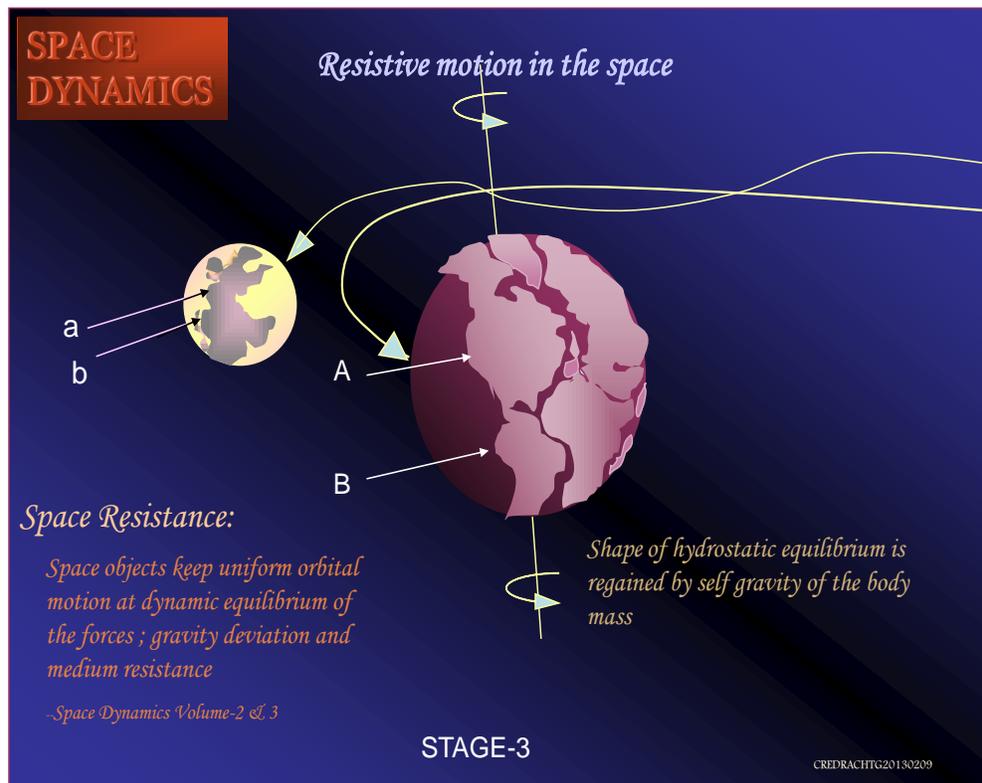


FIGURE-7

- *There is a good practical for kids to exhibit how birthmarks of Moon could be created by rounding a piece of workable clay of the same shape of the proto-Pacific ocean.*

4.15 Moon is moving away from Earth?

It has become the matter of interest today that Moon is increasing the distance from Earth and what could be the reason behind? And what is the end of that?

Two new challenging concepts are introduced herein to explain the phenomenon.

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1. Concept of 'Earthly Mass Growth'
2. Concept of 'Buffer Mantel Globe'

Perhaps things could be explained easily by a single reasoning out but in some cases there could be two or more possible causes which complicate the deductions.

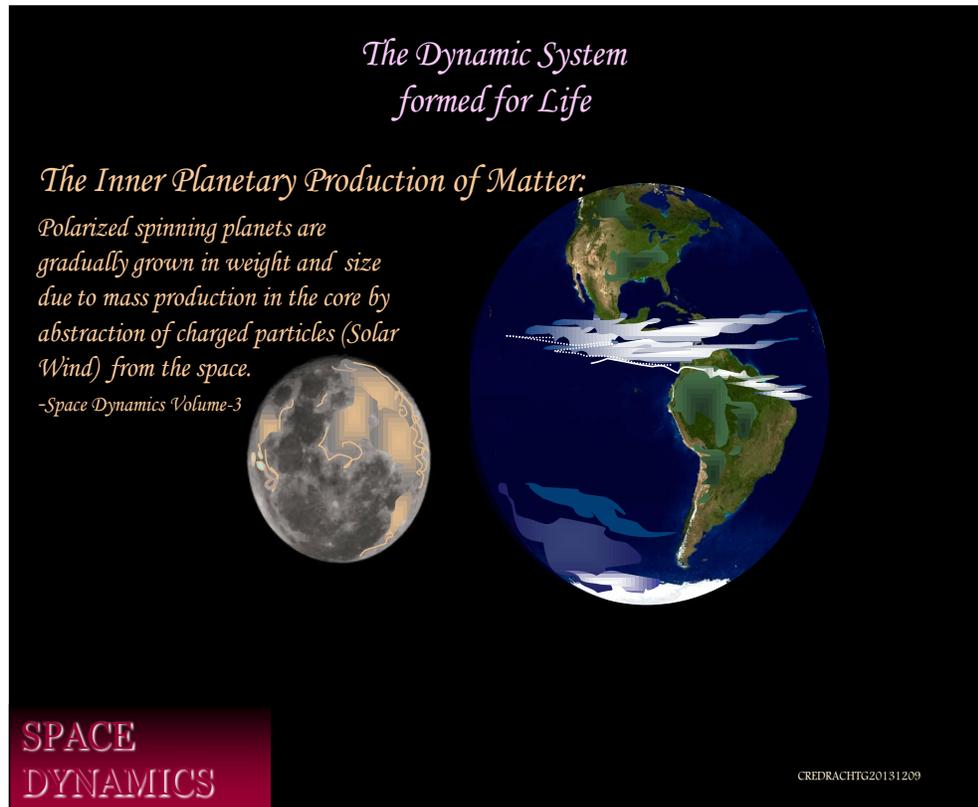


FIGURE-8

4.151 Earthly Mass Growth and due Leaving of Moon
Our Globe, being a 'Productive Planet' in the Solar System, has been growing in size and mass gradually for millions of years ever since the 'Planetary Big Bang'.

The continuous mass growth of Earth, tends to increase the lateral force component (due to Gravity Deviation of the spinning Earth) to speed up the Moon in its orbital motion and as a result, it is gradually being shifted in to a far orbit from Earth.

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Orbiting objects are in a dynamic equilibrium of the forces such as;

1. **direct gravitational pull (mG)**
2. **centrifugal force due to orbital motion (mv²/d)**
3. **lateral force by gravity deviation of the spinning source (mGsinΘ)**
4. **space medium resistance (R)**

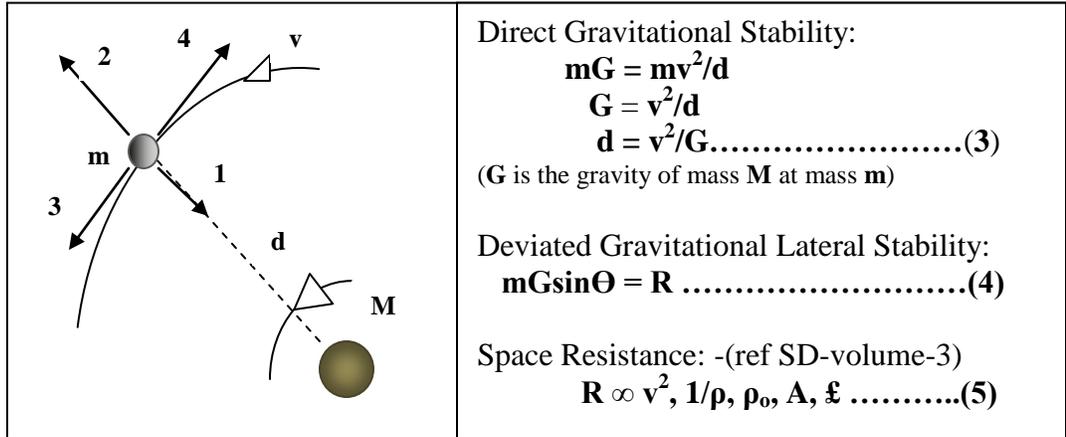


FIGURE-9

According to the relation-(3), distance to Moon from Earth, ‘d’, must be decreased and Moon should come more closer to Earth if mass of Earth is increased (G too is increased with mass increment). That is exactly what happen to any orbiting object in the space, **unless the gravity source is spinning**.

Description:

As explained by equations-(4) & (5), velocity ‘v’ is increased due to increment of the lateral force ‘mGsinΘ’ of gravity deviation. When ‘G’ is being increased then ‘mGsinΘ’ too is increased and it tends **to speed up the Moon**.

Space resistance ‘R’ as explained in the relation-(5), is proportionate to the square of speed such that **$R \propto v^2$** and therefore the lateral stability is gained again through increased velocity of Moon with consequent shifting to a far orbit by the increasing centrifugal push.

4.152 The Concept of ‘Buffer Mantel Globe’

Earth is lowering its speed of spinning and velocity in orbital motion as well, due to increased Surface Roughness of the Globe. This has to be recognized as a global environmental issue as well because it could bring lots of adverse effects from the space upon the global ecosystem.

- **Early Warning-[pl-E/1] – Global Slowing?**
The Globe exhibits all the 'Slow Down' signals in its spinning and in the orbital race round Sun as well due to increased 'Surface Roughness'.
Departure of Moon from us, to be promoted in the Solar System as a new planet, could not be helped because the lateral force of Earth's Gravity Deviation would not be adequate to rotate it around when spinning is slowed.
Also Moon will turn her lovely face away from Earth to be smiling with her new big boss, the Sun, because of the eccentricity of her centre of Gravity.



FIGURE-10

Human Dimension in Urbanization

- Man has selected denser materials to decorate the mantel cover of the Globe but brought no bad effect because $R \propto 1/\rho$.
- Man has increased the surface area of the mantel immensely by high-rise buildings to bring bad effects because, $R \propto A$.
- Man has increased the roughness factor immensely, by introducing many highly resistive irregularities in his architectural designs. (less resistive 'Space Aerodynamic Shapes'(SAS) has to be practiced for buildings in future)
- Motion of a planet in the space medium is resistive and the factor of roughness is directly proportionate to the resistance such as; $R \propto \xi$
- $R \propto v^2, 1/\rho, \rho_0, A, \xi \dots\dots\dots(5)$
(The complete equation is yet to be tested for coefficients - await Space Dynamics V-3)

The combined Earth- Moon couple is orbiting round Sun but what else could be expected when Earth alone is applying brakes?
Moon has not increased its surface roughness ever since the origin and therefore undergoes less resistance against motion. But man has converted the Globe much resistive against motion by covering the majority of the land with high-rise buildings.

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Resistivity upon a planet is ascending such as;

- i. **Oceanic surfaces are low resistive**
- ii. **Bare sandy or soil surfaces are less resistive**
- iii. **Shrubby or jungle covers are resistive**
- iv. **High-rise rocky hills and buildings are much resistive.**

The space is made of a **medium** which has a **density** ($\rho_0=4.773 \times 10^{-4} \text{ g/cm}^3$) and a **pressure** ($P_0=2.145 \times 10^{17} \text{ dynes/cm}^2$) as deduced in the '**Space Dynamics' volume-1/2009**. Therefore space is resistive against any motion in it. Resistance '**R**' against motion of planets, moon, satellites, asteroids or any other space object depends on the parameters such as;

1. **Density of space medium (ρ_0)**
2. **Density of surface materials of the planet (ρ)**
3. **Surface area of the planet (A)**
4. **Surface Roughness of the planet (ξ)**
5. **Velocity of the moving object relative to the space medium (v).**

Let's just look at the picture in figure-10 to identify how many factors out of above five, could have been increased by man. At this age of Earth, the factors 1 and 5 are supposed to be unchanged but what about the other factors? Are we, human beings, not changing the factors 2,3 &4 of the Globe?

Gravitational Logics to explain the phenomenon:

- i. Gravity of Sun at Moon (**0.592 cm/s²**) is bigger than that of Earth at Moon (**0.269 cm/s²**) currently and therefore Moon is more belonged to Sun than to Earth.
- ii. Sun's Gravity Deviation lateral force component on Moon [$mGs \sin\theta_s=m(0.592)(\sin 0.00038)=m(3.926 \times 10^{-6})$] is bigger than that of Earth on Moon [$(mGe \sin\theta_e) =m(0.269)(\sin 0.000088)=m(4.131 \times 10^{-7})$] and therefore Moon can survive orbiting about Sun without getting even a least assistance by Earth.
- iii. Still it is a matter of time but someday or other in future, Moon shall start looking away by turning her familiar face to Sun, probably well before her final departure from Earth. That would happen in one unfortunate half moon night because of eccentricity of the centre of gravity of Moon (6000ft towards Earth) and thereafter the eccentricity tends towards Sun.
- iv. After the farewell, Moon shall be pushed to a little bit far orbit around Sun because Moon is faster than Earth due to less resistance against motion in the space. Earth will lag furthermore in the race due to the high resistive bunches of columns (buildings), to cover the mantle.

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- v. Thereafter Earth will meet Moon perhaps once in several years, whence she comes near to overtake. But there would be no danger of a collision because there is a very less possibility to hit upon a spinning planet due to **Gravity Deviation** and instead, Moon will get her speed improved. (ref. Space Dynamics volume-II-2009)

05. Deduction upon Available Data & Observations:

1. Age of Earth at the 'Planetary Big Bang'
2. Gravitational Logics to explain Oceanic Tides.

5.11 Mass & Size of Earth at the age of the Earth Bang :

Deduction is made upon the supposition that, tectonic plates of Earth are not grown in size but only the core is expanded with the crust to space the plates ever since the Planetary Big Bang.

It is just a student's exercise now to deduce radius (R_0) of the Proto-Earth such that;

Surface area of Moon + Land area of today's Earth = Surface area of the Proto-Earth.

$$(3.793 \times 10^7 \text{ km}^2) + (15.00 \times 10^7 \text{ km}^2) = 4\pi R_0^2$$

Radius of proto-Earth:- **$R_0 = 3867.168 \text{ km} = 3.867 \times 10^8 \text{ cm}$**
(Just compare it with radius of today's Earth = $6.371 \times 10^8 \text{ cm}$)

Isn't it reasonable to suppose that the proto-Earth had the same density of Moon? simply because Moon was unchanged since the origin.

Density of Moon	= 3.346 g/cm^3
Density of proto-Earth	= 3.346 g/cm^3
Mass of proto-Earth	= $[3.346 \text{ g/cm}^3][4/3 \times \pi(3.867 \times 10^8 \text{ cm})^3]$ = $8.104 \times 10^{26} \text{ g}$

Mass of today's Earth	= $5.980 \times 10^{27} \text{ g}$
Mass growth of Earth ever since	= $5.169 \times 10^{26} \text{ g}$

Different approaches to deduce age:

(i). Mass is transferred from Sun to any 'Productive Planet' as Energy. Energy possesses a mass and it belongs to the category of 'Energy Matter' in the space which exists in different phases such as light, heat, electrons and the flux of charged particles (solar wind). (pl ref. Space Dynamics-Volume-1/2009) Therefore once we calculate the total energy transfer, from Sun to Earth per day, then the Equation $E = mc^2$ can convert it in to mass and we would be able to deduce how long it has been taken for Earth to grow up to the present size.

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(ii). The other way of deducing the age is computing the required current flow to maintain an artificial electric magnet of the same size of the **Earth Magnet**. Then energy gain per day and due mass increment can be calculated and then age can be deduced easily. *Note: Earth magnet could not be entirely a permanent one and it could be faded away whence the inflow of electrons is stopped. Magnetic reversals are also possible without changing the spinning direction of a planet. (pl expect Space Dynamics volume-3 for Spherical Vortex & Geo-Magnetism)*

(iii). The third avenue of reaching at the age of the Planetary Big Bang is the known geological method, 'Radioactive Dating', and let us try to deduce it upon the so far available data.

Age of the youngest rock in Moon should solve our problem because Moon has been just cooling ever since the origin. There could be no volcanic activation and neither heat generation in Moon.

Where can we expect the youngest rocks in the Moon? When it was shrinking due to self gravity liquid magma could have squeezed out and therefore the youngest rocks should be available at the middle of big craters which are to be seen in the looking face of Moon.

The youngest stone found on Moon, as so far recorded, is 3.5 billion years old and therefore the 'Origin of Moon' and the 'Planetary Big Bang' as well should have taken place about 3.5 billion years ago.

But the oldest rocks in Moon must be of the same age of the oldest rocks on Earth. Therefore some undisturbed and un decayed samples of the western slope of south American mountain cliffs have to be compared with the samples to be collected at the steep bank of great craters of Moon as indicated in the figure-7 but not only for the age but also for other geological similarities.

Water, as a resource, could not be expected in Moon because there could have had no oceans formed by the age of the Planetary Bang. But probably there could be a small quantity of water on Moon, because the proto-Earth must have had a thick atmosphere with vapor in it or otherwise it could not have been polarized to spin.

The Grand Canyon is another site where explorers should look for evidences for the Planetary Bang of the proto-Earth and age has to be deduced through decaying time of the exposed crust materials on steep rocky walls. Origin of oceans and due activation of the water cycle could have taken place at a later stage to create springs, steams, rivers and beautiful waterfalls seem as descending from heavens.

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5.12 Gravitational Logics to explain Oceanic Tides.

There are several concepts to explain how oceanic tides are occurred. It is said sometimes that tides are born due to gravitational attraction of Moon and in return, Moon is driven around Earth by tides.

But Moon's gravity at Earth is about 0.003 cm/s^2 and that of Sun at Earth is 0.592 cm/s^2 and it is nearly 200 times bigger. Therefore, in common sense, why not Sun creates tides of Himalayan height everyday in the mid noon whence the Sun is directly above oceans?

In some definitions it is said that, Moon's gravitational influence upon Earth is more effective because it is closer to Earth than Sun. But don't forget distance (**d**) has been clearly considered in the Newton's gravitational equation, $G = k M/d^2$.

Tides cannot be so simply explained because it is a collective effect of three separate phenomena such as;

1. Resultant Gravity
2. Gravity Deviation of Moon
3. Space Fluid Dynamics

5.121 Resultant Gravity

Acceleration of Gravity (G) at a certain point can be changed due to the influence of other active gravitational fields and centric motion at the locality.

Resultant Earth Gravity at Earth Surface:-

$$\begin{aligned} &\text{The mean theoretical acceleration of gravity at surface of Earth, } kM/d^2 \\ &= (6.668 \times 10^{-8} \text{ cm}^3/\text{gs}^2)(5.98 \times 10^{27} \text{ g}) / (6.371 \times 10^8 \text{ cm})^2 \\ &= \underline{982.38 \text{ cm/s}^2} \end{aligned}$$

But practical value from the 'Seconds Pendulum' method at equatorial regions is about 978^+ cm/s^2 and that is due to the centric motion of mass about the centre of Earth. Therefore the value is reduced by centrifugal acceleration, V^2/d .

$$\begin{aligned} &\text{The 'Resultant Gravity' at equator} = (kM/d^2) - (V^2/d). \\ &= 982.38 \text{ cm/s}^2 - [(4.626 \times 10^4 \text{ cm/s})^2 / (6.371 \times 10^8 \text{ cm})] \\ &= 982.38 \text{ cm/s}^2 - [3.358 \text{ cm/s}^2] \\ &= \underline{979.02 \text{ cm/s}^2} \end{aligned}$$

Therefore that reduction brings a similar effect upon equatorial regions but not on polar region because rotation is almost non effective near to the rotating axis. Practical value for gravity at the North pole is 983.22 cm/s^2 , for example, and due to this reason, equatorial ocean water level is naturally higher than that of polar oceans. That could not be considered as a tide because naturally it doesn't change and makes no currents in oceans.

Resultant Solar Gravity at Earth Surface:-

Each particle on Earth is in a centric motion around Sun at a velocity of $2.980 \times 10^6 \text{ cm/s}$. and Solar Gravity is therefore made totally effect-less upon oceans, lands or any mass on Earth such as;

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$$\begin{aligned}
 \text{Resultant Gravity} &= \text{theoretical gravity} - \text{centrifugal acceleration} \\
 &= \frac{(6.668 \times 10^{-8} \text{ cm}^3/\text{gs}^2)(1.991 \times 10^{33} \text{ g})}{(1.497 \times 10^{13} \text{ cm})^2} - \frac{(2.980 \times 10^6 \text{ cm/s})^2}{(1.497 \times 10^{13} \text{ cm})} \\
 &= (0.592 \text{ cm/s}^2) - (0.593 \text{ cm/s}^2) \\
 &\approx 0
 \end{aligned}$$

Therefore Sun has almost no involvement in creating tides in oceans of Earth.

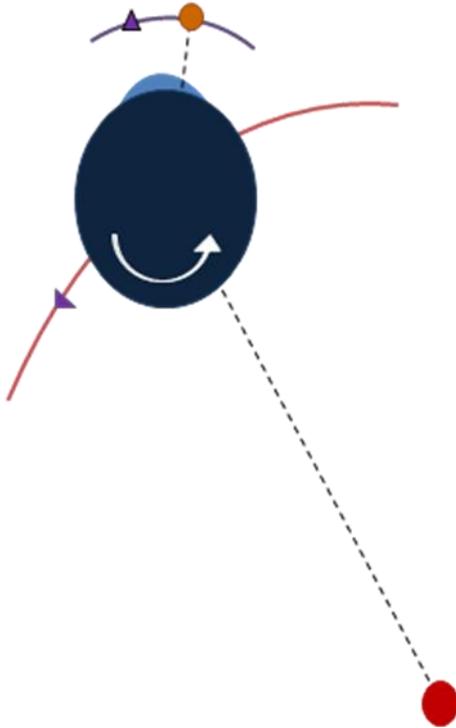


FIGURE-11

Resultant Gravity of Moon at Earth Surface:-

Though Moon gravity on Earth is so meager (0.003 cm/s^2) it is not reduced by any other field or centric motion because Earth has no dynamics about the center of Moon.

Therefore, oceanic tides are occurred due to undisturbed gravity of Moon and the crest of the tide should occur directly towards Moon but not at sharp below the Moon.

Dynamics of the lunar tide and relevant currents are yet to be explained by the phenomenon, 'Gravity Deviation'. The real tide is therefore just leading the Earth – Moon line towards the moving direction of Moon as shown in figure-11.

5.122 Gravity Deviation of Moon

The theory of Gravity Deviation (Space Dynamics Volume-2/2009) explains, how the influence direction of Gravitational Field is deviated when Gravity Source is spinning or moving.

Moon is moving relative to Earth, at a mean velocity of $1.017 \times 10^5 \text{ cm/s}$ and therefore its influence direction of Gravity is deviated by an angle ' Θ_m ' which can be computed by;

$$\begin{aligned}
 \tan \Theta_m &= (\text{velocity of Moon}) / (\text{velocity of gravitational wave}) \\
 &= (\text{velocity of Moon}) / (\text{velocity of light}) \\
 &= (1.017 \times 10^5 \text{ cm/s}) / (2.998 \times 10^{10} \text{ cm/s}) \\
 &= 3.392 \times 10^{-6} \\
 \Theta_m &= \tan^{-1}(3.392 \times 10^{-6}) \\
 \Theta_m &= \underline{\underline{1.943 \times 10^{-4} \text{ }^\circ}}
 \end{aligned}$$

Origin of Moon by The Earth Bang

To describe it in other words, a gravitational wave just emitted from the body of Moon, is reaching to touch the Earth at a distance 'L', shifted from the instant Earth-Moon line. The shift 'L' can be computed such as;

$$\begin{aligned} L &= d_m \sin \Theta_m, \text{ where } d_m \text{ is the mean distance to Moon.} \\ &= (3.847 \times 10^{10} \text{cm}) \times \sin(1.943 \times 10^{-4} \text{ } ^\circ) \\ &= 130458.5 \text{cm} \end{aligned}$$

$$\underline{L = 1.3 \text{km}}$$

Therefore the gravitational attraction of Moon is centralized to effect upon Earth about 1.3km ahead of the rotating Earth-Moon line and that is where the crest of tide is always situated dynamically.

5.122 Space Fluid Dynamics:

Space is a fluidic medium with a density and a pressure. (pl ref Space Dynamics volume-1/2009). Therefore any object moving in the space medium should undergo Space Resistance, which could be explained by 'Space Fluid Dynamics'.

Earth is moving around Sun and undergoes a big resistance against its orbital motion. Naturally in any fluidic medium, pressure drops whence velocity rises. Those who are familiar with aerodynamics know how an aircraft is lifted up by the pressure drop on upside of a wing. The curvilinear shape of the upper side makes wind to run faster and pressure goes down. The same thing happens to Earth when it orbits around Sun and space medium pressure is dropped at both far and close surfaces, as shown in the figure-12, to create tides in spite of the presence of Moon or Sun.

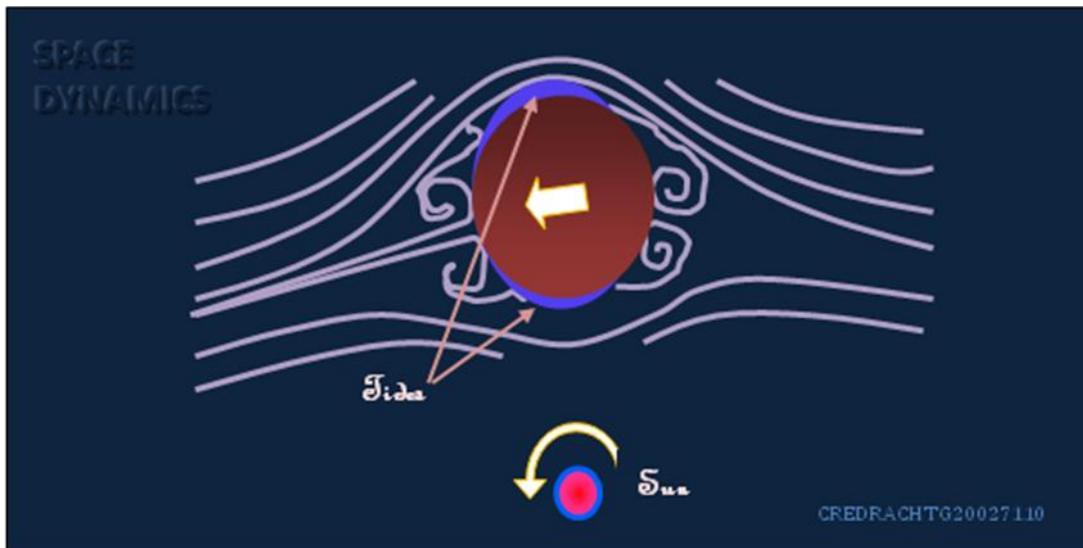


FIGURE-12

Origin of Moon by The Earth Bang

This type of tide is slightly bigger at far side to Sun, during night, because relative motion of space medium flux is made faster at the far side due to the spinning of Earth too.

This type of tides may occur sharply upon the Equatorial Plane of Sun and therefore, it may bring seasonal variations due to the inclination of rotating axis of the Earth.

However a tide could be moreover of a collective effect and therefore forecasting has to be done through correct identification of the active phenomena in computation of time, location and magnitude as well.

06. Conclusion:

A comprehensive study of Moon alone is adequate for an explorer, if interested, to understand the whole Universe and to explain **how all that happened**.

But at the end, the explorer will find, he is just at where he started, without finding a good reply for his kid's question '**Why all that happened?**'

However the most unfortunate thing of that, '**Knowledge**' would have taken his feelings off so that he would no more enjoy the charming beauty in the sky when summer Moon was setting in heavens.

END

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