FILE: PLANKS CONSTANT 2
Todd.grig@gmail.com

THIS FILE IS UNDER REVISION

PUT ON TOP IN INTRO OF MAIN FILE OR
One small error caused great confusion. They all assumed that light waves passed directly through another, and used the ripple tank to make the comparison. The truth is light and water waves can collide enabling a transfer of force.
See lengthy discussion on the Copenhagen including a cat that no one could determine if it was dead or alive. (This was due to the double slit exp).
Thus, the problem was they had was because all thought light and water waves passed through another completely unaffected.

The reason why no one knows how magnetism works is because of the misconception in the double interference experiment. IE waves bounce as shown in successive interference experiment shown and MIT interferometer experiment. This is like entanglement which will be shown to be based on wave to wave collisions, not something mysterious as presently thought. The spin is altered.
See Stanford Encyclopedia of Philosophy: Copenhagen Interpretation of Quantum Mechanics, Section 4. Complementarity.
https://plato.stanford.edu/entries/qm-copenhagen/

The refuting proofs found in the theory here are 1. Double interference, Ripple tank variation, Michelson interferometer using modern equipment, Microwave interferometer.

The tide pools are probably due to the sun and moon position in the sky (look it up). Pulls the water or the sand up or both.

GROOVE FORMATION THEORY:
The timing of the RF appearances may be compared-related to atomic spectra in the sun.

Hypothesis Alternative:
1. The elements in the sun may be the progenitor of the phenomenon. The timing of the appearance \ disappearance of the grooves may be directly related to the iron or hydrogen absorption spectrum in the sun. The iron or hydrogen in the water and the iron\hydrogen in the sun.
2. Since the grooves appear and disappear at intervals. The interval timing occurrence of the grooves must be based upon a harmonic matching wavelength The timing should be calculated from the variables 1. Iron oxide or other absorption spectrum 2. earth-moon-sun Doppler velocities.
Why would these grooves form only on several wavelengths and not drift up or down the frequency spectrum as one would expect from a slowly increasing Doppler wave? See explanation given in file Grand Field Theory-Plank's constant and quantum.

NOTE: (An Understanding of The Grand Unified Field Theory is Required for the Below)
The distance of the gap should be related to the frequency of the gravity waves not the groove wavelength. Planck's constant E=hf. So, the gap will remain constant with similar sets of gravity waves that are appearing at a time. The gap should show up in the lower frequencies around 30 MHz = 30 feet.
Looking at the beach where the synodic grooves form and the gaps between them. The gaps are where the two waves break apart being they are of slightly different sizes. When the waves break apart, they snap to their normal dimensions like a spring then recombine further along when they again match up. This may be considered a quantum jump. When this gap distance is measured a RF wave may show up that equals it. This RF wave is a photon, the same photon that is emitted or absorbed during standard quantum jumps.
Once the springs (circularly polarized electromagnetic wave) have reached a point of alignment a small attraction thus stretching to maintain their phase occurs. When the two springs energy difference becomes too great, they snap apart only to align and recombine again further along. The springs match for a while then breaks apart and ring producing a photon. Further along they again match up and repeat. Each interaction produces its own photon.

Example below:
Like holding two bolts of slightly different thread count\inch side by side. The threads align for a short distance then separate and realign over and over again.
tpi = threads per inch.
||||||||||||||||| -4 tpi
|||||||||||||||||||||| -3 tpi
As can be seen every 3.5 waves the two match up. The wave stretching cannot be shown due to limitations of the keyboard (ascii).
Here the threads per inch must match up to within 1 wavelength. Else they cannot combine.

Two helix waves can combine by adding but cannot engage a force with another. However the resultant wave from them combining can react or engage with an equal sized wave resulting in a

force or mocular combining.

PLANKS CONSTANT HYPOTHESIS: (See Grand Unified Theory)
Plank's constant is the attraction bonding energy between two similar waves. Plank's constant
should directly relate to the energy of two waves ability to stretch then break apart (the gap).
(See theory for details)

CHAPTER 5. PLANCK'S CONSTANT
Superposition (the exception) must be read before this.
The origin of quantum mechanics lays in the study of radiation emitted by hot bodies and in the
photoelectric effect in which light ejects electrons from a surface. The explanation of these
phenomena required the introduction of the idea that energy appears only in discrete amounts; It
is quantized.

5.1 REFRESHMENT ON BLACKBODY RADIATION: (The tiny oscillators)
All hot bodies emit radiation as heat. As the temperature of an object is raised, it first glows red,
then orange-yellow, then white hot. The classical explanation is: The thermal radiation is
produced by the accelerations of electrons and the oscillations of molecules.
The spectrum of radiation emitted by a hot furnace depends on the temperature, not on the
material in the wall. Planck was impressed by the fact that the spectrum of cavity radiation was
the same for all materials. One thing led to another and Planck found that if he divided the total
energy of the tiny oscillators into energy "elements" of size e. He then could formulate a
radiation equation and found it revealed the discrete energy units $e = hf$.
Where $h = 6.626 \times 10^{34}$ Joule seconds. This is known as Planck's constant. Although he did not
realize what he had done. It was not until Einstein came along and proved that Planck's radiation
law could be derived only if the energy of each individual oscillator is quantized in steps of hf.

PHOTOELECTRIC EFFECT
Einstein's quantum hypothesis: The energy of each individual oscillator can take on only value
that are integer multiples of hf. In the nth "level," the energy is $E_n = nhf$ where $n = 0,1,2,3, \ldots$
Einstein's hypothesis implies that an oscillator can emit or absorb radiation only in multiples of
hf. The spacing between the energy levels depends on the frequency.

5.2 THE ONE CYCLE VIEWPOINT:
You might find this on the origin of Planck's constant interesting. Blackbody radiation: What
causes it to be divided into this very small unit? Using this model of helixes, we can clearly see
what Planck's constant origin is. Never before described in detail. This is the source for the
quantum. Neatly formed helix waves. Side by side they interlock.
$1.509 \text{ E}+33$ cycle/sec = 1 joule
Ref: Quantum Chemistry Donald A. McQuarrie (Table inside front cover)

Taking the inverse of the above we find the energy of 1 cycle per second.

1 /1.509 E+33 = 1 Hz (1 cycle) = 6.626 E34 Joule-seconds

This is Planck's constant. Could this be pure coincidence? I don't believe so. What I would like to point out is that this is also the "Energy of one Cycle of any sized wave." So, Planck's constant is the energy of 1 cycle of any sized wave. Now the question "Why does Planck's constant boil down to 1 wave of any size?" Planck explained them as tiny little oscillators. Why did they end up this 1 cycle of any wavelength size?

I hypothesize this is the attraction/breaking energy of a single wave! The force responsible to hold two rotating helix waves together.

Note that the above 1 hz = 1 cycle = 1 cycle of any size wave bonding energy.

Blackbody radiation: What causes it to be divided into this very small unit? Well, it is the binding energy of two combined waves and/or the energy required to break the continuity of one electromagnetic helix wave. The blackbody radiation curve has already determined something is going on to produce these minute energy divisions. I am just looking at it from the 1 cycle point of view. Why is Planck's constant the energy of 1 cycle?

(See theory on mating of helix waves).

Example: (you can imagine this spring is rotating as well). Stretch out a long thin spring much like a slinky (the helix) pulling it taut. Now imagine there are weak links distributed along its length (sort of like tiny fuses) say every other wavelength. Now apply just a little more linear tension on the spring and the springs break into whole number segments at the weakest link. Giving it the whole number interval Planck's constant. After the snap each segment emits a loud ringing sound of energy. The segments vibrate with a frequency related to the number of segments long. This sound energy frequency can be calculated from the segment's length and the material characteristics of the spring. (Note: A single wavelength probably cannot ring.) Even though the spring helix was a circularly polarized wave, the ringing sound now becomes a sine wave. The sine wave cannot carry a force along its path only the rotating helix wave with its continuous strand has this attribute. Torsional forces should be considered as well.

This is the kicker: The sine wave is the electromagnetic wave. photon! Its wave form cannot carry a pulling force. Planck's constant is the fuse rating! The strength of a continuous (unbroken) electromagnetic helix wave. The tiny springs resonate emitting photons of that frequency. Snapping apart breaking then resonating when doing so.

As we see Plank's constant is the energy bonding (or intertwining) of two helix waves to another. * See note on superposition below.

CAN QUANTUM JUMPING SIMPLY BE THE HETERODYNING OF ELECTROMAGNETIC WAVES WITHIN THE ATOM?
SEE SEPARATE PDF FILE ON Heterodyning of Atomic Spectra.

IS IT POSSIBLE THE QUANTUM JUMP IS NOTHING MORE THAN HETERODYNING OF WAVES? Analysis from simple reverse derivation of the addition and subtraction of waves when applied to the atomic spectra reveals some startling results.

In physics and chemistry **atomic electron(ic) transition** (could be simply called an **atomic transition**, a **quantum jump**, or **quantum leap**) is a change of an electron from one quantum state to another within an atom (or artificial atom). It appears to be discontinuous (observed for

example in fluorescence signal of another transition as burst noise); the electron "jumps" from one energy level to another very quickly (transition time often in a few ns or less). Quantum leaps cause the emission (or absorption) of electromagnetic radiation, including that of light, which occurs in the form of quantized units called photons.

Theory: Fundamental wavelengths found within the atom when heated produce spectra through the process of heterodyning of waves.

If the theory holds true then there must be more results from atomic spectra than a similar random generated set. Causality

Neo view of quantum mechanics provides alternative explanation for the quantum jump. Placing these simple basic concepts together fills a gap in understanding quantum level physics. Almost the entire carbon spectra show up when harmonics (whole# multiples) are added to the equations. The fact that not all can be reproduced reveals some are missing or bound up. THEORY: The waves within the atom are strings. Pulling a violin string to the side then releasing it as in plucking vibrates the string. The vibration emits a sound in the air. Spectra are similar during heating the atom expands and contracts continuously. This constant expansion and contraction releases a wave or photon on the ether field of a specific wavelength. Another force pulls and releases the strings when elements chemically combine. The strings are like the fingers on your hand. Couple your hands by the finger tips, and pull them apart. The fingers release one by one depending on how long and strong each finger is. They snap apart and release a sound. During chemical combining the two elements' strings attach altering each elements configuration. Breaking and reconnecting the strings in a new configuration produces heat and light photons. Razing the temperature to initiate bonding is similar to opening the fingers up so that they can attach. Similar to the above example except with a large hand and a smaller child's hand.

This document provides proof quantum mechanics is simply the result of heterodyning of electromagnetic waves.

Considered here will only be the atomic spectra of the carbon atom levels I-IV. Other elements show similar results.

Quantum jumps are the heterodyning of em waves formed within the atom which results in the emission of photons of the wavelength by way of adding and subtracting of the original waves.

Freq new = F1 +- F2

Freq new = F1 +- F2 : Hypothesis: This common equation found in sound, radio, and electronics is the same as the quantum jump.

If the above statement is true then any comparison to similar but random sets of numbers should result in fewer matches when transformed back to the original form.

CHAPTER 6.

6.1 SYNODIC WAVE THEORY:
* Internal superposition

The flutes or wave crests (so to speak) of one helix wave can reside neatly within the voids of another there is room. Even though there can be only one electric field in single place in space. The crest on one wave can mate with the trough of the other wave. So, the wave crests of one circularly polarized wave (helix) can reside within another. Imagine the crest (ribs) of this wave then insert another wave directly within it only with a 180 degrees difference. Now both waves can exist nearly in the same plane yet not interfere with another. Even two coil helixes of opposite winding (counter clockwise and CW) mate well. The electric fields can mate when the phases are 180 degrees apart. One within another. These interlocking resolves part of the transference of force. Next can an electromagnetic wave transfer a linear force? The answer to this was covered in chapter 2 on the case in point 'the exception to superposition' along with a reference regarding an experiment employing a trolley. This is the key along with another attribute found when producing circularly polarized waves.

QUANTUM
SUBJECT: Quantum Jumps. Synodic beach analysis of quantum.

What is the cause of quantum jumps?
Ans. The combining and breaking apart of 2 separate slightly different sized rotational waves. Plank's constant relates to this.

>>>>>> (see Synod.txt) (important note: there are two types of formations) Looking at the beach where the synodic grooves form and the gaps between them. The gaps are where the two waves break apart being they are of slightly different sizes. When the waves break apart, they snap back to their normal dimensions like a spring then recombine further along when they again match up. This may be considered a quantum jump. When this gap distance is measured a RF wave may show up that equals it. This RF wave is a photon, the same photon that is emitted or absorbed during standard quantum jumps.
Once the springs have reached a point of alignment a small attraction thus stretching to maintain their phase occurs. When the two springs energy difference becomes too great, they snap apart only to align and recombine again further along. The springs match for a while then breaks apart and ring producing a photon. Further along they again match up and repeat. Each interaction produces its own photon.

Example below:
Like holding two bolts (or rulers) of slightly different threaded count per inch side by side. The threads (or marks) align for a short distance then separate and realign over and over again.

tpi = threads per inch.
| | | | | | | | | | | | | | | | | 4 tpi
| | | | | | | | | | | | | | | | | | | | | 3 tpi

^ ^ ^ ^ ^

As can be seen every 3.5 waves the two match up. The wave stretching cannot be shown due to limitations of the keyboard (ascii).

PLANK'S CONSTANT:
Plank's constant is the attraction bonding energy between two similar sized waves. Plank's constant should directly relate to the energy of two waves ability to stretch then break apart (the gap).
SEE below

THE HETERODYNE
Take two springs where the coils attract each other like two magnets. That is, each coil attracts the next coil with a force that is the inverse square of its distance. $1 / (d\ ^2)$
One spring however has a slightly shorter wavelength than the other. Since one spring is slightly smaller than the other it will fit within the other spring. That's where the attraction takes place. Each spring prefers to maintain its shape (its original wavelength) but also is attracted to one another, thus they both deform slightly along their lengths (wavelength of one pulls outward as the wavelength of the other is pulled inward by the attraction force). This stretches both springs along their length until the force keeping their individual coils wavelength apart exceeds the attraction forces keeping them together. At this time the repulsion force which maintains the spring wavelength exceeds the attraction force and the two springs separate. If the springs are quite long, they will form many sections where they hold together in attraction and lengths where they have separated.
It might be helpful to hold two threaded bolts side by side that have slightly different threads per inch (pitch). As one can see the threads match up every so often. Now imagine that these threads are springs with magnetic properties that can stretch.

Question:
How long of a distance along their length will the springs attract before the counter force that maintains their separate wavelength pulls them apart? At what distance (gap) will their lengths again attract.

1. The height of each spring is equal to its wavelength.
2. The strength of the force that maintains the wavelength of each spring is the same as the attraction force that pulls them together.
Hint:

The greater the difference of wavelength between the two springs the shorter the attracted area and the longer the gap. Note the springs might be represented by two rows of dots. Then one can see that a varying angle separates the two dots.

Electromagnetic waves all travel upon a higher frequency (wavelength) carrier wave. From this analysis it might be possible to perform chemistry by employing specific vibrations in molecular structures. The making or breaking of bonds with vibrations. These would have to be rotational vibrations to be most effective.

VARIOUS NOTES:

$c = 2.997925$ E+8 m/sec h = 6.62618 E34 J*sec Wavelength = c/f

1.509 E+33 Hertz = 1 joule Reference: Quantum Chemistry Donald A. McQuarrie

Taking the inverse of the above we find the energy of 1 cycle per second.

1 / 1.509 E+33 = 1 Hz = 6.626 E34

>>>>> NOTE: 1 Hz = 6.626 E34 or Planck's constant <<<<<<

PLANK'S CONSTANT:

Plank's constant is the attraction bonding energy between two similar sized waves. Plank's constant should directly relate to the energy of two waves ability to stretch then break apart (the gap).

SEE below

THE HETERODYNE

Take two springs where the coils attract each other like two magnets. That is, each coil attracts the next coil with a force that is the inverse square of its distance. 1 / (d ^2)

One spring however has a slightly shorter wavelength than the other. Since one spring is slightly smaller than the other it will fit within the other spring. That's where the attraction takes place. Each spring prefers to maintain its shape (its original wavelength) but also is attracted to one another, thus they both deform slightly along their lengths (wavelength of one pulls outward as the wavelength of the other is pulled inward by the attraction force). This stretches both springs along their length until the force keeping their individual coils wavelength apart exceeds the attraction forces keeping them together. At this time the repulsion force which maintains the spring wavelength exceeds the attraction force and the two springs separate. If the springs are quite long, they will form many sections where they hold together in attraction and lengths where they have separated.

It might be helpful to hold two threaded bolts side by side that have slightly different threads per inch (pitch). As one can see the threads match up every so often. Now imagine that these threads are springs with magnetic properties that can stretch.

Question:

How long of a distance along their length will the springs attract before the counter force that maintains their separate wavelength pulls them apart? At what distance (gap) will their lengths again attract.

1. The height of each spring is equal to its wavelength.
2. The strength of the force that maintains the wavelength of each spring is the same as the attraction force that pulls them together.
Hint:
The greater the difference of wavelength between the two springs the shorter the attracted area and the longer the gap. Note the springs might be represented by two rows of dots. Then one can see that a varying angle separates the two dots.
Electromagnetic waves all travel upon a higher frequency (wavelength) carrier wave. From this analysis it might be possible to perform chemistry by employing specific vibrations in molecular structures. The making or breaking of bonds with vibrations. These would have to be rotational vibrations to be most effective.

VARIOUS NOTES:
c = 2.997925 E+8 m/sec h = 6.62618 E34 J*sec Wavelength = c/f
1.509 E+33 Hertz = 1 joule Reference: Quantum Chemistry Donald A. McQuarrie
Taking the inverse of the above we find the energy of 1 cycle per second.
1 / 1.509 E+33 = 1 Hz = 6.626 E34
>>>>> NOTE: 1 Hz = 6.626 E34 or Planck's constant <<<<<<

Plank's constant:
E = h * f : h = E / f E=energy or wavelength.
What is Energies conversion to wavelength ??

E = wavelength so h = Wave1 Wave2 / f substitution
or
energy of wave1 energy of wave2

THE BELOW MUST BE SATISFIED AND EXPLAINED PROPERLY:
A Quantum jump occurs any time 2 springs are stretched and broken apart. An electromagnetic wave is emitted when the springs snap back to their original dimensions (they resonate by separating and recombining continually). Spring size (wavelength) dictates how far two springs can expand or compress before separating. Doppler shifted waves from rotating movements of

molecules can combine like beat frequencies. They also match for a distance then separate (see Synod.txt).

Adding heat or energy expands the springs allowing for better or worse mating of two springs. Cooling reduces the springs wavelength. QUESTION. is that backwards.