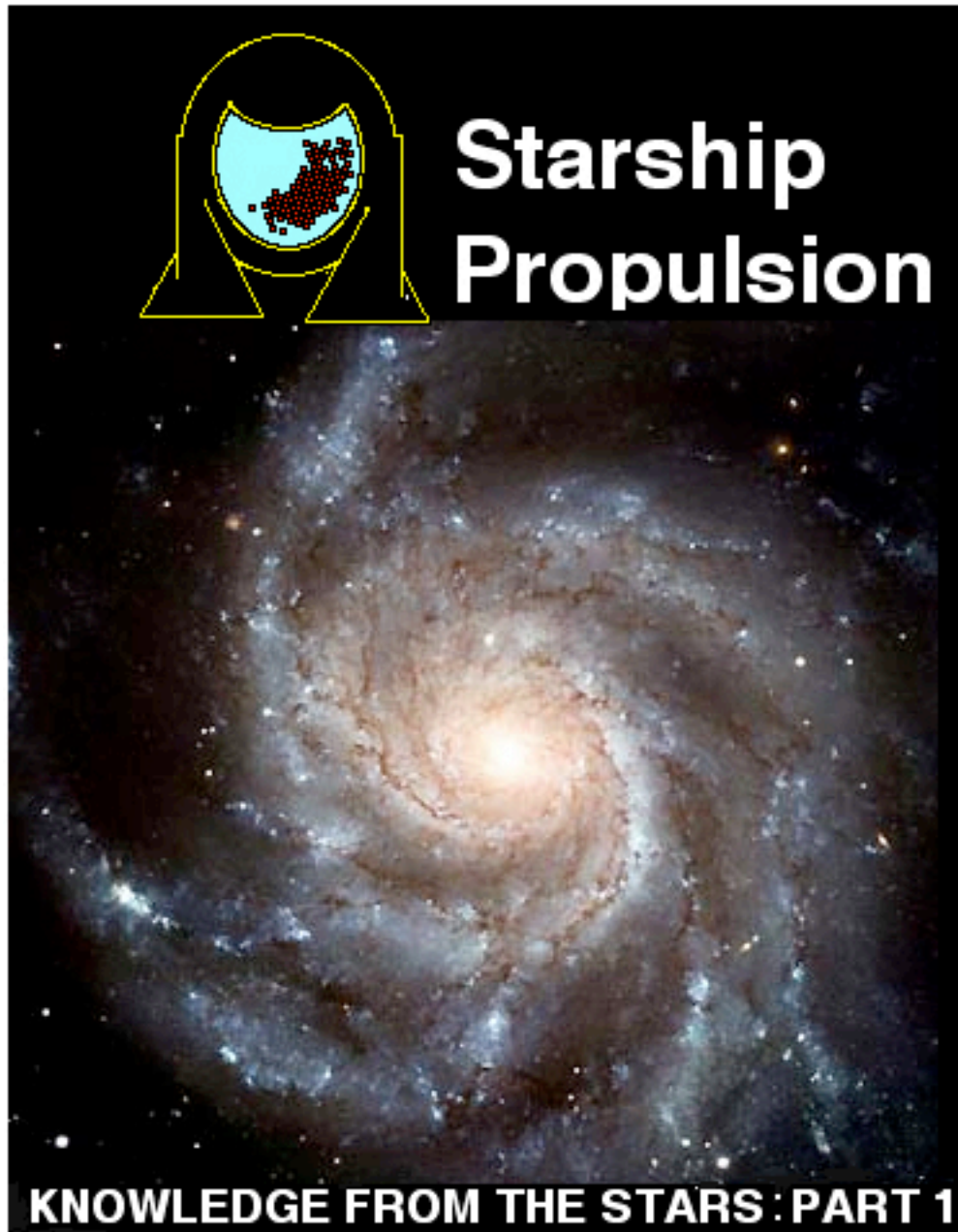




Starship Propulsion



KNOWLEDGE FROM THE STARS: PART 1

Wesley H. Bateman

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You Can't Get Here From There. Or Can You?

It is a general scientific belief that the speed of light restricts interstellar and intergalactic space travel. Because, even if a spacecraft existed that could travel at a velocity of 299,792 km/sec (speed of light) for 1 year (1 light year) it would take 4.3 light years for the craft to reach our sun's nearest neighbor the star known as Alpha Centauri. To reach solar systems or galaxies located at greater distances could take hundreds and even tens of thousands of light years.

Albert Einstein has told us that only light itself can travel at the speed of light, and therefore nothing made of solid matter such as a space craft built on Earth or elsewhere in the universe could attain light speed, let alone go faster. If the light speed restrictions are valid then any intelligent extraterrestrials that might exist would have to use sub light speeds to move about the universe. Many people take comfort (for many personal reasons) in the idea that they (any intelligent Ets) can't get here from where ever their home world is located.

If ETs can't possibly get here, then the UFO phenomenon would have to be either pure imagination, misidentification of something produced by nature, produced by man, or they are space craft manufactured by extraterrestrials that are indigenous to this solar system. If they are from this solar system what planet are they from and how are they able to live there and do things like building numerous high tech space craft (some of considerable size) with out being detected? If we are neighbors why are they so stand offish?

If a person with out “tangible credentials” suggests anything different from what is believed by the scientific mainstream the scientists usually react by calling that person an “ignorant crack pot.” But, if one of their own makes such a outlandish suggestion, then a few of his/her colleagues give his or her idea courteous consideration and sometime praise the idea’s originator and agree at least to give the matter further study.

Those scientists who don’t agree with the original idea usually give their reasons why they don’t agree (go on record) and hardly ever mention the subject again.

Several cases of the type mentioned above are presently circulating in the scientific community. One side believes that the “speed of light is slowing down” and another faction says that the “speed of light is not slowing down.” In another case one side says that the mathematical value for the “Fine Structure Constant (aka “alpha”) is changing and another group of scientists are saying “not so.” By the way, if the value of the fine structure is changing then all theories that deal with the way atoms are held together are invalid and the universe should fall apart very soon. Well they are credential scientists, so when they say such things, no one can dare say they are flipping their lids.

The scientists that are making these bizarre statements about the speed of light and the fine structure constant are not crazy, they have arrived at these conclusions from some form of physical observations and related mathematical calculations that influenced their conclusions. In other words they became convinced and felt they should bring their thinking to the attention of others for review. What appears to be so, is so. Updated technology improves our ability to reinvestigate what we thought was so, to discover that things are not exactly the way we thought they were.

Presently there exists scientific theory which suggests that space can be compared to a sheet of paper and that traveling through space (from the bottom of the sheet of paper to the top) could take thousands of light years. But the theory goes further to say that space (like a sheet of paper) can be folded in halves, or quarters making the top of the page to become positioned in a layer directly below the bottom of the page. This according to the theory would make the space at the top of the folded page maybe only a few miles from the space at the bottom of the folded page. The trick then is to produce a hole (wormhole) through the folded paper (fabric of space) and fly a space craft through the worm hole. Wow, don't forget this is a real scientific theory proposed by real highly recognized Earth scientists.

How one would create a wormhole in folded space I guess is still on the drawing board.

For any space craft to travel any great distance in space (even limited to our solar system) the space craft must carry a vast amount of fuel, then fuel to propel the unused fuel.

Using ion propulsion engines solves the interplanetary fuel problem to some degree. But, these engines will not come anywhere near propelling a space craft to the speed of light.

The notion to use antimatter as a fuel is definitely a possibility. Antimatter (composed of antiprotons, positrons, and neutrons) produces more energy than any other known type of fuel. This vast energy production occurs when antimatter comes into contact with matter (composed of protons, electrons and neutrons). At our present rate of antimatter production (at Fermi Lab) it will take several thousand years to produce enough antimatter for a one way trip to Alpha Centauri at sub -light speed. Such a trip could take hundreds of years.

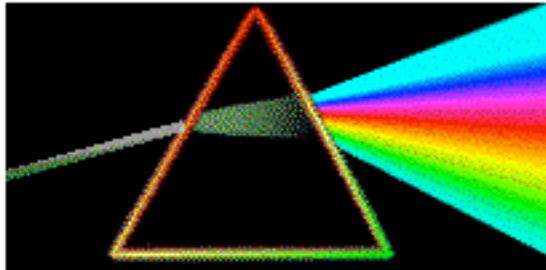
Can space be folded? Can the speed of light be exceeded or can light be reduced in speed to any degree?

The answers to the question asked above, in each case, is yes.

The Extraterrestrials have created technology that permits them to use advanced knowledge they have about the structure of light, as well as how light really travels in the vast space/time areas that exist between one solar system and all other solar systems in the universe.

Excursions from one galaxy to another are also within the power of the very same Extraterrestrials that are presently visiting the planet Earth. These beings are in no way dummies.

MANIPULATED LIGHT



For more than 40 years it has been known that numerous extraterrestrial cultures have long processed the technology to traverse the vast distances that exist between the stars and galaxies. The basis of this technology is known as *manipulated light*.

Some experiments with light tell us that light exists in the form of minute energy packets which are called photons. Other types of experiments say that light exists in the form of waves. In truth light exists in both forms. It is alternating back and forth

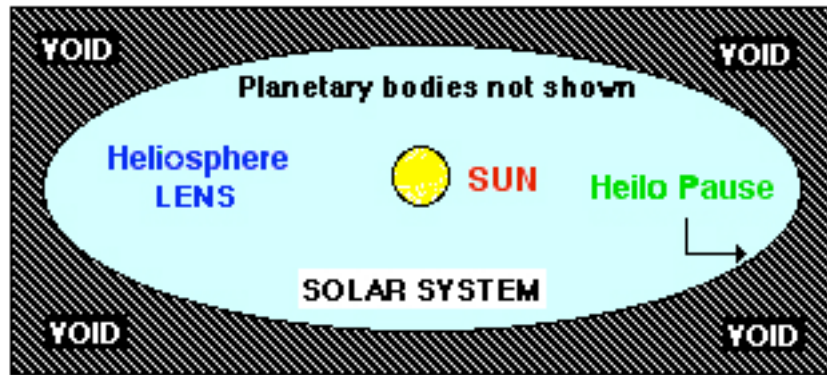
from one form to the other as it moves outward from its source at 299,792 km/sec. This is called the governing factor. The process of *manipulated light* cancels out the governing factor and solely converts light in to either the form of waves, or, the form of photons. Thereafter either form of manipulated light has no limit as to its velocity. That is, it can be manipulated to travel faster than the governed speed of light or to travel slower than the governed speed of light.

A spacecraft using manipulated light as a propulsion force can be accelerated beyond the limits of light's normal governing speed. There are limits which are imposed on the spacecraft which relate to the materials of which the craft is constructed.

These physical limitations do not come in to play until the craft has far exceeded light's normal governing speed. Once the governing factor of the speed of light is eliminated and the ET space craft exceeds the govern speed of light, the laws of physics adjust for the new situation and the craft is not subjected to the physical rule: "An increase in velocity, equals an increase in mass." Where as the space craft's propulsive energy is light, any light source can be concentrated and converted to a manipulated form. Light of any star, even a candle can send the space craft to its distant destination.

The process of manipulated light works because of certain physical facts about light and the structure of the universe that the scientists of the Earth are totally unaware of. These facts totally eradicate present theories that limit future spacecraft speeds to less than 299,792 km/sec.

First of all, our solar system is actually a lens that tapers to an edge. This edge is the boundary beyond which there is no gravitational influence from the sun. This edge (boundary) is called the "helio pause."



The solar system contains orbiting bodies such as planets that orbit the sun in cyclic periods of time, due to a balance of gravitational forces. More will be said about the solar system later on in this article, when the two en route Pioneer space vehicles are discussed.

The areas of space existing outside of the “helio sphere lens” is void of “visible light” and the sun has absolutely no gravitation attraction, or influence on anything that is situated out side the boundary of the solar system’s helio pause.

The helio pause is located far beyond the orbit of the furthest planet in the solar system. It is situated at a distance which allows for the large elliptical orbits of comets to be influenced by the gravity of the sun (star).

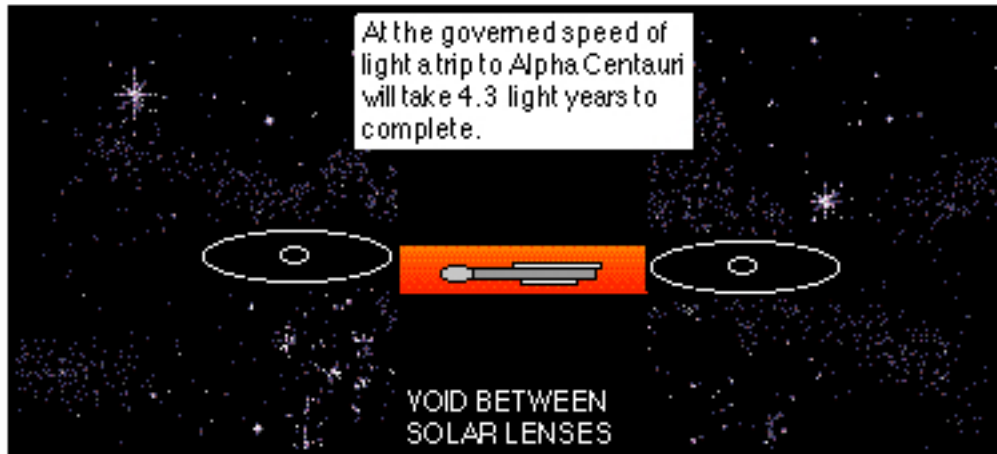
The light from the distant stars can only be seen from inside a solar lens (helio spheric lens).



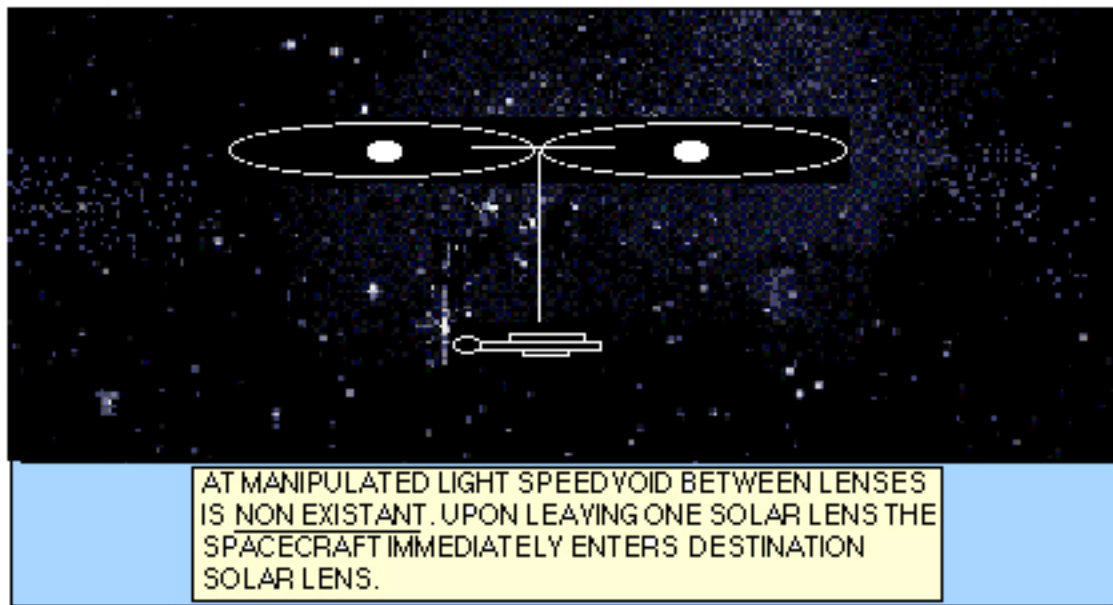
Outside of a star's helio pause, no star light can be physically seen. All is totally black.

Apparently light converts to a manipulated form (not visible to the eye) when it leaves a solar lens and becomes visible when it enters any other solar lens, because once it enters a solar lens the gravity of the sun/star and other physical forces (yet to be fully understood) reduces the light once again to a speed of 299,792.458 kilometers per standard second of time ...which makes it visible.

It is a scientific fact that light slows down when it passes through a pane of glass and immediately resumes its original speed when it exits the glass. In a similar manner manipulated light is slowed when it enters a solar lens (compare to a pane of glass) and resumes a manipulated light speed when it leaves the solar system (medium).



If a spacecraft leaves a solar lens even at the speed of governed light, the old light-year conditions exists and Alpha Centauri is definitely 4.3 light years away.



Essentially the distance (space) between the two solar systems has been folded to the point that their respective helio pauses actually touch, as if the vast distance between the two solar systems which does exist, is shrunk down to a zero distance.

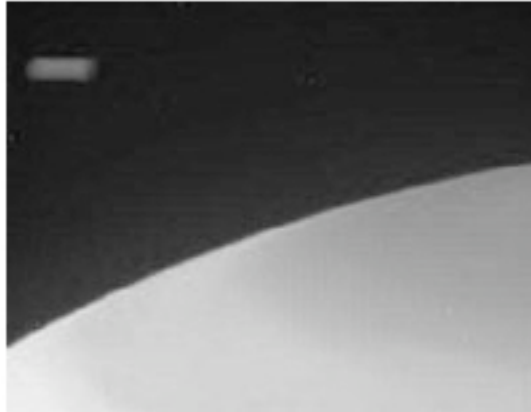
Therefore, when we look into the universe and spot a sun going into to nova or some other form of light producing cosmic event, we have previously accepted that the event occurred hundreds and even thousands of years before the light from the event reach the eyes of an observer living on the Earth. When we consider (and accept) that light actually travels instantly between solar lenses we must accept that these cosmic events actually happened quite recently... possibly within minutes of the observation. Light is subjected to time only when it is moving within a solar lens.

In the fourth edition, page 642, of the Fundamentals of Physics by Henry Semite can be found a. description of De Broglie waves: “The velocity of a particle (v) is always less than the velocity of light (c), hence the velocity of the De Broglie wave is always greater than the velocity of light.” De Broglie waves are related to the moving energy form of manipulated light.

The shape of an Extraterrestrial Star ship is similar to the shape of a cigar. These ships have been estimated to have lengths of 2.5 miles and longer.

In 1964 or 1965 Alan Bright the inventor of “Copper Bright” copper polish using a “Quasar” telescope took a picture of a cigar shape craft , estimated to be 2.5 miles in length transiting the face of a full moon. The craft had a gigantic “X” on its side. The X is the ET symbol for the intersection or joining of forces. When Mr. Bright took his picture, an Apollo mission was being conducted in Earth orbit at the same time. The Bright photo was shown one time on the Channel 7 news in Los Angeles and then never seen again.

In the upper left hand corner of the picture below can be seen an Extraterrestrial star ship. The picture was taken by NASA’s Cassini space craft above the planet Saturn in 2005.



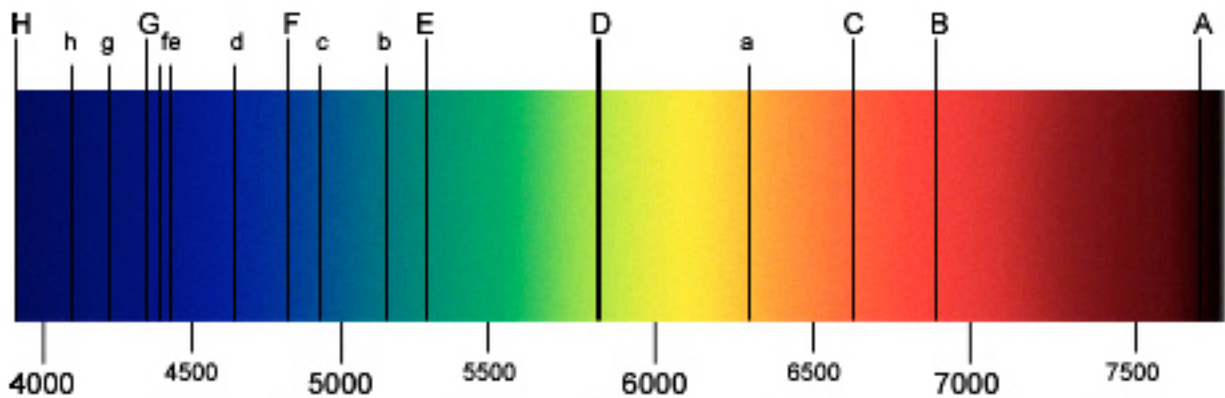
It is reported that when an Extraterrestrial star ship engages its manipulated light drive, circles of sparkling light appear along the craft's length and move from the front of the craft to its rear, where the rings of light pulse like smoke rings into space. These rings of light are generally directed toward the sun. At one point the rings of light appear to become solid and pulse outward very fast and very close. Suddenly the star ship disappears.

Star ship Navigation

A logical question would be: How do the Extraterrestrials navigate from one star to another? Perhaps you will be surprised to learn that they navigate as our mariners have done for centuries. They navigate by the stars. But in their case they use an improved version. First they locate the star that centers the solar system they want to visit. They then identify that it is the correct star by its spectral finger print. Every star's spectrum is as different from another's, as one snowflake is from another.

The Extraterrestrial means of studying a star's spectrum is very critical and is capable of identifying very minute differences in a spectrum that optical instruments on the Earth are presently incapable of detecting.

The spectrum depicted below is that emitted by our sun.

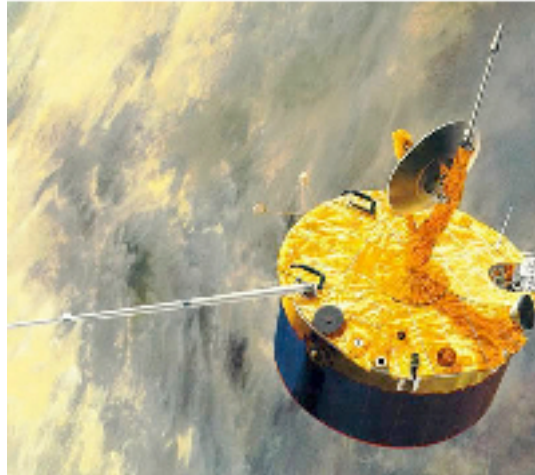


The dark lines running through the sun's spectrum are called Fraunhofer lines. They represent wavelengths of light that normally exist in pure white light. These missing wavelengths are being absorbed by elements that exist in the sun's composition.



The Fraunhofer lines found in our sun's spectrum or the spectrum of other stars appear in patterns that are similar to the pattern of lines seen on a barcode. One might also think of this pattern as an "area code."

The extraterrestrial's navigation system locks the spacecraft on a particular star's solar spectrum before engaging the craft's manipulated light drive. Within minutes the star ship enters the solar lens it was aimed at.



Pioneer Space Craft

The Pioneer Anomalies

In the early 1970's twin spacecraft named "Pioneer 10 and Pioneer 11" were launched. Pioneer 10 was destined for Jupiter and Pioneer 11 was sent to Saturn. After reaching those goals both space craft were set on a course that would take them totally outside the solar system.

After nearly 30 years since these craft were launched they were reported to have reached the outer boundaries of the solar system. At this point data sent from both vehicles, back to Earth, described that both vehicles were experiencing a restricting sort of slowing "drag" effect. It is not clear if those making this report considered the edge of the solar system to be just beyond the orbit of the furthest planet or space beyond the helio pause (?).

Scientists rushed to try to explain why these space craft were being so mysteriously affected. They wondered and still wonder what kind of force was at play.

Terms like "mirror matter" and "photon pressure" were mentioned as possible culprits.

“Possible Explanations provided by the Scientific Community

- observational errors, including measurement and computational errors, in deriving the acceleration
- Approximation/statistical errors
- a real deceleration
- by gravitational forces from unidentified sources such as the Kuiper belt or dark matter **An unknown source just might be the solar pressure field that makes up the body of the hemispheric lense**
- drag from the interplanetary medium, including dust, solar wind and cosmic rays. *The planetary medium suggested should include the solar gravitational pressure field that produces the helio spheric lense*
- gas leaks, including helium produced by radioactive decay escaping from the spacecraft's' radioisotope thermoelectric generators

Explanations for the discrepancy that have been considered include:

- radiation pressure of sunlight, *I'll buy this. Why didn't the sunlight affect these spacecraft until the craft were that far a way from the sun? Did some kind of unknown physical force cause radiation of sunlight to be become stronger?*
- the spacecraft's radio transmissions, or thermal radiation pressure from the RTGs

- electromagnetic forces due to an electric charge on the spacecraft
- new physics *I like this one. Something new must be identified and understood*
- clock acceleration [1] between coordinate or Ephemeris time and International Atomic Time

The scientists are so perplexed as to what happened to the twin Pioneer space craft that they calling for a new and very expensive mission to follow in their paths. They hope to equip the “chase vehicle” with up to date instruments that they also hope will help to answer the question.

IMPEDANCE IN FREE SPACE

Since space travel has begun it has been determined that certain forces and conditions exist in “free space” that relate to physical factors that have constant mathematical values. To name a few: the Permeability Constant (magnetism), Permittivity Constant (electrical) and the constant degree of impedance in free space.

I would like to say a few words about the latter: impedance in free space, because I believe that the extraterrestrials overcome this impedance in order to produce manipulated light.

The visible spectral lines of the element hydrogen are essentially waves of colored light. These visible wavelengths are referred as the Balmer series of spectral lines.

The following information is quoted from Isaac Asimov’s book “Understanding Physics: The Electron, Proton and Neutron,” a Mentor Book, New York, New York.

“In 1885 a German mathematician, Johann Jakob Balmer, tinkered with a series of numbers representing the wave lengths of the hydrogen spectrum and found a formula that mathematically expressed the wavelength of the lines. This was :

EQUATION 1

WAVE LENGTH (λ)

$$\lambda = \frac{364.56 \times M^2}{4 - M^2}$$

Where as m can have successive whole number values starting with 3.

If 3 = m then the wave length can be calculated as equal to 656.21 milli microns, which is the wave length of the first visible line. If m is equal to 4, then 5 and then 6, the wave lengths of the second, third, and fourth lines of the visible hydrogen spectrum turn up in the value calculated for wavelength. This series is called the Balmer Series.

Eventually as m becomes very high $m^2 - 4$ becomes very little different from m^2 so the two terms would cancel each other out in the equation (2 - 8). In that case the wavelength would come equal to 364.56 milli microns (which is the Balmer Constant) and *this would be the limit toward which all the lines in the series would tend to move.*”

The question here is why do these wavelengths of light tend toward a termination (barrier) of 364.56 milli microns ?

The value for impedance in free space as per the MGS system of measurement is usually rounded to 377 ohms.

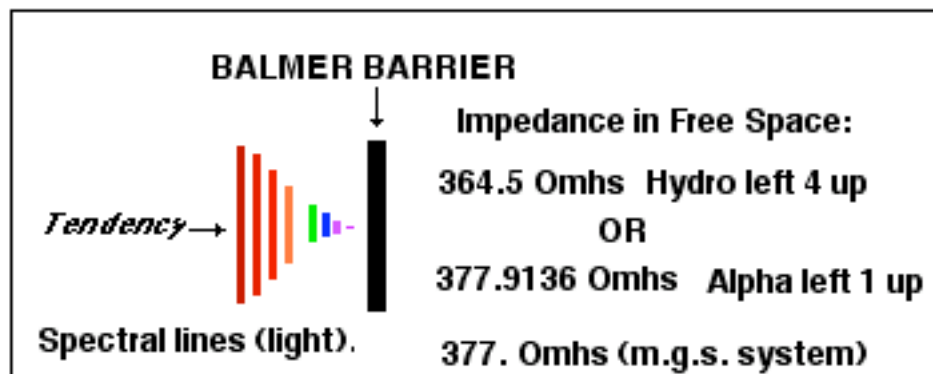
Based on the Natural Ra System of Mathematics the Ra value for the Balmer Constant is 364.5 (13.5 x 27) Ra milli microns.

There are 377.9136 Ra ohms of resistance in the Ra value for the “impedance in free space.”

377.9136 is the product of 364.5 (Balmer Constant) x 10.368 (1.024 x 1.0125).

377.9136 ohms (Balmer Barrier for Light). Theoretically the nullification of this constant (barrier) would allow for governed light to be converted to manipulated light.

An extraterrestrial craft capable of manipulated light speed apparently cancels out the affect of the impedance that exists within any solar helio sphere. This impedance is non existent outside the helio sphere.



For those familiar with the Ra System of Mathematics

The number 1.0368 is also the ratio between hydrogen left 4 up numbers and alpha left 1 up numbers. .10125 is the reciprocal of 9-8-7-6-5-4-3-2-1 (green pi squared).

THE AETHER

In the 18th and 19th centuries a theory prevailed that was highly regarded by scientists such as Newton and Faraday. This theory proposed that light actually required a “medium” in order to travel though a vacuum and this medium was called the “Aether.” Because no one was able to assign a mathematical value to this invisible element, it was not able to be factored into any equations. Because many important equations solved without factoring in a value for the Aether, it was concluded that the Aether did not exist. Presently, I think we should dust off our old physics books.

STAR TREK

On a very stormy night in the early nineteen sixties, Gene Rodenberry the originator of the TV series “Star Trek” and I sat in my office at the MIND Research Foundation in Hollywood California and discussed story lines for his pending series.

In the course of our conversation the subject of a Federation registration number for the Enterprise came up. It so happened that I had been calculating the distances that exists between the various spectral lines of the element hydrogen. My calculations were before me on my desk. I mentioned that the Balmer m3 spectral line of 6561 angstroms was separated from the Balmer m4 spectral line of 4860 angstroms by 1701 angstroms. Gene Rodenberry wrote this number on his note pad and said: “Sounds good.”

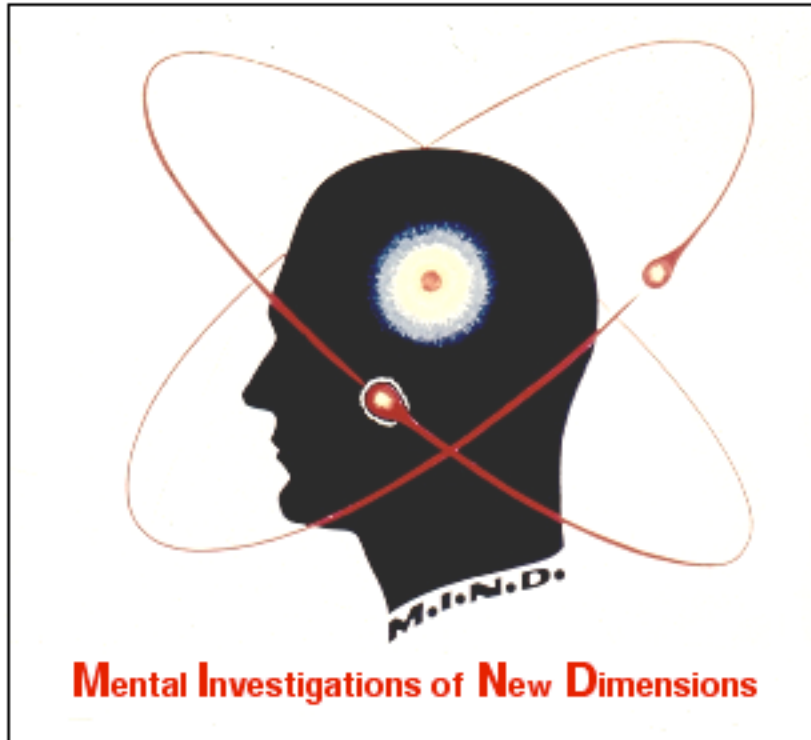
I was surprised when the program aired to see that Gene Rodenberry used my suggestion. I still experience a bit of pleasure when the Enterprise moves across my TV screen displaying its registration number NCC 1701.



One of Mr. Rodenberry's prime interests at the time of our first of two meetings was how he was going to propel the "Enterprise" from star to star. He hoped for a new propulsion idea, but eventually settled for the means that was invented and used by science fiction writers for decades "Warp drive."

Later I had a continuous telephone relationship with Gene Coon who took over the job of producer of the Star Trek series from Gene Rodenberry. He had a special interest in an idea I had suggested, which is now referred to as the "Prime Directive."

Presently, I believe that if my meeting with Gene Rodenberry had taken place several months later, we might never have heard Captain Kirk say "Sulu, Warp factor 5. Engage." But, instead we would have heard Kirk say: "Set Spectral Navigation lock on Altair 3 and engage Manipulated Light."



WHAT CAN BE SAID?

This information tells us that Extraterrestrials can get here from their home world. In fact they can get here from anywhere in the universe.

An important question that should be asked is: How long have the Extraterrestrials had manipulated light technology? For thousands of years, hundreds of thousands of years, or even millions of years?

Records of UFO sightings from the time of ancient Egypt, indicates that the Extraterrestrials had interstellar flight ability for at least 5 thousand years.

With manipulated light drive at their command for at least 5 thousand years in which to use it, imagine where they have been and how many millions of intelligent civilizations they have encountered. The next question is: What in this immense and beautiful universe makes our world so interesting to them?

It is also known that manipulated light drive is presently used by different extraterrestrial races. These multiple extraterrestrial races are obviously cooperating with each other in projects taking place elsewhere in the universe and projects they are jointly engaged in on the Earth. This sounds like a Federation. Doesn't it?

Yes, we have the answer to the question asked above. To make the Extraterrestrial's reasons clear we will logically strip away the UFO mystery layer by layer to get to the truth.

IMPORTANT SUPPORTING DATA FOLLOWS:

90% of article above dated November 1997, as per time of copyright ©

Article below dated May 16, 2006

Light's Most Exotic Trick Yet: So Fast it Goes ... Backwards?



**Robert Boyd, professor of optics
(PHOTO CREDIT: University of Rochester)**

In the past few years, scientists have found ways to make light go both faster and slower than its usual speed limit, but now researchers at the University of Rochester have published a paper today in Science on how they've gone one step further: pushing light into reverse. As if to defy common sense, the backward-moving pulse of light travels faster than light. Confused? You're not alone.

"I've had some of the world's experts scratching their heads over this one," says Robert Boyd, the M. Parker Givens Professor of Optics at the University of Rochester. "Theory predicted that we could send light backwards, but nobody knew if

the theory would hold up or even if it could be observed in laboratory conditions."

Boyd recently showed how he can slow down a pulse of light to slower than an airplane, or speed it up faster than its breakneck pace, using exotic techniques and materials. But he's now taken what was once just a mathematical oddity—negative speed—and shown it working in the real world.

"It's weird stuff," says Boyd. "We sent a pulse through an optical fiber, and before its peak even entered the fiber, it was exiting the other end. Through experiments we were able to see that the pulse inside the fiber was actually moving backward, linking the input and output pulses."

So, wouldn't Einstein shake a finger at all these strange goings-on? After all, this seems to violate Einstein's sacred tenet that nothing can travel faster than the speed of light.

"Einstein said *information* can't travel faster than light, and in this case, as with all fast-light experiments, no information is truly moving faster than light," says Boyd. "The pulse of light is shaped like a hump with a peak and long leading and trailing edges. The leading edge carries with it all the information about the pulse and enters the fiber first. By the time the peak enters the fiber, the leading edge is already well ahead, exiting. From the information in that leading edge, the fiber essentially 'reconstructs' the pulse at the far end, sending one version out the fiber, and another backward toward the beginning of the fiber."

Boyd is already working on ways to see what will happen if he can design a pulse without a leading edge. Einstein says the entire faster-than-light and reverse-light phenomena will disappear. Boyd is eager to put Einstein to the test.

So How Does Light Go Backwards?

Boyd, along with Rochester graduate students George M. Gehring and Aaron Schweinsberg, and undergraduates Christopher Barsi of Manhattan College and Natalie Kostinski of the University of Michigan, sent a burst of laser light through an optical fiber that had been laced with the element erbium. As the pulse exited the laser, it was split into two. One pulse went into the erbium fiber and the second traveled along undisturbed as a reference. The peak of the pulse emerged from the other end of the fiber before the peak entered the front of the fiber, and well ahead of the peak of the reference pulse.

But to find out if the pulse was truly traveling backward within the fiber, Boyd and his students had to cut back the fiber every few inches and re-measure the pulse peaks when they exited each pared-back section of the fiber. By arranging that data and playing it back in a time sequence, Boyd was able to depict, for the first time, that the pulse of light was moving backward within the fiber.

To understand how light's speed can be manipulated, think of a funhouse mirror that makes you look fatter. As you first walk by the mirror, you look normal, but as you pass the curved portion in the center, your reflection stretches, with the far edge seeming to leap ahead of you (the reference walker) for a moment. In the same way, a pulse of light fired through special materials moves at normal speed until it hits the substance, where it is stretched out to reach and exit the material's other side.

Conversely, if the funhouse mirror were the kind that made you look skinny, your reflection would appear to suddenly squish together, with the leading edge of your reflection slowing as you passed the curved section. Similarly, a light pulse can be made to

contract and slow inside a material, exiting the other side much later than it naturally would.

To visualize Boyd's reverse-traveling light pulse, replace the mirror with a big-screen TV and video camera. As you may have noticed when passing such a display in an electronics store window, as you walk past the camera, your on-screen image appears on the far side of the TV. It walks toward you, passes you in the middle, and continues moving in the opposite direction until it exits the other side of the screen.

A negative-speed pulse of light acts much the same way. As the pulse enters the material, a second pulse appears on the far end of the fiber and flows backward. The reversed pulse not only propagates backward, but it releases a forward pulse out the far end of the fiber. In this way, the pulse that enters the front of the fiber appears out the end almost instantly, apparently traveling faster than the regular speed of light. To use the TV analogy again—it's as if you walked by the shop window, saw your image stepping toward you from the opposite edge of the TV screen, and that TV image of you created a clone at that far edge, walking in the same direction as you, several paces ahead.

"I know this all sounds weird, but this is the way the world works," says Boyd.

Source: University of Rochester, by Jonathan Sherwood

Part 2 of this series: "Saucer Propulsion" deals in great detail with the type of propulsion system that the Extraterrestrial's use in their smaller space craft. That is, the type of space craft that are spotted moving about in our skies.
