

I am sending this out for Philip, it is a contribution which would be the first one at Red Bluff Park. Philip would like to get feedback on how it reads, what you think about it, etc. before he sends it out more widely so please don't forward it on just yet. You can send comments back to Philip directly and copy me also if you would.

It resulted from conversations and encouragement to research it from Silo (I think back in 2006).

Hugs  
Ken

### **Independent Luminous Phenomena**

The phenomena of unexplained, mysterious lights have puzzled and mesmerized people of diverse backgrounds for centuries. Few natural occurrences have inspired the awe and imagination of people in distant settings and varied historical moments as inexplicable lights traversing the skies, the land, and the open seas.

This brief work will not address the phenomena of inexplicable lights or the unexplained sightings that are connected to their source, but rather the specific manifestation of lights that exist independently. Most luminous phenomena are generated and maintained by a contiguous source, some lights are a reflection, others receive a signal from an external source, and very few can be considered “independent”. Determining whether or not a luminous phenomenon is maintaining a link to its origin is the fundamental concern. A luminous phenomenon can truly be considered independent only by maintaining its integrity after breaking its ties to any generating source and continuing to manifest without links to its origin.

For example, lightning is a natural occurrence that is commonly seen illuminating the night skies during a storm. The light is manifest and then immediately it vanishes. This dramatic display of energy is a “flash” phenomenon that has no permanence after its expression as an electric discharge.

The moon appears to be generating light when it illuminates the night sky. A full moon provides sufficient light to create shadows and render even minute details observable. We know, however, that the moon does not generate its own radiance and merely reflects what the sun produces.

A radio gives the false impression that it produces sound independently. Turn a radio on and music or talking can be heard through the speakers without any apparent external support other than the electricity needed to provide sufficient power. The radio seems to be making sounds all by itself, when in fact it is actually only a receiver. Without the signal provided by a transmitter there can be no intelligible sound. Cut the signal being transmitted to the radio and the sound emanating from the radio immediately stops. The

functioning radio is completely dependent upon maintaining contact with a transmitting source even if that source is distant and undetectable by human senses.

This short contribution will; 1) address the specific expressions of independent luminous phenomena, 2) present notes of supporting information, 3) outline some brief implications, and 4) mention several sightings and legends that have been linked to these mysterious lights.

## **The Phenomena**

All three of the following phenomena are expressions of natural independent luminous phenomena. When disconnected from their original source they act by themselves, move about for a brief period, and then eventually disintegrate.

### **1. Swamp Gas**

A luminous gas is sometimes generated in a swamp where centuries of stagnant water and layers of old vegetation have settled. This swamp gas is formed by decaying organic matter that, under certain natural conditions, can become transformed into a luminescent phenomena after bubbling up to the surface.

When vegetation dies it sinks below the swamp's surface and a thick carpet of decaying peat collects below the swamp's visible water level. Eventually a dense section of matted peat, pressured upwards by the gases formed within it, breaks away and floats to the water's surface. This rotting vegetation forms a significant part of a swamp's land mass. As new plants establish themselves on this tiny, unstable island the process of growth and decay are perpetuated producing a more flatulent swamp and more complex gases.

The unique combination of methane gas, carbon, and hydrogen 3 mixing with the oxygen in the air can produce a completely non-paranormal luminous event. Observed as a fuzzy blob of light, this luminous phenomenon can become independent. Sometimes seen hovering above the murky water it has also been observed leaving the swamp, traversing roads, following power lines, and even roaming around the streets and into houses of a nearby town.

### **2. Desert Lights - Phosphorus from Bones**

Sightings of unexplainable transient lights have been reported in deserts throughout the world. This luminous phenomenon is a result of oxygenation of the phosphorus released from decaying animal bones on or near the surface of the sand.

The phosphorus concentrated in decomposing bones can reach a critical point where a slight disturbance releases its gases into the air. Upon contact with oxygen this phosphorus can become combustible and produce an independent glow that appears to take on a life of its own.

This independent luminous phenomenon has been observed roaming deserts at night in erratic patterns. Rising and falling, diffuse or concentrated, these curious lights have been seen at times multiplying in numbers or reuniting as one illumination. These oxygenated gaseous residues from animal bones traverse deserts and then disintegrate and vanish just as mysteriously as they had appeared.

### **3. St. Elmo's Fire**

During thunderstorms the air between the clouds and the ground becomes electrically charged. A plasma-electric event, expressed as hot gaseous ionization of the surrounding atmosphere, occurs when the air reaches a sufficiently high voltage level to result in a discharge.

Known as St. Elmo's fire, this luminous phenomenon, usually produced out in the open ocean, has been observed in contact with metal or other pointed objects during a storm. Always drawn to a grounded conductor with a sharp point, usually the top of a sailing mast, a church spire, the prominent point of a tall building, an airplane wing, or even horns of cattle, it can be seen as brush-like fiery jet of light or as a glowing luminous ball. This phenomenon can become independent, mobile, land, traverse objects, even enter a structure, and maintain its integrity for a short period of time.

Ball Lightning, the non-attached expression of this phenomena, commonly occurs near the ground. Manifesting itself as a small, floating luminous sphere, this independent ball of light may be spherical or dumb-bell shaped and either pulsate or shine steadily. Ball lightning is frequently accompanied by a hissing noise and a distinct odor.

This unusual light occurs most frequently outdoors. In other instances, the luminous sphere has also been observed passing through solid objects and then appearing inside an enclosed space such as an airplane cabin or a house. In about one quarter of observed cases ball lightning has caused minor damage, including scorching wooden objects and injury to people, and other times manifesting without disturbing its surroundings at all. Its motion is not dictated by wind and it usually floats close to the ground. Ball lightning will often bounce when it hits the ground or comes into the proximity of an electric field. As an independent luminous phenomenon it can exist for less than a few minutes after which it either suddenly explodes or silently disappears.

### **Notes**

#### **Swamp Gas**

Methane, itself sometimes referred to as swamp gas, is colorless and odorless with a wide distribution in nature. The two principal processes that produce it are decomposition of plant and animal matter by microbes at relatively shallow depths and non-biological thermal decomposition of deeply buried organic matter. Biogenic methane formed in swamps contains carbon from the organic matter of decaying plants.

When methane burns, a 5 to 15 percent mixture in air is combustible, the gas mixes with molecules of oxygen. In this process the molecules of both methane and oxygen are ripped apart, freeing the hydrogen, carbon, and oxygen atoms to reassemble. The hydrogen atoms combine in pairs with oxygen atoms to make molecules of water (H<sub>2</sub>O), while the carbon atoms combine with pairs of oxygen atoms to make carbon dioxide molecules (CO<sub>2</sub>). It is noteworthy that both heat and light are given off during this exchange.

Carbon is unique among the elements in the vast number and variety of compounds it can form. Carbon compounds form the basis of all life on Earth and the carbon-nitrogen cycle provides some of the energy produced by the Sun and other Stars.

Organic chemistry is basically the study of carbon and its compounds. Carbon is found dissolved in all natural waters, and when united with oxygen it forms carbon dioxide, which is present in the atmosphere and absolutely vital to plant growth. When united with hydrogen it forms various compounds called hydrocarbons which are essential to the formation of fossil fuels such as coal, petroleum, and natural gas. Carbon is also a component of rocks as carbonates of calcium (limestone), magnesium, and iron. When combined with both oxygen and hydrogen it can form many groups of compounds including fatty acids which are essential to life.

Hydrogen is the lightest of all gases. It occurs chiefly in combination with oxygen in water, but is also present in organic matter such as living plants, petroleum, coal, etc. Hydrogen producing bacteria are also abundant and generously distributed throughout nature. Hydrogen has three naturally occurring isotopes. They are <sup>1</sup>H<sub>1</sub>, <sup>2</sup>H<sub>1</sub> (also called deuterium, hydrogen 2), and <sup>3</sup>H<sub>1</sub> (known as tritium)

## **Hydrogen**

Hydrogen 2 and hydrogen 3 are considered heavy forms of hydrogen. Hydrogen 3 is the most interesting of the various forms of hydrogen as it is radioactive, emitting very low energy beta particles as it decays. Hydrogen 3 has a half-life of 12.4 years and breaks down into <sup>3</sup>H<sub>1</sub> → <sup>3</sup>He<sub>2</sub> + <sup>0</sup>e<sub>-1</sub> where <sup>0</sup>e<sub>-1</sub> is a beta particle electron and <sup>3</sup>He<sub>2</sub> is helium. It is readily produced in nuclear reactors as a byproduct of the irradiation of lithium. Hydrogen 3 is used to increase the yield of thermonuclear devices, as in the production of the hydrogen bomb, as well as a radiotracer in life sciences research, a radioactive agent in making luminous paints, and as a luminous tracer in munitions.

Combined with other elements, common hydrogen easily forms compounds which can be combustible. Through its reaction with oxygen, hydrogen releases energy explosively. In heat engines it is capable of fueling power cells to produce water as its only byproduct. Future energy systems, even an entire hydrogen economy based on hydrogen and electricity, are a very promising alternative to the burning of fossil fuels and nuclear power plants.

## **Desert Bones/ Phosphorus**

Phosphorus was first isolated in 1669 by Hennig Brand, a German physician and alchemist, by boiling, filtering and processing large amounts (as many as 60 buckets) of urine. This luminous and mysterious residue material that engulfed his workshop in a seemingly miraculous glow became known to the alchemists of his time as the "Philosopher's Stone." The word phosphorus is of greek origin, derived from phôs (light) and phoros (bearer).

The method of producing phosphorus by evaporating urine was generally adopted until approximately 1775. Preparation of phosphorus then switched from reducing urine to extracting the precious material directly from bones. Consisting predominately of calcium phosphate, it became clear that the skeleton was in fact the primary source of phosphorus in the human body.

Alchemists believed that light represented the Spirit and they were especially interested in light that seemed to be trapped in matter. The non-metallic element phosphorus was significant because it had the apparent ability to contain light, as evidenced by its characteristic glow-in-the-dark phosphorescence. This unique quality became even more compelling for them when coupled with their concept of a "perpetual fire". As alchemy transformed into the science of chemistry, scientists verified that the early alchemists had discovered the element phosphorus.

Phosphorus itself is essential to all forms of life since it is part of DNA and takes an active role in energy distribution. As an integral component of living systems it is found in bones, nervous tissue, and cell protoplasm. We take in about 1 gram of phosphate a day and store about 750 grams in our bodies since our bones are mainly calcium phosphate. Phosphates can also commonly be found in plants.

Phosphorus exists in several allotropic forms including white (or yellow), red, and black (or violet). White phosphorus has two modifications; ordinary phosphorus is a waxy, white solid and when pure it is colorless and transparent. Insoluble in water, white phosphorus may remain for a many years in deep soils and at the bottom of rivers and lakes. It does not quickly react with other particles although phosphorus may accumulate in the bodies of aquatic organisms. In surface soil phosphorus will remain for several days before it is converted into less harmful substances. Pure phosphorus has the unique ability to spontaneously burn in air.

### **Plasma Electric**

The name St. Elmo is actually a derivative of St. Erasmus, an early Christian martyr and the patron saint of sailors. Synonyms for St. Elmo's fire have been corona discharge, coronacor posant, Saint Elmo's light, Saint Ulmo's fire, Saint Ulmo's light, and electric glow. To physicists it has been referred to as a point discharge. A single flame is called a Helena, or a Corposant; a double, or twin, flame is called a Castor and Pollux, or a double Corposant.

Plasma is the fourth state of matter besides, liquid, solid and gas. It is hot, electrically charged and fluid-like. While it exists in abundance in the universe as a component of stars, plasma is generally considered rare on Earth except at the heart of a nuclear explosion.

Plasma can be created from a gas that is heated sufficiently. Exposed to enough energy electrons escape their atoms. The neutral atoms break apart into positively and negatively charged ions along with free electrons in a gaseous mixture. In a sufficiently heated gas ionization happens many times, creating clouds of free electrons and ions. However, not all the atoms are necessarily ionized, and some may remain completely intact with no net charge. This ionized gas mixture consisting of ions, electrons, and neutral atoms, is the essence of plasma. It contains sufficient numbers of charged particles to exhibit a collective response, both internally and externally, to electric and magnetic fields. This complex set of interactions makes plasma a unique state of matter.

Our sun is a big ball of gases at extremely high temperatures which charges up atoms and creates plasma. Only visible during eclipses, the outermost layer of the sun, with a much higher transparency than the other layers, is a low-density cloud of plasma called the corona. Elevated by solar flairs and blown by solar winds this plasma cloud extends out through the solar system and permeates it with this highly charged ionized matter. The earth's magnetic fields interact with the incoming electric and magnetic fields of the plasma at its two poles. Consequently, the dramatic display of swarming lights known as the Aurora Borealis and the Aurora Austrealis are observable in both the extreme northern and southern skies during heightened solar activity.

Scientists have thus far been unable to recreate independent plasma electric phenomenon in the laboratory, although the "glow discharge" that is created in fluorescent tubes and neon lights can be considered an expression of plasma. How plasma might exist as a free-floating bubble under normal atmospheric conditions is currently open to speculation.

## **Implications**

The most basic components of life and matter have the ability to contain visible light. Examples of natural luminous phenomena and luminous potential can be found in extremely diverse biological organisms, geological matter, water, gas, and energy generated in severe weather.

Examples of luminous phenomena trapped in matter multiply dramatically when we consider other expressions of light, such as radioactivity and radiance that is not visible to the naked eye. As a source of information, destruction, or as a resource of energy generation, invisible light permeates the universe, the most fundamental building blocks of life, and the atom itself.

Plasma could be more prevalent on earth than has previously been suspected. Given that this fourth form of matter has the tendency, or the affinity, to "enclose" light, the

phenomenon of self- contained luminous spheres may be more commonly expressed, and even more easily understood, as accompanying non-visible light manifestations.

Given that this fourth form of matter has the tendency, or the affinity, to “enclose” light, the phenomenon of independent, self- contained luminous events may be more commonly expressed, and more easily understood, as accompanying non-visible light manifestations.

The human being has a significant material base from which to generate a luminous expression. When narrowly considered as electrically charged carbon with a phosphorus rich skeletal system, the human body contains sufficient “materia prima” to produce radiant phenomena. The expression of luminous phenomena generated from the internal spaces of the human body as well as the potential for an entire luminous “second body” should be considered as real possibilities.

The question then becomes whether a luminous human expression can be directed and maintained with intentionality, or if it must necessarily degenerate and become a light lost, a temporary luminous phenomena that glows, dances about as flashy colors for a brief moment, to then unceremoniously vanish (disintegrate).

## **Sightings and Legends**

### **1. Swamp Gas**

The eerie gas stories aren't new. American Indian and early European settlers also saw the lights, according to the lore. Locals here cheerfully trade stories of being pursued by odd glowing orbs of green light, alien abductions and encounters with the Pig Man, a Southern version of Bigfoot. Unsurprisingly, UFO stories and abduction reports also make the rounds among locals.

Mysterious meetings of being chased by blobs of pulsating light that seem to have minds of their own purportedly occur both deep within the swamp and along the dark and lonely roads that border it. Although explained by folklore in different ways and called by different names, Fool's Fire always leads the unwary to their doom at night in some deep swamp or bog. These phantom lights are claimed to be paranormal events related to malicious fairies, lost souls, and UFOs, while more conservative beliefs claim they are related to seismic activity, ball lightning, swamp gas or glowing fungus.

Mostly the gas just hovers innocently over the swamp, appearing as a greenish-yellow fuzzy blob of light if it's visible at all. But occasionally, according to locals, it leaves the swamp and romps around town. Some say it's an optical illusion caused when headlights or flashlights illuminate the gas, but others aren't so sure.

Sightings of strange glowing lights that seem "to pulsate almost like a beating heart, with pulsating white and purplish light instead of blood" as well as unidentified balls of light

bouncing along the ground have been reoccurring. "It just doesn't seem natural when a glowing glob is following you down the road."

You walk faster toward the lights that flicker and seem to move away from you as you approach them. You increase your pace, dodging the barely visible shadows that are all you can see of the trees. You're no longer on any trail and your muddy, soaking shoes tell you you're in a swamp. You start yelling "Hey! I'm lost back here, can you help me out!" when you trip over a log and land in a deep swampy pool. The water is up to your waist and filled with deep muck that gives you little footing. You feel tree roots that give you some leverage on one foot, but your next step breaks through the root tangle. You're now up to your neck in rancid swamp water and sinking fast. Your last feeble cries are unanswered by the ghostly lights as you become a victim of the Will-O-Wisp.

Soon I noticed the faint glow, like a light below the horizon, then several small red lights danced their way up into this glow. The light was spectacular. It seemed to be pointing straight at us. My friend and I both witnessed the light change shapes from an octagon to a multi-pointed star, to a diamond shape, then back to round. It even sort of spun, but didn't seem to be giving off the beam of light it did when we first noticed it. Once over the horizon, the light didn't seem to move laterally, but did move up and down. While the white light was visible, we could still see the three smaller red lights bouncing around and behind it. All told, we watched the display for about four or five minutes before the light dropped back below the horizon".

It went from bright white in a triangular shape to a bright white with red the red would split in to 3 and sometimes 4 smaller red lights... there was at one point a green and purplish light to the side of the white...incredible!!!"

In Great Britain, the will-o'-the-wisp was for the first time described in the times of Shakespeare. People said that the lights lured men into morasses in order to kill them.

### The Paulding Light

They are commonly known as "Earth Lights" and occur naturally in seven locations worldwide. Speculation has attributed these earth lights to swamp gas (there no swamps near here), Electro-magnetic energy from geological formations beneath the surface, and even "Ley Lines" (the electro-magnetic lines of force created by our magnetically polar earth). The real ones bounce, jitter, take on a wide variety of shapes and appear along the power line right of way to the right (east) of the roadway.

The light appeared after dark. It started off as a dim yellowish blurred spot. Then, after a few seconds, it became very, very bright (almost like it was coming at us). The light seemed to sway back and forth much like a train would do when traveling down the tracks of branch line, where speeds are generally slower due to track conditions. The light then stopped moving and a second light, this one reddish in color, swung down away from the main light. This second light was almost as if a brakeman or conductor had climbed down from the side of the train with his lantern to go about his business. The

reddish light bounced around a bit then just as quickly as it had appeared, vanished. The main light started to fade out of sight, until it too was gone. The whole process took no more than a minute.

Some locals attest to the fact that the lights start over Lake Superior and make their way inland. Some think it is simply the headlights from a passing car. That explanation would be fine except 'the light' was seen before automobiles were around. Seismologists say a few earthquakes left some small cracks in the ground that let out radioactive gases. Other scientists say it is only swamp gases, but what about when the swamps are frozen and covered with snow? The light can be seen in the winter months.

The Paulding Light is a year around phenomenon located in the Upper Peninsula (U.P.) of Michigan. The "Light" is such a phenomenon that the U.S. Department of Resources has placed a sign at the site offering their own theory. The Mystery Light of the U.P. has been investigated by universities, looked into by the U.S. Army Corps of Engineers and featured on nationally broadcast TV shows.

At one time, Ripley's Believe It Or Not offered in excess of \$100,000 to the person or persons who could solve a bizarre light phenomenon in Paulding, Michigan. Nearly every clear evening, strange circular spheres of light dance on the horizon of the tiny community, and at one point seem to follow the pathway of electrical lines. The lights, ranging from white to red to blue to yellow and sometimes even green, frequently occurring in multiple color combinations, have been captured on film by Michigan Magazine and Channel Six News out of Marquette. Experts from Ripley's have been to the location to examine the phenomenon. At the location of the Paulding lights, the Michigan Forest service has put up signs which indicate the best area from which the lights can be seen. So far, no logical conclusions have been reached. The lights have been witnessed as being red, white and green. These lights are not to be confused with the Northern Lights. They are a phenomenon that is unique to Paulding, Michigan. Locals say the lights have been viewed for a long time. Eye witnesses claim to have seen the lights way back at the turn of the century.

Various legends have developed concerning the lights. There are Native American legends pointing to the possibility that the lights are the souls of braves who died in battle at the site. Other tales tell of a terrible train wreck along this stretch when the rail was still operational. The Conductor is still waving his lantern. One myth explains the lights as the ghost of a railroad brakeman, while other say it is the ghost of an Indian dancing on the power lines.

Is the light caused by a decapitated railroad watchman's lantern? Or is it the mail carrier who was ambushed by Indians over a century ago while crossing the swamp in the 1870's? Could it be an angry Native American chief upset about the power lines? Headlights, ghosts, UFO's, swamp gases, or radio active gases - the possibilities are endless. Everyone has a different idea.

## **2. Desert Lights**

The early alchemists believed that the Philosophers Stone was a magical substance that could cure all diseases and make transmutations much easier. A transmutation was understood as the transformation of one substance to another by changing the elements of the substance.

Marfa's mysterious lights could have been there since the beginning of time, but it is also just as possible that they winked into existence in the past couple of centuries or so. The first recorded Texan history occurred in 1883, when Robert Ellison observed strange lights in the distance. He and his fellow cowhands thought they were looking at the flickering flames of Apache campfires. The lights appeared to be a few miles away and hovered just above the ground.

The unexpected lights alarmed the cowboys, who thought the Apaches were on the move, and they quickly doused their own campfires. Determined to investigate the area in the daylight they combed the area for any signs of an Indian encampment, but they found none. Full of superstition, the cowboys finally decided the lights were not man-made and began calling them "ghost lights."

The lights really do defy all attempts at explanation. Attempts to locate their source always fail because they usually vanish when anyone tries to approach them. People hike, ride horseback, drive jeeps, and even fly helicopters and airplanes to follow the lights. Some have followed them as far as thirty-five miles. The lights always win. Searchers have never found campfires, buildings, tire tracks, footprints, or any other evidence that could explain the lights' sources. Some people even claim that the lights would reappear after they had abandoned the search and were miles away looking back over their shoulders.

Over the years, explanations for the mysterious lights have ranged from ball lightning to St. Elmo's fire to dead Indians, ghosts, tricks, static electricity, combustible dust, bat guano, solar activity, electromagnetic energy, volcanic activity, biological luminescence, and UFO's. There's even the glowing jackrabbit explanation. Under that theory, the jackrabbits race across the desert with a coating of phosphorescent dust or glow worms clinging to their hides. In the absence of a more definitive explanation, legend and folklore have been known to sprout like tumbleweeds.

The Indians saw the lights long before any white man did. Their legends tell of the Great Spirit, who made the mountains in the area by throwing all the jumbled rocks left over from the creation of the stars, the birds and fishes, and the earth itself, into a huge pile in the middle of the leftover wasteland. The Devil then promptly claimed the rock pile and wasteland and turned it into hell, adding things that bite, sting, or prick. When anyone died in that hell, the lights became the spirits of the dead ones, who were thwarted in real life and forced to wander the desolate world in search of kith and kin. The locals who like this explanation also say that 'it is a hell of a place that the Devil has for hell.'

Other Native stories tell of the phosphorescent souls of brave warriors, betrayed by treachery or killed in battle, and doomed to roam the lunar-like landscape in search of

justice or revenge. This has the classical advantage of perpetuating myth into legend. Still another ancient Indian tale came from the journal of O.W. Williams, grandfather of former Texas governor Clayton Williams. According to the elder Williams, the lights are the ghosts of the Apache war chief, Alsate.

### **Zona del Silencio**

Mexico's mysterious, magical zona del silencio--the Zone of Silence, just four hundred miles away from El Paso, Texas. is a place which gobbles up radio and TV signals, and which has of late been associated with UFO phenomenon.

Travelers crossing the zone regularly report seeing strange lights or fireballs maneuvering at night, changing colors, hanging motionless and then taking off at great speed. Two ranchers heading back from a festivity witness how a coruscant light floated down from the dark sky and disgorged humanoid occupants, who glowed with the same eerie light and were walking toward them. The ranchers broke into a frantic run.

Legends say that Min Min Lights of West Queensland, Australia are the souls of the dead people who have somehow been delayed on Earth. The lights have also been alleged to be UFOs or extraterrestrials themselves. The mysterious lights have been compared with ball lightning, but the comparison is not precise, as the lights are less hostile toward people than ball lightning.

The first account of the "Phantom Lights" of Borrego, California was reported in 1858 by a Butterfield Stage driver. Since then soldiers, prospectors and explorers have reported seeing similar lights. The sightings have been reported near Oriflamme Mountain, over Borrego Valley and in other nearby areas. The occurrences are always slightly different, but the general description of the sightings is the same.

In 1892, a prospector by the name of Charles Knowles and two other men were camping near Grapevine Canyon at the entrance to the Narrows, where they reported their sighting of "Fire Balls." Knowles described the "lights" as balls of fire that rose up approximately 100 feet in the air and then exploded. Knowles compared the "Fire Balls" to fireworks. He saw three "Fire Balls" rise and cascade upon explosion, before they stopped. About 30 minutes later the "Lights" started again, but this time they were different. The "lights" rose into an arch pattern returning to the ground without exploding. The "Light" would then reverse itself and go back to the place where it started.

One scientific explanation suggests that when the wind blows sand against quartz outcroppings, static electricity is created, which could look like bright lights or sparks on a dark night.

Some believe that the lights were signals used by bootleggers during prohibition or US Immigration for smuggling operations related to the Mexican Border. The only problem with these two explanations is that the sightings had been going on long before and after the events described above.

Another notion is that the "Fire Balls" indicate the location of buried treasure. There are stories that support this latter theory of buried treasure. One of the stories tells of a young man who found many gold nuggets in a gully within the Oriflammes. Another man by the name of George Benton found a boulder of rock, weighing a ton, that contained gold.

### **3. Plasma-Electric**

The appearance of St. Elmo's fire has long been regarded with superstitious awe by frightened seafarers. The eerie blue glow around the tops of the masts during rough weather has been interpreted by seamen either as a bad omen or seen as a sign of their patron's protection.

The few people that have had the privilege of viewing an actual St. Elmo's fire have given various descriptions. It has been seen with different physical characteristics depending on the conditions of the viewing. It could be blue to bluish-white, silent to emitting a hissing sound, and ghostly to solid. Some people believe that the Hindenburg was ignited by St. Elmo's fire in 1937, however this theory has yet to be proven.

“I saw ball lightning during a thunderstorm in the summer of 1960. I was 16 years old. It was about 9 PM, very dark, and I was sitting with my girlfriend at a picnic table in a pavilion at a public park in upstate New York. The structure was open on three sides and we were sitting with our backs to the closed side. It was raining quite hard. A whitish-yellowish ball, about the size of a tennis ball, appeared on our left, 30 yards away, and its appearance was not directly associated with a lightning strike. The wind was light. The ball was eight feet off the ground and drifting slowly towards the pavilion. As it entered, it dropped abruptly to the wet wood plank floor, passing within three feet of our heads on the way down. It skittered along the floor with a jerky motion, passed out of the structure on the right, rose to a height of six feet, drifted ten yards further, dropped to the ground and extinguished non-explosively. As it passed my head, I felt no heat. Its sound I likened to that of a freshly struck match. As it skittered on the floor it displayed elastic properties (a physicist would call them resonant vibrating modes). Its luminosity was such that it was not blinding. I estimate that it was like staring at a less than 10-watt bulb. The whole encounter lasted for about 15 seconds. “

“About 16 years ago, when I was a child and lived with my family in Russia, a curious thing happened. My mother and I were sitting in our 13th floor flat, when we heard a sizzling noise and I saw a ball of fire about 5 centimeters in diameter right behind my mother's head. It stayed there a few seconds, then went "pop" like an exploding light bulb and vanished. It was not raining that day, but was cloudy and quite stuffy. The windows were closed at the time of the incident. “

“The man was peeling potatoes in the small kitchen and a mountain thunderstorm arrived as they do in the summer time. He stated that there was a huge clap of thunder that stunned him. Almost immediately there was a blue ball of light that started to ricochet around in the kitchen. He said that he had to lift up his feet so that the ball did not hit him. There was a small wood burning stove against one wall with a piece of galvanized

time behind it to shield the wooden wall from the heat of a fire. The lightning blasted one of nails holding the metal sheet out of the wall and burnt the bent shape of an 8-penny nail into the flooring. The burn mark was still visible when we bought the house. Outside the damage was greater. The lightning had struck a huge cottonwood tree leaving a major scar in the wood and bark that is still visible twenty years later. There was a wire clothesline from the tree to the house that was vaporized. The clothespins were neatly aligned on the ground where they had fallen from the clothesline. It was presumed that the lightning was carried to the wall of the house by the wire clothesline, and then blasted the nail from the wall. How or what the blue ball of energy was that was bouncing around the kitchen is anyone's guess, but it fits the description of ball lightning. The man who told me the story was not known to tell tall tales, and he was very convincing when he told the story to me."

Many scientists contended that the glowing ball was merely the after-image seen by the witness after a regular lightning strike. (An after-image is the spot you see in your eye after watching a bright light like a camera flash). More and more scientists are beginning to accept the existence of ball lightning as a true electrical phenomenon. In fact, scientists at the Edinburgh University Department of Meteorology had their own brush with ball lightning when one morning, after a storm, they arrived at their offices and found a two and one half inch round hole, with smooth edges, in the window. Since the glass was fused, it is believed it was melted away by the passage of ball lightning.

Ball lightning when seen can be terrifying. In August of 1966 in Crail, Scotland, Mrs. Kitty Cox was out walking her dogs when she heard a tremendous clap of thunder followed by screaming. She saw children running as a luminous orange ball came hissing toward her. "My dogs panicked," she recalls, "and I watched it as it went past very quickly, hissing and whirring, and went right across into the sea."

One of the best observations of the phenomena occurred when Professor R. C. Jenninson of the Electronics Laboratories at the University of Kent was flying in an Eastern Airlines Jet from New York to Washington in March of 1963. The plane was caught in a thunderstorm and struck by regular lightning. A few seconds later a glowing sphere emerged from the pilots cabin and floated down the aisle. The ball, which was also seen by a stewardess, continued down the aisle and disappeared near the rear lavatory.

An artificial version of ball lightning has been reported on submarines that use huge batteries to operate their engines. Improper connection of the battery causes an electrical discharge that sometimes reportedly spawns glowing, hot balls. Professor James Tuck, of Los Alamos Laboratories, heard about this and attempted to duplicate with effect using a submarine battery stored on campus. Most of his tests produced nothing resembling ball lightning, but in a final experiment before the lab was disassembled Tuck introduced a low concentration of methane around the area of the discharge. The result was an unexpectedly large explosion and the end of the experiments. Later, film from movie cameras operating during that last test showed something Tuck hadn't seen at the time: a four inch round glowing ball.

It has been suggested that ball lightning is made up of a cloud of plasma (ionized air) that may be sustained through the absorption of radio waves. Another proposal suggests that the source of the energy is focused cosmic ray particles. A recent theory suggests that ball lightning is caused by burning balls of silicon nanoparticles liberated when lightning strikes the ground. The free silicon cools rapidly after impact as the nanoparticles assemble, forming long chains or even spherical dendritic balls. This is similar to the process used to form semiconductor silicon from sand. However, none of these theories adequately explain how ball lightning appears in closed containers such as an airplane or a room in a house.

Another consideration is that ILP could be a visible manifestation of the spirit

Philip hopes this may generate a discussion on the list but it would be difficult for him to respond individually.