THE FOO FIGHTER MYSTERY

Introduction

On May 18th 2004 THE TIMES newspaper published in U.K. included in its Weather section an intriguing commentary entitled 'Weather Eye' by Paul Simons. It began by noting:

> "The Mexican Air Force disclosed last week that one of its planes had seen a swarm of bright lights hovering and darting around it. The lights remain a mystery, but UFO enthusiasts claimed that they were extraterrestrial."

Paul Simons then explained how this reminded him of strange lights seen towards the end of the Second World War, when many pilots reported seeing balls of light chasing their aircraft during flights in Europe and over the Pacific. He then noted that the lights, which were also reported by German pilots, were nicknamed "foo fighters" and looked like small balls of fire, usually orange, sometimes translucent. He ended with the words:

> "The foo fighters are a mystery to this day. There is still no technology in the world that can perform their spectacular feats, and if the lights were a natural electrical phenomenon, such as ball lightning, it is difficult to explain why they were seen in all weathers."

When I read this I recalled that in 1983 a paper of mine entitled 'The Thunderball - an Electrostatic Phenomenon' was published here in U.K. by the Institute of Physics. It appears at pp. 179-184 in their Conference Series No. 66 record of a conference held in Oxford.

Until reading that account a few days ago I had never before heard of that "foo fighter" nickname or understood that the phenomenon was so prevalent. I was aware of an account by Professor R. C. Jennison, himself having been a fighter pilot in the Second World War, who told me that in more recent years as a passenger on a commercial flight homeward bound for England he had an encounter with a thunderball within an aircraft. He said that there were very few passengers in the cabin and he was sitting well back and in an aisle seat. To his surprise a young stewardess looking distressed suddenly came rushing aft towards him. She threw herself over him to get into a window seat and then he saw the reason for her concern. A glowing spherical object was floating along the aisle moving towards the rear of the plane. He did not move and it floated past him and vanished through a closed door at the rear. Professor Jennison's speciality, being electronics and the physics of electromagnetic wave propagation, led him then to say that he wished he had had the foresight to look away from that glowing object to see if he could sense its presence visually, a possibility he thought, if it was emitting radiation other than that of its optical glow.

The Mystery Explained

The point I made in my paper concerning the thunderball is that the phenomenon is the result of setting up an electric field directed radially to or from a central axis. Lightning is not the essential trigger that creates the quasi-stable state of spin which consolidates into spherical form and glows until the energy stored in its field spin is dissipated. My paper delves into the quantitative aspects of the physics involved and shows how the theory predicts the energy density levels which have been established from the available observational data. The spheres of field spin created can be portrayed as spheres of uniform electric charge density of one polarity with a compensating electric charge of opposite polarity sitting at the boundary surface of sphere. This accounts for the energy content, it being that of the field of the displaced charge.

The theory is then supported by an associated energy state arising from its spin as the sphere rotates about an axis through its centre and such theory involves a coupling with the quantum jitter of the underlying field medium. This is governed by a synchronization factor effective between the spin quanta within the charge sphere and those of the quantum underworld of enveloping space.

Such theory is a matter of record elsewhere, not only in the above referenced conference paper but in books and in many published papers. See this author's web site www.aspden.org. However, a point that is rather obvious from what has just been described, is the fact that such a sphere, electrically-neutral overall, but rotating about its axis, will produce a magnetic field directed along that axis. So, you see, we are considering here a phenomenon of energy contained by a spherical form which, as mere electric field displacement, can float in space but yet, owing to its magnetization, be subject to the influence of magnetic fields. Note that 'mere electric displacement' is something we can achieve within the vacuum, as by storing energy in a capacitor formed by two plate electrodes spaced apart in vacuo.

As to whether a thunderball may have a magnetic field, just take note that history records that thunderballs floating in the vicinity of gun barrels have been seen to be attracted to them, presumably because the iron gun barrel has itself acquired some magnetism, but otherwise because, as we well know, magnets that come into close proximity with iron are pulled in by the induced field.

Why, you may ask, is the thunderball the product of a lightning discharge? Well, we know that lightning arises from atmospheric electricity, clouds acquiring electric charge and then their sudden discharge. This produces ionization of air along the discharge track, meaning that the air molecules shed electrons. The electric current of the lightning discharge is therefore carried by those electrons and, as is well-known in electrical engineering theory, a sudden very high current discharge produces a 'pinch' effect. The electrons are pulled together, being drawn radially towards the axis of the discharge. This, therefore, establishes a radial electric field between the inner electron population and the outer positive ion population. This sets up the field spin state mentioned above, which persists after the lightning discharge has subsided, and what results can be a consolidation into spherical form bearing in mind the magnetic attraction as between the field spins created along the length of the discharge path.

Now, concerning the question of the "foo fighters" and why, if they are the same phenomenon as the thunderball, they appear without the presence of a thunderstorm, just consider a fighter aircraft as it changes altitude at very high speed in its manoeuvres in an atmosphere we know is charged with electricity. The Earth has a vertical electric field, as

if it is negatively charged, that is measured in hundreds of volts per metre. It is not enough for us to harness for electric power generating purposes but it is enough, subject to fluctuations, changing sunlight and cloud movement, to set the stage for a thunderstorm or, should a fighter plane make a sudden change of altitude cause its metal skin to acquire an electric charge of one or other polarity.

Then, taking account of the fact that the aircraft fuselage is somewhat cylindrical in shape, one can see that here we have a longitudinal axis with an external electric field directed radially from that axis. This is a recipe for setting up field spin in the underlying vacuum medium, the medium through which the plane is travelling at high speed. This means that a trail of field spin is created behind the aircraft and there is then the possibility of that magnetic field attraction consolidating that field-spin into spherical forms which glow in shedding the energy acquired. Such spheres might then be held captive by the magnetic field set up by the field spin that envelopes the fuselage and so be seen as "foo fighters".

Such, at least, is my explanation of the "foo fighter" mystery that puzzles Paul Simons.

A Concluding Note

As to the thunderball that was witnessed by Professor Jennison inside an aircraft, that could have been produced by a lightning discharge well ahead of the aircraft and flown into so as to enter the body of the fuselage. Just as thunderballs can pass through solid objects, they being aethereal-like objects characterized by energy and a state of field spin, so they could well find their way into a passenger compartment.

A more important note on which to conclude is the need for concern as to the attitude of the physics community, given that such a mystery has been left unanswered. There are indeed many mysteries that need to be addressed by today's physicists, mysteries that pertain to the reality of Nature here and now on body Earth. They should take precedence over highly expensive experimental pursuits that supposedly delve into the mysteries such as "Is there life on Mars?", "How long ago was the Big Bang, assuming there was a Big Bang?" and "What happens if two protons are caused to collide at an ultra-high level of energy?"

At least, there is enormous scope for exploration of alternative ideas concerning basic physics, rather than merely building block by block on an existing framework without a care as to whether or not it might collapse owing to having relied on the wrong assumptions. The aether is pushed aside by Einstein's theory, but yet whatever there is in space devoid of matter can somehow store energy, electric and magnetic field energy. Physicists think that electromagnetic wave energy is conveyed by photons moving like bullets at the speed of light but still use wave theory to explain optical interference phenomena and wave theory demands an aether.

When they did believe in the aether in the 19th century, physicists did not know how to escape from their dilemma, that of the aether seeming to be a solid for some reasons but yet a fluid for other reasons. You would think they would re-evaluate their position, once the properties we associate with fluid crystals became better known. Another example is their belief that the Sun owes its energy radiation to a nuclear fusion reaction occurring at its centre where they believe the temperature exceeds 100,000,000 degrees Celsius. Yet any student of physics who has been introduced to Bohr's theory of the hydrogen atom can work out that when hydrogen atoms come as close as they need to to account for the mass

density of the Sun, the electrons of adjacent atoms collide. This produces ionization, meaning that some protons become free, which in turns means that enough protons will be pulled by gravity to set up a positive charge in the body of the Sun of just such an amount as to cancel further compression under gravity. There can then be no inner temperature that can promote nuclear fusion. Ionized atomic hydrogen at about 6,000 degrees Celsius will prevail throughout the body of the Sun.

The key factor governing what has just been said is our knowledge that, by the law of gravity, the mutual rate of gravitational acceleration of free protons is 1836 times greater than that which applies between free electrons. In spite of the mixture of positive and negative charges in the Sun's ionized plasma, the higher mass of the proton by a factor of 1836 compared with electron mass results in an equilibrium state in which statistically there are more protons within the body and core of the Sun than there are electrons. The electron deficit is made up by an excess of electrons in the Sun's surface regions.

So, if we rule out nuclear fusion, how does the Sun get its energy input to sustain its radiation? Well, surely, that same physics student might reason that the electrons that are recaptured by the protons will adopt the identical quantized state that they had before their original separation. This is because they are governed by interplay with the quantum underworld, meaning the aether, and that requires inflow of energy from that underworld. So the Sun is kept alive by the aether which physicists say does not exist and, daring to answer the problem of another mystery, that of where energy goes when it is radiated into outer space, I suggest that such energy is eventually absorbed back into that unrecognized aether. In short, my message is that we exist in a state of low temperature energy equilibrium as between us and the aether but the Sun, owing gravity attributable to its massive form, has energy equilibrium with the aether at a level set by ionization of its hydrogen atoms and that is at 6000 degrees Celsius.

My further message is that, given that the aether can be induced to shed energy, there is the ever-present challenge of our contriving to tap energy from the aether. Ask yourself what it is that sustains the properties of a permanent magnet. Physicists will tell you that ferromagnetism depends upon the quantized orbital motion and spin states of electrons which happen in some substances to work collectively in an energy condition that favours the magnetized state. Then ask, if it were possible to draw energy from a permanent magnet, whether that magnet might recover that energy from the quantum underworld, the aether. I certainly would be inclined to answer that question in the affirmative, meaning there could well be scope for tapping energy from the aether by a motor using permanent magnets in some way. Such a topic featured in a recent issue of the magazine NEXUS (June-July, 2004) and I saw it contained on pp. 41-44 an account of "Kohei Minato's Amazing Magnetic Motor", which proves what has just been suggested.

There is indeed much the physicists have yet to learn and my message is that when facing a mystery in the field of physics one should be realistic enough to keep the aether in mind.