

How to Build a Flying Saucer After So Many Amateurs Have Failed

An essay in Speculative Engineering

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At the end of the nineteenth century, the most distinguished scientists and engineers declared that no known combination of materials and locomotion could be assembled into a practical flying machine. Fifty years later another generation of distinguished scientists and engineers declared that it was technologically infeasible for a rocket ship to reach the moon. Nevertheless, men were getting off the ground and out into space even while these words were uttered.

In the last half of the twentieth century, when technology is advancing faster than reports can reach the public, it is fashionable to hold the pronouncements of yesterday's experts to ridicule. But there is something anomalous about the consistency with which eminent authorities fail to recognize technological advances even while they are being made. You must bear in mind that these men are not given to making public pronouncements in haste; their conclusions are reached after exhaustive calculations and proofs, and they are better informed about their subject than anyone else alive. But by and large, revolutionary advances in technology do not contribute to the advantage of established experts, so they tend to believe that the challenge cannot possibly be realized.

The UFO phenomenon is a perversity in the annals of revolutionary engineering. On the one hand, public authorities deny the existence of flying saucers and prove their existence to be impossible. This is just as we should expect from established experts. But on the other hand, people who believe that flying saucers exist have produced findings that only tend to prove that UFOs are technologically infeasible by any known combination of materials and locomotion.

There is reason to suspect that the people who believe in the existence of UFOs do not want to discover the technology because it is not in the true believer's self interest that a flying saucer be within the capability of human engineering. The true believer wants to believe that UFOs are of extraterrestrial origin because he is seeking some kind of relief from debt and taxes by an alliance with superhuman powers.

If anyone with mechanical ability really wanted to know how a saucer flies, he would study the testimonies to learn the flight characteristics of this craft, and then ask, "How can we do this saucer thing?" This is probably what Werner Von Braun said when he decided that it was in his self-interest to launch man into space: "How can we get this bird off the ground, and keep it off?"

Well, what is a flying saucer? It is a disc-shaped craft about thirty feet in diameter with a dome in the center accommodating the crew and, presumably, the operating machinery. And it flies. So let us begin by building a disc-shaped airfoil, mount the cockpit and the engine under a central canopy, and see if we can make it fly. As a matter of fact, during World War II the United States actually constructed a number of experimental aircraft conforming to these specifications, and photographs of the craft are published from time to time in popular magazines about science and flight. It is highly likely that some of the UFO reports before 1950 were sightings of these test flights. See how easy it is when you 'want' to find answers to a mystery?

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The mythical saucer also flies at incredible speeds. Well, the speeds believed possible depend upon the time and place of the observer. As stated earlier, a hundred years ago, twenty-five miles per hour was legally prohibited in the belief that such a terrific velocity would endanger human life. So replace the propeller of the experimental disc airfoil with a modern aerojet engine. Is mach 3 fast enough for believers?

But the true saucer not only flies, it also hovers. You mean like a Hovercraft? One professional engineer translated Ezekiel's description of heavenly ships as a helicopter-cum-hovercraft.

But what of the anomalous electromagnetic effects manifest in the space surrounding a flying saucer? Well, Nikola Tesla demonstrated a prototype of an electronic device that was eventually developed into the electron microscope, the television screen, an aerospace engine called the Ion Drive. Since World War II, the engineering of the Ion Drive has been advanced as the most promising solution to the propulsion of interplanetary spaceships. The drive operates by charging atomic particles and directing them with electro-magnetic force as a jet to the rear, generating a forward thrust in reaction. The advantage of the Ion Drive over chemical rockets is that a spaceship can sweep in the ions it needs from its flight path, like an aerojet sucks in air through its engines. Therefore, the ship must carry only the fuel it needs to generate the power for its chargers; there is no need to carry dead weight in the form of rocket exhaust. There is another advantage to be derived from ion rocketry: The top speed of a reaction engine is limited by the ejection velocity of its exhaust. An ion jet is close to the speed of light. If space travel is ever to be practical, transport will have to achieve a large fraction of the speed of light.

In 1972 the French journal *Science et Avenir* reported Franco-American research into a method of ionizing the airstream flowing over the wings to eliminate sonic boom, a serious objection to the commercial success of the Concorde. Four years later a picture appeared in an American tabloid of a model aircraft showing the current state of development. The photograph shows a disc-shaped craft, but not so thin as a saucer; it looks more like a flying curling stone. In silent flight, the ionized air flowing around the craft glows as a proper ufo should. The last word comes from an engineering professor at the local university; he has begun construction of a flying saucer in his backyard.

To the true believer, the flying saucer has no jet. It seems to fly by some kind of antigravity. As antigravity is not known to exist in physical theory or experimental fact in popular science, the saucer is clearly alien and beyond human comprehension. But antigravity depends upon what you conceive gravity to be, doesn't it?

For all practical purposes, you do not have to understand what Newton and Einstein mean by gravity. Gravity is an acceleration downward, to the center of the earth. Therefore, antigravity is an acceleration upward. As far as practical engineering is concerned, any means to achieve a gain in altitude is an antigravity engine. An airplane; a balloon; a rocket; a stepladder; all are antigravity engines. See how easy it is to invent an antigravity engine?

There are three basic kinds of locomotive engines. The primary principle is traction. The foot and the wheel are traction engines. The traction engines depend upon friction against a surrounding medium to generate movement, and locomotion can proceed only as far and as speedily as the surrounding friction will provide. The second principle is displacement. The balloon and the submarine rise by displacing a denser medium; they descend by displacing less than their weight. The tertiary drive is the rocket engine. A rocket is driven by reaction from the mass of material it ejects. Although a rocket is most efficient when not impeded by a surrounding medium, it must carry not only its fuel but also the mass it must eject. As a consequence, the rocket is impractical

where powerful acceleration is required for extended drives. In chemical rocketry, ten minutes is a long burn for powered flight. What is needed for practical antigravity locomotion is a fourth principle which does not depend upon a surrounding medium or ejection of mass.

You must take notice that none of the principles of locomotion required any new discovery. They have all been around for thousands of years, and engineering only implemented the principle with increasing efficiency. A fourth principle of locomotion has also been around for thousands of years: It is centrifugal force. Centrifugal force is the principle of the military sling and the medieval catapult.

Everyone knows that centrifugal force can overcome gravity. If directed upward, centrifugal force can be used to drive an antigravity engine. The problem engineers have been unable to solve is that centrifugal force is generated in all directions on the plane of the centrifuge. It won't provide locomotion unless the force can be concentrated in one direction. The solution of the sling, of releasing the wheeling at the instant the centrifugal force is directed along the ballistic trajectory, has all the inefficiencies of a cannon. The difficulty of the problem is not real, however. There is a mental block preventing people from perceiving a centrifuge as anything other than a flywheel.

A bicycle wheel is a flywheel. If you remove the rim and tire, leaving only the spokes sticking out of the hub, you still have a flywheel. In fact, spokes alone make a more efficient flywheel than the complete wheel; this is because momentum only goes up only in proportion to mass but with the square of speed. Spokes are made of drawn steel with extreme tensile strength, so spokes alone can generate the highest level of centrifugal force long after the rim and tire have disintegrated. But spokes alone still generate centrifugal force equally in all directions from the plane of rotation. All you have to do to concentrate centrifugal force in one direction is remove all the spokes but one. That one spoke still functions as a flywheel, even though it is not a wheel any longer.

See how easy it is once you accept an attitude of solving one problem at a time as you come to it? You can even add a weight to the end of the spoke to increase the centrifugal force.

But our centrifuge still generates a centrifugal force acceleration in all directions around the plane of rotation even though it doesn't generate acceleration equally in all directions at the same time. All we have managed to do is make the whole ball of wire wobble around the common center of mass between the axle and free end of the spoke. To solve this problem, now that we have come to it, we need merely to accelerate the spoke through a few degrees of arc and then let it complete the cycle of revolution without power. As long as it is accelerated during the same arc at each cycle, the locomotive will lurch in one direction, albeit intermittently. But don't forget that the piston engine also drives intermittently. The regular centrifugal pulses can be evened out by mounting several centrifuges on the same axle so that a pulse from another flywheel takes over as soon as one pulse of power is past its arc.

The next problem facing us is that the momentum imparted to the centrifugal spoke carries it all around the cycle with little loss of velocity. The amount of concentrated centrifugal force carrying the engine in the desired direction is too low to be practical. Momentum is half the product of mass multiplied by velocity squared. Therefore, what we need is a spoke that has a tremendous velocity with minimal mass. They don't make spokes like that for bicycle wheels. A search through the engineers' catalog however, turns up just the kind of centrifuge we need. An electron has no mass at rest (you cannot find a smaller minimum mass than that); all its mass is inherent in its velocity. So we build an electron raceway in the shape of a doughnut in which we can

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accelerate an electron to a speed close to that of light. As the speed of light is approached, the energy of acceleration is converted to a momentum approaching infinity. As it happens, an electron accelerator answering our need was developed by the University of California during the last years of World War II. It is called a betatron, and the doughnut is small enough to be carried comfortably in a man's hands.

We can visualize the operation of the Mark I from what is known about particle accelerators. To begin with, high energy electrons ionize the air surrounding them. This causes the betatrons to glow like an annular neon tube. Therefore, around the rim of the saucer a ring of lights will glow like a string of shining beads at night. The power required for flight will ionize enough of the surrounding atmosphere to short out all electrical wiring in the vicinity unless it is specially shielded. In theory, the top speed of the Mark I is close to the speed of light; in practice there are many more problems to be solved before relativistic speeds can be approached.

The peculiar property of microwaves heating all material containing the water molecule means that any animal luckless enough to be nearby may be cooked from the inside out; vegetation will be scorched where a saucer lands; and any rocks containing water of crystallization will be blasted. Every housewife with a microwave knows all this; only hard-headed scientists and soft-headed true believers are completely dumbfounded. The UFO-nauts would be cooked by their own engines, too, if they left the flight deck without shielding. This probably explains why a pair of UFO-nauts, in a widely published photograph, wear reflective plastic jumpsuits. Mounting the betatrons outboard on a disc is an efficient way to get them away from the crew's compartment, and the plating of the hull shields the interior. At high accelerations, increasing amounts of power are transformed into radiation, making the centrifugal drive inefficient in strong gravitational fields. The most practical employment of this engineering is for large spacecraft, never intended to land. The flying saucers we see are very likely scouting craft sent from mother ships moored in orbit. For brief periods of operation, the heavy fuel consumption of the Mark I can be tolerated, along with radiation leakage - especially when the planet being scouted is not your own.

When you compare the known operating features of particle centrifuges with the eyewitness testimony, it is fairly evident that any expert claiming flying saucers to be utterly beyond any human explanation is not doing his homework, and he should be reexamined for his professional license.

For dramatic purpose, I have classified the development of the flying saucer through five stages:

- Mark I - Electronic centrifuges mounted around a fixed disc, outboard.
- Mark II - Electronic centrifuges mounted outboard around a rotating disc.
- Mark III - Electronic centrifuges mounted outboard around a rotating disc, period of cycles tuned to harmonize with ley lines, for jet assist.
- Mark IV - Particle centrifuge tuned to modify time coordinates by faster than light travel. Mark V - No centrifuge. Solid state coils and crystal harmonics transforms ambient field directly for dematerialization and rematerialization at destinations in time and space.

Now that the UFO phenomenon has been demystified and reduced to human ken, we can proceed to prove the theory. If your resources are like those of the PLO, you can go ahead and build your own flying saucer without any further information from me, but I have nothing to work with except the junk I can find around the house. I found an old electric motor that had burned out, but still had a few turns left in it. I drilled a hole through the driving axle so that an eight inch bar would slide freely through it. I mounted

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the motor on a chassis so that the bar would rotate on an eccentric cam. In this way in end of the bar was always extended in the same direction while the other end was always pressed into the driving axle. As both ends had the same angular velocity at all times, the end extending out from the axle would always have a higher angular momentum. This resulted in a concentration of centrifugal acceleration in one direction. when I plugged the in the motor, the sight of my brainchild lurching ahead - unsteadily, but in a constant direction, - gave me a bigger thrill than my baptism of sex - lasted longer, too. But not much longer. In less than twenty seconds the burned-out motor gasped its last and died in a puff of smoke; the test run was broadcast on radio microphone but the spectacle was lost without television. Because my prototype did not survive long enough to run in two directions I had to declare the test inconclusive because of mechanical breakdown. So, what the hell, the Wright brothers didn't get far off the ground the first time they tried either. Now that I know the critter will move, it is worthwhile to put a few bucks in to a new motor, install a clutch, and gear the transmission down. One problem at a time is the way it goes.

A rectified centrifuge small enough to hold in one hand and powered by solar cells, based on my design, could be manufactured for about fifty dollars (depending on production and competitive bids). Installed on Skylab, it would be sufficient to keep the craft in orbit indefinitely. A larger Hyperspace Drive (as I call this particular design) will provide a small but constant acceleration for interplanetary spacecraft that would accumulate practical velocities over runs of several days.

It is rumored that a gentleman by the name of Dean invented another kind of antigravity engine sometime during the past fifty years, but I have been unable to track down any more information except that its design consists of wheels within wheels. A gentleman in Florida, Hans, Schnebel, sent me a description of a machine he built and tested that is similar in principle to the Dean drive. Essentially, a large rotating disk has a smaller rotating disc on one side of the main driving axle. The two wheels are geared together so that a weight mounted on the rim of the smaller wheel is always at the outside of the larger wheel during the same length of arc of each revolution, and always next to the main axle during the opposite arc. What happens is that the velocity of the weight is amplified by harmonic coincidence with the large rotor during one half of its period of revolution, and diminished during the other half cycle. This concentrates momentum in the same quarter continually, to rectify the centrifuge. The result is identical to my Hyperspace Drive, but has the beauty of continuously rotating motion. Now, if the Dean drive is made with a huge main rotor, - like about thirty feet in diameter - there is enough room to mount a series of smaller wheels around the rim, set in gimbals for attitude control, an Mr. Dean himself has himself a model T Flying Saucer requiring no license from the AEC.

In 1975, Professor Eric Laithwaite, Head of the Department of Electrical Engineering at the Imperial College of Science and Technology in London, England, invented another approach to harnessing the centrifugal force of a gyroscope to power an antigravity engine - well, he almost invented it, but he did not have the sense to hold onto success when he grasped it. Professor Laithwaite is world-renowned for his most creative solutions to the problems of magnetic-levitation-propulsion systems, and the fruit of his brain is operating today in Germany and Japan, his railway trains float in the air while traveling at over three hundred miles per hour. If anyone can present the world with a proven anti gravity engine, it must be the professor.

Laithwaite satisfied himself that the precessional force causing a gyroscope to wobble had no reaction. This is a clear violation of Newton's Third Law of Motion as 'generally conceived'. Laithwaite figured that if he could engage the precessional acceleration while the gyroscope wobbled in one direction and release the precession

while it wobble in other directions, he would be able to demonstrate to a forum of colleagues and critics at the college a rectified centrifuge that worked as a proper antigravity engine. His insight was sound but he did not work it out right. All he succeeded in demonstrating was a 'separation between action and reaction,' and his engine did nothing but oscillate violently. Unfortunately, neither Laithwaite or his critics were looking for a temporal separation between action and reaction, so the loophole he proved in Newton's Third Law was not noticed. Everyone was looking for action without reaction, so no one saw anything at all. Innumerable other inventors have constructed engines essentially identical to Laithwaite's, including a young high school dropout who lives across the street from me.

Another invention described is U.S. Patent disclosure number 3,653,269, granted to Richard Foster, a retired chemical engineer in Louisiana. Foster mounted his gyroscopes around the rim of a large rotor disc, like a two cylinder flying saucer. Every time the rotor turns a half cycle, the precessional twist of the gyros in reaction generates a powerful force. During the half cycle when Foster's gyros were twisting in the other direction, his clutch grabbed and transmitted the power to the driving wheels. During the other half cycle, the gyros twisted freely. Foster claims his machine traveled four miles per hour until it flew to pieces from centrifugal forces. After examining the patents, I agreed that it looked like it would work, and it certainly would fly to pieces because the bearing mounts were not nearly strong enough to contain the powerful twisting forces his machine generated. Foster's design, however, cannot be included among antigravity engines because it would not operate off the ground. He never claimed it would, and Foster always described his invention truthfully as nothing more than an implementation of the fourth principle of locomotion.

What Laithwaite needed was another rotary component, like the Dean drive, geared to his engine's oscillations so that they would always be turned to drive in the same direction. As it happens, an Italian by the name of Todeschini recently secured a patent on this idea, and his working model is said to be attracting the interest of European engineers. When the final rectifying device is added to the essential Laithwaite design, all the moving parts generate the vectors of a vortex, and the velocity generated is the axial thrust of the vortex. Therefore I call inventions based on this design the Vortex Drive.

By replacing the Hyperspace modules of the Mark I Flying Saucer with Vortex modules, still retaining the essential betatron as the centrifuge, performance is improved for the Mark II. To begin with, drive is generated only when the main rotor is revolving, so the saucer can be parked with the motor running. This eliminates the agonizing doubt we all suffered when the Lunar Landers were about to blast off to rejoin the command capsule: Will the engine start? This would explain why the ring of lights around the rim of a saucer is said to begin to revolve immediately prior to lift off. A precessional drive affords a wider range of control, and the responses are more stable than a direct centrifuge. But the most interesting improvement is the result of the 'structure' of the electromagnetic field generated by the Vortex drive. By amplifying and diminishing certain vectors harmonically, the Mark III flying saucer can ride the electromagnetic current of the Earth's electromagnetic field like the jet stream. And this is just what we see UFO's doing, don't we, as they are reported running their regular flight corridors during the biennial tourist season. Professor Laithwaite got all this together when he conceived of his antigravity engine as a practical application of his theory of "rivers of energy running through space"; he just could not get it off the drawing board the first time.

The flying saucer consumes fuel at a rate that cannot be supplied by all the wells in Arabia. Therefore we have to assume that UFO engineers must have developed a

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practical atomic fusion reactor. But once the Mark III is perfected, another fuel supply becomes attainable, and no other is so practical for flying saucer. The Moray Valve converts the Mark III into a Mark IV Flying Saucer by extending its operational capabilities through 'time' as well as space. The Moray Valve, you see, functions by changing the direction of flow of energy in the Sun's gravitational field. It is the velocity of energy that determines motion, and motion determines the flow of time. We shall continue the engineering of flying saucers in the following essays.

My investigation into antigravity engineering brought me a technical report while this typescript was in preparation. Dr. Mason Rose, President of the University for Social Research, published a paper describing the discoveries of Dr. Paul Alfred Biefeld, astronomer and physicist at the California Institute for Advanced Studies, and his assistant, Townsend Brown. In 1923 Biefeld discovered that a heavily charged electrical condenser moved toward its positive pole when suspended in a gravitational field. He assigned Brown to study the effect as a research project. A series of experiments showed Brown that the most efficient shape for a field propelled condenser was a disc with a central dome. In 1926 Townsend published his paper describing all the construction features and flight characteristics of a flying saucer, conforming to the testimony of the first flight witnessed over Mount Rainer twenty-one years later and corroborated by thousands of witnesses since. (The Biefeld-Brown Effect explains why a Mark III rides the electromagnetic jet stream.)

We may speculate that flying saucers spotted from time to time may not only include visitors from other planets and travelers through time, but also fledglings from an unknown number of cuckoo's nests in secret experimental plants all over the world. The space program at Cape Canaveral may be nothing more than a supercolossal theatre orchestrated by Cecil B. DeMille to reassure Americans that they are still 'numero uno' after Russia beat our atomic ace by putting Sputnik into orbit. We need not doubt that the Apollo spaceships got to the Moon, but we may wonder if Neil Armstrong was the first man to land there. The real space program may have been conducted in secret as a spin-off from the Manhattan Project since the end of World War II, and Apollo 13 may have been picked up by a sag wagon to make sure our team scored a home run every time they went to bat. The exploration of space is the most dangerous enterprise ever taken on by a living species. Don't you ever wonder why the Russians are losing men in space like a safari being decimated in headhunter country, while nothing ever happens to our boys except accidents during ground training?