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Faster than Light, the Revolutionary Radio Antenna that Conquers Space

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Introduction

I like to take the opportunity to tell the story that led up to our invention of the faster than light radio antenna. We had a break in the control line to our irrigation pivot on the farm. In order to find the break, I hooked up a signal generator to the line and used a regular transistor radio to trace where the wire was buried.

The first problem which I encountered was that standing waves along the line would cause the signal to drop in intensity to the point where in certain places I would completely lose the signal. This was basically the result of the standing waves, as the underground wire acted like a very long antenna.

What this also suggested was that only the magnetic component would pass through the ground, while the electrostatic component was actually being absorbed by the soil surrounding the wire. This led me to experiments trying to come up with an antenna which would transmit a magnetic field only. As it turned out, what worked best was a single wire loop with a capacitor connected across the ends, allowing the antenna to be tuned to resonance.

On the advise of my brother Adolf, I applied for a patent, listing it as an under water radio communications antenna for submarines. I had asked him, since he somehow was part of it, if he wanted to have his name on the application too, but he declined since he felt that I had put all the effort in it and should therefore get the full credit as well.

However the story didn't end there; from the peculiar pattern with which the magnetic field radiated outward, there were signs that it might be faster than light. I asked Adolf what his opinion on that was, and he said that unless we made the necessary tests with an oscilloscope and compared it to a regular radio antenna, we would never know for sure if the signal really was faster than light. As far as he was concerned, it would always be nothing more than an educated guess that the signal traveled faster than the speed of light.

I agreed; unfortunately at the time we had only a regular dual trace oscilloscope available, and the problem was that at the 27 megacycle CB radio frequency, the trace was rather faint because we had pushed the oscilloscope to its limit in regard to frequency. Obviously, using photography to record the traces would not work. We soon came to the realization that if we made drawings of what we saw on the oscilloscope screen, nobody would believe us considering we were trying to prove that we had an antenna that would transmit a radio signal faster than light. So we bought a 50 megahetz computer interfaced oscilloscope which enabled us to record our findings on the computer and also print them out.

What makes a Radio Signal faster than Light? - Erich Erdmann

Although it is primarily based on theory, we believe that the reason why a radio signal moves with the speed of light is because the magnetic and electrostatic force lines are at right angle to their direction of travel and furthermore both force fields also somehow interact with one another. In other words it is the right angle thing which prevents the signal from moving faster than light.

This would mean, that if we want the radio signal to move faster than light, we would have to somehow make use of either force fields on it's own in order to prevent the two fields from interacting with one another, and last not least, the force lines should be longitudinal, not perpendicular. In our case we chose the electrostatic field and used a metal sphere to generate the field to avoid any unwanted electrical discharges usually associated with sharp edges.

On the average a transceiver such as a CB radio, the voltage going to the antenna usually doesn't go higher than 50 volts; for a 5 Watt signal it's around 25 volts when connected to a regular antenna. For the sphere to radiate a strong electrostatic field, a very high voltage is needed, and 25 volts simply is not enough. The other problem is that the electrical energy passing through the wire which charges the sphere, also generates a regular radio signal unless the current can be kept down or somehow shielded and this means that the sphere can't be too large.

Why not simply connect a large metal plate to the CB radio with a few feet of coax cable? Attempts of this kind usually failed for some unknown reason. One such reason is that this type of antenna does not resonate on its own, as for instance a quarter wave Marconi antenna does. This does not mean such methods should be ruled out altogether, we simply could not make any of them work.

Even if it were possible to produce an electrostatic signal with methods of this kind, receiving such a signal is essential as well, which means unless such a faster than light signal can be detected, one has absolutely no clue whether it even exists. For example we can neither hear nor see radio signals, we need a radio receiver to detect them, and likewise we need a special receiving antenna to detect the faster than light signal as well.

A regular Marconi antenna transmits an instantaneous faster than light signal from its very tip where there is no current. This faster than light signal will manifest itself as a drop in signal strength in any direction about half a wavelength away from the antenna. The reason for this is that the faster than light signal is 180 degrees out of phase with the regular radio signal. At a full wave length both signals will be in phase and as a result stronger and at one and one half wave length they will be out of phase again and so on, the problem however is that the fluctuations are not noticeable any more with a regular antenna. All in all, in general the electrostatic signal is very weak and may only radiate a few metres and this is even further complicated because it is accompanied by a regular radio signal, which makes the outcome at best inconclusive; this signal however can be detected with our faster than light antenna.

The principle of our antenna was to simply leave out the middle part of a regular quarter wave Marconi antenna, since this part transmits the regular light speed radio signal, this would allow all the energy to be transmitted by the top part which transmits the faster than light signal.

To give an example, let's say we had a 100 watt CB radio provided it was legal. Let's assume that 95 % of the signal would be radiated as a regular light speed signal and the remaining 5 % as faster than light signal, this would mean that a 5 watt faster than light signal radiates from the antenna although you can't detect it because there is a 95 watt signal overpowering it. Unless we can get rid of those 95 unwanted watts, we have no faster than light signal to speak of.

Faster than light transmitting/receiving antenna

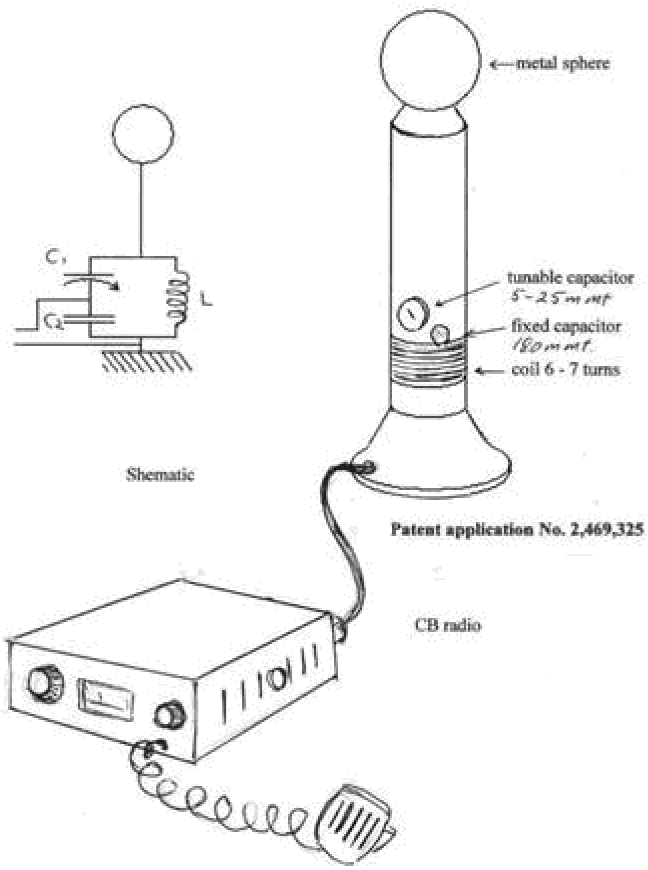

Fig. 1

The point that I want to make here is that practical science differs from theoretical science in a way that practical science has to produce practical results which may not always agree with what we have come to believe in regard to theory and mathematical formulas. You can't simply say, that the antenna based on a certain mathematical formula sends out a faster than light radio signal as we just have calculated and that's all that is needed. Let's face it; the antenna has to work more that just on paper, if we want to make use of it.

With the proper equipment a faint anti-echo can actually be detected, the point however is not to just transmit a faint faster than light signal, but a full strength faster than light signal instead.

What is the secret of the faster than light antenna?

Getting back to the faster than light antenna, all indications pointed in the direction that it would work, however reaching optimum performance was still somewhat of a problem and that is where resonance made the difference. It's a well known fact that a regular quarter wave Marconi resonates on its own like a resonant circuit. Since we are basically leaving out the greater part of the radiating element, our antenna would be too short to resonate on its own, so we simply added a resonant circuit to make up for it.

Resonance is based on the principle that voltage and current react opposite in a capacitor than they would react in a coil. Whether the principle is completely understood is not the point here, that we can make use of it, is what counts. The key to faster than light radio signals seems to be in resonance.

A simple way is to compare it to a person on a swing. The higher the person swings the more energy is stored in his motion, and if he is trying to get off the swing that energy is released all at once. In our case the goal was to keep the stored energy high and release only very little of it. One could compare the height of the swinging to the voltage and the speed to the current. The higher a person swings the more speed he also has going through the middle, likewise in the resonant circuit, the more energy is fed in, the higher the voltage and also current inside the circuit will reach. In theory if no energy is removed both the voltage and current should become infinitely high, however in practice the coil will radiate a magnetic field which acts as a drain. The other problem is tuning becomes almost impossible and the band for any practical purposes becomes too narrow.

Using a ferrite core in the coil would prevent radiation, allowing more energy to be fed to the metal sphere; however this has its practical limits. Despite all of the above problems, the antenna still works provided that the sphere which radiates the electrostatic signal is not too large and as a result would raise the current that feeds it too high.

The electrostatic system works similar to a capacitor, the antenna that radiates the signal acts like one plate and the antenna that receives the signal acts like the other plate of the same capacitor. In a capacitor the plates would have opposite charges and that holds true to some degree here as well.

Let’s say the transmitting antenna swings positive during its cycle, this would mean that the positive electrical charge acting upon the receiving antenna sphere will draw the electrons into it from the circuit, when the transmitting antenna swings negative, which means a surplus of electrons, it will force the electrons out of the receiving antenna sphere. (Unfortunately scientists have made a mistake, positive should describe an abundance of electrons and negative a rarity of electrons, but a mistake has been made and it cannot be corrected any more, which means one has to put up with it.) In order for the antenna to work sufficiently, is where resonance comes in. The receiving antenna circuit will also swing with resonance when the electrical field from the transmitting antenna affects it.

What makes this antenna different from a conventional antenna is that the energy is transferred by an electrostatic field alone, which like a capacitor generates a voltage in the receiving antenna by an electrical charge. A conventional antenna on the other hand transfers the energy through a magnetic field which generates an electrical current in the antenna wire instead. Although there could be a number of ways to achieve this, we nevertheless felt, that both the transmitting antenna and receiving antenna should be exactly the same eliminating thereby the need for two separate antennas, even though from any practical point of view both antennas might work better if each was designed as only, either a transmitting or receiving antenna.

The bottom line is that the faster than light electrostatic system may be similar in appearance to the regular radio system, but works on an entirely different principle where a voltage is induced by an electrostatic field rather than by magnetic induction where an electrical current instead is generated. The conductor that connects the sphere to the circuit generates also a weak magnetic field; this however can be minimized by a grounded shield, up to a point where almost no magnetic field is radiated. There are other ways to achieve a faster than light radio signal, we found none were as effective as this system, the problem in general is that almost all of the types we tried out generate an unwanted regular radio wave also.

To give an example, a regular quarter Marconi antenna also transmits a very weak faster than light signal from the very top of the antenna where no current flows and the voltage is high. In order to transmit a faster than light signal one has to simply somehow remove the lower part of the antenna. We simply replaced that lower part of the antenna with a resonant circuit and had success right away.

Faster than Light Radio Signal Tests - Adolf Erdmann

My brother and I believe that it is not enough just to publish the results of one’s experiments, but to describe the actual tests themselves so that others may be able to duplicate them. In this way the experimenter does not have to take another person’s word for it, but has the opportunity to see the proof for him- or herself. Most scientific experiments of significance are very expensive, and the outcome is not always conclusive. Our experiments on the other hand are very affordable, some of them costing only a few dollars. The outcomes of all the tests are unmistakable.

Although only the electrostatic field antenna is registered with CIPO (#2441882) as a faster than light radio antenna, the magnetic field antenna is capable of the same feat. We were aware of that fact when we decided to register the magnetic field antenna with CIPO. However, we felt that the primary application of this antenna should be underwater communication. As far as we know underwater radio communication is only possible by using a magnetic field as a carrier for the communication signal (see below). The faster than light signal transmission capability of this antenna is of secondary importance, since we believe the electrostatic antenna is more suited for this task. Nevertheless, both antennas should be tested for the faster than light capability, if for no other reason than to proof that both, the electrostatic and the magnetic field act instantaneously (or almost instantaneously). The equipment needed for these tests is:

- -one regular off the shelf CB radio transceiver,
- -one regular CB radio antenna,
- -three magnetic field antennas as described in the previous chapter
- -three electrostatic antennas as described in:

"What makes a radio signal faster than light?"

- -approximately 50 feet of 50 ohm coax cable
- -A dual trace oscilloscope suitable for frequencies in the 50 megahertz range
- -if the oscilloscope is designed for computer interface, a computer is also required

The Control Test

This test needs to be done to proof that the equipment is working, and to show that regular radio waves travel at the speed of light. Therefore, a regular antenna is used with the transmitter; it can be the type which connects directly to the transceiver. For the receiving antennas you can use either regular CB antennas or the magnetic field antennas since the latter are also capable of receiving regular radio signals. By using magnetic field antennas, proof is given that in fact it is the transmitting antenna which is responsible for the speed of the radio signal, and you actually have a faster than light radio signal and not merely a false indication given by the receiving antennas, which may only make the signal appear to be faster than light speed. See Fig. 3 & 3a

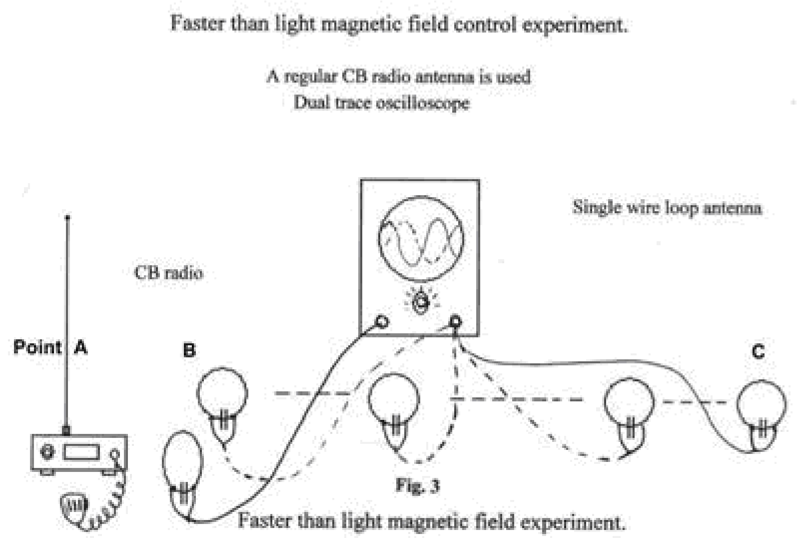

Fig. 3

The transmitter is placed at point "A". Begin by placing both receiving antennas side by side at Point "B" (the distance between point A and B is not critical, about 5 to 6 metres (20 feet) should do) Now, have someone key the microphone, but not talk. Adjust your oscilloscope so that one trace is above the other; now your sinusoidal waves should be in synchronism. If one is somewhat later than the other, it may be due to the fact that your oscilloscope delays the signal in one channel somewhat. You can correct this problem by lengthening the other channel coax until both signals overlap. Now mark the spot B on the ground.

Now begin to move one of the antennas away from point B in the same direction as the signal travels. You can stop any place you wish and take a reading. But stopping at ¼ wave intervals for readings, gives you a clear picture how the radio waves travels. Since the CB radio frequency is 27 Megahertz which equals to a wavelength of approximately 11 metres, point C should be located 11 metres from point B in the direction of signal travel. At this point both signals should again be in synchronism. If they are not quite together, it may be due to the fact that your oscilloscope is not quite capable for high accuracy at such a high speed. You should also note that when the second antenna reaches point C, the signal strength has weakened somewhat. Using this test you can also measure the speed of a regular radio wave. The speed = Distance B to C times 27 million. See Fig. 3a for oscilloscope printout.

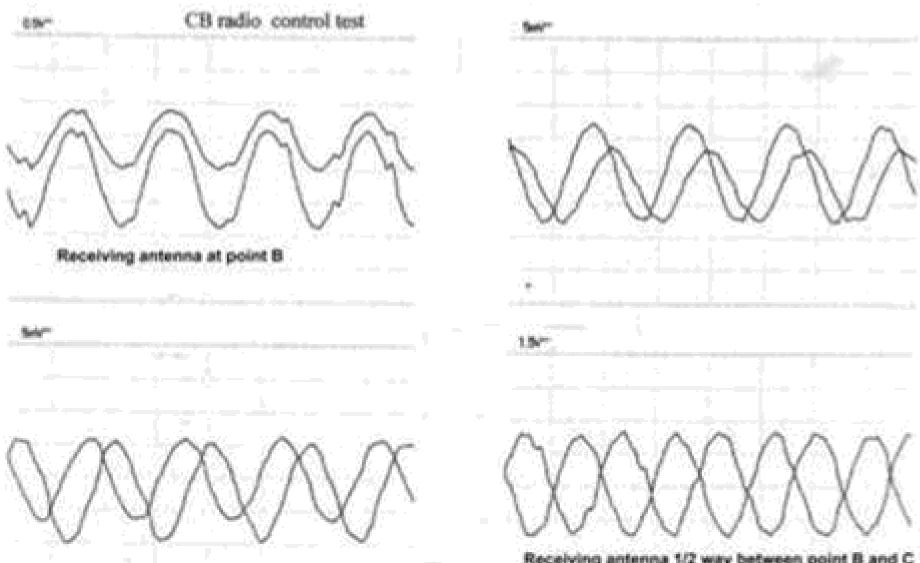

Fig. 3a

The faster than the Speed of Light Magnetic Field Antenna Test (see Fig. 4 & 4a) The magnetic field antenna used for this experiment is registered with CIPO under the number 2441882. Or type in under Basic search the phrase “Underwater magnetic field communication system”

This test is done exactly the same as the previous test except for the fact that the transmitter antenna is replaced by a magnetic field antenna. The difference now is that when you move your second receiving antenna from point B to point C in several steps, both sinusoidal waves will remain in synchronism indicating that there is no time delay as the signal travels from point B to C. The only conclusion which can be drawn from this test is that it is definitely faster than light. We have no other explanation for this phenomenon. However, we have more tests that reinforce this conclusion.

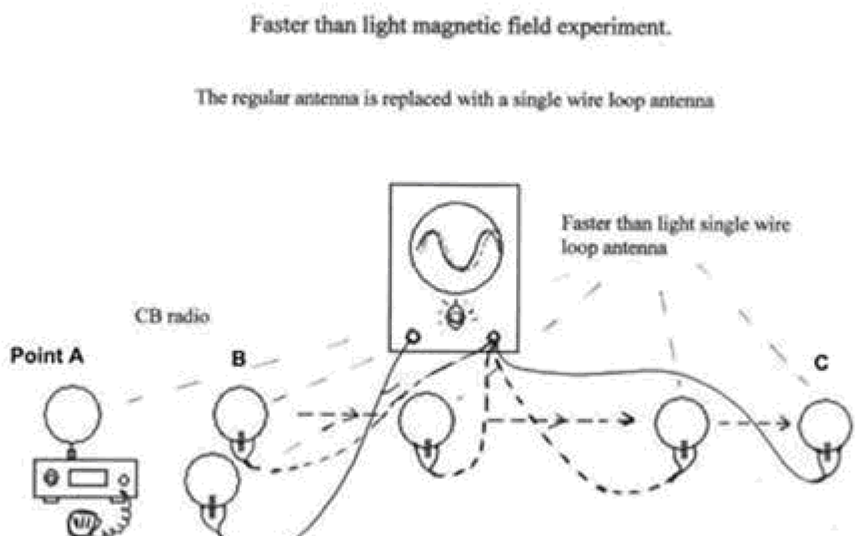

Fig. 4

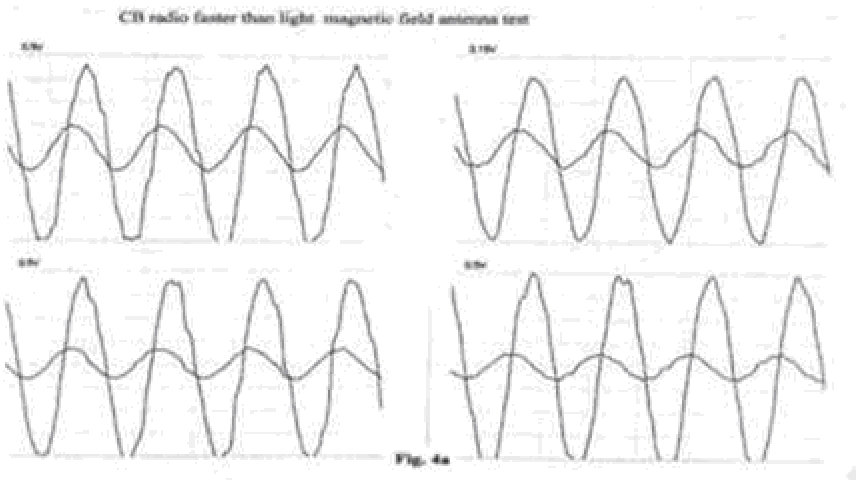

Fig. 4a

* Please note that both signals are not in exact synchronism which may be due to a slight time delay introduced by the oscilloscope itself, or the coax cables are not the exact same length. However, these printouts clearly show that the positions of the waves to each other remain exactly the same indicating that there is no time delay from the signal received by the antenna which is moved. What is noticeable is that the weaker signal which comes from the movable antenna is losing strength as it is moved away from the transmitting antenna.

The faster than the Speed of Light Electrostatic Field Antenna Test (6 & 6a)

This test is done the same way as the previous test. Of course electrostatic field antennas are used. Another control test is not necessary. However, if it is decided that a control test is preferred, electrostatic field receiving antennas cannot be used for the control test, because they are highly selective, and may actually pick up enough of the electrostatic field of the conventional transmitting antenna making the test ineffective. In this case normal receiving antennas would be more suitable. For the actual faster than the speed of light test, all three antennas need to be replaced with electrostatic field antennas. The results of this test should duplicate the magnetic field antenna test.

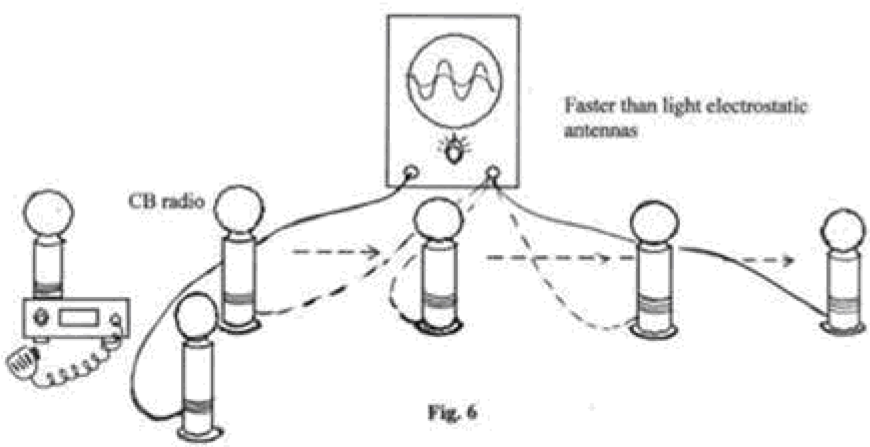

Fig. 6

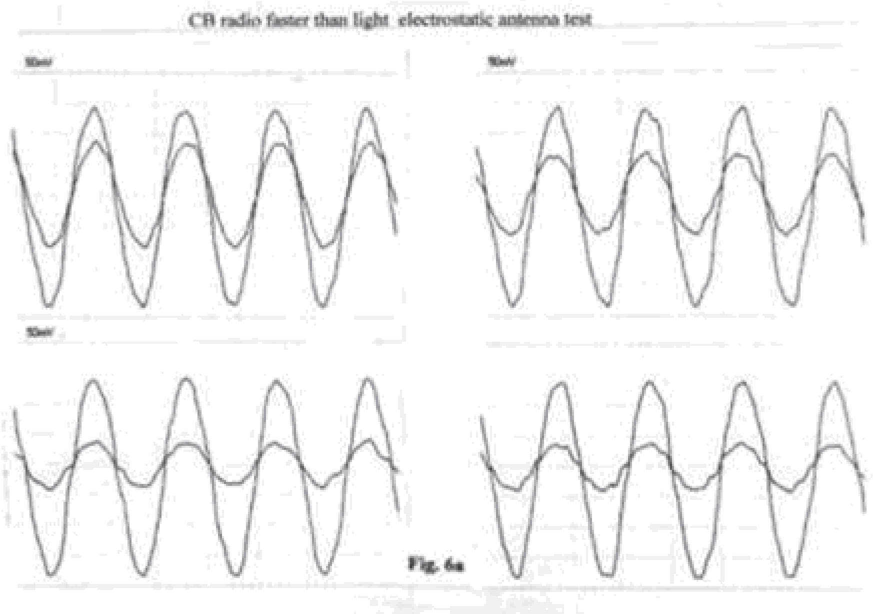

Fig. 6a

Summary We feel that whenever possible, a control test needs to be done to show that the equipment is actually capable of doing the test. This is of the utmost importance in our case, because the actual test does not show any changes of the faster than light signal in the position of the sinusoidal wave shown on the oscilloscope. It is the control test which shows the displacement of the sinusoidal waves when regular radio antennas are used as described in the test. The control test can also be used to measure the speed of regular radio waves. However, it is not as accurate as one would like it to be. Nevertheless, it is suitable for what the test was intended for.

The actual tests showed no movement of the sinusoidal waves on the oscilloscope, which would indicate that the signal is instantaneous. However, we realize that our equipment is not accurate enough to make an assumption that the signal is actually instantaneous. But there is no doubt in our mind that the signal travels several times the speed of light. To find out how fast the signal actually travels is impractical to pursue with our types of tests, since one would need extremely long coax cables. The signal drop through the cables alone would be too much, making it impossible to get reliable readings. There are of course other types of tests which do not require coax cables. However, we feel that the tests we have done so far have raised enough controversy for the moment; we need to leave some for the future.

Conclusion - Adolf Erdmann

This booklet will without a doubt be received with much skepticism. This is the way it should be. We have no problem with that, as long as people check out what we are saying and make an effort to do some of the tests; that is all we ask. Of course, people have a right to their opinion, and if they chose to ignore us, so be it. We believe, that having a closed mind toward new discoveries without looking at test results, because these findings may contradict present believes, is ignorance of the worst kind. Our discoveries are not some far fetched ideas which would make no difference to the world whether they are true or not, but are actually useful inventions which will eventually benefit mankind, no matter whether the scientific community accepts them or not. I cannot see how our discoveries can be viewed as something destructive; and yet this is the attitude with get from people. If our tests destroy some of the presently held believes in the nature of the universe, it is only because these believes no matter how long and how widely held were false to begin with. This is the price of progress. However, we feel that the people, whose theories may have been replaced by facts, should not fall from grace just because of that, because their work may have in some way contributed to the new discoveries. If someone creates a new theory, he does so with the facts at hand. That person can then not be faulted for something that was not known at the time. I think we should look ahead and be grateful for any new discovery.

Some people may say that it was an accident which led Erich to the first discovery of using an electromagnetic field for communication purposes and the other discoveries which followed. Others may say it was a lucky accident. Yet others may feel that it was a divine gift that was handed to him. Whatever you may think it is; can

you honestly reject such a gift?

The Magnetic Field Communication System

As mentioned earlier, this invention is registered as “Underwater Magnetic Field Communication System”, since it was originally intended solely for underwater communication. A more exact definition would be: Underwater Telecommunication by the Modulation of an Electromagnetic Field. In our opinion, this term could still be misinterpreted as it might be described by someone as underwater radio waves, which it definitely is not, so Erich chose the name which would set itself apart from the way radio waves were defined.

General Description

In this application the underwater magnetic field communication system employs conventional radio transceivers (such as CB radio units) in conjunction with specially designed antennae (about the size of a ping pong paddle) which replace the conventional antennae, and thus convert the radio units into underwater communication devices. Although the new antenna can communicate in air, from air to water, as well as water to air, the range is not as far in air as normal radio waves are, therefore switching antennae makes sense. (A magnetic field drops of quicker because of its three dimensional nature in contrast to conventional radio waves which have two dimensional characteristics.) The reasoning behind this design is that conventional two-way radio equipment can be used making it unnecessary to start a completely new manufacturing industry of communication equipment. There is only one new component added which replaces the conventional antenna. This device is relatively simple to construct and therefore should make the whole unit very affordable and within the reach of everyone. And as mentioned above, one can also switch back and forth from one mode of signal transfer to the other very quickly and conveniently if and when needed; just by flicking a switch.

The main part of the invention is of course the antenna device which instead of sending out radio waves produces an alternating magnetic field which carries the intelligence signal. This antenna device took considerable time and work to perfect it so to speak, since it not only had to send out maximum possible signal strength, but also match the 50 ohm impedance of the coax cable, which needless to say was not the easiest task. What he finally came up with was a single loop coil approximately 6 to 8 inches in diameter, with a tuneable capacitor connected across the ends of the coil which is connected to the transceiver coax cable as shown in Fig. 2. Larger loops and coils with more turns did not proof satisfactory. Both types did not provide the desired impedance match.

Electronics technicians will immediately notice that this antenna really is a parallel LC resonant circuit. So what really makes this antenna capable of underwater communication where other radio antennas fail? The answer is simple; this antenna creates a strong magnetic field instead of a radio wave. As described earlier, to generate a radio wave both components the electrostatic and the magnetic (or electric current) component, are needed. The length of the coil conductor is purposely kept short, so that there is very little time difference of the electric current entering and leaving the coil. This is done to avoid the generation of a radio wave.

Underwater Magnetic Field Communication System
Patent application No. 2,441,882

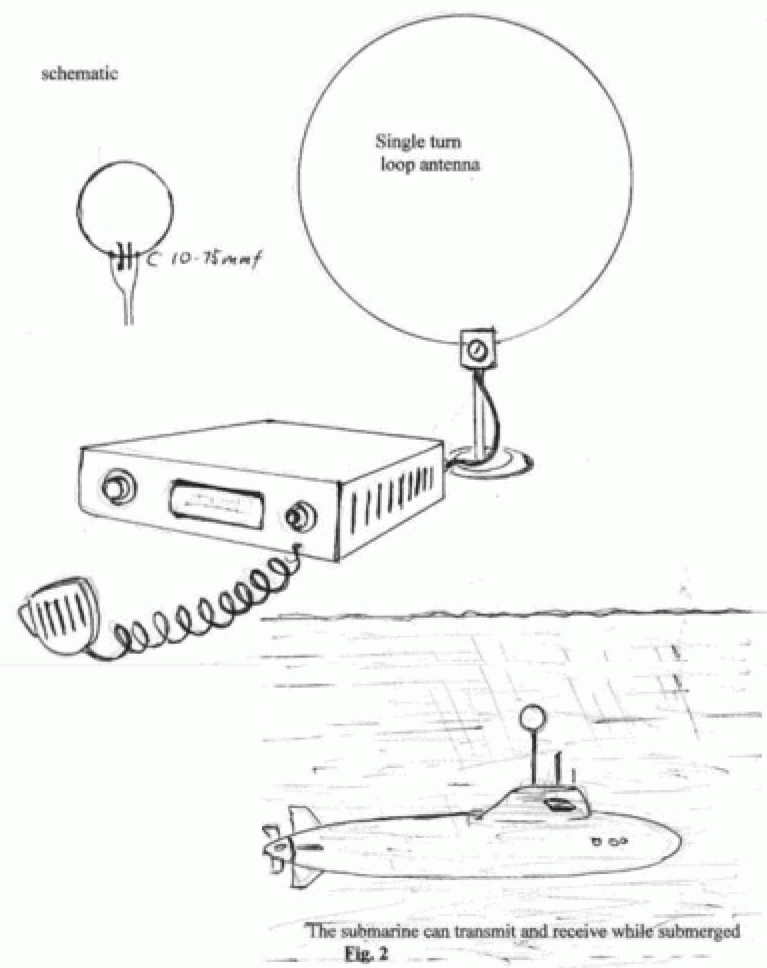

Fig. 2