Detection of Frequencies that could be used for Electronic Harassment and Electrosensitivity

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Abstract

Thousands are reporting the phenomenon of electronic harassment and includes very credible scientists, doctors and others of high credibility.

Considering the extent and consequences of electronic harassment, this question needs an answer. How is electronic harassment achieved?

The research presented here demonstrates a mechanism that could be used for electronic harassment.

The mechanism that would explain the facts is the use of radio frequencies for remote neural monitoring (RNM) and the causing of biological effects.

So these frequencies need to be detected.

Here techniques are presented using an rtl sdr (software defined radio) converted for use as a spectrum analyzer with code written to specifically detect these signals.

Frequencies have been detected that could cause electronic harassment and electrosensitivity.

1. Introduction

This work is based on the idea that for RNM to occur a signal has to get from the subject to the perpetrator. The only known form of signal that can do this is an electromagnetic signal.

According to scientific principles it should be possible to detect this signal based on the fact that proximitry to a detector's antenna would have an effect on the strength of a detected signal.

So the signal used for RNM should be detectable.

All electromagnetic waves can be thought of as a form of light, they're only different in their frequencies. So radio waves are actually the same as light, although they're not visible because our eyes cannot detect them, however electronics can be used for that.

You can think of the system used for RNM as a “light” that's reaching you. You have a specific frequency, though, of this light that you reradiate. Other humans and objects do not reradiate it the same as you do. These are called resonant frequencies and are unique for each of us.

This light can go though other objects and it can reflect off of metals and reach you.

When it reaches you and if it's at your specific frequency for your mind then it will reradiate from you and this reradiated light will “flicker” based on the electrical activity (EEG) of your mind and that's because it modifies the original signal.

Someone else, a perpetrator can detect this light from further away and detect how it's flickering even if it reflected off of a lot of objects to get there.

Your EEG then is in the flickering and is used for RNM.

Because the information is in the flickering of this light you only need the smallest signal for it.

So the RNM system uses the scientific fact that transmitting at a certain frequency will make your mind literally glow at that frequency and it will also flicker based on the EEG electrical activity of your mind.

The flickering can then be detected from further away and used for RNM.

Humans cannot see the flickering, however electronics can. All devices that modulate radio waves use this principle.

So to prove RNM we need to detect this form of light, a radio wave that is being reradiated from you.

We also know that EEG data can be transmitted with the reradiated radio wave based on work by the Italian scientist Cazzamalli in the 1920's, who achieved remote neural monitoring.

Using an oscillator he broadcasted radio waves towards a subject with EEG being detected using a receiver connected to a galvanometer (Cazzamalli, 1923, 1929, 1934, 1935).

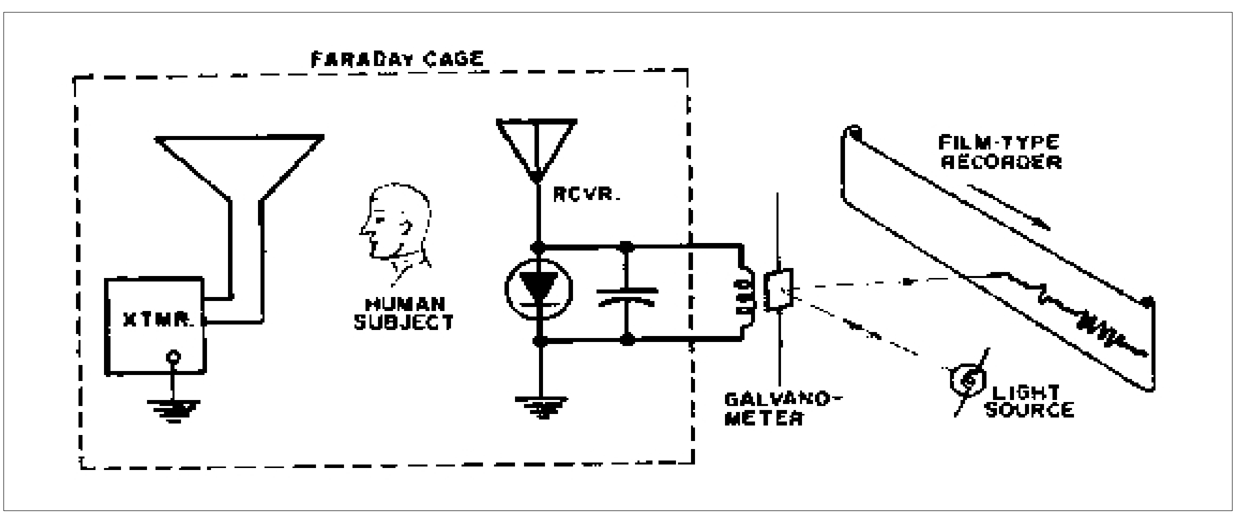

Figure 1-1 Cazzamalli's experiment.

It was remote in that electrodes weren't required to be placed on the subject and radio waves were transmitted that had been modulated with the EEG data.

That is, the radio waves from the transmitting oscillator were modified by the electrical activity of the subject's mind. They, thus contained the EEG data the same way a carrier frequency is used to transmit sound.

We have RNM then being described in the 1920's.

Since humans do not emit radio frequencies, the existence of such frequencies with EEG data on them proves that RNM could be used.

This work is based on the idea that for RNM to occur a signal has to be transmitted from the person's mind that's being monitored to the perpetrator and detecting these signals could be achieved based on the fact that they would be detected as an increase in RF energy when near a detector.

A cause also needs to be found for the various biological effects of electronic harassment.

Humans are electrochemical systems. That is, electrical and chemical signals are used to manage biological functions. If the electrical system could be accessed then that would explain the biological effects that are produced.

So the question is, how could that system be accessed.

It has been shown that the mind and body are affected by the electromagnetic waves that it receives and also the way that those waves are modulated can also have an effect.

That is, if someone transmits the flickering “light”, a radio wave, described earlier at your mind's resonant frequency, it will cause electrical currents in your mind, based on how it flickers, and that could cause various biological effects because the mind works on electrical currents.

These are scientific facts that are being used here to describe a remote neural monitoring system and how the same system could cause biological effects.

Cazzamalli's research and that of others has shown that electromagnetic waves can have a biological effect on humans.

Experiments have been described (Jaski, 1960), where a weak oscillator was used to produce signals between 300 and 600 MHz.

Subjects were asked to indicate if they notice anything unusual and were not allowed to see the dial.

“...At a particular frequency between 380 to 500 MC for different subjects, they repeatedly indicated a point with ALMOST UNBELIEVABLE ACCURACY (as many as 14 out of 15 times).”

MC refers to MHz in the quote above.

“...Subsequent experiments with the same subjects showed that at the "individual" frequency, STRANGE THINGS WERE FELT. Asked to describe the experience, all subjects agreed there was a definite "pulsing" in the brain, ringing in the ears..."

So here we have a reference to a resonant frequency, which I'll describe in more detail, producing definite biological effects.
That quote is from 1960, showing that radio waves can cause tinnitus and now we have ringing in the ears or tinnitus being reported as a very common symptom of those that experience electronic harassment.

It seems that the frequency of radio waves gets converted into a very high frequency sound.

This was also reported by the diplomats in Cuba in recent news. A "Sonic" device was mentioned along with the more logical possibility of microwaves, since they can be accurately directed, can get through walls and can cause sounds to be heard, according to the "Microwave Hearing Effect" described originally by Frey. (Frey, 1962).

Eldon Byrd, a specialist in medical bioengineering, worked for the Marine Corps from 1980 to 1983 and found that he could cause the brain to release behavior-regulating chemicals using electromagnetic waves.

"We could put animals into a stupor. We got chick brains--in vitro--to dump 80 percent of the natural opioids in their brains. The effect was nonlethal and reversible. You could disable a person temporarily, it would have been like a stun gun, we would have had a weapon in one year." (Pasternak, 1997).

The research of professor Michael Persinger, a psychologist and neuroscientist, indicated that if the same electrical patterns of activity that would generate a biological response were synthetically duplicated then that same biological response would also occur.

"The basic premise is that synthetic duplication of the neuro-electrical correlates generated by sensors to an actual stimulus should produce identical experiences without the presence of that stimulus." (Persinger, 1995).

It's also been shown that EEG brain oscillations have a functional role, "...brain oscillations seem to be fundamental for perception, cognition and behaviour". (Thut, Gregor et al., 2012).

So if you could create or modify EEG electrical oscillations remotely then you could influence perception, cognition and behaviour and it has been shown that electromagnetic waves do have an effect on EEG oscillations. (Hinrikus et al., 2008).

Resonant frequencies then provides the mechanism for the remote transmission of frequencies that are converted into biological, electrical activity that would produce these effects.

This has also been noted by others. "We feel that the phenomenon of head resonance may be important in the study of behavioral effects, blood-brain barrier permeability, cataractogenesis, and microwave bioeffects." (Gandhi et al., 1978)

That is, radio waves transmitted at these frequencies will cause oscillating electrical currents in us and each of us will be most affected by a specific, unique resonant frequency.

HAM radio operators are warned about transmitting signals in these resonant frequency ranges. "...the adult head, for example, is resonant around 400 MHz, while a baby's smaller head resonates near 700 MHz." (ARRL Handbook, 1992).

So just like an antenna that resonates to a specific frequency, the human mind does the same thing. Now that is fascinating, the fact that we're tuned to specific frequencies, with the frequency that we resonate the most to being unique for each of us and it generates electrical currents in us.

It's a scientific fact then that just like a radio or a mobile phone we can receive signals at specific frequencies.

Since they cause oscillating electrical currents in us and based on the fact that biology uses electrical currents, these resonant frequencies could be used to biologically affect us.

What then about transmission, what does electromagnetic research say about how we could emit or radiate a signal?

How radio waves are created answers that question. A radio wave is generated whenever you have accelerating electrons, so an oscillating electrical current generates radio waves.

So when you have a conductor that receives radio waves, such as an antenna, the oscillating electrical currents that are created in it also creates another reradiated radio wave.

These principles are used in antenna design, such as the yagi antennas placed on roofs for receiving television broadcasts.

The last element of a yagi antenna receives the signal, which generates oscillating electrical currents in it, which in turn generates a reradiated wave, effectively reflecting the signal back onto the main receiving element.

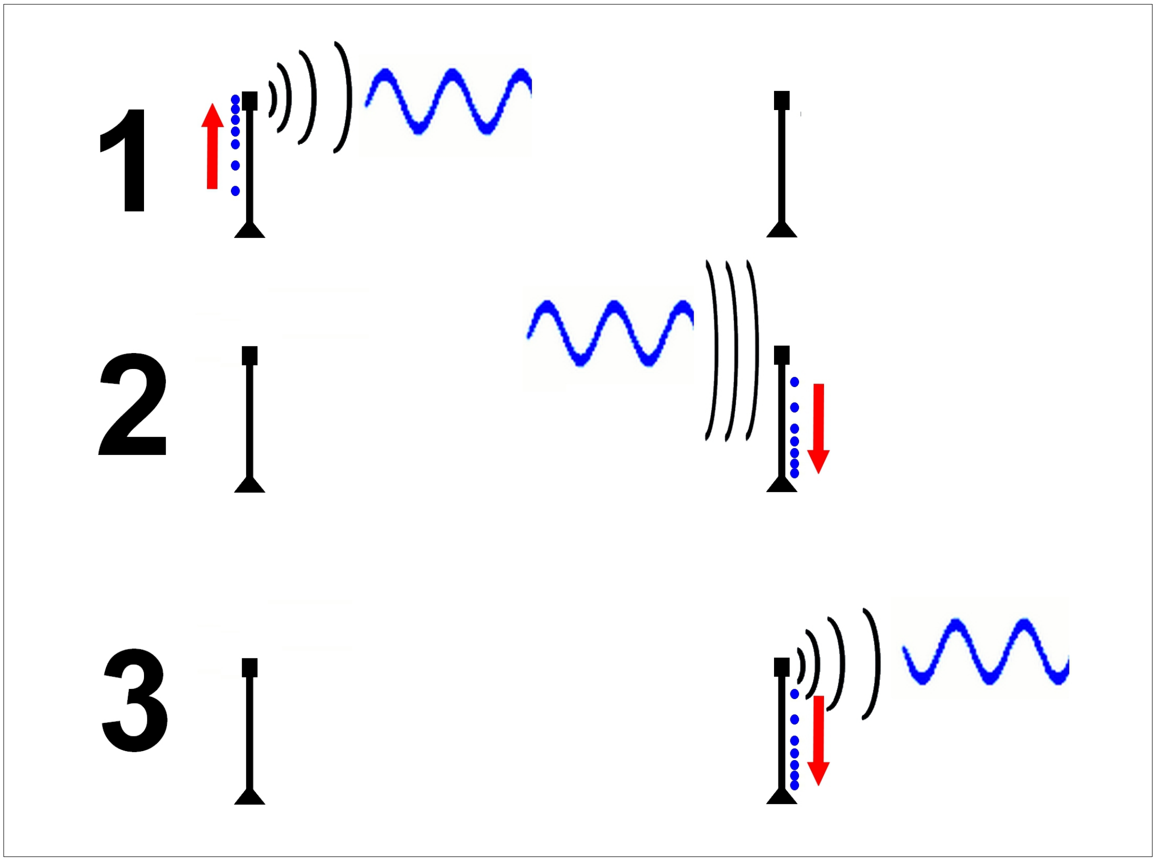

Figure 1-2 Radio Wave Transmission, Reception and Reradiation

In this image, (1) first the antenna on the left radiates electromagnetic waves. (2) the radio or micro waves reach the second antenna. When they reach it, this moves electrons in the antenna.

That's what radio waves do when they reach conductors, they move electrons. (3) Here's where the interesting effect of reradiated energy occurs. Those moving electrons create another radio or microwave and that's because that what moving or accelerating electrons do, they create radio waves.

Not all the energy then is received by an antenna for a radio or other devices, some of it is reradiated at the same frequency.

Each antenna will also have a resonant frequency. Think about it this way, when the radio wave reaches the antenna, it will push electrons in a certain direction, creating an electrical current.

When the radio wave goes from a crest to a trough or vice versa, it will want to push the electrons in the other direction.

The electrons will also have a moment when they will want to start going the other way. That's because with electrons, like forces repel and there will be too many electrons on the one side of the antenna to continue receiving more.

If this moment coincides with when the radio wave wants to start pushing them the other way, then there is resonance. This is when the radio wave energy is most effectively converted into electricity, otherwise it is just wasted, with the radio wave pushing them one way and the electrons wanting to go the other way.

The width and length of the antenna then determines it's resonant frequency.

The effect on a human is exactly the same as an antenna at certain frequencies. Remember an antenna is just a conductor and humans are conductors of electricity.

Different human organs will have different resonant frequencies based on their size and your resonant frequencies will be unique. That is, you will have your own frequencies that will convert the most into electricity.

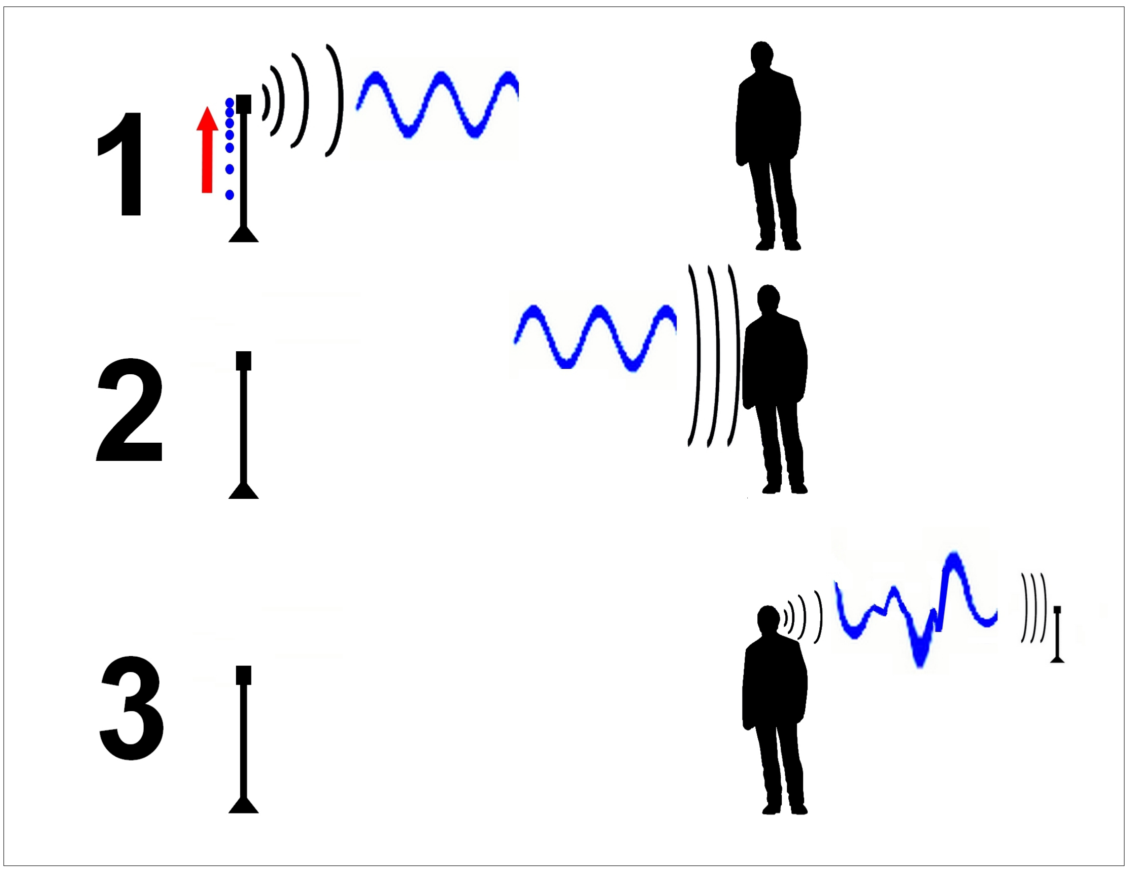

Figure 1-3 Human Resonant Frequency Radio Wave Transmission, Reception and Reradiation with EEG

This image shows how the same process occurs for a frequency that is the same as the mind's resonant frequency. The difference here is that the reradiated energy (3) is modified by the electrical activity of the mind. That is, it contains EEG data.

Another antenna can then be used to receive the modified waveform with the EEG data.

The mind also then, electrically resonating at a certain frequency, generates a reradiated radio wave at that frequency because of the oscillating electrical currents within it.

Cazzamalli's research from the 1920's then and the scientific fact of resonant frequencies describes a mechanism for RNM (remote neural monitoring).

So the mind can be both a receiver and transmitter at certain frequencies and these frequencies that we resonate to the most are unique for each of us.

Of course the received electromagnetic wave, creating electrical currents would cause biological effects as shown by various research.

This means that there's a way of broadcasting at a certain frequency that would biologically affect a specific individual the most and the reradiated radio wave from them, modulated with EEG data, could be used for RNM.

This work describes methods used to successfully detect such resonant frequencies and the reradiated energy and based on scientific facts and the research of other scientists, proving a mechanism for electronic harassment.

2. Methods

This research, methods and results described here are the culmination of a lot of work. Here are the methods used that achieved our objectives.

2.1 Radio Frequency Energy Detector

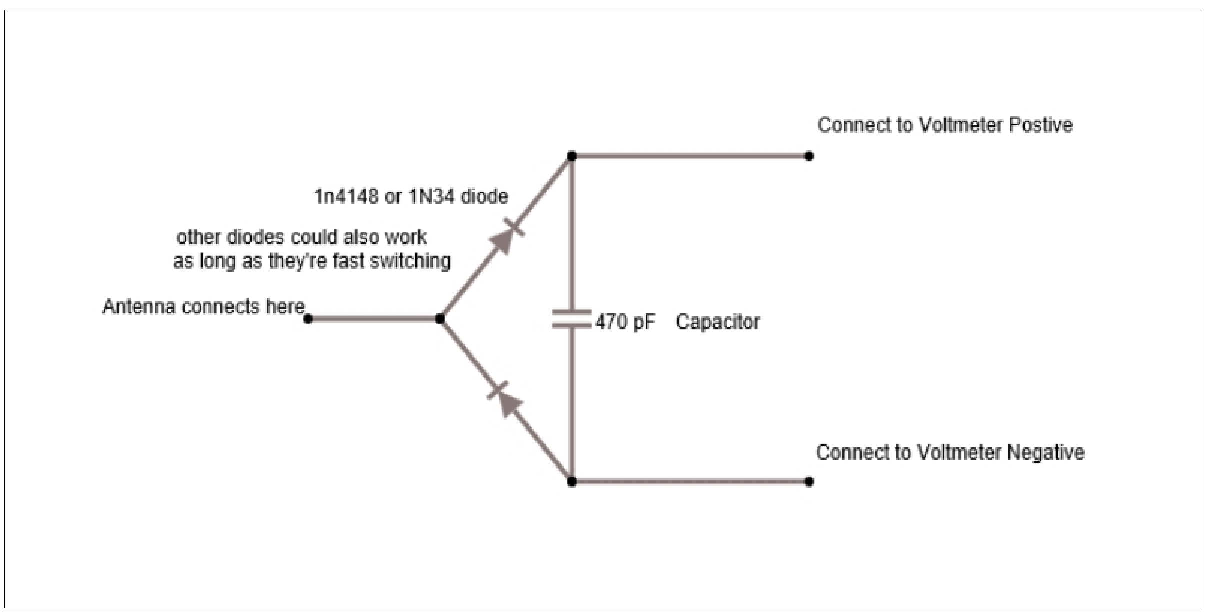

Figure 2-1 RF Energy Detector

The successful detection of RF energy being emitted or reradiated began with this basic device.

The diodes allow the oscillating current that is generated from radio waves on the antenna to place electrons on the one side of the capacitor and remove them from the other.

So the radio waves produce a voltage difference that can be measured with a voltmeter.

A very basic, although very effective and useful device.

It could detect RF energy from myself sufficiently far from the antenna to be considered a far field effect caused by radio waves.

I also used a filter on the front to prevent static and an amplifier was used to increase it's effectiveness.

So using this device I knew that I was emitting or reradiating RF energy. The next objective was to determine the frequency of those radio waves.

2.2 RTL SDR Software Defined Radio Spectrum Analyzer

To achieve this an rtl sdr (software defined radio) usb device was used as a spectrum analyzer.

I wrote code to process data, signal strengths for specified frequency ranges, provided by another rtl-sdr package (Markgraf et al., 2012).

Using these signal strengths, the code detects reradiated energy by determining differences in signal strength when nearer and further from the antenna. So the same principle as the RF energy detector in that signals will be stronger when nearer the antenna, although here we're detecting signals of a specific frequency.

Of course finding a signal of a specific frequency is very revealing because it means that you can be affected by that frequency and not others.

This is an image of the graphical interface for the code system.

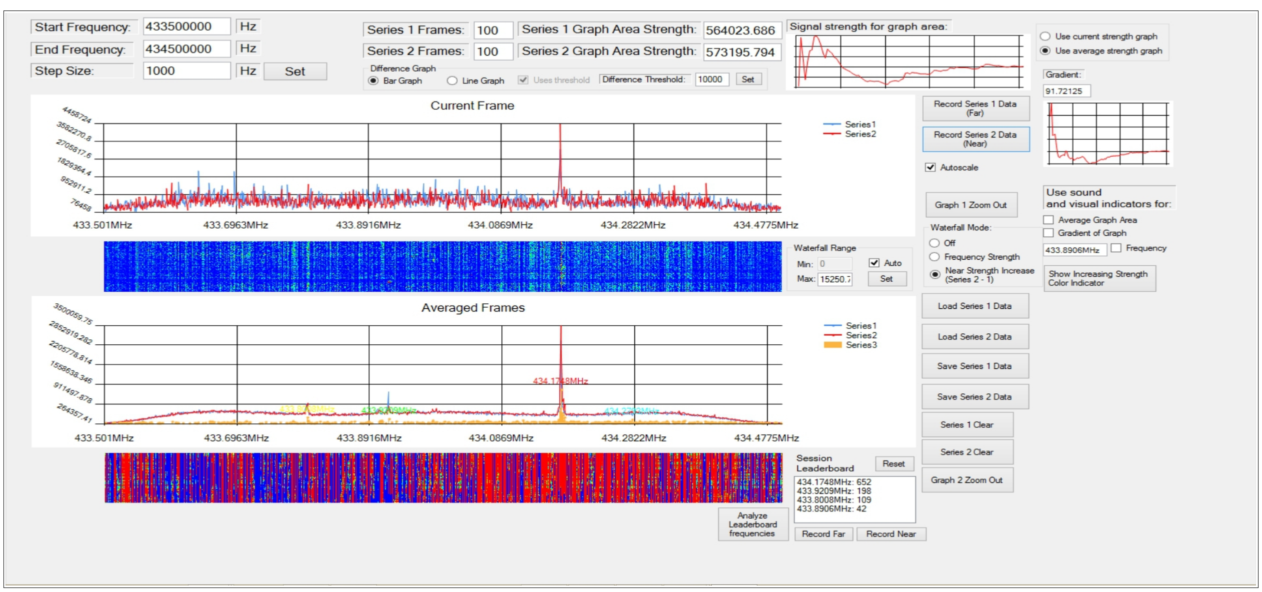

Figure 2-2 RTL SDR Reradiated Energy Detection System

The program and the code can be found here (Mclean, 2017):

https://github.com/ClintMclean74/SDRSpectrumAnalyzer

2.2.1 Using Near and Far Averaged Data for Detection of Differences in Signal Strength

The first useful feature of this code is to be able to separately record a near series and a far series of data.

So data is recorded when near the antenna and another series of data recorded when further away. The strength differences are then compared.

The data is also averaged since the strength of a signal will often vary and we want to determine whether it's on average stronger when we're nearer the antenna.

It's also very useful for extracting a signal when there's a lot of RF noise around it. So a signal of a consistent strength, that has a greater average strength than the surrounding noise where the surrounding noise at times even exceeds the signal itself, can still be detected.

Note how averaging the data extracts the signals from the noise in this image.

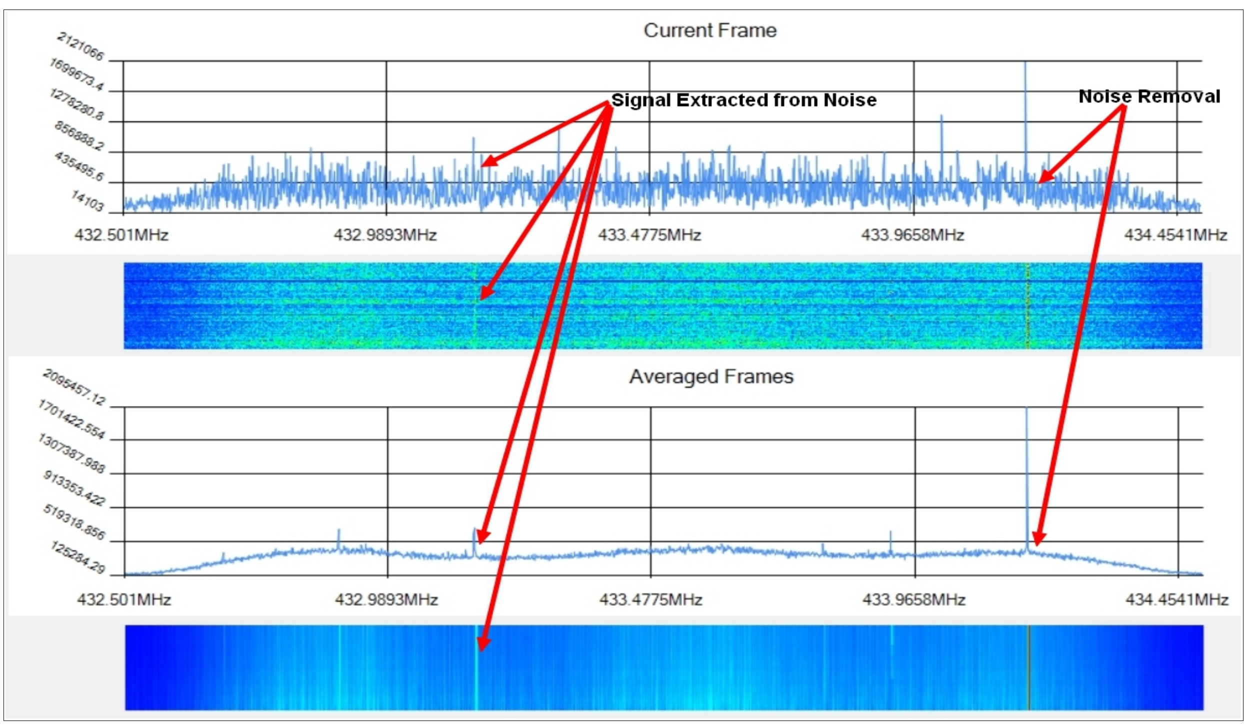

Figure 2-3 Extraction of Signals Using Averaged Data

Frequencies can also be zoomed in on with this image using near (red) and far (blue) series data showing the difference in signal strength when near the antenna.

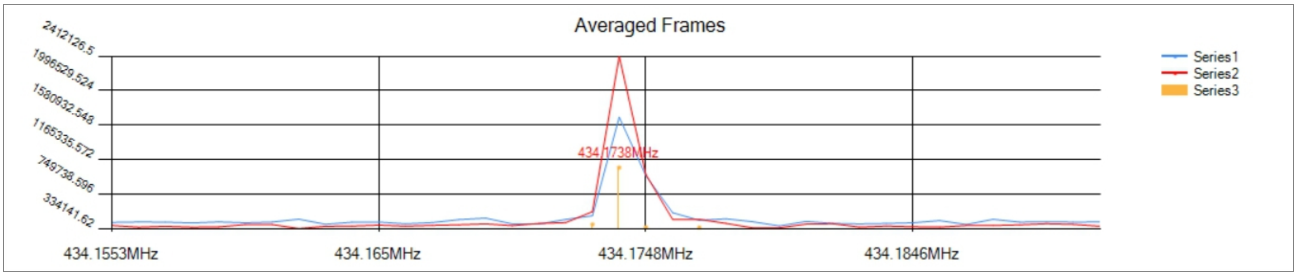

Figure 2-4 Near and Far Series Data

The gold bar shows the magnitude of the strength difference.

2.2.2 Linear data instead of logarithmic dB units

Another important feature is the use of linear values for the spectrum data produced by the rtl sdr.

dB units are often used for measuring signal strengths of frequencies because it allows very strong signals to be shown on the same graph with very weak signals.

However, if we've got a reasonably strong signal and we want to determine the difference in it's signal strength when closer to the antenna then using linear units will visually show a far greater difference in strength.

In this image the graphs are of the same near and far signal strengths. The increased signal strength of the near signal is a lot clearer, though, using linear units than the logarithmic dB units.

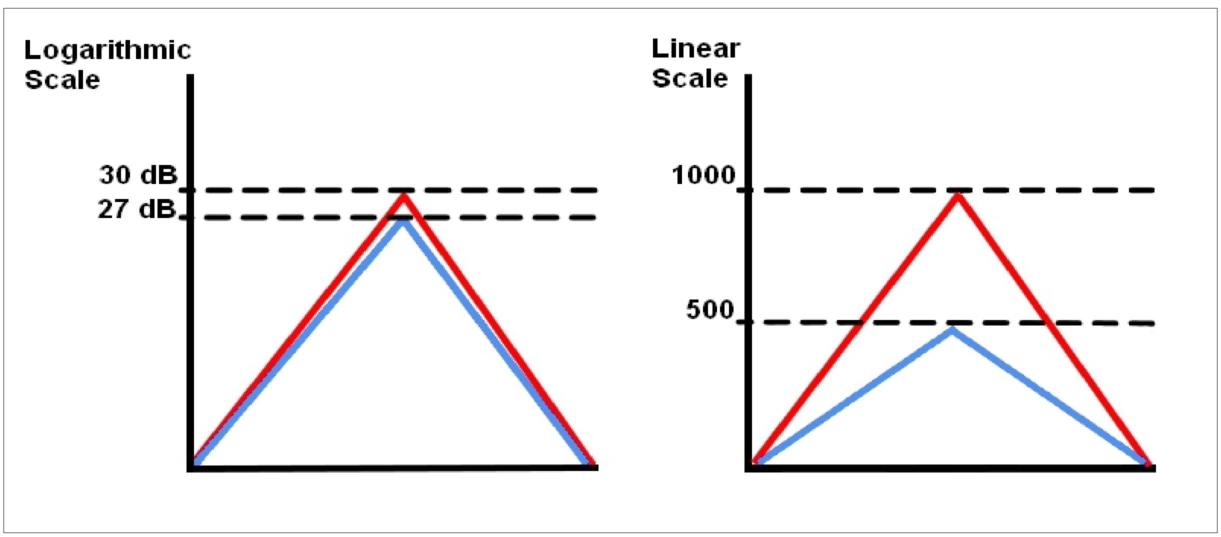

Figure 2-5 Logarithmic (dB) vs Linear

2.2.3 Yagi and Satellite Dish Directional Antennas

Using directional antennas increases the detection effectiveness because we can create a scanning region that receives more of the reradiated radio energy from ourselves.

When we're not in the region and if it's not pointing towards the original source of the energy then it should be a lot less.

When we move into the region it can receive the energy from ourselves. Since the directional antenna is not receiving a lot of energy from the original source, the extra energy from us should be far greater, so it's a lot easier to detect, as shown in this image.

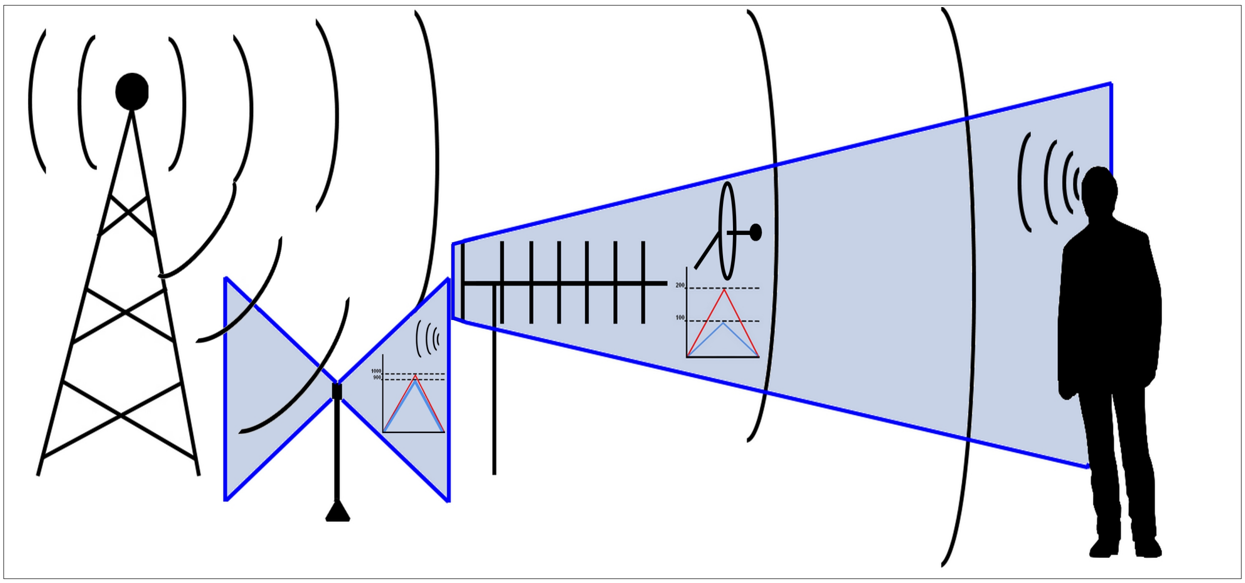

Figure 2-6 Directional Yagi and Satellite Dish Antennas

A normal antenna receives the electromagnetic energy from all around it, so the extra reradiated energy is not as noticeable.

The graphs in the image show the signal strength (blue) when further away and not in the antenna's scanning region. The red graphs show the increased signal strength when closer and in the scanning region.

Note the far more obvious difference in signal strength with the directional yagi and satellite dish antennas.

A subscription television satellite dish was successfully used for this research and detected signals even though it wasn't ideally designed for the frequency range of the signals that were detected. For signals in the 400 to 500 MHz range a larger dish is more effective because of the larger wavelength.

A 7 element yagi was also designed for frequencies around 434 MHz and was successfully used.

The yagi antenna can also be used for finding where the original signal is being transmitted from.

2.2.4 Using Frequency Strength for a Selected Graph Area over Time

Graphing frequency strength over time allows us to see the immediate effect of proximitry on the frequency or frequency range.

Either a frequency can be selected or a range of frequencies just by zooming in on the graph.

So we can move closer to or within the antenna's scanning region and note the recorded effect at that point in time.

If the frequencies strength starts increasing based on our movement towards the antenna then we know that it's the extra energy is from us and we can detect and see on the graph the moment that it starts increasing.

Also, the minimum and maximum values for the visible range are set for the most recent values, effectively zooming in on the changes, so even small changes in strength can be noticed.

The red arrows in this image show the signal strength graph over time and it's use on a single frequency and a frequency range.

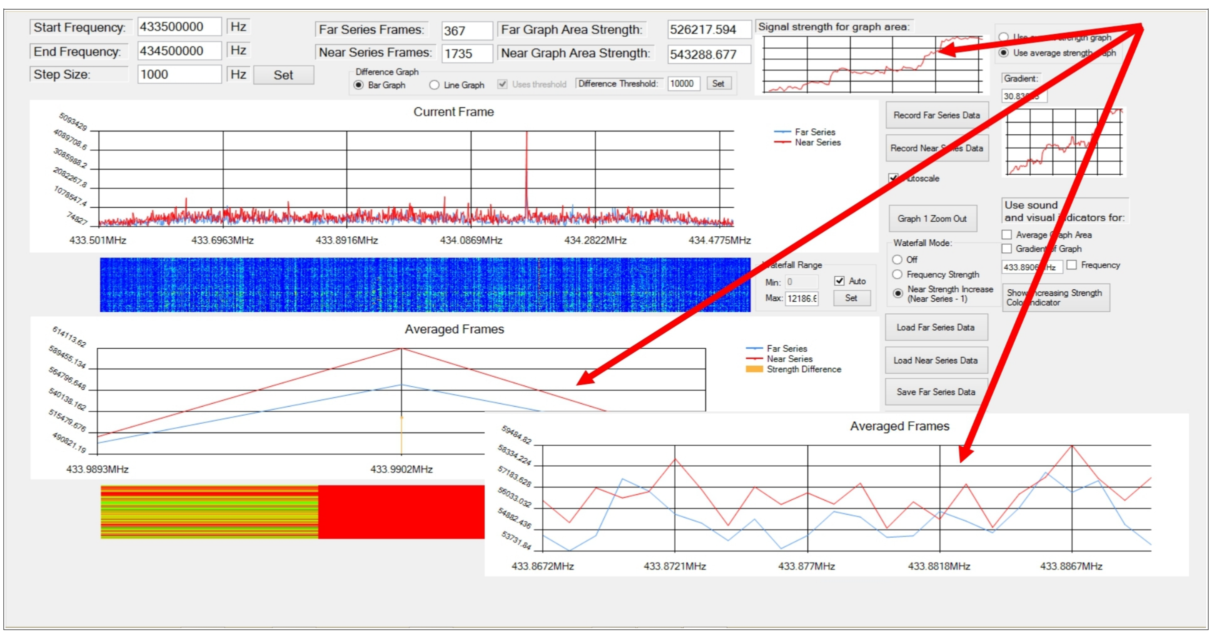

Figure 2-7 Signal Strength Over Time for a Frequency or Range of Frequencies

Selecting a frequency range allows frequency hopping signals to be detected.

Because the signal's frequency could be changing it wouldn't produce a clear signal, looking more like radio frequency noise. Instead what could be noticed is an increase in the averaged noise floor's strength for the region that the signal is in. That's shown in the inset for the image above.

The increase in energy for that region could then still be detected and clearly seen in the time based graph the moment you move nearer the detector, because the reradiated energy is increasing that entire regions detected energy.

This is also useful for detecting changes in strength for a signal that is more gradually shifting in frequency.

Here's this image illustrates a signal that has changed over time from one frequency to another.

These changes can still be tracked, though, by evaluating the frequency range that the signal is in.

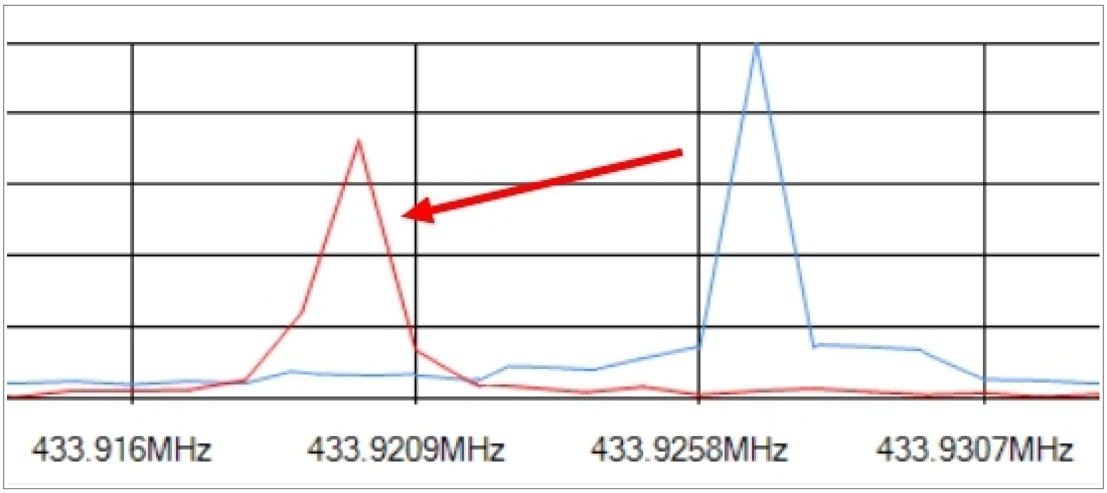

Figure 2-8 Signal Changing in Strength and Frequency

What occurs though, if the transmitted signal itself is fluctuating, increasing and decreasing in strength, also illustrated in this image with the graph when near the antenna (in red) being weaker. So when moving nearer the detector it might not increase the detected energy if the transmitted signal itself is getting weaker.

Here's where a gradient of the signal's strength can be used.

2.2.5 Using the Gradient of the Time Based Graph

Since the strength of a frequency or frequencies could vary by themselves, because of transmitter fluctuations and other causes, we need a way of determining the effect of proximitry on signal strength changes and not just whether it increases.

We want to determine then whether a frequency that is decreasing in strength decreases at a slower rate or whether an increasing signal increases at a faster rate when moving closer or within the antenna's scanning range. This would prove that we are in fact providing an increase in detected energy from ourselves, even though the frequency strength itself is decreasing or increasing.

So to achieve this we use the gradient of the time based graph. Should the gradient graph increase because of our proximitry then we know that's it's the extra reradiated energy from ourselves regardless of what the general trend of the transmitted signal is doing.

Here in this image there is a trend of a generally decreasing strength for a frequency range. However, the gradient for this graph shows that it is increasing. It's still negative at -9.865, although it is increasing. This means that the descent of the signal strength is slowing.

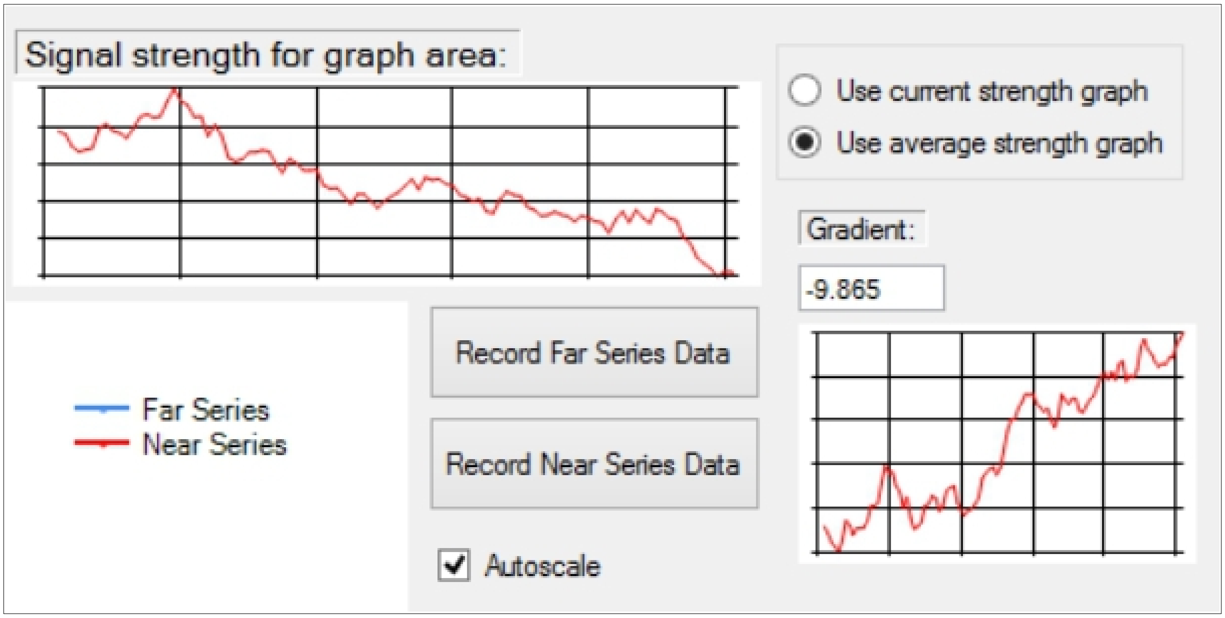

Figure 2-9 Signal Strength Over Time and it's Gradient

If the strength for a selected frequency range is decreasing then and if a movement towards the antenna produces a change in the gradient, increasing it, then you know that even though the signal strength is still decreasing, it's descent is slowing because the antenna is receiving the extra reradiated energy from yourself.

It works the same way for an increasing strength signal. That is, if the gradient for a generally increasing strength signal increases, then it indicates that it's ascent is accelerating because of the extra energy that's being detected.

This is how you can detect reradiated energy even if the transmitted signal strength is generally in a trend of decreasing or increasing strength, the gradient should always initially increase or show a change towards increasing when moving towards the antenna.

2.2.5 Sound and Visual Cues for Indicating Increasing Strength Levels

It was found that the reradiated signals were being detected so successfully that it was required that sound and visual cues be used to indicate increasing signal strength from further away where the graphs could not be seen.

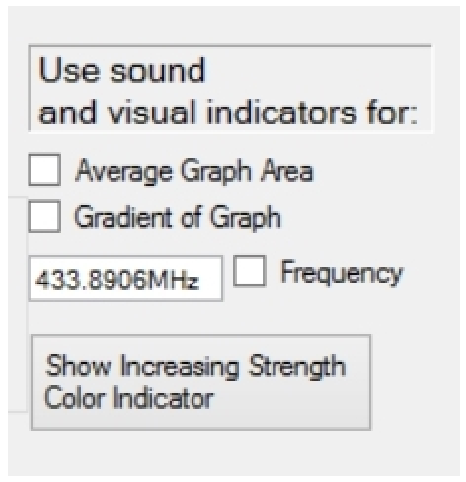

Figure 2-10 Sound and Visual Cues

Here this image shows how we can select sound and visual cues for the changing strength of a specific frequency, a frequency range (the selected area on the graphs) or the gradient of the changing strength for a selected frequency range.

So when the strength of the selected frequency, range of frequencies or the gradient of the strength is increasing then a sound is produced. The frequency of the sound also corresponds to the degree of the increase.

For the visual cues a large red or blue rectangle is shown, with red indicating an increase and blue a decreasing signal strength.

This used in conjunction with the satellite dish, successfully detected reradiated energy of a signal from around 12 meters away, with the cues indicating increasing strength levels when moving into the dish's scanning region.

3. Results

3.1 Detection Using the RF Energy Detector

The first successful detection of an emitted or reradiated electromagnetic frequency from myself was achieved using the basic radio frequency energy detector shown in Figure 1.

I would move nearer the device and the energy detected would increase, further and it would decrease.

A filter was placed on the front and experiments performed to make sure that it wasn't static electricity.

It could also detect movement from sufficiently far away for it to not be a near field effect. That is, it's a far field effect where the energy can propagate over reasonably far distances.

From the filter that I used, for higher frequencies in the MHz range, I had an idea that it would be of a reasonably high frequency. I wanted to find out, though, whether it was of a specific frequency.

In order to do this the rtl sdr was used.

3.2 Detection using an RTL SDR (Software Defined Radio) Device

The first detection of the frequency of reradiated energy occurred after modifying the code system that I wrote for the rtl sdr to not use dB units, so that differences in signal strength could be more easily detected. I also used a satellite dish for this detection.

I found that a specific frequency significantly reacted to my movement nearer and withing the dish's scanning region.

This image shows the strength of the signal when within the dish's scanning region (red) and outside (blue). A very significant difference in strength.

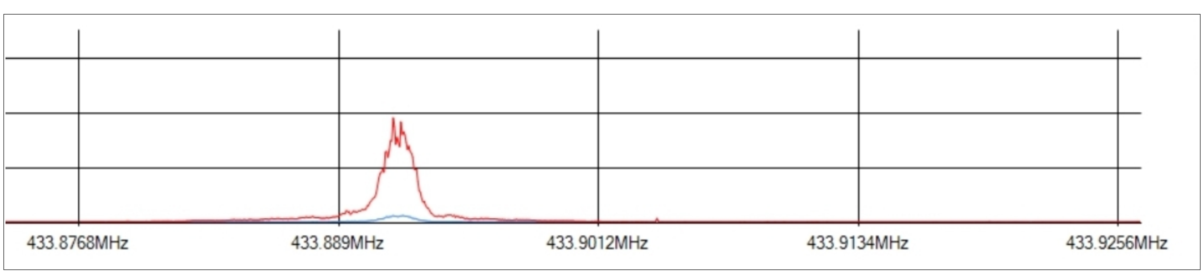

Figure 3-1 Graph showing Detection of Reradiated Energy From the Signal

Other frequencies do not react like this, they actually often reduce in strength when moving closer to a detectors antenna because of the effect of blocking the signal. Most radio and microwave frequencies will either be absorbed or go straight through.

Here's an image using the exact same experiment for an FM radio station.

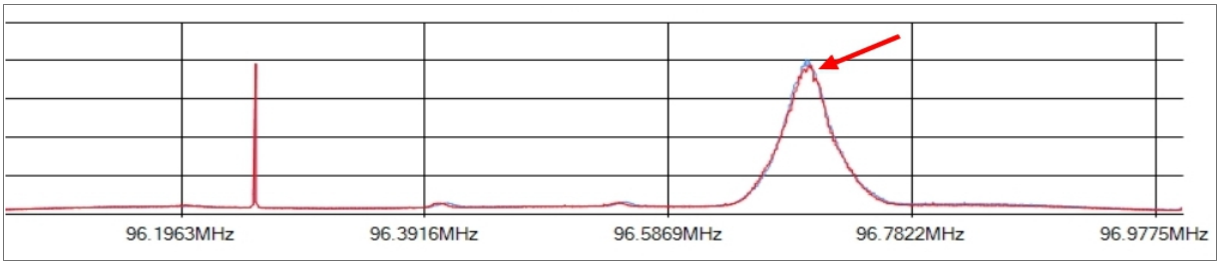

Figure 3-2 FM Radio Station

Notice how there's essentially no difference in signal strength between the far and the near data.

The data for both these experiments is the averaged data from hundreds of samples, so producing an effective measure of signal strength over time.

So radio and microwave signals in these frequency ranges won't normally reflect or reradiate like they do off of metal. Yet, I have a signal around 434 MHz that I am strongly reradiating.

The only frequencies in these ranges that the human body can reradiate are called resonant frequencies.

These could have serious health implications either unintended, as in electrosensitivity or intended, as in electronic harassment.

This is a time based waterfall image of the signal that's been detected.

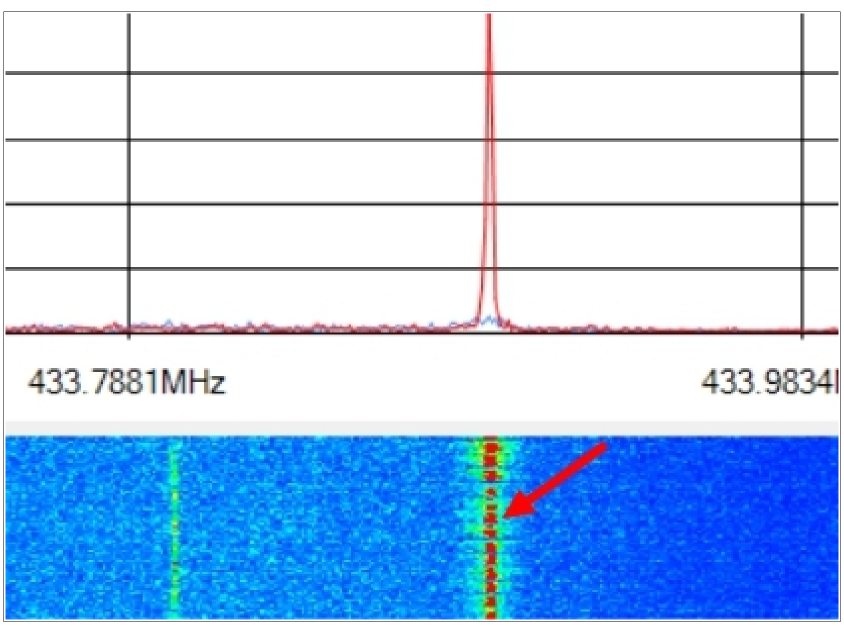

Figure 3-3 Waterfall Image Showing Pulses

Note that it's pulsed. That is, the signal varies strongly in strength from red to green to blue.

There has been work showing that the effect of electromagnetic waves on brain waves (EEG) is a lot stronger when those electromagnetic waves are modulated with other frequencies.

“The effect of microwave radiation on the EEG rhythms depends on the modulation frequency and has non-thermal origin. The effect is stronger at modulation frequencies higher or close to the EEG rhythms frequencies.” (Hinrikus et al., 2008).

So a pulsed radio wave, such as this signal at 434 MHz, could be a lot more effective.

Detecting this signal was a significant achievement since it proved that I was reradiating a radio wave at a specific frequency.

That is, I was receiving a radio wave at around 434 MHz that was generating oscillating currents within my mind and those oscillating current would then generate a reradiated signal at the same frequency that could be detected from further away. So not only was I receiving a signal, I was also transmitting it.

This has very serious implications for electronic harassment and electrosensitivity.

After I detected this signal it went away for around a week or so. When it returned I thought I'd see if I could detect it from further away.

I had already achieved the most important objective of detecting it, however it gets even better than this.

3.3 Detection using a Satellite Dish and Sound/Visual Cues

I started finding that I could detect this signal being reradiated from myself from reasonably far away, so far in fact that I had to write new code for the rtl sdr detector so that it would tell me using sound and visual cues whether it was detecting the signal from a range further than what I could see the graphs.

This image shows the satellite dish that I was using with my notebook computer that was connected to the rtl sdr and the dish. The red arrow is where I was standing. The signal was successfully detected from there, around 12 meters away.

Figure 3-4 Reradiated Energy Detection From Signal Using Satellite Dish from around 12 meters

Now this is very significant because a satellite dish of that size is not designed for detecting signals at around the frequency range that I was detecting.

That's a satellite subscription television dish designed for frequencies that are a lot higher with smaller wavelengths. The frequency that I was detecting is of a lower frequency and because it's got a longer wavelength it requires a bigger dish.

The fact that I could detect it from there using this satellite dish and an rtl sdr means that it could be detected from a lot further away using antennas and electronics specifically designed for these frequencies and for long range detection.

I was using the satellite dish mostly for directivity. That is, to create a region that I could walk into that would significantly increase the strength of the detected signal.

Using the sound and visual cues that I wrote for the rtl sdr code, I could determine that when walking into the region that the reradiated energy was being detected.

Here's the graph for the signal that was detected and even though it's from around 12 meters away there is still a significant increase in strength.

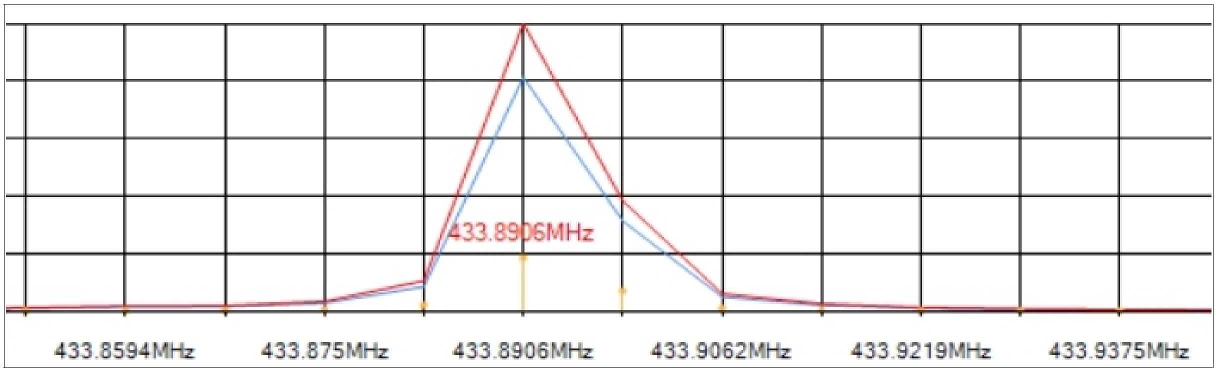

Figure 3-5 Graph of Reradiated Energy Detection From Signal Using Satellite Dish from around 12 meters

The experiment's results were repeatable in that I would walk into the dish's scanning region and the detected energy would increase, out of it and it would decrease.

3.4 Using a Yagi Antenna to Determine Origin of Signal

A yagi antenna is very useful for determining the origin of a signal since it is very directional, it receives most of the signal in the direction that it is pointing. So the signal is a lot stronger when pointing towards the transmitter of the signal.

So using the yagi that I built, 7 elements designed for around 434 MHz, I rotated it horizontally, that is, in azimuth and vertically, in elevation until I detected the horizontal and vertical angles that produced the strongest signal.

What I found was very interesting. The strongest signal seemed to be coming from a region in the sky.

Not long after I had determined this and was still pointing the yagi there, the signal went away. It had been there essentially everyday, whenever I was researching using the rtl sdr it was there. I would turn on the device and detect this reasonably strong signal.

Then just after I determine where it seems to be originating from, literally holding the yagi antenna pointing towards it, it goes away and not only that, it hasn't returned.

It also essentially went away a few hours after the first time I detected it, although it returned around a week later, which let me do all the other research.

It gets more fascinating, though. I thought about this, that it could be a satellite and wanted to find out what satellite could be in that region.

So I researched satellite locations and found a smartphone app (Satellite AR), that allows you to see essentially where satellites are in the sky just by pointing the phone there. It's an augmented reality app so it shows the satellites on the screen where they would normally be.

Here's the fascinating thing, there's something called a “geostationary belt”, which I didn't know about before. It's a region in space where geostationary satellites are placed. In order for a satellite to be in geostationary orbit it has to be placed above the equator, so these satellites form a “belt”.

What I didn't know was where this belt was in the sky and the yagi was pointing straight there.

Here's an image of the geostationary satellite belt region that the yagi antenna was pointing towards.

This was taken with the “Satellite AR” app and my phone also pointing towards the same region as the antenna.

Figure 3-6 “Satellite AR” App Showing Geostationary Belt Region the Yagi Antenna was Pointing Towards

So this was a signal that went away after I detected it the first time. It then returned a week or so later.

It was there every time I turned on the rtl sdr and then just after I detect where it seems to be transmitting from, which just happens to be a specific region in the sky that also just happens to point at the geostationary belt for satellites and while holding the yagi pointing at it, it goes away.

This was also the signal that I was detecting the most reradiated energy from.

Clearly there is something going on here.

So which satellite was it. That I don't know because there are actually large numbers of satellites in this region, as shown in the image.

I researched a few of them, though. Now I'm not saying that this is the satellite because I can't be sure of that, however I'm describing it here because it has the capability to produce the signal that I was detecting.

Skynet 5D is a satellite with a UHF communications system and four steerable transmission dishes.

So the 434 MHz signal that I detected is within it's UHF frequency range.

Satellite dishes are also not required to communicate with satellites, ham radio operators often use yagi antennas for their amateur radio satellites.

So other satellites funded by tax payers would have no difficulty transmitting signals that could be detected by even just a basic antenna and I have also detected it with the rtl sdr's supplied antenna.

So a fascinating signal which seems to have a very interesting origin.

Of course, these signals don't need to be broadcast from satellites and now that this signal has gone are there others that can be detected?

3.5 Using the Time Based Graphs for a Frequency Range

I noticed a strange signal after the other one went away that varied in both strength and frequency.

The following describes the use of code to detect these and along with the ability to evaluate a range of frequencies for resonance instead of a single frequency, which could possibly detect a form of frequency hopping where signals would quickly change frequency over a certain range.

Here this graph shows a selected frequency range from 433.88 MHz to around 433.90 MHz where there isn't an obvious signal. The interesting signal that I had found was at 433.8906 MHz.

This image shows how resonance can still be detected, with the extra reradiated energy elevating the averaged data, the red graph, for the frequency range and the red arrows showing where on the time based signal strength graph and gradient graphs movement occurred towards the antenna.

Notice how the signal strength and gradient of that graph both increase, indicating the extra reradiated energy the moment movement occurs towards the antenna.

Figure 3-7 Using Signal Strength and Gradient Graphs Over Time to Detect Reradiated Energy from Frequency Ranges

So this could be used to evaluate signals that slowly or even quickly change in frequency for the selected range.

The gradient graph could also be used to determine the effect of moving towards the antenna on a signal that is already increasing or decreasing in strength. That is, it should either increase faster or decrease slower, both of which will show as an increasing gradient.

So although the signal that I originally detected has gone away, using this code system I can continue detecting reradiated energy from other signals.

3.6 Verifying Resonance And Detecting Resonant Frequencies From Devices

Detecting a signal that was likely transmitted from a satellite was very significant and there are other signals that could be detected from cell phone towers and other transmitters, although it's also been found that various devices, such as computers and television decoders produce signals in these resonant frequency ranges.

Considering the possible biological effects it should be illegal for any device to do so. These devices should not be transmitting wirelessly on those frequencies. The interesting thing is that the frequencies that I've detected aren't for wifi or bluetooth. So what are they being used for?

This has serious implications for electrosensitivity and even electronic harassment.

These frequencies can be detected using a yagi antenna.

From a television decoder I detected a certain signal at 433.42 MHz, which interestingly is very close to the other, external signal that I detected and also in the resonant frequency range. It should not be emitting this signal.

It also emits other signals, which are used as a carrier wave that a television or other device can tune into just like any other signal, although it's for connecting to such devices with a cable. The signal strength, though, means that you could tune into these signals without difficulty using another antenna instead of the cable.

These frequencies can be adjusted in the settings from 471 MHz to 855 MHz. I found that I could use these to show that different frequencies have different levels of resonance.

The following image shows the reradiated energy that was detected using the frequencies from 433 MHz to 855 MHz that the decoder produces. This energy was detected standing just in front of the yagi antenna and with the decoder further away out of the antenna's main receiving region.

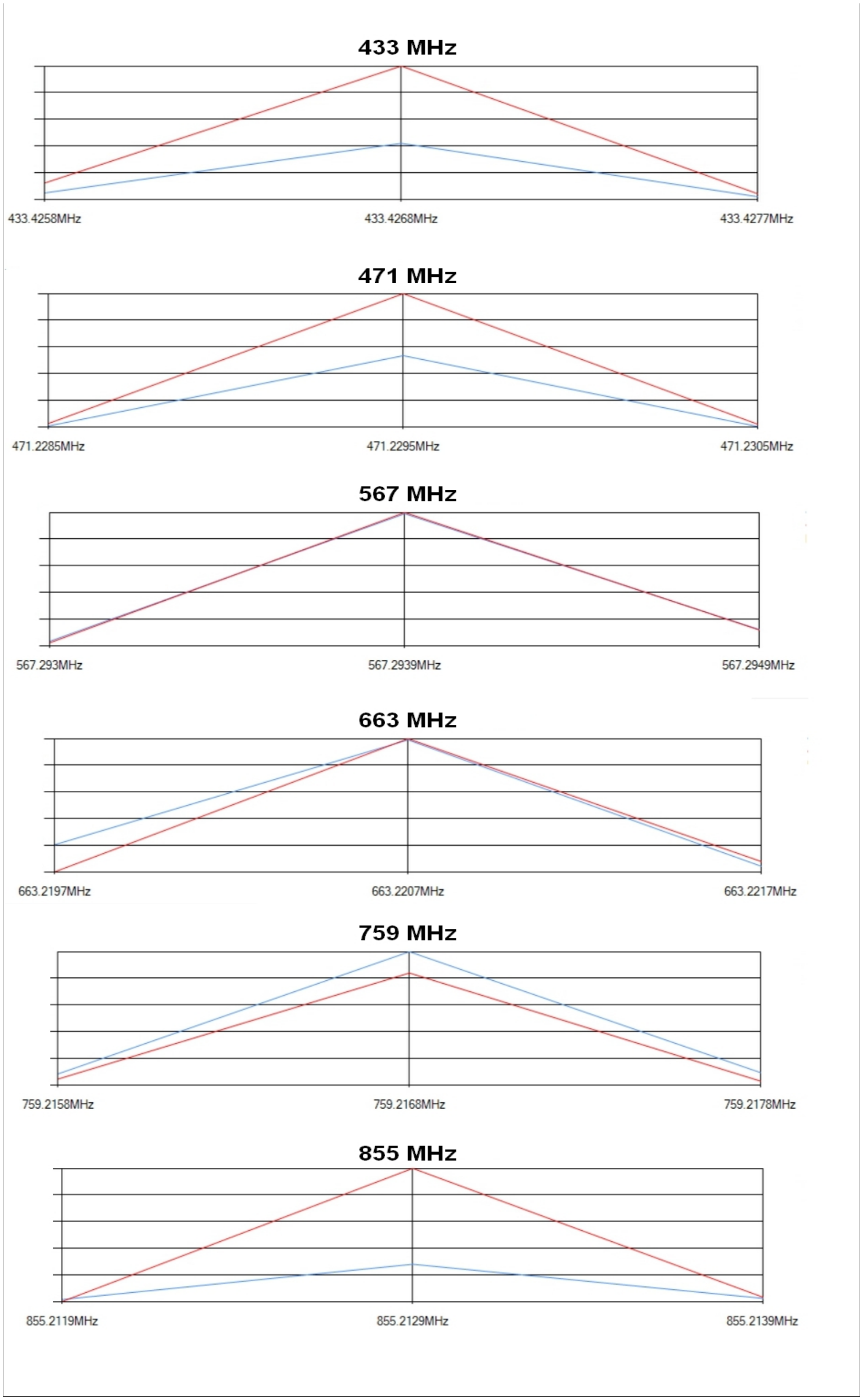

Figure 3-8 433 MHz to 855 MHz Signals Produced by a Television Decoder and their Reradiated Energy

What I found was that since 433 MHz is very close to the signal I detected, it produces a lot of reradiated energy.

The 471 MHz also produces a lot of reradiated energy. It could be because it's reasonably close to the 434 MHz frequency or there's a possibility that it's reradiated energy from another body organ with a resonant frequency in the 471 MHz range.

The significant thing here is that 567, 663 and 759 MHz frequencies do not produce the reradiated energy of the other frequencies, with a decrease in energy detected for the 759 MHz signal.

Interestingly, the 855 MHz signal shows that it is also a resonant frequency. This could also be that it's a resonant frequency of another body organ.

All objects that are conductors have resonant frequencies and since body organs are conductors they each have their own resonant frequency.

This could have consequences for organs such as the heart.

Research indicates that the heart rate can be both slowed and increased using weak electromagnetic waves that do not cause any heating effect, that is, at intensities beneath the thermal level (7–12 mw/cm2).

“Irradiation of the ventral parts of the body slowed the heart, and irradiation of the dorsal part of the head speeded it. It is suggested that the effect observed was the result of reflex autonomic reactions provoked by the direct action of the microwaves on the superficial reflexogenous zones, and that the effect from irradiation of the head was produced by action on brain cells...” (Presman & Levitina, 1962).

So the heart rate could be affected in various ways using electromagnetic waves and they can be very weak.

Very interesting considering that body organs have resonant frequencies and will receive electromagnetic radiation, turning into electricity.

Devices using these frequency ranges then could be responsible for electrosensitivity, causing various biological effects.

Such frequencies emitted by devices could also be used for electronic harassment, effectively illuminating the user of such devices for RNM, so that the perpetrators themselves don't need to transmit the signal to generate the reradiated energy.

These frequencies need to be declared illegal, whether from home devices or transmitted from further away.

4. Discussion

I cannot emphasize enough how important detecting these frequencies could be.

Think about this for a moment. Someone can transmit a signal, at a certain frequency, that will create oscillating electrical currents in your mind and they can do this from far away without your knowledge.

These signals can biologically affect you and the reradiated electromagnetic wave could contain EEG data for remote neural monitoring, which the research of Cazzamalli showed.

Your resonant frequency is also unique in that it's a certain frequency that will affect you the most.

The research here shows that such frequencies do exist and that signals exist on these frequencies that are received by us just like antennas, they create electrical currents in us and are reradiated as an electromagnetic wave of the same frequency.

There are obvious military applications of this. The fact that the body has unique resonant frequencies means that serious damage could be caused just using the thermal effect. The human body needs to maintain internal temperature within certain ranges that cannot vary by more than just a few degrees.

Ham radio operators are warned about this, so clearly a device transmitting on these frequencies could cause serious damage if they exceed certain safety limits. The military could use this to target enemies and also specific targets, where there are others around them, based on the fact that these resonant frequencies are unique.

However, it's not just the military that would use this. The essence of this technology is very basic and others have been using it. All they essentially need is a transmitter and serious damage could be caused.

The fact that research has also shown that it's not just thermal effects that can cause damage, means that the power levels of these signals do not need to be that strong.

The mind works on electricity, it's obvious that creating electrical currents in it could cause various biological effects.

You are a receiver of radio wave energy. Just like an antenna, signals are causing oscillating electrical currents in your mind at this very moment.

You are also a transmitter because those same signals create electrical currents and that generates a reradiated radio wave of the same frequency.

Looking at the radio spectrum, there are signals everywhere. Someone is likely broadcasting on your resonant frequency range. In fact, it's almost certain.

So someone is causing you to receive and transmit radio waves. This is scientific fact and has also been verified by this work.

Because these signals generate oscillating electrical currents they're probably having some biological effect, whether noticeable or not.

It's been shown here how to detect such signals.

Those radio waves that you're transmitting could also contain EEG data and be received from further away so that someone could remotely monitor your mind's electrical activity, shown by Cazzamalli in the 1920's. His work was later classified by Mussolini.

This originates then, from around the 1920's, think about who would be using it now.

Serious violations have occurred using this technology, lives have been ruined, there are going to be consequences.

What's occurred recently in Cuba, with the diplomats experiencing symptoms likely caused by this technology, which are a lot of the same symptoms of electronic harassment, is also revealing this.

So these signals can be transmitted from satellites, cell towers and other transmitters. They can also be emitted by electronic devices in your own homes, creating those electrical currents in you and reradiating electromagnetic energy.

These signals cause you to both receive and transmit electromagnetic energy and could be used for electronic harassment or cause electrosensitivity.

The results of this research then has achieved the objective of proving a mechanism for electronic harassment.

In detecting signals that could be used for RNM it was found that signals at the same frequency could also be used to create biological effects. This is because the received signal generates oscillating electrical currents in us, which then creates the reradiated RNM signal.

The received signal then and the electrical currents that it generates would create various biological effects as shown in other research.

So this work has proven that signals at certain frequencies can be received and reradiated and that this is a way of biologically affecting someone and the reradiated signal could be used for RNM.

This needs to be revealed now so that the radio spectrum that's used for these signals is secured, preventing their use.

5. Conclusion

This research has proven a mechanism for electronic harassment.

That is, that signals can be transmitted at specific frequencies that are unique for each of us. These are our resonant frequencies. Just like an antenna tuned to a specific frequency, they create electrical currents in us that can cause biological effects and those currents then create a reradiated radio wave of the same frequency that can be used for remote neural monitoring (RNM).

They cause us to be a receiver and transmitter of radio waves and, thus, is a mechanism of electronic harassment.

Acknowledgments

There are those that have created certain events that have facilitated this.

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