



# The Rise of **ELF** Electromagnetic Attack Weapons

and the Necessity of the  
Development of Corresponding

## **ELF** Defense Systems

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Light contains the key to open the doors to Heaven.  
Unfortunately, the same key fits on the doors to Hell

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## 1.0 Introduction

The original idea that electromagnetic waves propagate in every direction with the same universal constant, the speed of light, corresponds with Maxwell's Theory of Electrodynamics in 1865. With the introduction of the Laser it became clear that it is also possible to emit a beam of light in one single direction while the speed of light in the directions perpendicular to the direction of propagation equals zero. In general, the laser frequencies are so high that the Laser radiation will not be harmful for the human brains and organs.

Recent developments however demonstrate that it is very likely that Eastern countries like China and Russia are already doing experiments with **Extreme Low Frequency (ELF) Masers**. The fundamental principle on which Masers are operating is the [Phenomenon of Resonance](#). The fundamental [Condition for Resonance](#) is that the dimensions of the cavity are at least the dimension of the wave length. The wavelength of a frequency of 2.000 [Hz] equals 150 [km]. This means that to build an ELF Maser for a radio frequency of 2.000 [Hz] a resonance cavity is needed with the dimensions of at least 150 [km] which is about five times the size of New York.

At December 31, 2018, CBS News revealed the existence in [China of an antenna five times the size of New York](#). With the New insights in the propagation of Electromagnetic Radiation it will be clear that such an antenna could be easily used to transform this antenna into an effective ELF Maser Cavity in which an enormous amount of Low Frequent Electromagnetic Energy could be emitted in one single direction like an ELF Maser Beam and be used as an extremely powerful highly dangerous modern weapon in modern warfare.

Such a weapon system would be extremely effective in modern warfare. Because after a nuclear attack nothing will be left. No buildings, no factories, no working computer system, no data systems, no software, no humans. What is left is a totally useless “No Go” area for hundreds of years. One of the reasons why nuclear bombs will not be used in modern warfare.

How different are modern ELF Maser weapons systems. An attack with an Intense Low Frequent ELF Maser beam in the region of 2000 Hz will not damage buildings, factories, computer systems, data systems, software, hardware. Factories will remain completely operational. Even humans will look the same from the outside. But there will be damage inside the human brains. Depending on the frequency and the intensity, the human brain will become dysfunctional. Varying in a way that it will be difficult to take decisions or to respond correctly until changing into a complete zombie. There will be a lot of gain for the enemy. Complete operational cities and countries can be taken over and the inhabitants can easily be replaced by the people of the hostile country.

Also Russia is already doing experiments with this modern [ELF Maser weapons systems](#).

That is why it is very important that Western Europe starts to build defense systems against ELF Maser attacks. To protect themselves against the new technologies of modern warfare. The following theory explains how electromagnetic radiation can be guided and controlled and can be deflected to protect our world against hostile ELF Maser Attacks in Modern Warfare.

## **1.1 Introduction into the Theory to Control, to Direct and to Deflect a beam of Electromagnetic Radiation generated by an ELF Maser beam.**

Albert Einstein, Lorentz and Minkowski published in 1905 the Theory of Special Relativity and Einstein published in 1915 his field theory of general relativity based on a curved 4-dimensional space-time continuum to integrate the gravitational field and the electromagnetic field in one unified field. Since then the method of Einstein's unifying field theory has been developed by many others in more than 4 dimensions resulting finally in the well-known 10-dimensional and 11-dimensional "string theory".

String theory is an outgrowth of S-matrix theory, a research program begun by Werner Heisenberg in 1943 (following [John Archibald Wheeler](#)'s<sup>(3)</sup> 1937 introduction of the S-matrix), picked up and advocated by many prominent theorists starting in the late 1950's.

Theodor Franz Eduard Kaluza (1885-1954), was a German mathematician and physicist well-known for the Kaluza–Klein theory involving field equations in curved five-dimensional space. His idea that fundamental forces can be unified by introducing additional dimensions re-emerged much later in the "String Theory".

The original Kaluza-Klein theory was one of the first attempts to create an unified field theory i.e. the theory, which would unify all the forces under one fundamental law. It was published in 1921 by Theodor Kaluza and extended in 1926 by Oskar Klein. The basic idea of this



theory was to postulate one extra compactified space dimension and introduce nothing but pure gravity in a new (1 + 4)-dimensional space-time. Klein suggested that the fifth dimension would be rolled up into a tiny, compact loop on the order of  $10^{-35}$  [m]

To use simple notations, the Einstein convention will be used. In the Einstein Convention the index always changes from 1 till 4. Others prefer the changing of the index from 0 till 3 but it has the same meaning.

This means the term: “ $x_a y_a$ ” has to be interpreted as:

$$x_a y_a = x_1 y_1 + x_2 y_2 + x_3 y_3 + x_4 y_4 \quad (\text{A.0})$$

In Cartesian coordinates this means:

$$(1,2,3,4) \rightarrow (x, y, z, t) \text{ or } (0, 1, 2, 3) \rightarrow (t,x,y,z)$$

In Classical Electrodynamics, the Electromagnetic Field has been derived from the 4-dimensional Potential 4-Vector. The 4-dimensional Electromagnetic “Potential 4-vector”, oriented in the classical complex 4-dimensional “Minkowski Space” will be defined by  $\varphi_a$  (“a” varying from 1 until 4) in which:

$$\varphi_a = \begin{pmatrix} i \mathbf{V} / c \\ \mathbf{A}_3 \\ \mathbf{A}_2 \\ \mathbf{A}_1 \end{pmatrix} \quad (\text{A.1})$$

In which  $V$  equals the scalar electric potential and  $\bar{\mathbf{A}}$  the 3-dimensional magnetic vector potential.

In which  $V$  equals the scalar electric potential and  $\bar{\mathbf{A}}$  the 3-dimensional magnetic vector potential. The Electric Field Intensity  $\bar{\mathbf{E}}$  equals:

$$\bar{\mathbf{E}} = - \nabla V - \frac{\partial \bar{\mathbf{A}}}{\partial t} \quad (\text{A.2})$$

The Magnetic Field Intensity  $\bar{\mathbf{H}}$  equals:

$$\bar{\mathbf{H}} = \frac{1}{\mu_0} \mathbf{B} = \frac{1}{\mu_0} (\nabla \times \bar{\mathbf{A}}) \quad (\text{A.3})$$

The 4-dimensional Electromagnetic “[Maxwell Tensor](#)” has been defined by:

$$F_{ab} = \partial_b \varphi_a - \partial_a \varphi_b \quad (1)$$

The 4-dimensional Electromagnetic “[Energy Momentum Tensor](#)” has been defined by:

$$T^{ab} = \frac{1}{\mu_0} \left[ F_{ac} F^{cb} + \frac{1}{4} \delta_{ab} F_{cd} F^{cd} \right] \quad (2)$$

The 4-dimensional divergence of the Energy Momentum Tensor equals the 4-dimensional Force Density 4-vector:

$$f^a = \partial_b T^{ab} \quad (3)$$

The new theory has been based on the fundamental concept of Harmony in which all force densities in the Universe have been counter balanced by equal and opposite directed force densities resulting in a net force density equals zero and a final set of 4 Electromagnetic Equations.

$$f^a = \partial_b T^{ab} = 0 \quad (4)$$

In the absence of any Gravity, the force density  $f^a$  in the 3 directions of the 3 coordinates of the chosen 3-coordinate system follows from the (4-dimensional) Divergence of the (4-dimensional) [Stress Energy Tensor](#) <sup>(8,9,38)</sup> (3).

The Divergence of a Vector equals a Scalar. The Divergence of a Tensor equals a Vector. The 4-dimensional Divergence of the 4-dimensional [Stress Energy Tensor](#) (4) equals the [4-dimensional Force-density Vector](#).

The first 3 terms of the 4-dimensional Force-density vector equal the force densities in the corresponding 3 dimensions of the chosen Coordinate System. The 4<sup>th</sup> component equals the [Electromagnetic Poynting's Theorem](#) (5.1) (Continuity Equation).

To calculate the equilibrium conditions to present the force densities in the Electromagnetic Field Configuration, the first 3 terms of the 4-dimensional Force-density vector are being used.

By re-arranging the first 3 terms of the (4-dimensional Divergence) of the (4-dimensional) [Stress Energy Tensor](#) (4) an equation for the [3-dimensional force density](#)  $f^a$  within the Electromagnetic Field Configuration has been created. This Equation (5.2) represents the [3-dimensional force density](#)  $f^a$  in a coordinate-free vector equation in the absence of any Gravity:

$$(x_4) \quad \nabla \cdot (\bar{\mathbf{E}} \times \bar{\mathbf{H}}) + \frac{1}{2} \frac{\partial (\epsilon_0 (\bar{\mathbf{E}} \cdot \bar{\mathbf{E}}) + \mu_0 (\bar{\mathbf{H}} \cdot \bar{\mathbf{H}}))}{\partial t} = 0 \quad (5.1)$$

$$\begin{pmatrix} x_3 \\ x_2 \\ x_1 \end{pmatrix} \quad - \frac{1}{c^2} \frac{\partial (\bar{\mathbf{E}} \times \bar{\mathbf{H}})}{\partial t} + \epsilon_0 \bar{\mathbf{E}} (\nabla \cdot \bar{\mathbf{E}}) - \epsilon_0 \bar{\mathbf{E}} \times (\nabla \times \bar{\mathbf{E}}) + \mu_0 \bar{\mathbf{H}} (\nabla \cdot \bar{\mathbf{H}}) - \mu_0 \bar{\mathbf{H}} \times (\nabla \times \bar{\mathbf{H}}) = \bar{\mathbf{0}} \quad (5.2)$$