



# **Replicating Tom Bearden's SCALAR WAVE Technology**

Presented by William Alek  
**intalek Research, LLC**

October 5th, 2023

SEM 2023

# My Timeline:

1. 1977 – While attending IIT Chicago engineering school, I was given by God a vision of my future – I was constructing a full-size Anti-Gravity disk-shape craft.
2. 1979 – I graduated with a BSEE Degree and began my professional career.
3. 1997 – I attended a Tom Bearden conference on “Free Energy and Anti-Gravity.”
4. 2022 – I began lecturing about Tom’s technology.

# Tom Bearden Quotes

- “All matter is made of trapped electromagnetic energy.”
- “We can’t see the dimension of time but, we know that time exists because of spatial displacement.”

# ELECTRIC FORCE vs. GRAVITATIONAL FORCE

## GIVEN:

Charge of electron,  $e^- = 1.60217733 \times 10^{-19} \text{ C}$   
 Permittivity of Free Space,  $\epsilon_0 = 8.85418782 \times 10^{-12} \text{ F/m}$   
 Permeability of Free Space,  $\mu_0 = 4 \pi \times 10^{-7} \text{ H/m}$   
 Speed of Light,  $c = 2.99792458 \times 10^8 \text{ m/s}$   
 Mass of electron,  $m_e = 9.1093897 \times 10^{-31} \text{ kg}$   
 Gravitational Constant,  $G = 6.67430 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$

CROSS PRODUCT:  $q_1 \times q_2$



OPPOSING VECTORS

## ELECTRIC FORCE

$$F_E = \frac{q_1 \times q_2}{4\pi\epsilon_0 r^2}$$

## GRAVITATIONAL FORCE

$$F_G = \frac{G m_1 m_2}{r^2}$$

## WHICH FORCE IS LARGER?

$$F_E : F_G$$

$$F_E = \frac{q_1 \times q_2}{4\pi\epsilon_0 G m_1 m_2} F_G = \frac{e^- \times e^-}{4\pi\epsilon_0 G m_e^2} F_G$$

$$F_E = 4.16668831 \times 10^{42} F_G$$

$$F_E = 4.16668831 \cdot 1,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000 \cdot F_G$$

**IN COMPARISON, THE GRAVITATIONAL FORCE IS INCREDIBLY SMALL BUT, NOT ZERO.**

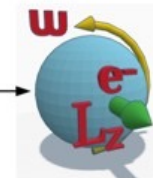
## ELECTRON 1:



$$m_1 = m_e$$

$$q_1 = e^-$$

## ELECTRON 2:

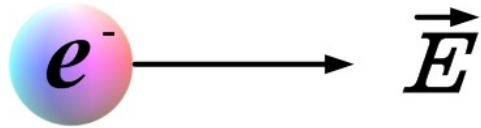


$$m_2 = m_e$$

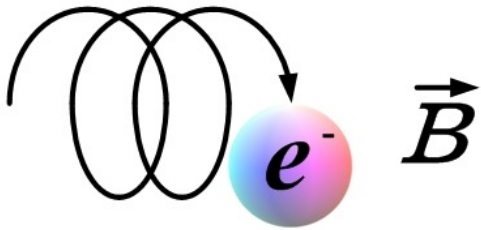
$$q_2 = e^-$$

$r$

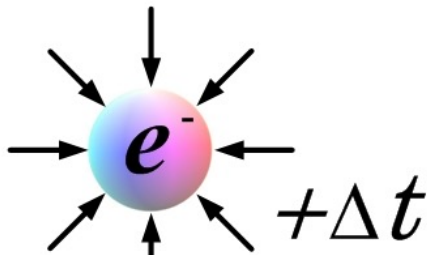
# Is there a link between EM & Gravity/Anti-Gravity?



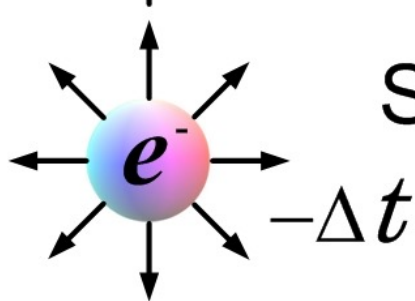
Electric Field,  
Transverse



Magnetic Field,  
Transverse



Scalar Field, Gravitic,  
Longitudinal,  $t+\Delta t$



Scalar Field, Anti-Gravitic,  
Longitudinal,  $t-\Delta t$

# Einstein's Unified Field Theory

- Einstein spent the rest of his life searching for a connection between EM Theory and the Scalar Field Theory.
- He failed.
- His Unified Field Theory (UFT) was a complete failure.

**Modern Science  
Discovered this  
Connection!**

**Yes, we call it:  
“SCALAR WAVES”**

## **Tom Bearden's SCALAR WAVES:**

They are best described as Anti-Gravitational Waves that have the properties of being both Time-Reversed and Longitudinal.



# How to Produce SCALAR WAVES:

CROSS PRODUCT:  $q_1 \times q_2$



EQUAL in magnitude, but OPPOSITE in direction are EQUILIBRANT VECTORS (produce the Zero Vector) where,  $q_1 + -q_2 = 0$ , must be operated in resonance for the Scalar term to appear.

**Two Types of  
SCALAR WAVES are  
Produced  
Simultaneously:**

1. Time-Reversed EM Transverse Wave.
2. Time Reversed Gravity (or, Anti-Gravitational) Wave.

# SCALAR QUATERNION SOLUTION

## TOM BEARDEN'S SCALAR WAVE THEORY

CROSS PRODUCT:  $q_1 \times q_2$



OPPOSING VECTORS (EQUILIBRANT)

- Vector Solution (Heaviside/Maxwell Electromagnetics):

Let  $q_n = ai + bj + ck$

$$q_1 \times q_2 = 0 \text{ vector}$$

**ZERO VECTOR (EMPTY – FAILURE OF MAINSTREAM SCIENCE)**

- Quaternion Solution (Original Maxwell Electromagnetics):

Let  $q_n = w + ai + bj + ck$

$$\text{So, } q_1 \times q_2 = a^2 + b^2 + c^2 + 0 \text{ vector}$$

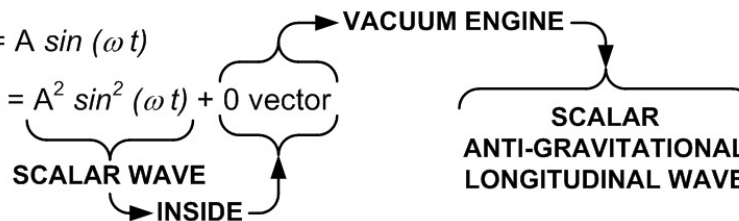
Simplify:

$$q_1 \times q_2 = \underbrace{A^2}_{\text{SCALAR ENTITY}} + \underbrace{0 \text{ vector}}_{\text{ZERO VECTOR ENTITY}}$$

Use a Sine Wave,  $\sin(\omega t)$ :

$$\text{Let } q_1, q_2 = A \sin(\omega t)$$

$$\text{So, } q_1 \times q_2 = A^2 \sin^2(\omega t) + 0 \text{ vector}$$



**THE SCALAR WAVE ( $\sin^2$  TERM) IS AN EM TIME-REVERSED TRANSVERSE WAVE FUNCTION. THE ZERO VECTOR VACUUM ENGINE PRODUCES AN ANTI-GRAVITATIONAL LONGITUDINAL WAVE.**

# Oliver Heaviside Simplified James Maxwell's Electromagnetics in 1880s

## **THE FAILURE OF MODERN MAINSTREAM SCIENCE:**

Heaviside/Maxwell Electromagnetics.

### **Oliver Heaviside:**

In regards to the Scalar Component "Mystical, and should be murdered from the theory."

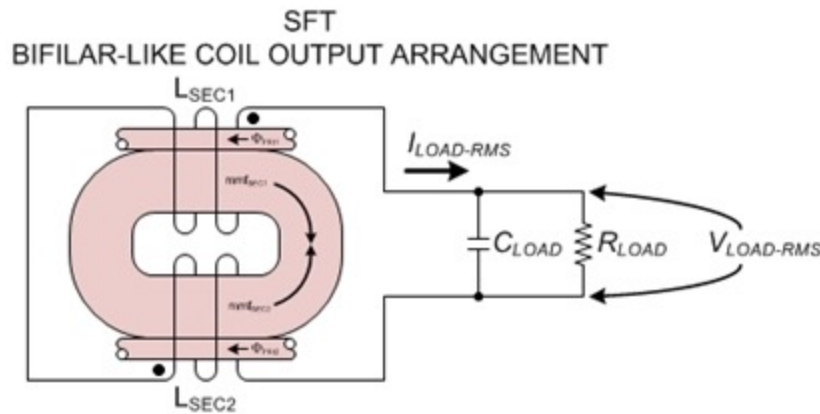
### **Tom Bearden:**

"Oliver Heaviside threw the Baby out with the Bath Water."

### **William Alek:**

"The main reason why we don't have Star Trek today."

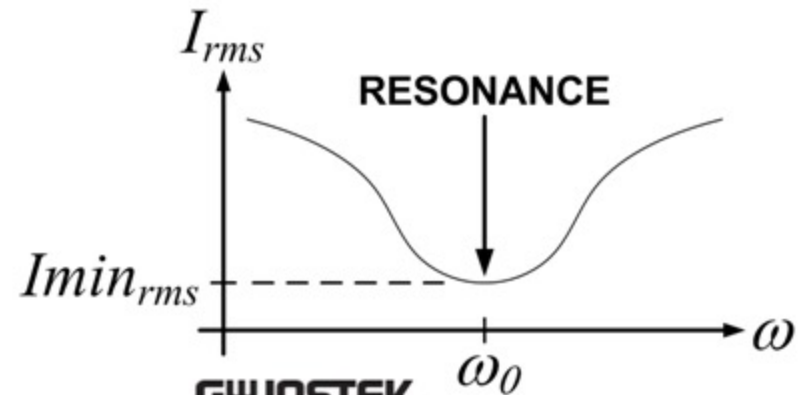
# HOW TO DETERMINE RESONANCE:



PRODUCES OPPOSING MAGNETOMOTIVE FORCES  
SCALAR WAVE AT RESONANCE

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RESONANCE OCCURS AT  
MINIMUM INPUT CURRENT:



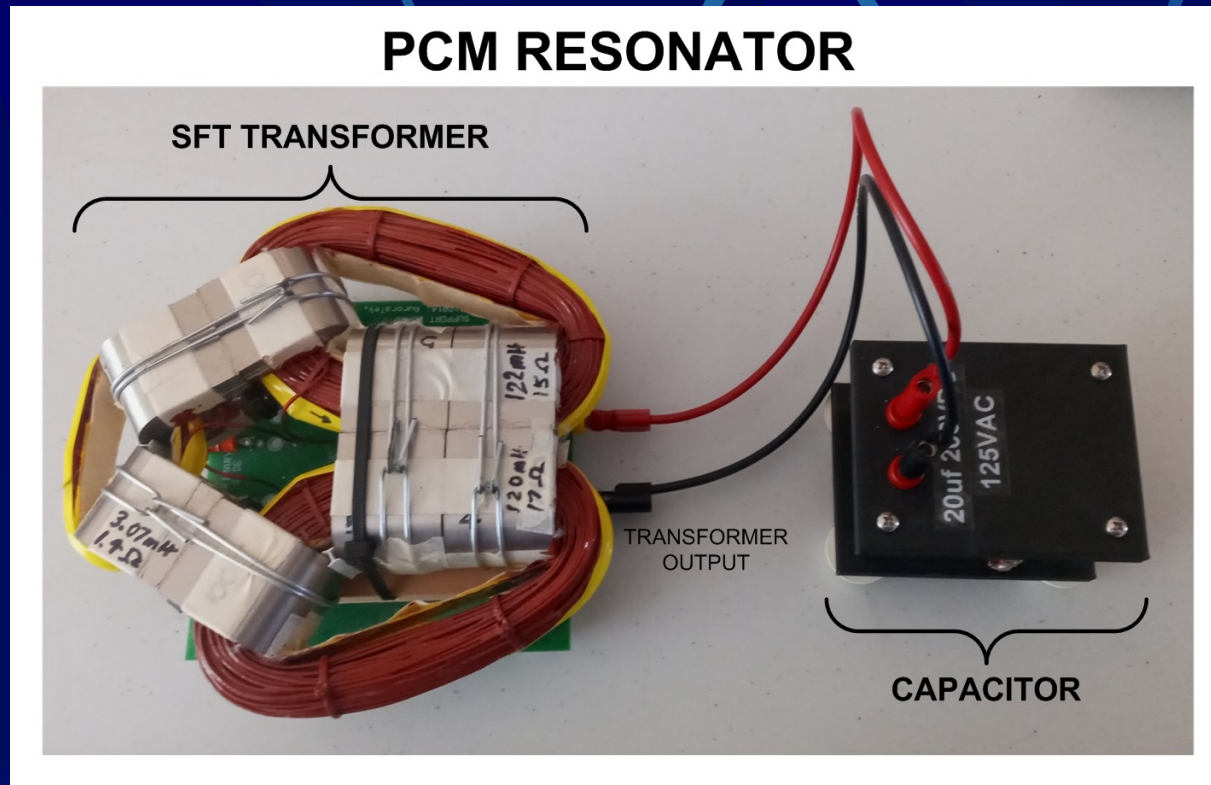
GW INSTEK

ASR-2100: Programmable AC/DC Power Source

## PUMPING ACTION AT RESONANCE CREATES A PCM

# PCM RESONATORS

- Pumped Phase Conjugate Mirror or PCM.
- I filed a patent app on Dec 31st, 2020.
- Tom Bearden lectured on this Subject in 1990's.



# PCM RESONATORS

- Outputs a Time-Reversed Transverse EM Wave. The output becomes more efficient. Efficiencies can exceed 100%.
- The device outputs an Anti-Gravitational Wave. It decreases its' own Mass\*Acceleration effect. The weight can become negative or less than zero.

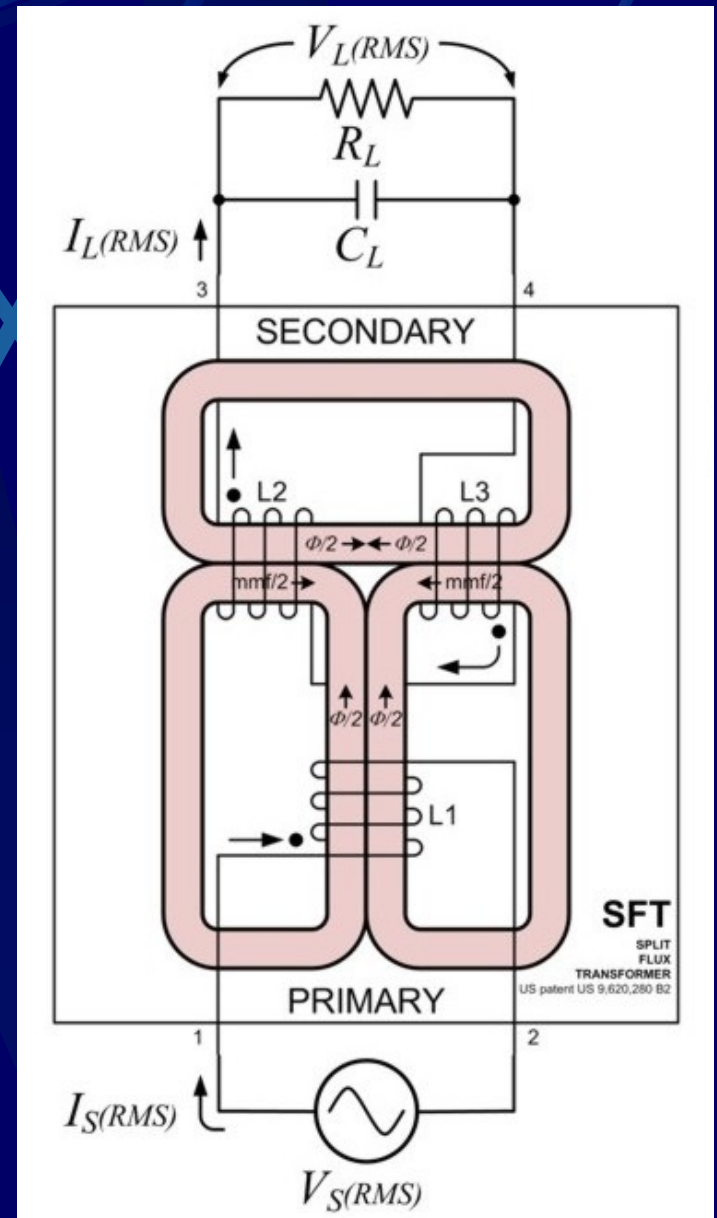
# Examples of PCM RESONATORS

- William Alek's Split-Flux Transformer.
- Nikola Tesla's Magnifying Transmitter.
- Stanley Meyer's Water Car.
- Metamaterial Resonators.



# The Split-Flux Transformer

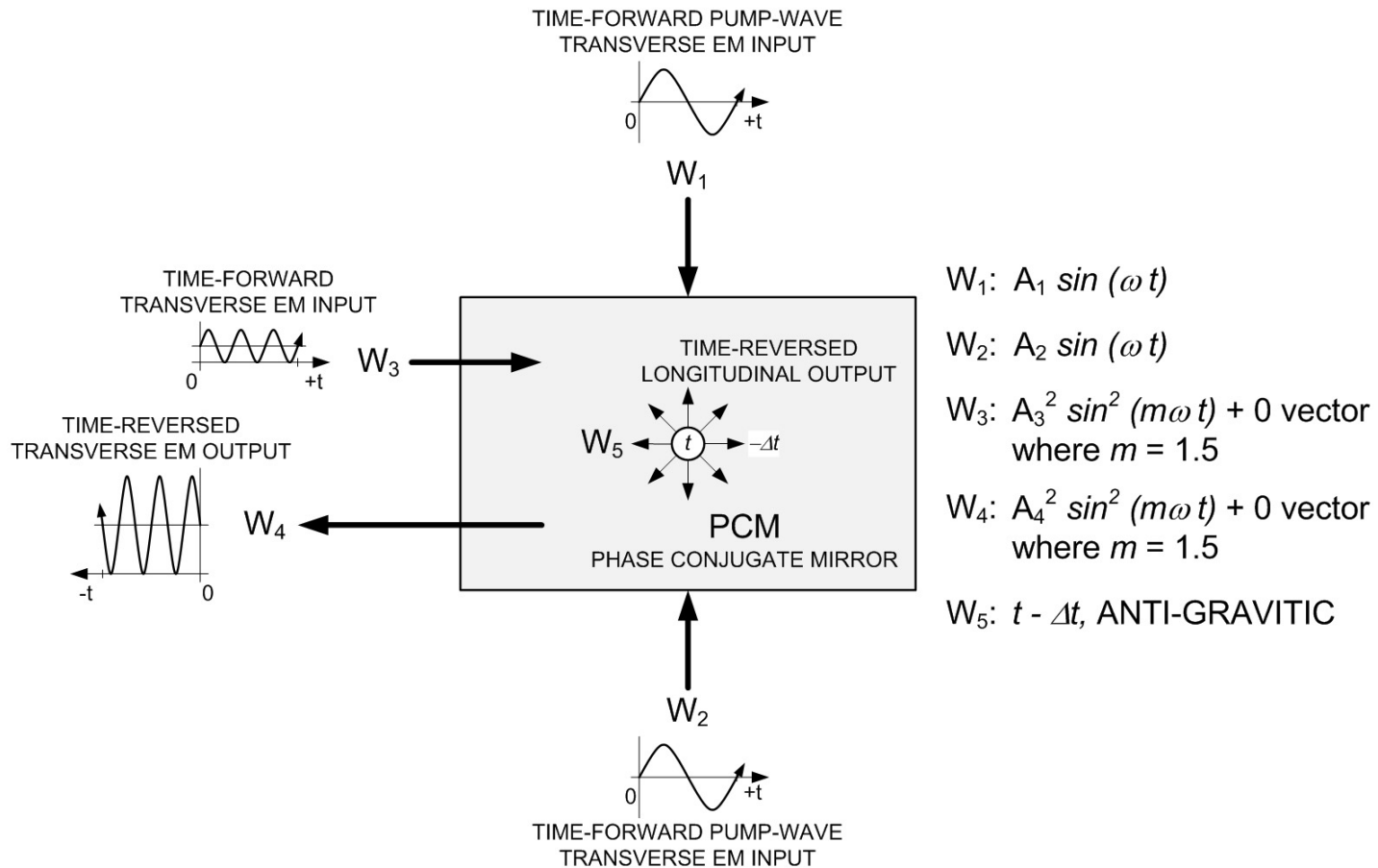
- INVENTOR: William Alek
- Energy Management System
- US Patent: US9620280B2
- YEAR FILED: 2015



# PCM RESONATORS

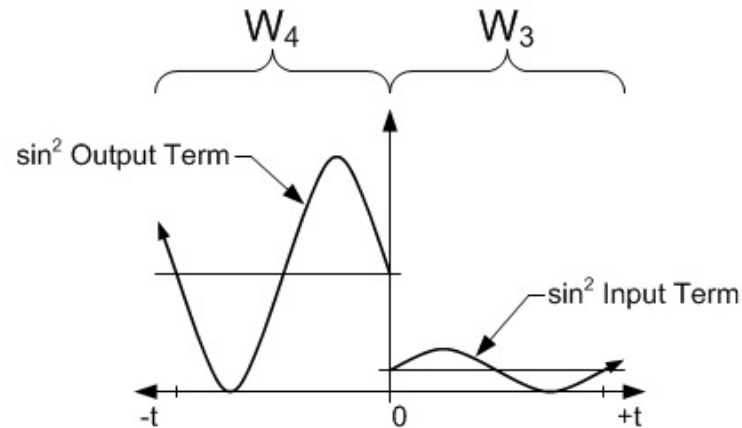
## 4-WAVE MIXING PROCESS

TRANSVERSE EM WAVE PUMPING CREATING  
 PHASE CONJUGATE MIRROR (PCM) +  
 LONGITUDINAL SCALAR WAVE (ANTI-GRAVITATIONAL)



# PCM RESONATORS

## PCM OUTPUT WAVE FUNCTION TIME-REVERSED TRANSVERSE EM WAVE ( $W_4$ )



TIME-FORWARD INPUT ( $W_3$ ):

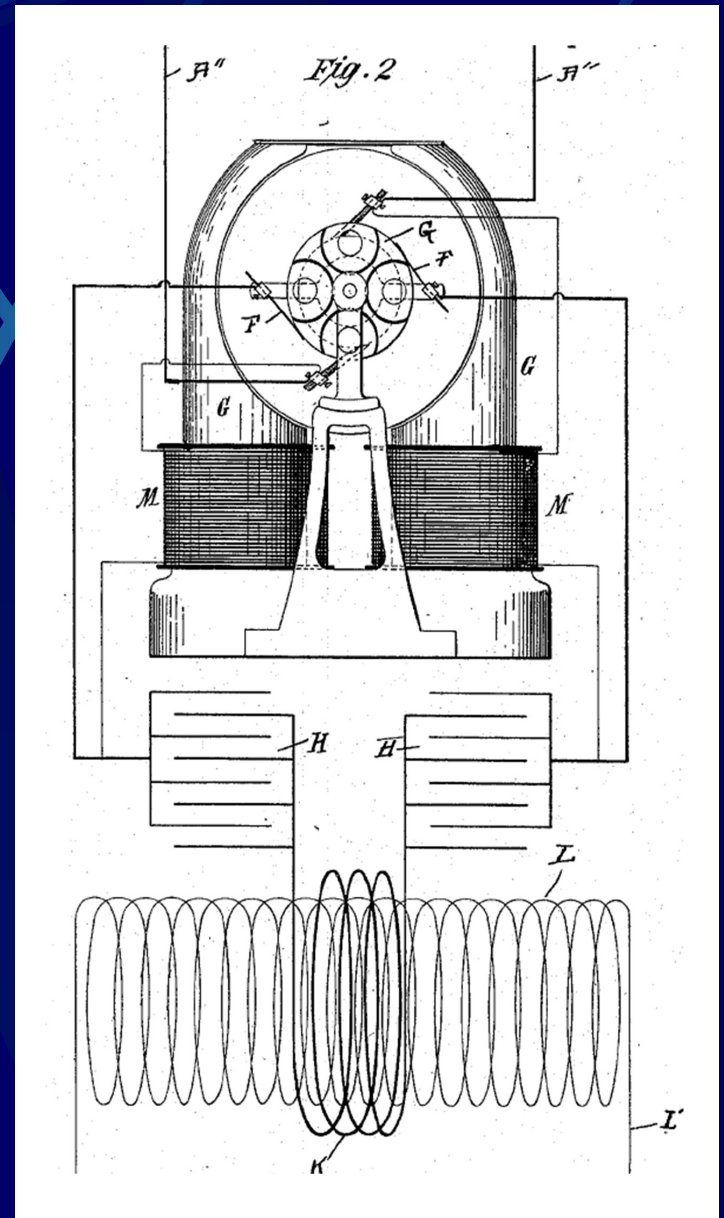
$$W_3: A_3^2 \sin^2 (m\omega t) + 0 \text{ vector} \\ \text{where } m = 1.5$$

TIME-REVERSED OUTPUT ( $W_4$ ):

$$W_4: A_4^2 \sin^2 (m\omega t) + 0 \text{ vector} \\ \text{where } m = 1.5$$

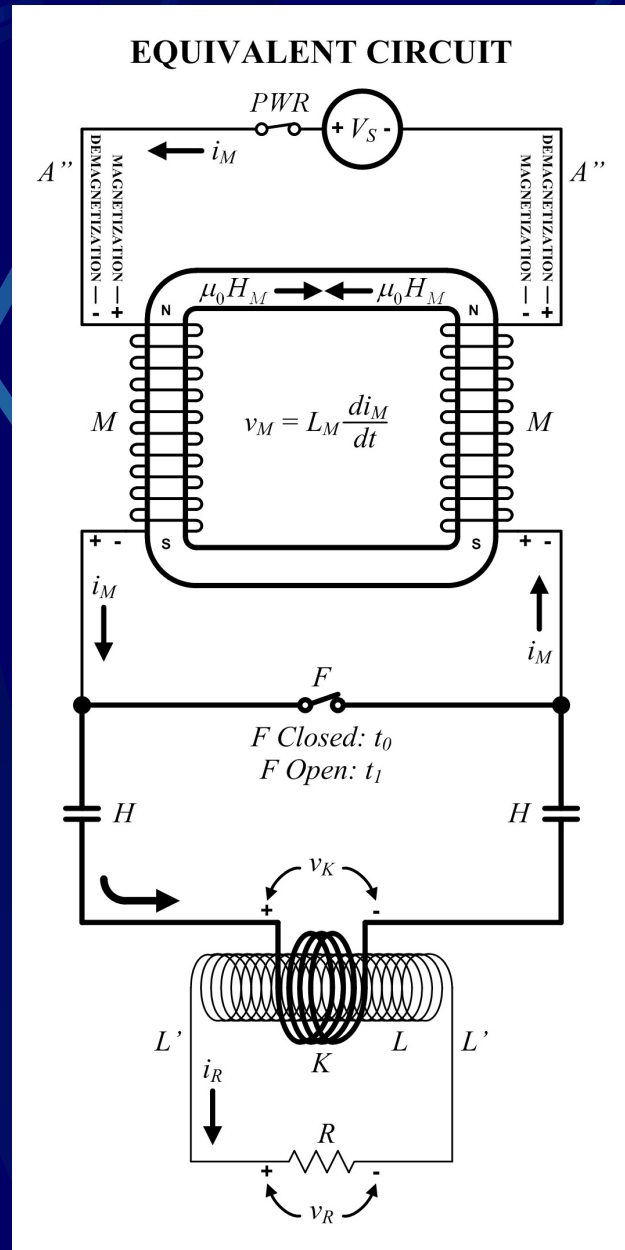
# History of Opposing Magnetomotive Devices

- INVENTOR: Nikola Tesla
- TITLE: Magnifying Generator
- US PATENT: 568,176
- YEAR FILED: 1896



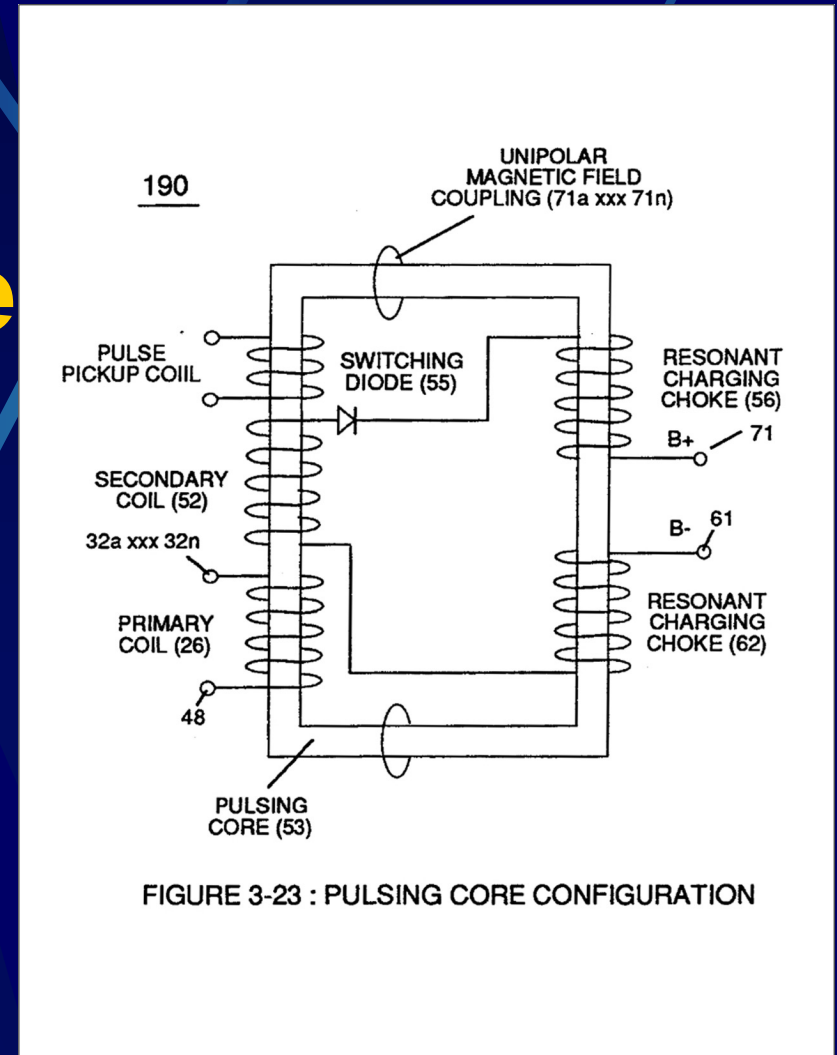
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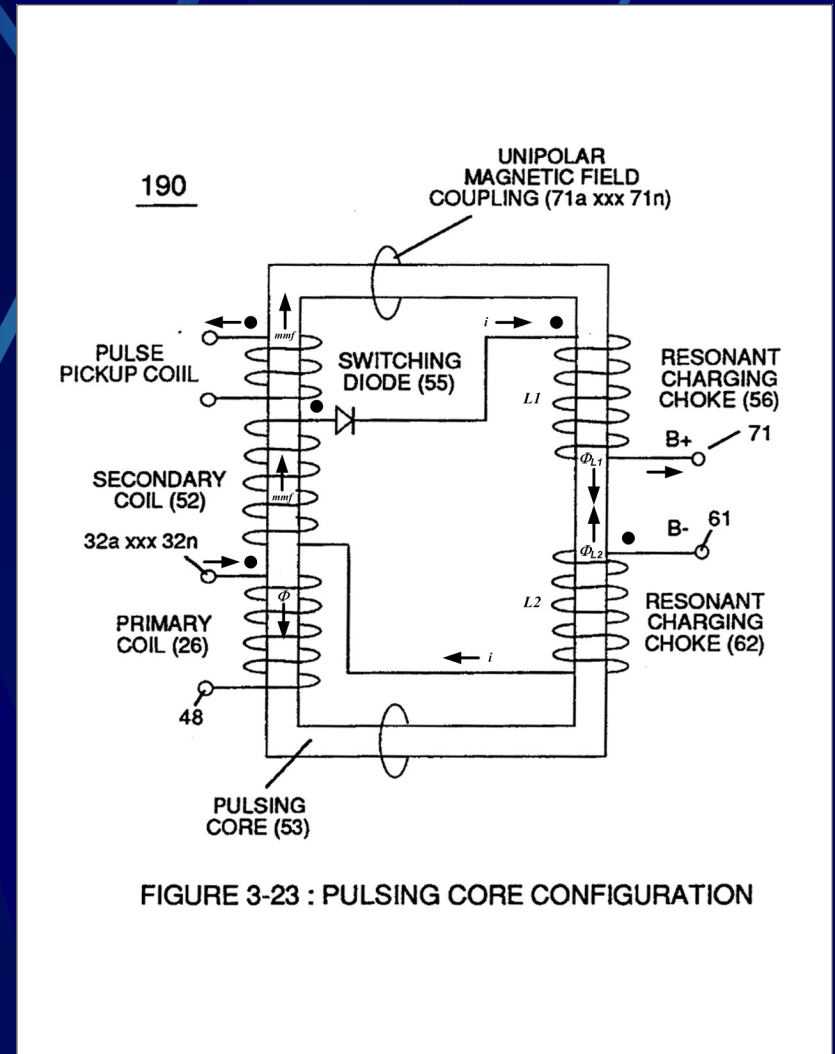
# History of Opposing Magnetomotive Devices

- INVENTOR: Stanley Meyer
- TITLE: Water Fuel Cell
- Burn Water, not Gasoline.
- US PATENT: 5,149,407
- YEAR FILED: 1992



# History of Opposing Magnetomotive Devices

- INVENTOR: Stanley Meyer
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- YEAR FILED: 1992



# What is Water Fuel?

- Also known as Hydroxy Gas, Oxyhydrogen Gas, HHO Gas, Electrically Expanded Water, or Brown's Gas.
- Highly flammable.
- Gas burns cold, 266°F or 130°C.
- But, can vaporize Tungsten, >10,000°F.
- Made using multi-plate electrolyzer and DC voltage & current.
- OBJECTIVE: Burn water, not gasoline.
- BOOK: WATER, The Key To New Energy, by Moray B. King, ISBN: 978-1-939149-90-9.



# What is Water Fuel?

**HHO Water Torch**



# RELATIVISTIC QUANTUM FIELD THEORY

<https://www.youtube.com/watch?v=QPAXzr6ihu8>

So, what is a particle?

A particle is the smallest possible vibration (quantum) of a quantum field

Particles with mass

$$\frac{\partial^2 \Psi}{\partial t^2} - c^2 \frac{\partial^2 \Psi}{\partial x^2} = - \underbrace{(2\pi f_{min})^2}_{\text{SCALAR WAVE TERM}} \Psi$$

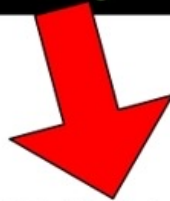
$$m = \frac{hf_{min}}{c^2}$$

SCALAR WAVE  
TERM  
 $(2\pi f_{min}) \times (2\pi f_{min})$   
(WSA, 2022)

Massless particles

$$\frac{\partial^2 \Psi}{\partial t^2} - c^2 \frac{\partial^2 \Psi}{\partial x^2} = 0$$

$$m = 0$$



WILLIAM ALEK said, "SCALAR WAVE is Mass, via Pump Waves cross product"

TOM BEARDEN said, "Matter is made of Trapped Electromagnetic Energy"

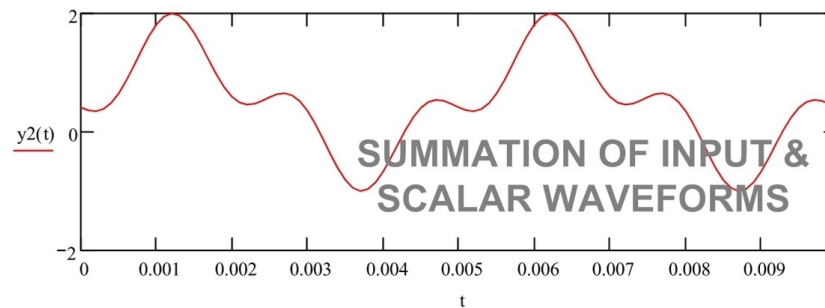
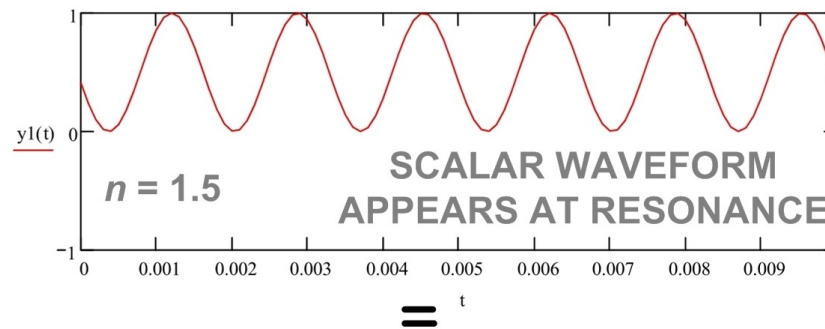
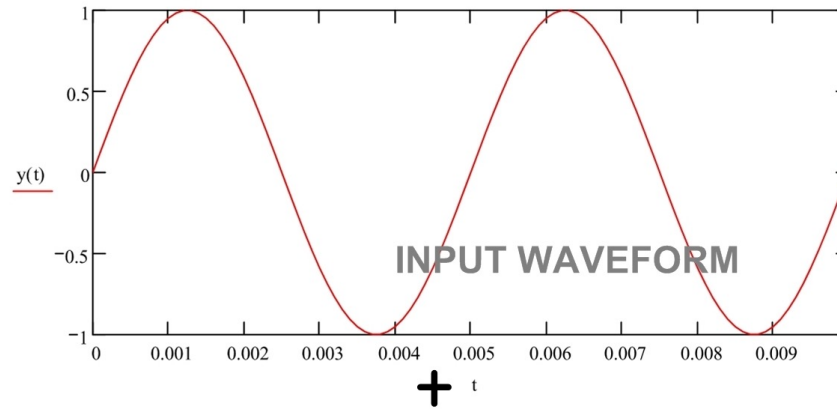
# SCALAR WAVE TEST BENCH



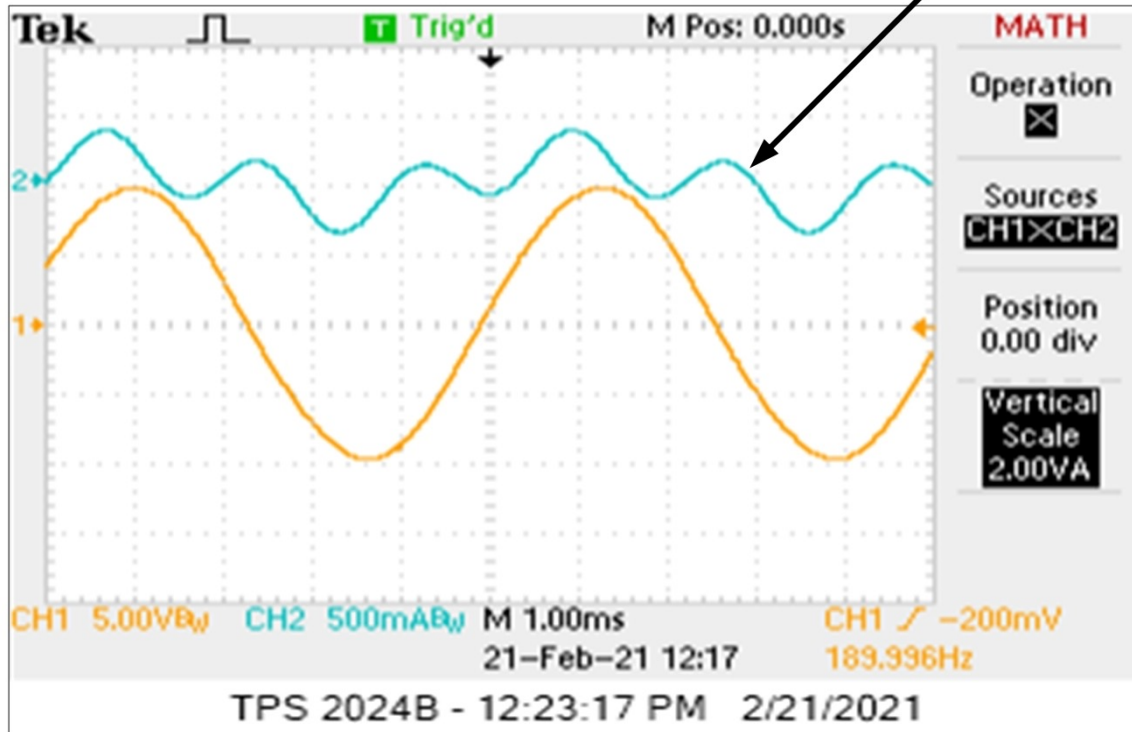
SOFTWARE: Transformer Efficiency Calculator

# MathCAD Model of $q \times q$ Solution:

$$\rho := 140\text{-deg} \quad y1(t) := Ay^2 \cdot \sin(1.5\omega \cdot t + \rho)^2 \quad y2(t) := y1(t) + y(t)$$

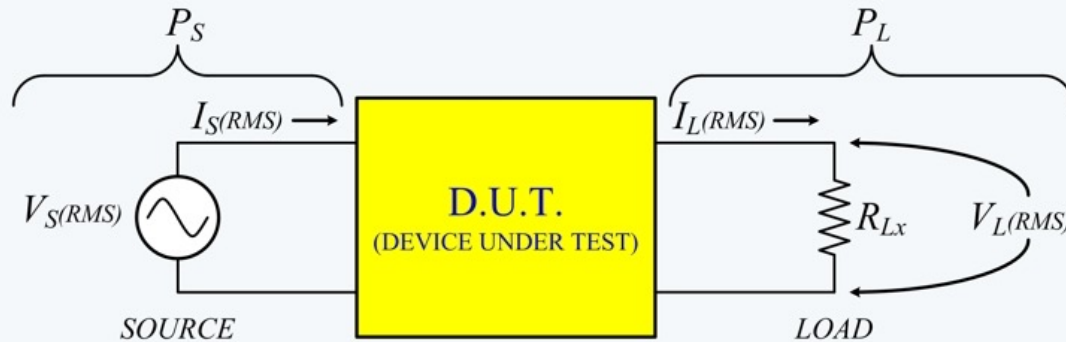


## Actual Scope Reading:

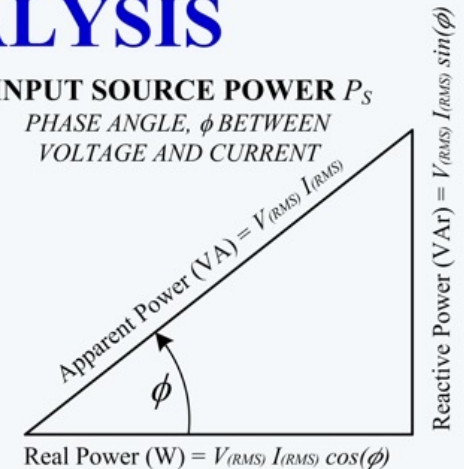


**BLUE TRACE:**  
INPUT CURRENT  
SINE WAVE + SINE<sup>2</sup>  
SCALAR WAVE TERM

# DETERMINING TRANSFORMER EFFICIENCY USING AC CIRCUIT ANALYSIS



INPUT SOURCE POWER  $P_S$   
 PHASE ANGLE,  $\phi$  BETWEEN  
 VOLTAGE AND CURRENT



Given various load resistors:

$$R_{L1} = 98.4\Omega \quad R_{L2} = 49.5\Omega$$

$$R_{L3} = 24.4\Omega \quad R_{L4} = 10.3\Omega$$

$$P_S = V_{S(RMS)} I_{S(RMS)} \cos(\phi)$$

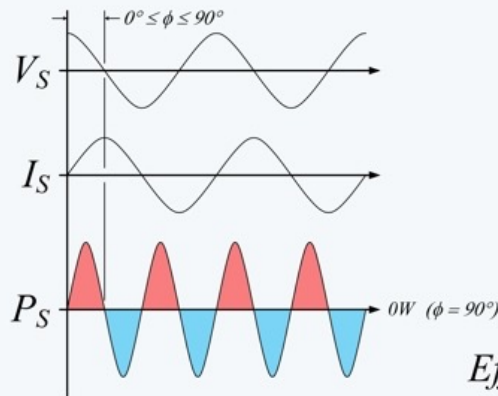
$$P_L = V_{L(RMS)} I_{L(RMS)} = \frac{(V_{L(RMS)})^2}{R_{Lx}}$$

$$COP = \frac{P_L}{P_S}$$

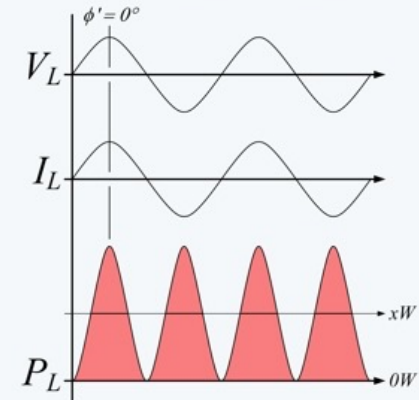
CONVENTIONAL TRANSFORMER
COMPLEX TRANSFORMER

$$\text{Efficiency} = COP \times 100\% < 100\% \geq 100\%$$

INPUT SOURCE POWER  $P_S$



OUTPUT LOAD POWER  $P_L$



### Transformer Efficiency Calculator


POWER SUPPLY (V RMS)  LOAD CAPACITOR (uF)  RESONANT FREQUENCY (Hz)

TRANSFORMER  SAMPLE AVERAGE

INPUT VOLTAGE (V RMS)	OUTPUT VOLTAGE (V RMS)
<input type="text" value="7.2492"/>	<input type="text" value="13.3063"/>
INPUT CURRENT (A RMS)	OUTPUT CURRENT (A RMS)
<input type="text" value="3.0729"/>	<input type="text" value="1.4674"/>
APPARENT INPUT POWER (VA)	APPARENT OUTPUT POWER (VA)
<input type="text" value="22.2761"/>	<input type="text" value="19.5262"/>
APPARENT POWER MULTIPLIER	
<input type="text" value="0.88"/>	
INPUT PHASE ANGLE (DEGREES)	OUTPUT PHASE ANGLE (DEGREES)
<input type="text" value="20.1389"/>	<input type="text" value="17.1835"/>
REACTIVE INPUT POWER (VAR)	REACTIVE OUTPUT POWER (VAR)
<input type="text" value="7.6696"/>	<input type="text" value="5.7687"/>
PHASE REAL INPUT POWER (WATTS)	PHASE REAL OUTPUT POWER (WATTS)
<input type="text" value="20.9141"/>	<input type="text" value="18.6547"/>
PHASE ANGLE: TRANSFORMER EFFICIENCY (%)	
<input type="text" value="89.20"/>	
SELECT LOAD RESISTOR (OHMS)	RESISTOR REAL OUTPUT POWER (WATTS)
<input type="text" value="9.4"/>	<input type="text" value="18.8359"/>
LOAD RESISTOR: TRANSFORMER EFFICIENCY (%)	
<input type="text" value="90.06"/>	

OSCILLOSCOPE

## TEK/TPS 2024B



**Intalek  
RESEARCH**

CALCULATOR STATUS

READY

USB PORT  OSCILLOSCOPE STATUS

READY

ACQUIRE ● TEST TIMESTAMP

6/15/2022 2:45:44 PM

```

MATH:DEFINE "CH1 * CH2"
MEASU:IMMED:VALUE?
>>> Read the RESONANT FREQUENCY in Hz
:MEASUREMENT:IMMED:VALUE 4.016064453125E200
MEASU:MEAS1:VALUE?
>>> Read the INPUT VOLTAGE in Volts RMS
:MEASUREMENT:MEAS1:VALUE 7.24920988080E000
MEASU:MEAS2:VALUE?
>>> Read the INPUT CURRENT in Amps RMS
:MEASUREMENT:MEAS2:VALUE 3.0728957653E000
MEASU:MEAS3:VALUE?
>>> Read the REAL INPUT POWER in Watts
:MEASUREMENT:MEAS3:VALUE 2.09141254425E100
MATH:DEFINE "CH3 * CH4"
MEASU:MEAS4:VALUE?
>>> Read the OUTPUT VOLTAGE in Volts RMS
:MEASUREMENT:MEAS4:VALUE 1.33062877655E100
MEASU:MEAS5:VALUE?
>>> Read the OUTPUT CURRENT in Amps RMS
:MEASUREMENT:MEAS5:VALUE 1.4674451351E000
MEASU:MEAS6:VALUE?
>>> Read the REAL OUTPUT POWER in Watts
:MEASUREMENT:MEAS6:VALUE 1.86546611786E100
PERCENT EFFICIENCY DIFFERENCE: 0.967%
MATH:DEFINE "CH1 * CH2"
STOP CALCULATION
READY

```

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# SOFTWARE: Transformer Efficiency Calculator

## Transformer Efficiency Calculator performs the following calculations:

To compute the Apparent Input Power (VA):  
 $\text{ApparentInputPower} = \text{InputVoltage} * \text{InputCurrent}$

To compute the Phase Real Input Power (Watts):  
 $\text{RealInputPower} = \text{InputVoltage} * \text{InputCurrent} * \text{Cos}(\text{PHI})$

To compute the Phase Reactive Input Power (VAR):  
 $\text{ReactiveInputPower} = \text{InputVoltage} * \text{InputCurrent} * \text{Sin}(\text{PHI})$

To compute the Input Phase Angle (Degrees):  
 $\text{PHI} = \text{Arccos}(\text{RealInputPower} / (\text{InputVoltage} * \text{InputCurrent}))$

To compute the Inverse Cosine, Arccos(X):  
 $\text{Arccos}(X) = \text{Atn}(-X / \text{Sqr}(-X * X + 1)) + 2 * \text{Atn}(1)$

To compute the Apparent Output Power (VA):  
 $\text{ApparentOutputPower} = \text{OutputVoltage} * \text{OutputCurrent}$

To compute the Phase Real Output Power (Watts):  
 $\text{RealOutputPower} = \text{OutputVoltage} * \text{OutputCurrent} * \text{Cos}(\text{PHI2})$

To compute the Phase Reactive Output Power (VAR):  
 $\text{ReactiveOutputPower} = \text{OutputVoltage} * \text{OutputCurrent} * \text{Sin}(\text{PHI})$

To compute the Output Phase Angle (Degrees):  
 $\text{PHI2} = \text{Arccos}(\text{RealOutputPower} / (\text{OutputVoltage} * \text{OutputCurrent}))$

To compute the Inverse Cosine, Arccos(X):  
 $\text{Arccos}(X) = \text{Atn}(-X / \text{Sqr}(-X * X + 1)) + 2 * \text{Atn}(1)$

To compute the Load Resistor Real Output Power (Watts):  
 $\text{ResistorRealOutputPower} = (\text{OutputVoltage})^2 / \text{LoadResistor}$

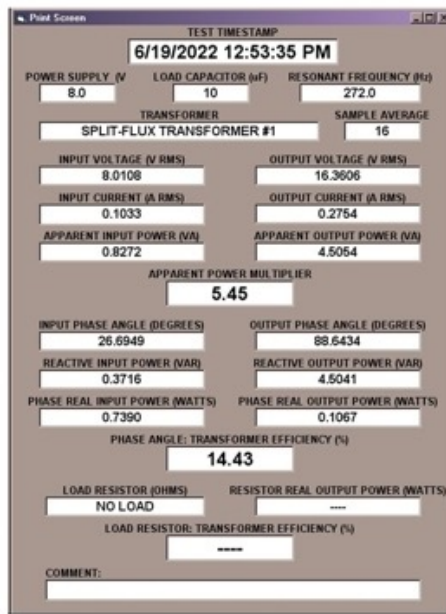
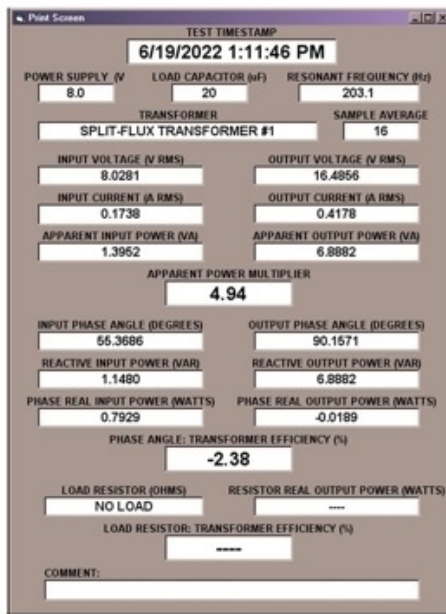
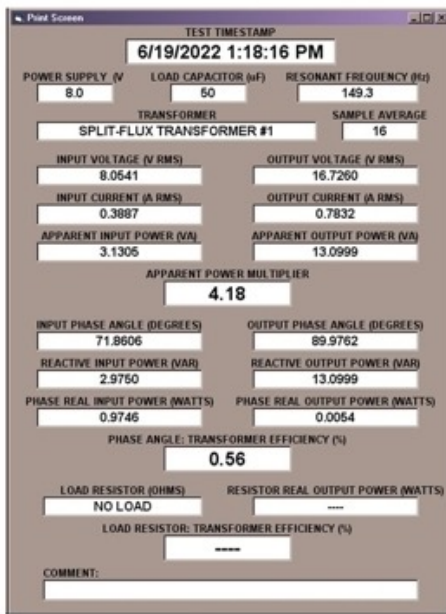
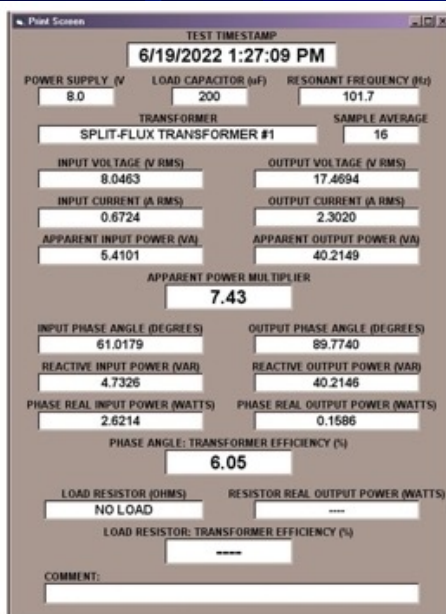
To compute the Apparent Power Multiplier (Unitless):  
 $\text{ApparentPowerMultiplier} = \text{ApparentOutputPower} / \text{ApparentInputPower}$

To compute the Apparent Power Multiplier Efficiency (Unitless):  
 $\text{ApparentPowerMultiplierEfficiency} = (\text{ApparentOutputPower} / \text{ApparentInputPower}) * 100$

To compute the Phase Transformer Efficiency, (%):  
 $\text{PhaseEfficiency} = (\text{RealOutputPower} / \text{RealInputPower}) * 100$

To compute the Load Resistor Transformer Efficiency (%):  
 $\text{LoadResistorEfficiency} = (\text{ResistorRealOutputPower} / \text{RealInputPower}) * 100$



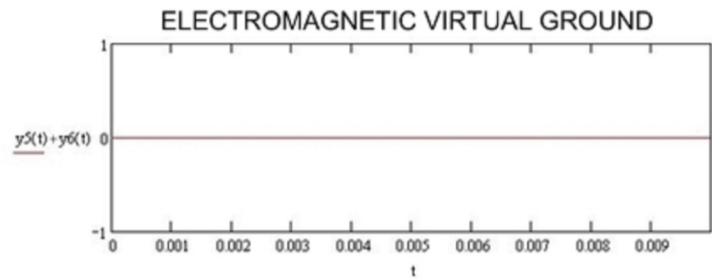
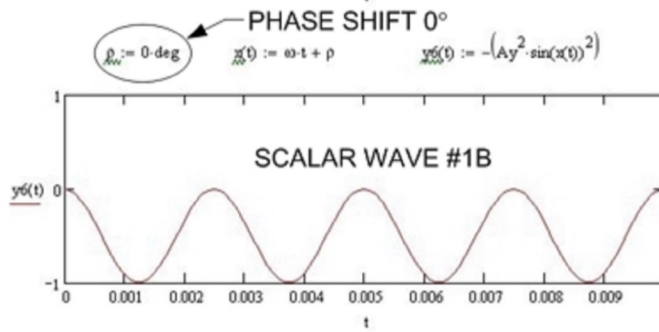
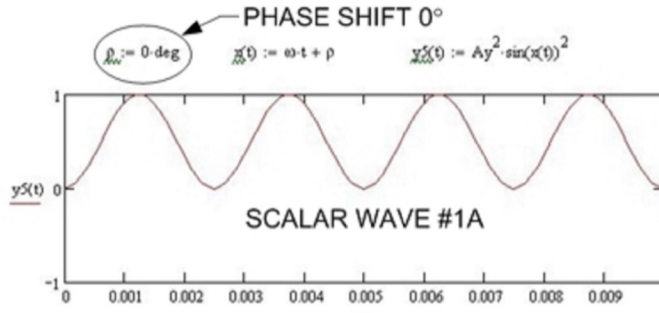


# Tom's Military Applications Revealed

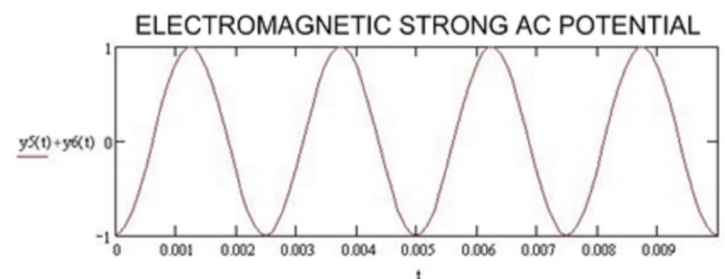
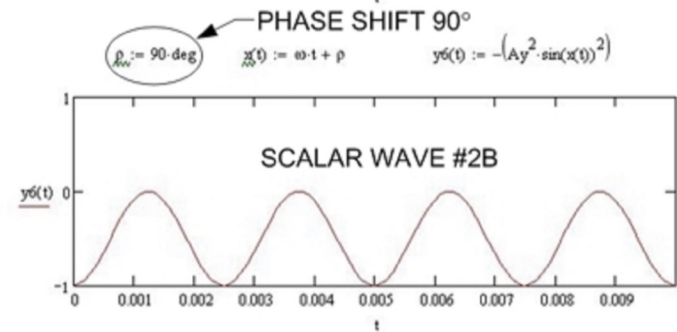
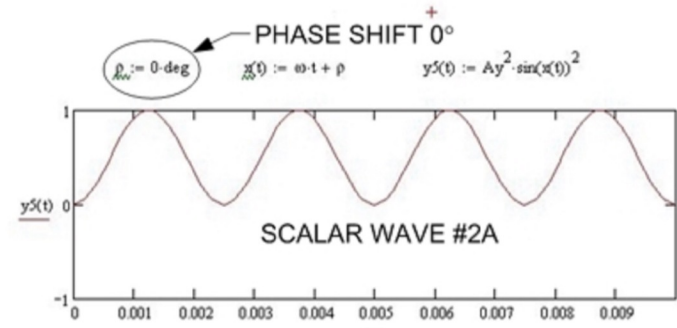
- Scalar Wave Interferometry.
- Defense Application.
- Requires two ground-based Scalar Wave emitters.
- The region where two beams cross create a zone of a strong electromagnetic field.
- Destroy electronics within the target zone.

# SCALAR WAVE INTERFEROMETRY

SCALAR WAVES #1A & #1B  
DESTRUCTIVE INTERFERENCE

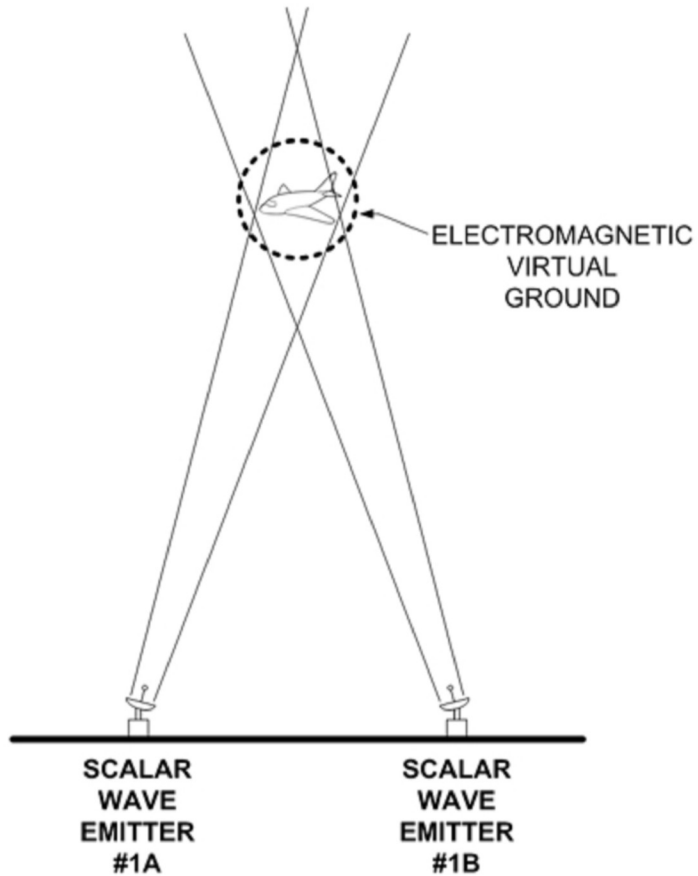


SCALAR WAVES #2A & #2B  
CONSTRUCTIVE INTERFERENCE

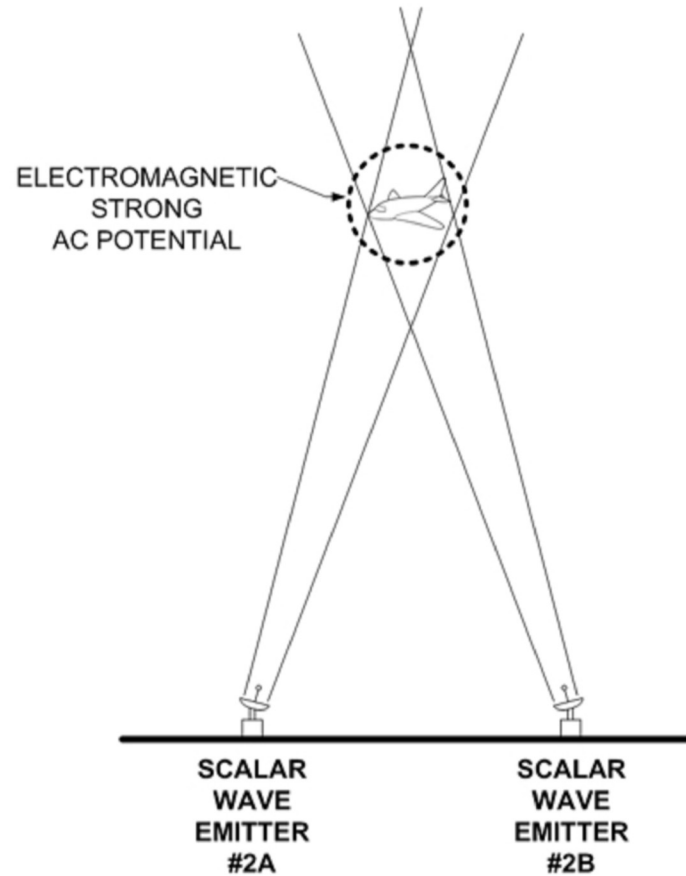


# SCALAR WAVE INTERFEROMETRY

SCALAR WAVES #1A & #1B  
DESTRUCTIVE INTERFERENCE



SCALAR WAVES #2A & #2B  
CONSTRUCTIVE INTERFERENCE



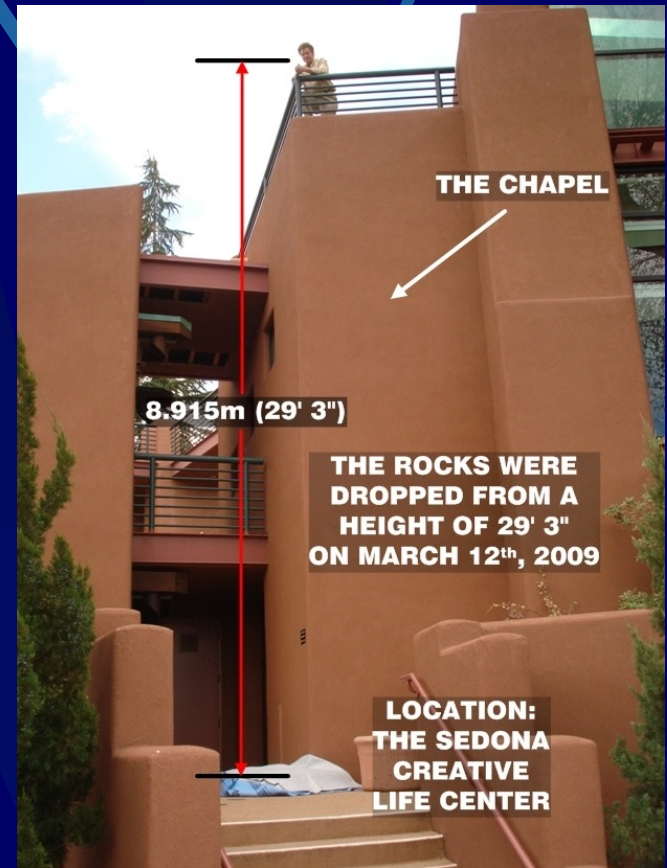
# Boyd Bushmann Experiment

- In the mid 90's, Boyd performed a Drop Test Experiment with magnets in opposing configuration.
- He observed opposing magnets **fell slower** than neutral control rock – a **decrease in Mass \*** Acceleration Effect.

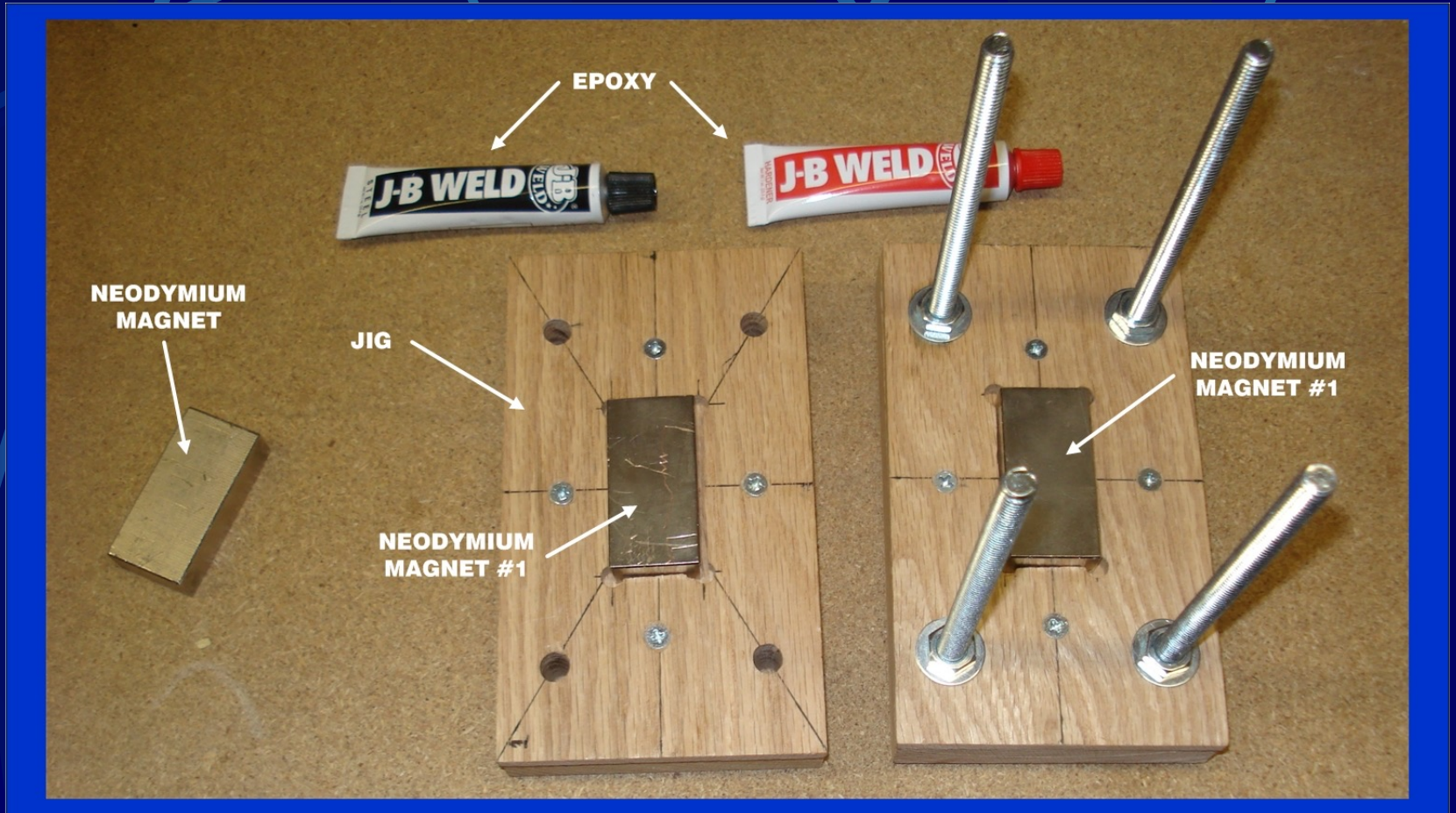


# William Alek Extended the Bushmann Experiment

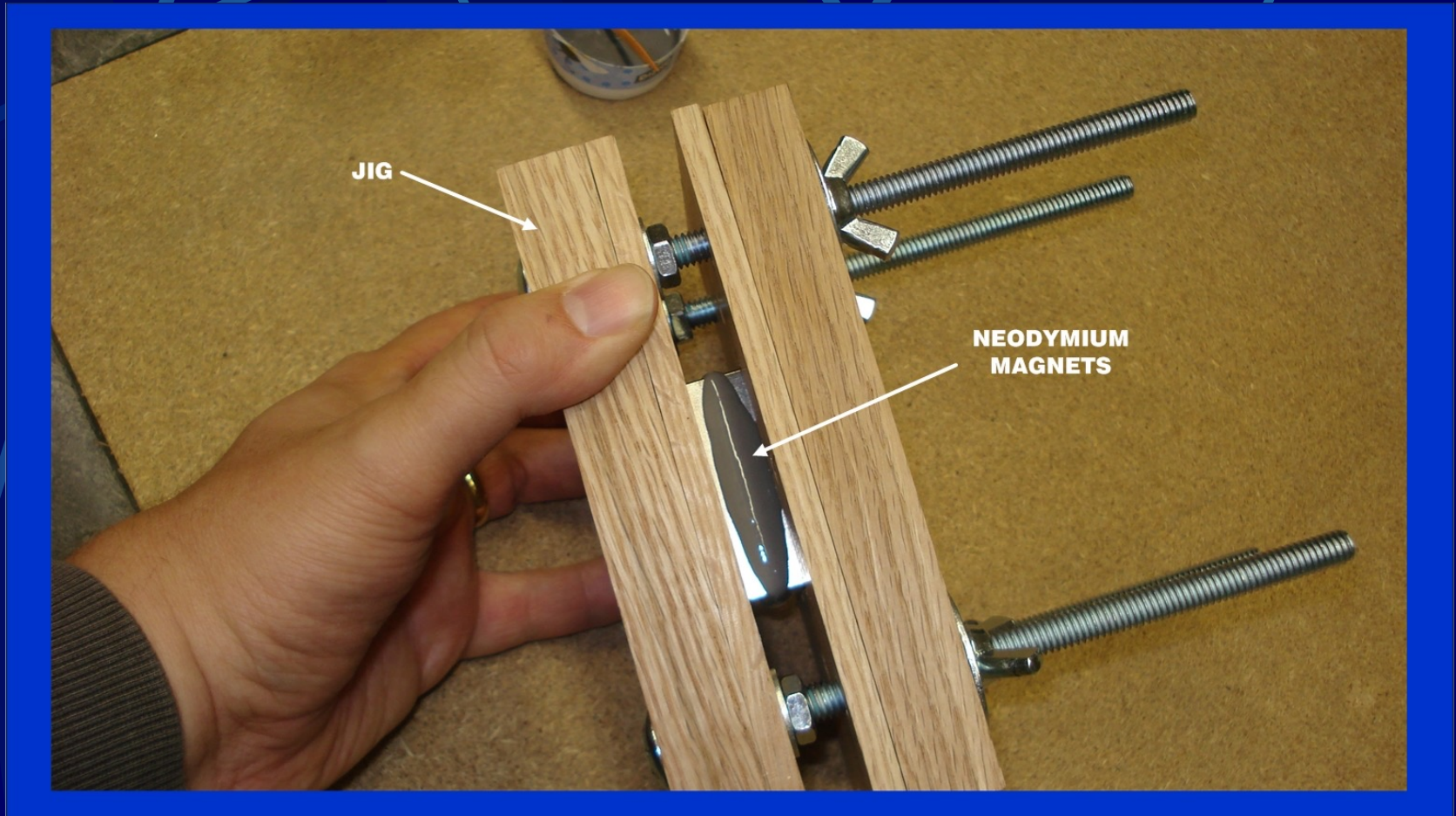
- In 2009, William successfully replicated the Bushmann Drop Test Experiment and extended it using magnets in attractive configuration.
- He observed magnets in attractive configuration **fell faster** than neutral control rock – an **increase** in Mass \* Acceleration Effect.



# Bushmann / Alek Drop Test

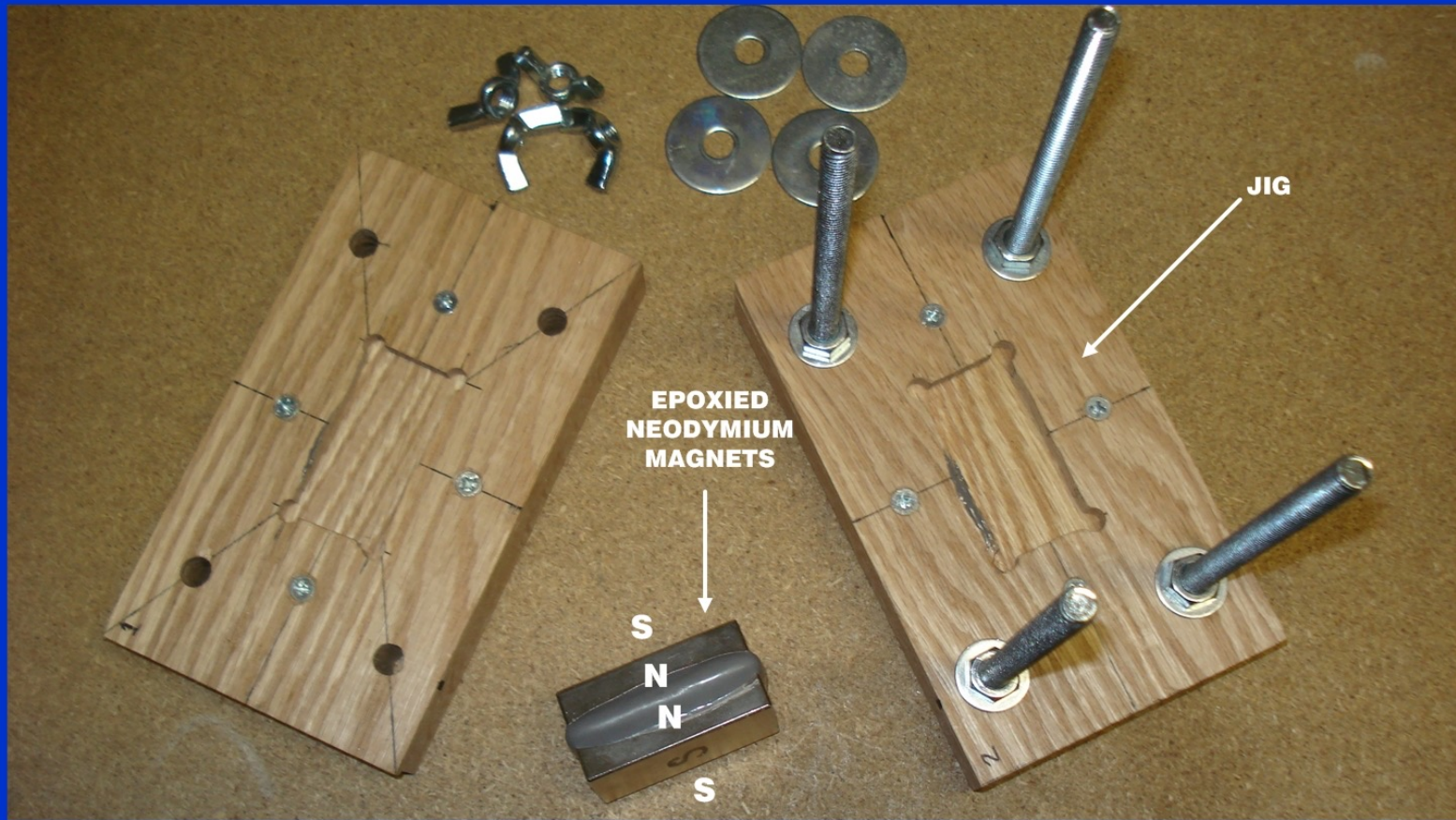


# Bushmann / Alek Drop Test

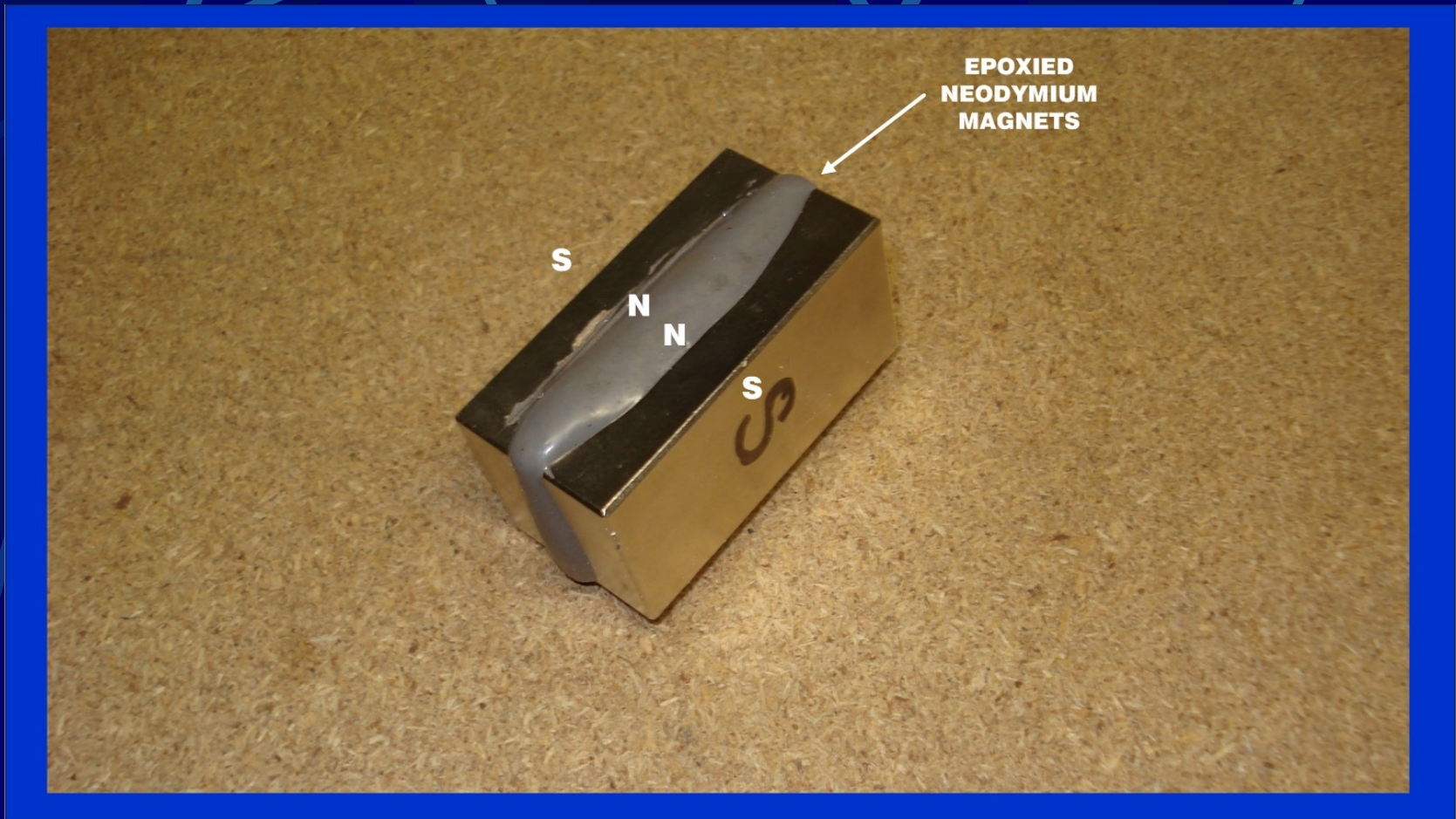




# Bushmann / Alek Drop Test



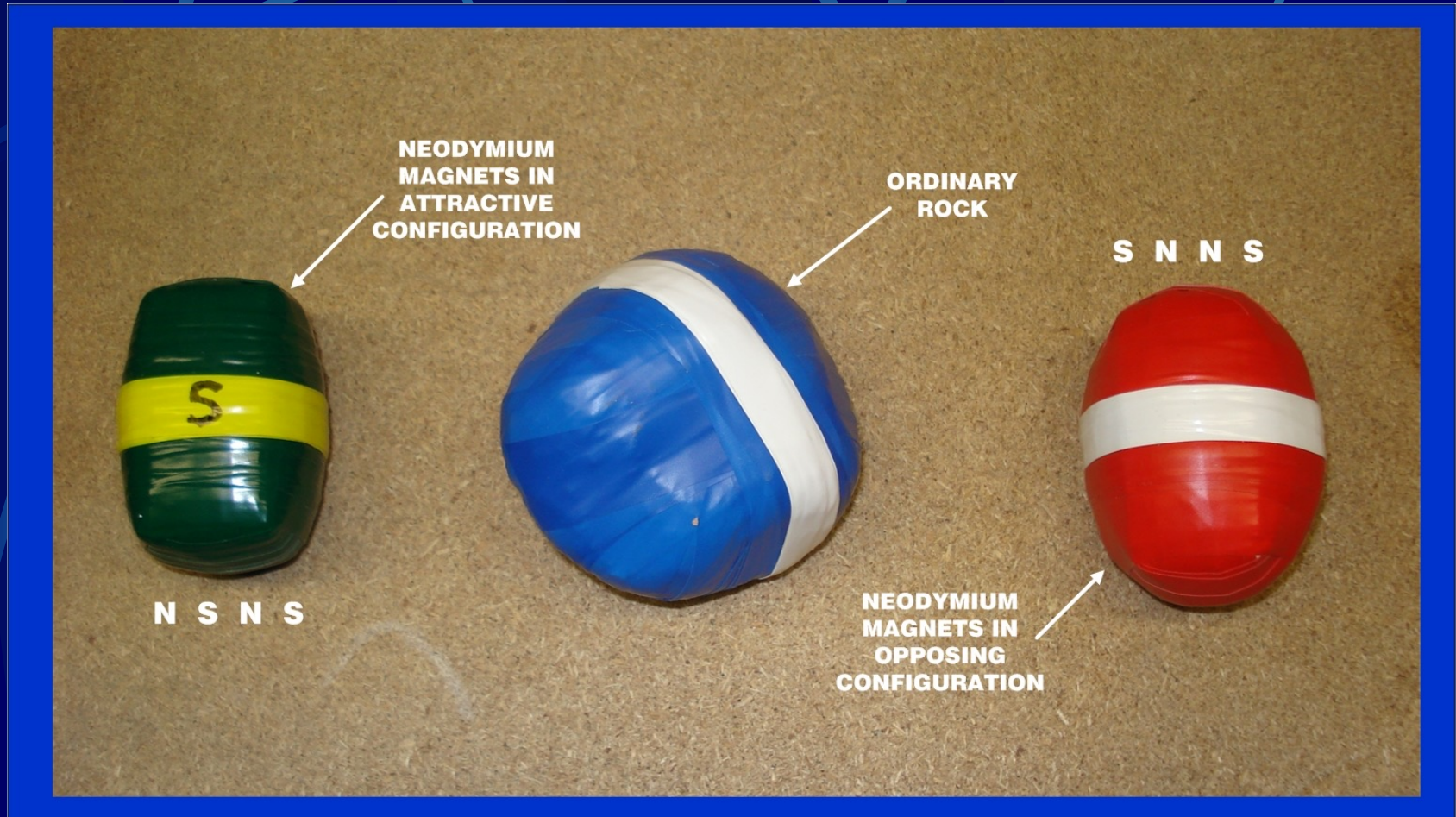
# Bushmann / Alek Drop Test



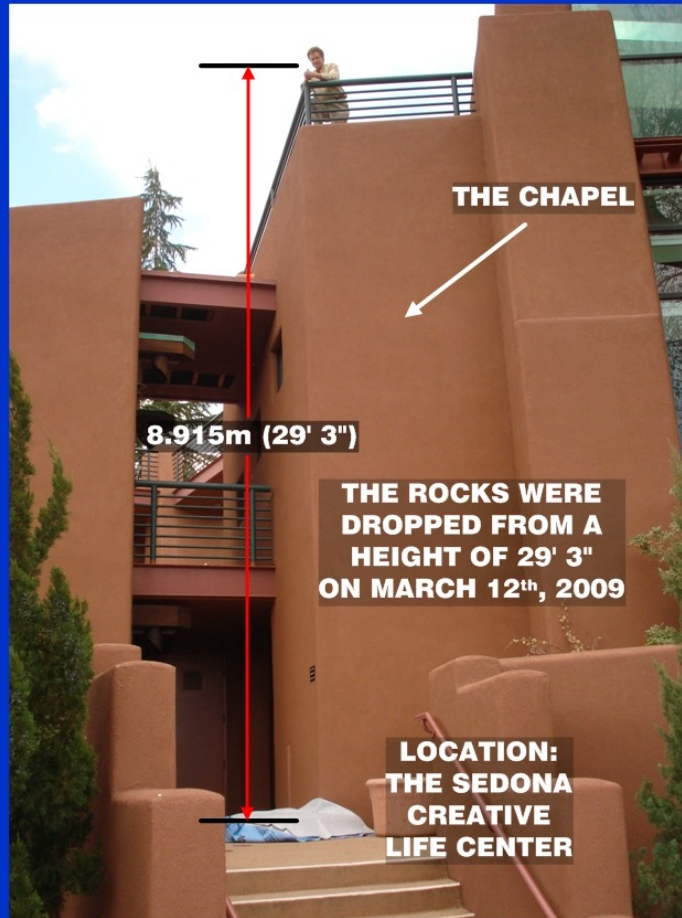
# Bushmann / Alek Drop Test



# Bushmann / Alek Drop Test



# Bushmann / Alek Drop Test



**THE CHAPEL**

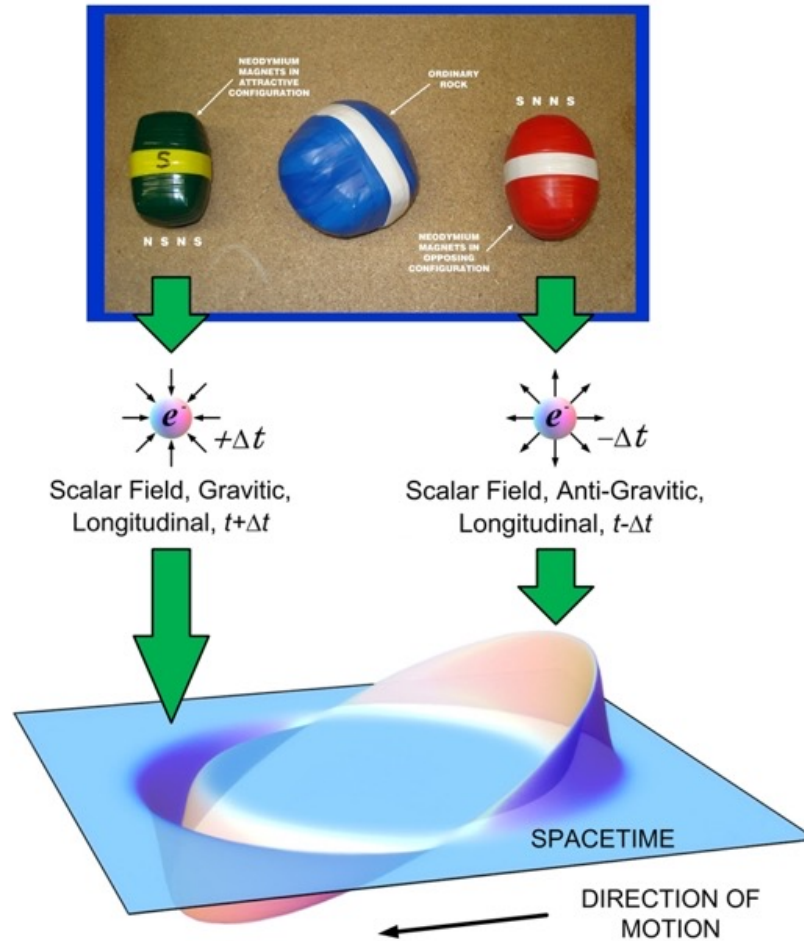
**8.915m (29' 3")**

**THE ROCKS WERE  
DROPPED FROM A  
HEIGHT OF 29' 3"  
ON MARCH 12<sup>th</sup>, 2009**

**LOCATION:  
THE SEDONA  
CREATIVE  
LIFE CENTER**

# Alcubierre Warp Drive

## MAGNETS CREATE SCALAR FIELD

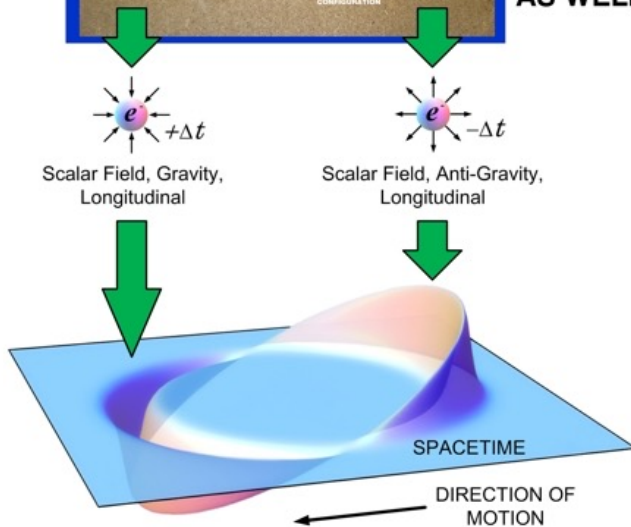


# ABA WARP DRIVE ENGINE PROPULSION TECHNOLOGY

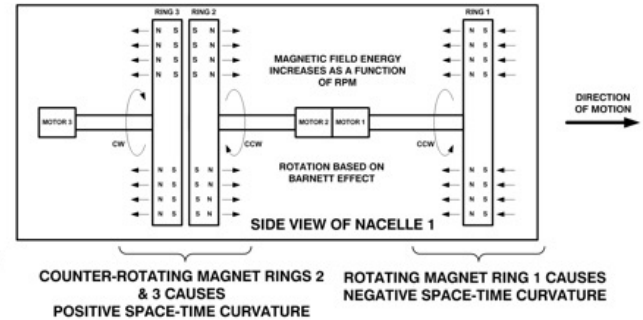
1. In the mid 90's, Boyd Bushmann, a Lockheed Skunkworks weapons developer, performed a Drop Test Experiment with magnets in opposing configuration.
2. He observed opposing magnets fell slower than a neutral control rock - a decrease in **Mass \* Acceleration** Effect.
3. In 2009, William Alek successfully replicated the Bushmann Drop Test Experiment and extended it using magnets in attractive configuration.
4. He observed magnets in attractive configuration fell faster than a neutral control rock – an increase in **Mass \* Acceleration** Effect.



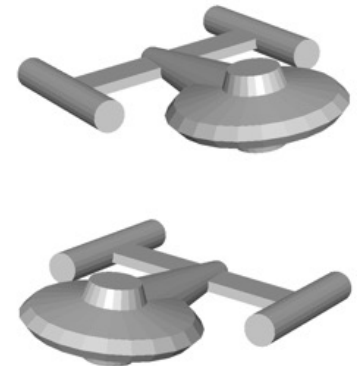
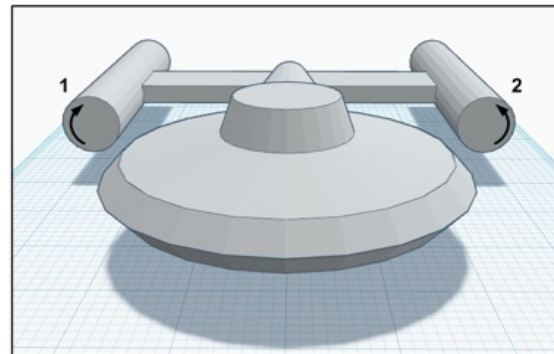
**EXPERIMENTAL CONCLUSION:**  
**MAGNETS NOT ONLY PRODUCE A MAGNETIC FIELD, BUT ALSO BEND SPACETIME. THEY EMIT A LONGITUDINAL SCALAR FIELD AS WELL.**



## SIDE VIEW OF ALEK-BUSHMANN-ALCUBIERRE (ABA) WARP DRIVE ENGINE



**DOUBLE NACELLES ARE USED:**  
**MAGNETS COUNTER-ROTATE TO ELIMINATE P-FACTOR EFFECT**









**intalek**  
**RESEARCH**  
ENERGY SPACE HEALTH

**SCALAR WAVE**  
**ANTI-GRAVITY**  
**TECHNOLOGY**

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**William S. Alek**

President, CEO

[william.alek@intalek.com](mailto:william.alek@intalek.com)

# Lecture References

- Time Reversal (Movie, TENET):  
<https://www.youtube.com/watch?app=desktop&v=AZGcmvrTX9M>
- Bearden Psychotronics Lecture:  
<https://www.youtube.com/watch?app=desktop&v=7F9E6AANBpl>

# Lecture References

- Evolving Ideas:

<https://www.youtube.com/watch?v=TpqrFFsECH4>

- Tom Bearden Psychotronics Lecture on FREE Energy & Anti-Gravity:

<https://www.youtube.com/watch?app=desktop&v=h8xhrw78utM&fb>

# Lecture References

- Scalar Physics:

<https://www.youtube.com/watch?app=desktop&v=6uYoViFtJ04&fb>

- Steve Elswick interviews William Alek:

<https://www.youtube.com/watch?v=dAZ8Y9j53o>

# Lecture References

- Boyd Bushmann magnet drop experiment:

<https://www.youtube.com/watch?v=MR80KV7axYU>

- Presented by William Alek
- **Intalek Research, LLC**
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