

# BRASIL E AS TECNOLOGIAS DO FUTURO

NIKOLA TESLA E A FÍSICA DE RESSONÂNCIA  
NOOSFERA E CONSCIÊNCIA PLANETÁRIA  
ENERGIA CÔSMICA



Brasília

INSTITUTO DE TECNOLOGIAS SUSTENTÁVEIS

# NIKOLA TESLA

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**The Nikola Tesla Institute**, founded in 2012 in Brasília, Brazil is a **non-profit scientific organization** with a goal of popularization of new energy research. The private research laboratory is located near the lake Paranoa in the capital of Brazil. We need help from ALL OVER THE WORLD to evolve the research of innovative technologies for the new millennium.

THE SCIENCE SECTION OF THE ORGANIZATION IS FOCUSING DEVELOPMENT IN THE FOUR VITAL AREAS OF CIVILIZATION DEVELOPMENT:

1) **NEW ENERGY**, 2) **LIVING SYSTEMS**, 3) **THE NOOSPHERE**, 4) **PROPULSION SYSTEMS**

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# The Team

**Celso Nicoli**, a retired colonel of the Brazilian armed forces, graduated from the Military Institute of Engineering (IME) in Telecommunications Engineering with a post-graduation in the same institution in Nuclear Engineering as a M.Sc. in the field of Plasma Physics.

Researcher of the Brazilian Military Institute of Research and Development (IPD - Instituto de Pesquisas e Desenvolvimento do Exército) with an experience of 15 years in the area of development of scalar wave antennas in telecommunications applications in general and use in radar systems. Celso is practicing Siddha yoga since 1982.

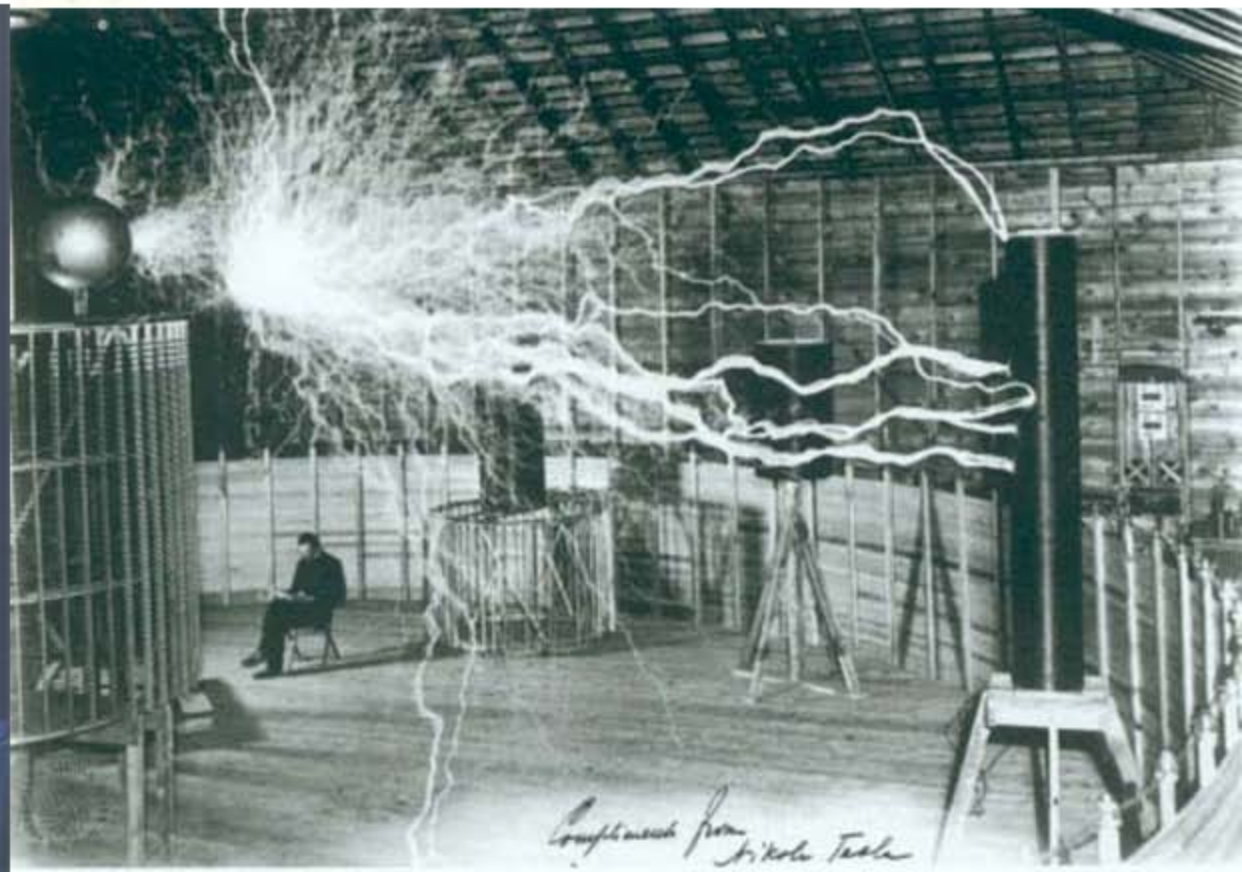
**Boris Petrovic** is a Whole Earth System Scientist and Noospheric Philosopher, engineer of tele automation systems, and a researcher into Tesla's "World system", Earth's magnetosphere, ionosphere, and magnetic reconnection. Boris is an associate of The Serbian "Nikola Tesla" Society in Belgrade, the Tesla Science Foundation in Philadelphia, and founding member of the Noosphere Forum.

Boris worked in a number of embedded tech and automation systems startups as a software engineer and architect. As a founding member of the Google Lunar X Prize Team Synergy Moon, he is involved in private space exploration, focusing on outer-space settlement.

Through cooperation with the International Scientific Research Institute for Cosmic Anthro-po-Ecology in Novosibirsk and the Foundation of the Law of Time in Oregon he works on the study of cosmic consciousness, access to intensified consciousness and altered states, including non-linear time and telepathy.

Boris' research of Tesla's wireless energy transfer, in his Belgrade laboratory, uncovers the potential energy field of "instantaneous locality" that underlies our reality, and facilitates communication with Earth's cosmic neighborhood.

# INVENTIONS OF NIKOLA TESLA





Tesla Wardenclyffe Project Archives

# TESLA TOWER WARDENCLYFFE





### 3D: Leo Blanchette



Layer	Count	Part
Layer 1	2,000	Part 1,000
Layer 2	2,000	Part 2,000
Layer 3	2,000	Part 3,000
Layer 4	2,000	Part 4,000
Layer 5	2,000	Part 5,000
Layer 6	2,000	Part 6,000
Layer 7	2,000	Part 7,000
Layer 8	2,000	Part 8,000
Layer 9	2,000	Part 9,000
Layer 10	2,000	Part 10,000



**Tesla Tower in Shoreham Long Island (1901 - 1917) meant to be the "World Wireless" Broadcasting system**

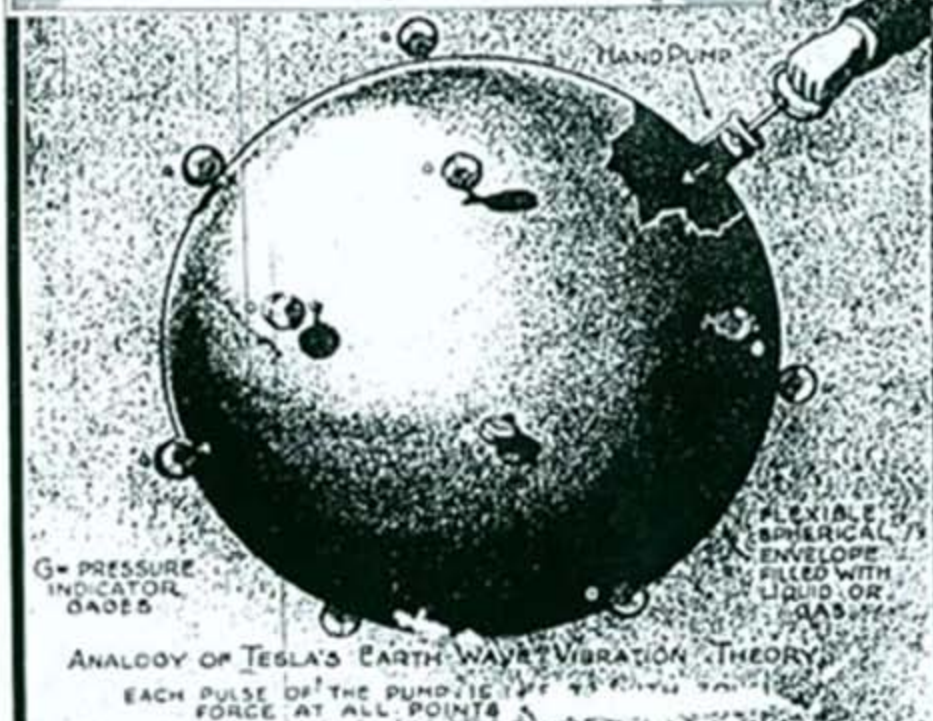
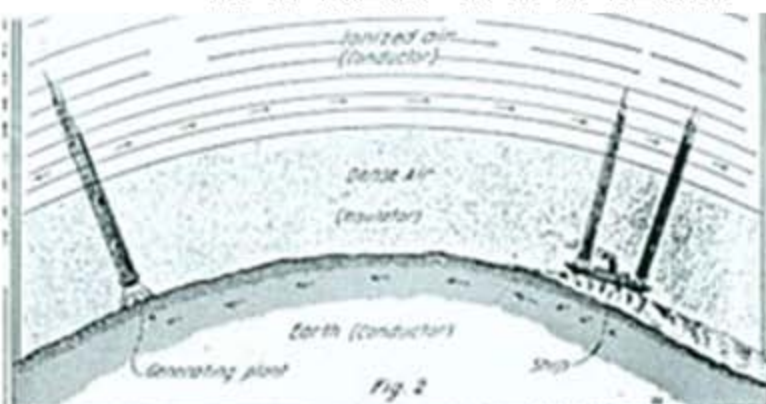


Tesla began building Wardenclyffe in 1900 with \$150,000 invested by J.P. Morgan. The laboratory building was designed by Gilded Age architect to the rich-and-famous Stanford White, which in and of itself is more than sufficient grounds for historic landmark status. He also built a 187-foot power tower, but it was never fully realized and in 1917 was dynamited by the government, afraid it was being used by German spies.



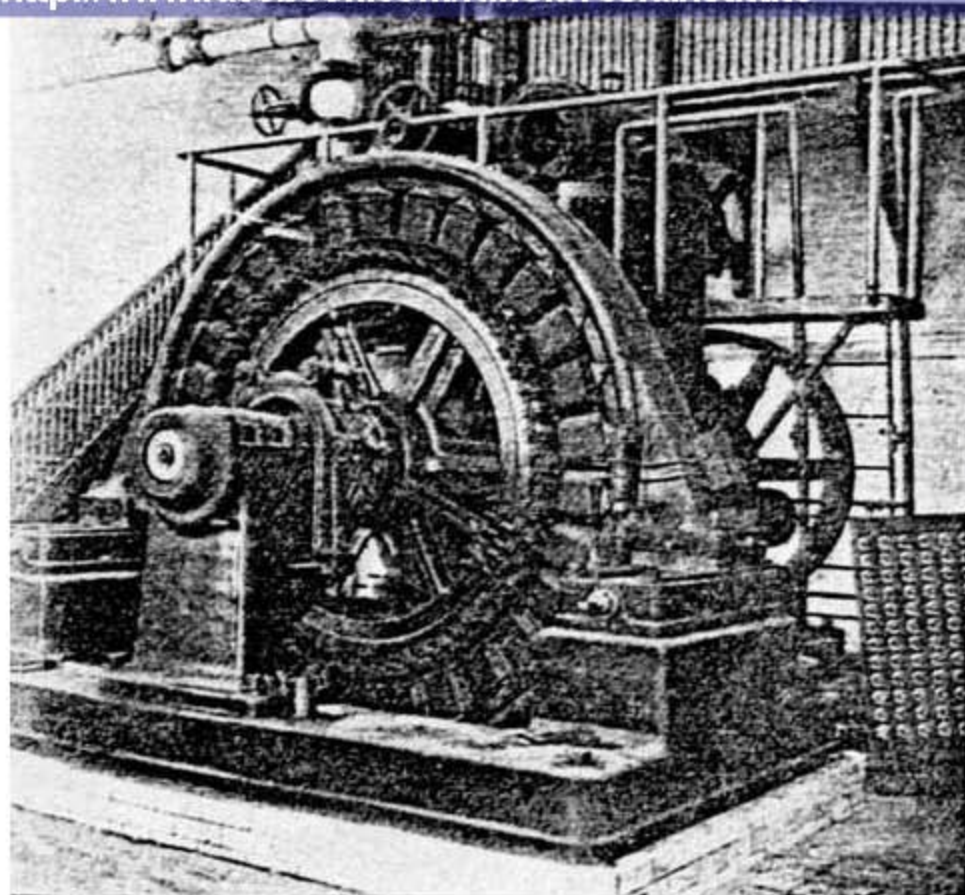
## TESLA'S WIRELESS "WORLD SYSTEM"

Tesla's ultimate plan was for the tower to wirelessly transmit telegraphy, telephony and electrical power all over the world. The tower would harness the electrical energy of the ionosphere and then relay power to other strategically located towers, thereby electrifying even the remotest areas of the globe for free.





The magnifying transmitter is an advanced version of Tesla coil transmitter. It is a high power harmonic oscillator that Nikola Tesla intended for the wireless transmission of electrical energy.



The laboratory was a brick building about 100 feet square and as tall as a two-story building. It was completed in a few months, and the concrete footings for a huge tower were laid 250 feet south of the building. Tesla had ordered a couple of 100 horsepower steam engines and they were installed in the power plant in November of 1901. A **200-kilowatt Westinghouse Alternator** (above) was installed later. The laboratory building was divided into four parts: the boiler room, the engine and dynamo room, a workshop containing eight metal lathes, and a laboratory.



3D: Nikola Stojanovic

The wooden tower rose 187 feet over a wide shaft that descended 120 feet to deeply anchor the antenna.

The ground beneath the tower was “honeycombed with subterranean passages.”



The nearby laboratory of red brick, with arched windows and a tall chimney, held tools, generators, a machine shop, electrical transformers, glass-blowing equipment, a library and an office.

**Tesla's Laboratory  
at Wardenclyffe**

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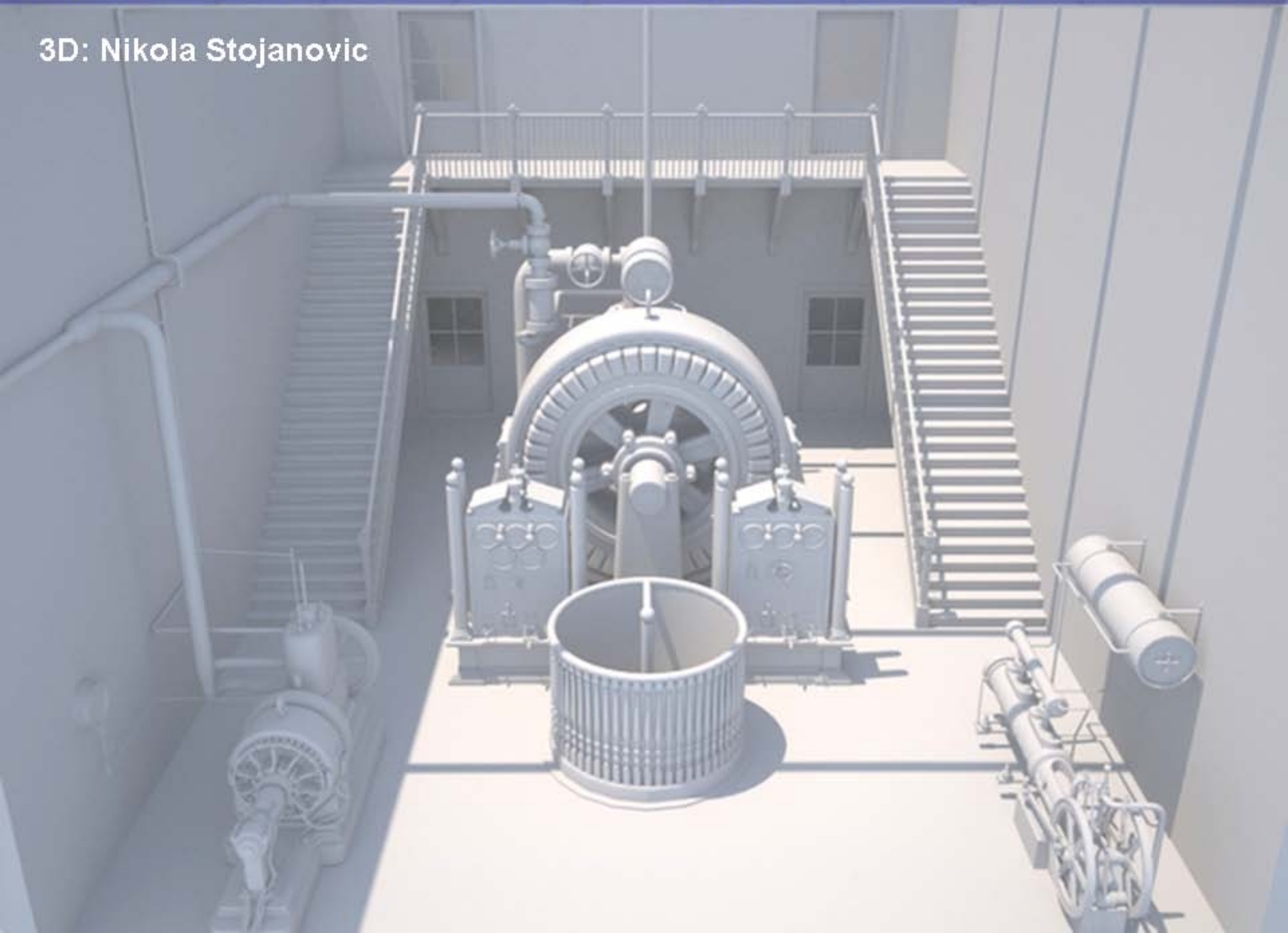


3D: Nikola Stojanovic



Tesla Wardenclyffe  
Project Archives

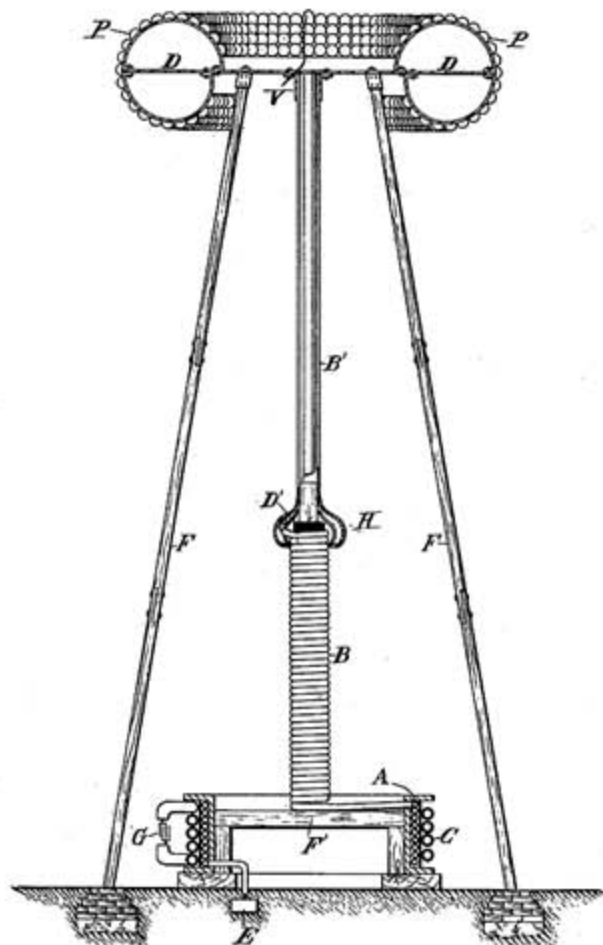
### 3D: Nikola Stojanovic



APPARATUS FOR TRANSMITTING ELECTRICAL ENERGY.  
APPLICATION FILED JAN. 18, 1902. RENEWED MAY 4, 1907.

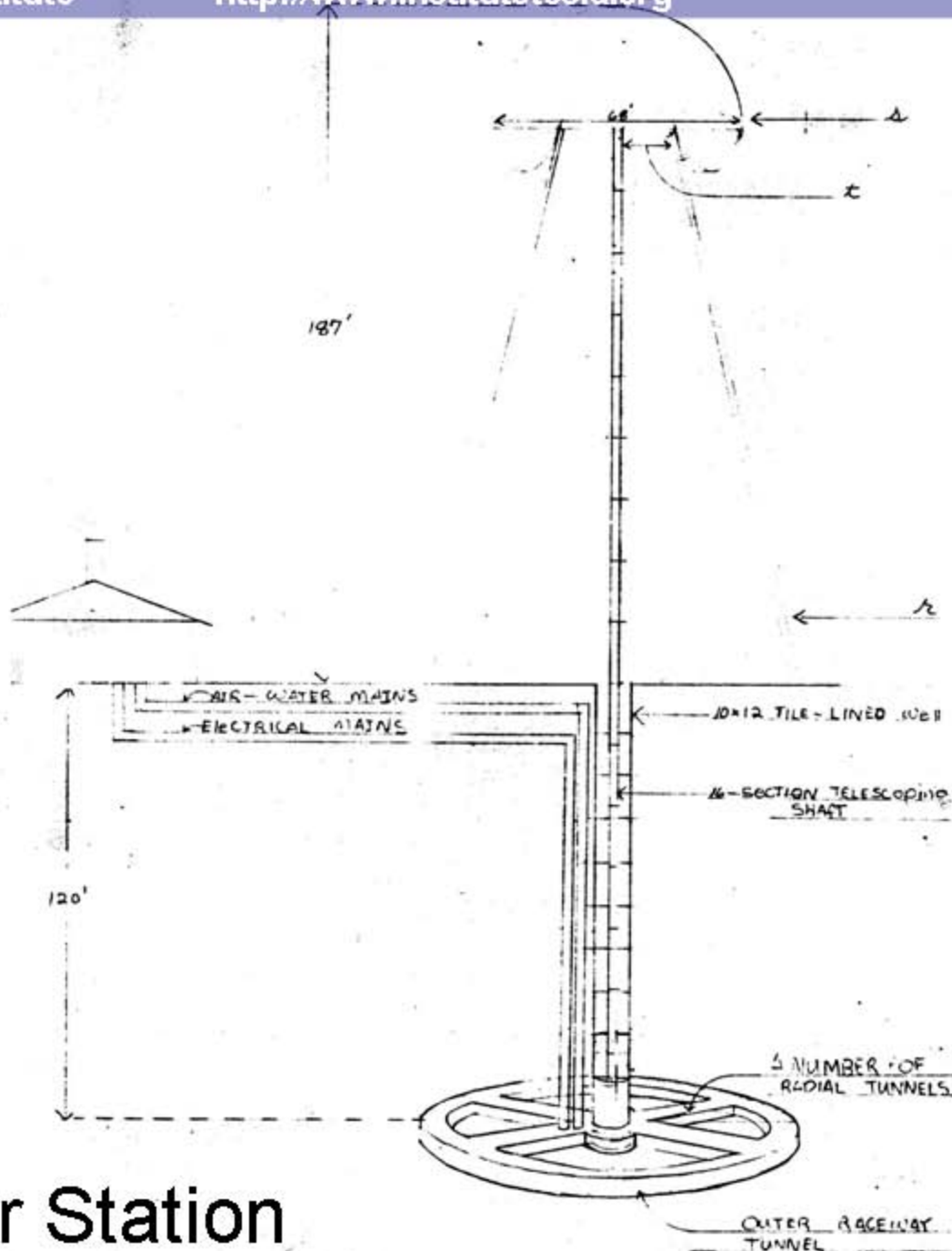
1,119,732.

Patented Dec. 1, 1914.



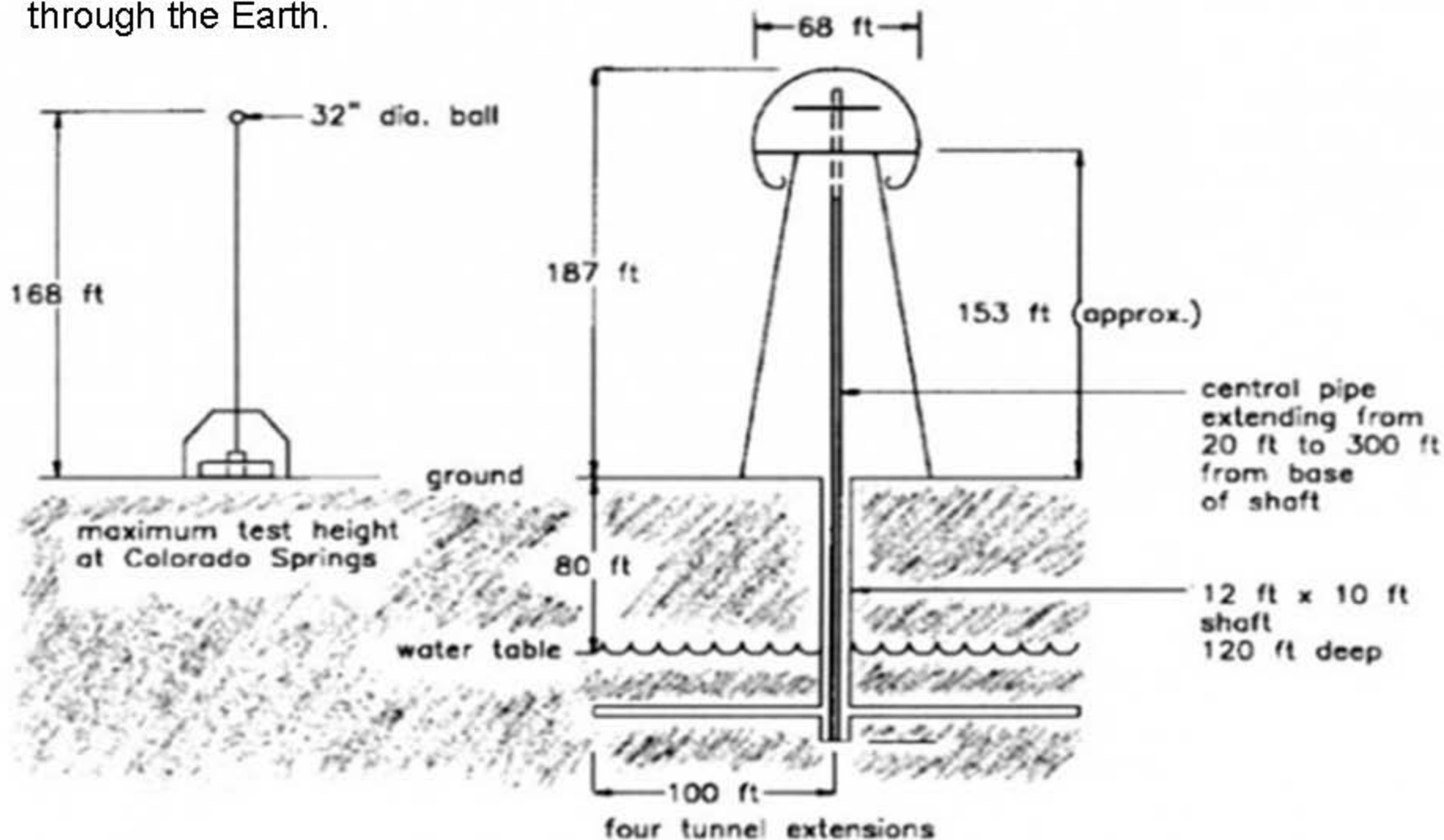
WITNESSES:  
*M. Lawson Dyer*  
*Benjamin Miller*

*Nikola Tesla*, INVENTOR,  
BY *Kenneth Cooper*  
his ATTORNEYS.

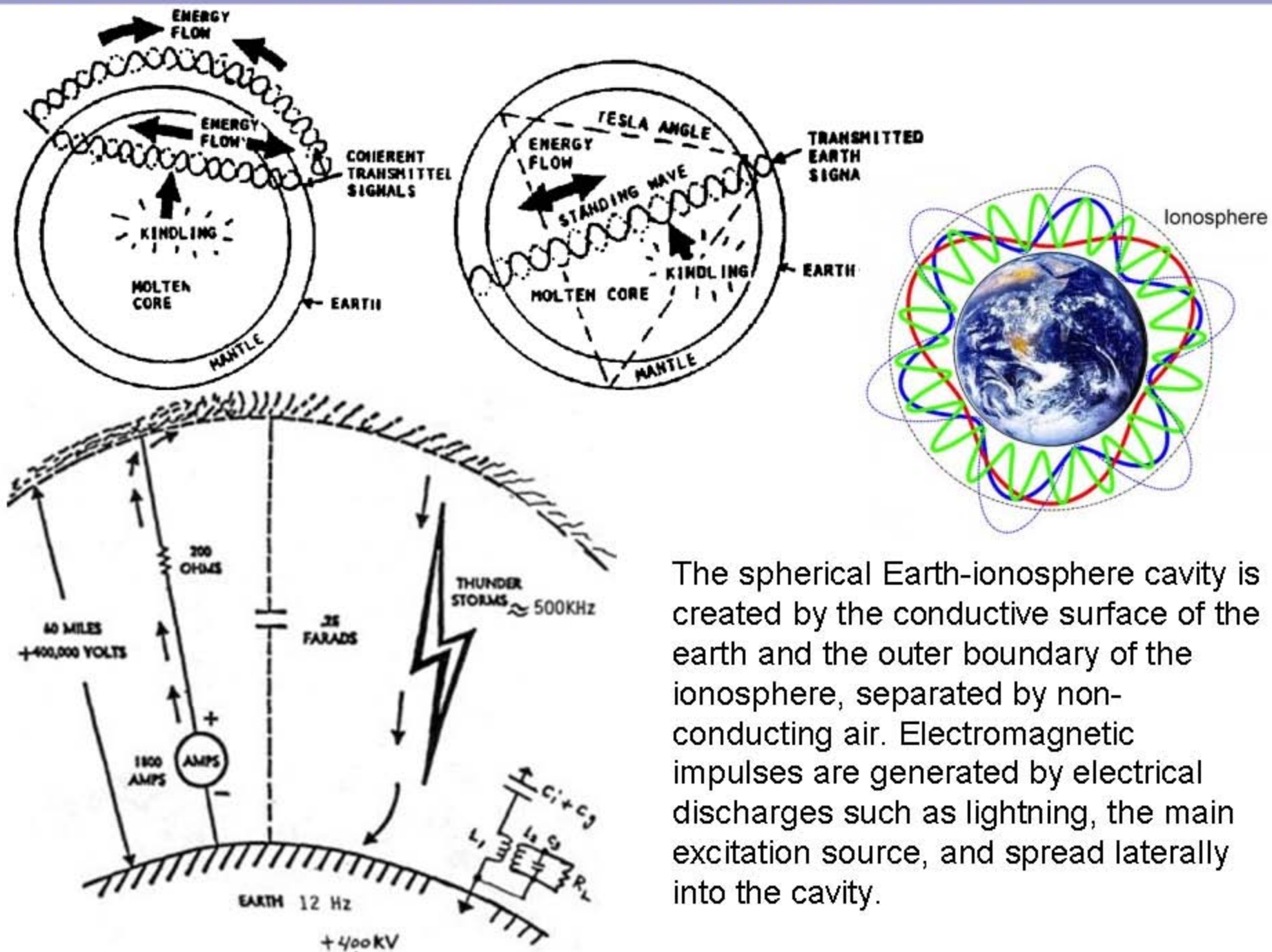


# Tesla's Magnifying Transmitter Wardenclyffe Tower Station

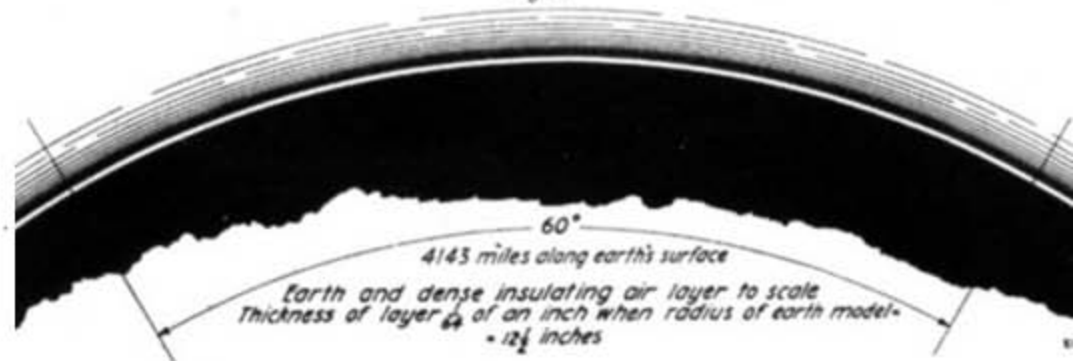
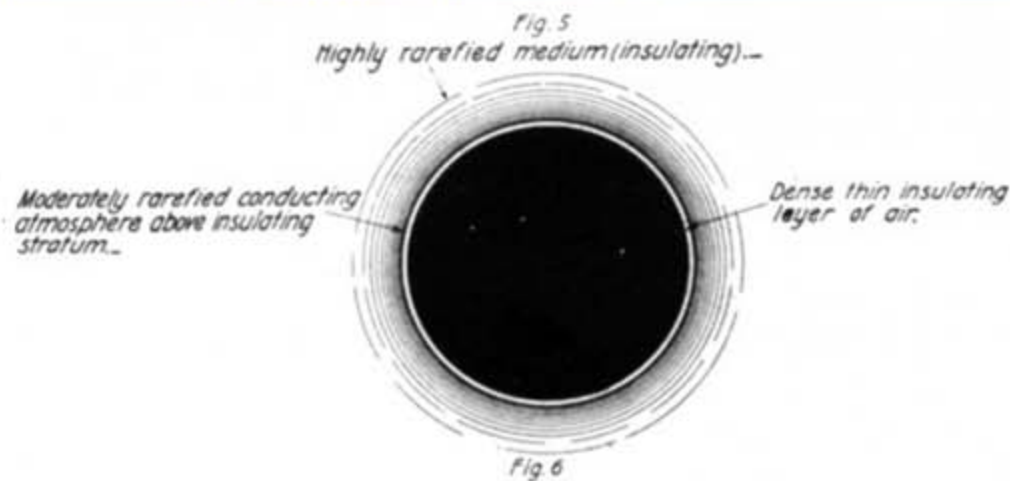
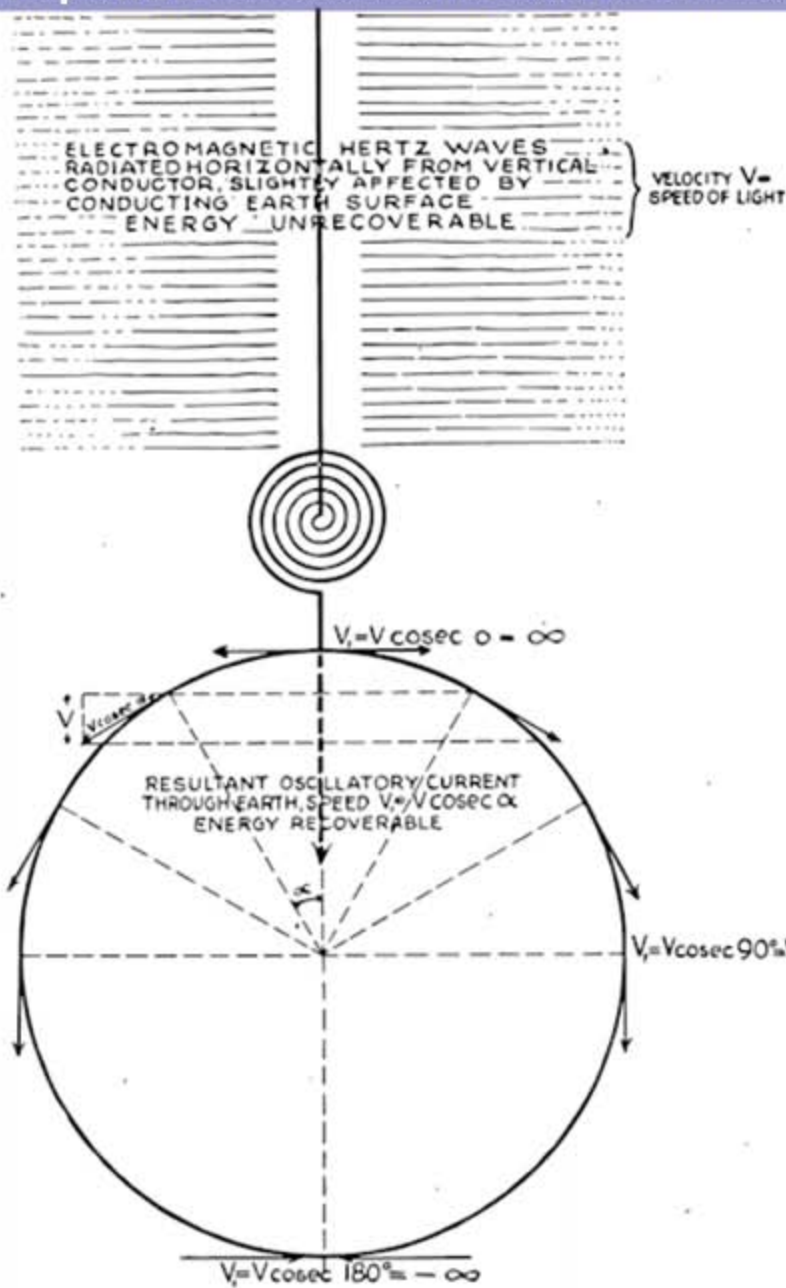
The closed circuit system consists of a large Tesla coil transmitter, an ionized path connecting the transmitter to the upper atmosphere, the upper atmosphere, a second ionized path connecting the upper atmosphere back down to a receiving location, and the receiver itself. The circuit back to the transmitter is completed through the Earth.







The spherical Earth-ionosphere cavity is created by the conductive surface of the earth and the outer boundary of the ionosphere, separated by non-conducting air. Electromagnetic impulses are generated by electrical discharges such as lightning, the main excitation source, and spread laterally into the cavity.



A Section of the Earth and Its Atmospheric Envelope Drawn to Scale. "It is Obvious That the Hertzian Rays Cannot Traverse So Thin a Crack Between Two Conducting Surfaces For Any Considerable Distance without Being Absorbed" says Dr. Tesla, in Discussing the Ether Space Wave Theory.

# TESLA WAVES

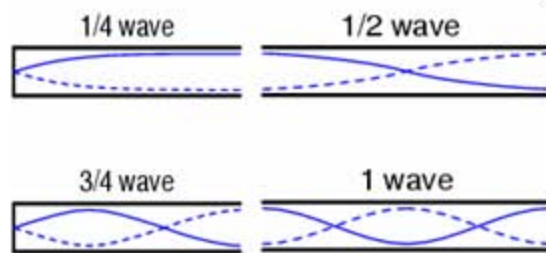
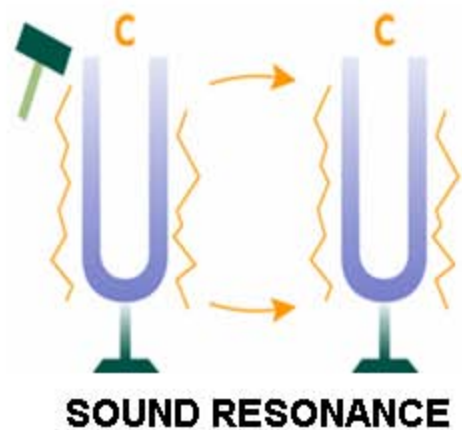
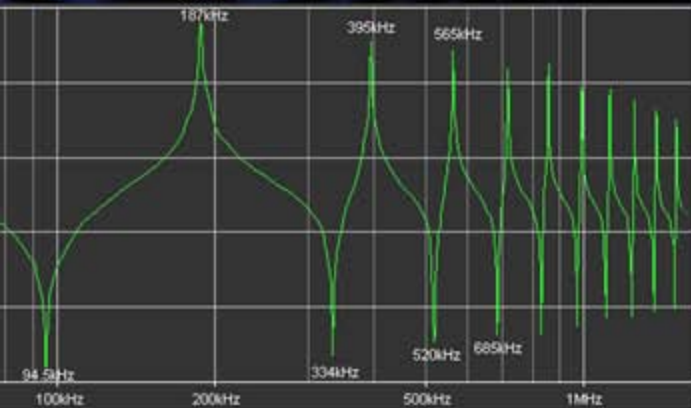


# RESONANCE

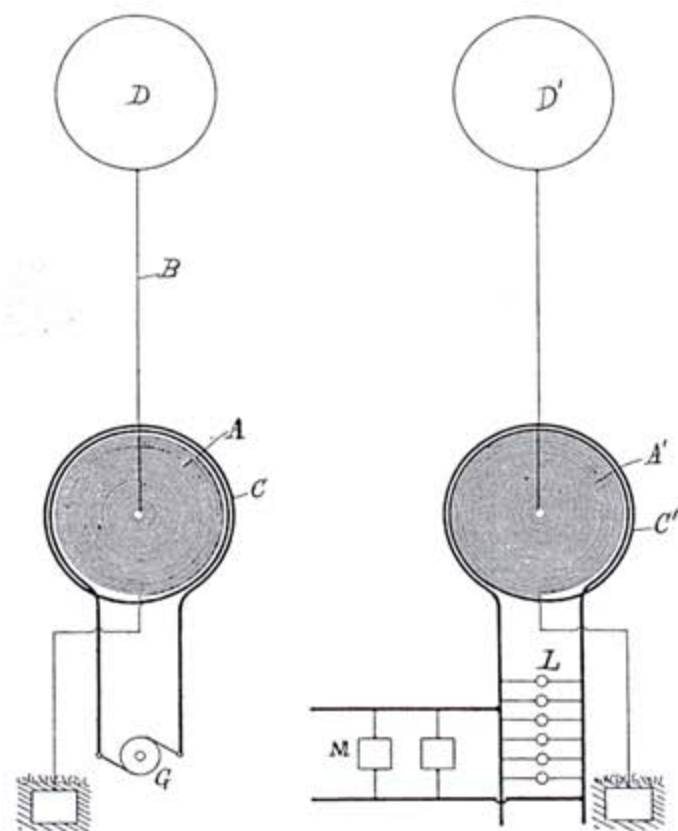
**Resonance is an induced vibration in an object and means to sound and resound, like an echo.**

Acoustic resonance is the tendency of an acoustic system to absorb more energy when it is forced or driven at a frequency that matches one of its own natural frequencies of vibration (its *resonance frequency*) than it does at other frequencies.

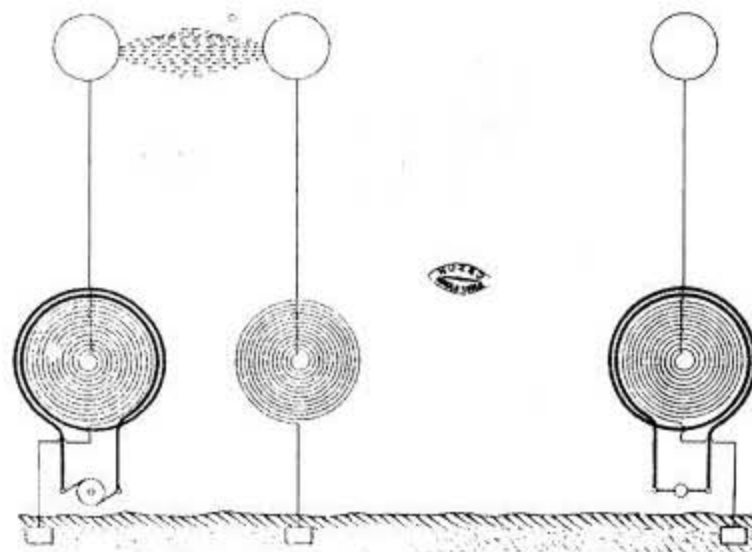
A sound wave is created as a result of an object vibrating. All objects have a natural frequency or group of frequencies at which they like to vibrate. Some objects vibrate or ring at a single natural frequency, while others have many "modes" of vibration and can vibrate at any or all of those modes of vibration. A flute or radio antenna tends to vibrate at a single frequency.



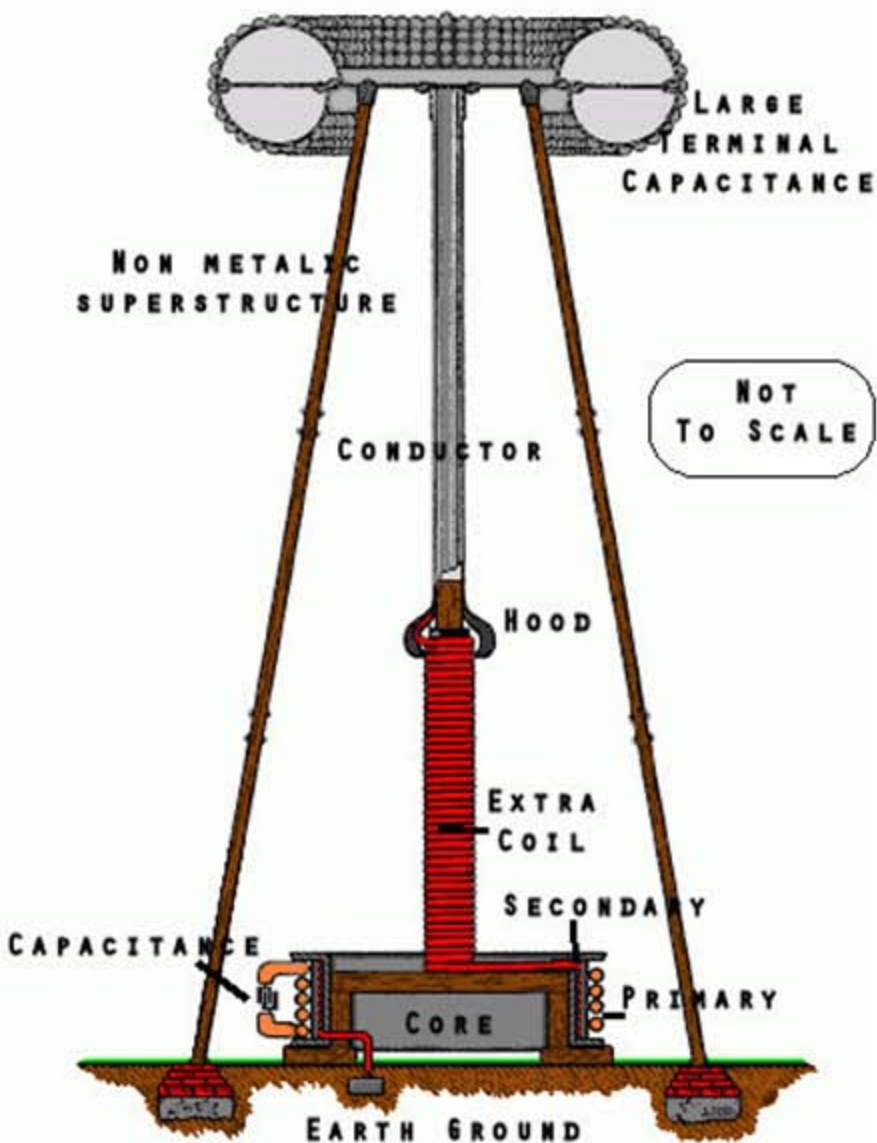
**STANDING WAVE  
IN RESONANT CAVITY**



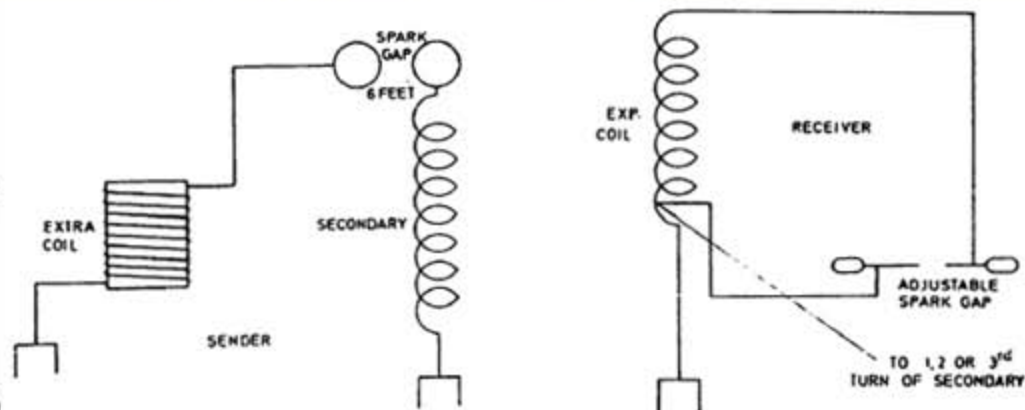
## WIRELESS ENERGY TRANSMISSION



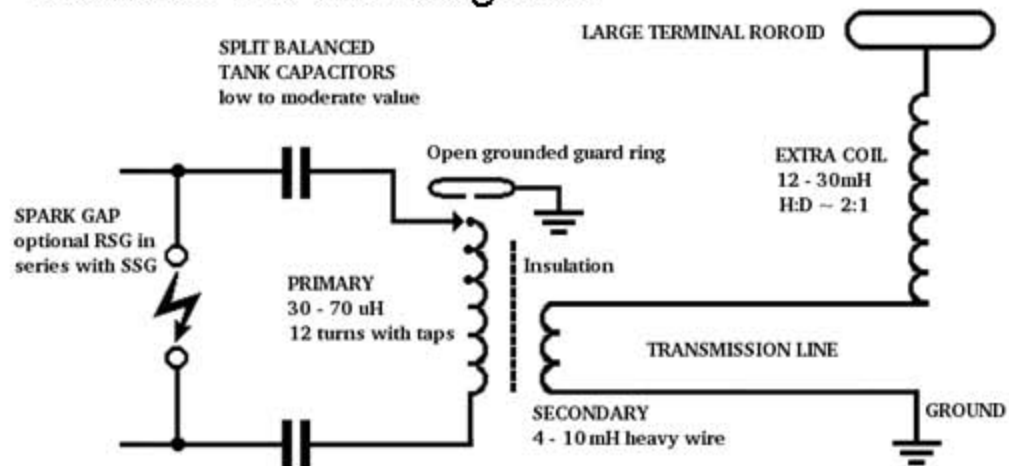
In operation, a powerful current flows through the earth between the two ground terminals. The coupling between the transmitter's two elevated terminals is by electrostatic induction or, in the case of a high-power transmitter, by true electrical conduction through plasma. There is also some degree of inductive magnetic coupling between the two resonators. The type-two transmitter is particularly well suited for the excitation of earth resonance modes.



Tesla's Magnifying Transmitter Function



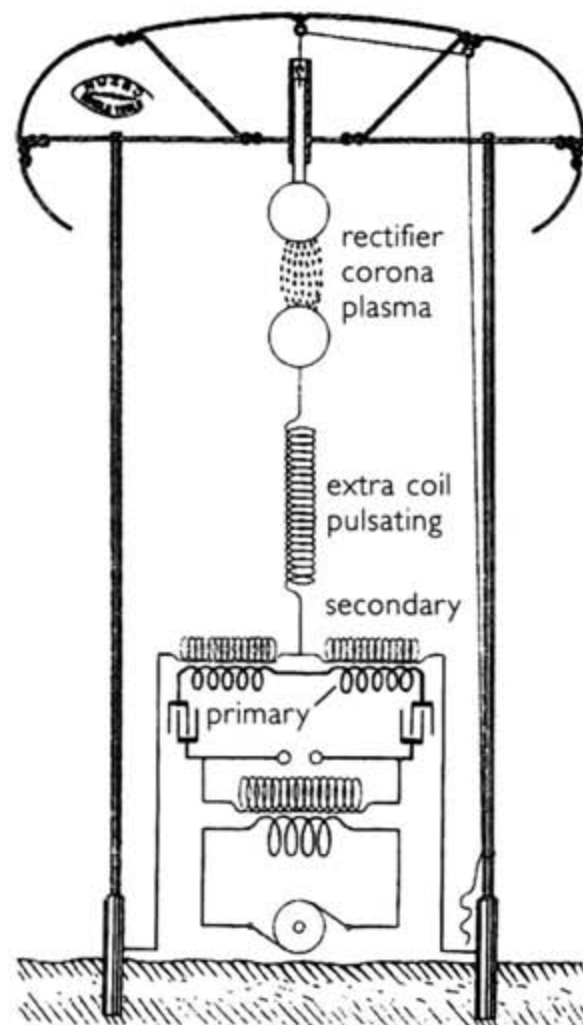
The magnifying transmitter is not identical to the classic Tesla coil. It has the short thick primary and secondary inductor characteristic of the Tesla coil, although magnetic coupling between the two is tighter.



In addition to these two large-diameter coils that comprise the master oscillator, Tesla added a third inductor called the "extra coil."



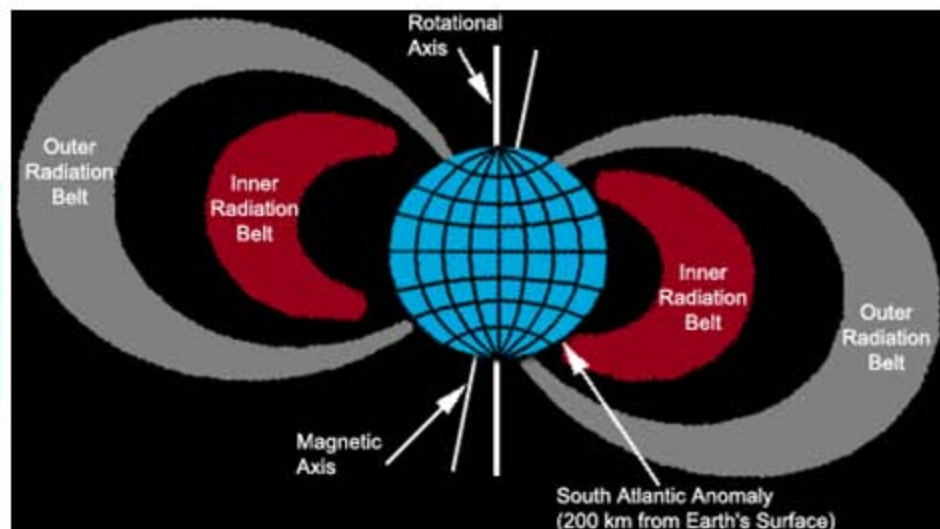
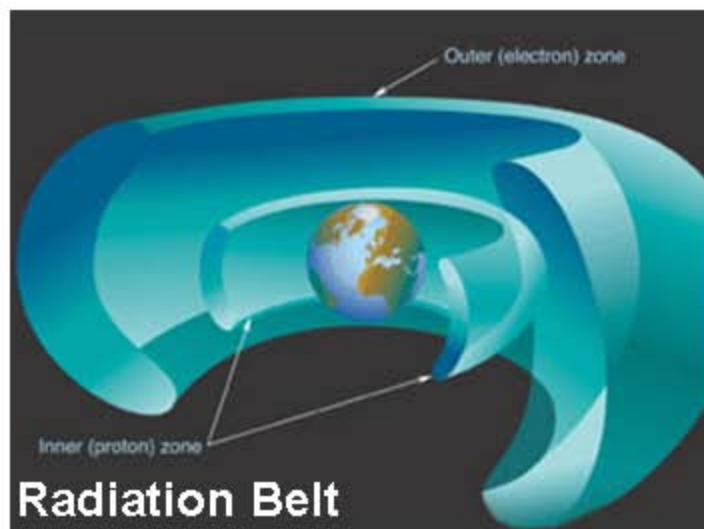
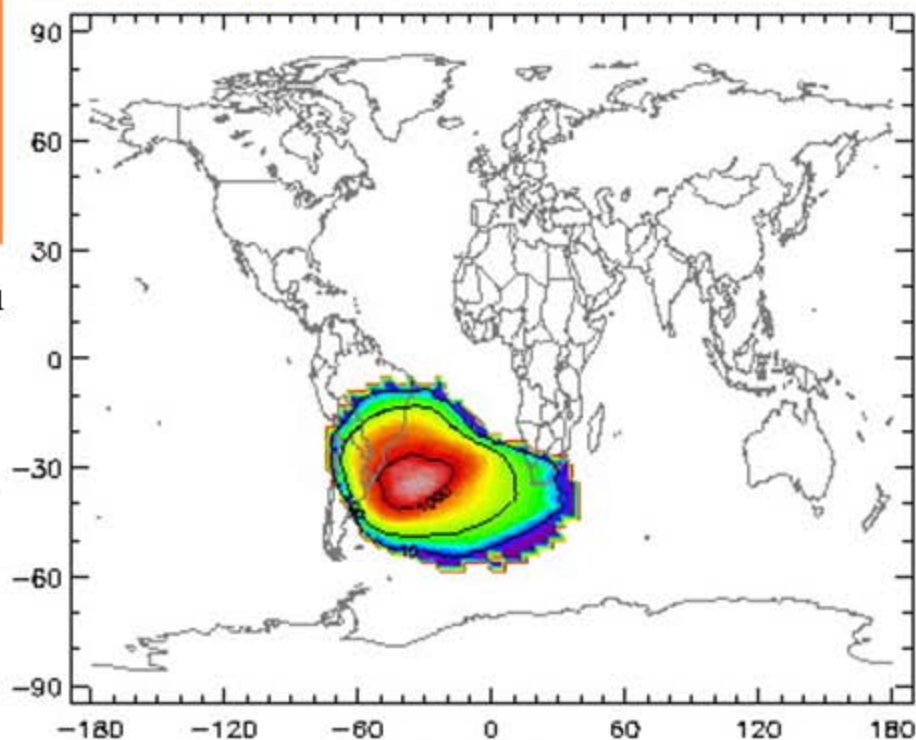
## The Extra Coil

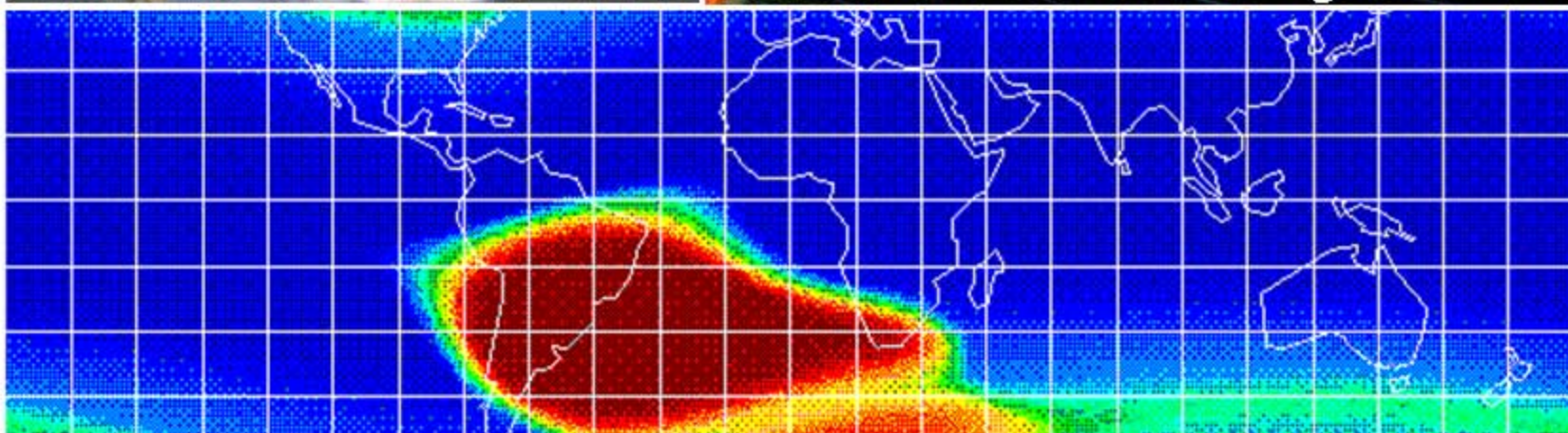
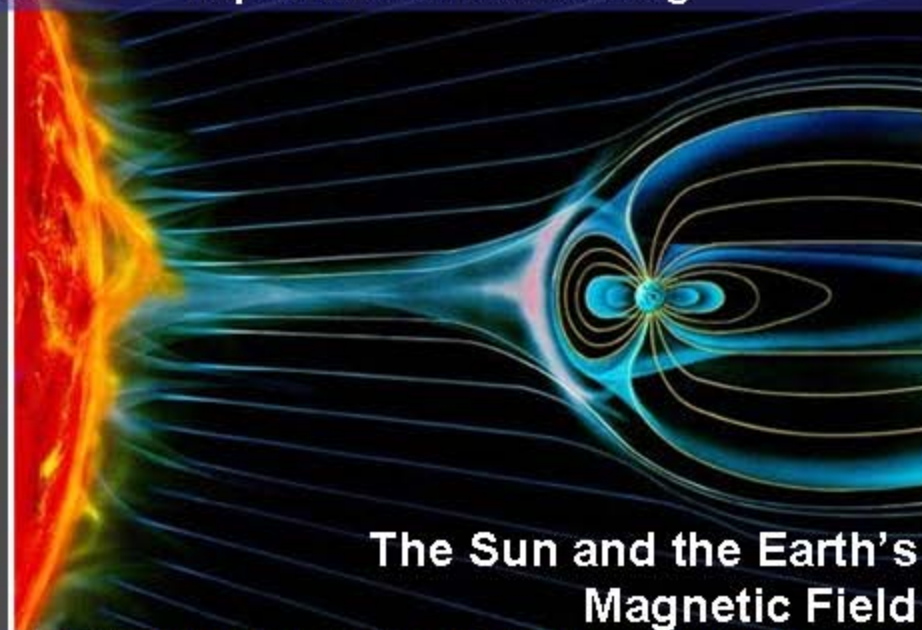


The extra coil can be physically separated from the two close-coupled coils, which comprise the **master oscillator**. The power from the master oscillator is fed to the lower end of the extra coil resonator through a large diameter electrical conductor or pipe to minimize corona discharge.

## BRAZIL AND THE SOUTH ATLANTIC ANOMALY

The **South Atlantic Anomaly (SAA)** is an area where the Earth's inner radiation belt comes closest to the Earth's surface. *This leads to an increased flux of energetic particles in this region and exposes orbiting satellites to higher than usual levels of radiation.* The effect is caused by the non-concentricity of the Earth and its magnetic dipole, and ***the SAA is the near-Earth region where the Earth's magnetic field is weakest.***

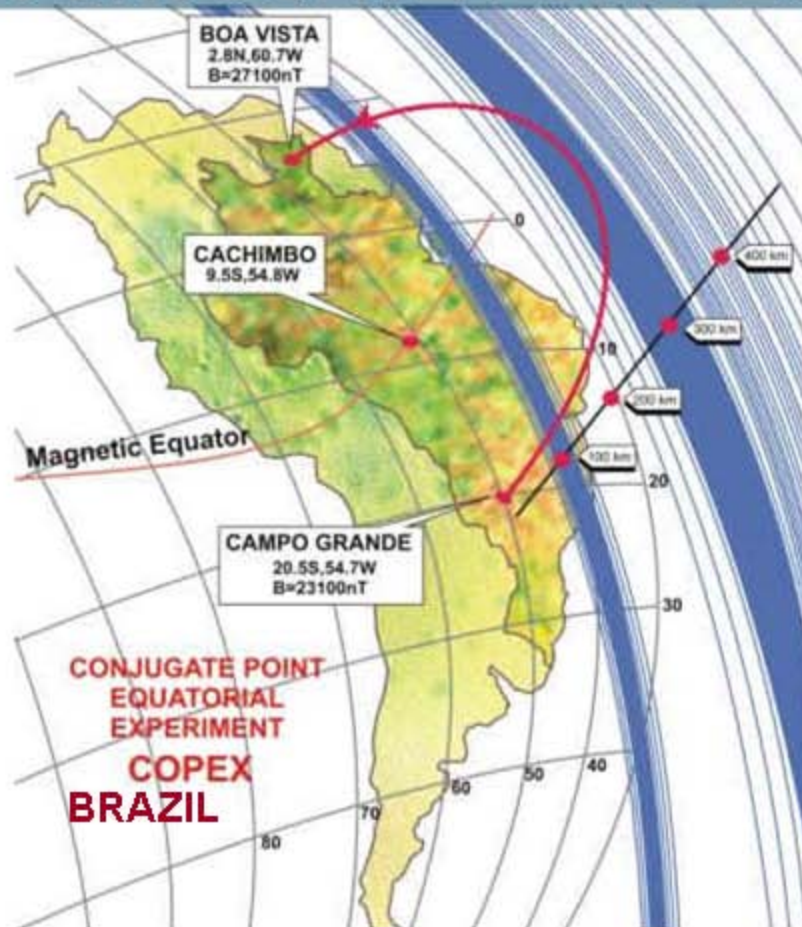




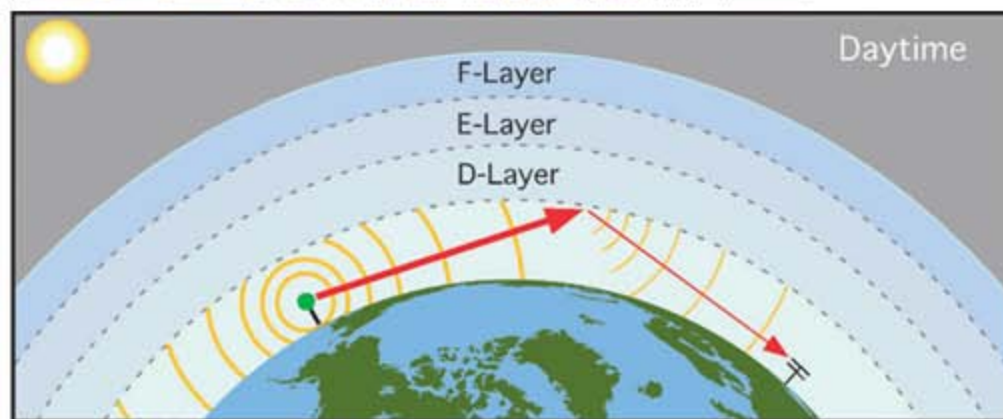
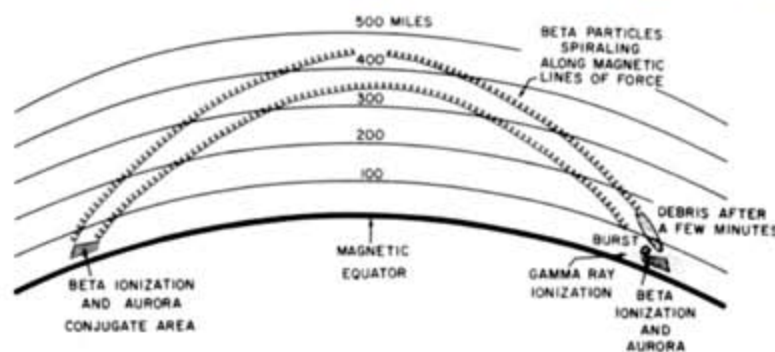
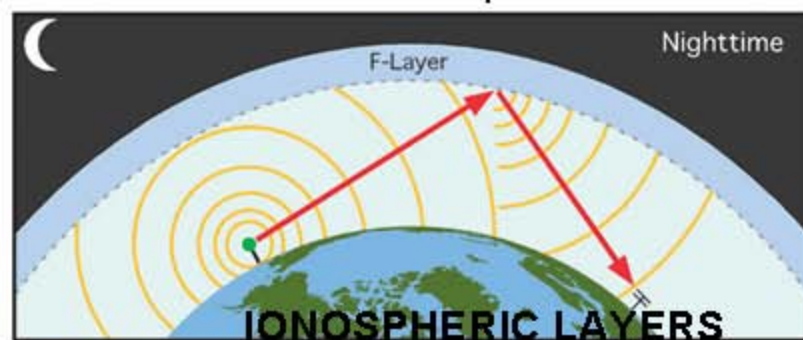
**Brazil** is CLOSER to the Earth's radiation belt than other countries. It is near the magnetic equator, and the magnetic intensity around that equator is not constant but varies, because of irregularities in the structure of the field. Near Brazil that magnetic field is at its weakest. The Van Allen belt is centered above the magnetic equator, but it reaches lower down is where the field is weaker.

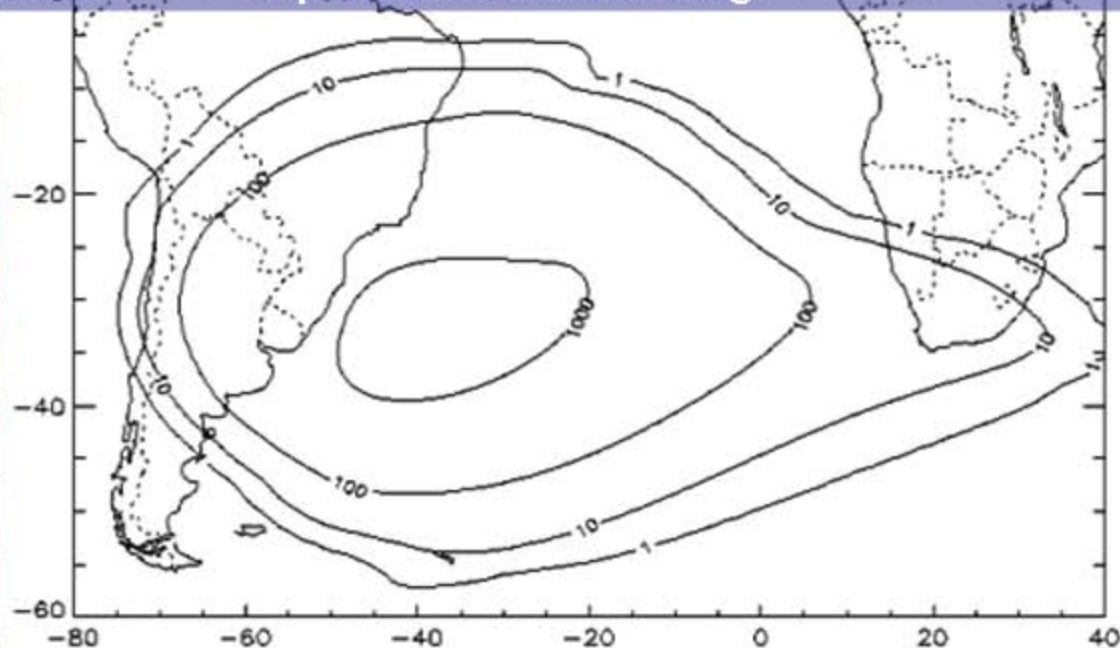
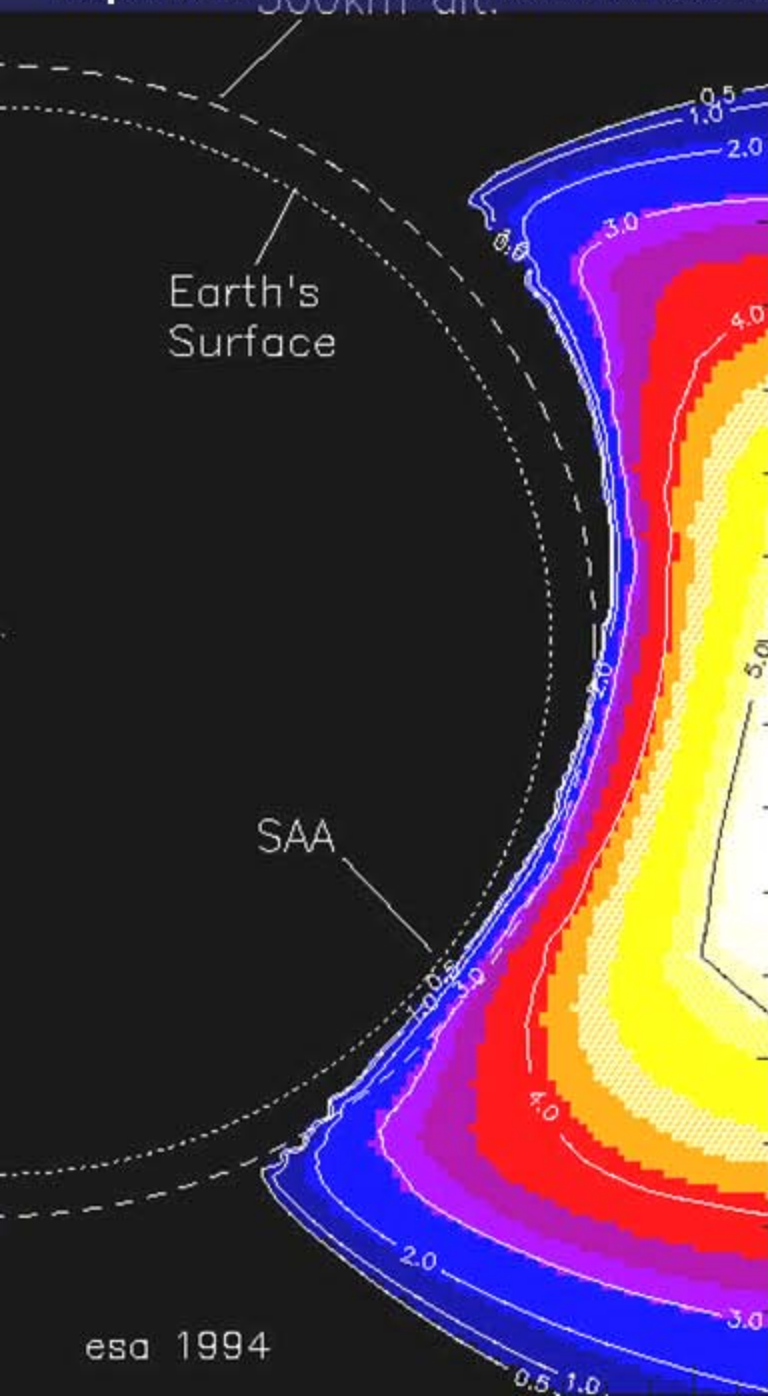


# CONJUGATE POINT EQUATORIAL EXPERIMENTS



Equatorial Spread F (ESF), is a phenomena that produces large turbulent like variations of electron density at F region heights producing large index of refraction variations. ESF occurs in association with the *plasma depleted flux tubes*, widely known as *plasma bubbles* which develop at the dusk hours into vertically extended formations extending to 1500 km over the magnetic equator and thousands of kilometers into the low latitude ionosphere on either side.





Observations using a variety of instruments such as vertical sounding ionosondes, riometers and VLF receivers have provided evidences of the enhanced ionization due to energetic particle precipitation in the ionosphere over **Brazil**.

Satellite observations of enhanced energetic particle fluxes in the **South Atlantic Magnetic Anomaly** region have been supported by ground-based observations of **enhanced ionization** induced by particle precipitation in the ionosphere over this region.



## PLANETARY CONSCIOUSNESS ZONES

The **Chapada dos Veadeiros** (deer plateau) National Park lies in the middle of the Cerrado savanna region at its highest point, the Central Brazilian Highland plateau, a mountainous area of great beauty, with the backbone of the Serra do Santana which rises from 1,200m to 1,691m in Pouso Alto.

The Park's **PreCambrian crystalline basement rock** is 1,800,000 years old, amongst the oldest on the planet. It consists largely of quartz and schist, with outcrops of rock crystal which is also scattered throughout the soil. The ridges which rise between 1,200 and 1,500m are of **Araí Group quartzite** in the north, of basal **Paranoá quartzite** in the south.

According to NASA this is one of the most luminous points seen by orbiting cameras, owing to the quantity of quartz crystals, metals and minerals in the soil.

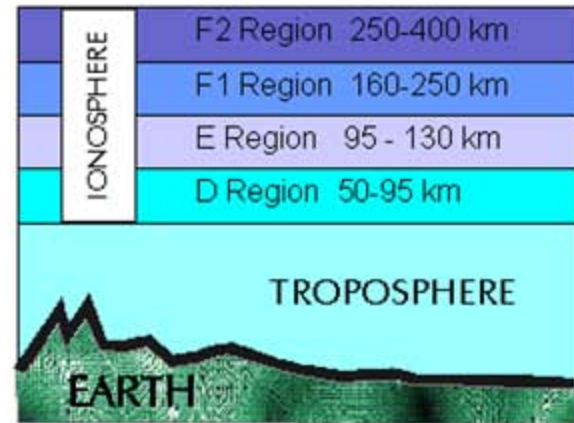
**Chapada dos Veadeiros** a sanctuary of mystic appearances, of natural therapy, and spiritual insights attributes its mystic energy to large concentration of rock crystal.



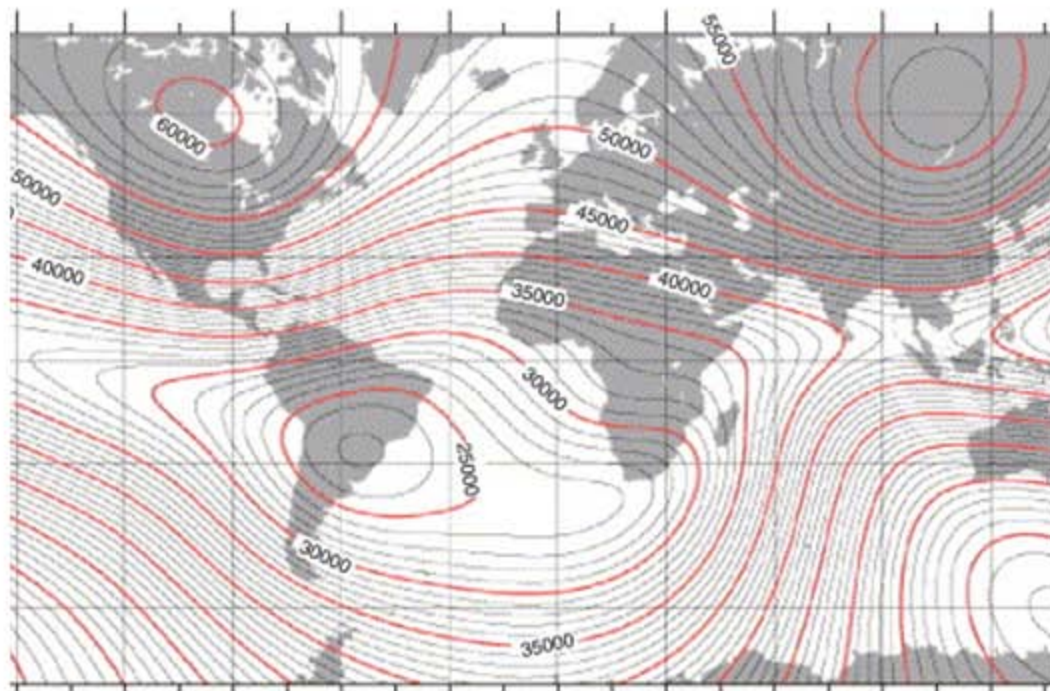
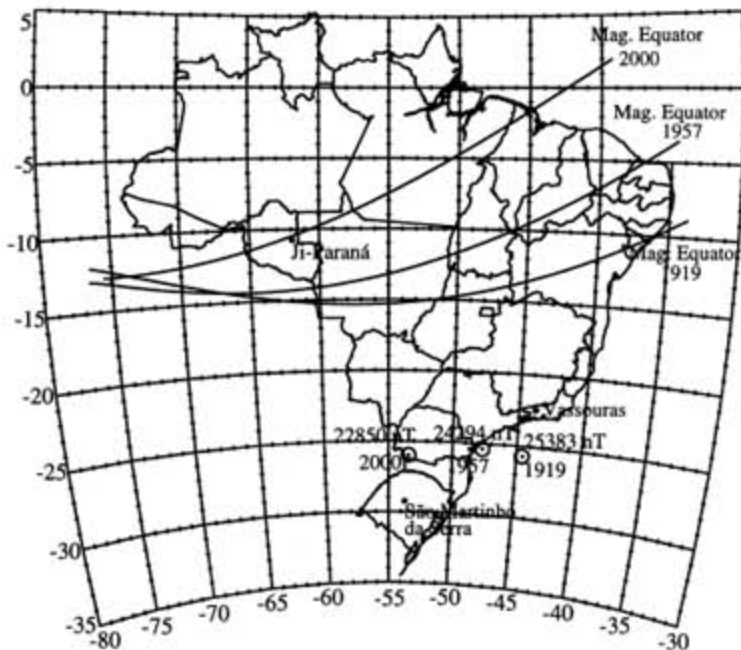
UNESCO Protected Area  
**Chapada dos Veadeiros**  
Brazil



The extra ionization at E-layer heights **could produce enhanced ionospheric conductivity** within and around the anomaly region. The energetic particle ionization source that is operative even under “quiet” conditions can undergo significant enhancements during magnetospheric storm disturbances, when the geographic region of enhanced ionospheric conductivity can extend to magnetic latitudes closer to the equator where the magnetic field line coupling of the E and F regions plays a key role in the electrodynamics of the equatorial ionosphere.



## BRAZIL AND THE EARTH'S MAGNETIC FIELD







**Cidade da Fraternidade**  
Chapada dos Veadeiros, Brasil

**Proposed location of the  
Nikola Tesla Institute Test Field**  
230km north of capital of Brazil, Brasília

**150 Feet Tower At Climax Mine  
Leadville COLORADO (USA)**  
<http://www.tb3.com/tesla/golka/>



## THE RESONANT MINES

**Robert K. Golka** research events at *Leadville*, Colorado in testing Cavity energy transmission. The experiments at the *Climax Mine* in 1988-1989.

The objectives of Golka's "**Project Tesla**" were divided into three areas of investigation.

1. Demonstration that the Schumann Cavity can be resonated with an open air, vertical dipole antenna;
2. Measurement of power insertion losses;
3. Measurement of power retrieval losses, locally and at a distance.

A full size, 51 foot diameter, air core, radio frequency resonating coil and a unique 130 foot tower, insulated 30 feet above ground, have been constructed and were operational at an elevation of approximately 11,000 feet.

*This system was originally built by Robert Golka in 1973-1974 and used until 1982 by the United States Air Force at Wendover AFB in Wendover, Utah.*

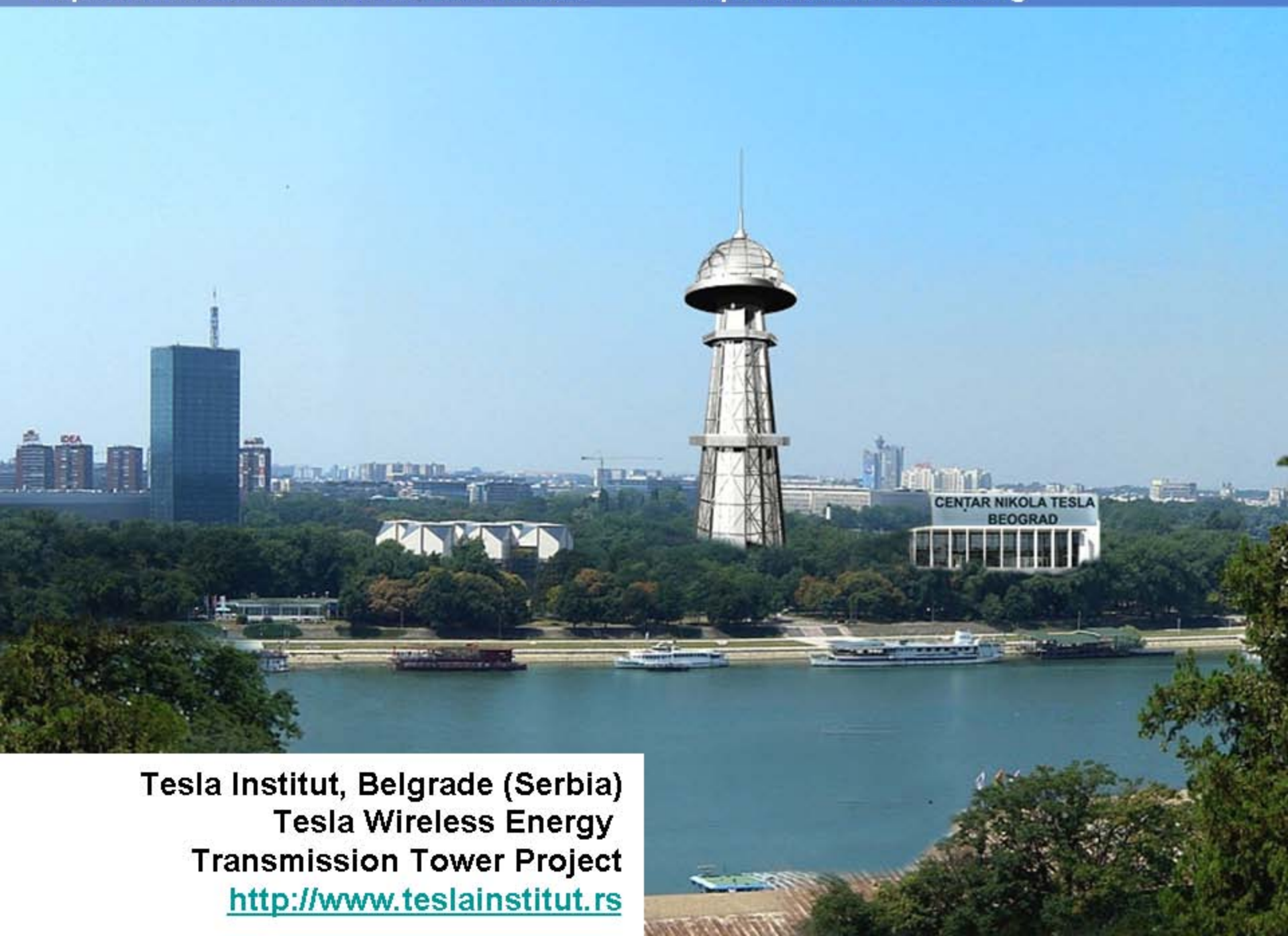


Boris Petrovic – With the needed 250kVA generator

**WITH YOUR HELP WE CAN START BUILDING THE OPEN SOURCE TESLA TOWER!  
WE NEED THE 250kVA GENERATOR AND A 200kVA DISTRIBUTION TRANSFORMER.  
PLEASE SUPPORT THE NIKOLA TESLA INSTITUTE  
INDIEGOGO GOAL OF \$35.000 FOR REPRODUCING TESLA EXPERIMENTS**

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**Tesla Institut, Belgrade (Serbia)**  
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**Transmission Tower Project**  
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