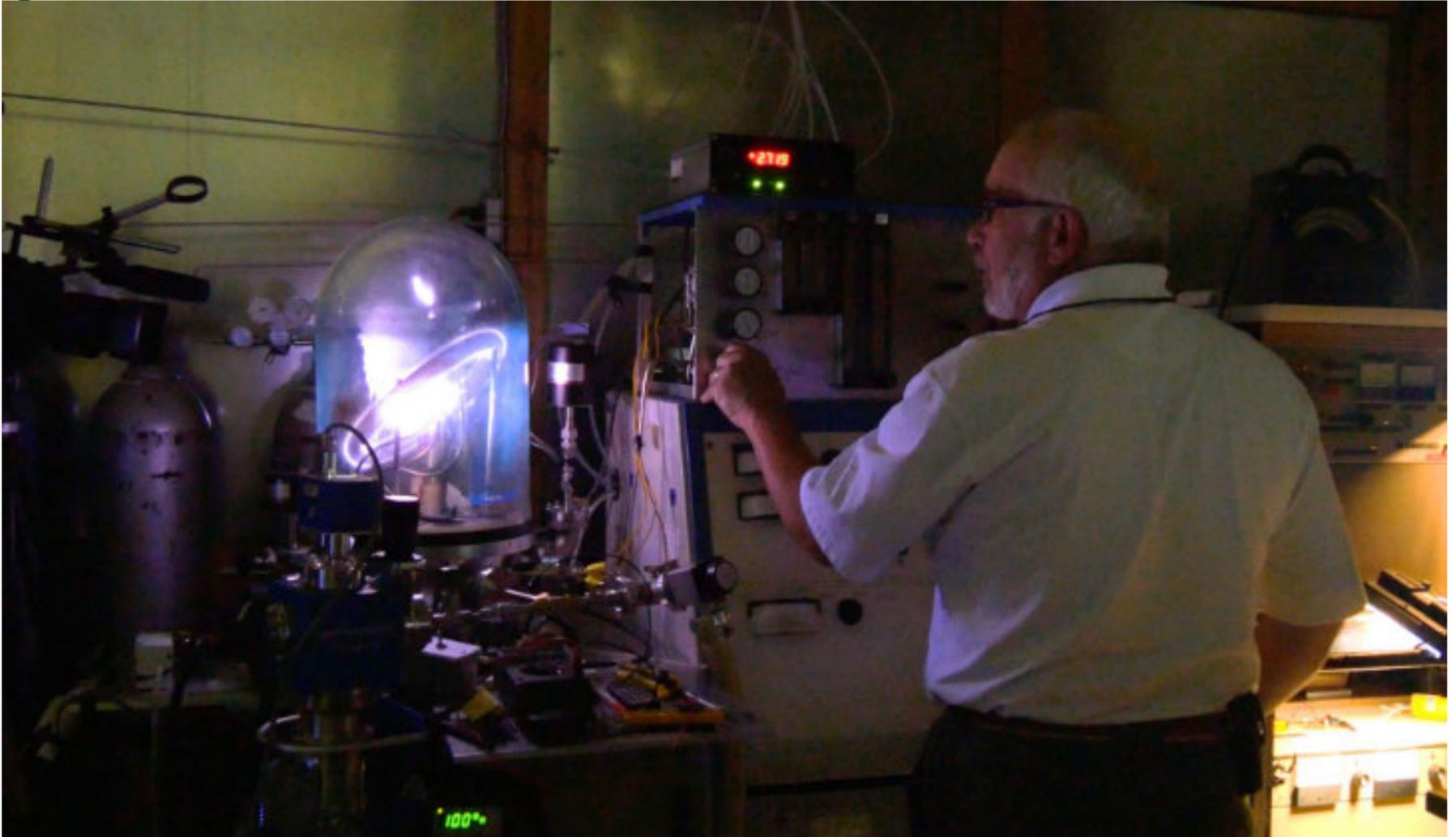


SAFIRE

#14



Phase 1 bell jar experiment; Montgomery Childs in attendance

About SAFIRE

The SAFIRE Project is a set of laboratory-based experiments to 'explore the role of electricity in stellar and planetary phenomena', in particular, to independently test the Electric Sun theory.

[1] Based on a 'Design of Experiments' approach, and using a SCADA control system, Safire focuses primarily on observation and experimentation, instead of theory and simulations.

[2] Experimentation takes place in a large vacuum chamber, that has also been described as 'A Star in a Jar'. The wide variety of data generated by the chamber allows a comparison with data retrieved from the Sun, that is more than just a visual comparison. SAFIRE is an acronym for 'Stellar Atmospheric Function in Regulation Experiment'.

To date, the SAFIRE Project has not found any disparities with the EU/ES model.

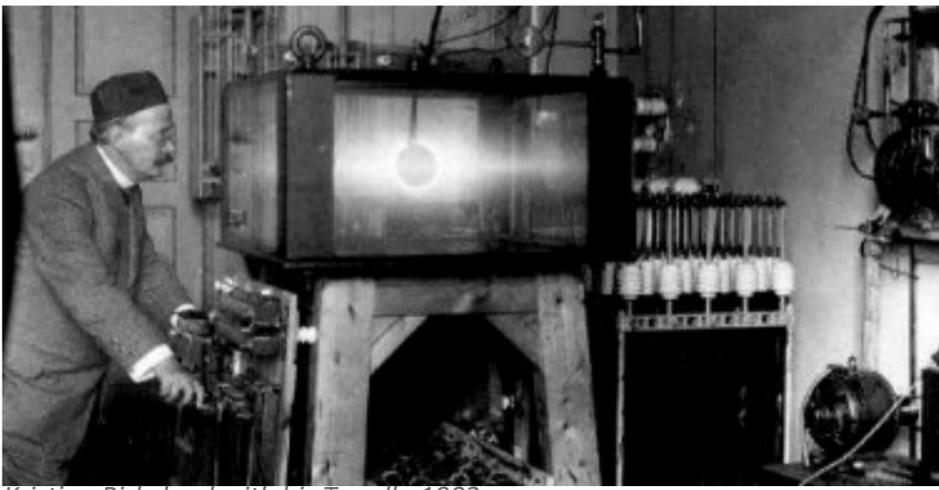
<https://safireproject.com>

History of the project

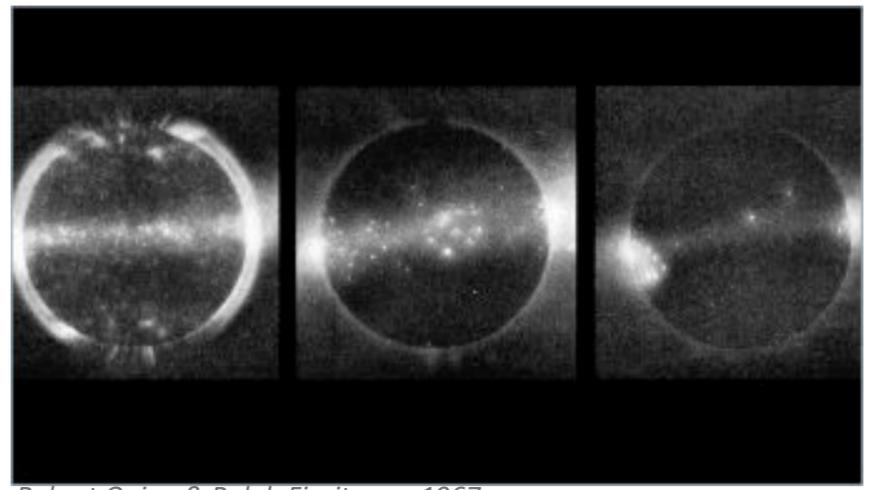
Robert Quinn & Ralph Fiorito produced sun-like images working with a Terrella while exploring plasma instability in 1967. The Terrella had been used by Kristian Birkeland in the early 1900's to research the Earth's aurorae.

In 2012 at a conference exploring the electrical nature of deep space Montgomery Childs proposed a way the Electric Sun Model could be tested. "Two years of research has led me to the conclusion that the Electric Sun Model might be boiled down to a fundamental process - charged plasma affecting matter of a different electrical potential."

Montgomery Childs



Kristian Birkeland with his Terrella 1902

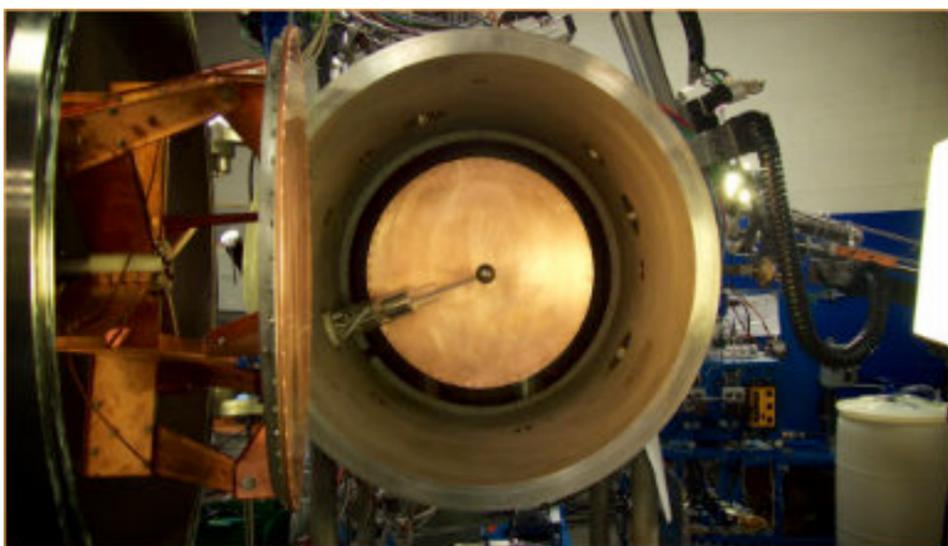


Robert Quinn & Ralph Fiorito 1967

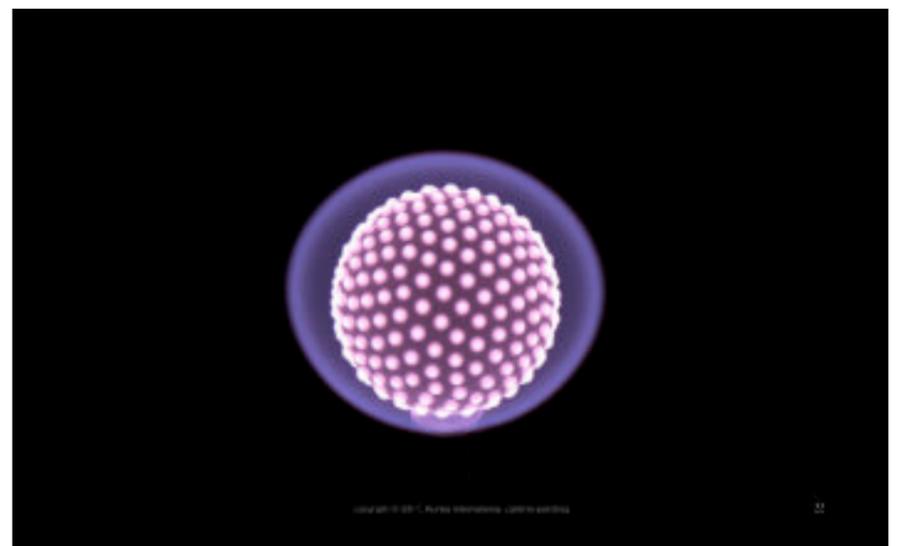
Scott Mainwaring recognized in Montgomery Child's proposal a pragmatic empirical method to test the Electric Universe hypothesis, specifically the Electric Sun model. Scott introduced Monty's proposal to his father, Bruce Mainwaring. Father and son decided to support the project through the Mainwaring Archive Foundation. The SAFIRE PROJECT was initiated. Its objective was to test the Electric Sun Model. The project is unfolding in three major phases

A fully working proof-of-concept miniature (bench-top) lab was built – to see if the concept would actually work. Early experiments were created, focussed mainly on the technology and generating certain environments in the bell jar

The full-size SAFIRE laboratory was constructed, at the heart of which was the SAFIRE Plasma Engine. Further experiments were performed. All the evidence to date shows there are no disparities with the Electric Sun hypothesis.



The phase 2 vacuum chamber with the door open and showing the anode ball



The anode ball under test. Note the single double layer and anode tufts

Phase Two went far beyond what was originally planned. While generating the experiments to test the technology the SAFIRE team made numerous unexpected discoveries. At this point in time the SAFIRE team is now able to create, control and contain unique plasma environments. In these environments SAFIRE is generating energy densities comparable to the Sun's photosphere and nuclear bombs. And doing so without producing any negative side-effects such as radioactivity

Even though the SAFIRE team has become proficient in creating, controlling, and containing the plasma environments in the SAFIRE engine, the science of what is actually happening at the molecular and atomic levels is not yet fully understood.

Understanding these reactions will give valuable insight into the way the Sun's atmosphere functions, and provide the foundation by which these energies can be beneficially harnessed.

About the artwork

Projected in the rear gallery is the ignition of the firing sequence of the sphere within the vacuum chamber. These first few seconds have been slowed down several times to see in more detail the initiation sequence.

Here you can see the 'anode tufts', balls of arcing plasma suspended in a glow discharge, that emulate the granulations found composing the surface of the Sun. Evident also are the halos of 'double layers' (Langmuir sheaths) that act like 'electric waterfalls' interpreting the potential drop, in a step-wise fashion, from the anode to the surrounding electrical environment.

The SAFIRE control room

