

# Our Unfriend, the Atom: The Case of Nuclear Stratospheric Explosions in the Northeast Skies of Brazil by U.S.A.

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## Abstract

The aim of this paper is to present an unknown fact occurred in Brazil in 1957: three explosions of nuclear bombs realized in an diplomatic illegal way above the skies of the Northeast of Brazil. The explosions are a test to detect the possibility to create an electromagnetic barrier to avoid the exchange of radio communications by the soviet government in a case of a total nuclear war. This terrible fact are not studied in the History and Physics textbooks in Brazil, and, perhaps, around the world. but it was well documented by brazilian and north-american newspapers and by the references of Basbaum and Cornwall.

**Keywords:** Atom, History of Physics, Ethics, Physics Teaching.

## Introduction

The case of the Cold War, when two great nations, URRS and USA, developed mass-destruction bombs (A and H bombs), are very emblematic to comprehend the race to the political influence of these countries to the other 90% of the rest of world.

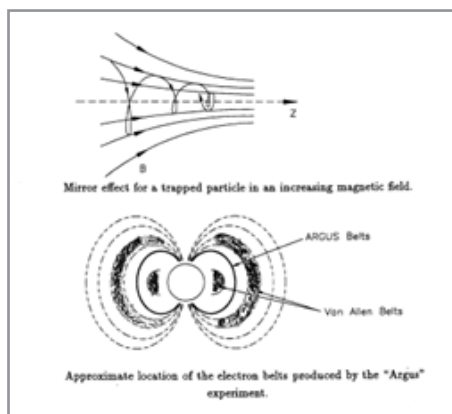
This paper intends to give a brief history about the three stratospheric atomic explosions above the brazilian territory (north-east of Brazil, in the State of Ceará, and, precisely in the city of Quixadá), realized in 1958 [1, 2].

These explosions are now, after a declassification of several and several documents to the Cold War period, well known, including the type of the launcher used and the power of the bombs. These explosions were realized as a part of the ARGUS Project. The motor of this terrible test was a strange theory elaborated by the physicist Nicholas Christofilos (figure 1) that an anti-missile shield could be created around the planet by trapping high-energy electrons in the Earth's radiation field [3]. Christofilos worked as a consultant of north-american militaries. This kind of work made that he became a member of the terrible JASON Division and the Project or ARGUS Operation. His participation lead to the militaries to prepare and execute a series of high-altitude nuclear detonations. The impact of these detonations, made Chris-

tofios to believe that it could create a radiation belt in the upper regions of the Earth's atmosphere (figure 2), like an artificial Van Allan Belt, as a kind of defence against soviet Intercontinental Ballistic Missiles (ICBMs). The operation was a madness, especially because there were international Accords to cancel or to put a limit in the nuclear tests. But this madness became reality!



Figure 1: Nicholas Christofilos (source: MELISSINOS w/d)



**Figure 2:** The trapped atomic particle in a belt like Van Allen Belt. (source: MELISSINOS w/d)



**Figure 3:** The date, place and altitude of the three clandestine explosions in the stratosphere between august and september, 1958. (source: <http://nuclearweaponarchive.org/Usa/Tests/Argus.html>)

### Stratospheric Nuclear Explosions in the Brazilian Northeast

These three criminal explosions occurred in the sky of the Brazilian northeast region (State of Ceará, in the city of Quixadá). To this fact, Basbaum (1960) wrote:

The failure to re-establish diplomatic and trade relations with the countries of Eastern Europe and China, which are of such great interest to our economy, is an imposition of the United States in our foreign policy. And the famous Brazil-US military agreement, through which a US domestic law regulates relations be-

With this theory and with the alliance with the powerful north-american Army, the lancets of the end world clock advanced quickly, like the film of Stanley Kubrick, Dr. Strangelove.

By the declassified documents we know precisely about the kind of equipments is utilized, the launcher, the places of take off, the place and the altitude of the explosions and the atomic power of the bombs.

We can find this information in several sources, but for the purpose of the present paper the website <http://nuclearweaponarchive.org/Usa/Tests/Argus.html> (recovered by the Web Archive) it is sufficient to present the data (figure 3):

tween the two countries, is without a doubt a clear intervention in our domestic policy. Just recently, the United States exploded an A-bomb in the skies of the [Brazilian] Northeast without the governors and political leaders of our country manifesting in any way [4].

It is very known that, during the Cold War, United States developed nuclear bombs to make test in the earthly stratosphere. The aim, as we said, was to analyze the possibility to avoid radio communications or electronic guidance of nuclear missiles

launched by soviets in a Nuclear War. The effect was terrible.

Cornwall wrote the memories of person who witnessed the nuclear events in the year 1958:

It was around 7:00 pm (...) someone called their attention to a rising light... a large pink or reddish light spreading from the low mountain range that you see from the door towards Cacimba Nova. It was like a fern plant, streaking like coconut leaves.

The flash lasted so long that the animals left the surrounded place thinking it was a new day.

Ana (...) heard her mother comment that she saw the great light in the sky and that the day after there was dust above the plants [5].

It was evident that north-american realized an illegal nuclear test in a geographic area not allowed to concead this madness. The New York Times related this event in its edition of 1959 (Fig. 3) [6].



Figure 3.a: Edition of April 4th, 1959 – New York Times relating the nuclear experiment named Argus.

The USA government searched that the population could believe in a fake news to divulgate a kind of launches of equipments to the Cape Canaveral, and using a top as an experiment of NASA

using living beings, as we can see in the figures 4, 5, 6, respect to news that appeared at The New York Times.





By JACK RAYMOND

Special to The New York Times.

WASHINGTON, July 10—The Air Force announced tonight that the mouse-carrying test vehicle it launched last night at Cape Canaveral, Fla., had landed some 6,000 miles away in the South Atlantic.

The Air Force said the test, made with a combination of the military Thor missile and the scientific Vanguard missile, had been "successful," and that telemetry data had been received over the full course of flight.

But the nose cone, whose space-atmosphere re-entry qualities were being tested, has not been recovered. Ships and aircraft searched for the cone and its mouse passenger all day today in the impact area, east-

southeast of Ascension Island

However, it was believed ships are searching in the area nearer St. Helena, off the African coast. Searchers believe the nose cone is somewhere in the area between Ascension Island and St. Helena.

It was still giving off sporadic radio signals but these were not clear enough to provide accurate bearings to the search groups.

Ascension Island is about 1,600 miles east of the Brazilian coast.

The Air Force said that the search would be resumed tomorrow, when three aircraft would make a "last resort low-

Continued on Page 8, Column 6

Figure 4: News at The New York Times. (source: NYT)

## ROCKETED MOUSE IS HUNTED AT SEA

Continued From Page 1.

level visual scanning" of the area.

The reported distance of flight is the longest of any ballistic missile launched by the United States, an Air Force official said.

But the emphasis was on the scientific rather than the military implications of the test.

Nor was the presence of the mouse in the nose cone its most important consideration, according to Gen. Curtis E. LeMay, Vice Chief of Staff of the Air Force.

General LeMay, after speaking at the National Press Club on the subject of flying safety, was questioned on the whereabouts of the mouse.

"I don't know where the mouse is and I don't particularly care," he said.

### Medical Experiment

He said that the mouse had been placed in the nose cone as a side-line experiment for the bio-medical scientists of the Air Research and Development Command.

The principal purpose of the experiment, he said, was to study the ability of the cone to withstand the terrific sudden friction as it hurtles back to earth through the atmosphere at a speed of almost 10,000 miles an hour.

There was no official word, but it was evident that the experiment was part of the program for rocket shots to the moon as well. It has been indicated that the first "lunar probe" by the Air Force or the Army may be attempted in August.

The Air Force used a combination of its Thor intermediate range ballistic missile and the Navy's satellite-launching Vanguard for its experiment last night. This is the combination the Air Force plans to use for its moon shot.

The combination missile, which the Air Force dubbed Thor-Able, carried a nose cone that was "extensively instrumented," officials said.

At 3 P. M. Eastern daylight time, three aircraft and two of the search vessels were in the "immediate impact area," the Air Force reported, but "due to darkness" search was ordered abandoned until tomorrow morning at 1:30 A. M.—unless additional radio signals are picked up.

The faint and sporadic radio signals in the cone were of "insufficient strength to provide direction finding assistance as of this time," said the Air Force.

The New York Times

Published: July 11, 1958

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Figure 5: News at The New York Times. (source: NYT)

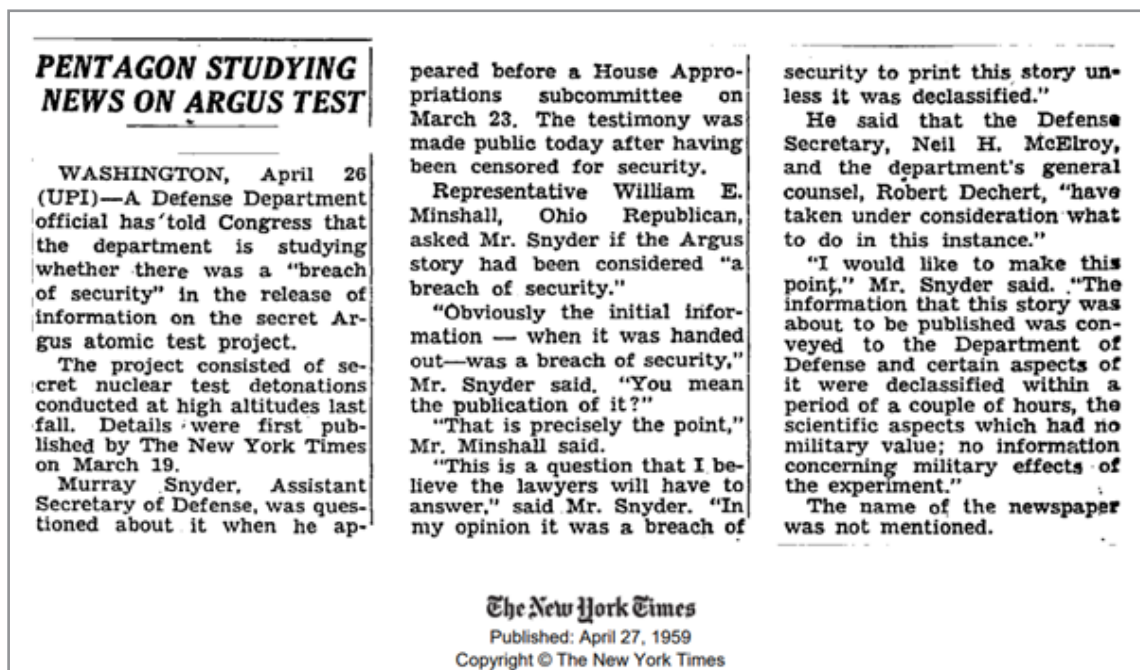


Figure 6: News at The New York Times. (source: NYT)

#### The illegal missiles had a history, as we can retraced by MUNDEY (2012):

Over the summer [1958], the Navy prepared the task force for operations in the South Atlantic. At the San Francisco Naval Shipyard, technicians outfitted the guided missile ship Norton Sound, a former seaplane tender, with the three stage, solid-fueled Lockheed X-17a rockets. The Norton Sound's crew underwent training to fire the missile, as ARGUS represented the first attempt to launch a missile from a ship at sea. Technicians at the naval shipyard in Norfolk, Virginia installed IGY riometers, receivers, radar, and optical equipment on the Albemarle, which then cruised to the vicinity of the Azores to record data at the conjugate point, while the remainder of the task force sailed for the South Atlantic.

The Brazilian government, it seems to be, never was contacted by the north-american government to present the occurrence of the atomic tests neither the possibility to contamination the atmosphere, soil, human beings, animals, plants. Many person saw the three explosions and did illness due to the toxic effects of radiation [5]. Another country, Brazil, was paid the awful (north) american dreams to win an impossible nuclear war, like occur today.

#### Trinity and Beyond ...

Some years ago, Peter Kuran produced and directed a documentary about the nuclear tests executed around the world, starting with Trinity in USA. The name of the film is Trinity and Beyond (near 1h33m duration) [see the serie of figures 7, 8. 9].

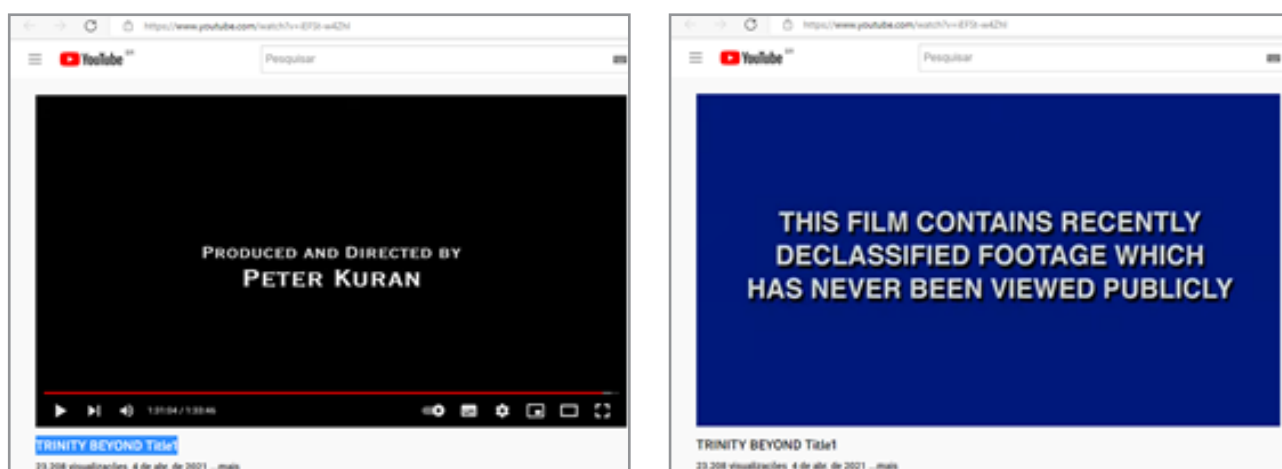


Figure 7: Trinity and Beyond

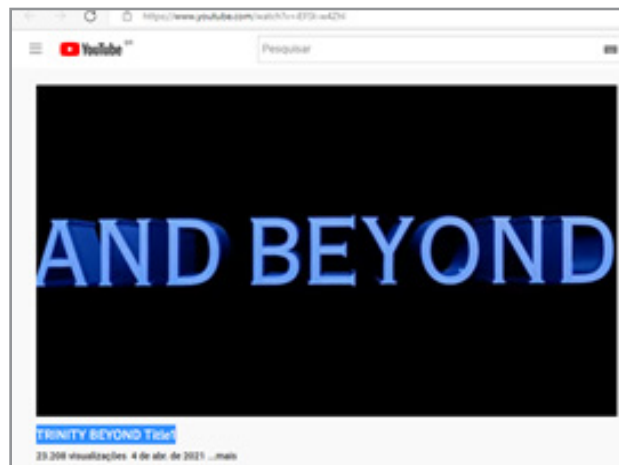


Figure 8: Trinity and Beyond

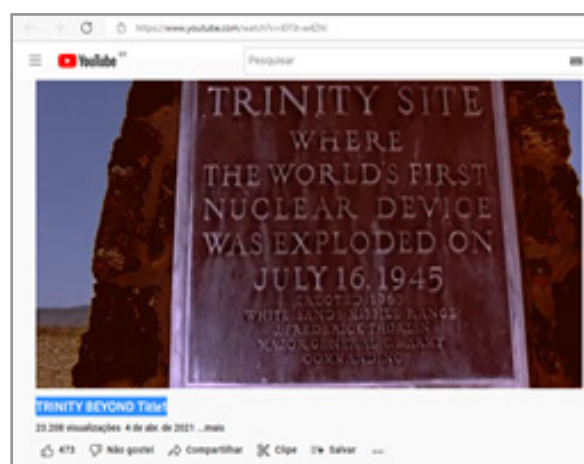
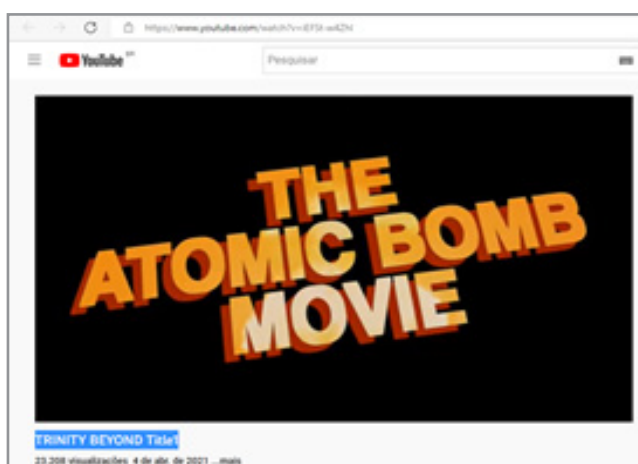


Figure 9: Trinity and Beyond

In this film is possible to see in an horrified way some nuclear stratospheric explosions, as we can see in the figure 10. No doubts to the similarity with the story of Dr. Stranglove as well

represented in the film of Stanley Kubrick. No compensation was paid to those affected by the nuclear explosions ...

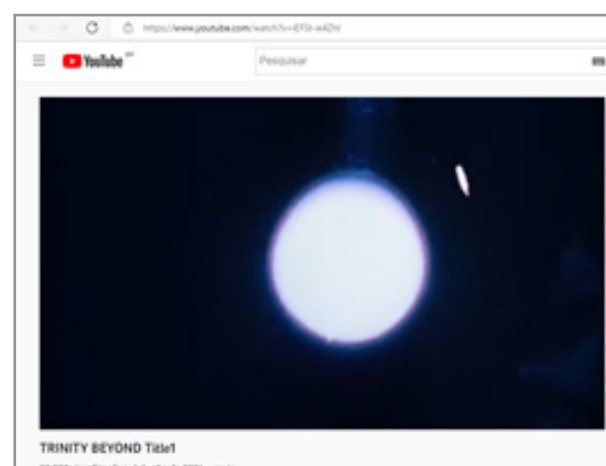
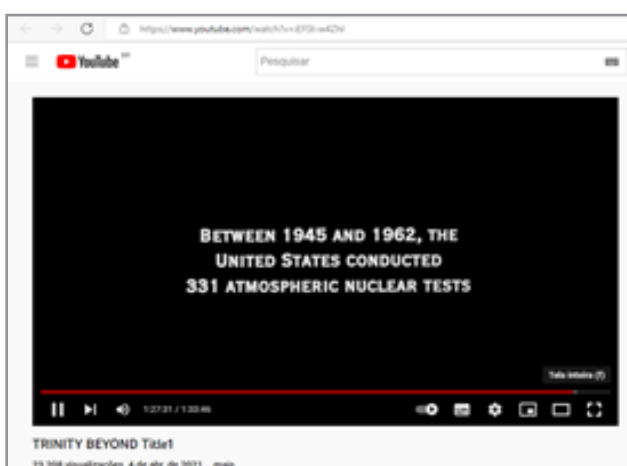


Figure 10: Trinity and Beyond



## Conclusion: Our Unfriend, the Atom

Recently it was published a paper when we analyzed the Disney's film, made in 1957, entitled *Our Friend the Atom* [7]. This well-known film was a piece of propaganda of the north-american government to popularize the peaceful use of the atomic energy. But this is only the surface. The real aim of this film is to make a brain wash in large scale to the US citizens accept the use, also, in a new Great War.

The Terror Age as we can classify the Atomic Age can be evaluated by the time-lapsed of Hashimoto (figura 11). And in this brief film we can not identify the three nuclear explosions occurred in Brazil, but we have the dimension of the tragedy of nowadays in our fragile planet [8-10].



**Figure 11:** Time-lapse of nuclear explosions around the world by Hashimoto.

The idea, developing to the new Brazilian curricula to High Schools is to work of contemporary physics in a historical and critical perspective, using for example, the conflicts between science and politics, for example. There is an obvious ambivalence between what is “friend” and what is “unfriend” in the field of ATOM [11].

The remarkable conclusion of this work is to introduce the theme of NUCLEAR PHYSICS but based upon real and unknown facts of the history of our science and humanity.

## Acknowledgements

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