

Dear "Letters to the Editor" of Discovery Magazine:

re: Your Feb 2010 Issue, Page 62
"Asteroid Strike Predicted"

Does this have any interest for you?

Ps. I was NOT favored with a reply from the T.V. Channel!

cc

April 23, 2009
History Channel

Possible Method to COUNTER Asteroid Danger(s)

The suggestion on your **April 19, 2009, 7:00 P.M. History Channel**, that perhaps **Lasers** may be used to deflect the collision-orbit with the Earth! Even though **Photons**, (the particle/wave), of which they are composed, purportedly, have **NO** mass. I hereby suggest that an **electron gun**, might be able to accomplish the task of diverting the orbit of an asteroid, far enough to miss the earth, because of the following:

ARGUMENT #1:

If a **Photon** has **NO** mass, then directing the laser-beam onto the asteroid, would be much like a butterfly landing on an elephant. However, if a **trillion** butterflies land on an elephant, surely the weight of that elephant would be more than before!

According to a paper authored by **John K. Harms**, copyright **2006**, he has theorized that a **NEUTRINO** may be the opposite particle of a **PHOTON**, possibly a **PHOTON "Hole"**! It has been proven that a **NEUTRINO DOES** have mass! Then therefore, the **PHOTON MUST have mass!**

I **believe also**, that a **Photon DOES** have mass, however **infinitesimal**, for another reason. It has been shown, that **LASERS can** do work! By traveling at, or nearly the speed of light, such **boosts** that **mini, mini, minute** weight, **hundreds**, if **NOT thousands** of times heavier, [depending on the actual speed], according to $E = MC^2$.

CONCLUSION #1: Therefore, a **Photon (light), DOES** have **mass!**

ARGUMENT #2

The **Electron Gun** is the prime candidate to change the orbit, or **neutralize** the size or weight, of any given **ASTEROID** (more later on herein)! The **Electron Gun** produces **PROTONS**, as well as **Electrons**, by a process designated as **Thermionic Emission**. Basically it was the **Electrons**, which produced a picture on the T.V. sets.

Originally, the **Electron Gun** was **purposely** mis-aligned, and thus called a **"bent"** gun! A spring-loaded device, containing a magnet, was fitted around the neck of the T.V. Tube. This device was called an **ION-TRAP**. (**PROTONS** are a part of the **ION** class). The **Ion-trap** was moved back and forth, while being rotated, over the area, which

contained the first elements of the gun, **UNTIL** the stream of **Electron**-impacted directly, (produced a picture), **ON** the fluorescent screen of the Cathode Ray Tube (**CRT**).

NOTE: The title "**ION-TRAP**", was a misnomer. It had **LITTLE effect** on **IONS** or **PROTONS**. It had a great effect on the **ELECTRONS**, because the strength of the magnet was strong enough to bend the stream of **ELECTRONS**, but **NOT** the **IONS**! The **IONS/PROTONS** mass is, approximately (**1836**) times greater than **ELECTRONS**.

The **ELECTRON's** mass is equal to (**5,000**) **Neutrinos**. A **Photon** has the same mass as a **Neutrino**. Therefore, a **PROTON** has the **MASS** of (**9,180,000**) **NEUTRINOS/ PHOTONS**.

NOTE: The important part of **Cathode -Ray Technology**, taught that when you increase the voltages to the **Electron-gun**, you also increased the power of the **Electron Stream** in the Television sets. Therefore, (**by law**), T.V. sets could **NOT** exceed **25,000** volts of **ANODE** voltage. That was near the beginning of the generation of **X-RAYS**!

This, now sets the stage, for the use of a **Cathode--Ray Gun** being used, to alter the orbit of any rogue **ASTEROID(s)**, which might threaten the existence of life, on Earth! The **Electron Gun**, could be fashioned to be built (suggestion), at (**100**) feet in length, with all the parts of controlling/elements/voltages, a commensurate size.

NOTE: **NO** glass bulb or any other material would be needed as an envelope, because the vacuum of space, will do very nicely!

Let us proceed with our task. Consider an **ANODE** voltage of (**250,000**) volts, with other applied voltages increased accordingly! **NOTE:** Normally-applied voltages for a typical **Electron Gun** are: Filament: **6.3 V AC @ 600 MA**; Cathode **-5 V** ; (G1) **10 to 30** volts; (G2) **250 to 400 V** ; Focus Ring **0 to 300 V** ; Anode/Spit-anode **8,000/20,000** Volts.

We will **NO longer** call it an **Electron-Gun**. Now, it shall be called a "**PROTON**" Gun, because the **PROTONS ...are** going to do the work. We will position our **PROTON GUN**, an appropriate distance away, dependent on the size and/or rotation of the **ASTEROID**.

Let us start with a (**100**) yard distance, from a **50** ft. diameter **ASTEROID**, which is rotating. The **PROTON GUN** may be "**fired**", (activated), in a steady stream, or in a synchronized manner, so that one particular area of the **ASTEROID**, will receive the most **PROTON** bombardment!

This will put pressure on the asteroid to move away from the **PROTON Gun**, in the same direction, as the beam is directed from the **PROTON Stream**! "**For every action, there is an equal and opposite reaction**"! (Isaac Newton's 3rd law of Motion). This then, should result in the **ASTEROID being nudged enough to change orbit**!

An **ASTEROID**, which is **NOT** rotating, will receive a steady stream of **PROTON** bombardment, for **(2)** reasons. The first, as stated, ... to put pressure on the **ASTEROID** to change its orbit. The **(2nd)**, is to heat up the **ASTEROID**, in one particular spot, (especially if it contains a lot of **metal**).

In this case, an ancillary, **beneficial action**, takes place. When you heat a metal, in a vacuum, that metal will first melt, and then as it gets hotter, go into a vapor-like cloud. It will then look for a cooler place, to solidify again, as a continuous piece of metal.

NOTE: This process, routinely done in vacuum technology, is known as **SPUTTERING/ALUMINIZING**. It was normally done, in the manufacture of **T.V. Tubes**, because all **CRT's** started to employ "**straight guns**". **Vaporizing/solidifying** the aluminum shield over the screen, slows down the "**burning**" of the fluorescent screen, **which** otherwise would present an unwelcome, **never-disappearing**, colored screen. This would be the resultant of the heavy bombardment, from the "**PROTON/ELECTRON GUN**".

The **ELECTRON/PROTON** stream is powerful enough to penetrate the Aluminum screen initially, but **NOT** powerful enough to bounce back out. **NOTE:** By putting an aluminum shield over the Phosphor coating, such causes almost all the light generated from the phosphor particles, to be sent forward, (**toward the viewer**), thus providing a brighter picture!

In a **CRT**, when the **electron beam** is focused and the sweep circuits are **not** used, the **electron beam** would not only burn through the aluminum, but also burn a hole in the glass itself!

The purpose of this explanation was to show, that it is possible to **decrease** the weight/bulk of an **ASTEROID**. This **serendipitous** side--effect makes the pressure exerted by the **PROTON** stream, even **more effective/meaningful!**

Back to Asteroid Control! Since there is **NO** envelope, **NOR** place to solidify, the atoms will continue to disperse disappear forever, into the void. Sounds like the **Buck Rogers Disintegrator Gun ...** or **Flash Gordan's BLASTER!**

CONCLUSION # 2

(1) PROTON has the MASS of **(9,180,000) PHOTONS**, (the **Photon** is the energy source of a **LASER**). Therefore, the use of a **PROTON/ELECTRON Gun**, has a far better chance, to alter the orbit of an errant **ASTEROID**, than a **LASER**.

BUT, consider **(2) other** alternatives:

You could use a **nuclear bomb** to explode the **asteroid**, either changing the course of the asteroid, (**for every action, there is an equal and opposite reaction**), or blowing it up into smaller asteroids, and have an asteroid shower of **lesser lethality pieces**, than a mountain-size asteroid.

It has been argued, that even though the **asteroid WAS** blown up, the totality of the remaining pieces, would still have the destructive action of the **WHOLE** original **asteroid**, and that indeed would be correct **EXCEPT!.....**

I **REJECT** this theory because of the following:

1) The **asteroid**, (being in the vacuum of space) , on being blown up, (**into smaller pieces**), would fly apart **equally**, into **ALL** directions. Therefore the majority of those pieces, would be deflected **away** from the Earth and **could NOT** impact the earth!

That action would **significantly reduce** the balance of the mass of the **Asteroid**, which **COULD** still **impact** the Earth.

2) Many of the smaller pieces would burn up, upon hitting the Earth's atmosphere, which action, would also effectively, **reduce the totality of the mass**, of the original **Asteroid**.

NOTE: An **Asteroid**, believed responsible, [for wiping out the dinosaurs, some (65) Million years ago], was about (6.2) miles in diameter! A more recent **Asteroid** strike, (**June 30, 1908**), called the **Tunguska Event**", [**tens of meters wide**], exploded in our atmosphere,(an **air-burst**), caused trees, up to (10) or more miles away, to be blown over, in a **circular** array!

This writer believes that, the **asteroid** was **composed mostly of ice** because **NO** trace of it, (in the **center** of the effected circle), was ever found!

April 13, 2009, **Discovery News** reporter **Irene Klotz**, cites **NASA**, (which maintains an "**Asteroid Watch**"), as reporting that an **Asteroid**, about the size of a (25)-story building, will approach the earth. This **Asteroid**, named "**Apophis**", will come within (18,000) miles of Earth, on this the first go-around, [**It will be back**].

Geo-stationary satellites, (unlike stars or other celestial objects), part of our **Global Network Communication System**, **ALWAYS appear** in the same spot. They are fixed in orbit at (22,300) miles! **Apophis will actually come closer**, than they are!!

Finally, you might even consider landing **ON** the **ASTEROID** itself, and attaching a rocket-booster of some kind, so as to provide enough energy to **NUDGE/induce** an orbital change, so that it would **MISS** hitting the Earth and fly out to deep space! ... **HUH! ? !**

Yours truly,

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