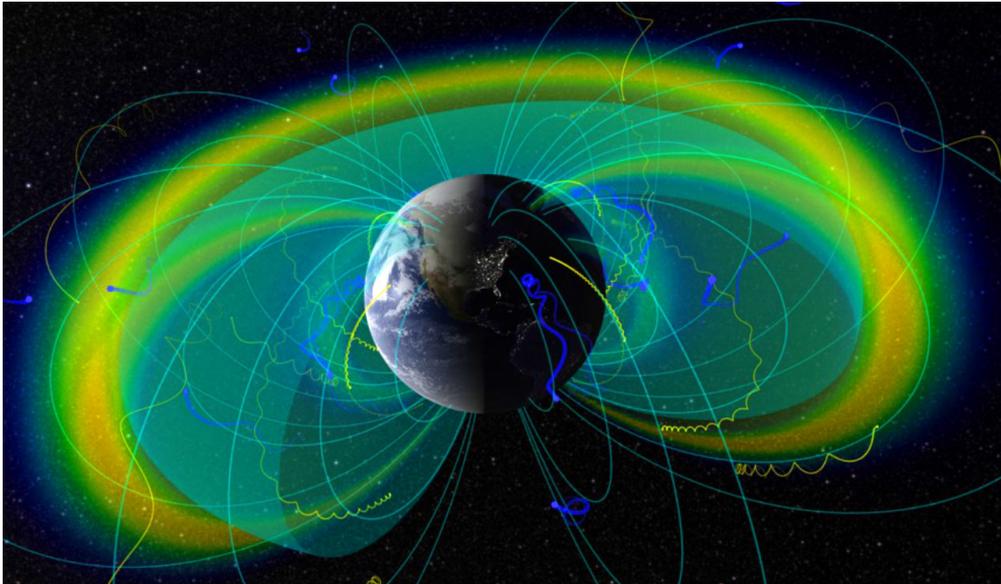


# NEO-LEO Deep Space Plasma Shield Technologies

## XR-SHIELD Mission



### Important preliminary notice :

This mission must be considered as most important for long term survival of the human species and for the colonization of the solar system and beyond.

We need to know whether our ground-based technology or our embedded satellite technology can influence the orbits of objects (celestial asteroids) or even destroy them, these objects coming from known Oort-Kuiper belts, or random trajectories object that can enter the solar.

Target size of 30 m to 800m Euler diagram and NEOs.

The chemical composition of the asteroids should influence the consequences of a shock with the Earth's atmosphere and the terrestrial lithosphere.

The loss of friction mass in the atmospheric reentry is directly proportional to the inlet angle of the asteroid.

The loss of mass by friction constitutes a situation which will reduce the consequences of the thermal and vibrational and mechanical shock wave on the other

elements in presence, this being able to represent a small consolation compared to the mechanical and thermal shock or a temperature of 6000 K in the crater which will relax for several tens of hours or even days and will spread at a speed of 600 mph in the center and after relaxed.

If the Earth's atmosphere is considered as a material fluid, its mass will be displaced and cause considerable climatic changes. The shock wave will cause changes in tectonic plate, oceans and geological fractures (in the event of near shock these areas).

These catastrophic situations are widely studied and commented about. This situation of deep impact, causing the dispersion of terrestrial dust in the atmosphere (from the troposphere to the thermosphere).

Solar radiation will not be able to penetrate properly and carry out its mission of photosynthesis, and the prognosis of life on Earth will be engaged.

It is evident that large objects composed of at least 60% of ice will certainly be disaggregated at the time of atmospheric reentry, by probable fracture of the object, the water trapped in the form of ice will thermally transmit this temperature gradient to the internal layers of the object, even if this event only occurs for 4 minutes.

It is trivial that asteroids of type (classes M-S-C or more rarely X) will be not disaggregated at entry.

[Click here to be directed to some information about asteroids types](#)

Programs to detect objects such as asteroids are considered to be the most important in the prevention of risk, its qualification and grade.

Risk prevention measures involve mandatory intervention on the target (asteroid) or asteroids.

At this level and at this time 2017 there is no embedded or terrestrial technology that can destroy or deviate the center of mass of the asteroid.

The nuclear intervention (fission-fusion) close to EARTH -ASTEROID would not be considered certain due to the unique option (ONE SHOT ONLY)

[GlycanSpaceXR AGENCY PRIOR ART 1981- 2006-2016](#)

Three patents :

-N°1 Claim N° 10 :

A deep space propulsion plasma motor engine comprising a toroidal shaped magneto hydro dynamics-magneto gas dynamics (MHD-MGD) apparatus comprising:  
USPTO 8/09/2016/PCT phase

-N°2 Claim No.16 :

The process claims the invention to utilize the procedures for space propulsion. 2006/PCT

-N°3 Claims N° 9-12 - 15 -2006/ PCT :

-9. Device for the implementation of the process for treating by plasma products comprising metals, metal salts and metalloids in order to release energy according to any of the preceding claims, characterized in that it comprises a treatment circuit (1) including  
at least one ablation chamber (2) in which is formed a plasma in order to introduce said products within said plasma,  
an acceleration system (14) for forcing said plasma to circulate within said treatment circuit,  
a plasma temperature adjustment system (14, 23),  
an exothermic reaction chamber (18) including at least an input for conducting an injection of at least one reaction gas in said treatment circuit such that it reacts with said products for conducting an exothermic reaction of the latter,  
means (21) for collecting the energy released by said exothermic reaction of said products.

-10. Device according to claim 9, characterized in that it comprises a heating system (14) for transforming said products in rive microparticles or nanoparticles before said plasma together with said products are inserted within said exothermic reaction chamber (18).

-11. Device according to claim 10, characterized in that said heating system comprises a MHD-MGD system (14).

-12. Device according to any of claims 9 to 11, characterized in that it further comprises a recycling loop (22) for allowing at least one further implementation of said process on said products

-13. Use of the device of any of claims 9 to 12 in a fuel cell

-14. Use of the device of any of claims 9 to 12 in an irradiative converter when Silicon is used in the implementation of the process.

-15. Use of the device of any of claims 9 to 12 in a space propulsion system when Aluminum is used in the implementation of the process.

[0054] It should be noted that the invention may be carried out either on Earth or for conducting exo-metallurgy on other planets. It may also be implemented for energy transfer in space and ground propulsion. The gases to be used may be extracted from the ground of such planets, for example if the planet atmospheres do not comprise the necessary gases to generate plasma.

[Download PERT Report \(Plasma for Extraterrestrial Resources and Technologies\) here or for the website](#)

## DISRUPTIVE TECHNOLOGY (AGENCY vision!!br0ken!!

On the other hand, nuclear means of defense against asteroids based on Moon should be suitable, the kinetic energy to be mobilized on lunar soil being much lower and plasma and mixed (hydrogen and chemical) engines assisted by nuclear charges would be very effective in getting to the objects and correctly adjusting the orbits and reach the targets with an accuracy of a few meters.

This interesting technology will only come into being in a few years or decades, the time it will take for human and robotic colonization on the Moon to be effective, it may be important to house such defensive weapons on the hidden side of the Moon.

Unless there is an error or omission on our part, there is no proven way of destroying an asteroid from the ground, either with lasers based ground or lasers embarked on satellites or shuttles.

In addition, the power of current military lasers does not exceed 10 MW - it would be necessary in pulse mode to generate at least 100 MW in order to modify the center of mass of the asteroid and thus its orbit.

This technology could emerge and could be applied on the moon for the defense of our civilization.

VERY INTERESTING DISRUPTIVE TECHNOLOGY OR TO BE MODIFIED.

RAMA PROJECT USA

[Click here to be directed to some related information](#)

NASA is considering transforming a dangerous asteroid into a dynamic kinetic complex, combined with engines previously embarked on one or more spacecrafts that should be docked or anchored to the asteroid and deviate from its orbit.

The aim is to use the resources of the asteroid nucleus and to eject the molten materials using a deep LASER ablation and to use this kinetic to maneuver the asteroid.

Several solutions could be envisaged, depending on the nature of the asteroid, either exploit it or destroy it, or divert it towards ellipses that are not dangerous for the Earth, or use it as spacecraft for surveillance in a given solar region.

The RAMA project is considerably interesting, but as in the context of a lunar defense base, there are still no power lasers sufficient to perform this ablation and fusion of the asteroid nucleus and to consider this nucleus as a source of " propulsion.

The lunar base seems very interesting and logical to build an ANCHORING or ANCHORING VESSEL on asteroid, equipped with laser technologies or even nuclear technologies for power.

We believe we can propose plasma solutions that do not require the removal of the asteroid nucleus (patent pending).

The most important and delicate operation will be the anchoring of the external vessel equipped with plasma motors on the ground of the asteroid (patent writing).

DART - NASA project.

[Click here to be directed to related information](#)

DART is a brutal collisional kinetic project with a probe that should transmit sufficient kinetic energy to two asteroid objects of several hundred meters (dimensions), the project could be completely satisfactory to the condition, it seems to us that it can transport a nuclear charge, the vessel should weigh at least 1 ton outside its embedded nuclear mass.

In these "one shot" operations the only uncertainty remains the propulsion energy on board in the absence of any solar radiation and the safety of communications and robotics firing of the nuclear charges as near as possible to the asteroids.

There is also the possibility to approach asteroids and place nuclear charges capable of developing several thousands of K Newtons sufficient to disrupt the center of mass of the asteroids, indeed asteroids with a diameter of 1 km whatever their composition (S-M-C-X classes) would cause catastrophic damage certainly irreversible.

Indeed, nuclear technologies seem to be more developed on earth than the space propulsion technologies that would make it possible to reach asteroids in all certainty and security.

## NEO-LEO-PLASMA SHIELD TECHNOLOGIES

### DISRUPTIVE TECHNOLOGY (patent writing)

GlycanSpaceXR considers the sun as one of the most interesting current sources of matter in plasma state.

Living far from him, but also by his side and benefiting from his influence, made us forget that he would be our best partner for colonization in the planetary system.

The use of solar plasma and their radiative emissions, can provide the means of propulsion and defense of our civilization for the future colonization missions in the solar system for another 2 billion years, logically understood against asteroids or other threats.

It is evident that our principal star the SUN, represents well the main source of energy hence of life.

For these many reasons, GlycanSpaceXR uses for these future missions the name of HELIOTORR.

These materials will be obtained from the missions that Agency is developing with its present and future partners, mainly patented plasma technologies.

These ultra-pure materials will be endowed with properties of resistance and resilience to heat and radiation, but also some will transform the radiative energy into electric and magnetic energy directly usable in propulsive energies.

The spacesuits of the settlers will be made from these materials as well as robots and big DATA storage centers (QUANTUM MACHINES no-decoherence) on the planets or their moons.

Some artificial satellites (made by humans, probes, therefore engines and spacecrafts) will come from the same plasma industry (High Temperature Chemistry).