LARGE-SCALE PROPULSION USING EVOs

by

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Abstract

A propulsion method based on the use of Exotic Vacuum Objects is proposed that is potentially capable of passive and controlled lifting of many tons of material against the gravitational field of the Earth per ounce of propulsion apparatus used. The underlying technology, the containment of electrons in fluid form, is also the root process for the very economical generation of electrical power.

About this Writing: This is a very speculative writing combining previous notes on closely related subjects. Still, the data used is based on factual, experimental evidence. Although not pure fiction, the statements made are enormous extensions of the basic data and no warranty is given for the validity of the extensions. The claims made are simply logical inferences of the basic measurements that are designed to foreshorten the time to practical application. Before attempting to decipher this note, the previous writings of Shoulders (2) should be assimilated by anyone seriously interested in the subject, as previously published data are not repeated here.

Gravity-Propulsion-Electrical Equivalence: Controllable propulsion is the functional equivalent of antigravity in that it allows for the nullification of gravitational effects near planetary objects and in space. At the level of basic technology discussed here, there is a strong affinity between the engineering aspects of propulsion, antigravity and electrical energy production. These appear as just slight variations on the same basic theme in an engineering sense and their elements co-exist harmoniously. The technology being introduced here reinforces this assertion.

As used in this discussion, a propulsion device is any closed dielectric container, like a cube or sphere, filled with electrons having the properties of EVOs. On 6 sides of the dielectric container there are conductive electrodes applied to the outside for application of control signals. The force exerted by the contained EVOs is in the direction of the externally applied positive field. The charge action is similar to more familiar polarization effects but using the peculiar properties attributed to EVOs for thrust production.

For electrical power generation, the dielectric container is not completely filled and the contained EVOs are free to move. These freely moving EVOs are driven in a sloshing mode using the external electrodes in regenerative fashion to both apply and extract the alternating currents generated by the physical motion of electrons within the container.

Safety: As alluded to in earlier writings, a collection of EVOs represents a potential bomb of enormous power. It is necessary to prevent a runaway deconsolidation of the electronic fluid contained and keeping the excitation or trigger level below 2 KeV can possibly do this. Observing the energy level of electrons ejected from EVOs is an assessment means for this critical level. Below a certain level of excitation, black EVOs exist and operate in obscurity while above this critical level the white EVO comes into play by ejecting 2 KeV electrons. After a short time of low excitation, the black state returns as a rest state to individual, excited EVOs but this would not likely happen to a large group. Instead, a chain reaction or explosion would almost certainly occur. Since there have been no large groups of EVOs trapped, the above simplistic conjecture about safety is likely wrong. Large group behavior could be far different from individual EVOs observed and those safety concerns still lie ahead.

Thrust Generation: The proposed thrust generated by a large group of EVOs is scaled up from measurements of individual EVOs in the diametrical size range of 20 micrometers. Thus, when a square inch of thrust is being discussed, it is the concerted, equivalent effort of about 1,500,000 individual EVOs on the container wall. In fact, it is not yet known just what the electron fluid properties will be and it could vary from granular to homogenous. Still, at this point the action of an individual EVO will be used as the basis for computation as that is all that is available.

It is now necessary to attend the properties of dielectric container material in the presence of EVOs to access potential sources of damage to this all important spacer and force transmitting material between EVOs and the vehicle framework. It is not known what the optimum container deployment strategy is. It could be either a single propulsion container or an array of many smaller ones. Whatever the outcome of this quest is, mechanical and electrical limitations can still be expressed in normal engineering terms.

Insofar as dielectric breakdown goes, it has consistently been seen that dynamic EVOs do not harm dielectrics. Indeed, there are many mysteries as to why breakdown does not occur when it seems fundamentally necessary from ordinary considerations. Most of these concerns have been tossed off as due to the short engagement time between the EVO and any particular dielectric area. This will not be the case in upcoming devices and it is an area of concern. As vengeful as EVOs are against metals and semiconductors they are the model of decorum in the presence of dielectrics. In one instance, a layer of epoxy cement not more than 1,000 atoms thick between a semiconductor being bored by EVO action and a metal target completely reflected the EVO and its load of ions and neutrals without apparent damage to the dielectric. All that is needed to do this is for the dielectric to be free of holes capable of electron passage. One possible contributing factor to the many cases of high dielectric strength seen is that the EVO is tightly holding on to its electrons thus preventing them from becoming leaders in a hole-boring operation through the dielectric.

Under good dielectric operating conditions, the compression strength limit of the dielectric material, usually in the range of 200,000 pounds per square inch, becomes the apparent load-carrying limit between the EVO ensemble and the vehicle. If this is the case, then a propulsion unit with an area of 1 square inch could transmit 200,000 pounds of force, in any direction commanded, to a vehicle. This force would be generated and maintained under static conditions, using EVO control parameters, without any input power. Changing the thrust vector would require whatever reactive power was dissipated across the dielectric in order to convey the control fields. This is certainly a trivial power input.

The force attributed to a single EVO exerted against a target far exceeds the strength of the best-known materials. This is seen both as the ability to easily bore holes through the material and to hurl it against a similar material puncturing holes in it and embedding the primary material. Under these conditions, it is assumed that the force available for propulsion is still limited to the above cited 200,000 pounds per square inch.

Comments on System Behavior: In the system proposed here, there is no mass thrown overboard and the lifetime would seem virtually infinite as long as physical integrity is preserved. In the absence of friction from moving parts, maintenance is minimal. Factually, in the matter of lifetime, there will be myriad new effects to consider that are far beyond our comprehension at this point. We will just have to wait and see what happens in real systems.

The achievable velocity of such a propulsion system would seem to be near light speed, except for the hulk of ordinary material used as a platform. It would not surprise the author if ways were soon found around this limitation. At least for the meanwhile, such a propulsion system would vastly improve present earthbound and near planet transportation.

References

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[2] References on the web can be downloaded from: http://www.svn.net/krscfs/