

TO THE STARS

by

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ABSTRACT

Traveling from the Earth through the space, i.e., to the stars may be only possible, if the entirely new means, the methods and the equipments are conceived and developed, quite different from the means, the methods and the equipments used in the Apollo project of traveling to the nearest celestial body, the Moon. The aim of this very short article is to suggest and to discuss some ideas about the logically possible means, the methods and the equipments for traveling through the space to the stars.

INTRODUCTION

The space travel is unfortunately still only a fantasy, a dream in the style of Jules Verne (1828-1905), which cannot be accomplished in reality with the presently available means. Namely, it is quite clear that the renewable means of propulsion are absolutely necessary before even thinking about the space travel. The jet propulsion, which was used in the Apollo project, may be used for some limited travels inside our solar system, but it is obviously ruled out for any travel beyond our solar system.

The only renewable energy, which can be envisaged in the space, is obviously the energy from the stars similar to our Sun, whose solar energy sustains our life on the Earth, as we know it. The energy, which is rather easily obtainable from the Sun or any similar star, is electrical via the solar cells. Consequently, the electrical energy is the only available means for propulsion of a ship traveling through the space to the stars. It must be mentioned that the solar cells used for the propulsion of the pilotless flying objects for observations and spying is the rather small scale development in the right direction.

UNIFIED FIELD THEORY

In order to implement the available electrical energy for the propulsion the unified field theory is necessary providing the actual relationship between the gravitation and the electricity. The unified field theory identifying magnetism with gravitation with the symmetrical Maxwell-Djuric equations was proposed by this author in the fifth award winning paper entitled *Gravitation and Electromagnetism* [1] in the 1963 Competition of essays on gravitation of the Gravity Research Foundation, New Boston, New Hampshire, USA, present address: Wellesley Hills, Massachusetts, USA. Unfortunately, that idea of unification of gravitation and magnetism, which can be found with all supporting papers by this author on the internet Site <http://jovandjuric.tripod.com> [2], was met with the very strange and absolute hostility by the scientific community, even up to this moment, and that paper was never published so far. So, it took over 40 years before the idea of levitation of objects in the Earth's gravitational field, which phenomenon is implied in the symmetrical Maxwell-Djuric equations, was realized and very extensively reported throughout the world in many daily newspapers in 1997.

LEVITATION AND OTHER PROBLEMS

It is obvious from what was said so far that it is really necessary to develop the levitation of the space ship by the conventional magnetic field obtained by the flow of the electrical dc current from the best available storage battery, which in the space will be recharged by the appropriate solar cells producing electrical dc current from the energy of the star in whose field the space ship is located at that moment. It should be mentioned here that even a strong conventional magnetic field is a rather weak gravitational field.

The theoretical solution of the space ship levitation, which actually must solve the problem of the space ship propulsion and the full position and stability control, appears to be straightforward and rather simple. But actually, this problem is a formidable task, since it must include the solutions of all the human problems of a rather small human colony of the entire space ship, including the solution of the essential food production for the colony of the space ship, the hospitalization, etc., etc., not to mention all other very essential problems and their solutions. It is quite obvious that the crew, which begins the space journey will never return to the Earth, and the crew, which will reach the end, i.e., the planned star space, will be one of the generations of scientists and technicians born and entirely raised on the space ship.

It should be mentioned that the levitation and the full position control of the space ship, i.e., the actual propulsion system of the space ship, will enable to use the gravitation of the various celestial bodies for the propulsion of the space ship for the major portion of the travel, while the actual propulsion of the space ship will be used only sparingly, where it is absolutely necessary.

The problem of developing the accrual space ship for traveling safely to the stars is obviously a very formidable task, which, it must be said, may even prove to have no solution with the presently available technological means, but it should be undertaken, the sooner, the better, since, as far as this author understands and believes, **it is definitely the human destiny to go to the stars, "to reach the unreachable sears"**.

REFERERNCES

1. Djuric, J., *Gravitation and Electromagnetism*, Fifth Award winning essay in the 1963 competition of essays on gravitation of the Gravity Research Foundation, New Boston, New Hampshire, USA (Present address: Wellesley Hills, Massachusetts, USA)
2. Djuric, J., The Internet Site <http://jovanfjuric.tripod.com>