

# Experimental Research on Gravitational Propulsion System

*Editor's: It is a review of the article by V. A. Menchikov, the Director of Research Institute of Space Systems, named by Khrunichev, Russia. The article was published in "Polyet" magazine #10, 2001, p.38-39, Russia. It scrutinizes the matters on development of propulsion systems based on the unconventional approach to the problem of gravity, i.e. gravitational engines. It also cites the results of the gravitational engine model research made by means of the experimental facility, created in the Khrunichev Research Institute of Space Systems.*

*The device, transforming rotary motion into unidirectional motion, looks like S.M. Poliakov's one. It also operates with rotation of liquid, which causes the propulsive force. Truly speaking, Poliakov had an agreement with Research Institute of Space Systems named by Khrunichev in 2001. Some funds were assigned to develop the device, however the project, into which Poliakov had put a lot of work, still remains unrealized. Besides, the scientist's name is not even mentioned in the patent.*

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Scientific and technological advance opens to mankind more and more wide abilities to use space for the solution of global problems. In many respects the complete realization of these abilities will be defined by the development of means used for delivery of payloads into the space. In the XXI century the dominating use of reactive chemical and electrical propulsion systems in rocket-space technique as well as low application level of engines with other physical principles can be the factor of an "inhibitory" influence for the development of such techniques. It is caused by the fact that created rockets practically do not correspond to noticeably increased standards of safety, operating costs, costs for transport operations execution and ecological influence on the environment.

Thus, there becomes to be urgent the problem of development of alternative approaches towards the creation of propulsion systems, made for the rocket-space technique on the base of unconventional ideas and engineering solutions. A rather old-established idea of creation of gravitational engine should be concerned as one of such ideas. It is based on the unconventional approach to the problem of gravity. Nowadays many countries take part in solution of the gravitational problem, namely Russia, USA, Japan, etc., and if till recently only some scientists and inventors showed the interest to this problem, then now it arouses interest of research-and-production majors. Unfortunately, now it is not possible to speak about sufficient theoretical or practical development of this idea. However, the interest is so considerable, that practically separate experiments on this subject were made earlier and they are still made

nowadays. After all, stakes are very high and are defined by applied nature of the problem (the ability to create qualitatively new engines for the rocket-space technique), as well as by its scientific significance.

One of the directions to solve the problem of the creation of gravitational propulsion systems is the realization of associated theoretical and experimental methods of the search of physical processes, leading to the antigravity effects appearance, which cannot be adequately described by existed theoretical conceptions. V. Shauberger's patent, based on the postulate of gravitational energy radiation by "disturbed rotating mass" can be considered as an example of such practical realization. Taking into account a number of known experimental results, a model of gravitational engine and experimental system for estimation of this model parameters were made in Research Institute of Space Systems named by Khrunichev to provide the practical realization of Shauberger idea (Fig.1). It is the metal construction, which provides the model displacement in upward direction with the ability of its rotation around vertical axis.

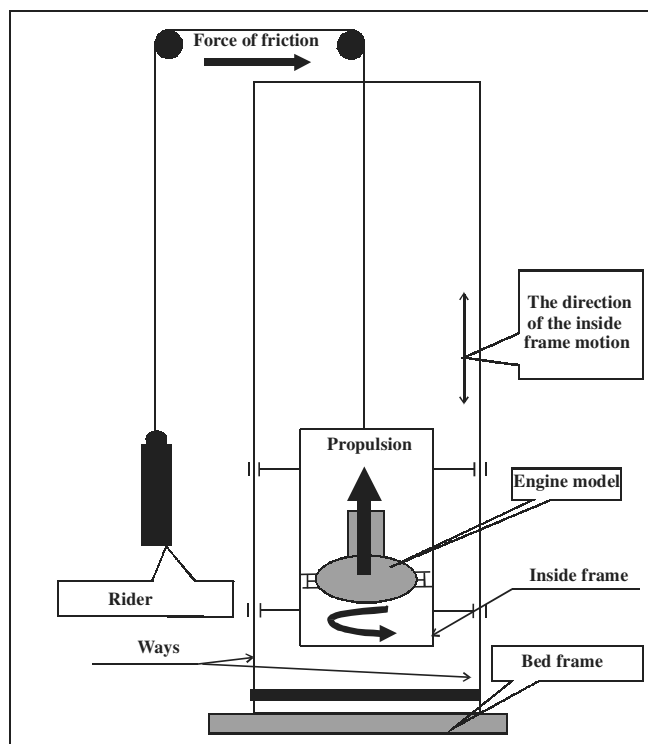


Fig.1

Schematic circuit of the experimental system

Later, to increase the system sensitivity it was improved and the block system of suspension was replaced by the lever frame.

Turning angle of the stand frame, where the model of gravitational engine is suspended, depends on the following: weight and geometry characteristics of the frame; weight characteristics of the engine (of counterweight); engine propulsion and frictional forces in bearings. Laser indicator of frame turning angle and vertical ruler let increase the gauge of lifting height of

the gravitational engine model proportionally to the arm of light beam.

On using this system there was made a wide cycle of tests, which qualitatively confirmed the presence of propulsion force. Tests were recorded by video. The analysis of experimental results shows, that acting time of propulsion was about 12 s at each switching. During repeated switching of the gravitational engine model in different conditions it is able to create the propulsion, the value of which at 40...50 s of operation can be about 3 standard units of propulsion force (1 standard unit of thrust is about 10gs), and while using the powerful electromotor it can be about 80 standard units of propulsion at the intervals up to 4 s.

Research Institute of Space Systems named by Khrunichev, works on automation of experimental

researches and on development of laboratory resources for factor analysis of appearance of the propulsion vector with the usage of the described model of gravitational engine.

### Patent

The patent was published in the Bulletin of Patent Information in 2001.

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*Editorial: V.A. Menchikov together with A.F. Akimov, A.A. Kachegan and V.A. Svetlichnyi have got this patent. Dr. Spartak M. Poliakov, being the author of the principle, is not mentioned at all in the patent.*



## NEWS REVIEW

### Boeing Tries to Defy Gravity

According to Jane's Defence Weekly (UK), <http://www.janes.com>, Boeing, the world's largest aircraft manufacturer, has admitted it is working on experimental antigravity projects. These projects are able to overturn a century of conventional aerospace propulsion technology and alter the entire aerospace business. Boeing uses researchers by Yevgeny Podkletnov, who claims to have developed a device, which can shield objects from the Earth's gravity. Many conventional scientists, who have not been able to reproduce Dr Podkletnov's results, view his project, named «GRASP» (Gravity Research for Advanced Space Propulsion) with suspicion.

Dr Podkletnov claims to have countered the effects of gravity in an experiment at the Tampere University of Technology in Finland in 1992. The scientist says he found that objects above a superconducting ceramic disc rotating over powerful electromagnets lost weight. The researches have shown that the reduction in gravity was small, about 2%, but the implications - for example, in terms of cutting the energy needed for a plane to fly - were immense.

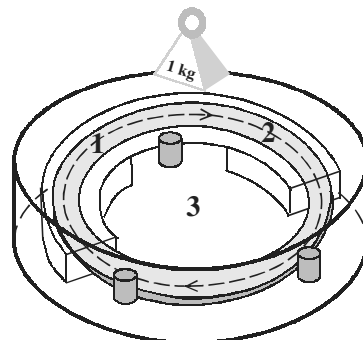
His devise, named "impulse gravity generator" is capable to produce a beam of "gravity-like" energy that can exert an instantaneous force of 1,000g on any object - enough, in principle, to vaporize it, especially if the object is moving at high speed. Laboratory installation has already demonstrated the 4in (10cm) wide beam's ability to repel objects a kilometer away and that it exhibits negligible power loss at distances of up to 200km.

Applications of the device can include space launch systems, artificial gravity on spacecraft, aircraft

propulsion and "fuel-less" electricity generation ("free energy"). However, observers say that Podkletnov's device could be engineered into a radical new weapon, for example, adapted for use as an anti-satellite weapon or a ballistic missile shield.

Documents, obtained by reliable sources, show that Boeing is taking Dr Podkletnov's research seriously. It is also possible, Boeing admits, that "classified activities in gravity modification may exist". The paper points out that Podkletnov is strongly antimilitary and will only provide assistance if the research is carried out in the "white world" of open development.

Boeing is the latest in a series of high-profile institutions trying to replicate Dr Podkletnov's experiment. The military wing of the UK hi-tech group BAE Systems is working on an anti-gravity programme, dubbed Project Greenglow. The US space agency, Nasa, is also attempting to reproduce Dr Podkletnov's findings, but a preliminary report indicates the effect does not exist.



1. Solenoids create magnetic field
2. Spinning, super-conducting ceramic ring
3. Liquid Nitrogen acts as coolant