

There is no doubt that progress in the study of outer space has an inspiring effect on humanity!

In addition, space exploration continues to provide us with invaluable information in the field of medicine, mining and security.

As a rule, about once every 10 thousand years, some celestial body the size of a football field threatens to crash into the Earth, which can lead to irreversible consequences for the planet. We really should be wary of such "guests" with a diameter of at least 100 meters. The collision will raise a dust storm, destroy forests and fields, and starve those who remain alive. Special space programs are designed to establish a dangerous object long before it approaches the Earth and knock it off its trajectory.

A considerable number of various gadgets, materials and technologies were originally developed for space programs, but later they found their application on Earth. One such valuable innovation is nitinol, a flexible but resilient alloy created for the production of satellites. Now dental braces are made of this material. Pharmaceutical developments in the field of protecting astronauts from loss of bone and muscle mass in microgravity have led to the creation of drugs for the prevention and treatment of osteoporosis.

In addition to medical discoveries in outer space, there is gold, silver, platinum and other valuable metals. Some international companies are already thinking about mining on asteroids, so it is possible that in the near future there will be a profession of space miner. The moon, for example, is a possible "supplier" of helium-3, which is used for MRI and is considered a possible fuel for nuclear power plants. On Earth, this substance costs up to 5 thousand dollars per liter. The moon is also considered a potential source of rare earth elements such as europium and tantalum, which are in high demand for use in electronics, solar panels and other modern appliances.

Clear reasons for the need to explore space are questions of obtaining economic and technological advantages, and the real reasons include such concepts as curiosity and the desire to leave a trace.

If we take into account the assumptions of scientists that the Earth has a "permissible load" in the amount of 8 to 16 billion, and we are already more than 7 billion, perhaps it is time for humanity to prepare for the development of other planets for life. And for this it is so necessary to open a new outer space.