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**Prospects for orbital and interorbital development UAV**

*Perspectives and use of orbital and inter-orbital are considered unmanned aircraft for military, environmental and research development purposes.*

I suggest to your attention the method of launching orbital and inter-orbital drones, which is carried out at the expense of the Falcon Heavy reusable rocket, which launches two UAVs into the orbit of the planet.

A useful model of the launch method belongs to the field of rocket and space technology, namely to space transport systems and the main blocks of the rocket, designed to launch various space objects into working orbits - UAVs.

The launch of the UAV takes place at the expense of the reusable Falcon rocket Heavy, which launches two UAVs into the orbit of the planet. In the middle of the main block of the rocket, a beam-truss structure is installed for hanging the joint assembly on which two UAVs will be fixed. After that, the stage compartment of the rocket opens, and the UAV with complex interchangeable boom-like wings takes off and unfolds its wings, which will have built-in solar panels, radio antennas and batteries for additional backup power for photo and video equipment. After that, the Falcon missile carrier Heavy on the third turn of the planet flies to the airstrip. Thanks to the satellite network control, the UAV will be able to quickly and efficiently transmit information to NASA's Central Command Center, video and photo materials, as well as receive tasks and a route for independent work.

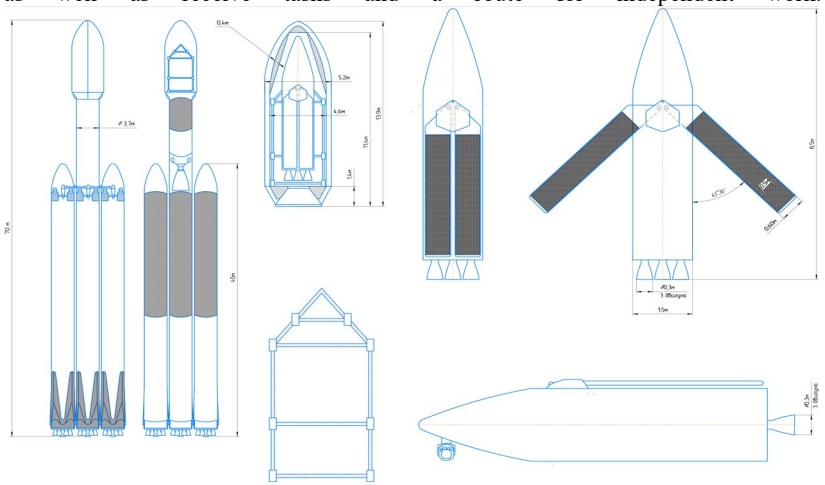

Fig.1. Method of launching orbital and interorbital drones

Orbital strike-combat UAVs are designed and used to strike enemy satellites to destroy communication and data transmission to Earth, and strike-combat UAVs can also be used to destroy or change the flight course of medium and small asteroids.

Thanks to the missile carrier, which will release the second stage of the missile and subsequently the main fairing, it will be opened and separated from the main unit in the middle, which will be fixed and placed two strike -combat UAVs. Which in the future will be separated from the docking station and launched due to gas rudders and three liquid-fuel jet engines to target and destroy enemy satellites or asteroids flying to the Earth's orbit.

The estimated worldwide total number of asteroids currently exceeds 1 million large and small asteroids that are flying chaotically throughout the galaxies. Astronomers of the planet, following the outer space, report the NASA Planetary Defense Coordination Office. About new asteroid threats to our planet. If there is a risk of collision with the planet, NASA warns all the countries of the planet about it.

The main asteroid threat to our planet is the asteroid Apophis, the approximate length of which is (325 - 450 meters), the shape of the asteroid resembles a peanut. When Apophis enters our Earth's gravitational field in 2029 and passes near our orbit and satellites, strong seismic shocks may occur on the asteroid, and what they will lead to is not known. The repeated maximum approach to our planet by the asteroid Apophis will take place in 2036. What can lead to the situation when Apophis will be attracted by the Earth's gravitational field to the dense layers of the atmosphere. Oriented square Apophis fall, the Pacific Ocean between California and Hawaii, this fall will produce a 100-foot (30 m) tsunami and blast wave that will destroy the west coast of North America and Hawaii. Such a fall can lead to a shift of tectonic plates. This can be prevented, thanks to strike -combat orbital drones, which can place nuclear charges inside themselves, for the complete destruction of large asteroids.

Thanks to the conical nose part of the UAV, a shrapnel-Torpex or shrapnel-Torpex charge with a contact detonator was placed for accurate and complete destruction of the space object. For backup detonation, a radio electrodetonator is installed, which will detonate the warhead by a radio signal from the Earth or a satellite that is at the closest distance to the UAV.

This implementation of the arrangement of strike -combat orbital drones increases the productivity of destruction of space objects and reduces the cost of flying UAVs in orbit, as well as the possibility of creating orbital protection of the Earth from space objects of the UFO type.

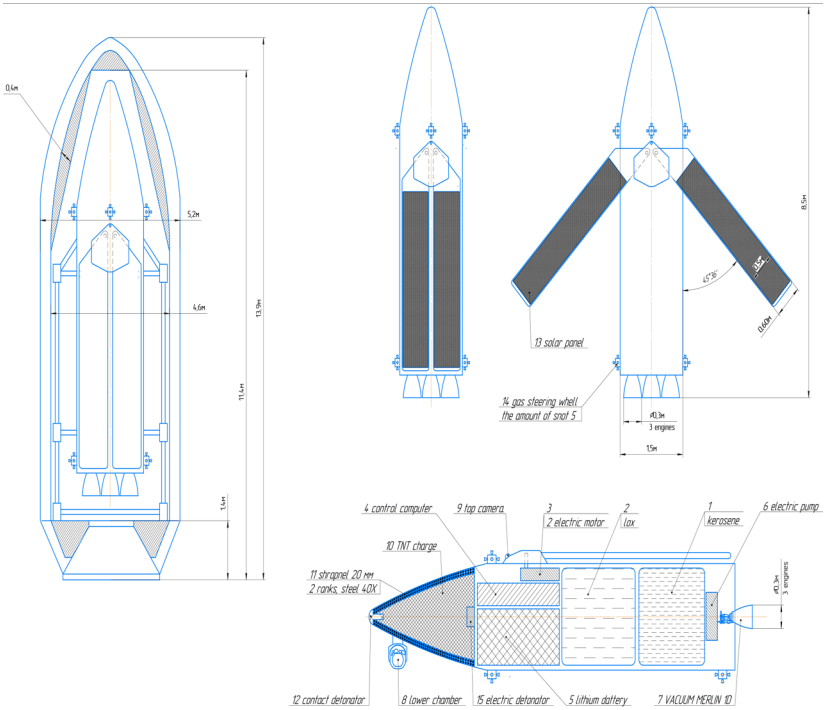


Fig.2. Layout of a combat UAV

It is also possible to configure interorbital UAVs on atomic pulse engines, which will be equipped with an atomic solid-phase pulse engine with a nuclear reactor on board, which will provide enormous energy to reach a speed of 2-3 thousand meters per second, as reported by NASA. Interorbital UAVs will explore and scan the orbits of the Earth, Mars, Venus and many other planets of the Solar System. Due to its low cost and ease of start-up, this project will be commercially cheap and quickly implemented. The power plant is one of the most important systems of spacecraft. The energy produced by the power plant is used to power the spacecraft motion control system, propulsion system automation, spacecraft orientation and stabilization engines, radio communication and telemetry systems, instrument compartments, life support systems, etc. The technologies for obtaining electricity in space vehicles have developed successively from a conventional battery, solar batteries, radioisotope generators to electrochemical generators with hydrogen-oxygen fuel cells.

The space perspective of the development of unmanned orbital cleaners (UNROS) consists in placing x-shaped telescopic masts with fine-mesh fishing nets for catching small space debris. It is also possible to arrange and place spring-pneumatic harpoons with kapron ropes and winches for capturing satellites.

After catching space, orbital debris, the UAV is directed along a special trajectory to the east from the orbit, for the combustion of the UAV with space debris in the dense layers of the atmosphere.

Thanks to these structural arrangements, it is possible to completely clean the orbit from space debris to improve the environmental situation in space.

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