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INFLUENCE OF ENVIRONMENTAL FACTORS ON AIRCRAFT CONSTRUCTION

Today, the whole world is concerned about the ecological problems of the Earth. Greenhouse effect, global warming, constant fires and cataclysms around the planet, depletion of natural resources, pollution of the world's oceans and air. What can we do to improve the environment?

The world-famous company “Airbus”, that designs and builds a variety of aircrafts, has recently developed and manufactured new models of aircraft that will pollute the air less, reducing fuel consumption and a satellite powered solely by solar energy.

The company's first innovative invention is the MAVERIC aircraft with a blended wing body configuration. Its main difference is a completely new design, thanks to which the aircraft absorbs 20% less of fuel, using the same engines as the basic design aircraft. The extensive arrangement additionally opens up the plan space, empowering the conceivable incorporation of different sorts of impetus frameworks. What's more, commotion is required to be fundamentally reduced gratitude to a "protected" motor that is mounted over the focal body [1].

The next novelty of "Airbus" is the Zephyr satellite. The differences between the satellite and its predecessors are environmental friendliness, shape and size [2].

Zephyr is constructed for the stratosphere. Its weight is less than 75 kg and wingspan equals to 25 m. “Airbus” declares: “ Zephyr can support a wide range of payload capabilities, including but not limited to: Electro Optical, Infrared, Hyper spectral, Passive Radio Frequency (RF) Radar, Synthetic Aperture Radar (SAR) radar, Early Warning, Lidar and Automatic Identification System (AIS)”. Satellite works only on a solar energy and has secondary batteries, which charges through the day to have a power at night. Its industriousness empowers a capacity of flying constantly for months, at around 21 km, above climate and customary air traffic [3].

Also, “Airbus” is constructing new models of eco-friendly copters, planes

and helicopters, but with more traditional frame.

Both plane MAVERIC and satellite Zephyr are showed on the Fig 1 and Fig 2.

Fig. 1 - Plane MAVERIC [1].

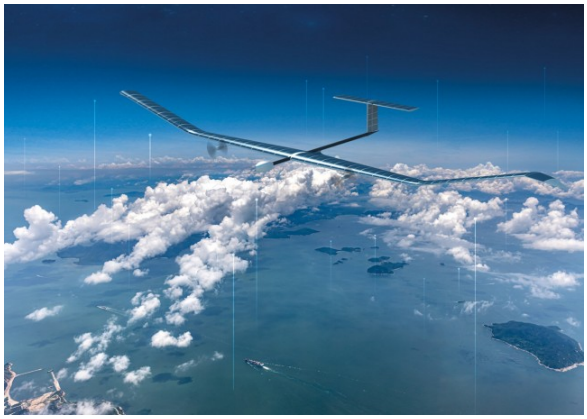

Fig. 2 - Satellite Zephyr [2].

In attempt to decrease environmental impact from aviation sphere, new bodies and designs of aircrafts are implemented. Such innovative decisions expand the range of basic understanding of aircraft construction, improve the performance of aircraft systems, and also positively affect humanity and the planet.

REFERENCES:

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