Scientific articles

The aircraft with use of LT1 atmospheric electricity.

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The invention belongs to the aircraft used in air service.

It is known that nowadays there are no aircrafts (A) with use of atmospheric electricity.

The following devices using atmospheric electricity are known: invention No. 2332816, 2000128, 2369991, 2482640, 2030132, 25712237, 266323.

A new technical solution, unknown earlier, is presented:

– A device – an aircraft with use of atmospheric electricity differing from earlier models in the following qualities:

1. Atmospheric electricity is used for the movement of aircraft.

2. LT 1 doesn't need filling and refueling with fuels and lubricants.

3. LT 1 is insubmergible in good repair.

4. LT 1 carries out a stationary take-off and landing on land and at sea (the water basin);

5. LT 1 is capable to perform a U-turn in the atmosphere.

6. LT 1 is capable to hang in the atmosphere for long time.

7. LT 1 is capable to perform long silent flights, including around-the-world flights (around the globe).

This aircraft differs from aircrafts, known earlier, in the following way: it is a device consisting of sphere 18 made of strong elastic temperature-resistant material with plated sputtering from outside, filled with air, having inside air heater 19 operating from a battery, outside there is air compressor 31 and air vent for sphere 32. The sphere is densely linked to fuselage 2, having the form of the cone, truncated from above, with the basis in the form of disk 20 from metal. In the fuselage there is a half-spherical metal deepening. Wing 21 of metal is executed in the form of disk which turns on four flaps 22 located parallel to the basis under the fuselage in the plane and it is attached to it by four metal supports 23. Control vane 24 located vertically on the center between the basis of fuselage and wing, four actuating rods for flaps 25, under the lower surface of a wing there are four rocket electric motors 26 located crosswise with nozzles, going outwards from the center, and four basic legs 27. In the fuselage there is cabin 7 isolated from it by a covering from the material having thermal protection against influence of the increased temperature of the sphere and atmosphere 31 with low temperature. In a cabin there is a control panel (CP) 30 A (pic.2, pic.3).

Power plant 28 (pic.1) which consists of the reception block in the form of the fuselage and with needle 10 falling from it, covered with dielectric, the end of which is connected to the upper disk of the condenser which is located in the chamber from dielectric 17, needle 9 goes from basis 8, the needle is covered with dielectric and with lower disk of the condenser, fixed to the top. The air network is attached to the upper needle. On the top branch of it there is spark-gap switch 11, the second electrode of which is connected to inductor 12 which is connected to lower needle 9, second inductor 15 is connected to rectifier 16 connected to high-capacity condenser 13 connected to accumulator 14 and 29 (originally charged from the power supply network, then from atmospheric electricity). The condenser is located in the chamber from dielectric and has spark-gap switch 3. There is double switch 5 for the protection of accumulator from excess recharge on the upper and lower needle; the charge indicator of accumulator 4 is

connected to him (accumulator). Remote control unit 1, connected to the double switch and charge indicator of the accumulator, for example, the voltmeter, is meant for remote control of the station. Protection of power plant, located in A, from external actions, and the safety of operations are carried out by isolated metal casing covered with dielectric 6, and lower needle 9, isolated by dielectric from the basis of fuselage 20, passes through the lower surface of the fuselage to the atmosphere.

Power plant 28, which is located in the fuselage for protection from external actions, is completely isolated by the metal casing covered with dielectric 6.

Aircraft (A) works as follows:

For take-off of A from land and surface conditions with heating of air in the sphere by electric heater, located in it, originally accumulator 29 is charged from the power supply network, in the subsequent – in flight this accumulator, as well as accumulator 14, will be charged from the atmospheric electricity used by the power plant (the set of accumulators can be used). Heating of air in the sphere reduces air density due to breaking of molecules of water by high temperature. This process, creation of difference of density of air in a sphere in respect of atmosphere air, provides a smooth operated take-off and drifting up of A. The controlled drop of air temperature in the sphere creates smooth drifting down and landing and also the controlled hovering of A.

During flight of A in the atmosphere at the expense of a triboelectrization of the fuselage accumulation of atmospheric electricity is created. This process results in the difference of potentials between disks of the condenser which are located on the upper and lower needles. At breaching of the spark interval caused by growth of tension in the condenser under the influence of atmospheric electricity, alternating current in inductor 15 appears, electricity, connected with current in inductor 12, comes via rectifier 16 to high-capacity condenser 13, and from it – to accumulator 14 and 29.

The surface of the warmed sphere intensifies ionization of air around A, creating a zone of electric breakdown of air, enhancing efficiency of catching and accumulation of electric energy from the atmosphere to accumulator 14 and 29 (accumulators). Accumulation of electric energy from the atmosphere is carried out by A in the continuous mode (in flight).

Ez is the vertical component of Earth, which makes 200 V/m. Depending on height of rise of A in the atmosphere from the Earth's surface, tension in the condenser and state of charge of accumulators 14 and 29 increase.

The controlled horizontal movement of A is carried out due to switch-on of four jet electric motors 26, located crosswise, the nozzles of which are directed sideways from the wing center and which can operate with nozzles down. The movement of A without horizontal turn to any side (and also up) is carried out with control of sequence of turning on of jet electric motors from control panel (CP) 30.

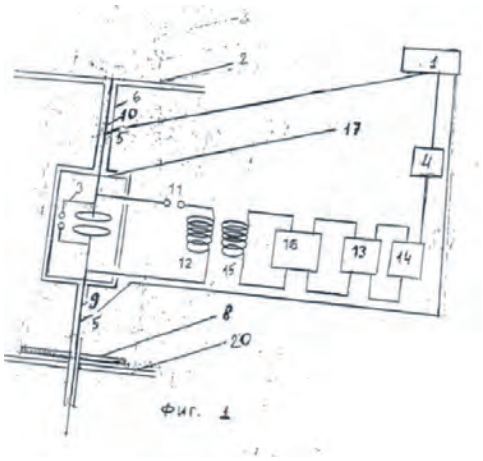
The Control Panel (CP), located in cabin 7 in the fuselage, remotely controls and monitors temperature and density of air in the sphere, the location of control vane, flaps, the sequence of switch-on and switch-off of jet electric motors and their location (horizontal or vertical), control of work of power plant, including the remote control unit 1, which regulates the height and speed of flight.

The disc-shaped wing, located parallel to the fuselage basis, creates the increased stability of movement of aircraft in airspace, ability to plan.

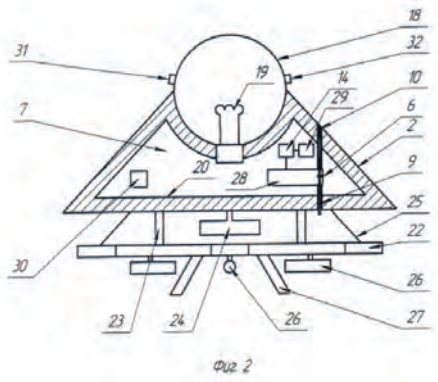
Vertically located control vane is capable of performing a double U-turn and the flaps (lifted and lowered in respect of main horizontal position of the whole wing), operated from the CP of the A, allow maneuvering during flight.

Flexibility of A, its streamlined design and spatial structure, adapted for planning in air streams, availability of constantly renewable source of the electric power from the atmosphere, filled with electric charges, create the basis for a long-term controlled (from CP in a fuselage cabin), nonstop flight in the atmosphere.

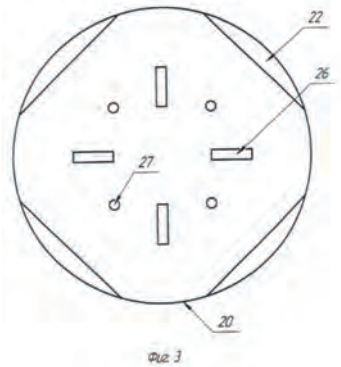
The aircraft with use of atmospheric electricity LT1 is patented.



Picture 1



Picture 2



Picture 3