

Fasat-Alfa



Fasat-Alfa is a microsatellite, the first artificial Earth satellite manufactured in Chile in cooperation with the University of Surrey, UK. The device was tasked with working out several new technologies and studying the ozone layer. Fasat-Alfa was launched on August 31, 1995 from the Plesetsk cosmodrome using the Cyclone-3 launch vehicle together with the first satellite of independent Ukraine, Sich-1. After launching into orbit, the vehicles were supposed to separate. This did not happen, and all onboard systems were disabled on the Fasat-Alfa. The tasks were not completed.

The satellite is designed on the basis of the standard MicroSat-70 (SSTL-70) platform and is a small aluminum container 70x36x36 cm in size and weighing 55 kg.

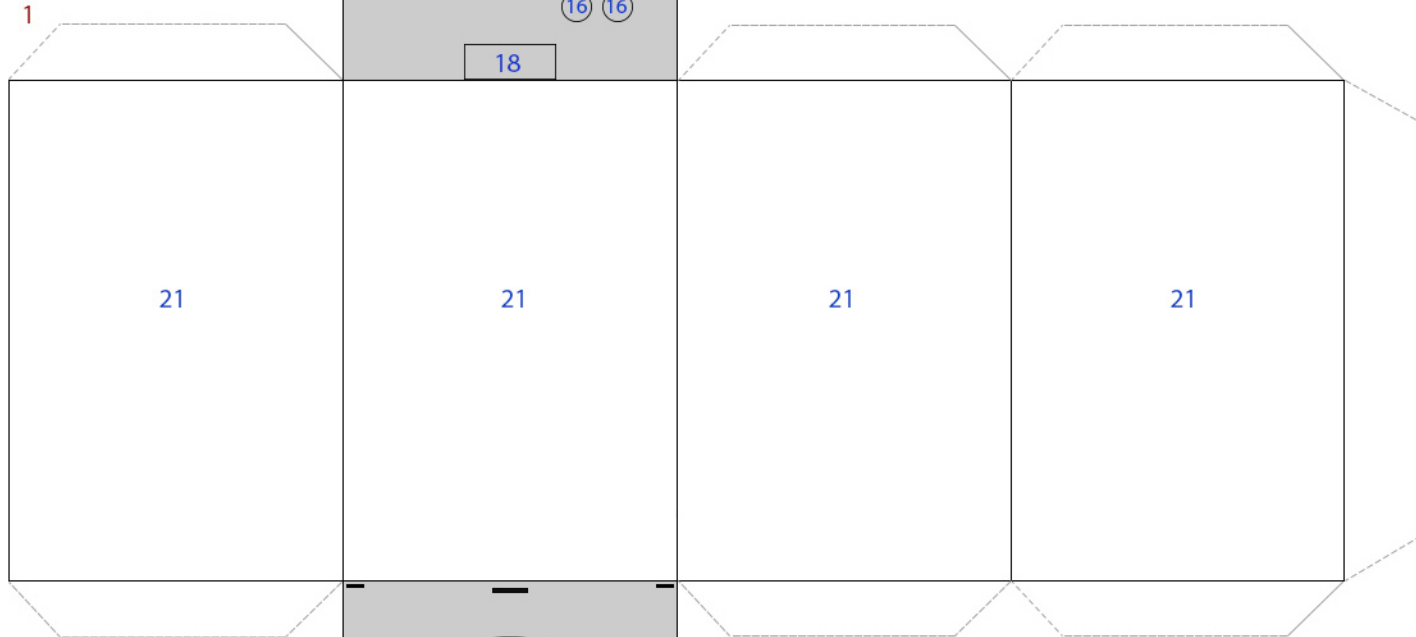
Power was supplied using nickel-cadmium batteries and 4 solar cells with gallium arsenide cells located on the satellite's lateral faces. They would put out a power of 21 watts. The installed GPS receiver was supposed to participate in an experiment on navigation and satellite orientation. The special solid-state drive SSDRE 2 GB had to show its capacity to preserve and transmit information. It was also planned to use this device in the educational program of Chilean schoolchildren and students.

Two CCD cameras were also installed. A camera with a resolution of 150 m with a coverage of 1050 km was to be used to photograph the Earth's surface. A CCD camera with a wide-angle lens with a field of view of $27^\circ \times 37^\circ$ with a resolution of about 1500 km and an ultraviolet photometer were supposed to receive data on the ozone layer at an altitude of 25-40 from the surface.

Fasat-Alfa

14 ●
Glue to cardstock

15 ●
Glue to two layers
of cardstock



5 Color back Black

6

7



9 Poke hole on the black dot

10

11

12 Fold- glue back-to-back

16 ● ● ●
● ● ●
Glue to two layers
of cardstock

17

2

Poke hole on the black dot

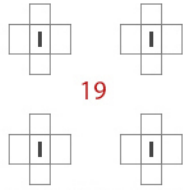
3 4

Glue back-to-back, then poke hole on the white dot

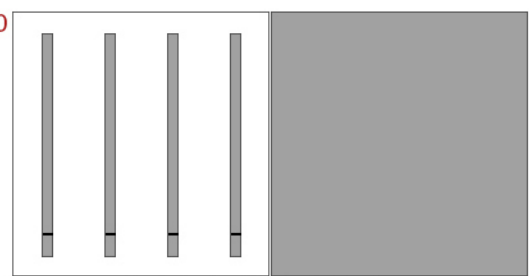
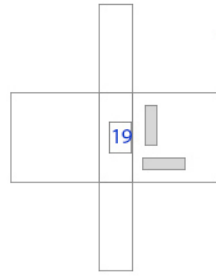
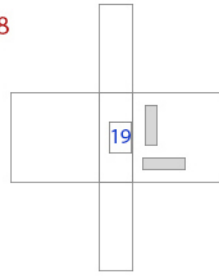
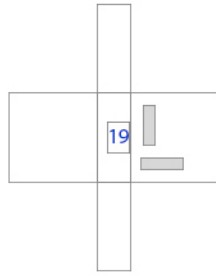
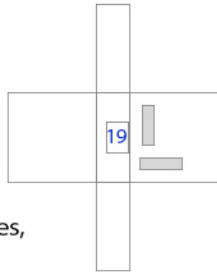
Cut a wood skewer or similar material around 2mm diameter the same length as the line above colored light grey or silver.

13 Fold- glue back-to-back

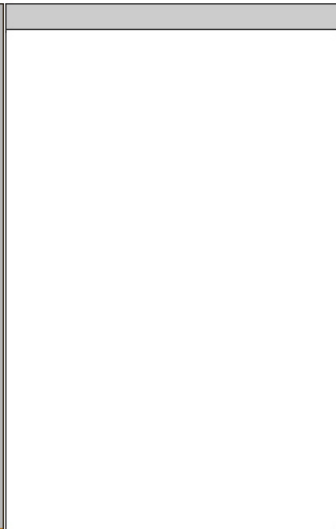
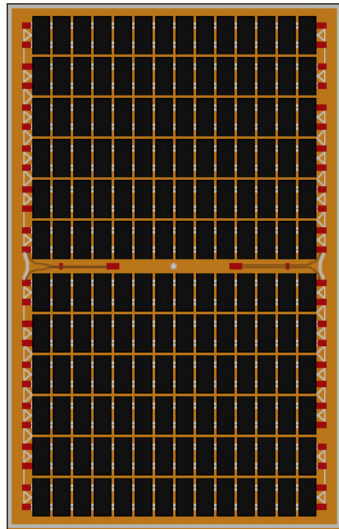
Fasat-Alfa



Cut out the thick black lines,
then fold to a box



Fold-glue back-to-back



21

Fold- glue each solar
panel back-to-back

