

Pegasus Satellite

The Pegasus satellite program was a series of three American satellites launched in 1965 to study the frequency of micrometeorite impacts on spacecraft. All three Pegasus satellites were launched by Saturn I rockets, and remained connected with their upper stages.

The Pegasus satellite was named for the winged horse of Greek mythology and was first lofted into space by a NASA Saturn I rocket on February 16, 1965. Like its namesake, the Pegasus satellite was notable for its "wings", a pair of 96-foot (29 m)-long, 14-foot (4.3 m)-wide arrays of 104 panels fitted with sensors to detect punctures by micrometeoroids at high altitudes, in support of the Apollo Program to send manned lunar landing missions starting by 1970. Micrometeoroids were believed to be potentially hazardous to the Apollo crew if they could puncture the spacecraft skin. The sensors successfully measured the frequency, size, direction and penetration of scores of micrometeoroid impacts. The satellite also carried sample protective shields mounted on the arrays.

All three Pegasus missions provided more than data on micrometeoroid penetration. Scientists also were able to gather data regarding gyroscopic motion and orbital characteristics of rigid bodies in space, lifetimes of electronic components in the space environment, and thermal control systems and the degrading effects of space on thermal control coatings. Space historian Roger Bilstein reported that for physicists the Pegasus missions provided additional knowledge about the radiation environments of space, the Van Allen radiation belts and other phenomena.

Pegasus 1 or Pegasus A, was an American satellite which was on 16 February to study micrometeoroid impacts in low Earth orbit. It was the first of three Pegasus satellites to be launched. The Pegasus spacecraft were manufactured by Fairchild Hiller, and operated by NASA. Pegasus 1 was launched atop a Saturn I rocket, serial number SA-9, flying from Launch Complex 37B at the Cape Kennedy Air Force Station.

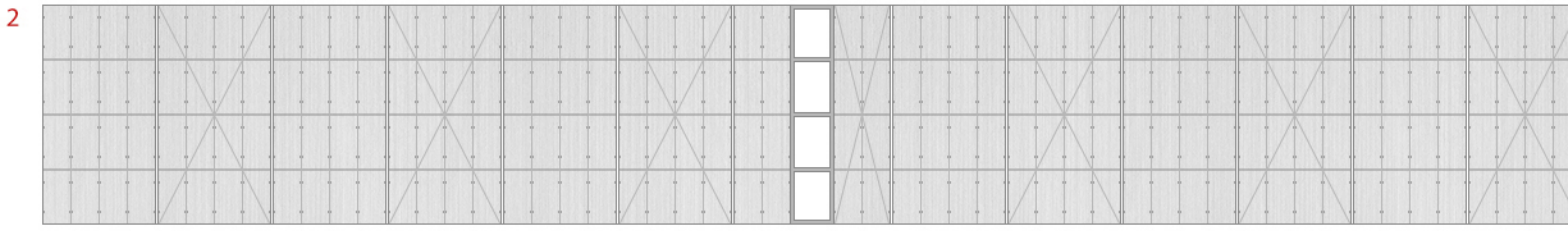
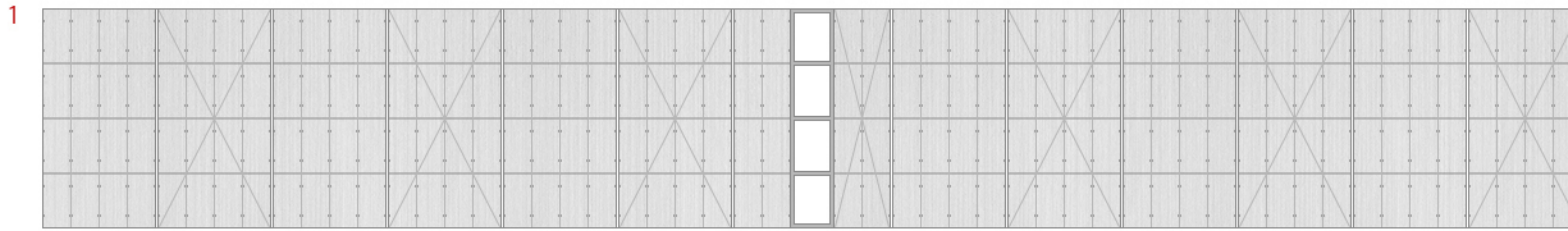
The spacecraft operated until 29 August 1968, and subsequently remained in orbit until it decayed and reentered the atmosphere on 17 September 1978. Although minor malfunctions occurred in both the launch vehicle and the satellite, the mission was a success in that all objectives were met.

Pegasus 2 or Pegasus B was an American satellite which was launched on May 25, 1965 to study micrometeoroid impacts in Low Earth orbit. It was the second of three Pegasus satellites to be launched, following the launch of Pegasus 1 three months earlier. The spacecraft operated until 29 August 1968, and subsequently remained in orbit until it decayed and reentered the atmosphere on 3 November 1979.

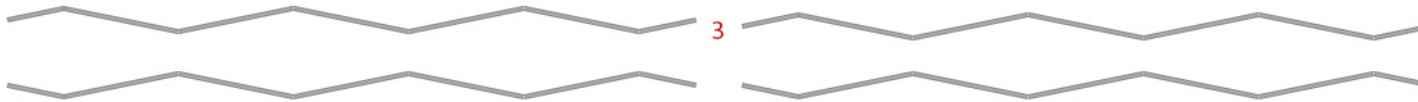
Pegasus 3 or Pegasus C before launch, was an American satellite which was launched on July 30, 1965 to study micrometeoroid impacts in Low Earth orbit. It was the last of three Pegasus satellites to be launched, the previous two having been launched earlier the same year. The spacecraft operated until 29 August 1968, and subsequently remained in orbit until it decayed and reentered the atmosphere on 4 August 1969. It had originally only been expected to operate for 720 days.



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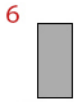
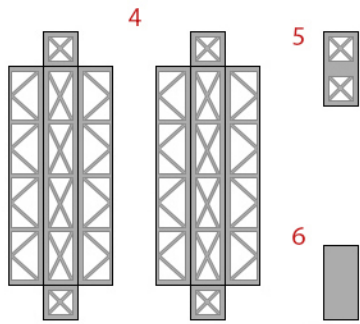


Glue these two panels back-to-back - match the "X" graphics

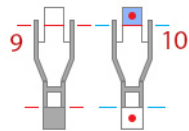


Color back the same color

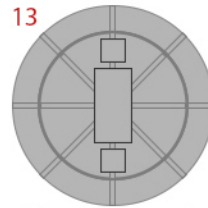
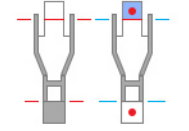
Color back the same color



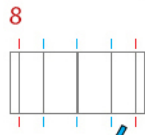
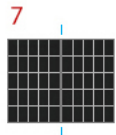
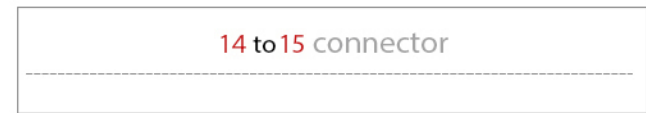
Glue to cardstock



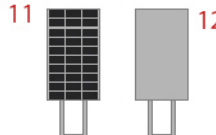
Glue each pair back-to-back



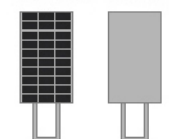
Glue to cardstock



Fold to this shape

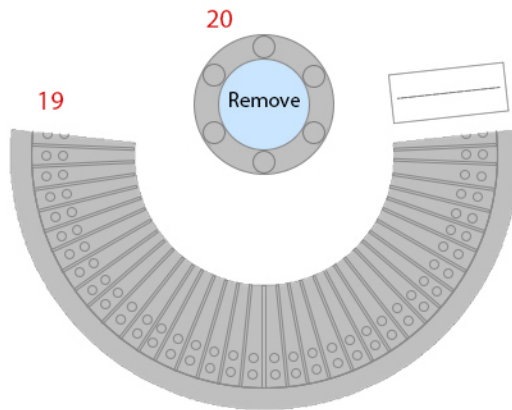
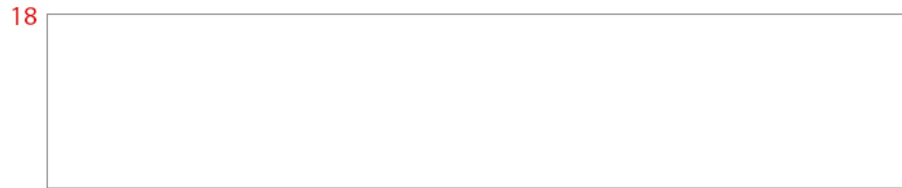
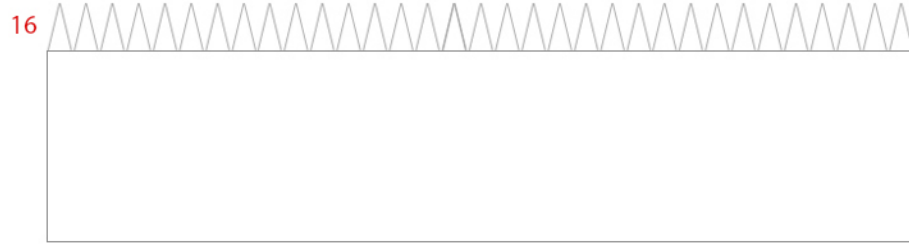


Glue each pair back-to-back

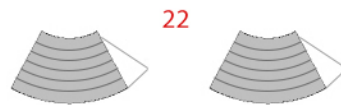


NOTE: for parts 7 to 10
 Mountain fold at the blue lines
 Valley fold at the red lines.

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* Spare



Color back the same color