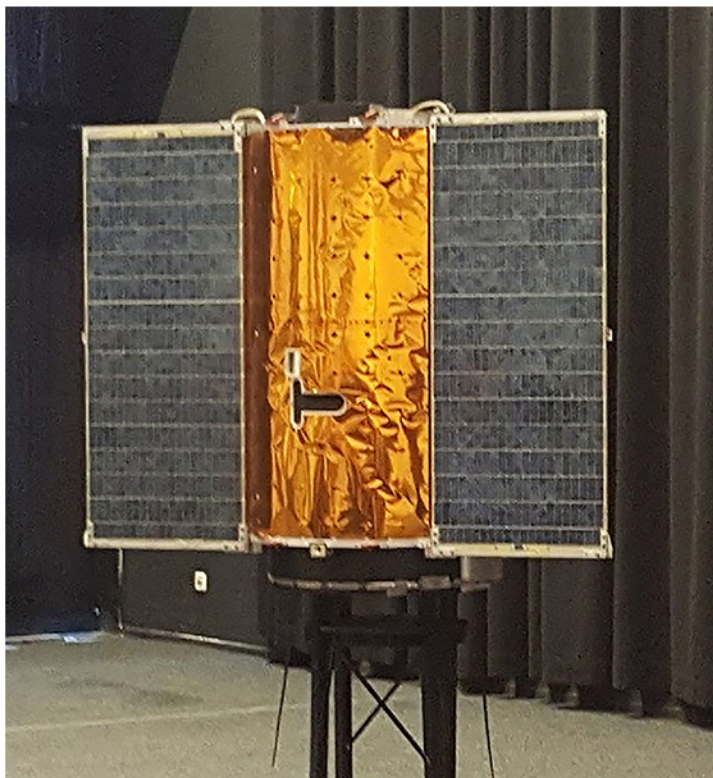


Astronomical Netherlands Satellite (ANS)



The Astronomical Netherlands Satellite (ANS; also known as Astronomische Nederlandse Satelliet) was a space-based X-ray and ultraviolet telescope. It was launched into Earth orbit on 30 August 1974.

The satellite was originally designed to gather measurements for a period of six months. However, thanks to its excellent technical configuration it was possible for it to make scientific observations until April 1976, more than 18 months after its launch.

During ANS' operational life, a total of some 1,000 computer programs were fed into its memory from Earth. It was estimated that ANS made over 30,000 astronomical observations and mapped thousands of objects. It managed to register a colossal X-ray burst right at the heart of the Milky Way, for example, and even discovered the existence of very hot stars.

The ANS was the first satellite in the world to be completely computer controlled (The world's first digital satellite) and even reprogrammable from the ground.

The satellite had to be stable enough to maintain the observation of a target for a long time while orbiting the Earth. It called for a design that maximised space, weight and energy consumption.

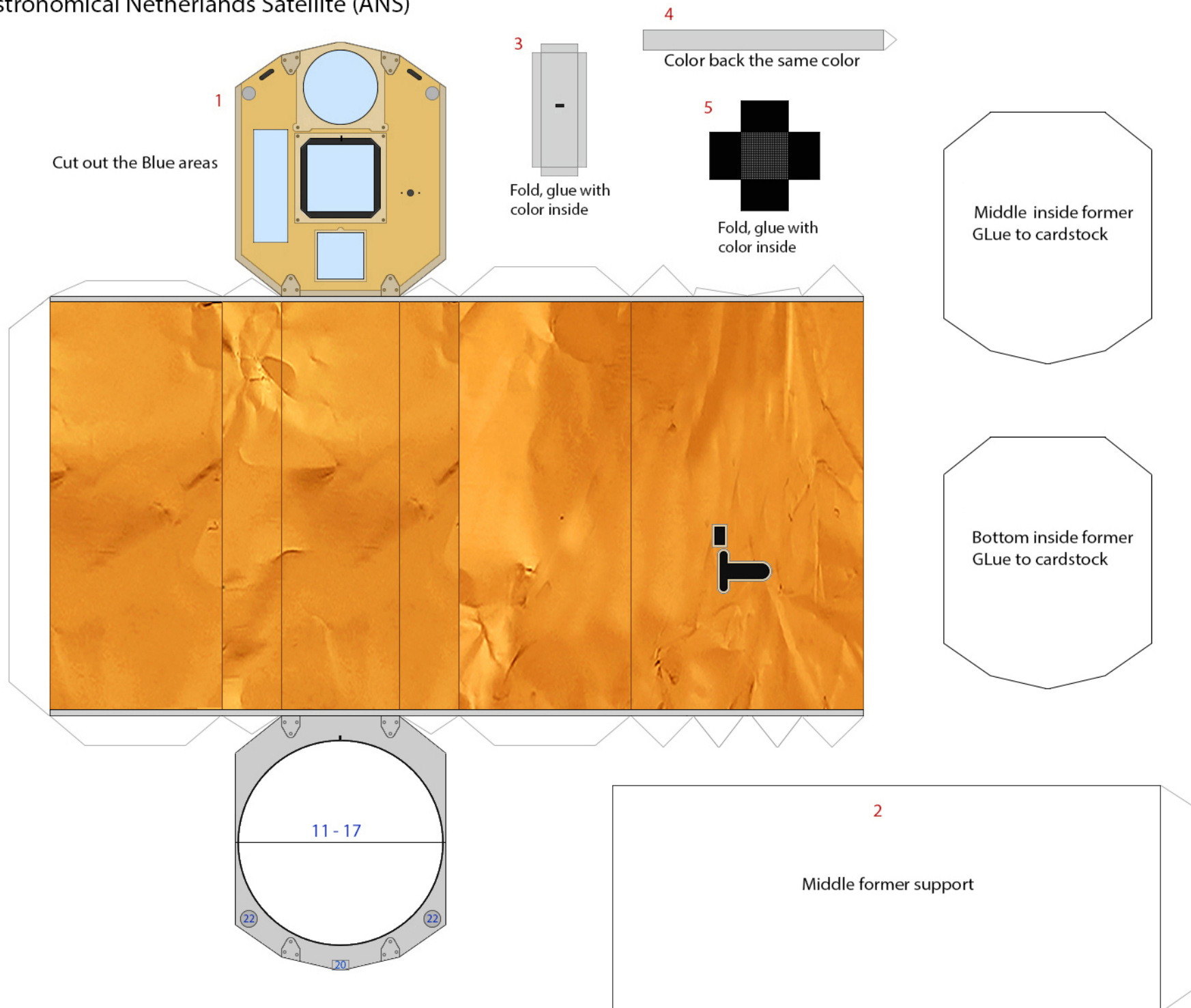
The developers opted for a completely new, digital approach. At the time, many methodologies and technologies were new and had never been used in space applications before. In addition to the construction of the satellite and the measuring instruments for astronomical research, a reprogrammable computer was also needed.

It soon became obvious that existing computers just wouldn't be suitable for the project. The onboard computer for the ANS was completely developed and assembled at the NatLab location in Geldrop. It had seven identical memory blocks, each with a capacity of 4K, or 4,096 bits. These could be slotted together, not unlike a fan, thus forming a whole. One block was used for control, the working memory. The others were used for loading the observation program and temporarily storing the results, in other words the mass memory, until this data could be retrieved by the ground station. We decided to equip the computer with a core memory, so that any data that was stored would not be lost forever in the event of a power failure.

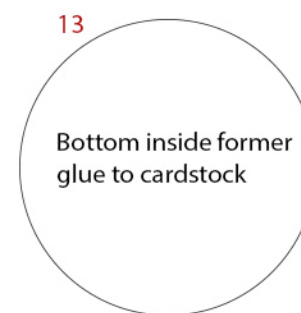
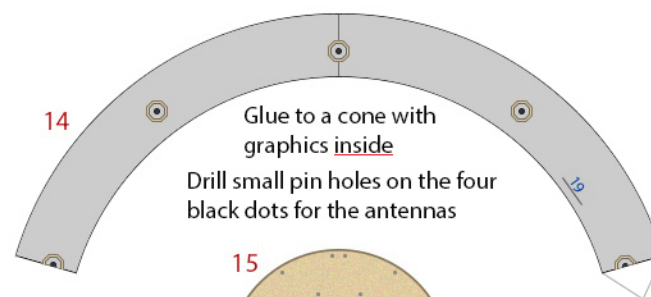
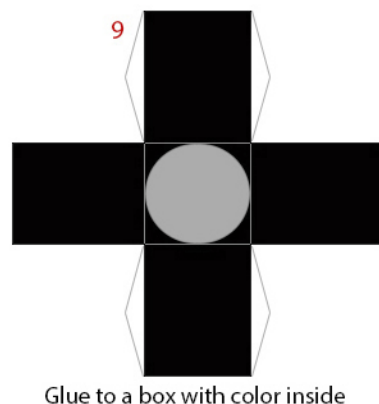
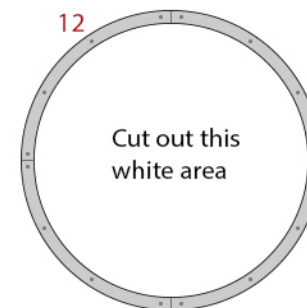
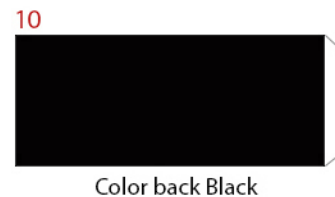
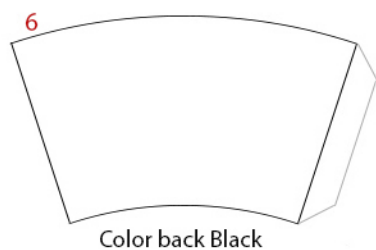
On Monday, 13 June, 1977, after orbiting our planet over 16,000 times, the ANS burned up in the Earth's atmosphere.



Astronomical Netherlands Satellite (ANS)



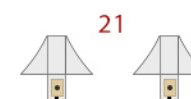
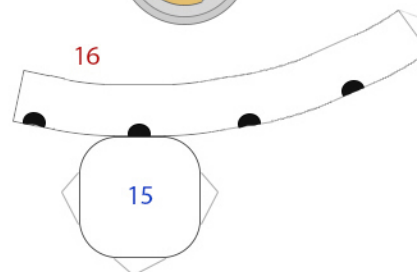
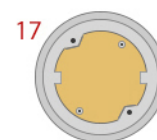
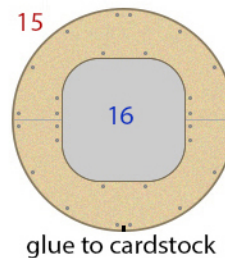
Astronomical Netherlands Satellite (ANS)



Insert and glue this tab into the 4 holes on Part 14 to help hold the antennas onto the model

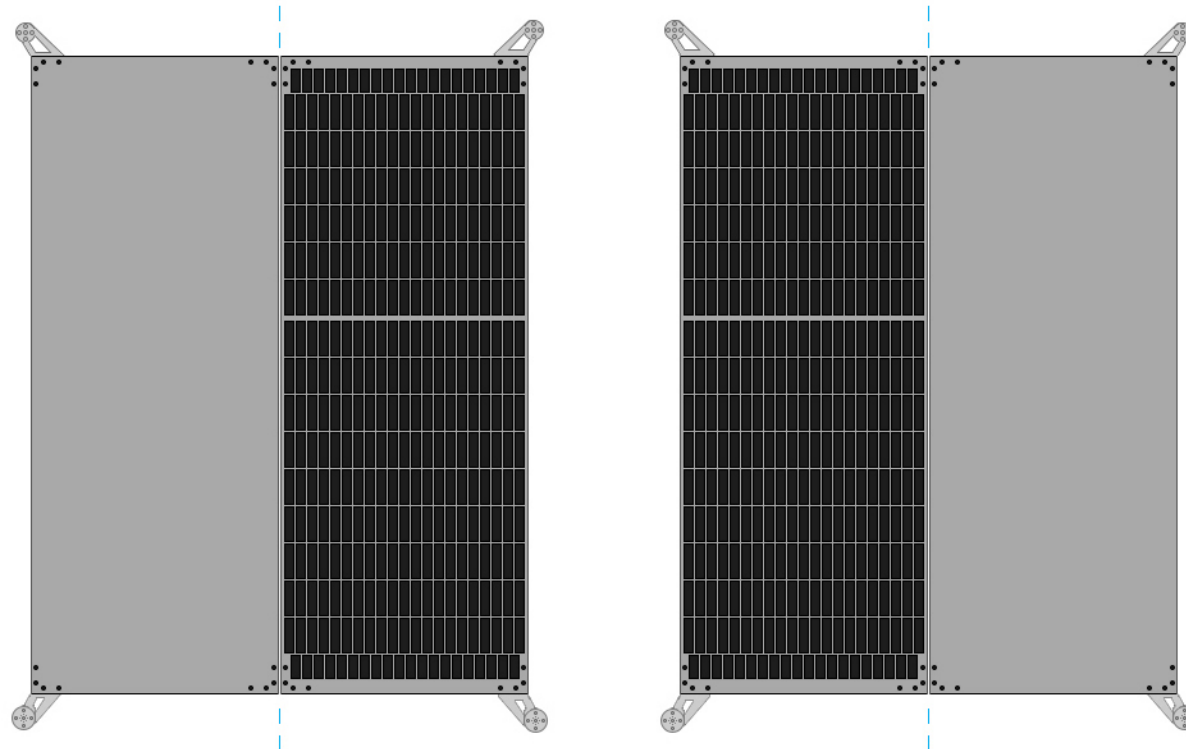


Cut four (4) plastic broom straws or similar material the same length as the line above for the antennas



NOTE

No photos can be found showing the backside of the solar panels



Fold, glue each back-to-back at the Blue lines