First educational satellite launches, May 30, 1974

Suzanne Deffree - May 30, 2018

ATS-6 (applications technology satellite), a NASA experimental satellite built by Fairchild Space and Electronics Division, launched on May 30, 1974.

Called the “world's first educational satellite” and the “world's first experimental direct broadcast satellite” as part of the satellite instructional television experiment between NASA and ISRO (Indian Space Research Organisation), ATS-6 carried 23 different experiments and introduced several breakthroughs.

The umbrella-like design included a dish antenna, solar cell paddles, an earth-viewing equipment module (EVM), and an attitude control and stabilization system. The main objective was to put in orbit a large high-gain steerable antenna to provide a good-quality TV signal to a ground-based receiver and to evaluate the antenna's performance.
During its commission, which lasted until July 1979, it was the first 3-axis stabilized spacecraft in geostationary orbit. ATS-6 also used electric propulsion in geostationary orbit experimentally with some success, another first. Further, it carried several particle physics experiments, including the first heavy ion detection in geostationary orbit.

In its five years in space, ATS-6 transmitted educational programming to various countries, including India, the United States, and other regions. ATS-6 also conducted air traffic control tests, was used to practice satellite-assisted search and rescue techniques, carried an experimental radiometer (subsequently a standard aboard weather satellites), and pioneered direct broadcast TV.

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