

### Offered Title: Remembering Skylab

I know, that's so '70s. But at least it was pre-disco, still rock and roll.

Skylab wasn't the first space station, that distinction goes to the Soviet Union's Salyut1. Like Salyut, Skylab was what is termed a monolithic design, to be launched and ready for operation by astronauts arriving later. Unlike the multiple vehicle, hit and miss Salyut program, Skylab was a singular vehicle program and a very successful craft once problems were fixed.

Oh yes, there were problems from the get-go.

Launched on May 14, 1973 it was a first and a last for the United States space program. It was our first space station launch and our last Saturn V launch. In fact, right after launch, Pad A was modified for planned Space Shuttle launches.

During launch Skylab's micrometeoroid shield came off, ripping off one of two solar power panels and damaging the other. Not a good start.

Without enough power Skylab would be hot, too hot for habitability. High temperatures would also melt some of the plastic insulation, releasing poisonous gas. This of course had an impact on plans for the first team of astronauts. The first mission had to focus their efforts on making Skylab a space station instead of a piece of space junk. And they had to take the right things with them. First, to cool down the station's interior they deployed a big custom-made umbrella via an instrument port. Then they had to fix the bent solar panel.

Skylab's operational mission included 94 experiments in 7 areas, such as studying the Sun, human metabolism in space, radiation measurements, crystal growth in zero G, and numerous student designed experiments. They even checked out comet Kohoutek. Remember comet Kohoutek, the highly publicized letdown?

Skylab had vaults for holding photographic film. These vaults had thick, lead lined aluminum walls to protect the film from being exposed by radiation. One of the heaviest pieces (180 lbs) of Skylab recovered after it burned up over Australia was a film vault door.

During the course of its mission Skylab astronauts captured over 150,000 successful images.

One of the medical modules, the MLM (Microbial Load Monitor) became the model for a medical diagnostic instrument in use around the world today.

The three missions sent to Skylab did not use up its supplies and a fourth mission was discussed. The fourth mission would boost Skylab into a higher, safer orbit. It did not happen. With NASA planning a 1979 Shuttle mission and Skylab expected to stay in orbit until 1981 it was thought wasteful. The Shuttle would lift Skylab into a higher orbit. Well, 1979 came and went with no Shuttle launch, and with Skylab coming back to Earth, burning up over western Australia. Oops.

### What's in the Sky?

November 17<sup>th</sup> – the Leonid meteor shower. Stay up or get up early for the wee morning event. Best time is between 3 am and early dawn. Look to the east.