

We are carrying several Department of Defense experiments including an integrated maintenance station, a suit donning and sleep station evaluation, some alternate restraints evaluation, and expandable airlock technology.

Some of these are multiple experiments: one for example is a test of a molecular sieve for taking the carbon dioxide out of the atmosphere and at the same time using it to circulate the air in the cabin.

In the area of technology, one of the interesting things that we are looking at is the use of jet shoes. This is different from the back pack with jets on it that we have been studying in Gemini. We are looking at different ways of achieving mobility in space.

Going forward to one of the next major experimental configurations that we have shown here is the Apollo Telescope Mount. (ML66-9610, fig. 9.) It includes, as you can see, a lunar module ascent stage. The descent stage is replaced by a rack which carries with it a solar cell array and in the center of that rack you will see a tube which is some 82 inches in diameter and 130 inches long which contains the instruments for observing the sun during 1969 and 1970, the course of the solar maximum. These solar instruments weigh about 2,000 pounds. The tube is gimballed and it has axles by which it can turn by about five degrees in either plane. It also can be rotated around its own longitudinal axis in order to permit pointing to any particular area on the Sun and stay pointed there.

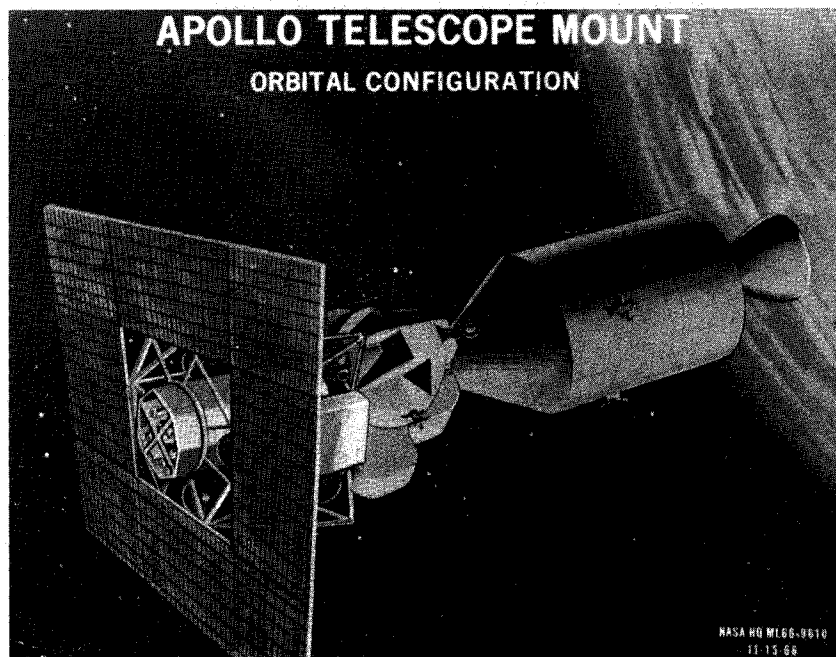


FIGURE 9