

The basic concept here is one of making use of the hydrogen tank of the uprated Saturn I which is normally left in orbit to provide a pressurized volume in space, pressurized through the airlock, it provides us with some 10,000 cubic feet of space of pressurized volume and with the airlock we have the ability to both enter this pressurized volume, attach it to the command and service module in which the crew comes up and goes down again and also provides for docking other experimental modules as time passes. Included in the airlock itself is also a power supply, the equipment for making the internal part of the S-IV B hydrogen tank habitable, that includes the addition of floors, ceilings, walls and so forth. All this is carried up on one flight of the Saturn I.

A second flight brings the crew up with certain supplies.

Mr. GURNEY. May I ask a question?

Mr. TEAGUE. Mr. Gurney.

Mr. GURNEY. Do you use the engine and fuel in the second stage to get it up there?

Dr. MUELLER. That is correct. The second stage is filled with hydrogen and oxygen. It is placed in orbit by burning. When it is emptied and in the right orbit, the hatch is opened into the hydrogen tank. First of all the tank is vented and the hydrogen is let out into the vacuum of space. Then the hatch is removed, the airlock is opened and the crew enters and begins to build these floors and walls and install the equipment in very much like building a ship in a bottle except it is a very large bottle. (ML 66-9611, fig. 6.)

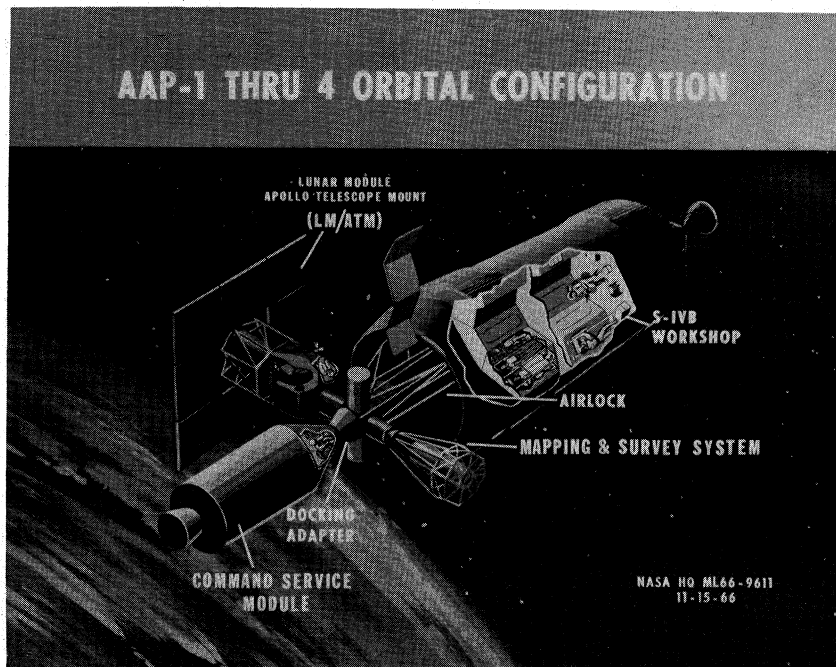


FIGURE 6