

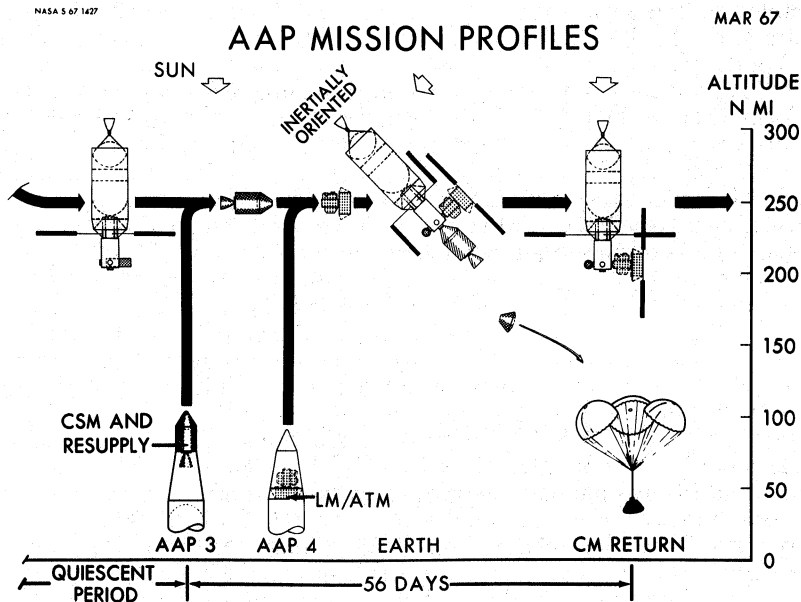


FIGURE 3

in our Manned Space Flight program to date due to unfavorable weight penalties for short duration missions. However, solar panels become a leading candidate for generating electrical power for longer missions and are a specific example of the type of systems development that must be carried forward if we are to expand our Manned Space Flight capabilities.

In our plans for the development of the airlock, we intend to utilize the systems technology and in many cases the actual hardware from the recently completed Gemini program. Although the airlock represents a new application for these Gemini systems, by careful attention to program concept and specification, we have been able to effectively capitalize on our previous investments.

At the completion of the AAP-1/2 orbital period (fig. 2), the three-man crew will return to earth in the command and service module (CSM). The S-IVB workshop, the airlock, the multiple docking adapter, and the M. & S.S. experiments module (see fig. 5), will remain "stored" in orbit for subsequent revisitation and reuse. An altitude in excess of 250 nautical miles is sufficient to insure a lifetime in excess of 1 year thus following the quiescent period (several months) indicated between mission 1/2 and 3/4 the workshop will be available for reuse. We will, of course, have ground monitoring of the cluster during this orbital storage period and know the vehicle status prior to the launch of AAP-3.