

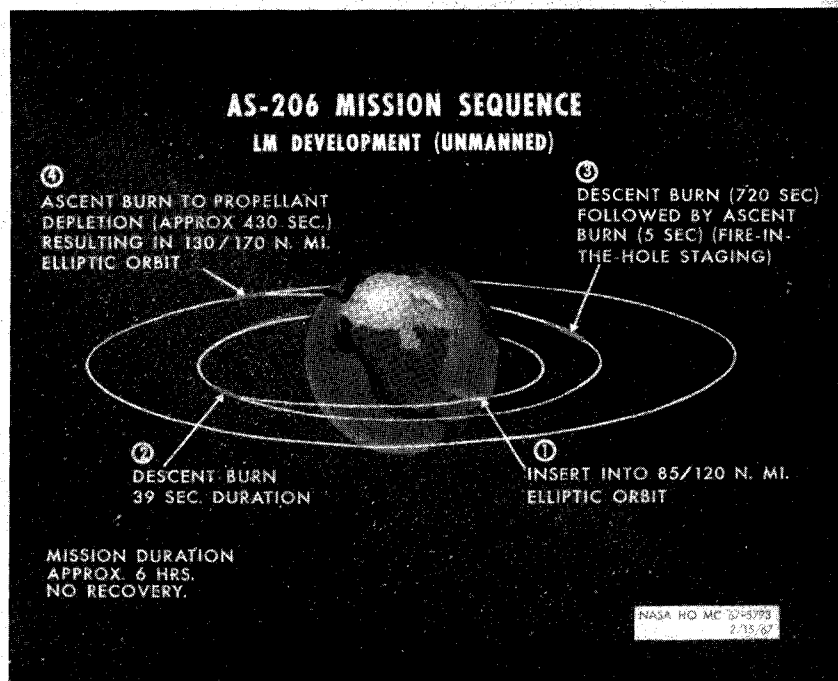


FIGURE 7

Turning to the next set of missions (fig. 8, MC66-10266A) those flights have five primary objectives, one is to demonstrate the structural and thermal integrity of the launch vehicle and spacecraft during the launch environment and reentry.

The second is to demonstrate that the stage separations occur properly.

The third is to verify the operation of the critical subsystems, the fourth is to evaluate the performance of the emergency detection system. That is a system that measures how well the launch vehicle is doing. It is a system that, if it is not doing well, tells the astronauts that they should abort. In fact, during the early phases of the launch, it automatically aborts.

The last is to demonstrate mission support facilities capabilities. That involves both the network and launch ships themselves. The AS-501 and AS-502 missions are similar. I will use the AS-501 as an example (fig. 9, MC 67-5794). One of the major objectives of it is to test the reentry heat shield. Much of the flight path is determined by that requirement. The original launch is into a 10-nautical-mile circular orbit. We inject into a 9,000-nautical-mile apogee and that is followed by another Service Module burn which raises the apogee to 9,900 nautical miles.

We then burn the Service Module for a long burn to give us both a test of the long duration burning of the service module and build